

BAR

BRICS ACADEMIC REVIEW



BRICS & Russia:

STRENGTHENING MULTILATERALISM FOR JUST GLOBAL DEVELOPMENT AND SECURITY

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A group photo ceremony for the heads of delegation at the 16th BRICS summit in Kazan. From left: Prime Minister of Ethiopia, Abiy Ahmed, President of Egypt, Abdel Fattah el-Sisi, President of South Africa, Cyril Ramaphosa, President of China, Xi Jinping and President of Russia, Vladimir Putin. From right: Foreign Minister of Brazil, Mauro Vieira, President of Iran, Masoud Pezeshkian, President of the UAE, Sheikh Mohammed bin Zayed Al Nahyan and Prime Minister of India, Narendra Modi.

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GUEST EDITOR

Auriel Niemack

COPY EDITOR

Dr Mary Lange

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NATIONAL INSTITUTE FOR THE HUMANITIES AND SOCIAL SCIENCES

Email: info@nihss.ac.za
Tel: +27 11 480 2300
Fax: +27 11 482 3068
2nd Floor, 24 St Andrews
Johannesburg,
Parktown Gauteng, 2193
Postnet Suite 413 P/Bag
X30500 Houghton, 2041

www.nihss.ac.za

CHAIR'S NOTE

Bridging the future



South Africa has a longstanding tradition of bridge-building, one deeply rooted in its diverse cultural heritage, knowledge systems, and shared histories. Through our art, music, and Indigenous Knowledge Systems, we have cultivated a unique capacity to harmonise the natural with the cultivated, work with rest, and life with death. These acts of connection, whether intentional or instinctive, have taken various forms—peacebuilding, humanitarian initiatives, technological advances, and more—all driven by a shared commitment to the collective well-being of our people. It is this spirit of unity, amidst our diversity, that South Africa brings to the expanded BRICS bloc as it deepens its engagement with Africa, West Asia, and the broader Global South.

As the world confronts increasingly complex geopolitical and economic challenges, the BRICS has not only withstood the test of time but has thrived, especially with the recent inclusion of Ethiopia, Egypt, Saudi Arabia, the United Arab Emirates (UAE), and Iran. This expansion reflects a significant shift in global dynamics, positioning the BRICS as a champion of the Global South—a growing world majority in the international community. Under Russia's leadership in 2024, substantial progress has been achieved, particularly through integrating key players from East Africa and West Asia. This marks a pivotal moment, not only for the BRICS but for South Africa, as we contribute to reshaping global governance structures and advancing the priorities of the developing world.

Strengthening the BRICS' Cooperation

The 2024 Russian presidency of the BRICS unfolded amid global economic instability,

energy transitions, food security crises, and conflicts from Gaza to Lebanon, to Sudan and the Eastern Democratic Republic of the Congo. The inclusion of Ethiopia, Egypt, Saudi Arabia, the UAE, and Iran has expanded the BRICS' influence and opened new avenues for driving the priorities of the Global South. This presents an opportunity for South Africa to forge stronger ties within Africa and strategically align with critical partners across West Asia and North Africa (WANA). This expansion, which added five key nations to the BRICS, resonates deeply with South Africa's objectives and the broader African agenda. Russia's thematic pillars for 2024—economic recovery, sustainable development, enhanced multilateralism, technological and scientific cooperation, and strengthened intra-BRICS collaboration, also align with South Africa's vision for the continent and its place within the global

order.

Russia's focus on economic recovery within the BRICS has been instrumental amid global uncertainties. Over the past year, significant strides were made in enhancing global taxation frameworks, supporting sustainable infrastructure projects through the New Development Bank (NDB), and promoting broader cooperation on sustainable development. The Kazan Declaration emphasised the need to expand local currency financing and bolster the NDB's role, which aligns closely with Africa's economic transformation ambitions. Moreover, the BRICS has placed renewed emphasis on mobilising private capital for infrastructure projects, a crucial component of Africa's industrialisation and development trajectory.

In a world characterised by fragmentation, multilateralism remains a cornerstone of



Russia's presidency. The Kazan Declaration reaffirmed the BRICS' commitment to reforming multilateral institutions such as the United Nations, the World Trade Organization (WTO), and the International Monetary Fund (IMF), ensuring greater representation for developing nations, particularly in Africa and Latin America. Furthermore, the Declaration condemned unilateral coercive measures, such as sanctions, which hinder global trade and development. South Africa's longstanding advocacy for the reform of these institutions, now amplified by the BRICS' expansion, represents a significant step toward a more equitable global order.

Technological innovation emerged as a central theme during Russia's presidency, with the BRICS prioritising collaboration on emerging technologies such as artificial intelligence, digitalisation, and cybersecurity. As the digital divide between the Global South and developed nations widens, the BRICS focuses on closing these gaps by fostering cooperation in digital infrastructure and AI governance. With the UAE's leadership in innovation and Saudi Arabia's economic modernisation efforts, the BRICS is well-positioned to drive sustainable development through technological advancement. Deeper integration and support across the bloc can also assist in addressing Africa's challenges in sectors such as agriculture and e-governance.

A key priority for the Russian presidency was to enhance intra-BRICS cooperation—a deeper integration. The Kazan Declaration underscores the importance of increasing local currency usage in trade, strengthening the role of the NDB, and fostering more profound cultural and academic exchanges. The expanded membership and subsequent integration provide new opportunities for increased trade within the BRICS and with the broader Global South. For South Africa, these developments align with the goals of the African Continental Free Trade Area (AfCFTA), facilitating the continent's deeper integration into global trade networks. From a South African perspective, including Ethiopia and Egypt strengthens the continent's representation within the BRICS, reflecting the continent's collective ambitions. As a founding BRICS member, South Africa has consistently championed African development within the bloc, and

the addition of these two nations enhances this mission, enabling more effective collaboration with continental initiatives such as the African Union's Agenda 2063. Simultaneously, the BRICS' strategic reach into West Asia is broadened by the inclusion of Saudi Arabia, the UAE, and Iran. The Kazan Declaration cites joint infrastructure projects, energy partnerships, and investment initiatives as critical cooperation areas which can further advance South Africa's development agenda.

As the BRICS continues to evolve, South Africa's role as a bridge between Africa and

The 2024 Russian BRICS presidency is pivotal for the bloc and the Global South. From South Africa's perspective, the year has seen new dimensions of the BRICS' strategic importance, particularly concerning Africa's development and West Asia's economic influence. With strengthened intra-BRICS cooperation, an amplified role in global governance, and deeper technological and economic partnerships, the BRICS is poised to play an even more significant role in shaping the future of the Global South and the broader global order.

“The Kazan Declaration underscores the importance of increasing local currency usage in trade, strengthening the role of the NDB, and fostering more profound cultural and academic exchanges. The expanded membership and subsequent integration provide new opportunities for increased trade within the BRICS and with the broader Global South.”

the world remains crucial. The inclusion of Ethiopia and Egypt places a greater responsibility on South Africa to foster closer ties between Africa and the BRICS. Often overlooked in global analyses, South Africa's leadership within the bloc has been instrumental in ensuring that African perspectives are integral to the BRICS' decision-making processes. At the same time, South Africa continues to advocate for the alignment of the BRICS' priorities with the African Union's development agenda, ensuring that the expanded membership translates into tangible benefits for the continent. Africa's growing voice within the BRICS signals a new era of South-South cooperation that is more inclusive and responsive to the unique challenges of developing nations.

As we reflect on Russia's BRICS presidency, South Africa remains committed to building bridges that ensure the BRICS continues to elevate the voices of all previously marginalised nations. The BRICS stands as a platform for promoting unity, collaboration, and an equitable global system—one that serves the interests of the Global South, especially those of Africa. This year has demonstrated that even countries traditionally on the periphery of the international system have the potential to thrive within the BRICS framework. **BR**

PROF SARAH MOSOETSA
Chief Executive Officer
Human Sciences Research Council (HSRC)
Interim Chair of the South African BRICS
Think Tank (SABTT)

ED'S NOTE

AURIEL NIEMACK
Acting Director: Office of the CEO



As we approach the close of 2024, the BRICS bloc stands at an exciting moment of consolidation and transformation. This 9th issue of the *BRICS Academic Review* reflects on this year's critical discussions and outcomes while also looking ahead to the ongoing work that will shape the BRICS' future.

In this issue, we focus on the evolving global governance landscape, where the BRICS continues to play an influential role. Professor Victoria Panova's comprehensive article, *Global Governance without Global Unification* [pp 19-22], sets the stage by exploring the limitations of current multilateral institutions and how the BRICS can lead in fostering new models of cooperation that reflect the global majority's aspirations.

A key highlight is Sanusha Naidu's article, *BRICS Expansion: A Strategic*

Roadmap for Long-Term Sustainability [pp 16-18]. Naidu examines the evolving geopolitical landscape, emphasising how the BRICS must navigate an increasingly multipolar world. She explores how strategic alliances and innovative diplomacy within the BRICS could be powerful tools to challenge established global powers and promote a more equitable international order. Her analysis of the role of the Global South in reshaping international norms offers a fresh perspective on the bloc's potential to influence global governance reform.

Education and intellectual exchange remain key pillars of BRICS cooperation. This issue highlights the **BRICS Network Universities** initiative [pp 32-33], which has continued to promote collaboration in research and higher education. As the BRICS strengthens its educational ties, the initiative remains a beacon of cultural and academic exchange, preparing the next generation of leaders for an interconnected world.

Our **Essays & Discourse** section [pp 36-75] offers a rich collection of policy briefs that tackle some of the most pressing challenges facing the BRICS today. Among the standout contributions is a detailed brief on **digital transformation**, which explores how BRICS nations can harness the power of emerging technologies to drive innovation, enhance connectivity, and bridge the digital divide across member states. This analysis underscores the importance of developing robust digital infrastructures and regulatory frameworks promoting growth and inclusivity.

Another notable policy brief delves into the critical issue of **energy security**. It examines the shifting global energy landscape and presents actionable recommendations for how the BRICS can lead in renewable energy adoption

while ensuring a balanced energy mix to meet future demand. The brief highlights the need for more significant investment in clean energy technologies and the role BRICS nations can play in mitigating the impacts of climate change through cooperative energy strategies.

Finally, the section includes a policy brief focused on **economic resilience**. This brief explores how the BRICS can strengthen its collective economic stability in the face of global economic volatility, particularly in light of challenges posed by inflation, supply chain disruptions, and shifting trade policies. The authors propose innovative approaches to boost intra-BRICS trade and develop alternative financial mechanisms to reduce dependency on traditional global financial systems.

These policy briefs offer vital insights that are both timely and forward-looking, positioning the BRICS to navigate the complexities of the global landscape while continuing to champion the interests of the Global South.

As we reflect on the results of the Kazan Summit, this issue of the *BRICS Academic Review* emphasises that the work of the BRICS is far from complete. The summit may have concluded, but the outcomes discussed continue to drive action across various sectors. With Brazil preparing to assume the presidency in 2025, we are poised for a year of renewed focus on deepening collaboration and advancing the BRICS' collective agenda.

I invite you to explore the articles in this issue, which offer reflections on past achievements and a forward-looking perspective on the opportunities and challenges ahead. The BRICS remains at the heart of the global dialogue on development, and we foresee this *BRICS Academic Review* inspiring continued engagement with the BRICS' evolving role.





**The XVI BRICS Summit under Russia's
BRICS Chairship was held in Kazan from
22-24 October 2024.**

The Summit gathered representatives from 32 nations under the theme *"Strengthening Multilateralism for Just Global Development and Security"* to reaffirm the importance of enhancing BRICS solidarity and cooperation based on our mutual interests and key priorities and further strengthening our strategic partnership.



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OVERVIEW

INSIGHTS, NEWS AND COMMENTARY ABOUT BRICS

COMPILED BY KATLEGO SCHEEPERS & BABALWA SISWANA



BRICS calls for enhanced use of local currencies in trade between member countries

THE FOREIGN MINISTERS REITERATED THE DEMAND MADE AT COP27 TO GUARANTEE THAT INTERNATIONAL FINANCIAL INSTITUTION REFORM WILL PRIORITISE EXPANDING THE SCOPE OF FINANCING AND FACILITATING EASIER ACCESS TO RESOURCES

The BRICS ministers of Foreign Affairs met in Russia's Nizhny Novgorod on June 10 and held a plethora of discussions, including an

important one on the enhanced use of local currencies in trade and financial transactions between the BRICS countries.

The meeting was the first ministerial meeting following BRICS expansion in 2023 when Egypt, Ethiopia, Iran, Saudi Arabia, and the UAE joined Brazil, Russia, India, China, and South Africa as full-fledged BRICS members.

India welcomes new members

The Indian delegation was led by senior diplomat Dammu Ravi, Secretary (Economic Relations), at the Ministry of External Affairs (MEA). Randhir

Jaiswal, Ministry of External Affairs spokesperson, welcomed the new members in a post on X. "A significant meeting in the format of expanded BRICS family. India wholeheartedly welcomes the new membership," he said.

Usually, the External Affairs Minister attends such meetings. Since S. Jaishankar was reappointed as External Affairs Minister only on Monday after Prime Minister Narendra Modi's swearing-in ceremony on Sunday, he could not make it to Russia to attend the meeting.

Push for trade in local currencies

At the meeting, the Ministers recognized the need for a comprehensive reform of the global financial architecture.

"They recalled the paragraph 45 of

the Johannesburg II Declaration tasking the Finance Ministers and Central Bank Governors of the BRICS countries to consider the issue of local currencies, payment instruments and platforms and to report back to the BRICS Leaders,” according to the Joint Statement.

Further, the Foreign Ministers reiterated the demand made at COP27 to guarantee that international financial institution reform will prioritise expanding the scope of financing and facilitating easier access to resources.

They anticipated that the 2025 International Bank for Reconstruction and Development shareholder review would be a great success.

As per the Joint statement released by MEA, the leaders also “supported a robust Global Financial Safety Net with a strong quota-based and adequately resourced International Monetary Fund (IMF) at its centre, and also called on “continuing the process of IMF governance reform including creating a new quota formula reflecting the economic size of its membership” during the overall review of quotas.

In accordance with the Sharm El-Sheikh Action Plan of the COP27, which Egypt hosted in November 2022, the Ministers emphasised the necessity of reforming the policies and practices of multilateral development banks (MDBs) in order to increase their lending capacities, to be able to better assist developing countries in financing their needs for development and enhancing their climate action.

Developing the New Development Bank

“The Ministers encouraged the New Development Bank to follow the member-led and demand-driven principle, employ innovative financing mechanisms to mobilise financing from diversified sources, enhance capacity building and knowledge exchange, including with knowledge sources from developing countries, assist member countries in achieving the SDGs and further improve efficiency and effectiveness to fulfil its mandate, aiming to be a premier multilateral development institution for EMDCs,” the Joint Statement read.

They agreed to jointly develop the New

Development Bank into a new type of Multilateral Development Bank of the 21st century and urged the Bank to execute its purpose and functions in accordance with the Agreement on the New Development Bank in a fair manner.

“The Ministers expressed their support to the further expansion of the NDB membership and early consideration of applications of BRICS Member countries as per the NDB approved policies,” the statement added.

Moreover, the Ministers also expressed the intention to promote energy

“They noted with appreciation relevant proposals of mediation and good offices aimed at peaceful resolution of the conflict through dialogue and diplomacy,” the statement read.

The Ministers expressed serious concern over continued conflicts in the Middle East and North Africa (MENA) region and noted the Joint Statement by BRICS Deputy Foreign Ministers and Special Envoys at their meeting of April 25, 2024.

Notably, Russian Foreign Minister Sergey Lavrov opened the BRICS Ministerial with a minute of silence in memory of the

“In accordance with the Sharm El-Sheikh Action Plan of the COP27, which Egypt hosted in November 2022, the Ministers emphasised the necessity of reforming the policies and practices of multilateral development banks (MDBs) in order to increase their lending capacities, to be able to better assist developing countries in financing their needs for development and enhancing their climate action.”

cooperation among the BRICS countries.

They urged for resilient global supply chains to ensure universal access to affordable, accessible, reliable, sustainable, and modern energy sources.

Concern expressed for ongoing situations in Ukraine, West Asian regions

The Ministers recalled their national positions concerning the situation in and around Ukraine as expressed in the appropriate fora, including the UN Security Council and UN General Assembly.

deceased former Iran President Ebrahim Raisi and Iranian Foreign Minister Hossein Amir-Abdollahian.

He offered condolences to the people of Iran and the families of the victims.

This is the first meeting of foreign ministers since the expansion of BRICS in 2023. The 10 full members of the association include Brazil, Russia, India, China, and South Africa with new members Egypt, Iran, UAE, Saudi Arabia, and Ethiopia joining the grouping in 2023.

Russia took over the chairmanship of BRICS on January 1, 2024.



An ocean freighter is loading wind power mixing equipment for export to South Africa at the port of Lianyungang in Lianyungang, China, on July 4, 2024.

China's trade with BRICS countries grows by 5.1% in January-September

ACCORDING TO THE REPORT, THE MEMBER COUNTRIES OF THE ASSOCIATION MAKE FULL USE OF THEIR COMPARATIVE ADVANTAGES IN THE PRODUCTION OF INDUSTRIAL INTERMEDIATE GOODS

C China's trade turnover with BRICS countries increased by 5.1% year-on-year in January-September and amounted to 4.62 trillion yuan (around \$653 bln at the current exchange rate), according to Vice Minister of the General Administration of Customs of China Wang Lingjun.

He emphasized that the BRICS cooperation mechanism is an important platform for emerging and developing countries, which helps strengthen solidarity and cooperation among them and ensures the protection of their common interests and noted that after five more members joined the group in January, the association now accounts for more than one-fifth of the total global trade volume.

According to the official, the member countries of the association make full use of their comparative advantages in the

production of industrial intermediate goods. He noted that they complement each other in such key areas as steel, chemical and textile industries.

BRICS was established in 2006 by Brazil, Russia, India and China, and South Africa joined in 2011. On January 1 this year, Egypt, Iran, the United Arab Emirates, Saudi Arabia, and Ethiopia became full members of the group. The main event this year, during Russia's presidency, will be the summit in Kazan on October 22-24.

“Member countries of the association make full use of their comparative advantages in the production of industrial intermediate goods.”

Iran and China launched freight trains travelling between the two countries as part of the China-Iran-Europe rail corridor.



Iran, China launch freight trains as part of new rail corridor

IIran and China launched freight trains travelling between the two countries as part of the China-Iran-Europe rail corridor, IRNA reported on July 21.

Iran launched its first freight train to China on July 21 using the new railway. The Iranian train will pass through the neighbouring countries of Kazakhstan and Turkmenistan on its way to China.

The inauguration ceremony took place at the Aprin railway station, marking the start of the first phase of the China-Iran-Europe rail corridor. Officials from China, Kazakhstan and Turkmenistan attended the ceremony.

A China-Iran train carrying car parts also began its journey to Iran on July 16 and is expected to arrive in Iran's Incheh Borun City in Golestan Province within two days, as confirmed by the CEO of the Railways of the Islamic Republic of Iran, Miad Salehi, on July 21.

"We initiated the East-West Corridor experience today, facilitating the transportation of goods from China and Iran through Turkmenistan and Kazakhstan," Salehi stated during the ceremony on July 21.

According to him, this train route would be crucial infrastructure for boosting trade between Iran and China, making Iran a secure gateway for China to access Europe and vice versa.

Morteza Jafari, an official with the Railways of the Islamic Republic of Iran, disclosed plans for the train to operate twice a week in both directions in the initial phase.

According to Jafari, the train takes almost half the time of sea transportation and has competitive tariffs.

Iran and China traded \$5.89bn worth of goods (down 7.9%) during the initial five months of 2024, with Iranian exports at \$1.79bn (down 5%) and Chinese exports at \$4.1bn (down 9.1%), according to the latest data released by China's General Administration of Customs (GAC).

Experts argue that Iran should enhance its transit sector because of its strategic geographical location and potential to become a regional transit hub. They suggest that Iran should optimise its transit

capabilities by integrating rail transportation with land and sea transportation to improve its overall position.

The potential construction of the China-Kyrgyzstan-Uzbekistan (CKU) railway also presents opportunities for Turkmenistan and Iran to bolster their roles in East-West cargo transit, offering one of the shortest routes between China and Europe.

Iran has expanded its trade routes with allied countries in recent years to counter unilateral western sanctions, particularly by utilising the International North-South Transport Corridor (INSTC).

Iran and Russia's agreement to establish the Rasht-Astara railway is expected to strengthen the INSTC by linking South Asia to northern Europe, serving as an alternative to the Suez Canal.

In June, Iran officially inaugurated the Rasht-Caspian railway as part of the INSTC.

Iranian President-elect Masoud Pezeshkian recently stated that his administration will maintain a strong focus on fostering bilateral and multilateral partnerships with Russia and China, particularly within frameworks like BRICS, the Shanghai Cooperation Organization (SCO), and the Eurasian Economic Union (EEU), ISNA reported.



Iran, Russia to connect banking networks more than a decade of delays.

Iran, Russia sign deal to share ATM networks

The governor of the Central Bank of Iran (CBI), Mohammad Reza Farzin, announced on July 6 that Iran and Russia are set to use their national currencies in trade and connect ATM networks by August, according to the *CBI website*.

Iran and Russia have been working to strengthen their banking systems since sanctions were imposed on Russia for more than a decade. Plans are underway to address the challenges faced by businesses in both countries. These include adopting currency swap deals, using offshore currencies, employing cryptocurrencies, and connecting interbank networks.

Elaborating on his recent trip to Russia over the weekend, the governor stated that a deal was concluded with the Russian central bank to eliminate the use of the dollar in bilateral transactions.

Iran and Russia have not provided further details about the deal and its mechanisms.

In the past, Iran had a similar swap deal with Turkey, which was seemingly cancelled following the re-imposition of sanctions on Iran in 2018.

Farzin also noted that work is ongoing to prepare the infrastructure for introducing offshore rial for ruble transactions at the Iran Centre of Exchange, a central exchange platform established by the CBI to control the market and reduce informal market transactions.

In 2023, the two central banks signed a significant agreement to establish banking ties, as both are disconnected from international interbank messaging systems such as SWIFT.

Earlier in 2023, Iran's SEPAM system was linked to Russia's Financial Message Transfer System (SFPS), allowing some banks to start offering transactions to Iran or open letters of credit.

As part of the new deal, Iranian bank cards can be used to withdraw rubles from ATMs in Russia starting in August. This marks the first phase of plans to connect Iran's Shetab interbank network to Russia's MIR network.

Initially, Russian citizens will be able to withdraw rubles from ATMs in Iran. Later, after the third phase is implemented, Iranian bank cards will be usable for payment transactions via POS terminals in Russia.

Currently, Russians can use Mir cards in 12 countries: Turkey, Vietnam, Armenia,

South Korea, Cuba, Uzbekistan, Belarus, Kazakhstan, Kyrgyzstan, Tajikistan, South Ossetia, and Abkhazia.

All Iranian banks and credit institutions are required by a CBI directive to connect to Shetab. This measure has been on the CBI's agenda since 2017 but has been repeatedly postponed for unknown technical reasons.

The plan aligns with the two countries' policies to boost tourism ties, although the total number of tourists between the two countries is reported to be around 30,000 to 40,000 annually.

Farzin also noted that the two sides agreed to start the second action plan to boost banking and financial ties.

The impacts of these measures remain unclear for many business owners and experts. According to Kambiz Mirkarimi, a board member of the Iran-Russia Joint Chamber of Commerce, the use of payment cards for Iranian and Russian transactions depends on Iran's exchange rate unification.

"While the technical capabilities for settling accounts via payment cards are in place due to the interconnected banking networks of Iran and Russia, the effectiveness of this method depends on resolving the multiple exchange rate issue within Iran."

BRICS contribution to global growth, governance lauded at international forum in Russia



The BRICS Expert Forum is held in St. Petersburg, Russia, on June 6, 2024. The forum was co-hosted by Xinhua News Agency and Rossiya Segodnya.

BRICs countries have made significant achievements in promoting global economic growth, improving global governance, and enhancing multilateral cooperation, participants at the BRICS Expert Forum said here Thursday.

Lyu Yansong, editor-in-chief of Xinhua News Agency, said that as the world is undergoing unprecedented changes, BRICS countries have been strengthening cooperation in various fields, promoting high-quality partnerships, and jointly exploring paths to modernization.

Lyu, also deputy director of the Academic Committee of New China Research, noted that these efforts are crucial for humanity to collectively address challenges and create a brighter future.

As China's state news agency and a high-end think tank in the form of a media outlet, Xinhua is committed to in-depth research on the successful practices of the BRICS cooperation mechanism, deeply interpreting its contemporary value and global significance, Lyu said.

He added that the agency is willing to further strengthen research and promotion of the BRICS cooperation mechanism with its partners.

Alexander Zhukov, first deputy

chairman of the Russian State Duma, said BRICS countries respect sovereign equality and the right to choose development paths independently. They take into account mutual interests, adhere to principles of openness and consensus, and strive to establish a multipolar world order and a fair global financial and trade system, collectively addressing the most pressing issues of the day.

The mechanism has become a model for inter-state cooperation, he noted, adding that Russia, as the rotating chair of BRICS this year, will host a series of events focusing on topics including politics, security, economy, finance, and education and culture.

Philani Mthembu, executive director at the Institute for Global Dialogue based in South Africa, said that BRICS countries advocate and practice genuine multilateralism and are dedicated to promoting multipolarity and democratizing international relations.

BRICS aims to build a more just and reasonable international order, continuously contributing to global peace, stability, and prosperity, he added.

Jose Pio Borges de Castro Filho, chairman of the Board of Trustees at the Brazilian Center for International

Relations, said that BRICS is a crucial force in shaping a new world order, as the mechanism showcases its flexibility and inclusiveness, respecting the cultural, economic, and religious differences of its members while fostering mutually beneficial cooperation.

He emphasized the need for member states to strengthen cooperation in reducing carbon emissions, poverty alleviation, energy transition, and digital transformation.

Dmitry Kiselev, general director of Rossiya Segodnya media group, said that new development centers are emerging in today's world, with BRICS being one of the most important forces.

Under the BRICS framework, cooperation in economic, trade, cultural, and other fields has progressed smoothly, effectively safeguarding the common interests of emerging and developing countries, Kiselev noted.

The BRICS Expert Forum was held within the framework of the 2024 St. Petersburg International Economic Forum, and co-hosted by Xinhua News Agency and Rossiya Segodnya. Government officials from BRICS countries, heads of major international media, and scholars attended the forum.



New Development Bank and Bank of Huzhou Sign Loan Agreement for Sustainable Infrastructure Projects

On May 28, 2024, the New Development Bank (NDB) and the Bank of Huzhou (BOH) signed a Loan Agreement with the objective of advancing sustainable infrastructure development in Zhejiang Province, China.

The signing ceremony took place at the NDB Headquarters in Shanghai and it was participated by H.E. Mrs. Dilma Rousseff, NDB President, Mr. Vladimir Kazbekov, NDB Vice President and Chief Operating Officer, Mr. Anil Kishora, NDB Vice President and Chief Risk Officer, Mr. Zhou Qiangwu, NDB Vice President and Chief Administrative Officer, Mr. Hupeng Hong, Mayor of Huzhou City and Mr. Fengjie Fang, Chairman of BOH.

Under the Loan Agreement, NDB will provide RMB 357.55 mln (USD 50 mln equivalent) to BOH for financing a range of sustainable infrastructure development projects in Zhejiang Province. NDB's loan to the Bank of Huzhou will be on-lent to private sector borrowers for financing sustainable infrastructure projects in the sectors of clean energy and energy efficiency, transportation and logistics, as well as water and sanitation.

These projects are aimed at establishing a clean, low-carbon, safe, and efficient modern energy system, creating a more efficient transportation connections with surrounding key cities, and protecting the water ecological

environment in the Yangtze River Delta Urban Agglomeration, in alignment with Huzhou City's development strategy.

This is the first non-sovereign loan provided by NDB in China, highlighting the Bank's commitment to mobilizing private sector resources and capital in the local market. The transaction aligns with China's national strategy to promote sustainable development and green finance.

In line with NDB's General Strategy for 2022–2026, the signed Loan Agreement facilitates private sector participation in addressing infrastructure backlogs and scaling up investments, as well as enhancing development impact in the local market. The Loan also demonstrates NDB's commitment to using local currency to support its member countries.

"This contract represents the beginning of an important partnership with the Bank of Huzhou, an institution that combines differentiated expertise with in-depth knowledge of the local reality. No other partner would have the same ability to select the best projects and the best use of resources. It also brings the full support of the Municipality of Huzhou," said H.E. Mrs. Dilma Rousseff, NDB President.

"With the signing of the Loan Agreement with Bank of Huzhou, NDB has embarked on providing non-sovereign loans in China. It highlights NDB's dedication to support private sector in financing infrastructure and sustainable development projects that align with the development agendas of our member countries. NDB is steadily advancing towards our goal of allocating 30% of overall financing to non-sovereign operations between 2022 and 2026," stated Mr. Vladimir Kazbekov, NDB VP & COO.

"Huzhou City will fully implement President Xi Jinping's important directives, leverage its comparative advantage in green financial reform, and accelerate the comprehensive green transformation of its economic and social development to achieve sustainable development. I hope the signing between NDB and Bank of Huzhou will serve as a starting point for deeper collaboration in green finance and sustainable development," stated Mr. Hupeng Hong, the Mayor of Huzhou City. He also expressed his gratitude to NDB for their support and trust.

NDB Signs R5 Billion Loan Agreement with Transnet to improve and modernise South Africa's Freight and Rail Sector

The New Development Bank (NDB) is pleased to announce a R5 billion loan agreement with Transnet, South Africa's leading freight transport and logistics company. This investment, aligned with the theme of NDB's 9th Annual Meeting, "Investing in a Sustainable Future," will support the modernisation and improvement of South Africa's freight rail sector.

Key Highlights:

Loan Amount: R5 billion

Purpose: Modernisation and improvement of South Africa's freight rail sector

Beneficiary: Transnet State Owned Company

The loan agreement, signed during NDB's 9th Annual Meeting, aims to enhance the efficiency and capacity of South Africa's freight rail systems. The improvement and modernization of freight rail sector program includes rail network infrastructure renewal, locomotive overhauls, and wagon fleet renewal. This program is expected to restore freight rail volumes in South Africa, improving operational performance and reliability, and contributing to a sustainable future.

NDB President, H.E. Dilma Rousseff, said, "We are delighted to partner with Transnet in this transformative initiative. This loan underscores NDB's commitment to supporting sustainable development and economic growth in South Africa. By modernizing the freight rail sector, we aim to facilitate more efficient logistics operations that will benefit the entire region and align with our goal of investing in a sustainable future."

Transnet Group Chief Executive, Michelle Phillips added, "This investment is important for Transnet, as we accelerate implementation of the Recovery Plan and economic reforms. The modernisation programme will enhance our operational capabilities and contribution to the growth and competitiveness of the economy. We are grateful for NDB's support and look forward to a successful collaboration."



BRICS Tax Heads signed the BRICS Heads of Tax Authorities Forum Governance Framework

OA meeting of BRICS Tax Heads was held in Moscow. The Prime Minister of the Russian Federation Mikhail Mishustin addressed the participants with a welcome speech.

“Success of our tax authorities is unfeasible without effective interaction. National tax administrations play a key role in this process. Much is being done to develop common approaches to tax administration, clear taxation rules and digital services. The outcomes of this work are witnessed across our countries. Taxes are the basis of financial stability for each state. Economic growth as well as business and investment climate improvement directly depend on how tax regulation is carried out”, he emphasized.

Daniil Egorov, FTS Commissioner, appreciated the development of the BRICS Heads of Tax Authorities Forum Governance Framework, and also highlighted the contribution of South African colleagues as the authors of its draft. “The signing of this agreement opens a new stage of our cooperation. It sets the basis for regular joint projects in order to achieve practical outcomes. The experience of this and previous years demonstrates that BRICS tax cooperation has high potential for development, and we can define new ambitious goals”, he noted.

BRICS Heads of Tax Authorities Forum Governance Framework signed at the meeting will replace the annual meetings of tax heads and experts with regular activities of the working groups on improving tax administration in People, Data and

Technology workstreams. The document establishes a structure for managing BRICS tax agenda and systematizes the mechanism of cooperation among members of BRICS community.

Cape Town we discussed the need for a secretariat. We have always supported the idea of its establishment. We consider that this is an extremely important for practical work. Russia is anchoring the work on establishing a rotational secretariat, and we are excited about it. We believe that the

Taxation Administration of the People’s Republic of China, noted that the accession of new members to BRICS fully demonstrates the openness and inclusiveness of the community, as well as viability and attractiveness of its cooperation mechanism.

Dr. Seyed Mohammad Hadi Sobhanian, President of the National Tax Administration of the Islamic Republic of Iran, emphasized: “We are fully committed to sharing knowledge and expertise with our friends and colleagues for increasing our capacity”.

BRICS Tax Heads also highlighted the success of the FTS initiative to apply a project-based approach to BRICS tax activities. Established for the first time in the history of BRICS tax cooperation, Working Groups have focused on key areas of tax administration – VAT Modernization, Sourcing and Use of Data, Client-Centric Approach, and HR practices. They are aimed at maintaining regular interaction between BRICS tax authorities and achieving practical outcomes of cooperation. The BRICS Tax Heads approved scoping documents of each project, as well as a work plan for a three-year perspective.

Adriana Rego Gomes, Deputy Special Secretary, Secretariat of the Federal Revenue of Brazil, noted that current challenges

“We are fully committed to sharing knowledge and expertise with our friends and colleagues for increasing our capacity”

chairmanship handover to Brazil next year will further advance this work. We are all very different with various points of view, but still there is a lot that we agree on and could learn from each other, and this platform provides an excellent opportunity to address practical issues that our authorities face today”, said

Participants also discussed the possibility of establishing a permanent secretariat for the BRICS tax administrations. “A year ago, at the meeting in Sanjay Malhotra, Revenue Secretary, Department of Revenue of the Ministry of Finance, Republic of India.

Zili Cai, Chief Auditor of the State

require tax administrations to be prepared for difficulties. “We have a lot to learn through cooperation, exchange of experience and best practices, and mutual support between our administrations. We have high expectations for upcoming joint work due to the importance of the topics to be discussed”, she said.

“Future activities of the BRICS Tax Heads Forum should resonate with the current international agenda. The goal is to be better represented at international level and promptly respond to international tax reforms”, summarized Daniil Egorov. **BR**

GLOBAL AFFAIRS

BRICS Expansion: A Strategic Roadmap for Long-Term Sustainability

MS SANUSHA NAIDU
Senior Research Associate,
Institute for Global Dialogue



We have a consensus on the first phase of this expansion process, and other phases will follow. (President Ramaphosa, BRICS Summit 2024, Johannesburg)

This membership expansion is historic ... It shows the determination of BRICS countries for unity and cooperation with the broader developing countries. (President Xi, BRICS Summit 2024, Johannesburg)

Introduction

With the BRICS stepping into a new phase of global cooperation engagement, the perennial debate over its future expansion strategy continues to be an overarching issue for how this will define the group's identity and orientation on the world stage. While believed to be founded as a challenge to the dominance of Western-centric global governance, the BRICS bloc is now confronted by a more profound set of complexities with the inclusion of new members. The core question is not simply whether the BRICS continue to expand but



rather what the framework design should be that informs further expansion and what the implications thereof are for consensus decision-making, which is an intrinsic value to the BRICS.

Following the announcement from the 15th BRICS Summit hosted by South Africa in 2024 that the bloc will admit six new members, the critical consideration is how members will be integrated into 'the BRICS family'. The 16th BRICS Summit, hosted by Russia, has not resulted in immediate membership, but has resulted in the invitation extended to 13 countries (Algeria, Belarus, Bolivia, Cuba, Indonesia, Kazakhstan, Malaysia, Nigeria, Thailand, Turkey, Vietnam, Uganda, and Uzbekistan) to join as partner countries.

Despite this, in distilling the above decisions and actions made by both BRICS Presidencies in articulating the importance of expansion, it can be observed that the issue of consensus in defining what were to be the guiding principles, standards,

criteria, and procedures of the bloc's future enlargement remain unclear. In other words, the basis on which the additional members were invited to join the group on 1 January 2024 and accordingly, how their integration—vertical or horizontal—must still be defined in terms of the modalities of the group? More specifically, understanding the type of integration will also inform the kind of impacts on the group's long-term cohesion, effectiveness, and ability to deliver on its founding mission: transforming global financial and political systems to reflect the realities of a multipolar world.

As a corollary of the above, this commentary will delve into the nature of future BRICS expansion in the context of horizontal versus vertical integration. By reflecting on expansion from this perspective, the commentary will also reflect on the inherent challenges that both frameworks pose for the bloc's future trajectories. These, in terms of a consensus-led decision-making approach, coherence, and internal

tensions around how new members can embed further constraints based on national interests and regional rivalries.

The Expansion Dilemma: Vertical versus Horizontal Integration

The perennial prospect of the BRICS expansion is both an opportunity and a challenge. On the one hand, bringing new members into the fold can increase the group's influence in shaping the agenda for a more inclusive global governance order. On the other hand, an unchecked expansion risks diluting the BRICS's internal coherence and undermining its ability to present a united front in global forums. Moreover, it can create a deadlock in the consensus-centric approach where broad consensus may become a default strategy or fail-safe mechanism to mitigate tensions between member states regarding competing regional and national interests relating to political, economic and security questions.

One way to address this potential impasse on future expansion is to navigate a delicate balance between two possible approaches: *horizontal integration and vertical integration*.

1. Horizontal Integration: Immediate Inclusivity, Quick Wins

Horizontal integration is best characterised as a process of incorporating new members into the BRICS with minimal formalities. In this model, new states are invited to join existing BRICS activities without going through a detailed induction process. This approach emphasises inclusivity and allows for the rapid enlargement of the BRICS. New members can immediately participate in discussions and decisions, offering a broad range of perspectives and contributing to the bloc's growing global footprint.

Proponents of horizontal integration argue that this strategy provides several advantages:

1.1 Increased Global Influence:

By bringing in new members through this process, the BRICS can enhance its visibility and diplomatic clout more expeditiously. With more nations involved, the bloc can leverage itself as a credible voice of the Global South. In this way, the grouping can exert more agency in pushing for reconfiguring the global system's power dynamics towards an equitable and just international order.

1.2 Diverse Perspectives:

By allowing the BRICS to incorporate a

wide array of experiences and viewpoints, this integration process enables a diverse and robust set of engagements to manifest a constructivist approach to their global affairs. The constructivist approach, which sees actors play a strategic role in knowledge building, can help the group coordinate and better address global challenges, from climate change to economic inequality, based on drawing on the unique insights of a growing number of member states. This diversity of perspectives and insights will enhance the ideational power of the group towards transforming the global governance system. The UAE's hosting of the UN-based International Renewable Energy Agency (IRENA) in Masdar City is one example that provides a platform for countries to engage and find solutions in their transition towards global sustainable energy programmes.

1.3 Faster Response to Global Shifts:

In a rapidly changing geopolitical landscape, the BRICS needs to stay agile. In this aspect of the model, the consensus-centric approach allows the group to quickly adapt to new realities by expanding its membership and influence. With minimal delay as new regions and economies emerge, the BRICS can incorporate them into its fold.

2. Vertical Integration: Strategic Growth, Deepened Cooperation

In contrast, the *vertical integration* framework focuses on a more structured and deliberate approach to expansion. New members undergo a formal induction process involving familiarising themselves with the BRICS's principles, norms, and institutional mechanisms before becoming fully integrated participants. This method ensures that new entrants are not just nominal members but aligned with the bloc's long-term global reform and transformation mission.

Vertical integration can have several *key benefits*:

2.1 Building Institutional Memory:

Vertical integration fosters greater synergy within the BRICS by ensuring that new members learn from the experiences of established members. The structured process allows for sharing institutional memory, which is critical in maintaining continuity across various BRICS initiatives, such as the New Development Bank (NDB) and the BRICS Payment System. This strengthens

the group's ability to work together on long-term projects to transform the global financial architecture.

2.2 Promoting Peer Learning:

A structured induction process promotes deeper peer learning among the BRICS members. Long-standing members can guide new entrants through the complexities of the BRICS's decision-making processes, offering valuable insights into how the group operationalises its outputs. This fosters greater cooperation and ensures that new members are better prepared to contribute meaningfully to the group's objectives.

2.3 Ensuring Coherence:

Vertical integration helps the BRICS maintain internal coherence by requiring new members to undergo a period of adaptation. Rather than rushing to expand, the BRICS can adopt an incremental approach to ensure that new entrants are aligned with its core mission of transforming global governance. This reduces the risk of internal divisions and ensures that the group remains focused on its long-term goals.

The Challenges of Modelling

As in all modelling frameworks, there are inherent challenges.

In the case of the *horizontal integration* model, the downside lies in its *potential to disrupt internal cohesion*. New members may not fully understand BRICS's founding principles, values, and long-term goals without a formal induction process. This could lead to conflicting agendas, making it difficult for the group to function as a cohesive unit. Moreover, the inclusion of states with divergent geopolitical interests—such as China and India's rivalry, the growing tensions between Egypt and Ethiopia and the deepening conflict in the Horn of Africa where the United Arab Emirates, Saudi Arabia and Iran have proxy interests—could strain the decision-making process, especially if new members align more closely with one power over another.

Vertical integration, conversely, can have a *limiting effect* where, first, it can slow down the process and, second, constrain the BRICS's ability to adapt to global shifts quickly. As geopolitical dynamics evolve, there is a risk that the BRICS could miss opportunities to expand its influence if it waits too long to bring new members on board. Furthermore, the formal induction

process could deter some countries from joining, especially if they are eager to participate in global decision-making but are unwilling to undergo a lengthy adaptation period. At the same time, adding new members could create further internal complexities for the group's positioning on issues like peace, security and stability.

A Hybrid Approach: The Case for Combining Both Models

Given the strengths and weaknesses of both vertical and horizontal integration, a hybrid approach could offer the BRICS the best of both worlds. In this model, the BRICS could initially invite new members to participate in selected activities (horizontal integration) while simultaneously guiding them through a more structured induction process (vertical integration). This would allow the BRICS

various sectors, including finance, security, and technology. Key initiatives such as the NDB and the BRICS Payment System are central to the bloc's mission to recognise that the global financial system is heterogeneous. However, as new members join, it is crucial that the BRICS ensures continuity in these initiatives.

Peer learning provides a valuable mechanism for this. The BRICS can leverage their collective knowledge to address complex global challenges by encouraging dialogue and cooperation among new and established members. Whether navigating the intricacies of multilateral negotiations or developing alternative financial systems, peer learning allows the BRICS to build on its institutional memory and ensure its initiatives remain effective and relevant.

Furthermore, sharing institutional

New members should be allowed to participate in selected activities while undergoing a structured induction process that familiarises them with the BRICS's principles, norms, and decision-making processes. This hybrid model will allow the BRICS to grow strategically, ensuring that new entrants fully integrate into the group's long-term vision.

2. Additionally, the BRICS should consider *implementing a two-tier system of membership*, where some countries participate as full members while others engage as dialogue partners or partnership countries. This would allow for greater flexibility in expansion while maintaining the integrity of the BRICS's core objectives. Dialogue partners or Partnership countries could contribute to the BRICS initiatives without diluting the group's decision-making processes, providing a valuable testing ground for potential new members.

Conclusion: A Balanced Approach to Expansion

The future of the BRICS lies not in rapid, unchecked expansion but in strategic, measured growth. By focusing on vertical integration, fostering peer learning, and maintaining a clear vision of its long-term goals, the BRICS can continue to play a transformative role in global governance for years to come. Future engagements on expansion, while important, must be managed carefully to ensure that the BRICS remains a cohesive and effective stakeholder in global reform and transformation.

As the BRICS continues to evolve, its leaders must be mindful of the need for balance—between growth and cohesion, inclusivity and strategic focus. By adopting a hybrid approach to expansion, the BRICS can ensure that it remains a powerful advocate for the Global South and shape the future of the global political and economic governance agenda. At the heart of this hybrid approach to integration is whether geopolitics interests will take precedence over a pragmatic approach to the BRICS expansion. It is essential to highlight that the prospects of future BRICS expansion is not a means to an end nor an exercise in vanity. Rather, it is about a historical moment based on a fragile global system seeking leadership and stability. **BR**

“As the BRICS continues to evolve, its leaders must be mindful of the need for balance—between growth and cohesion, inclusivity and strategic focus.”

to quickly expand its global reach while ensuring that new members fully align with its long-term objectives.

This hybrid approach would also allow the BRICS to tailor its expansion strategy to each new member's specific needs and circumstances. For instance, countries with a strong track record of cooperation in the BRICS, such as Brazil and South Africa, can play a strategic role in the formal induction of newer entrants while also working with potential candidate countries as part of a pre-induction framework on learning about the BRICS's principles and processes.

Peer Learning and Institutional Memory: Keys to Sustainable Expansion

One of the most critical aspects of the BRICS's long-term sustainability is its ability to foster peer learning and share institutional memory. Since its formation, the BRICS has developed a rich legacy of cooperation across

memory will help new members understand the historical context of the BRICS's formation and its long-standing objectives. This will reduce the risk of new members pursuing narrowly defined, transactional goals that starkly contrast with the BRICS's broader global reform and transformation mission.

The Long-Term Vision for the BRICS: Strategic, Sustainable Growth—Recommendations

As the BRICS looks to the future, its leaders must carefully balance future calls for expansion with the imperative of maintaining continuous cohesion. The bloc's long-term success depends on its ability to navigate this complex landscape, ensuring that it remains a credible bloc in global governance.

To achieve this, the BRICS should :

1. Adopt a *phased approach to expansion*, combining vertical and horizontal integration elements.

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Global Governance without Global Unification

VICTORIA PANOVA

Head of the BRICS Expert Council-Russia, Candidate of Sciences (PhD) in History, and Vice Rector at HSE University, contributed this article to a special edition of the International Affairs magazine, reprinted below.



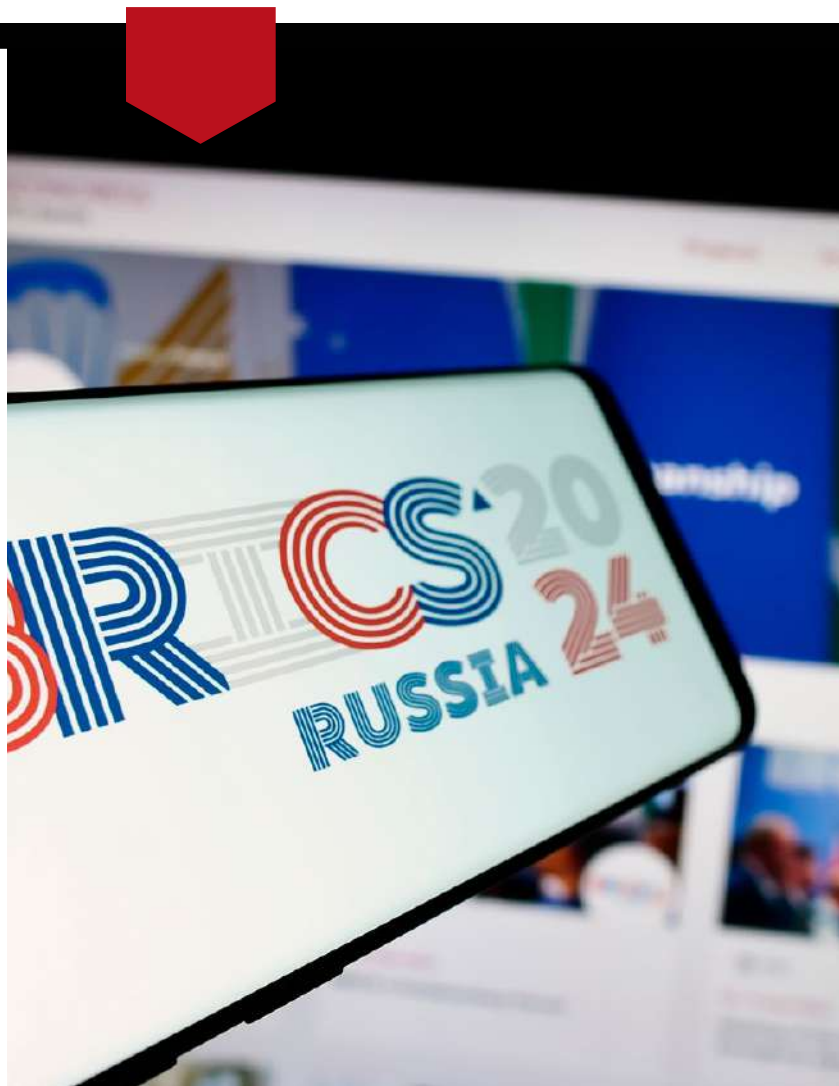
Every day brings greater uncertainty about the future of humanity. The breakdown of the system of global governance, which occurred with the collapse of the Soviet Union and the end of the era of bipolarity, and which led to a situation of aggressive redistribution of spheres of influence in favour of the remaining hegemon, has created a situation of irrevocable need to reform the international system, taking into account the real voice of the majority of the world's countries.

What's the Power, American?

While the cooperative formats of the majority of countries worldwide, such as BRICS, were largely inherited from a group that claimed the authority to determine the parameters of global interaction, the development of BRICS has revealed significant departures in content and spirit from its founding model. Key differences include the adherence to the principle of sovereign equality and mutual respect within the group, regardless of bilateral issues, which extends to relations with other countries and peoples. This approach contrasts with the assertion of moral

superiority and the imposition of political conditions in exchange for limited aid, which perpetuates dependency and inhibits long-term progress for aid recipients. Within BRICS, the emphasis is on promoting dialogue and finding mutually acceptable solutions to complex issues, rather than imposing unilateral dictates. Development is pursued in accordance with national aspirations, culture and traditions, rejecting rigid restrictions dictated by the interests of a few countries. The Group promotes dialogue between civilisations, cultures and religions, rather than advocating standardisation and homogenisation that undermines individual

identity. It is this, rather than quantitative indicators of superiority such as aggregate GDP in PPP or industrial output, that seems to make the BRICS more attractive to many countries than similar formats of Western states, and offers greater opportunities for unification in addressing the challenges of reforming the international system towards greater representativeness and fairness of regulatory principles. BRICS is now in a position to give a voice and a chance to the states that have traditionally been on the periphery of the international system to choose the main parameters of their future, and this opportunity is not only available



to those who are officially members of the Group. It would seem that an even more representative forum that could provide such opportunities is the G20, which includes most of the BRICS members as well as the 'older' G7 countries. In practice, however, the G20 unfortunately resembles an element of the same dying world order observed in the G7. Despite its increased representativeness, especially with the recent accession of the African Union, the G20 is marred by the confrontational attitudes of Western representatives, the politicisation of global issues and attempts to impose the G7's "correct" views on others. The decline in the culture of dialogue among the representatives of the Golden Billion undermines the effective functioning of any institution or mechanism in which they participate, unless it is fully aligned with their interests. This problem extends beyond club mechanisms such as the G20 to global institutions such as the WTO. Even areas such as culture, science or sport, which should serve to unite and transcend politics, are being politicised and exploited by Western states. The deplorable speeches by the President of the International Olympic Committee are a case in point,

the West, at least none of the member countries thinks so. We are talking about a constructive agenda, the development of new mutually beneficial ideas, the creation of additional projects and mechanisms when global institutions fail. None of the BRICS is talking about abolishing the World Bank or the IMF, even though the last decision on a fair quota review, reached in 2009, remains stalled. The shortcomings of the current global system are being compensated by new alternative mechanisms such as the BRICS New Development Bank, which aims to bridge the existing gap in infrastructure investment needs around the world. The situation is similar for many other institutions of global governance. The issue of UN reform has been stagnant for a long time, with no real progress. What role can the BRICS play in this process? On the one hand, there has been significant progress in general statements on the place and role of the BRICS countries that are not permanent members of the UN Security Council. On the other hand, it is clear that these changes are unlikely to be implemented in practice just by the issuance of relevant documents by the leaders of the BRICS countries.

However, what BRICS can contribute

unfavourable decisions within the IMF. It is also crucial for BRICS to act as proponents of modernised approaches to building an international relations system, followed by advocacy within the entire UN structure and among member states, especially those belonging to the World Majority. Equally significant is the conceptual stance of BRICS as a peaceful alternative or antithesis to Samuel Huntington's clash of civilisations scenario. Through practical interaction and humanitarian cooperation, the group presents an alternative vision of peaceful and mutually beneficial coexistence among different cultures and civilisations. However, given the increasingly assertive position of the West, despite the BRICS stance of not being against anyone, the likelihood of the West versus the rest concept being put into practice is increasing. In this context, the role of BRICS is not only to create and nurture a space of trust and cooperation among the countries of the World Majority, but also to mitigate the potential negative consequences for global development and for the citizens of all countries, including Western nations, resulting from the aggressive policies of the global Western elites. Another potential avenue for consideration is the utilisation of the already-tested methodology of establishing parallel alternative mechanisms in those areas where progress is essential for the progressive development of the BRICS countries and the majority of countries globally, yet where the institutions created by the Western community are either unable or deliberately unwilling to cope. However, it is important to exercise caution and avoid the creation of a multitude of new bureaucratic entities that ostensibly embody aspirations for a novel vision, yet in essence merely replicate existing structures, albeit with minor adaptations, originally designed to serve the interests of Western powers. In light of this, it is essential to revisit one of the most prominent examples of BRICS collaboration: the New Development Bank. If we attempt to align this bank with the established framework set by the Bretton Woods institutions, it will restrict rather than expand its potential for fostering novel financial relations. Similarly, all areas of interaction between the BRICS countries should be addressed in a uniform manner. This encompasses not only monetary and financial systems,

“The shortcomings of the current global system are being compensated by new alternative mechanisms such as the BRICS New Development Bank, which aims to bridge the existing gap in infrastructure”

tarnishing the institution's reputation. And that is why, despite the fact that the Western powers are still the main holders of financial, technological and other resources that give them leverage over the majority of the world's countries, at the expense of which the countries of the Golden Billion have gained all the existing advantages and opportunities for dominance, there is a growing objective need to identify and support an alternative centre of power capable of protecting their interests. We are not talking about a confrontation between the BRICS and

in this regard is the added weight and authority of its members in the international arena as a whole. This applies to the United Nations, any of the organisations within the UN system, or any other international institution. In addition to qualitative strengthening, quantitative factors also play an important role. For example, despite the stalemate in revising IMF quotas to more fairly reflect the capabilities of the World Majority in the light of new realities, the BRICS countries have a combined share of 18%. This allows them to prevent

but also broader economic considerations such as energy, ecology, food security, and technological development. In terms of platform solutions, the BRICS countries should pursue genuine openness and equal participation in their implementation. It is crucial that experts from the BRICS countries prioritize standardization and the development of criteria for different areas of international cooperation. This should be carried out in a way that takes into account the development needs and priorities of the majority of the world's population, including the creation of new areas and the revision of existing ones as necessary. Hence the call to join BRICS, to engage in equal and mutually respectful discussions, and to become an active participant in shaping the image of the future. It is worth noting that the number of BRICS members has doubled in the past year, and an even more impressive list of countries that have not yet joined the club but are willing to cooperate to a greater or lesser extent. This brings to mind the G7, a pioneer of the club concept. Once, Russia earnestly sought to join this group by completing all required tasks and trying to please the established members. However, as national pride was restored and the importance of sovereignty recognized, it became clear that Russia's interests did not align with the group's goals or the broader global development agenda. All attempts to invite China to the G7 failed. Besides the perception of exclusivity among its members and their high-end status, there has been no expression of interest from major developing countries to join. It is the lot of lords to remain in proud solitude in their blooming garden, staying away from the "wild jungle" and its inhabitants.

When a Thousand Flowers Bloom

What provides the BRICS with broader opportunities than those available to the wealthier states of the Golden Billion – here we will discuss not so much the principles discussed earlier, but the tools themselves that have made it possible to achieve more daring and attractive projects and solutions. Firstly, since its inception, BRICS has functioned as a comprehensive initiative, rather than simply a forum for leaders to debate economic issues. It gathers not only like-minded people but also enthusiasts. Significantly, the innovative aspect of this

unique format stems from its grassroots origins. Although the formal first BRICS summit took place in 2009, a year earlier, a gathering of BRICS intellectuals took place at the initiative of Vyacheslav Nikonov. This intellectual exchange was a precursor to the official process, which does not undermine the significant role of other initiatives, such as the Primakov doctrine of the triangle and discussions within the Heiligendamm Process, along with subsequent official meetings held at the UN. Further developments have shown that this intellectual visionary activity has maintained its relevance, as many significant BRICS initiatives originated in the debates and discussions of experts. Furthermore, decisions enshrined in the Durban Declaration formalizing the interaction process with experts and businesses were also a result of the contribution of these experts to the Association's development. It is difficult to overstate the importance of expert input in the BRICS and we can speak of both government agencies and research institutions, especially given the urgent need for scientific justification for the positions taken by the Association. If we examine the decision-making processes within the G7 and G20, we will find that most expert justifications and analyses of these decisions are carried out within the OECD, an organisation that includes all G7 members but excludes all BRICS countries. This is significant considering that BRICS nations account for approximately 45% of the world's population compared to around 10% for G7 countries. Additionally, about 38.3% of global industrial output is concentrated in BRICS countries, whereas G7 accounts for less than one-third. Moreover, BRICS states have significantly more key mineral resources than G7 nations. The GDP of BRICS based on PPP has reached 37.3%, whereas the share of G7 in global gross product is decreasing and currently does not exceed 30%. Despite the generally high level of expertise possessed by documents developed by the OECD, it should be borne in mind that the proposed criteria and standards in the fields of taxation and economic policy, as well as other issues that the organisation is working on, will inevitably have national characteristics and indirectly promote the interests of its member countries without taking into account the specific

interests or characteristics of external states. Obviously, under these circumstances, it is necessary to create an international expert and analytical structure for the BRICS countries to develop guidance documents, review BRICS initiatives, provide analytical materials and prepare monitoring reports and ratings, identify best practices, and develop compatibility criteria and common standards. Moreover, such a structure should become the basis for developing expert positions, not only for BRICS, but also for other international organisations, whether it's the G20, or any other organisation or mechanism that involves countries from the majority of the world.

As noted above, such an idea, although in a limited form, has been organised to some extent, just in a slightly different manner.

The network structure of horizontal interaction between the national coordinators of the BRICS countries, formalized as the BRICS Think Tank Council (BTTC), aims to solve many of these problems. However, we see today more thematic interactions between national coordinators, with an agenda tailored to each new presidency, rather than real continuity. While we are not advocating the abandonment of the sovereign elements of this council, it seems necessary to provide a unified technological platform for its interaction, perhaps through a distributed ledger, and to increase the resource capacity of the BTTC significantly with the participation of all BRICS nations. In this context, we can recall the initiative to establish a virtual BRICS secretariat that was discussed in expert circles some time ago and even appeared in final documents of the leadership. The idea behind its creation was to overcome bureaucratic obstacles that would inevitably arise if BRICS were institutionalized into a fully-fledged international organisation. It was also envisioned to create a shared "historical" and "documentary" memory of the group and provide a platform for interaction within the official track. However, this initiative remains largely on paper as the practical implementation of the concept reveals more risks than opportunities. The virtual secretariat remains in a non-AR domain. However, this does not mean that we should not revisit and rethink the idea today. This could allow the BRICS countries to create

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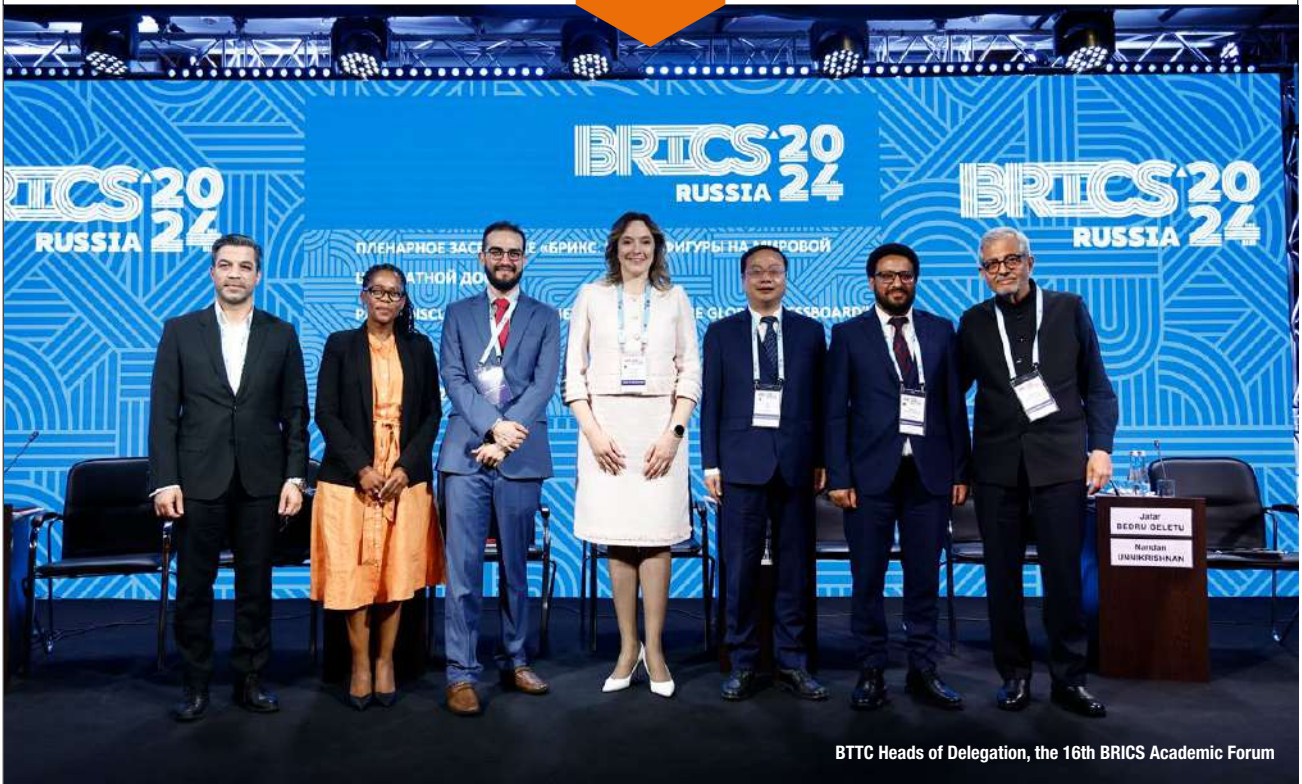
their own strong analytical centre, similar to the OECD. Such a centre could combine analytical and research resources, provide archiving services, rapid and orderly access to important documents, and potentially use AI algorithms to periodically optimize existing projects and documents. It could also offer a platform for interaction between national coordinators and potentially integrate with official structures' platforms. While many BRICS representatives advocated for unity during their term in office, the subsequent implementation of their ideas often consisted of launching and maintaining a website where each member could post materials. For instance, the Indian ORF initiated a similar project to host common BRICS documents, such as the BRICS Vision, crafted collectively by representatives from all national think tanks. Following the results of its chairmanship last year, South Africa's SABTT came out with the idea of the BRICS Academy and a common website on the topic. In general, the functionality of a platform that includes independent but interconnected national segments can be significantly expanded. With a shared umbrella, individual sectors can be dedicated to various outreach formats, including the expert track (e.g., BRICS Business Council and Women's Business Alliance), youth and parliamentary tracks, civil society organisations, and STI. This approach would not only ensure the successful implementation of these functions but also streamline interactions within BRICS. It would create a single-entry point for anyone interested in promoting BRICS activities, while maintaining the democratic nature and transparency of the process through

registration of bona fide participants. For instance, young people exploring educational and development opportunities in science and education will find it easier to navigate if they know that any players in this field must be represented on the platform. This applies to universities authorized as participants in the BRICS Network University. Simply having “BRICS” in their name and a colourful website without verification within the BRICS unified space will indicate the true status of these players and prevent potential students and learners from being misled. Likewise, in the realm of business interactions among BRICS countries, the presence of a particular company on the general register signifies that this player on the market is a verified and reliable partner. Conversely, numerous scammers, even if their name includes BRICS and they claim connections with BRICS organisations, would be unable to undergo verification for inclusion on this platform, enhancing integrity, transparency, and significantly reducing risks of conducting business within the BRICS area. It is interesting to observe how the BRICS community has evolved over the years and become enriched with new meanings and activities. Thanks to Russian initiatives, the Expert Track has gained prominence and the Civil Track has emerged as a key component of Track Two Diplomacy. A wide range of engagement with young people from BRICS countries and World Majority countries strengthens their interactions. Among the most significant youth projects are the BRICS International School and the BRICS Youth Summit, which feature five relevant thematic events, cultural events, and awareness raising

events for all BRICS nations. The BRICS Civil Forum, launched by Russia in 2015, deserves special attention and discussion. Given our country's emphasis on engaging with civil society, it is not surprising that we initiated a similar process in other organisations during our chairmanship. While the main event of the year is the BRICS Civil Summit scheduled for early July, it's important to recognize that every outreach event is part of an ongoing process that encourages the fullest participation of all stakeholders in constructive dialogue. In the run-up to the Academic Forum scheduled to take place at the end of May, regular thematic roundtables are conducted as part of the Expert Track, covering the entire range of topics on the chairmanship agenda. Similarly, the Civil Track includes nine key working groups, each composed of representatives from civil society in all five BRICS countries. These groups work on proposals and recommendations that will later be presented to leaders of the BRICS nations. The final recommendations have become a traditional feature of our outreach efforts, but this year we expect to see new formats, including two documents produced as part of the Civil Track. In addition to standard recommendations, a statement for the UN Future Summit on the will be drafted, allowing BRICS civil society to express its vision of a shared future and development objectives that benefit the whole world. In general, it should be noted that the existing BRICS outreach formats have already proven themselves and have become a significant factor in ensuring the efficiency of the Association. BRICS is a complex and multifaceted entity capable of tackling super-challenges, and these opportunities, which sometimes complicate work within the Alliance, are derived precisely from the participation of numerous stakeholders interested in BRICS' activities and depend on the cohesion of the dialogue mechanism within the Group. In the current geopolitical climate, perhaps only BRICS can address the scale of challenges humanity faces and promote solutions in the interest of all humankind. The future lies with BRICS, and BRICS encompasses all of us. **BR**

Professor Panova's article first appeared in a special edition of *International Affairs* during 2024. URL: [BRICS_2024.pdf \(rcmedia.ru\)](https://brics-2024.pdf/rcmedia.ru)

REFLECTIONS



BTTC Heads of Delegation, the 16th BRICS Academic Forum

Highlights from the 16th BRICS Academic Forum, 22-24 May 2024

The theme of the 2024 16th BRICS Academic Forum, “BRICS: New Figures on the Global Chessboard,” set the stage for a fruitful gathering in Moscow, Russia. The Forum successfully achieved its primary objective: the BRICS Think Tank Council (BTTC) drafted vital policy recommendations for presentation to BRICS leaders at the upcoming 2024 Summit. The appreciation expressed by the BTTC for South Africa’s active participation in the Council and at the Forum, notably during the opening panel discussion and the closing session, marked

significant highlights of this event for South Africa.

Prof. Sarah Mosoetsa, Interim Chairperson of the South African BRICS Think Tank (SABTT) and CEO of the Human Sciences Research Council, represented South Africa with distinction. She adeptly reaffirmed South Africa’s connection to the African continent, stating, “I stand before you, not as someone who claims to represent the African continent but as someone from the African continent.”

In her role, Prof. Mosoetsa was warmly welcomed by Prof. Victoria Panova, Head of the Russian BRICS Expert Council, Vice-Rector of HSE University, and Russian W20 Sherpa, during the SABTT’s first panel discussion. Prof. Panova’s introduction highlighted the esteemed status of Prof. Mosoetsa and, by extension, South Africa, within such high-profile gatherings. She reflected on

the longstanding friendship developed through South Africa’s participation in BRICS, lauding the exceptional leadership demonstrated in 2023 as “a wonderful Chairship with brilliant results.”

Values of the BRICS Humanitarianism

In her opening address, Prof. Mosoetsa articulated the importance of humanitarian values, stating, “Peace and security will not be realised if not through humanity. Ubuntu: I am because you are.” She called for collaboration in alignment with the principles of Ubuntu, urging attendees to work together for collective progress. Prof. Mosoetsa acknowledged that South Africa remains “absolutely committed to moving the BRICS forward as we navigate challenges of our planet and our various peoples, especially those who are yet to benefit from development.”



“Prof Mosoetsa highlighted the guiding principles that the BRICS needed to remember: “multilateralism, inclusiveness, mutual respect, collaboration and partnership and equal sovereignty.”

Building upon the foundational remarks made by Vyacheslav Nikonov, First Deputy Chairman of the Committee on International Affairs of the State Duma, Prof. Mosoetsa emphasised the guiding principles crucial for the BRICS: “multilateralism, inclusiveness, mutual respect, collaboration and partnership, and equal sovereignty.” Furthermore, she expressed solidarity with the people of Palestine, noting that this stance embodies “the essence of who we are as a people of the BRICS.”

Strength in diversity

The 2024 BRICS Think Tank Council meetings, convened under the auspices of the Russian National Research University

Higher School of Economics, brought together leading experts, scholars, and policymakers from Brazil, Russia, India, China, South Africa, Iran, Egypt, Ethiopia, the United Arab Emirates, and Saudi Arabia. Delegates from Algeria, Canada, Nigeria, and the United States were also present. The solidarity displayed by the BRICS “Core Five” nations—Brazil, Russia, India, China, and South Africa—underscored their commitment to embracing new members, enriching the collective dialogue.

Prof. Mosoetsa expressed condolences to Iran’s delegate, Alireza Khoda Gholipour, following the recent passing of their president, Ebrahim Raisi, on 19 May 2024.

She acknowledged that while the delegates are not politicians, their work is “deeply political in challenging the dominant discourses of the day that are anti-diversity.” She noted the contrasting narratives between nations, highlighting South Africa’s reference to ‘histories’ compared to Russia’s focus on ‘civilisations.’ Despite these differences, Prof. Mosoetsa likened the gathering to a reunion of “friends old and new,” where “camaraderie and comradeship” flourished.

Power for change

Prof. Mosoetsa further illuminated the concept of BRICS as a collective striving for a transformative economic trajectory rather than merely representing its members. She asserted, “There is power in who we are and what we do as the BRICS,” reiterating the importance of not only South Africa but the broader African continent. She emphasized that if the power of the BRICS is harnessed, it offers an opportunity to reshape the global landscape and challenge dominant narratives—not only for the BRICS but for Africa, which looks to this coalition for change.

To fulfill this potential, Prof. Mosoetsa insisted that the BRICS must remain committed to “research-led innovation.” She highlighted the significance of fostering “forward-thinking and new ideas” among the “new family members,” citing initiatives such as the National Development Bank and the New Vaccine Centre, established prior to the Covid-19 pandemic, as evidence of actionable commitments.

Academics and policy experts: Impactful deliberations

Prof Mosoetsa’s call for all to hold on to the notion of policy developments and innovation as key to identifying and solidifying areas of collaboration was answered by the deliberations in the BRICS Think Tanks Council and at the Academic Forum. These were not confined to theoretical debates but extended to formulating policy recommendations and practical implications. South African speakers contributed to the Forum’s key objectives, as listed on the Russian BRICS Academic Forum website (<http://bricsacademforum.ru/about>). These key objectives were to:

1. debate solutions on the pressing global governance issues
2. generate proposals for strengthening the BRICS cooperation and raising its role in global governance
3. promote ties among the BRICS academia
4. assess the progress achieved by the BRICS countries on the issues of common concern
5. elaborate ways to further enhance multilateral cooperation at all levels

Academics and policy experts who generated insights from their discussions were instrumental in identifying actionable measures that could contribute to inclusive growth, sustainable development, and enhanced cooperation among the BRICS nations, all working towards fulfilling the key objectives.

The South African delegation's research presentations, too, resonated with this emphasis on research-led innovation and the potential power for change within the BRICS and pan-Africanism. Fellow delegates noted and commended the cohesion of the six South African speakers at the Forum. In addition to Prof Mosoetsa, the South African team was made up of an experienced team of Dr Moses Khanyile, Stellenbosch University, Mr Alex Benkenstein, South African Institute of International Affairs, Prof. Ronney Ncwadi, Nelson Mandela University, Prof. Nirmala Gopal, University of KwaZulu-Natal, and Mr Krish Chetty, Human Sciences Research Council.

The Forum included eleven thematic pillars: Global, International Security, Energy Transition, Trade and Economic Cooperation, Enhancement of International Financial and Monetary Systems, Just Development, Business and Investments, Science, Technology and Innovation, Food and Energy Security, Environmental Protection and Education. The South African team focused primarily on six of these themes, as expanded on in the next section; however, there was a crossover of themes, particularly in their multi-disciplinary research. The team's level of research-led innovation was matched by the clarity and impact of the PowerPoint presentations that accompanied their focused deliveries.

International Security

Dr Moses Khanyile, the Director of the Centre for Military Studies, University of Stellenbosch, presented in the session *New Security Threats: Terrorism and Information in the Digital Age*. The title of his presentation was "New Links of Security: Terrorism in the Digital Age". He opened by noting that his presentation aligned with the previous speakers in his session. These included Prof. Trenin from the Faculty of World Economy and International Affairs, Academic Supervisor of the Institute for World Military Economy and Strategy, HSE University Russia; Mr Hiremath, Head and Founder Coordinator of the Department of International Relations, the University of Mysore, India, Prof. Cai Cuihong, Centre for American Studies, Fudan University China and Anatol Lieven, Director of the Eurasia Program, Quincy Institute for Responsible Statecraft, USA. Therefore, Dr Khanyile wove previous speakers' observations into his presentation, reinforcing the relevance of his, and thereby South African, research as it complemented the thinking of other top global researchers.

In his introduction, Dr Khanyile defined non-traditional security (NTS) as threats to a people's and states' survival and well-being primarily resulting from 'non-military sources'. He exemplified this definition with "typical examples" such as energy supply, climate change, cyber security, infectious diseases and illicit financial transfers, which he stated had already been chiefly covered on that day at the Forum.

Dr Khanyile highlighted that "the distinction between traditional and non-traditional security threats was originally academic but has become more for practical purposes". Issues such as food, water and borders that triggered wars now coexist with new threats. Dr Khanyile stated that the following are distinctive of NTS threats—the military's role is limited, they have a borderless nature, they are fully exploited by terrorist organisations, and state and non-state actors may perpetrate them.

Dr Khanyile focused on one current NTS threat: the digital arms race and Artificial Intelligence. This is tied in with a previous speaker who highlighted the role of BRICS in areas such as cyber threats. Dr Khanyile urged that "Artificial Intelligence (AI) is here, and it is either going to build

or it is going to destroy. The BRICS needs to be ready for both—in equal measure." He continued to define the threat posed by AI, such as that it is related to the new Cold War, the new global arms race, whereby international trade rules are defied and impact the global order, whereby it is exacerbating the digital divide and resulting in increased vulnerability to cyber-attacks.

After contextualising the NTS threats within the BRICS framework, Dr Khanyile illustrated the divide in AI rankings with a spreadsheet that indicated the AI rankings in the BRICS countries. Some countries, such as Russia, the UAE, and India, are in the top ten rankings in some areas, such as government, talent, and infrastructure, with China excelling in all areas of AI, from the operating environment to commercial implementation. However, Brazil, Egypt and South Africa are double-digit in all ranking regions. Dr Khanyile emphasised that the statistics indicate that there is already, within the BRICS countries, a firm base of investment, infrastructure and human capital—skills that, combined with the size of the BRICS, instil hope for making an impact in AI in the future.

Dr Khanyile shared future considerations for the BRICS as they move forward and aim to speak with one voice on AI. He ensured that his considerations focused not only on the BRICS but aligned with Prof Mosoetsa's call; he also honed in on how these issues impacted the African continent:

- Development of strategies to deal with the weaponisation of NTS threats.
- Aligning intra-BRICS policies and the BRICS' stance on the following issues:
 - » Extractive mineral industries, especially critical minerals for generating energy (the majority of which are found in Africa)
 - » Artificial intelligence (AI) investments and regulations for the global majority
 - » Energy Just transition, most BRICS energy infrastructure is still relatively young, especially on the African continent
- Addressing the proliferation of adversarial foreign military bases in critical trade routes, especially on the African continent, such as in West Africa
- Leveraging membership in strategic multilateral organisations (United Nations



“The distinction between traditional and nontraditional security threats was originally academic but has become more for practical purposes”

agencies, regional or special interest organisations, e.g., the G20). We all need to “sing from the same hymn sheet.”

- We are defining the role of regional organisations in the BRICS, such as the African Union, to have special membership or observer status.

Dr Khanyile concluded that the above considerations are essential for ensuring that the BRICS has “a unified stance for any issues that are bedevilling global politics.”

Energy Transition

Mr Alex Benkenstein of the South African Institute of International Affairs (SAIIA) is the Programme Head of the Climate and Natural Resources Programme. As such, he addressed an area that Prof. Mosoetsa

underlined as one of the research areas that needs to be examined “more rigorously,” namely Energy and Climate Change. Mr Benkenstein’s presentation fell under the session: *The Price is Transition: Who Gets it All*, and was titled “The Cost of the Energy Transition: Who Will Win?” His presentation was based on work by SAIIA that, beyond proposing practical recommendations on the relevant issue, also highlights the layers of BRICS engagement and the importance of intra-BRICS research collaboration. This, as it focuses on just energy transitions, including the project *BRICS and the Just Transition: Partnerships between South Africa and Brazil*, which the *South African BRICS Think Tank* supports.

Mr Benkenstein was joined in the session by high-level global researchers. These

included Prof. Alexander Dynkin, President of the Primakov National Research Institute of World Economy and International Relations of the Russian Academy of Sciences (IMEMO); Igo Makarov, who, amongst other positions, is also Head of the Laboratory for Economics of Climate Change in Russia; Beyene Petros, the Director General of Policy Studies Institute in Ethiopia; Zhang Yousheng, the Deputy Director of Energy Research Institute of National Development and Reform Commission in China; and Goapalika Arora who is an Associate Fellow from the Observer Research Foundation in India.

Mr Benkenstein highlighted that although energy transition has “significant potential benefits,” it also raises the risk that “certain regions, including Africa, will be marginalised in the context of geoeconomic competition”. Other risks include “driving up costs, with knock-on effects for the pace of transition.” He highlighted the complex context of energy transition. He referred to “multiple, nested transitions including technology, work and skills, demographic, global distribution of power” as well as “the context of global inequality, poverty and developmental challenges.” Added to the aforementioned is the “growing global competition” for green value chains, including “investment, innovation and jobs.”

Mr Benkenstein proposed that there exists a need to ensure the consolidation of the “BRICS cooperation on energy, focusing on continuity and scaling” in the following areas:

- Skills—BRICS Energy Skills Roadmap
- Research and Innovation—BRICS Africa JET Centre of Excellence; BRICS Climate Partnership Research Centre
- Finance—BRICS Clean Energy Fund; NDB
- Peer learning and exchange—BRICS Energy Cooperation Forum

After delving into the relevant focus areas and expanding on the area of critical minerals and green technology, Mr Benkenstein shared his recommendations, which he summed up as follows in his PowerPoint:

- Consolidate and scale BRICS energy and climate cooperation (skills, research and innovation, finance, peer learning and exchange)
- Focus on driving down costs and addressing barriers to expedite transition



“Although energy transition has “significant potential benefits,” it also raises the risk that “certain regions, including Africa, will be marginalised in the context of geoeconomic competition”

while maintaining insistence on justice/ equity dimensions.

- Strengthen engagement in critical minerals processing and downstream green value chains.
- Peer learning and knowledge exchange related to societal dialogue on just transition, with due recognition of the unique circumstances of member countries
- Lay the foundations for a successful 2025 Brazil UNFCCC COP30 Presidency.

The SAIIA website reported that the institute’s participation in the 2024 BRICS Academic Forum “underscored South Africa’s commitment” to the issues raised there—“particularly regarding cooperation

on climate and the just energy transition, considering implications for South Africa and Africa more broadly.”

Trade and Economic Cooperation

Prof. Ronney Ncwadi, the Director of the School of Economics, Development and Tourism at Nelson Mandela University, represented South Africa in two sessions at the Forum. The first session was *Guardians of International Trade: Securing Long-Term Growth*.

Prof Ncwadi introduced the characteristics of the new era of trade expansion and integration and noted the positive impact of technological innovations on “the way goods and services are traded”. This impact results in the “unlocking

of new opportunities for growth and competitiveness”. He shared that a critical way this trade optimisation is achieved is by reducing transaction costs and using automation and digitisation, including automation technologies and AI, which increases operation efficiency.

A South African and African perspective was central to Prof Ncwadi’s presentation as he illustrated points raised concerning case studies from the continent and his home country. This was evident in his discussion on business challenges, such as trade wars, worsening international economic relations, lack of access to loans for private entities, insufficient government grants to new industries and technologies and a lack of tax relief for manufactured export goods.

Prof Ncwadi proceeded to unpack what would strengthen trade in BRICS and how an awareness of business opportunities in BRICS markets could be raised. His suggestions supported greater intra-BRICS formal engagement, agreement creation, and cooperation. He also noted the role of key focus areas and values of the BRICS, such as ‘cultural exchange and business networking’ and ‘resilience through diversity’. Before sharing a summary and recommendations, Prof Ncwadi promoted how cooperation in investment projects and special economic zones in the BRICS could be achieved, the strengths of trade digitalisation in the BRICS and technological solutions to ensure supply chain transparency.

The following are Prof Ncwadi’s recommendations for the BRICS to ensure long-term growth in international trade:

- Streamlining regulations and reducing bureaucratic red tape.
- Enhancing legal frameworks to ensure consistent enforcement.
- Investing in infrastructure development (transport, energy, digital).
- Improving access to finance through financial reforms and incentives.
- Strengthening anti-corruption measures and governance frameworks.
- Reducing trade barriers and promoting open markets.
- Focusing on education and vocational training to bridge skills gaps.
- Developing a unified digital trade platform for BRICS countries.



“A critical way this trade optimisation is achieved is by reducing transaction costs and using automation and digitisation, including automation technologies and AI, which increases operation efficiency.”

- Standardising electronic documentation and digital signatures.
- Implementing blockchain technology for secure and transparent transactions.
- Enhancing digital infrastructure to support high-speed internet and connectivity.
- Promoting digital literacy and skills training for businesses.
- Encouraging the adoption of e-commerce and digital payment systems.

Science, Technology and Innovation

Prof. Nirmala Gopal, a Senior Academic at the University of KwaZulu-Natal, presented in the session *Embracing Progress and Avoiding Dangers: Guidelines for an Era of High-Tech*, and the title of her presentation was “Safe Progress: Development in the Era of High Technology”. Prof. Gopal contextualised her stance as rooted in the Humanities and, as such, used critical discourse and considered the topic discursively: “We need to consider how

technology impacts humans”. South Africa’s focus on Africa and the Global South was evident in her presentation. She named her objectives as including:

- Conceptualising High Technology
- Exploration of disruptive technologies in the BRICS and expanded BRICS countries
- New generation technologies in achieving SDGs in the Global South
- Exploration of the ethical dilemmas in the face of high tech in the Global South
- Proposing a governance framework that could be adopted in the Global South

Prof. Gopal underlined how technologies could be disruptive by contrasting their possible benefits with dangers. These included economic growth and job displacement, innovation and progress and increased inequality, environmental benefits and privacy and security concerns, increased access to digital technology and regulatory and ethical challenges, and improved quality of life with cultural erosion.

Prof Gopal also highlighted the Global South by referencing the new generation technologies that are achieving the SDGs in the Global South. She highlighted the ethical dilemmas faced because of disruptive technologies, including accountability, bias, transparency, autonomy, socio-economic factors, and maleficence. The following were the recommendations that Prof. Gopal set forward at the close of her presentation:

- Enact data protection laws to safeguard citizens’ privacy rights.
- Create frameworks for the ethical development and use of technology.
- Implement national policies and programs for equal accessibility and benefits.
- Mandate legal compliance of existing frameworks to protect human rights.
- Encourage greater implementation of Artificial Intelligence in regions with low adoption rates.
- Advocate for a regulatory framework that is ethical and inclusive.
- Advocate for Renewable Energy Resources integration for net zero CO2 emissions.
- Adopt integrated policymaking and increase the presence of private investments in the renewable energy sector.

- Generate a body of legislation, policies, and procedures that mandate accountability for private and state actors in using high technology.
- Introduce additional strategies, such as diverse team composition, thorough user research, diverse data sources, bias detection and mitigation, bias training, iterative testing and development, and ethics reviews, to help agencies minimise bias in new technologies.
- Create a culture of transparency in how and why online, personal and public data is mined.
- Promote compliance with recognised global and local technological ethical standards and regulations of non-maleficence; for example, technology service providers should ensure cost-effectiveness, report any signs of system threats and prevent unauthorised surveillance.

Business and Investments

The second session in which Prof Ncwadi, the Director of the School of Economics, Development and Tourism at Nelson Mandela University, represented South Africa was *Why the World is Not Becoming Multipolar: Just Finance*. Prof Ncwadi consistently included references to the African continent throughout his presentation.

Prof Ncwadi highlighted in his introduction that economic multipolarity is crucial “as it signifies a more balanced distribution of economic power among various countries or regions, reducing reliance on a single dominant economic force. He unpacked the dominant players, namely the International Monetary Fund (IMF) and the World Bank, whose dominant language includes ‘stabilisation’ and ‘adjustment’. Prof Ncwadi emphasised the research-based insights on the negative impact of the IMF and World Bank’s conditionalities, particularly on African countries.

There is a “disjuncture between dogma and reality”, emphasised Prof Ncwadi. He supported this statement by referencing research that disputes the Bretton Wood Institutions’ proclamations of “poverty reduction; better living standards; and debt reduction.” Instead, he cited that fiscal sustainability is under threat and that the “African debt crisis is conveniently



“We need to consider how technology impacts humans”

ascribed to poor leadership, corruption and incompetence”. In contrast, research in the past decade underlines the blame on the Bretton Woods Institutions.

Prof. Ncwadi’s summary and recommendations for how the BRICS can address the lack of economic multipolarity were as follows:

- Intensify Initiatives such as bilateral currency swaps, regional payment systems, and the development of alternative financing mechanisms to promote multipolarity and reduce dependency on any single currency or financial centre.
- Encourage the use of local currencies in trade and investment among BRICS nations to enhance financial stability and security for these economies.
- Embrace diversity, foster inclusivity, and promote collaboration amongst

policymakers, businesses, and investors.

- Promote technological innovation and strengthening multilateral institutions will be essential for navigating the complexities of the multipolar financial system.
- The BRICS to play a complementary role to the existing Global Financial Architecture.
- The NDB to serve as a complement, filling gaps left by the existing institutions, especially in infrastructure and sustainable development projects.

Education

Mr Krish Chetty is a Chief Researcher at the Inclusive Economic Development division of the Human Sciences Research Council (HSRC). His research interests, as listed on the HSRC website, include Knowledge Management and Digital



“Advantages of a BRICS-shared LLM include that it “allows vertical and horizontal knowledge exploration.”

Inclusion. These are reflected in his innovative research-based presentation, “A Public BRICS AI Strategy focused on Scientific and Educational Cooperation,” during the session *People in the Spotlight: increasing the Largest BRICS Asset*.

Mr Chetty recommended practical measures that the BRICS could implement to establish a public BRICS Artificial Intelligence Strategy that focuses on scientific and educational cooperation. He highlighted that the infrastructure needed to fulfil this strategy would connect all stakeholders in the innovation pipeline. These include AI data centres, a data sharing platform, and a BRICS innovation large language model (LLM). Mr Chetty accompanied this recommendation with a pyramid figure that visually illustrated that the AI data centres would form the foundation of the infrastructure, with the

data sharing stemming from that and the LLM at the tip of the pyramid. Mr Chetty’s action-based recommendations proposed that the public BRICS AI Strategy be initiated by the BRICS PartNIR Innovation Centre and shared by the BRICS Virtual Academy.

The areas managed by the BRICS Virtual Academy would embrace BRICS Tech transfer, the iBRICS Network, the BRICS STIEP working group, the BRICS Digital Education Cooperative, the BRICS Incubation and Training Network, and the BRICS Startup Forum. Mr Chetty further illustrated the roles of the relevant players within the strategy: Diplomats would enhance the BRICS+ and international relations; Academic staff and students from universities and TVETs would drive innovation towards science and innovation; Incubators and startup businesses would

initiate ideation and incubation towards small business development and industry, and the supply chain would feed into commercialisation and subsequently trade and industry.

Mr Chetty covered all the strategy’s subareas in detail and the positive role that they would play within it; for example, the shared public BRICS AI data centres would, among other positives, accelerate innovation while pooling resources and intellectual property. The BRICS data-sharing platform Mr Chetty proposed should “adopt best practices from the Chinese National Data Administration agency” and hold the potential to bridge academia and industry. The platform would build from the BRICS to the national, institutional, and individual levels. The strategy could provide opportunities, specifically in the area of science cooperation. Mr Chetty emphasised how the experience and innovation of BRICS countries such as China and India have already provided evidence of the opportunities offered by science cooperation. These include that Large Language Models are the most effective method of exchanging knowledge, data sharing accelerates collaboration and innovative solutions and is an “untapped resource in academic research”.

Mr Chetty advised that the advantages of a BRICS-shared LLM include that it “allows vertical and horizontal knowledge exploration” and has the potential to share innovation opportunities across borders while also integrating uncommercialised research from academia. He shared his vision of the end goal for the BRICS countries with a figure that placed a BRICS AI Innovation Hub in the centre, with what could be interpreted as a positive feedback loop between the hub of relevant players: diplomats, Academia, Incubators and startups, and industry and supply chain.

Mr Chetty closed with the following goals and recommendations:

- All members of the Innovation Pipeline can explore ideas for innovation and cooperation.
- Placing humans at the forefront of development. Foundation for Innovation.
- Large Language Model (LLM) can encourage matchmaking.

- Knowledge exchange across borders and languages.
- The education sector can adapt the model for AI tutoring.
- The education sector can adapt curricula to industry priorities.

The South African representation in the academic discussions ended on a high note with this presentation by Mr Chetty, which, along with the other presentations, epitomised “research-led innovation.”

Developing people-to-people connections and cultural exchange

In addition to the academic and policy-oriented discussions, the BRICS Think Tanks Council and the Academic Forum also offered a platform for cultural exchange and diplomatic engagement. The cultural events and social activities organised in the program enabled participants to gain insights into the host country’s rich heritage and traditions. They fostered a spirit of mutual respect and understanding. Furthermore, the informal dialogues on diplomatic relations and geopolitical dynamics contributed to a nuanced appreciation of international affairs’ complexities.

Beyond the formal sessions, the event provided ample opportunities for networking and collaboration. The interactions with fellow participants, both during the scheduled breaks and the informal gatherings, facilitated the establishment of meaningful connections and the exploration of potential areas for collaboration. The diversity of expertise and the shared commitment to advancing knowledge and understanding created a conducive environment for forging partnerships that are expected to extend beyond the duration of the Forum.

Social Media Engagement

The NIHSS Marketing and Communications team engaged with South Africans on social media to keep them abreast of theme presentations, developments, deliberations, and people-to-people exchanges. The Forum saw the integration of a dynamic social media campaign that added an extra layer of engagement and connectivity to the event. Spearheaded by a meticulously designed

conference-themed template, the campaign embarked on a journey from the pre-event build-up to the culmination of the Forum.

In the weeks leading up to the conference, the campaign strategically showcased each delegate’s diverse expertise through engaging biographical highlights. This generated anticipation and provided valuable insights into the event’s wealth of knowledge and experience. As the Academic Forum commenced, the social media campaign seamlessly transitioned to covering every session featuring South African representatives. Each segment was meticulously documented and shared with the online audience, from the opening session with the BTTC leaders to various thematic discussions.

The social media campaign amplified the reach of the 16th BRICS Academic Forum through strategic planning and real-time coverage. It fostered meaningful connections and dialogue within and beyond the conference walls. As a testament to its success, the campaign served as a valuable tool for enhancing visibility, fostering collaboration, and advancing the overarching goals of the 16th BRICS Academic Forum.

Impactful and implementable recommendations presented

This event produced key BTTC recommendations for the Leaders’ Summit later in the year. With these recommendations, it is envisioned that BRICS leaders will adopt some recommendations into their declaration. The emphasis on evidence-based policy formulation and integrating local contexts in the proposed recommendations underscored the commitment to relevance and impact.

As the Forum ended, it became evident that the experiences gained and the connections established during the event will serve as a foundation for prospects and continued engagement, especially for the newly joined members. The commitment to sustaining the momentum of collaboration and the exchange of ideas was palpable, and the anticipation of furthering the dialogue on shared challenges and opportunities underscored the enduring significance of the BRICS Think Tanks Council and the Academic Forum.

Prof Mosoetsa’s closing address received resounding applause from delegates of the BRICS Think Tank Academic Council, who stood for her and shook her hand in appreciation. Once more, she referred to the importance of collaboration and highlighted South Africa’s commitment to the African continent and the Global South as she indicated that they “stand tall in Moscow with Addis and many others” and that they not only look forward to Brazil hosting them next but also in the interim they “are looking forward to participating as a Global South with China.”

In this rousing closing, Prof Mosoetsa’s reference to Africa was particularly stirring: “Tomorrow, the African continent is celebrating Africa Day. I want all South Africans and Africans to remember the Agenda 2063. In this meeting, it is essential, considering all the deliberations that have happened this week, to remember that we, as Africa, have said that we want a prosperous continent based on sustainable development, an integrated continent, politically united based on the ideals of Pan-Africanism and the vision of Africa’s Renaissance. An Africa of good governance, democracy, respect for human rights, justice and the rule of law; a peaceful and safe Africa with a strong cultural identity, common heritage, shared values and ethics. An Africa whose development is people-driven, relying on the potential of African people, especially its women and youth and caring for children. Africa is a strong, united and influential global player and partner. “


The meeting of the BRICS Think Tanks Council and the 16th BRICS Academic Forum from 22-24 May 2024 was an immensely valuable experience that left an indelible impression. South Africa contributed to this success. The intellectual stimulation, the collegial atmosphere, and the spirit of collaboration contributed to a deeper understanding of the complexities and nuances inherent in the global landscape.

The BRICS’s highlights will continue in 2024 as the BRICS Leaders will meet from 22 to 24 October in Kazan as Russia hosts the 16th BRICS Summit under the motto “Strengthening Multilateralism for Just Global Development and Security.” **BR**

PROFILE



BRICS Network University

 South Africa signed the Memorandum of Understanding (MOU) on the establishment of the BRICS Network University (BRICS NU) in 2015, with the BRICS ministers responsible for higher education from the founding BRICS countries. This marked a significant milestone in global education cooperation. Aligning to the Declaration of the 11 Meeting of BRICS Educational Ministers, *Brasilia Declaration* of 2015, the BRICS NU is defined in Article 1 of the MOU as follows:

... an educational project aimed at developing, preferentially, bilateral/multilateral short-term joint training, master's and PhD programmes along with joint research projects in various knowledge fields according to common standards and quality criteria, given recognition of the learning outcomes by BRICS NU participants as per national criteria.

As a flagship project, the BRICS NU aimed initially to foster research

collaboration and partnerships among the founding five member countries: Brazil, Russia, India, China, and South Africa. With the initial participation of a maximum of 12 universities from each member country, the BRICS NU has gradually evolved with the BRICS expansion. The first meeting of the BRICS Education Ministers of an expanded BRICS occurred in June 2024 in Kazan, Russia, taking forward issues discussed in the previous meeting hosted in Nelspruit, South Africa. These included consideration for the expansion of thematic areas and university membership of the BRICS NU. The current vision is to increase the number of member universities and for all universities in BRICS nations to eventually join the network. The establishment of the BRICS NU reinforces a strategic alignment between the educational systems of the BRICS emerging economies, aiming to address global challenges collectively through research and innovation.

Principles, objectives and goals

The BRICS NU is based on sound values and principles, with clear objectives and goals in the 2015 MOU, Articles 2 and 3. The BRICS NU principles are:

- *Openness*, which allows institutions and bodies to join or withdraw from the platform;
- *Focus on educational programmes* and innovative research projects;
- *Equal rights of participants* and respect for their autonomy in the implementation of educational programs;
- *Reciprocity* in the treatment of all participants involved in joint activities;
- *Assurance of High Quality* of educational and research-related programmes;
- *Respect* for the national regulations, procedures and practices of each BRICS country.

The BRICS NU objectives and goals dovetail with its principles as they focus on

providing opportunities for high-quality life-long learning, facilitating sustainable development of the BRICS countries, and providing training for professionals of high qualifications (MOU 2015: Article 3). The goals further adhere to the *World Declaration on Higher Education for the Twenty-First Century: Vision and Action* of 9 October 1998. As such, they assist in the “implementation of the UNESCO goal in the development of education of the UNESCO Constitution, Article 1”, whereby the organisation contributes to “peace and security by promoting collaboration among the nations through education, science and culture.” (MOU 2015: Prelude). These goals and objectives ensure that BRICS countries, through mutually beneficial multilateral collaboration, share academic, scientific and technological progress and developments due to the creation of inter-educational solid system links.

Key Themes and Research Focus

Regulative bodies, such as the International Thematic Groups (ITGs), were created as part of the BRICS NU's transparent administration system. The ITGs support educational activities by identifying “knowledge field priorities” (MOU 2015: Article 12). The ITGs' themes serve as research clusters representing the member universities. From the onset, the BRICS NU was organised around six thematic areas that reflect the core scientific priorities of the BRICS nations. These include:

1. Water Resources and Pollution Treatment
2. Computer Science and Information Security
3. Ecology and Climate Change
4. Energy
5. Economics
6. BRICS Studies

These thematic areas are intended to address regional and global issues, thus allowing BRICS members opportunities

to collaborate on areas of mutual concern, such as environmental sustainability, cybersecurity, and economic development. The various ITGs within the BRICS NU facilitate innovative solutions to these challenges by sharing expertise and conducting joint research.

South Africa's Contribution to the BRICS NU

South Africa is currently represented by nine universities within the BRICS NU platform. These include:

1. University of the Witwatersrand
2. Tshwane University of Technology
3. University of Pretoria
4. North-West University
5. University of Limpopo
6. University of Johannesburg
7. University of Cape Town
8. Durban University of Technology
9. Central University of Technology

These South African universities contribute to research clusters across the six thematic areas of the BRICS NU initiative, thus playing a pivotal role in the ITGs, contributing to research initiatives and collaborations that address pressing challenges within the region and beyond. South Africa's involvement in the BNU reflects the country's strategic focus on deepening economic and geopolitical ties with its BRICS counterparts. Moreover, institutions like the *Durban University of Technology*, *Tshwane University of Technology* and the *Central University of Technology* ensure a diverse representation of technical skills, essential for research in computer science and information security disciplines. Areas for deeper cooperation include bilateral exchanges within the BRICS NU, a key example being a signed cooperation agreement between Russian St. Petersburg University and South African Durban University of Technology. The two universities agreed to cooperate on the creation of "joint double-degree master's programmes in digital economy, law, and management." The signed cooperation agreement between these two universities is also set within a broader impetus that continues a history of collaboration with Russia and South Africa concerning higher learning initiated during the struggle for democracy.

Response to Global Challenges: Public Health and Digital Education

Since its inception, the BNU's scope has expanded to include emerging global challenges. One notable example is the response to the *COVID-19 pandemic* in 2020. The pandemic exposed gaps in public health infrastructure across the BRICS nations, highlighting the need for coordinated research on health and medicine. The issue of vaccine access became particularly urgent, leading to discussions on a consolidated BRICS approach to global health platforms. As a result, *public health* is increasingly recognised as a critical area for collaboration, with joint research being conducted to improve health resilience in preparation for future pandemics.

Another significant development has been the emphasis on *digital technologies* in education. The pandemic forced a rapid shift to online learning worldwide, and BRICS nations were no exception. Digital technologies were key in facilitating access to inclusive, quality education during lockdowns, particularly in under-resourced areas. This shift aligned with *Sustainable Development Goal 4* (SDG 4), which promotes equitable, quality education and lifelong learning opportunities for all. The BRICS NU has integrated digital education into its policy discussions, working to close the digital divide and ensure that all students, regardless of socioeconomic status, can benefit from advances in technology. Towards achieving these aims, the following practical measures are considered critical: "the development of human skills through digital technologies; the promotion of digital literacy in the society; and the strengthening of solid security frameworks in the digital economy."

Challenges and Opportunities

While the BRICS Network University offers immense opportunities for collaboration, it faces challenges typical of international academic partnerships. One such challenge is the *divergence in education systems* across the member countries. Each nation has unique academic norms, funding models, and quality assurance mechanisms. These can complicate integrating joint degree programs or

student exchanges. *Language barriers* are another significant obstacle, especially given the linguistic diversity of the BRICS nations. Overcoming these barriers requires careful coordination and flexible policies that respect the individual characteristics of each country's education system.

However, the opportunities far outweigh the challenges. The BRICS NU platform can potentially *drive innovation* in fields like clean energy, climate change adaptation, and cybersecurity while fostering stronger economic and political ties between the nations. As the BRICS economies continue to grow and exert more significant influence on global affairs, the BRICS Network University is a critical instrument for cultivating the intellectual capital needed to address the world's most pressing challenges.

Future Prospects

Looking ahead, the BRICS Network University is destined to expand in terms of the number of participating institutions and the breadth of its thematic areas. The BRICS expansion has already resulted in the signing of BRICS NU bilateral agreements between institutions in core member countries, such as Russia's HSE University, and new member institutions, such as Iran's Tehran University. Further, in May 2024, at the BRICS NU International Governing Board meeting hosted by Russia, additional areas of cooperation were added, including "sustainable agriculture and food security, mathematics, natural sciences and humanities, and health science." There is also momentum towards incorporating public health and digital education into the university's core focus areas. Additionally, as geopolitical shifts and global challenges continue to evolve, the BRICS NU may explore new areas of cooperation, such as *artificial intelligence*, *cybersecurity*, and *sustainable urbanisation*.




The network's ability to adapt and respond to contemporary global challenges will determine its long-term success. As the BRICS nations increasingly position themselves as key players in the Global South, the BRICS NU can potentially become a leading force in shaping the future of higher education and research on a global scale. **BR**



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POLICY BRIEFS

The BRICS and scholarly International Relations: diversification in the production of knowledge and academic cooperation towards global challenges

PROF HAROLDO RAMANZINI JUNIOR

Associate Professor of International Relations
at the University of Brasilia



Introduction

The BRICS countries presently comprise more than 11.300 universities, besides research institutes, and think tanks. Notably, these universities are not symmetrically distributed, and countries follow different systems and prioritise specific competencies. Nevertheless, collaboration and dialogues between university communities are crucial to strengthening ties of mutual knowledge among the BRICS countries. In addition, they can contribute to identifying shared priorities and formulate proposals to advance issues of academic and political relevance.

A continued dialogue and an appropriate institutional structure are deemed necessary to accomplish this. Continued dialogues hold the potential to uncover areas where synergies already exist. Additionally, continued dialogues have the potential to identify strategic areas where cooperation is fundamental. At the same time, scientific and technological international cooperation should be oriented towards sustainable development and the needs of society to contribute to the Sustainable Development Goals (SDGs). Otherwise, it may reproduce hegemonic relations and their adverse



effects, such as the brain drain. From this perspective, open science practices and underlying principles, such as those defined by UNESCO, should orient cooperation efforts to encourage knowledge-sharing and collaboration. Scientific collaboration also helps to reduce global inequalities and strengthen the battle against misinformation and fake news.

The BRICS Ministers of Education have been meeting since 2013 and, like other sectorial gatherings, seek to mobilise actors from governments and societies to build and strengthen cooperation ties in different levels and modalities of education to expand the group's agenda beyond the political-diplomatic scope. Different BRICS Ministers of Education Declarations reiterate the "importance of joint mechanisms for implementing cooperative processes in the field of education between the BRICS member states." Despite these developments, numerous challenges remain.

The BRICS scholarly collaborations

Given path dependencies dynamics and concerns about funding perspectives, most of the BRICS and Global South countries hold substantial trajectories of academic

cooperation and dialogue with universities and research centres based in Western countries. The aforementioned explains part of the international cooperation in higher education institutions and the development of some specific fields of research in the Global South. Nevertheless, disciplinary and real-world challenges indicate that Global South epistemic communities should deepen cooperation. Understandably, such cooperation should happen without being detrimental to engagement with northern scholars. Science has no borders, and scientific innovations come through sharing ideas and debates from different viewpoints. However, research infrastructure, localisation, and funding perspectives directly affect research priorities and perspectives.

Thus, joint research and circulation of the science from the BRICS International Relations (IR) communities can boost academic cooperation in terms of number and quality. Such an increase in academic cooperation may contribute to globally enhancing the IR field, making it more responsive to the complexities of a rapidly changing world (Acharya, 2014). For instance, the expansion of this dialogue can

provide *stimuli* for the creation and diffusion of new concepts and frameworks and the refinement of existing ones. Likewise, diversity in scientific production, expertise, and national experiences within the BRICS could be an asset to IR research. This is particularly appropriate considering that there are several possibilities for extended cooperation in social science, humanities and interdisciplinary approaches within BRICS countries.

In historical terms, we can observe an unprecedented expansion of states and social actors with agency and interest in influencing global governance and politics (Hurrell, 2018). This situation has far-reaching implications for the global order and the academic community that studies it. Thus, embracing BRICS's perspectives on the field of IR is not merely an act of academic inclusion but a real need for a more comprehensive understanding of global politics and governance (Kristensen, 2019). Therefore, we might not incorporate academic or policy contributions according to their institutional or geographic origin, but, instead, according to their scientific consistency and potential to contribute to understanding or explaining the phenomenon under analysis.

It is impossible to publish, teach or research IR apart from what happens around the globe. Public opinion and debates in large parts of the world have sought to reject or revise the Western-dominated order that resulted from the 1940s Bretton Woods Agreement because it was built around structured patterns of hierarchy and inequality (Hurrell, 2018). To illustrate this point, one can allude to three well-known facts: eighty years after its foundation, the International Monetary Fund (IMF) was never led by a non-European; the UN Security Council composition has been the same since 1945 and faces paralysis on the current ongoing conflicts; and last but not least, since 2017, the US has been blocking the appointment of new judges to the World Trade Organisation's (WTO) appellate body, harming the main multilateral body in charge of solving commercial disputes.

Additionally, from this perspective, unilateral measures and the interventions of great powers are some of the leading causes of instability and tensions, and most of the Global South nations are important voices

that advocate for a legitimate, non-selective and norms-based multipolar order. There is a growing debate about necessary reforms in the context of a partially self-weakening Western-centred order. In this context, expectations around the BRICS may increase, and the group may continue efforts to provide contributions of global interests (Ramanzini Junior and Vigevari, 2023).

The growing consensus is that we live in a post-western world order (Stuenkel, 2016). Despite this, Western dominance over the ideas framing international politics remains high. In this regard, in some cases, the analysis of global change processes is permeated with strong normativity of what one desires as the preferred outcome. Adding nuances and greater complexity to actors' preferences formation and the current debate on the process of global change, power diffusion, and its consequences are some of the necessary contributions of Global South scholars to the field. To briefly mention a few others on specific agendas, increasing the sample of cases and analytical models of Foreign Policy Analysis is necessary. In most of the literature, policy proposals and case studies are concentrated on the institutional reality of the United States (Calkivik, 2020). The same applies to the European Union regarding regional integration and regionalism (Ramanzini Junior and Luciano, 2020). This is a problem for IR as a global discipline since the failure to consider and include Global South perspectives and experiences systematically impoverishes our collective ability to understand global affairs (Barma and Goldgeier, 2022).

Final remarks and policy recommendations

1. *The growth and evolution of IR communities* in the BRICS countries may set the stage for increased scientific cooperation. Furthermore, the expanding global interests and economic, political, social, and diplomatic interactions of BRICS nations require growing expertise from different parts of the world. Dialogues among IR communities may help supply this demand for specialised knowledge. Initiatives and debates on specific areas, such as the BRICS Trade and Economics Research Network, the BRICS Technology Transfer Network and the BRICS Centre for Industrial Competences, may help address issues

of common concern and interest. Such and other knowledge-sharing and expert-level functioning bodies, like the BRICS Academic Forum, can support cooperation efforts with reliable data and research assessments. In this line, different ongoing initiatives are being developed in centres and universities such as the BRICS Policy Centre, linked to IRI/PUC-Rio, the Moscow State Institute of International Relations, HSE University, the Centre for BRICS Studies at Fudan University, the Centre for Global Studies at the University of Brasilia (UnB), the Institute for Applied Economic Research (Ipea), South African BRICS Think Tank and the South African Institute of International Affairs, among others, have achieved considerable progress.

2. *Increasing scientific diplomacy* between BRICS nations is fundamental to preserving and valuing research and cooperation agendas focused on priority themes and areas for local development in the Global South. This includes debating models on issues such as energy transition by considering the needs and specific realities. The same applies to the commercial and financial agendas. The overreliance on a single currency for international trade invoicing and central bank reserves presents well-known inconveniences for most countries (Liu and Papa, 2022). In this domain, the creation of the New Development Bank and the establishment of the Contingent Reserve Arrangement are evidence of the BRICS's ability to work together. The ongoing debates regarding using national currencies in trade and financial transactions indicate the potential for new ideas and institutional designs. From this perspective, another initiative was the creation of a vaccine research and development centre based on collaboration between BRICS members. The debates on such pressing issues constitute suitable pro-BRICS and Global South proposals.

3. *Building up academic cooperation, assessing present programmes' challenges and opportunities and creating a new action plan* is critical. Initiatives such as the BRICS Network University and the BRICS League University symbolise significant efforts to foment academic cooperation. The outcomes are still below their potential, but since they

already represent existing platforms, it is desirable to concentrate efforts to build them up. In each nation and jointly, fostering more open calls from the funding agencies and other institutions for joint research on and from the BRICS would be helpful. Furthermore, there is room for closing ties between scientific associations by inviting BRICS scholars to round tables at those meetings, among other initiatives. The same applies to joint PhD degrees, BRICS Summer Programs, short-term training and modular courses. In this perspective, BRICS Network University decided, in 2016, to create joint programmes at the master's and PhD levels in the areas of energy, computer science and information security, BRICS studies, ecology and climate change, water resources and pollution treatment, and economics. After eight years

BRICS nations. One key objective is to increase the level of exposure of the academic communities and students to different situations and realities.

4.2 Also, it is important to consider *digital education cooperation* and online courses and activities.

4.3 *Including universities and scientific community representatives in official delegations* could help diversify and decentralise cooperation ties.

4.4 *Enhancing cooperation in research and capacity building* may also stimulate joint efforts to strengthen the comprehensive evaluation of higher education systems based on shared experiences and inclusive development.

4.5 Accordingly, *the institutional framework for academic mobility must be strengthened, exchange targets set, and common collaboration*

on urgent global calls, such as climate change, the unfair inequalities (between and within countries), poverty, hunger, let alone the prospects of the building of a new architecture of global governance. Higher education and university communities in the Global South play a vital role in generating the skills and knowledge required to offer solutions to global challenges. **BR**

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“Increase of academic cooperation may contribute to globally enhancing the field of IR, turning it more responsive to the complexities of a rapidly changing world.”

from the beginning of those programs, it is time to evaluate the path taken from the point of view of strengths, deficiencies and challenges. This may help to elaborate a new Action Plan. Similarly, it is appropriate to consider the areas covered in the face of the latest challenges and possibilities of cooperation in issues such as public health, artificial intelligence (AI), and disruptive technologies.

4. It is essential to *reinforce instances of networking and matchmaking between scholars and specialists* from BRICS countries on a rolling basis, in addition to the BRICS Education Ministers meetings.

4.1 Additionally, *partnerships for mobility projects* may help increase the presence of international students on campuses, including researchers and specialists from

centres increased based on the country's scientific specialisations and the BRICS priorities. In this regard, the BRICS Forum of University Rectors has excellent potential.

4.6 It is also interesting to think about *strategies to increase the circulation of reference books and academic journals* edited in BRICS countries (language issues may be a challenge, but also an incentive to use and develop instruments of technological translation solutions). Thus, the BRICS collaboration efforts can contribute to developing countries and, in addition, positively impact higher education developments in the Global South.

In the complex current international landscape, efforts for academic, scientific and technological cooperation are antidotes against indifferences: they can help prevent the world from underachieving results



The Possible Pathways for Talent Cultivation Cooperation in the Field of International Communication among BRICS Countries

PROF MA FANGFANG

Beijing Language and Culture University,
School of International Relations



Background

The practical background of BRICS cooperation on talent training in international communication is profound and diverse. With the acceleration of globalisation and the development of information technology, international communication has become a notable field of soft power competition. As important representatives of emerging economies and developing countries, BRICS countries play an increasingly important role internationally. However, they also urgently need to enhance their international voice and influence. In this context, the BRICS countries recognise the importance of strengthening the training of talents in international communication. Through cooperation in cultivating high-quality

news and communication talents with an international perspective, understanding international rules and excelling in cross-cultural communication, BRICS countries can more effectively communicate in their voices and tell their own stories while enhancing their influence and voice in the international public opinion field.

At the same time, BRICS cooperation on talent training in international communication also conforms to the development trend of global journalism and communication. With the advent of the all-media era, news communication channels and methods are increasingly diversified, which puts forward higher requirements for the professional quality and comprehensive ability of news communication talents. Through cooperation, BRICS countries can share quality education resources, innovate talent training models, improve the quality of talent training, and jointly respond to the challenges and opportunities in developing

global journalism and communication. Moreover, the recent BRICS declarations highlight mutual collaboration in science, technology, and engineering, focusing on preparing the workforce for global challenges, especially in digital transformation and green technologies. The BRICS has launched several initiatives to support this, such as the BRICS Network University, which promotes academic exchanges and joint research, and the BRICS Skills Development Working Group, which fosters vocational training and alignment with labour market demands. The BRICS Partnership on New Industrial Revolution (PartNIR) and TVET collaboration also focus on preparing workers for technological advancements and improving employability in critical industries. These collaborations are conducive to the deepening and developing BRICS cooperation in international communication.



Current international communication platforms of the BRICS

BRICS utilises a blend of official and unofficial platforms to facilitate communication, enabling its member states to coordinate and share information across multiple sectors. The official platforms include the annual BRICS Summits, where leaders' discussions include economic cooperation, international stability, and financial reform, with the hosting country organising and coordinating activities, often accompanied by side forums for business, academia, and civil society. The BRICS Media Forum is another official channel that brings together media outlets to foster a multipolar narrative in the global media landscape and promote the BRICS' interests and perspectives. Additionally, the New Development Bank (NDB) funds infrastructure projects within the BRICS and other emerging economies and acts as a communication tool for collaborative economic development.

Unofficial platforms also play a significant role, with BRICS Cultural and Academic Exchanges growing through informal events like university partnerships, facilitating student and expert exchanges. Notably, TV BRICS, an unofficial yet highly influential multimedia network, broadcasts

across member states, promoting cultural diplomacy and mutual understanding through news, documentaries, and entertainment focused on BRICS countries. It also partners with non-BRICS media to facilitate broader dialogue and cooperation. As a key media initiative, TV BRICS promotes positive news about member states and counterbalances mainstream global narratives, reaching diverse audiences with multilingual content. These platforms collectively contribute to creating a unified voice for the BRICS, enhancing both media and political outreach, albeit with ongoing challenges in developing a coherent strategy across diverse member states.

Practical significance and value of cooperation

The cooperation among BRICS countries in cultivating talent in the field of international communication holds practical significance and value. International communication refers to exchanging information, ideas, and messages across national borders. As such, It encompasses more than the above forms of communication, including telephone calls, emails, video conferencing, and the use of various communication technologies such as the Internet and satellite systems. International communication has become

increasingly important in today's globalised world, facilitating cross-border business transactions, cultural exchanges, and global cooperation.

For the BRICS countries, international communication experts can be highly beneficial in several ways, such as enhancing economic cooperation, promoting cultural exchanges, and improving governance and diplomacy. This cooperation can promote a diversified communication landscape, breaking the long-term dominance of the West and providing richer voices and perspectives for international communication. Further, by cultivating talents with international vision and cross-cultural communication skills, BRICS countries can enhance their discourse power and influence in international public opinion, promoting the dissemination of their interests and values.

To enhance the voice and influence of BRICS countries in international public opinion, it is necessary to cultivate talents with international vision and cross-cultural communication skills. This requires the education system to strengthen the international and cross-cultural curriculum and practical teaching and international exchange so that students can master multiple languages and cultures. The government should provide policy and financial support to encourage talents to participate in international affairs. Through these measures, the BRICS countries can cultivate more talents who can effectively communicate and spread their values and interests in the international arena to enhance their international voice and influence.

Additionally, the high-quality communication talents cultivated through cooperation can enhance the international competitiveness of BRICS countries, better adapting to the challenges of the international communication environment. Moreover, talent cultivation cooperation is vital to strengthening friendly cooperation relations among BRICS countries. Joint training programs and exchange activities can deepen mutual understanding and trust, and establish long-term, stable cooperative partnerships. The number of BRICS joint training and exchange activities is dynamic, while new training and exchange activities are planned and organised as BRICS

cooperation continues to deepen and expand. However, based on the available information, we can provide an overview of the BRICS joint training and exchange activities.

Since its construction in Xiamen City, China, the BRICS Innovation Base, as an essential platform for BRICS cooperation, has actively organised a series of joint training and exchange activities in the three key areas of policy coordination, personnel training and project development. These activities cover many fields, such as digital economy, smart manufacturing and green development. They also continuously promote practical cooperation among BRICS countries through high-level international exchange activities, releasing priority task lists, constructing empowerment platforms, and launching demonstration projects.

Specifically, the BRICS Innovation Base has held several high-level international exchange activities and issued a number of key task lists. At the same time, several new industrial revolution empowerment platforms have been built, and many BRICS demonstration projects have been launched. In terms of personnel training, the BRICS Innovation Base has carried out several training activities involving participants from many countries and covering topics such as the marine economy, rural revitalisation, and the new industrial revolution.

Most importantly, this cooperation helps BRICS countries effectively deal with Western media hegemony by developing internationally competitive communication talents, safeguarding their interests and images, and injecting more diversity and vitality into the field of international communication.

Policy recommendations

1. Establish media alliances and cooperation mechanisms:

1.1 It is crucial for BRICS countries to *strengthen media cooperation* to promote information sharing, technical exchange, and talent *cultivation*. These mechanisms will provide a platform for media organisations in BRICS countries to share news resources, reporting experiences, and best practices and to jointly develop technical cooperation projects. The BRICS Media Forum mechanism was initiated in 2015

by the Xinhua News Agency and jointly launched by mainstream media from Brazil, Russia, India and South Africa. The Forum aims to establish an efficient coordination mechanism for mainstream media in BRICS countries, promote the innovative development of media industries in the five countries through institutionalised exchanges and practical cooperation, and gather more positive energy for the development of BRICS countries. Under the Forum's mechanism, four congresses were successfully held in 2015, 2017, 2018, and 2019. Outcome documents such as the Beijing Declaration of the BRICS Media Summit, the Action Plan for Strengthening BRICS Media Cooperation and the Action Plan for the BRICS Media High-level Forum were issued, many of which were written into the

organising large-scale press conferences can diversify and deepen the scope of reporting.

1.3 Promoting *new media and digital technology cooperation* is crucial in today's information age. BRICS countries can strengthen cooperation in this area by jointly developing new media platforms and exploring the application of artificial intelligence and big data in news reporting. By sharing technological resources and successful experiences, BRICS countries can collectively enhance the digitisation level of their media and improve the efficiency and accuracy of news dissemination.

1.4 Additionally, establishing *joint training and exchange programs* is essential to promote media cooperation. Top Chinese universities,

“Establishing joint training and exchange programs is an important means to promote media cooperation.”

BRICS Leaders' Declaration. Within this framework, BRICS countries can enhance interactions and exchanges among media executives and professionals by regularly hosting media summits and forums. These activities facilitate mutual understanding and the discovery of cooperation opportunities and allow joint exploration of challenges and opportunities in global media development. Additionally, setting up a BRICS Joint News Centre to coordinate news resources and promptly release authoritative information is essential for increasing BRICS countries' influence in international public opinion.

1.2 Promoting *joint news reporting projects* is another significant direction. BRICS countries can jointly plan and implement collaborative reporting projects covering various fields such as economy, culture, and technology. These projects can showcase BRICS cooperation achievements and convey the voice of BRICS to the world, enhancing global understanding and support for BRICS development. For instance, producing special documentaries together, co-publishing news special issues, or jointly

such as Tsinghua University, Peking University and Fudan University, often carry out joint training and research cooperation projects with universities from other BRICS countries under the framework of BRICS cooperation. Beijing Language and Culture University also promotes international Chinese education projects among BRICS countries. As China's state news agency, Xinhua has not only actively participated in the BRICS Media Exchange Forum but also hosted BRICS media training courses to promote interaction and cooperation among BRICS media. CGTN has enhanced news dissemination and cultural exchanges among BRICS countries through its multilingual platform and rich programming content. Mainstream media organisations from Brazil, Russia, India and South Africa, such as China Radar in Brazil and RT (Russia Today) in Russia, are also important participants in BRICS media exchanges and cooperation. BRICS countries can regularly hold media talent training courses, inviting experienced media professionals and scholars from various countries to lecture, helping

to cultivate a new generation of media talents with an international perspective and professional competence. At the same time, implementing journalist exchange programs allows journalists from each country to gain an in-depth understanding of each other's national conditions and cultural backgrounds, enhancing the objectivity and comprehensiveness of news reporting.

1.5 The BRICS Declaration proposes a series of measures to promote skills development cooperation, including *strengthening skills development and lifelong learning systems*, supporting innovative and improved training methods, skills demand forecasting and occupational standards setting, increasing the participation of social partners, and developing targeted skills development policies. By integrating the higher education resources of the BRICS countries, the BRICS Network cooperates in the fields of education, research and innovation. It cultivates professionals with an international perspective and intercultural communication ability for the BRICS countries. The BRICS University Network's cooperation in skills development is not limited to the hard sciences but also includes soft sciences and other related fields, such as ecology and climate change, water resources and pollution control.

1.6 Regarding policy and legal frameworks, to ensure the smooth progress of media cooperation, BRICS countries should *strengthen coordination and cooperation in policies and laws*. By signing bilateral or multilateral cooperation agreements, they can clarify the rights and obligations of each party in areas such as information sharing, copyright protection, and journalist visas, creating a favourable cooperation environment.

1.7 Furthermore, a *dedicated media cooperation fund* can be established to support the implementation of various media cooperation projects and provide necessary financial guarantees for BRICS media cooperation.

1.8 Promoting *multi-level and multi-field media exchange cooperation* by encouraging the participation of local media, non-governmental organisations, and academic

institutions helps form a comprehensive and multi-level cooperation network. This diversified cooperation model can expand the coverage and influence of media cooperation and enhance the resilience and vitality of BRICS media cooperation. For example, social media has lowered the barriers to content creation, making it possible for anyone and everyone to become a publisher and disseminator of information. This trend of "grassroots" has made the BRICS countries' talent resources more fully utilised, and they can showcase their talents and opinions through social media platforms, contributing to the country's international image-building and news dissemination. Further, social media platforms are highly interactive and participatory. Users can participate in disseminating news and information by liking, commenting and sharing. This interaction enhances users' interest and attention to BRICS news and promotes exchanges and understanding among countries and cultures.

Strengthening media cooperation among BRICS countries is vital to enhancing their voice in the global information dissemination landscape. Through the above measures, BRICS countries can collectively enhance the international competitiveness of their media, providing strong support for the development and prosperity of BRICS countries.

2. Set up scholarships and exchange programs.

BRICS countries can support media practitioners and students in studying and exchanging with other BRICS countries. Each BRICS country currently has established scholarships, but there is no overall scholarship level. The plan is to promote the establishment of special scholarships for BRICS countries. This helps broaden horizons, enhance understanding, and promote cross-border cooperation and talent cultivation.

2.1 *Scholarship projects*: Establish scholarships for media practitioners and students to study and further their education at universities, research institutions, or media organisations in other BRICS countries. Scholarships can cover tuition fees, living expenses, and travel expenses, and selection can be based on applicants' professional

backgrounds and academic achievements.

2.2 *Exchange programs*: Establish regular exchange programs, inviting media practitioners and students from BRICS countries to engage in short-term exchanges and visit other BRICS countries. These exchange programs can include visits to media organisations, seminars, field interviews, etc., to deepen understanding different countries' media environments and cultures.

2.3 *Project support for cooperation*: Encourage scholarship recipients and exchange participants to carry out cross-border cooperation projects, such as co-writing research papers, producing news reports, planning media events, etc. Provide them with project support and resource allocation to promote cross-border cooperation and talent cultivation.

2.4 *Mentor guidance*: Provide mentor guidance for scholarship recipients and exchange participants, with senior media professionals serving as mentors to help them solve problems encountered in study and work and guide them to achieve better results in cross-border exchanges.

2.5 *Evaluation and feedback mechanism*: Establish an evaluation and feedback mechanism to regularly evaluate scholarships and exchange programs, collect feedback from participants, and continuously improve and perfect the programs' content and operation.

3. Jointly organise training programs and seminars and collaborate on research projects.

Media organisations in BRICS countries can jointly organise training programs and seminars covering news reporting, communication skills, digital media, etc. The Observer Research Foundation (ORF), which facilitates many such platforms, including academic dialogues, often serves as a space for experts from different fields, including media, to collaborate on addressing global challenges and opportunities through BRICS cooperation. ORF's platforms also provide insight into the BRICS countries' shared goals, particularly multilateralism, climate change,

and international security, helping align media narratives with these goals. These activities can provide the latest knowledge and skills and promote the growth and development of media talents in BRICS countries. At the same time, media organisations and research institutions in BRICS countries can collaborate on cross-border research projects, exploring topics such as international communication, public opinion strategies, cultural exchanges, etc. Through collaborative research, a deeper understanding of media's development status and challenges in various countries can be gained, providing a theoretical and practical basis for cooperation.

4. Strengthen cross-border cooperation platforms.

BRICS countries can strengthen existing cross-border cooperation platforms, such as BRICS media forums, summits, etc., to provide opportunities for media practitioners to exchange and cooperate. However, the existing cooperation platform between the BRICS countries in the media still has problems. We should first improve the existing mechanism and strengthen the regulation of media cooperation, such as BRICS media forums, summits, etc. These platforms can serve as vital platforms for sharing experiences, exploring cooperation opportunities, and promoting the cooperation and development of media in BRICS countries.

Conclusion

Through the above cooperation mechanisms and pathways, BRICS countries can strengthen media cooperation, enhance international communication talent cultivation, better cope with Western media hegemony, and promote the diversified development and international influence of media in BRICS countries.

Breaking Western media hegemony is of utmost importance in the field of international public opinion. It is crucial for BRICS countries to strengthen mechanisms for cooperation and talent exchange in this area, nurturing international communication professionals proficient in multiple languages, which will enhance the BRICS' international influence.

Furthermore, the BRICS should establish common educational standards to improve

the quality of education and enhance cooperation and competitiveness among BRICS countries. By establishing more open and inclusive cooperation mechanisms, the BRICS can ensure the comprehensive and equal participation of all member countries in international research and education projects. This includes promoting information sharing, strengthening government cooperation, and encouraging the participation of civil society organisations.

For example, my university, Beijing Language and Culture University initiated the "International Chinese Smart Education Project" in 2020, aiming to construct a new international Chinese smart education system serving Chinese learners and teachers worldwide. The first phase achievement, "International Chinese Smart Teaching System (Platform) Version 1.0," was released to the public in June 2022, followed by Version 2.0 in 2023. The "International Chinese Smart Teaching System Version 3.0", released in 2024, has established an international Chinese knowledge map integrating static content of language teaching with dynamic information such as learning situations and teaching conditions. Empowered by technologies like large language models, speech intelligence, and digital humans, it has developed a series of smart courses represented by "Understanding Contemporary China—Advanced Chinese Reading and Writing," enabling personalised learning for students and tailored teaching methods for teachers. Bridging Chinese learning allows international students to gain a deep understanding of China's accurate, comprehensive, and rapid development. Advancing the digital transformation and offline-online integration of international Chinese education, achieving on-demand learning, everywhere learning, and lifelong learning is an inevitable choice for the future high-quality development of international Chinese education. This newly launched International Chinese Smart Teaching System will bring a new experience to international Chinese education and inject new energy into promoting high-quality international Chinese education development.

In addition to international communication, BRICS countries possess enormous potential and advantages in fields such as biotechnology, information

technology, new energy, and artificial intelligence. Therefore, these scientific fields are the most promising directions for BRICS countries' development and can become critical areas of cooperation in talent cultivation. **BR**

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Shaping BRICS's Perspective on Terrorism as a Non-Traditional Threat

DR MOSES B. KHANYILE

Director: Centre for Military Studies (CEMIS)
Stellenbosch University



Introduction

The first half of the third decade in the 21st century has witnessed massive changes that were characterised, inter alia, by the gradual reversal of the post-Cold War agreements between global powers, a concerted challenge to the unipolarity of the global power dynamics, the revisiting of the fundamental tenets of international law and the ascendancy of non-traditional security (NTS) threats. Unlike all the other changes, the discourse on NTS threats has increasingly drifted towards the top of the global agenda,

and members of BRICS are, therefore, obliged to consolidate and articulate their preferred positions on the various aspects of NTS threat phenomena. Despite the lack of unanimity on the definition of NTS threats, there is emerging consensus that these refer to the 'safety, stability, and sustainability of the referent objects such as states, humans, enterprises, and the environment' (Hoang, Nguyen, Nguyen and Hoang, 2022). These include matters of environmental degradation, climate change, infectious diseases, transnational crime, illegal migration and terrorism. (XIV BRICS Summit Beijing Declaration, 2022; Hoang, Nguyen, Nguyen and Hoang, 2022; Kim and Blank, 2012).

The significance of a coordinated, if not synchronised, approach to NTS threats stems from the fact that they cannot necessarily be addressed through military prowess, nor can they be dealt with by any single country or entity (Martin, 2023). The state has dominated traditional forms of security as the leading actor, while NTS

threats have multiple actors other than the state. The post-9/11 'global war on terror' that was launched by the United States (US) demonstrated the limitations of the military might, which could not decimate the global threat posed by non-state actors such as Al Qaeda and later ISIS. More recently, the necessity to revisit the state-centric security paradigm was best demonstrated during the outbreak of the COVID-19 pandemic, where states struggled to manage and contain the spread of the plague until it had claimed the lives of millions of people across the globe (Fusiek, 2020).

This paper analyses the approach and incidence of NTS threats within the BRICS countries, specifically focusing on terrorism. It recognises the broad spectrum of issues falling within the domain of NTS threats. It will, therefore, focus on some variations of terrorism: eco-terrorism, environmental terrorism, bio-terrorism and cyber-terrorism. In doing so, it uses the existing BRICS Counter-Terrorism Strategy (BCTS), the BRICS Action Plan and declarations on terrorism as points of departure for analysis. It proposes some plausible policy interventions before concluding by highlighting some of the challenges that BRICS may contend with as it seeks to harmonise its policy framework.

BRICS and the different shades of terrorism

The compound effect of NTS threats varies depending on the level at which they are considered. At a macro level, such threats are lumped together, and their effects are analysed in an aggregated manner. Only when these are disaggregated into the various types or shades, at a micro level, is the compound effect better contextualised. A typical example of this scenario is terrorism, which, at a macro level, is conceptually considered a traditional threat to security, but at a micro level, it is classified as an NTS threat. The latter scenario stems from the numerous variations of terrorism, which were not necessarily common in the past. Even the United Nations General Assembly Resolution 60/288 of 2006 on the UN Global Counter-Terrorism Strategy recognised these variations as it stated, inter alia, that:

... acts, methods, and practices of terrorism in all its forms and manifestations

are activities aimed at the destruction of human rights, fundamental freedoms and democracy, threatening territorial integrity, security of States and destabilising legitimately constituted Governments, and that the international community should take the necessary steps to enhance cooperation to prevent and combat terrorism. (UN General Assembly Resolution 60/288, 2006)

This section spotlights some micro-level forms of terrorism: environmental terrorism, eco-terrorism, bio-terrorism, and cyber-terrorism. BRICS countries are particularly susceptible to these threats, given their vast natural resources and the re-emergence of the Cold War-era international system.

Environmental terrorism and eco-terrorism

The environment has increasingly been used in various capacities for political and ideological purposes. The military would generally use the environment for tactical advantage, but terrorists use it as a weapon or shield for protection. This is where the distinction between eco-terrorism and environmental terrorism becomes essential. While these concepts are sometimes used synonymously or interchangeably, they are conceptually different even though the environment is the common platform for perpetrating terrorist acts. Environmental terrorists destroy the infrastructure that seeks to preserve the environment to achieve political objectives that are not related to the environment. The attack on the environment disrupts human and animal lives, thus forcing mass migration of villagers and farmers with a potential for creating ungoverned spaces or areas where government does not have control, which would incrementally make such a state fragile (Zyla and Cassin, 2023). They do not have any appreciation for the environment and would have no qualms about destroying environmental infrastructure. Such infrastructure would include dams, agricultural infrastructure, ecosystems, and even mineral and oil infrastructure (Chalecki, 2024).

Eco-terrorism, unlike environmental terrorism, is driven by the desire to protect the environment at all costs. Perpetrators of this form of terrorism would destroy any infrastructure that is

deemed to be disturbing or harming the environment, regardless of the economic or developmental impact such infrastructure may have on the people or the country. Their destructive acts are not motivated by political ideology but by environmental protectionism and their fight against excessive human greed. Some of the targets in this category would be human settlements in environmentally sensitive areas, car manufacturers that produce cars that consume copious petrol and pollute the air, and agricultural structures that seem to affect the environment (Chalecki, 2024).

It is, thus, evident that both environmental terrorists and eco-terrorists are prepared to perpetrate terrorist acts

countries for relying on Russian gas (Plucinska, 2022). However, on 14 August 2024, Germany issued an arrest warrant for a Ukrainian man suspected of planning and executing the Nord Stream sabotage (News Wires/AFP, 2024).

Bioterrorism

The one variation of terrorism that seems to be the most daunting and the most difficult to manage is bioterrorism. It can be used as a tool during warfare—also called biowarfare—or it can be used in conjunction with other criminal activities or biocrime. While biocrime perpetrators use pathogenic materials to kill or maim people for revenge or financial benefit, bioterrorists

“The significance of a coordinated, if not synchronised, approach to NTS threats stems from the fact that they cannot necessarily be addressed through military prowess, nor can they be dealt with by any single country or entity.”

which harm the everyday way of life—with the environment as a central issue. It is also important to note that both state and non-state actors may be involved in the perpetration of terrorism in the environmental sphere. For instance, during the First Gulf War of 1990, the retreating Iraqi forces released large amounts of Kuwait oil into the waters of Saudi Arabia and burnt 700 oil fields in Kuwait, which lasted for almost ten months (Alexander, 2000). Another typical example of terrorism affecting the environment was the sabotage of the Nord Stream gas pipelines (Nord Stream 1 and Nord Stream 2) on 26 and 27 September 2022. These gas pipelines were used to supply gas from Russia to European countries like Germany. This occurred when Russia was engaged in its ‘Special Operation’ against Ukraine, and the United States was vociferous in its criticism of European

have different motivations. Bioterrorism is generally defined as the intentional release of biological agents or toxins to harm or kill humans, animals or plants. This intends to intimidate or coerce a government or civilian population to further political or social objectives. Its impact is not necessarily measured in the number of casualties but in the extent of panic generated among the population and the disruption of everyday social life in its aftermath. The economic costs associated with managing and rehabilitating the infected environment may far exceed the number of fatalities or injuries (Jansen *et al.*, 2014).

Between 1981 and 2018, there were 37 incidents of bioterrorism on record globally (Rathjen and Shahbodaghi, 2021). The use of biological agents or toxins as a weapon (biological weapons or bioweapons) is prohibited in terms of the Biological and Toxin Weapons Convention (BWC) of

1972. Bioweapons (also known as ‘a poor man’s atomic bomb’) are classified as part of the weapons of mass destruction, together with chemical and nuclear weapons. When terrorists gain possession of such weapons, it poses serious threats not only to the target country but it could affect neighbouring countries as well. The relative ease of making and accessing bioweapons, coupled with their level of lethality and their indiscriminate nature, makes bioweapons one of the most challenging security threats facing humanity today (Oliveira *et al.*, 2020).

As of August 2024, all the BRICS

and animals and preventing disease from spreading in various food sources. Regrettably, scientists could use the same expertise to prosper from selling bio-products or bioweapons to terrorists (Priyadharshini and Patchainayagi, 2022). Particular attention should be given to toxins susceptible to bioterrorist activity, such as botulinum neurotoxins, saxitoxin and ricin (Dorner *et al.*, 2016). It is, therefore, self-evident that all practical steps must be taken to prevent bioterrorists from intentional and accidental access to pathogenic materials.

actors, targets, intent and desired effects as contemplated by cyber-terrorists. As an NTS threat, cyber-terrorism defies the size of the country’s hard and soft power assets, including military and economic prowess. It can be perpetrated even by actors not directly linked to government but pursuing a particular agenda that perpetuates the government’s narrative or end goal.

The advent of artificial intelligence (AI) and its ubiquitous accessibility in devices generally used in our daily lives have compounded the efforts to combat and mitigate the incidence and effects of terrorism. Through AI, terrorists can communicate, propagate, teach and learn terrorist propaganda and methods of committing terrorist acts. Using platforms such as ChatGPT, terrorists can learn how to mix certain materials to make explosive compounds such as TNT or RDX or access a step-by-step account on how to make a bomb. The same applies to generating fake audio-visual material or incidents for propaganda effect. This implies that the barriers to accessing potentially dangerous information have become too low (Lakomy, 2023).

“Technological advancements (especially biotechnology and bioengineering) and global interconnectedness are a two-edged sword. They enable knowledge transfer and better detection and management.”

countries except Egypt are states-parties of the BWC. Most of the BRICS countries (China, Russia, South Africa, Egypt and Iran) have a history of possessing a bioweapons programme (Khanyile, 2022). There is speculation among the Western countries that most of these BRICS countries continue to harbour biological weapons despite the prohibition by the BWC on stockpiling or development of such weapons. Notably, Article X of the BWC permits states to keep and utilise bacteriological agents for peaceful purposes. This includes research for disease prevention and control.

Technological advancements (especially biotechnology and bioengineering) and global interconnectedness are a two-edged sword. They enable knowledge transfer and better detection and management. However, they equally increase the spread and variety of pathogenic materials, thus making it difficult to exercise control over them (Tournier *et al.*, 2019; Michalski *et al.*, 2022). Agricultural biotechnology, for instance, is instrumental in modifying the genetic makeup of some crops, plants,

Cyber-terrorism

Technology is both an enabler, a tool, and a platform for terrorism, where technological terrorism or cyber-terrorism is perpetrated in the latter two forms. Cyber-terrorism, as a relatively new form of terrorism in this category of NTS threats, poses one of the greatest threats to humanity in general and the BRICS countries in particular. Even the World Economic Forum’s Global Risk Report identified cyber insecurity as one of the significant risks that was deteriorating into the future (World Economic Forum, 2024).

Cyber-terrorism has been defined in a variety of ways, ranging from such definitions as ‘the convergence of cybernetics and terrorism’ by Barry C. Collin to ‘the premeditated attack or threat thereof by non-state actors with the intent to use cyberspace to cause real-world consequences to induce fear or coerce civilian, government, or non-government targets in pursuit of social or ideological objectives’ (Plotnek and Slay, 2021). The critical elements in the definitional variations include diversity in

Nature of Terrorist Attacks in BRICS Countries

BRICS countries have had their share of terrorist activities in their territories. No BRICS country has witnessed a biological attack on home soil, except for Russia, which had a terrorist attack in September 2018 where a biological agent was used. As illustrated in Table 1, India has had 15 chemical-based terrorist attacks, which equalled the total number of similar attacks amongst all other BRICS nations. Explosives and firearms remain the weapons of choice for all terrorist attacks in BRICS countries, with India, Egypt and Russia suffering the most attacks during the period under review. In the statistical analysis of the correlation between the terrorist incidents and foreign direct investment (FDI) within BRICS, it was concluded that these attacks have indeed negatively impacted the inflow of FDI into BRICS countries (Ndzendze, 2020).

Harmonisation of policy work

There is an urgent need for a harmonising policy framework on NTS threats within the BRICS countries. Once agreed upon, various policies or protocols must be domesticated in individual countries for

Table 1: Terrorist Attacks in BRICS Countries by Weapon Type, 1970 - 2020

BRICS Member Country	Period	Biological Agent	Chemical Agents	Explosives	Firearms
Brazil	1970 - 2020	0	1	79	127
Russia	1991 - 2020	1	8	1 323	892
India	1990 - 2020	0	15	6 153	5 792
China	1985 - 2020	0	4	177	3
South Africa	1975 - 2020	0	1	989	729
Egypt	1985 - 2020	0	0	1 401	1 154
Ethiopia	1970 - 2020	0	0	104	114
Iran	1970 - 2020	0	1	378	240
United Arab Emirates	1970 - 2020	0	0	13	4

Compiled from the Global Terrorism Database (<https://www.start.umd.edu/gtd/>)

effective implementation. Some glaring protocols that should be in scope include but are not limited to a protocol on NTS threats focusing specifically on terrorism and artificial intelligence, among others. Regional organisations such as the European Union (EU) have adopted a similar approach where an overarching framework is provided, and individual member countries can customise it to suit their national settings. The BRICS has already started with the initial stages of such harmonisation by adopting the BRICS Counter-Terrorism Strategy (BCTS) and the associated Action Plan in 2020 and 2021, respectively.

The BCTS recognises the existence of multiple forms and manifestations of terrorism without enumerating them individually. It further states that terrorism is ‘one of the most serious threats to international peace and security’ (BRICS, 2020). The strategy is anchored on principles which emphasise, inter alia, the total rejection of terrorism as a form of political expression, the sovereign rights of individual states to pursue their approaches to dealing with terrorism, the sharing of information and alignment with the collective efforts of the United Nations, the Group of Twenty (G-20), regional organisations and the Financial Action Task Force (FATF).

The strategy calls on BRICS member countries to collaborate to support finalising and adopting the draft Comprehensive Convention on International Terrorism

(CCIT) (BRICS, 2020). The draft CCIT was initiated, drafted, and sponsored by India and deposited into the UN in 2000. It has been in the pipeline for consideration by individual states since then, but it has not yet secured sufficient signatories to come into force. India proposed the CCIT after realising that counter-terrorism measures were fragmented into numerous issue-based conventions, such as the International Convention on the Suppression of Terrorist Bombings of 1997 and the International Convention on the Suppression of Financing of Terrorism of 1999.

To facilitate the implementation of the BCTS, BRICS appointed a Counter-Terrorism Working Group (CTWG) tasked with developing an Action Plan. The CTWG came up with a 10-point Action Plan focusing on combating terrorism, preventing and countering radicalisation, online terrorist threats, terrorism financing, curbing travel of terrorists, border management, capacity building, protecting soft targets, intelligence sharing, and ensuring international and regional cooperation (BRICS, 2021).

Implementation of the Action Plan

Given the existence of both strategy and the action plan for counter-terrorism, the next step is implementation. In this regard, the Action Plan calls on member states to advance proposals and activities that would assist with implementing the BCTS. Some of these initiatives could include, but are not limited to, the following:

1. Extradition arrangements:

Member countries would have to align their extradition and/or mutual legal assistance (MLA) treaties to give effect to obligations to people suspected or convicted of terrorist activities. This could be done bilaterally or on a BRICS-wide basis. The latter would be like the Council of Europe’s Convention on Extradition of 1957 and the African Convention on Extradition of 2001. An organisation-wide approach has the advantage of reasonable simplicity and predictability, but it may be complicated by national constitutional restrictions such as the prohibition of the death penalty, which is applicable in some countries. The bilateral approach is the most common in the international system. South Africa has extradition and MLA arrangements with most of the BRICS countries, as indicated in Table 2.

2. Information and intelligence sharing mechanism:

This requires aligning resources, processes, and platforms, irrespective of diverse domestic laws and regulations regarding intelligence matters. A central point that receives and processes intelligence inputs and converts such to intelligence could be a good start. Alternatively, such a central point could be a database platform that serves as a reference point where intelligence inputs from various countries could be uploaded and accessible to authorised personnel within each country. A typical example of such a platform is

Table 2: Status of Extradition and Mutual Legal Assistance between South Africa and the BRICS Countries

Extradition	Mutual Legal Assistance (MLA)
In Force	In Force
Argentina, 2017	Argentina, 2015
China, 2004	China, 2004
Egypt, 2003	Egypt, 2003
India, 2005	India, 2005
United Arab Emirates (UAE), 2022	
Still under negotiation	Still under negotiation
Brazil	Brazil
Ethiopia	Ethiopia
Signed but not yet ratified	Signed but not yet ratified
Iran	Iran

Source: Adapted from the South African Department of Justice and Constitutional Development (<https://www.justice.gov.za/ilr/mla.html>)

the West Africa Police Information System (WAPIS), which INTERPOL introduced in West Africa to share and exchange information on criminal activities in that region. This could be augmented with participation in the INTERPOL's data exchange system, called Mi-LEX, which enables the exchange of data in real time between the military and the law enforcement agencies of participating countries (INTERPOL, n.d.). What may complicate or slow down the process is that BRICS still does not have an overarching mechanism for dealing with peace and security matters. It is primarily geared towards socio-economic matters (Ndzendze, 2022).

3. Anti-money laundering and counter-terrorism financing (AML/CTF):

This is the area where the BRICS could make a significant impact in its counter-terrorism efforts. There is a substantial nexus between intelligence sharing and extradition. It requires active participation in global and regional AML/CTF structures such as the Financial Action Task Force (FATF), the Eurasian Group (EAG), and the Eastern and Southern Africa Anti-Money Laundering Group (ESAAMLG). Even though some of these structures, such as FATF, are susceptible to geopolitical influences, they play a critical role in

keeping AML and CTF entities at bay.

4. Capacity building initiatives:

Several training programmes inspired by the BRICS values would need to be developed and rolled out among member countries, especially targeting officials manning BRICS institutions. Online and face-to-face workshops and conferences on counter-terrorism also add value to capacity building.

Factors that could hamper policy harmonisation

The exercise of harmonising the policies could be hampered, if not slowed down, by several factors, including:

1. Budgetary constraint and involvement in large-scale conflicts.
2. Requisite consultations must occur with other regional organisations where BRICS member countries have concurrent membership. For instance, South Africa would have to align with the African Union's Protocol to the Organisation of African Unity (OAU) *Convention on the Prevention and Combating of Terrorism* of 2004; Brazil will have to clear it with the Mercosur, while China, India, Iran and Russia will have to reach consensus at least within the Shanghai Security Organisation. Another factor could be BRICS's worldview, guided by geopolitical contestations with the West.

While such protocols would have to be aligned with the UN's positions, most of these positions are heavily influenced by the West's notion of what entails international law, all of which may complicate global consensus and implementation. Nevertheless, the UN Security Council's Resolution 1373/2001 remains relevant where it calls on all states to 'cooperate, particularly through bilateral and multilateral arrangements and agreements, to prevent and suppress terrorist attacks and take action against perpetrators of such acts' (UNSC, 2001).

Conclusion

It is undeniably self-evident that terrorism-related NTS threats are increasing in number, complexity and intensity, and the means and resources required to counter them are becoming equally more complicated and costly. Given the transnational nature of these threats, it is imperative that BRICS provides a comprehensive set of protocols that would guide its members sooner rather than later, especially given the possibility of increased membership in the future. Protocols pertaining to counter-terrorism and artificial intelligence should be a top priority, as these have the potential to undo and reverse the gains that BRICS countries have achieved since their inception. Adopting the BCTS

and its Action Plan has set the BRICS on the path towards achieving the end goal of a harmonised counter-terrorism policy framework. However, given that these are not necessarily binding, as would protocols, more efforts should be made in capacity-building programmes that are aligned and/or inspired by the emerging BRICS values and worldview. **BR**

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Achieving a Just Transition: Insights from South Africa for the BRICS

MR ALEX BENKENSTEIN

Programme Head, Climate and Natural Resources Programme, South African Institute of International Affairs



Introduction

Climate change threatens economies and communities worldwide, but developing countries are particularly vulnerable to its impacts. Developing countries lack the resources to effectively adapt to climate change or recover from climate-related loss

and damage. At the same time, these countries face pressing developmental challenges, framed in South Africa as the ‘triple challenge’ of poverty, inequality and unemployment. The BRICS Summit under the South African presidency in 2023 affirmed the urgency of responding to climate change in the Johannesburg II Declaration, noting that BRICS countries “agree that there is a need to defend, promote and strengthen the multilateral response to climate change” (Government of South Africa, 2023).

This policy brief does not attempt to fully outline current action under the BRICS on energy and climate. Instead, it presents some key framing recommendations that may contribute to cooperation under the Road Map for BRICS Energy Cooperation and inform thinking as this roadmap is updated beyond its current 2020-2025 timeframe. The briefing suggests framing BRICS energy and climate action within three pillars: cooperation among BRICS members, the contribution of the BRICS to other multilateral processes, and partnerships between the BRICS and non-BRICS countries. It is argued that critical minerals governance and value chain issues should be integrated more meaningfully into the BRICS agenda.

A Just Energy Transition in Context

Shifting from a high-emission, resource-intensive global economy to a low-emission, regenerative and sustainable economy will be one of the most dramatic and encompassing transitions that humanity has navigated. Adding to this moment's complexity is that economies and communities face multiple, nested transitions. These transitions include technology (most prominently, but not exclusively, in the area of artificial intelligence), demographics, the nature of work, and skills. Moreover, this shift must play out in a broader geo-economic transition shaped by the dramatic rise in the economic power of the BRICS and Global South countries more broadly.

While the BRICS still trails the G7 in terms of nominal GDP and GDP per capita, the BRICS has overtaken the G7 in terms of GDP in purchasing power parity and has shown dramatic economic dynamism. From 1990 to 2022, the average annual growth of per capita GDP in the G7 was 1.5%; in the BRICS, however, this growth stood at 4.5% (Gylfason, 2023). These shifting realities affect the international system, institutions, and global supply chains.

This shift in economic power and dynamism has not reached all—as noted above, the BRICS countries continue to face significant challenges related to inclusive growth and employment, a challenge even more acute in other Global South countries. In this push for inclusive growth, energy is a central concern. In 2022, the entire African continent's installed energy generation capacity stood at 245 gigawatts (GW), about the same as Germany's (African Development Bank, 2023). About 43% of Africa's population does not have access to electricity; framed another way, Africa accounts for three out of every four people globally without access to electricity (International Energy Agency, 2022).

This broader context of the energy transition—technology, demographics, the nature of work, skills, geo-economic shifts, and the pressure to secure inclusive growth—underscores the urgency of ensuring that the energy transition is just. The concept of a 'just transition' has rapidly gained traction in global policy circles. In

2023, a just transition work programme was established under the United Arab Emirates Presidency of the United Nations Framework Convention on Climate Change (UNFCCC) Conference of the Parties.

The International Labour Organisation (ILO) has defined the just transition as “greening the economy in a way that is as fair and inclusive as possible to everyone concerned, creating decent work opportunities and leaving no one behind” (ILO, 2024). South Africa has long been an advocate for a just transition, both in terms of navigating its domestic energy policy and climate response, as well as in advocating for this issue within global policy forums. As far back as 2011, the South Africa National Climate Change Response White Paper called for “an effective climate change response and the long-term just transition to a climate-resilient and lower-carbon

be concentrated in different parts of the country. It is, therefore, not surprising that South Africa, at an early stage, recognised the importance of focusing on justice in domestic and international engagements around the energy transition.

South Africa's high unemployment and extreme inequality have meant that the concept of a just transition has remained highly contested, but the country provides a lesson in how it has sought to engage in a society-wide dialogue to achieve a common framing of the term. This process accelerated with the establishment of the Presidential Climate Commission in 2020, which then facilitated the development of a Just Transition Framework, published in 2022. The Just Transition Framework provides an expansive definition of the just transition, focusing not only on affected workers but highlighting numerous vulnerable groups, including the poor,

“BRICS countries agree that there is a need to defend, promote and strengthen the multilateral response to climate change.”

economy and society” (Government of South Africa, 2011).

South Africa has high per capita emissions from extensive reliance on coal-powered energy generation. Coal is an important export product essential to South Africa's energy mix (coal-fired power stations generate 85% of South Africa's electricity). About 120,000 workers are employed in South Africa's coal mines, coal power plants and coal transport, but the number of impacted citizens expands significantly when dependents and related industries are considered. Securing new employment opportunities for workers in South Africa's coal mining and coal-based energy generation system is a daunting challenge for the country, not only because job opportunities in renewable energy and other green industries may require different skill sets but also because these jobs may

women, people with disabilities, and the youth. Crucially, it also speaks to justice regarding outcomes and processes by insisting that “a just transition puts people at the centre of decision making”.

Definition of Just Transition within South Africa's Just Transition Framework:

A just transition aims to achieve a quality life for all South Africans, in the context of increasing the ability to adapt to the adverse impacts of climate, fostering climate resilience, and reaching net-zero greenhouse gas emissions by 2050, in line with best available science.

A just transition contributes to the goals of decent work for all, social inclusion, and the eradication of poverty.

A just transition puts people at the centre of decision-making, especially those most impacted, the poor, women, people with disabilities, and the youth—empowering

and equipping them for new opportunities of the future.

A just transition builds the resilience of the economy and people through affordable, decentralised, diversely owned renewable energy systems; conservation of natural resources; equitable access of water resources; an environment that is not harmful to one's health and well-being; and sustainable, equitable, inclusive land-use for all, especially for the most vulnerable. (Presidential Climate Commission, 2022)

Justice and Geo-Economic Competition: Who benefits?

Africa is responsible for less than 4% of historical greenhouse gas emissions, yet it is particularly vulnerable to climate change impacts. These historical and global dimensions must be considered when considering a just transition in Africa and other developing regions. The concept of

geo-economic factors are also increasingly coming into play. Countries that lead in the energy transition also position themselves strategically for innovation, job creation, manufacturing growth and investment. The obvious example is China, which has come to dominate green technology supply chains in recent decades, whether that be in solar power (China's share in all the manufacturing stages of solar panels exceeds 80%), battery manufacture (China's share in lithium-ion battery manufacture also exceeds 80%) or e-vehicles (China accounts for almost 60% of all e-vehicles sold). Whereas in years past, the geoeconomic narrative in many centres was that promoting green industries and addressing climate change would make countries *less* competitive, it is now far more common to hear anxiety expressed about the risk of falling behind in the race to lead the green transition and capture the benefits

lose out on countless jobs for the American people" (US Department of State, 2021). Similar concerns about falling behind were prominent in French President Emmanuel Macron's speech at the Sorbonne in April 2024 in his review of Europe's economic and geopolitical position (Élysée, 2024).

In certain respects, this competition can support an accelerated transition by driving investments, innovation, research and subsidies to support green technology development. These factors should drive down costs, ultimately making green technologies more competitive against traditional, high-emission technologies. Yet countervailing pressures also arise from this competition—tariffs and other trade policy measures being used to shore up domestic industries will mean that market access of least cost producers (in most cases China) is encumbered. Countries may then find that they succeed in promoting domestic production, but at a cost that makes these products less competitive against traditional technologies, thereby slowing the pace of the energy transition. There is a broader risk, recalling the much-quoted African proverb "When elephants fight, it is the grass that suffers", that countries in the Global South, including BRICS members, become further marginalised in their efforts to promote growth, job creation and industrialisation as competition between major global powers intensifies.

An area of particular concern in this growing global competition around green technology innovation and manufacturing is securing access to the needed raw materials. Manufacturing batteries, solar panels and other green technologies require a range of mineral inputs that have collectively come to be referred to as 'critical', 'transition' or 'green' minerals. These minerals are crucial to green industries and have limited and/or highly concentrated supply. The International Energy Agency (2024) has forecasted that the demand for critical minerals such as lithium, cobalt, copper, and graphite needed for clean energy technologies could nearly triple by 2030 and quadruple by 2040. As with green technologies further up the value chain, China has moved strategically over the past two decades to secure access to these minerals and build up processing capacity. For example,

“BRICS countries will play a central role in the global energy transition, given their essential role in energy production, their possession of a significant share of global energy reserves”

a just transition stems from recognising that a comprehensive technological-economic shift towards low-emissions systems will hold costs for individuals, communities and societies. The capacity to adapt to these shifts differs, and without intervention, the burden will fall heaviest on the most vulnerable. Promoting a just transition, therefore, requires not simply the development of new opportunities, for example, in growth sectors such as green technology, but also in providing short-term social protection and, in the longer term, skills development and other forms of support to empower those affected to take advantage of emerging opportunities.

As countries grapple with the implications of this process for domestic economies and political dynamics, global

of investment, innovation and jobs that such leadership brings.

The race for dominance of green technology value chains has become increasingly apparent in rhetoric and policy, exemplified by the Inflation Reduction Act in the United States and the European Green Deal, but even more explicit in the emerging trade war between the United States and China regarding e-vehicles and other green technologies (WhiteHouse. Gov, 2024). In 2021, the United States Secretary of State, Antony Blinken, spoke frankly of the need for the United States to catch up to China's dominant role in green technologies, warning that otherwise, "America will miss the chance to shape the world's climate future in a way that reflects our interests and values, and ...

approximately 70% of cobalt production takes place in the Democratic Republic of Congo, and 70% of cobalt processing takes place in China. China processes a similar share of the world's lithium, 75% of the world's graphite, and about 90% of the world's rare earth elements. Through policy interventions such as the American Battery Materials Initiative, the Mineral Security Partnership and the EU Critical Raw Materials Act, the US, EU, and other economic powers have clearly intended to challenge China's dominance in critical mineral value chains. President Biden's 2022 comments on this matter are illustrative when he said that "we can't build a future that's made in America if we ourselves are dependent on China for the materials that power the products of today and tomorrow" (WhiteHouse.Gov, 2022).

Rising geopolitical competition also holds both risk and opportunity for the developing world. A significant share of critical mineral reserves is found in developing regions. The Democratic Republic of Congo's dominant share of cobalt reserves has already been mentioned—in total, Africa holds about 30% of the world's critical mineral reserves. South America is another important actor, with more than half of global lithium reserves shared between Argentina, Bolivia and Chile. Developing regions are ambitious to move up green technology value chains by processing their critical minerals domestically and using them as inputs for green industrialisation efforts. Geopolitical competition for access to these resources may undermine these efforts, but if developing regions negotiate strategically, they are better positioned to secure support for their agendas. Early signs of such engagement lie in US support for a cooperative agreement between Zambia and the Democratic Republic of Congo to develop battery manufacturing capacity and China's investment in critical minerals processing (primarily lithium) in Zimbabwe. It is noteworthy, however, that most of the value-addition partnerships touted by prominent external actors have, up to the present day, focused on just the very first stages of the value chain, processing ore into concentrates, which are ultimately destined for export to serve green technology production within their economies.



The challenges related to critical minerals lie in whether mineral processing and green manufacturing jobs are created domestically rather than abroad and in the governance of mineral extraction processes. Africa and other developing regions have long experienced the negative consequences of poorly governed extractive industry activities, as attested by the extended literature on conflict minerals and the 'resource curse' (Kapoor *et al.*, 2022). The extraction of mineral resources in areas such as the eastern Democratic Republic of the

Congo has been associated with conflict, child labour, gender-based violence and other human rights concerns (Baumann-Pauly, 2023). The recent outcome of the UN Panel on Critical Energy Transition Minerals (United Nations, 2024) provides a framework for multilateral responses to the numerous geopolitical and governance challenges related to critical mineral exploitation. The BRICS should explore opportunities to further engage on these issues within the bloc and through broader multilateral processes. Given China's

dominant role in critical mineral mining operations, including areas such as the Democratic Republic of Congo, as well as in green technology value chains that make use of these minerals, China, in particular, should show leadership in advancing an equitable, inclusive approach to critical mineral value chains that meaningfully engages with associated governance challenges.

Recommendations for the BRICS Agenda on Energy and Climate Cooperation

The abovementioned context of nested transitions and rising geopolitical competition should inform engagement on the BRICS energy and climate cooperation agenda. BRICS countries will play a central role in the global energy transition, given their essential role in energy production, their possession of a significant share of global energy reserves and potential (both fossil fuels and renewable energy potential), and their existing role in green technology value chains (particularly China's global dominance in this regard). This is even more true following the expansion of the BRICS group.

Significant steps have already been taken, including establishing the BRICS Energy Research Cooperation Platform under South Africa's chairing in 2018 and adopting the Road Map for BRICS Energy Cooperation in 2020. With South Africa again chairing the BRICS in 2023, further advances were made. The South African Chapter of the BRICS Business Council announced plans to work towards establishing an African Centre of Excellence on the Just Transition, which will collaborate with African partners and BRICS countries on the just energy transition. This initiative will be supported by work on transforming education and skills development, focusing on energy skills.

A helpful framework for BRICS climate and energy action is considering three arenas for cooperation:

1. Cooperation between BRICS countries

The Much focus has been placed on this area. It considers areas such as joint research, knowledge exchange, technology transfer, financing and technical partnerships.

2. The role the BRICS can collectively

play in shaping global policy processes and institutions.

Notably, the BRICS has continued to affirm a commitment to multilateral responses to the threat of climate change, underlining the centrality of the UNFCCC in this regard and the importance of core principles agreed under the UNFCCC, such as acknowledging common but differentiated responsibilities and respective capabilities in global climate responses. A notable outcome of the first African Climate Summit, hosted by Kenya in 2023, was the framing of the climate finance agenda within a broader process of international financial architecture reform—this, too, is a framing that could underpin fruitful engagement by the BRICS in the international system.

3. Partnership between the BRICS and non-BRICS countries and regions.

Such collaboration would extend beyond the cooperation efforts driven at the individual country level through platforms such as the Forum on China-Africa Cooperation or the India-Africa Forum Summit to leverage and reinforce BRICS institutional collaboration. The BRICS African Centre of Excellence on the Just Transition initiated under the 2023 South African chairing of the BRICS, which envisions close cooperation with centres across Africa, illustrates this form of collaboration. Such engagement can help to address some of the risks associated with the green technology competition outlined above and support the BRICS in its efforts to shape global policy processes and institutions.

Energy cooperation through platforms such as the BRICS Energy Research Cooperation Platform and the Centre of Excellence on the Just Transition should focus on accelerating the transition based on enhanced innovation, cooperation, and investment. An approach based on growth and investment will be welcomed by partners in the Global South and help address the perception of a trade-off between climate action and economic dynamism. Innovation, cooperation, and investment can help drive down costs and address barriers that hamper the adoption and expansion of renewable energy technologies. This is by no

means a simple path, as the ambitions of Global South countries (including some BRICS members) to develop their green technology value chains must be respected and supported. Currently, the least-cost option typically lies in importing batteries, solar panels, e-vehicles and other green technologies. However, entrenching these patterns goes against the stated ambitions of Global South countries and regions. There is considerable potential to expand the BRICS cooperation between its members and between the BRICS and other Global South partners in building up competitive domestic green technology industries, also recognising the importance of regional value chains to support scale and efficiency. A crucial part of such collaboration would be engagement on critical mineral value chains. Notably, the 14th BRICS Trade Ministers Meeting convened in July 2024 called for the establishment of:

A regular dialogue on critical and non-critical minerals and other raw materials and their extraction and processing technologies with the aim to ensure the resilience of trade flows and value addition close to source, as well as consider mechanisms to maintain an open, inclusive and fair trade of mineral resources among BRICS Members (DTIC, 2024).

The domestic processing of critical minerals and building linkages with green industrialisation and jobs are clear priorities for the African region. The BRICS should explore ways its institutions and processes can support these ambitions regarding technical cooperation, skills development, financing and investment. This cannot be only at the level of refining ore to concentrate for processing but must work towards deeper collaboration further up the value chain. One of the critical constraints to domestic minerals processing has been inadequate and/or unreliable energy supply—energy cooperation is, therefore, directly connected with cooperation in critical mineral value chains and should be approached in an integrated manner.

As the energy transition accelerates, questions around waste management, recycling and other circular economy dimensions related to green technology are becoming more pressing. It has been estimated that about 8 million metric tons of decommissioned solar panels

could accumulate globally by 2030, while battery production will increase sevenfold (Crownhart, 2021). Efforts to reduce waste, promote resource efficiency, and support reuse and recycling will be crucial to a sustainable energy transition. The BRICS can also address immediate concerns by collaborating extensively on pollution management and environmental degradation, as proposed through a BRICS Clean City Air Initiative.

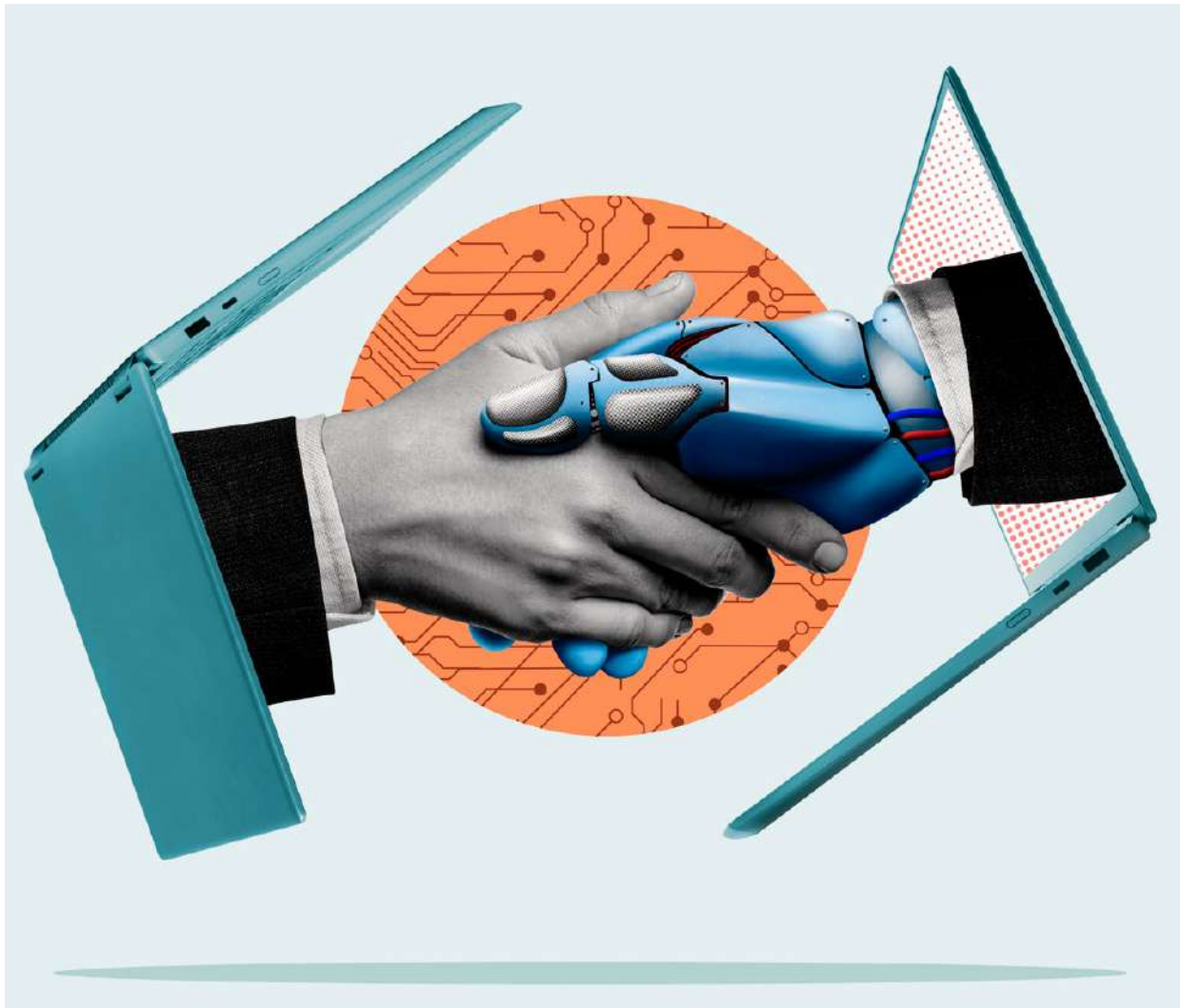
An important area where the BRICS can promote peer learning is establishing institutions and processes to support a societal dialogue on the just transition. Such a dialogue process must include communities, actors across various private sectors, and other stakeholders. South Africa's experience through the Presidential Climate Commission, Just Transition Framework and Just Energy Transition Investment Plan is a valuable example of how such a national debate, even when highly contested, can be navigated to support buy-in and collaboration. Of course, unique national circumstances must be respected, but valuable lessons are being learned as governments engage with their citizens around these problematic issues and sharing these lessons can help build momentum and support social cohesion in a meaningful way. Such efforts should be driven through the newly established BRICS African Centre of Excellence on the Just Transition.

Conclusion

With its recent expansion, the BRICS has embarked on a significant new era in fostering collaboration and knowledge exchange. In 2025, BRICS member countries will hold the presidencies of the UNFCCC COP30 (Brazil) and the G20 (South Africa). There is no doubt that the climate and energy agenda will continue to be high on the global agenda, but the degree to which this political prioritisation translates into meaningful change will depend on the ability of countries to forge partnerships based on mutual respect and benefit. Both within its processes and its engagement with other forums, the BRICS should deepen climate and energy cooperation, thereby playing a pivotal role in supporting a just energy transition. **BR**

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A Public BRICS AI Strategy Promoting Scientific and Educational Cooperation

MR KRISH CHETTY

Human Sciences Research Council



Background

In 2024, under the Russian chairship, the BRICS alliance continues to prioritise scientific and educational cooperation as a cornerstone for collective progress and innovation (BRICS-Russia, 2024). Due to rapid technological advancements, the need for a cohesive

strategy that leverages Artificial Intelligence (AI) to strengthen such cooperation has become increasingly apparent. Launching a BRICS ePlatform or Databank for knowledge exchange has long been touted as an essential enabler of cooperation (South African Government News Agency, 2013). AI offers a promising path to promote cooperation, knowledge sharing and innovation promotion, serving as a powerful tool to analyse vast amounts of data, identify patterns, and generate insights that can accelerate research and development across various fields (Pai *et al.*, 2022; Su *et al.*, 2023) procedures, comparisons, outcomes (PICO. This technology can provide the platform for the 2013 vision of the BRICS Databank.

Connecting the diverse stakeholders

in the innovation pipeline is essential to scientific and educational cooperation within the BRICS (see Figure 1). This collaborative approach is critical for fostering innovation, addressing common challenges, and driving economic growth across member nations. The pipeline includes representatives from International Relations, government officials from Science and Innovation and Small Business Development departments, universities, Technical and Vocational Education and Training (TVET) institutions, incubators, accelerators, business development service providers, industry partners, and distribution networks involved in the supply chain sector. To promote practical cooperation among these stakeholders requires breaking down silos and facilitating knowledge exchange.

Figure 1 - BRICS Innovation Pipeline Stakeholders



“As the BRICS advances its AI strategy, it is essential to ensure that the proposed AI developments align with these international commitments and adhere to the existing data protection legislation and policies.”

In addition, focusing on the small business sector is essential for fostering innovation, given their agility and ability to embrace new technologies (Kohler, 2016).

Recognising the potential of AI, the BRICS announced the launching of a BRICS AI Study Group in 2023 during the Johannesburg BRICS Heads of State Summit. This initiative underscores the bloc's commitment to harnessing AI technologies for collective benefit. Chinese President Xi Jinping declared that this study group must

“fend off risks, and develop AI governance frameworks and standards with broad-based consensus, to make AI technologies more secure, reliable, controllable and equitable” (Bradshaw, 2023). This position highlights the importance of a balanced approach to AI development within the BRICS context. This statement acknowledges AI's opportunities and challenges, emphasising the need for responsible development and deployment of these technologies.

The BRICS nations have also committed to the 2019 G20 AI Principles, emphasising the ethical development of trustworthy human-centred AI (G20, 2019). These principles highlight the importance of ethical AI applications that promote transparency, accountability, and fairness. As the BRICS advances its AI strategy, it is essential to ensure that the proposed AI developments align with these international commitments and adhere to the existing data protection legislation and policies.

Implementing a comprehensive BRICS AI strategy would directly affect several existing BRICS initiatives. For instance, the BRICS Technology Transfer Network could benefit from AI-powered platforms that match technological solutions with relevant industry needs across member countries. The iBRICS Network could leverage the platform to enhance collaboration among innovation centres, while the BRICS Science, Technology, Innovation and Entrepreneurship (STIEP) Working Group could use AI tools to identify emerging

trends and prioritise research areas.

Given the opportunities to democratise access to knowledge through AI, there is a clear need for a defined AI Strategy that promotes scientific and educational cooperation among the BRICS nations. Such a strategy would not only enhance the sharing of research findings and educational resources but also facilitate the development of AI applications tailored to address the unique challenges faced by emerging economies. This policy brief outlines the core components of this strategy. By implementing such a strategy, the BRICS can position itself at the forefront of AI innovation while ensuring that the benefits of these technologies are equitably distributed among its member nations.

The Need For Public AI in the BRICS

AI will continue to shape economic growth, enable public services and impact national security (Vijayakumar, 2022; Raju and Sumalika, 2023). This has led many countries to invest heavily in public AI initiatives. A joint public AI project could offer significant advantages for the BRICS, leveraging their collective strengths to address common challenges and accelerate technological advancement.

Public AI investments have demonstrated substantial potential to enhance the efficiency and quality of public services across various sectors. As noted in China, Brazil and Turkey, in the healthcare, education and urban management sectors,

AI applications can lead to more personalised and responsive services, ultimately improving citizens' quality of life (China's State Council, 2017; Brazil Ministry of Science Technology and Innovations, 2021; Republic of Türkiye Ministry of Industry and Technology, 2021). By pooling resources and expertise, BRICS countries could develop more robust and versatile AI solutions that address the diverse needs of their populations while sharing best practices and avoiding duplication of efforts.

Moreover, investing in public AI can serve as a powerful driver of economic growth and innovation. As recognised by the United Kingdom and European Union, governments can stimulate market demand for AI solutions and foster innovation in the private sector by creating a robust AI ecosystem through public procurement and open data initiatives (European Commission, 2018; UK Secretary of State for Digital Culture Media and Sport, 2021). Similarly, India has found that this approach can create new industries, job opportunities, and enhanced productivity across various sectors of the economy (NITI Aayog, 2018). A collaborative BRICS initiative could create a larger, more dynamic market for AI solutions, attracting investment and fostering innovation on a scale that individual countries might struggle to achieve alone.

Equally important is the role of public AI investments in ensuring technological sovereignty and national security. Many countries, including China, France, and Germany, stress the importance of building indigenous AI technologies and infrastructure to reduce dependence on foreign entities and protect national interests (China's State Council, 2017; Die Bundesregierung, 2020; Artificial Intelligence Commission, 2024). A joint BRICS initiative would allow member countries to pool resources and expertise, accelerating the development of sovereign AI capabilities while sharing the costs and risks associated with such endeavours. This collaborative approach could also enhance the group's collective bargaining power in global AI governance discussions.

At the core of public AI's contribution to innovation acceleration is its ability to democratise access to advanced computational resources and vast datasets. Stanford University's Human-Centred AI programme highlights that providing

researchers and institutions access to high-performance computing infrastructure and curated datasets can bridge the gap between well-resourced private entities and a broader range of academic and public sector innovators (Ho *et al.*, 2021). This expanded access enables more diverse participants to engage in AI research and development, leading to a proliferation of novel ideas and applications that might otherwise remain unexplored.

The collaborative nature of public AI initiatives also extends to international cooperation, as emphasised in the African Union's AI strategy (African Union Development Agency, 2024a). Cross-border collaboration in AI research and development enables shared learning experiences, accelerates the adoption of best practices, and ensures that participating nations remain at the forefront of technological advancements. This international dimension of knowledge sharing is particularly relevant for BRICS nations, whose diverse experiences and challenges can produce various AI solutions applicable in multinational contexts.

A joint public AI initiative among BRICS nations presents a compelling opportunity to leverage collective strengths, address common challenges, and accelerate technological advancement. By combining their resources, expertise, and diverse perspectives, BRICS countries could develop more comprehensive and effective AI solutions that enhance public services, drive economic growth, ensure technological sovereignty, and promote inclusivity.

Leveraging Opportunities in AI and BRICS Best Practices

The feasibility of this approach is attributed to recent technological advancements and successful models in data sharing and innovation. Firstly, AI has expanded the Overton Window, redefining what is achievable in knowledge exchange. Generative AI now offers new tools to transform learning and cooperation (Adiguzel, Kaya and Cansu, 2023). Rapid advancements have led to increasingly sophisticated AI models, many of which are freely available in open-source formats, allowing organisations to adapt these models to their knowledge repositories. For instance, Yang *et al.* (2023) identified

that open-source AI repositories enhance AI accessibility by enabling researchers and practitioners to reproduce and extend AI systems. This adaption allows various users to benefit from large-scale datasets and computational power, distilling knowledge to answer relevant questions.

Secondly, the Chinese National System of Innovation offers valuable insights and best practices that can inform BRICS nations on effective data sharing and promoting exchange among academia, innovators, and businesses. Their data-sharing model facilitates a pool of common data, enabling innovators to experiment with new business ideas (Zhu and Tann, 2005). The Open Science approach in China enhances research capabilities and innovation efficiencies (Zhang *et al.*, 2023). Implementing a similar model among BRICS countries is anticipated to yield substantial benefits.

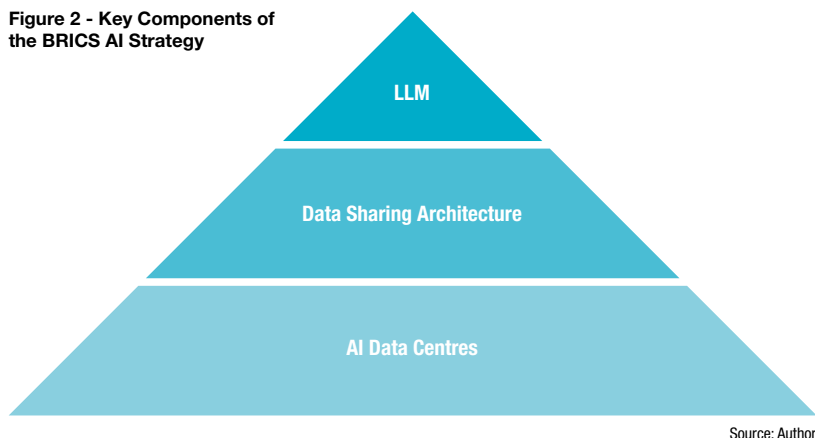
Thirdly, the India Stack series of financial applications exemplifies the potential of harnessing the collective strength of open-source software developers. The India Stack is a foundational digital public infrastructure that supports inclusive economic growth in the finance sector (Alonso *et al.*, 2023). India's journey in applying open-source tools to offer affordable financial services to the public offers several best practices for the BRICS to consider.

Lastly, integrating the wealth of untapped research into AI models would make this knowledge more accessible and serve as a source of inspiration for future innovation, thereby promoting the transformation of research into tangible products and services. By working closely with the higher education sector, such research artefacts can be commercialised but require effective intellectual property management strategies (Mashoto, 2022) and health research institutions in Tanzania. Methods: A total of 148 respondents which included scientists, researchers and postgraduate students from 18 institutions in Tanzania returned the filled in self-administered online questionnaire (59.4% response rate).

Components of the AI Strategy

To take advantage of these opportunities, the BRICS must develop a comprehensive AI strategy that defines how it will introduce the relevant infrastructure, data-sharing architecture and Large-Language Model

Figure 2 - Key Components of the BRICS AI Strategy



“Shared AI infrastructure can facilitate the development of AI applications tailored to address the unique challenges faced by emerging economies”

(LLM) to make the data accessible to BRICS Innovation Pipelines. These components are essential for a shared BRICS AI Model focused on Scientific and Educational Cooperation (see Figure 2).

Shared Public BRICS AI Data Centres

Establishing a robust foundation for a comprehensive BRICS AI strategy necessitates investments in data centres across member countries. By hosting public data centres, BRICS nations can reduce their dependence on proprietary AI technologies, particularly when such systems can catalyse economic growth. Private companies like Google, Amazon, Meta, and Microsoft are investing hundreds of billions of dollars into AI infrastructure, recognising its immense potential (Hopf *et al.*, 2023; Chang and Chen, 2024). It is crucial for BRICS nations to collectively pool their resources and seize this opportunity to develop public AI capabilities that align with their national interests and values.

A hub-and-spoke model could be adopted that enables member countries to share access to a distributed network of data centres, fostering collaboration and resource optimisation (Ho *et al.*, 2021;

Treleven, Smietanka and Pithadia, 2022; Iyengar, 2023). The establishment of shared AI infrastructure also supports the goals of knowledge sharing and innovation promotion within the BRICS framework. As discussed by Patel *et al.* (2023), techniques like federated learning can enable collaboration across institutions without compromising data privacy or security. This approach could be particularly beneficial for BRICS nations, allowing them to leverage their collective data resources while maintaining individual sovereignty over sensitive information.

These data centres can be populated with data from BRICS countries linked to the innovation pipeline, creating a rich AI development and application ecosystem. As highlighted by the European Commission, government investment in this infrastructure will provide affordable access to AI services (European Commission, 2018). Addressing the inaccessibility of premium, privately owned AI models that often impede emerging innovators is crucial. This approach aligns with India's goal to democratise access to AI resources and foster innovation across various sectors of the economy (NITI Aayog, 2018).

A people-first approach to public infrastructure will help accelerate innovation and ensure each country maintains control over a critical economic growth and innovation driver. This aligns with the concept of sovereign AI for the United Kingdom (UK), as discussed by Girolami and Wooldridge (2023). They emphasise the importance of maintaining national control over AI technologies to protect economic interests and enhance technological independence. The argument for the UK has similar relevance to the BRICS.

Moreover, shared AI infrastructure can facilitate the development of AI applications tailored to address the unique challenges faced by emerging economies. This approach aligns with the vision outlined by the African Union, which emphasises the importance of developing AI solutions that are inclusive and adaptable to various developmental stages and cultural settings (African Union Development Agency, 2024b).

BRICS Data Sharing Platform

The need for a shared data platform across BRICS nations is becoming increasingly evident as these countries seek to harness the collective power of their data resources to drive innovation and economic growth. To fully leverage the potential of collective data across BRICS nations and accelerate discovery and innovation, the establishment of a BRICS Data Sharing Platform is essential. As recommended by scholars from Stanford University, this initiative requires a comprehensive data-sharing policy that enables all stakeholders in the innovation pipeline access to data, thereby facilitating diverse perspectives in understanding and addressing common challenges (Ho *et al.*, 2021).

A crucial component of the data-sharing policy is defining how individuals, institutions, and countries choose to share data with their peers. This necessitates a distributed data platform that ensures data owners retain control over their data usage, aligning with data sovereignty and privacy protection principles. New advances in federated learning models allow machine learning models to be built on distributed datasets, offering new opportunities for BRICS data sharing (Treleven, Smietanka and Pithadia, 2022). Furthermore, collaborators can opt in or out of sharing

data with the AI model's training data. Recent advances provide opportunities to construct the model with this degree of control, promoting a fair and transparent data-sharing ecosystem (Balan *et al.*, 2023).

The data-sharing platform will also bridge the gap between academia and industry, providing increased opportunities for commercialising and leveraging valuable research, leading to tangible socioeconomic benefits for BRICS nations. Independently, India and the European Union have echoed these principles. India describes leveraging its data for social and economic prosperity, and the European Union emphasises fostering collaboration and data-sharing between the public and private sectors (European Commission, 2018; NITI Aayog, 2018).

Implementing such a platform could draw inspiration from initiatives like the National AI Research Cloud proposed in the United States by Stanford University, which aims to provide researchers with access to computing resources and government datasets (Ho *et al.*, 2021). By discouraging data silos, this approach fosters collaboration and innovation, ultimately contributing to a more robust innovation ecosystem across BRICS nations. Distributed data silos impede collaboration and inter-organisational innovation (Jean-Quartier *et al.*, 2022). Adapting this concept to the BRICS context could create an influential collaborative research and innovation tool.

BRICS Shared Large-Language Model

Developing a shared BRICS Large Language Model (LLM) represents a crucial component in the overall strategy to harness collective AI capabilities and foster innovation across member nations. This shared LLM would be a powerful tool for extracting value from the pooled data resources of BRICS countries, enabling stakeholders in the innovation pipeline to generate new knowledge vertically within niche fields and across industries (Du *et al.*, 2023; Dunnell *et al.*, 2023) well-shaped reward function. Intrinsically motivated exploration methods address this limitation by rewarding agents for visiting novel states or transitions, but these methods offer limited benefits in large environments where most discovered novelty is irrelevant for downstream tasks. We describe a method that uses background knowledge from text

corpora to shape exploration. This method, called ELLM (Exploring with LLMs).

LLMs have demonstrated remarkable capabilities in identifying parallels in logic between different fields, enabling users to make meaningful connections that might otherwise remain undiscovered (Ho *et al.*, 2021). This attribute is particularly valuable in BRICS cooperation, where diverse perspectives and expertise from various sectors and cultures can be leveraged to address common challenges.

The shared BRICS LLM would provide a robust foundation for knowledge exploration, learning, and sharing best practices while capitalising on vast stores of uncommercialised and unstructured knowledge artefacts. The LLM allows users to discover connections among research projects. It enables knowledge exploration above search, aiding users in navigating and synthesising large, unstructured knowledge bases (Dunnell *et al.*, 2023).

The versatility of this shared LLM enables its application across various use cases crucial for BRICS nations. For instance, it can serve as a central resource in exploring best practices in Science, Technology, and Innovation (STI), aligning with the objectives of the BRICS STIEP Working Group (BRICS India, 2021). In the context of the BRICS Technology Transfer Network, the LLM could facilitate more efficient and effective technology transfer. By integrating relevant intellectual property into the model's training data, collaborating partners have opportunities to explore the underlying logic involved in such products and services. Such a model provides an ideal platform for the programme. There are several other use cases for the BRICS TVET Cooperation Alliance, the BRICS Digital Education Cooperative, the BRICS Incubation and Training Network, the BRICS Startup Forum and other BRICS cooperation initiatives.

In this scenario, open-source LLMs can be adapted by the BRICS and finetuned with relevant knowledge artefacts to suit the needs of the BRICS Innovation Pipeline. Open-source LLM alternatives are cost-effective models that can be finetuned to improved performance and tailored to the organisation's knowledge repository (Shashidhar *et al.*, 2023). Researchers have also found that adapting such models can result in valuable research tools that can

enhance the process of systematic literature reviews (Susnjak, 2023) we are on the cusp of the emergence of numerous domain-specific LLMs that have been finetuned for expertise across specialized fields and applications for which the current general-purpose LLMs are unsuitable. In academia, this technology has the potential to revolutionize the way we conduct systematic literature reviews (SLRs). Similarly, such models have been employed as a tool for product research and helped accelerate industrial chip design development (Liu *et al.*, 2023). Such progress was achieved by finetuning freely available open-source LLMs.

With an appropriate design, the shared LLM can also perform language and cultural translation, improving communication and understanding among BRICS members (He *et al.*, 2023; Yao *et al.*, 2023). Given the linguistic diversity within the BRICS bloc, this feature is crucial and aligns with the goals of enhancing collaboration and knowledge sharing across cultural and linguistic boundaries (Treleaven, Smietanka and Pithadia, 2022).

Developing a shared BRICS LLM also presents an opportunity to address concerns about AI sovereignty and reduce dependence on proprietary AI technologies developed by a few dominant global players. By collaboratively developing and managing their own LLM, BRICS countries can ensure that the model aligns with their collective values, priorities, and ethical standards.

Recommendations

Given the rapid advancements in AI and the urgent need for BRICS nations to establish their collective presence in this critical field, I propose the following policy recommendations to implement a transformative Public AI Strategy focused on scientific and educational cooperation:

1. Establish a BRICS AI Task Force:

- 1.1 Create a dedicated task force comprising experts from all BRICS nations to develop and oversee the implementation of the Public AI Strategy.
- 1.2 This task force should leverage the capabilities of the BRICS Partnership for the New Industrial Revolution Innovation Centre.

2. Develop a Comprehensive BRICS Public AI Strategy:

- 2.1 Define clear objectives, timelines, and

key performance indicators for the strategy.

- 2.2 Emphasise AI's role as a foundation for innovation and cooperation among BRICS nations.
- 2.3 Align the strategy with existing BRICS initiatives such as the BRICS STIEP Working Group, the BRICS TVET Cooperation Alliance, and the BRICS Technology Transfer Network.
3. **Invest in Shared AI Infrastructure:**
- 3.1 The strategy must emphasise the need for a network of data centres distributed across BRICS countries, arranged using a hub-and-spoke model.
- 3.2 Upon this infrastructure, the strategy must define a distributed data-sharing architecture that protects data sovereignty while facilitating collaboration.
- 3.3 The strategy must incentivise public and private entities to contribute data to the shared platform to promote data sharing.
- 3.4 Establish clear protocols for cross-border data flows within BRICS.
4. **Create a BRICS Large Language Model (LLM):**
- 4.1 The strategy must define how the BRICS develop a shared LLM tailored to their needs and challenges.
- 4.2 The strategy must ensure the LLM incorporates multilingual capabilities to facilitate communication across BRICS countries.
- 4.3 Robust governance mechanisms must be implemented to manage and update the LLM collectively.

The urgency of implementing these recommendations cannot be overstated. As AI technologies advance unprecedentedly, BRICS nations must act swiftly to establish their collective presence in this critical field. By leveraging their combined strengths through this Public AI Strategy, BRICS countries can reduce dependence on Western AI technologies, foster indigenous innovation, and address their unique challenges more effectively. This collaborative approach will accelerate scientific and educational cooperation and position the BRICS as a formidable force in the global AI landscape, driving economic growth and technological sovereignty far into the future. **BR**

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Towards a Global South High Technology Regulatory Framework: A Role for the BRICS

PROF NIRMALA GOPAL

University of KwaZulu-Natal

DR VENENCIA PAIDAMOYO NYAMBUYA

Postdoctoral Fellow, University of KwaZulu-Natal
SABTT Project



Executive Summary

The rapid advancement of high technology has the potential to transform societies across the globe, heralding fundamental changes to economies, healthcare systems, and educational institutions and significant

contributions to achieving Sustainable Development Goals (SDGs) (Chodak, 2024) for BRICS countries (Brazil, Russia, India, China, and South Africa). However, this rapid advancement equally presents challenges. Yet among critical economies in the Global South, BRICS countries are uniquely positioned to drive innovation and economic growth through high technology. Hence, innovation and economic growth must be juxtaposed with means of addressing social inequalities and job creation concomitant with SDGs 7 (clean energy), 10 (inequality) and 11 (sustainable cities).

However, data from BRICS countries indicates substantial socio-economic risks, such as increasing social and economic disparities, cybersecurity vulnerabilities, job displacement, data governance regulations, and insufficient infrastructure support, despite the potential for advancement (Nach and Ncwadi, 2024). Inherently, this points to a digital divide between

the Global North and the Global South. Nevertheless, the powerful and influential BRICS bloc is strategically positioned for inter- and intra-collaboration for robust infrastructural support, including high-capacity computing resources, data storage, and reliable internet connectivity (Telese, 2023; Derudder, Liu and Kunaka, 2018). Further collaboration should facilitate ethical regulatory frameworks designed to support innovation-earned comprehensive policies that promote responsible technology use and innovation. Arguably, internal collaboration can arrest the Global North from digital colonialism and exploitation of local markets with little to no contribution to sustainable development in the Global South (Pandor, 2023).

Against the preceding backdrop, this policy brief offers guidelines to support BRICS policymakers and their Global South equivalents in propagating the potential that high technology proposes,

thus contributing to inclusive growth and the expansive achievement of SDGs.

Introduction

High technology has the potential to address longstanding issues in infrastructure, governance, and service delivery (Netshiswinzhe *et al.*, 2023; Ehimuan *et al.*, 2023). In the Global North, this leads to the creation of new industries, products, and services, stimulating economic growth and creating job opportunities (SoniPawar and Devi, n.d.). Interestingly, the advent of the internet and e-commerce revolutionised the retail industry, leading to the emergence of tech giants like Amazon and Alibaba, which have significantly contributed to economic expansion (Chodak, 2024). More so,

leading to challenges such as cybersecurity threats, data misuse, and ethical concerns surrounding AI and automation (Aspray and Doty, 2023; Abrahams *et al.*, 2024).

BRICS countries, encompassing regions in Africa, Latin America, Asia, and Europe, stand at a pivotal moment in their development trajectory. Khan (2024) argues that leveraging high technology can help these regions leapfrog traditional development stages, foster inclusive growth and contribute to sustainable development. However, we argue that without careful planning and targeted policies, the benefits of technological progress may be unevenly distributed, exacerbating existing socioeconomic divides and creating new vulnerabilities. This brings to the fore the aim of this policy brief, which seeks to

“High technology has the potential to address longstanding issues in infrastructure, governance, and service delivery.”

technological advancements in IT have led to the proliferation of high-speed internet, cloud computing, and big data analytics (Adeleye *et al.*, 2024). Companies in the Global North leverage these technologies to develop innovative digital services, such as advanced e-commerce platforms, digital banking solutions, and sophisticated communication tools (Pramanik *et al.*, 2019; Blom and Uwizeyimana, 2020).

While disparities in access exist in some countries in the BRICS bloc, it is nonetheless experiencing a surge in digital innovation. Initiatives like mobile banking, e-governance platforms, and telemedicine services are transforming various sectors and improving accessibility and efficiency in areas lacking traditional infrastructure (Siddiquee, 2016; Blom and Uwizeyimana, 2020). Some scholars argue that the rapid pace of technological change without advanced digital infrastructure often outstrips the capacity of regulatory frameworks to manage it,

provide a balanced framework for BRICS policymakers to harness the benefits of high technology while mitigating its risks.

Important to note is that the proposed framework offers comprehensive guidelines to navigate the complexities of the high-technology era in BRICS countries by addressing the digital divide, promoting equitable access, and ensuring data privacy and security. The goal of the proposed framework is to foster an inclusive, sustainable, and secure technological ecosystem that benefits all segments of society. Thus, by carefully crafting policies that embrace technological progress while addressing potential dangers, countries in the Global South can unlock the full potential of high technology for their development and prosperity with the BRICS ‘ideally’ positioned to promote such development and implementation.

This policy brief will provide actionable recommendations to guide this critical process.

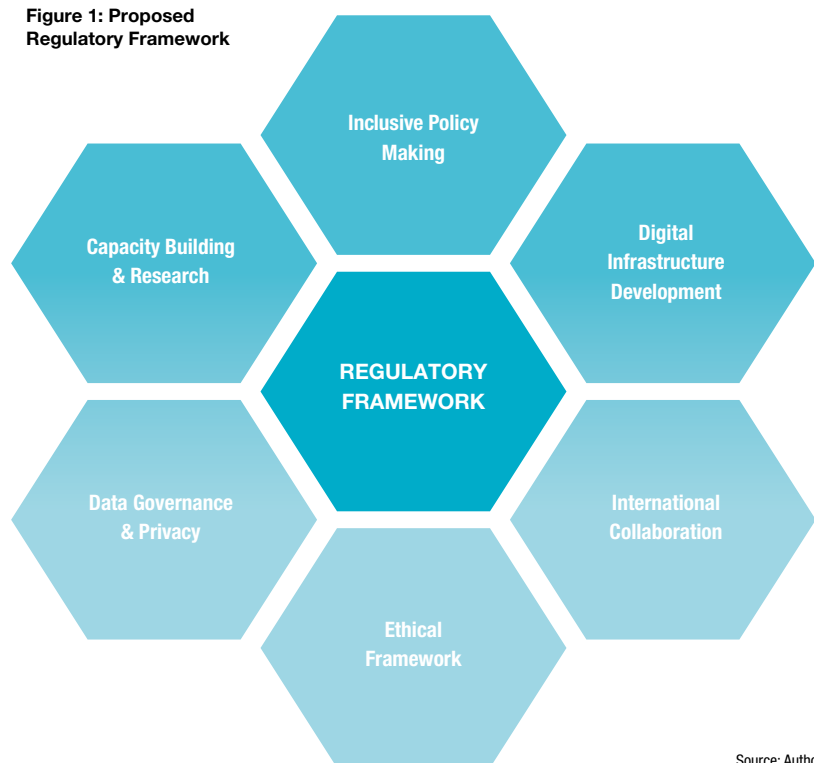
Problem Description

One of the most pressing issues in some countries in the BRICS bloc is the digital divide, the gap between those with access to digital technologies and those without access (Vassilakopoulou and Hustad, 2023; George, 2024). In BRICS countries, this divide is stark; urban areas often benefit from better infrastructure and connectivity, while rural areas lag far behind (Chanjeabate *et al.*, 2023; Perez-Escolar and Canet, 2023). This disparity exacerbates existing inequalities, leaving marginalised communities without access to essential digital resources and opportunities (Imran, 2023). For example, only 28% of rural households in sub-Saharan Africa have access to the internet, compared to 67% in urban areas (Seuyong *et al.*, 2023).

BRICS countries, particularly South Africa, India and Brazil, face similar challenges within their rural populations, creating an opportunity for collaboratively coordinated efforts to close the digital divide within the bloc. Thus, the rise of automation and artificial intelligence (AI) threatens to disrupt traditional labour markets in some BRICS countries. Many jobs in sectors such as manufacturing and agriculture are at risk of being automated, potentially leading to widespread unemployment and underemployment (Kartner, 2023). The International Labour Organization (2016) estimated that up to 56% of Southeast Asian jobs are at a high risk of automation. BRICS nations, especially China and India, are particularly vulnerable to these disruptions as large portions of their labour market are employed in sectors susceptible to automation. Without proactive measures, the economic benefits of high technology may be concentrated in a few high-skilled jobs, leaving many workers behind (Nankervis, 2020).

More so, the proliferation of digital technologies has led to an explosion in data generation in some BRICS countries, which lack robust data protection frameworks, making personal information vulnerable to breaches and misuse (Heinrich Boll Stiftung, 2023). Cybersecurity threats are rising, with increasing cyberattacks targeting individuals, businesses, and government institutions. In 2020, Africa experienced increased cyberattacks,

Figure 1: Proposed Regulatory Framework



Source: Authors

highlighting the urgent need for comprehensive cybersecurity strategies (Thomson, 2021).

The rapid pace of technological innovation often outstrips the development of appropriate regulatory measures (Abrahams *et al.*, 2024). This regulatory lag creates a landscape where new technologies' ethical, legal, and social implications are not adequately addressed. For instance, deploying AI and machine learning systems without proper oversight can lead to biases and discrimination. Hassan (2023) argues that many countries, including BRICS countries, lack regulatory frameworks to ensure the ethical use of AI and other emerging technologies.

Rationale for the Framework within the BRICS

The proposed framework aligns with BRICS' objectives, specifically fostering inclusive digital development, enhancing cybersecurity, and preparing for labour market changes due to automation and AI. The BRICS bloc has recognised the importance of cybersecurity for successfully implementing technology and preparing the workforce for changes in the labour market

(Manda and Dhaou, 2019). It has had discussions and agreements on cybersecurity frameworks to protect personal data, prevent cyberattacks, and establish common cybersecurity standards (Barun, 2024).

In recent years, BRICS summits have highlighted the importance of AI governance, with member countries focusing on developing policies that reduce labour displacement while simultaneously boosting productivity through AI (Pashentsev and Bazarkina, 2023). For example, the 2020 BRICS Summit centred on digital technologies and innovation, emphasising the transformative potential of AI in various industries (Lambrechts, Sinha and Marwala, 2021).

The framework supports BRICS initiatives in facilitating high-technology innovation by addressing inclusive policy-making, digital infrastructure development, international collaboration, an ethical framework, data governance, capacity building and research.

Recommendations

We propose enacting a high-technology regulatory framework for consideration (see Figure 1). We believe that the expanded

BRICS countries are strategically positioned to influence an agreement for effective governance of high technology to safeguard their economies and societies by ensuring individual rights and legal certainty, and preventing data colonialism by foreign tech giants. The BRICS could adopt best practices from China and India regarding data protection laws, as their collective actions and interests have the potential to influence global legal norms significantly. Additionally, their capacity to adapt and coordinate efforts between state actors can be crucial in shaping data protection legislation.

Recommendations

1. Inclusive Policy Making:

- 1.1. Ensure that national policies and programs are inclusive for equal accessibility and benefits.
- 1.2. Ascertain human rights compliance in existing and future frameworks.
- 1.3. Encourage more significant inclusive policy implementation of AI in regions with low adoption rates to foster global technological growth.
- 1.4. Integrate policymaking and increase private investment in the renewable energy sector to support sustainable development.

2. Digital Infrastructure Development:

- 2.1. Invest in infrastructure and initiatives that provide affordable access to technology for all citizens.
- 2.2. Ensure widespread adoption of digital fact-checking and verification mechanisms to combat misinformation.
- 2.3. Create better security mechanisms for Internet of Things (IoT) devices to protect users' privacy and data.

3. International Collaboration:

- 3.1. Attract investors from private, national, Global North and Global South communities.
- 3.2. Influence better-resourced countries, particularly those within the expanded BRICS countries, to invest in IoT infrastructure in poorly resourced Global South countries.
- 3.3. Harmonise national AI regulatory frameworks with existing international legislative frameworks to ensure

consistency and promote global cooperation.

- 3.4. Expand the pool of AI experts while fostering collaborations between the Global South and the South-South and South-North regions to enhance knowledge exchange.
- 3.5. Promote skills sharing between the Global North and Global South, along with developing research capacity in the Global South, which will significantly contribute to building a robust technological ecosystem.

4. Ethical Framework:

- 4.1. Foster education and training programs that equip citizens with the ethical skills needed for emerging technologies
- 4.2. Promote digital literacy programs that empower citizens to engage with technology ethically and preserve their cultural identities.
- 4.3. Adopting a code of conduct for AI teaching and learning is necessary.
- 4.4. Adopt strategies like diverse data sources, bias detection and mitigation, bias training, iterative testing and development, and ethics reviews to help agencies minimise bias in new technologies.

5. Data Governance and Privacy:

- 5.1. Ensure the responsible use of high technology to adopt digital fact-checking and verification mechanisms widely.
- 5.2. Improve methods and increase mechanisms to collect reliable data to provide a strong foundation for informed decision-making.
- 5.3. Generate a comprehensive body of legislation, policies, and procedures to mandate private and state actors' accountability in high technology use.
- 5.4. Create a culture of transparency regarding how and why online, personal, and public data is mined. This will build trust and ensure ethical practices.
- 5.5. Report any signs of system threats and prevent unauthorised surveillance to uphold these standards.

6. Capacity Building and Research:

- 6.1. Implement education and training

programs that equip citizens with the necessary skills for emerging technologies.

- 6.2. Promote digital literacy programs that empower citizens to engage with technology while preserving their cultural identities.
- 6.3. Develop AI to address local challenges, such as localising it for language diversity.
- 6.4. Adopt a code of conduct for AI teaching and learning to ensure its relevance and effectiveness.

The proposed regulatory framework focuses on developing sound and robust Information and Communication Technologies (ICT) policies that match the digital needs of the Global South communities. In addition, it advocates for continuous assessment of the ICT policies to ensure that targets are met and the new changes in the technological environment are captured. This enables economies in the Global South to keep abreast of changes related to emerging technology (Edler *et al.*, 2023). The framework mandates the development of robust digital infrastructure, including broadband access and digital literacy programs, to ensure equitable access to technology. Further, the framework advocates that solid data governance mechanisms must be implemented to safeguard privacy rights and promote the responsible use of high technology.

Further, the framework proposes that capacity-building programs be carried out to prepare individuals for jobs in high technology industries to cater to the Fourth Industrial Revolution while simultaneously bridging the socio-economic inequalities (Signe, 2023). More so, the proposed framework advocates for international collaboration, which should facilitate knowledge sharing and resource mobilisation. Important to note is that international collaboration allows countries in the Global South to access expertise, best practices, and technological innovations, accelerate high-tech solutions development, and access funding, investment, and technical assistance for digital infrastructure, capacity building, and innovation ecosystems (Nwokolo *et al.*, 2023; Kaggwa *et al.*, 2024).

Finally, an ethical framework should

guide the responsible deployment of technology, ensuring that it benefits society while minimising potential risks and biases (Burr and Leslie, 2023). The framework should prioritise equitable distribution of technological benefits, emphasise transparency and accountability, promote inclusivity, uphold privacy rights, and ensure data protection. It should also prioritise safety and security and encourage ongoing dialogue to foster a culture of responsible innovation and continuous improvement. It should also ensure that emerging technologies are used responsibly and ethically.

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Towards a Multipolar Global Finance Architecture

**PROF RONNEY NCWADI
AND DR MARIDA N. NACH**

*School of Economics, Development and Tourism,
Faculty of Business and Economics Sciences,
Nelson Mandela University*



Executive Summary

This document explores the transformation from a worldwide monetary structure dominated by Western nations and the American currency to a more balanced structure that includes developing markets. It points out how the current system puts developing countries at a disadvantage and suggests changes to make the system fairer and more reflective of today's global economy. The paper advocates for more representation of non-Western countries in financial institutions

and encourages the growth of new entities like the Asian Infrastructure Investment Bank (AIIB) and the New Development Bank (NDB) to support developing markets. By fostering cooperation among BRICS countries and promoting the use of national currencies, we can build a more inclusive and sustainable worldwide monetary structure that benefits all.

Introduction

The west has long been dominating the global financial architecture for a very

long time. Its control of the financial space in the world has given the West an unfair advantage in determining the global power. The emergence of BRICS as an alternative to the West has sparked huge debates about a possible shift in World order (Vlados et al. 2022). The subject of multipolarity goes beyond just finance to issues related to culture, technology, business, education, and skills including decision making on global issues. The world's reliance on one single currency is no longer fit in the current global economic space as this arrangement interferes with the sovereignty of the developing countries. Most developing countries find themselves in a situation where they need to comply with the west through the various loans granted to them by the west. The conditionality of the loans from the west presents a form of imperialism and dominance by the west given the fact that most of the developing countries fail to repay these loans and as such find themselves trapped in perpetual debt throughout the generations. This paper looks at the current financial architecture and examines the challenges imposed by the current system and explores some alternatives to the current system.

The Current Unipolar Financial System

The West, particularly the United States of America presents itself as a foundation of the worldwide financial architecture. Its dominance in global finance is almost 60% of the foreign exchange reserves. Although China's Renminbi is recognised as a third reserve currency by the IMF; USA still maintains its position as the dominant currency. It is also hard to understand why the oil producing countries in the Arab nations trade their oil in US dollar dominated currency. Needless to mention South Africa which sells their minerals in USA dollars. It is on these bases that the West has exerted its influence and control over the currency management, capital flows and debt structures (Beschwitz, and Curcuru, 2023).

The current financial system is largely controlled by major institutions such as the IMF, the World Bank, and central banks, all of which have a strong impact on

global economies. The dominance of the dollar is not only evident in international trade but also in its critical role in global banking and financial markets. Since most international loans, debts, and securities are in dollars, countries are required to keep large reserves of this currency to safeguard against market fluctuations.

Structural Challenges In International Institutions

Despite the shifts in the global economic landscape, the world has not yet transitioned to a genuinely multipolar economic system. The governance structures of the IMF and World Bank continue to prioritise the interests of their founding members, which are predominantly the traditional global powers. The historical context of the Bretton Woods institutions, established in 1944, still heavily influences their

oil crises, high interest rates, economic downturns, and falling commodity prices in the 1970s and 1980s.

Due to the perceived risk, the World Bank and IMF became primary lenders to these nations. While some debt relief was initiated in the late 1980s and 1990s, Africa's external debt burden remained substantial, exceeding \$235 billion by 1994. Despite improvements in debt indicators during the early 2000s, the 2007-2008 financial crisis reversed this trend. Export revenues declined, leading to increased borrowing and a surge in the debt-to-export ratio, reaching a peak of 85% (World Bank, 2023).

Sub-Saharan African countries have historically relied heavily on foreign funding, both public and private, for development. However, the external debt burden of many nations in this region has grown significantly over recent decades,

“Multipolarity goes beyond just finance to issues related to culture, technology, business, education, and skills including decision making on global issues.”

operations and policy decisions (Subacchi and Vines, 2023).

The continued reliance on the traditional Bretton Woods currencies, particularly the American currency, exacerbates significant imbalances in voting rights and policy impacts on developing nations. Over the past decades, economically disadvantaged countries have often been compelled to borrow from the IMF and World Bank under conditions that required them to implement neo-liberal economic policies.

Barriers To Financial Multipolarity

Developed nations have utilised foreign aid and assistance programs to extend loans to developing countries, often creating a cycle of debt dependency. Following World War II, external debt emerged as a significant economic challenge, exacerbated by

reaching unsustainable levels. Notably, protectionist policies implemented by developed countries since decades, which discriminated against exports from less developed nations (LDCs) and consequently reduced their export earnings, exacerbated Africa's economic challenges. As a result of diminished export revenue, these nations faced difficulties in servicing their debts (Ng and Yeasts, 1996).

Between 1975 and 1995, Sub-Saharan Africa's external debt skyrocketed from \$18 billion to over \$220 billion. The debt-to-GNP ratio also surged from 14% to more than 74% during this period. Despite relatively low debt service ratios due to concessional lending, many African countries struggled to repay their debts without accumulating more or falling behind on payments. This growing debt

burden further entrenched Western financial dominance and solidified the global financial status quo (Chitenderu & Ncwadi, 2020).

One of the main criticisms directed at the World Bank and the IMF is the conditions attached to their loans. Critics argue that these conditions excessively interfere and compromise the economic and political independence of the recipient nations. When the IMF or World Bank provides loans, they impose specific requirements. Joseph Stiglitz (2002) states that these conditions, often termed “conditionality,” go beyond the typical expectations of any lender seeking to ensure loan repayment. Stiglitz (2002) claims the IMF utilises this “conditionality” to enforce significant changes, known as “structural adjustments,” in borrowing countries’ financial and economic

policies without question or debate. This lack of consultation can erode trust and transparency between the IMF and borrowing countries. The IMF typically conditions loans on austerity measures like spending cuts and tax increases, which can harm economies. Failure to comply with IMF demands often results in the suspension of financial aid, with other donor countries often following suit.

Critics of the IMF believe that the global financial system is rigged against developing countries. They argue that powerful institutions like the IMF, World Bank, and WTO are undemocratic and have contributed to the poverty of many nations while benefiting wealthy countries and corporations (Dreher, 2006). These institutions impose strict conditions on loans to developing countries, often leading to cuts in essential services like healthcare and education. Additionally, Western

The resistance of established financial powers is a significant challenge in establishing a multipolar financial system. These powers have a vested interest in preserving their dominant position within the global financial landscape. Geopolitical tensions and differing national priorities further complicate the formation of a unified multipolar financial system. The complex and interconnected nature of global finance exacerbates the transition process, as changes in one part of the system can have far-reaching effects on the entire financial network (Müller and Kerényi, 2024). The establishment of a multipolar financial system is hindered by various obstacles, including the resistance of established financial powers, geopolitical tensions, diverse national priorities, and the complex and interconnected nature of global finance (Caiazza, 2016).

Towards A Multipolar International Finance Architecture

According to Ponomarenko (2023)

International interaction is impossible without a built-in system for international settlements. The international settlements have been characterised by the dominant US dollar and the Euro. The escalation of geopolitical tensions in 2022 has prompted several countries, including Russia, to speed up the transition to settlements in national currencies for foreign trade transactions.

The term ‘multipolarity’ thus refers to the emergence of a plurality of global actors, who limit the power of the US superpower and that of other ‘poles’ such as the EU. More specifically, it refers to the rise of China and increasingly India, to the resurgence of Russia and the growing importance of players like Brazil, particularly in the sphere of international trade (De Vasconcelos, 2008). The structure of the international system is currently transforming towards the consummation of America’s unipolar system. China is fastly becoming a global power and China is about to become the second most important single economy in the world (Geeraerts, 2011). The rise of China as one of the global players in international economy places BRICS at an advantage for championing the new global finance architecture era.

“the NDB is a much needed institution to champion the global finance architecture reforms.”

policies, encompassing areas like banking regulations, government spending, and pension policies. Stiglitz (2002) cites the example of the IMF’s insistence that the Korean Central Bank prioritise inflation control during the 1997 Asian Financial Crisis, not because monetary policy caused the crisis, but due to the IMF’s belief in inflation control as the primary objective of any central bank. The BRICS members have frequently criticised the conditions imposed by the IMF, drawing from the failures of structural adjustment programs implemented in African countries, and have advocated for a reassessment of the strict conditions attached to IMF and World Bank loans to developing countries.

Stiglitz (2002) highlights that the IMF frequently offers outdated and unsuitable solutions during crises, without considering the impact on citizens. Due to a fear of losing IMF funding, countries often feel pressured to implement these

countries are accused of promoting free trade while maintaining their trade barriers, hindering exports from developing nations (Stiglitz (2002). The IMF’s demand for constant reporting on economic activities is seen by some as a form of control and interference (Shah, 2013).

The IMF’s requirement for extensive reporting on the economies of countries receiving its funds is seen by some as an overreach of its authority, reminiscent of colonialism (Stiglitz, 2002). Stiglitz (2002) cites the example of Ethiopia, which faced IMF opposition for repaying a loan early without seeking approval, highlighting the Fund’s control over its borrowers. Several hurdles stand in the way of achieving a multipolar financial system. These include resistance from established financial powers seeking to maintain their dominance, geopolitical tensions, diverse national priorities, and the complex, interconnected nature of global finance.

To this end, the NDB is a much-needed institution to champion the global finance architecture reforms. The NDB should not necessarily challenge the existing international financial institutions (IFIs), but should foster reforms in the international finance institutions for the benefit of developing countries. The NDB should push the IMF and World Bank to be more open and transparent and the competition between the NDB and the IFIs should be more about efficiency for the benefit of loan recipients (Chen & Yang, 2015). The NDB, as a complement to the existing pool of funds, is a significant and necessary catalyst for efficiency in the market. BRICS countries banding together to form the NDB can be seen as creating a cohesive nucleus to counteract the functional deficiencies in existing IFIs and displays a proactive attitude to reshaping the New International Economic Order (Lingxiao, Yao & Zexian, 2015).

It is thus important for the NDB to promote the use of national currencies to settle international payments. The governments must remove all restrictions so that countries can buy or sell its country's currency, whether in the spot or forward market. Domestic firms should be able to invoice their exports in their country's currency, and foreign firms should likewise be able to invoice their exports in that country's currency, whether to the country itself or third countries (Lima, et al. 2017). The confidence in the stability of a national currency is a necessary qualification. If a currency in question is unstable and tends to fluctuate substantially, it will not work as a store of value (Josie & Ncwadi, 2020).

Furthermore, multipolarity can be promoted via use of digital currencies. A central Bank Digital Currency is defined as a digital payment instrument, designated in a national unit of account, that is broadly accessible to the public, and which is also a liability of the central bank of a particular country (Federal Reserve (2022); Bank for International Settlements, (2021). The use of CBDCs offers a variety of benefits such as, potentially providing firms with a convenient, liquid, and safe digitalised form of central bank money. Furthermore, it enables faster, safer, and



cheaper cross-border transactions by removing many current inherent frictions (Xiao & Fan, 2022; Paterson, 2021).

The cross-border payments system is multi-layered made up of correspondent banks networks, messaging systems such as SWIFT, and several payments, clearing and settlement systems, in different countries (Bank for International Settlements, 2021). A uniform payment standard could be built into CBDCs, to make cross border payments and receipts more efficient.

Furthermore, CBDCs could potentially

enable funds to be sent and received almost immediately resulting in improved efficiencies and lower costs. (Xiao & Fan, 2022; Paterson, 2021). Realistically, regulation and compliance issues about CBDC providers in different countries, and forex controls, could impact the efficiency of processing. Central Banks see CBDCs as a chance to simplify intermediation chains, cutting out unnecessary intermediaries, and hereby enhancing cross-border payments, which in turn could boost international trade (Bank for International Settlements, 2021). **BR**

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Guardians of International Trade: Enhancing Trade within BRICS

PROF RONNEY NCWADI
AND DR MARIDA N. NACH

School of Economics, Development and Tourism,
Faculty of Business and Economics Sciences,
Nelson Mandela University



Executive Summary

The international trade landscape has been transformed by technological advancements, the rise of multinational enterprises, and evolving global financial systems. The BRICS countries (Brazil, Russia, India, China and South Africa), together with their newly added members, representing over 22% of global exports and imports, are emerging as key players in this changing paradigm as both producers and consumers. Their combined influence is reshaping trade practices and policies. Despite the challenges posed by the COVID-19 pandemic, BRICS countries have demonstrated resilience and continued to cooperate toward common goals. To navigate these challenges and fully benefit from globalisation, they must strengthen their unity, actively participate in trade discussions, and advocate for fairer trade practices that prioritise emerging economies. By doing so, BRICS can become influential “guardians” of international trade, shaping its future direction.

Introduction

Globalisation has ushered in a new era of trade development and integration, characterised by the rise of multinational corporations, market liberalisation, and increased international trade agreements (Rodrik, 2012). Technological advancements including e-commerce, automation, data analytics, ICT, production, the Internet of Things (IoT), and service delivery have revolutionised the way goods and services are

traded, enabling faster, cheaper, and more efficient transactions on a global scale (Dong and McIntyre, 2014).

The BRICS countries (Brazil, Russia, India, China and South Africa), as key players in international trade, have the potential to foster substantial economic growth through increased strategic cooperation and technological advancement (Nayyar, 2020). As “Guardians” of international trade, they can leverage their collective voice to shape global trade discussions and represent the interests of emerging and developing countries.

This policy brief explores various challenges of and strategies to enhance trade, investment, and economic stability within the BRICS bloc.

The Challenges In The Current International Trade Environment

The current international trade environment is characterised by a number of significant challenges, including trade wars, economic recessions, rising unemployment, and poverty. The COVID-19 pandemic has further exacerbated these difficulties, leading to global economic slowdown,

supply chain disruptions, and increased protectionism (Alaamer, 2024). BRICS countries, while emerging as major players in international trade, are not immune to these challenges. They face a range of obstacles, including economic disparities, supply chain disruptions, geopolitical tensions, and trade wars.

Economic disparities among BRICS members can hinder trade and investment flows. Differences in development levels and regulatory frameworks can create barriers to market access and increase transaction costs. For example, infrastructure disparities can make it difficult for businesses to transport goods efficiently within the BRICS region (Duggan *et al.*, 2022). Moreover, the COVID-19 pandemic has highlighted the vulnerability of global supply chains. According to the World Economic Reform report, outside of global recessions, the world’s trade in goods and services performed poorly in 2023, with a roughly flat total. A significant slowdown in global industrial production caused a 1.9% decline in the volume of goods traded. Disruptions in production, transportation, and logistics have led to shortages of essential goods and



increased costs for businesses (Alaamer, 2024). BRICS countries, which rely heavily on global trade, have been particularly affected by these disruptions.

Furthermore, rising geopolitical tensions between major powers can create uncertainty and instability in the international trade environment. Trade disputes, sanctions, and tariffs can negatively impact BRICS countries' exports and competitiveness. For example, the ongoing trade tensions between the United States and China have had a significant impact on the global economy, including BRICS countries (Juraeva, Soyipov and Chaoen, 2022). Additionally, protectionist measures and unfair trade practices can also pose challenges for BRICS countries. Trade wars, tariffs, and subsidies can reduce market access for BRICS

to fostering economic cooperation and promoting trade flows within the bloc.

Strengthen Trade Relations

Deepening bilateral and multilateral trade relationships is essential for increasing trade within BRICS countries. Negotiating and implementing preferential trading arrangements can reduce tariffs, ease restrictions, and improve market access among member nations (Kawabata and Takarada, 2021). Regular exchange of information on economic developments, market trends, and policies can foster mutual understanding and facilitate trade (Hooijmaaijers, 2021). Based on the continuous discussions amongst BRICS member countries, BRICS can adjust and adapt to various economic conditions and

clearance procedures can significantly enhance trade facilitation within the BRICS bloc (Yushkova, 2014).

BRICS countries play a leading role in the global trade digital transformation. Over the past decade, BRICS have experienced significant digitalisation driven by advancements in information and communication technology (ICT), increased internet access, e-commerce platforms, and supportive government policies (Li, Pogodin and Vasilyeva, 2022). For instance, China has become a global e-commerce leader through companies like Alibaba and Tencent. India's IT and software services sector has also grown rapidly, supported by initiatives like Digital India. Brazil and Russia have strengthened their digital capabilities, particularly in digital banking and online retail, to enhance economic growth and competitiveness. Despite digital infrastructural challenges in South Africa, the country is doing its utmost best to expand its digital services and mobile connectivity (Fan, 2021; *BRICS Digital Economy Report 2022*, 2022).

Capacity building is another crucial aspect of strengthening trade within BRICS. The business sector is critical for enhancing trade in BRICS countries. Providing training and support in areas such as entrepreneurship, innovation, business management, financial skills, and digital trade can improve the competitiveness of businesses and their ability to participate in international trade (Zreik, 2024). Therefore, the improvement of their digital capabilities is of utmost importance. Addressing the digital divide is essential for ensuring that all segments of society can benefit from the opportunities offered by digital technologies. Providing access to digital infrastructure and training programs can help bridge the digital divide and promote inclusive economic growth. Therefore, investing in digital infrastructure and capacity building can help BRICS countries embrace the digital transformation of trade and ensure that all segments of society have access to digital technologies.

Enhancing Trade through the Use of Digital Currencies

The adoption of Central Bank Digital Currencies (CBDCs) presents a unique opportunity for BRICS countries to transform their financial landscapes and

“Deepening bilateral and multilateral trade relationships is essential for increasing trade within BRICS countries.”

exports and increase costs for businesses. Furthermore, the disproportionate use of dispute settlement bodies and the influence of developed countries in the dispute settlement process can create challenges for BRICS countries in resolving trade disputes (Juraeva, Soyipov and Chaoen, 2022).

Addressing these challenges is essential for BRICS countries to strengthen their position in the global economy and promote sustainable development. By fostering economic cooperation, diversifying trade relationships, and promoting fair trade practices, BRICS countries can navigate the complexities of the current international trade environment and realise their full potential.

Strengthening Trade within BRICS

To strengthen trade within the BRICS framework, several key initiatives can be implemented. Enhanced trade relations, technological advancements, capacity building, and the adoption of Central Bank Digital Currencies (CBDCs) are crucial

thus are able to take right decisions for mutual trade relations. The aim here is to increase the frequency and density of the transactions and economic relations. Such relations can lead to ability to negotiate and implement trade policies that cover bilateral or multilateral preferential trading arrangements that will spur trade by lowering tariffs, ease restrictions as well as improve market access among member nations.

Advanced Technology and Artificial Intelligence (AI)

Technological advancements can significantly enhance trade efficiency and competitiveness within BRICS. Harnessing the power of technologies like robotic process automation (RPA) and artificial intelligence (AI), blockchain, and the Internet of Things (IoT) can streamline trade processes, improve supply chain management, and reduce costs (Arvis et al., 2018). Moreover, implementing advanced customs systems can reduce delays, improve predictability, and facilitate trade flows. Additionally, simplifying customs

enhance trade. CBDCs can streamline cross-border payments, reduce transaction costs, and promote financial inclusion. By eliminating the need for physical currency and intermediaries, CBDCs can enhance transparency and efficiency in financial transactions (Ncwadi, Josie, Yuwen, Wen, Krish & Nwabisa, 2022). Furthermore, CBDCs can contribute to reducing poverty and inequality by providing access to essential financial services for unbanked and underbanked populations. By facilitating faster and cheaper international transfers, CBDCs can stimulate trade and investment between BRICS nations, leading to increased economic cooperation and interdependence. However, the implementation of CBDCs requires careful consideration and collaboration among BRICS countries. Sharing knowledge, experiences, and best practices can accelerate the development and adoption of CBDCs within their respective jurisdictions. Establishing interoperability standards can ensure seamless cross-border transactions and payments.

Moreover, BRICS countries, especially China's trade relations have been largely driven by expanding mobile digital financial services. The digitalisation era has helped reduce problems with information asymmetry, thereby enhancing the efficiency and certainty necessary for economic growth and employment creation. Artificial intelligence (AI) and blockchain are the specific 4IR technologies attracting interest in BRICS. These technologies can help to successfully address the social and economic challenges faced by the BRICS countries.

By implementing these strategies, BRICS countries can strengthen their economic cooperation, enhance trade flows, and improve the lives of their citizens. By embracing technological advancements, promoting capacity building, and exploring innovative solutions like CBDCs, BRICS can position itself as a global leader in trade and economic development.

Conclusion

The globalisation of markets, coupled with technological advancements, has revolutionised international trade, presenting both opportunities and challenges. The BRICS countries, as key players in this dynamic landscape, have a significant role to play in shaping international trade policies.

However, the COVID-19 pandemic and its economic fallout have created significant headwinds for global trade.

To navigate these challenges and maximise the benefits of globalisation, BRICS countries need to strengthen its collective voice, foster collaboration with other emerging markets, and actively participate in international trade negotiations. By doing so, BRICS countries can create a more equitable and prosperous world for all.

The adoption of Central Bank Digital Currencies (CBDCs) can also contribute to strengthening trade within BRICS and the global economy. By streamlining cross-border payments, reducing transaction costs, and enhancing financial inclusion, CBDCs can facilitate trade and promote economic development. By working together and embracing innovative solutions, BRICS can overcome the challenges of the current international trade environment and realise its full potential. **BR**

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BOOK OF INTEREST



Innovation and Development of Agricultural Systems: Cases from Brazil, Russia, India, China and South Africa (BRICS)

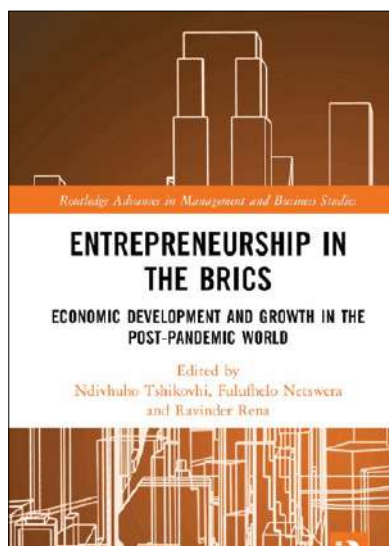
Editors: Maponya, Phokele, Tshikovi, Ndivhuho and Netswera, FuluFhelo

Publisher: Palgrave Macmillan

F Food security poses a significant challenge facing humanity worldwide. The agriculture sector must navigate innovation, economics, politics, and national security. The COVID-19 pan-demic severely impacted agricultural production and trade, leading to a rise in food shortages—up by 161 million in 2020 compared to 2019,

according to the Food and Agricultural Organisation (FAO). Agriculture is vital to the BRICS economies, which include Brazil, Russia, India, China, and South Africa. Their strategic initiatives in agricultural production and trade play a crucial role in addressing global poverty and hunger (SDGs 1 & 2). This book serves as a beacon of hope, emphasising agricultural innovations that could eradicate global hunger and poverty while advancing sustainable agriculture. It explores innovations in the BRICS agricultural food system, future agricultural cooperation, the impact of epidemics on investment, and potential solutions for global grain and agriculture. The collection begins with an introductory chapter by Phokele Maponya, FuluFhelo Netswera, and Ndivhuho Tshikovi, spotlighting key agricultural cases from each BRICS country. Chapter 1, by Maponya, examines the socio-economic landscape of small timber growers in Limpopo Province, South Africa, focusing on agroforestry practices. Chapter 2, led by Maponya and Oelofse, discusses how research and extension services drive agroforestry adoption in Limpopo and Mpumalanga. In Chapter 3, Zongho-Kom and co-authors utilise multinomial choice analysis to explore smallholder farmers' responses to climate change in Limpopo. Chapter 4 by Venter and her team employs a multi-criteria analysis to assess sustainable livelihoods in Eastern Cape Province. Chapters 5 and 6 encompass China's rural land reforms and the legal complexities of land transfer, authored by Xin Jing and Yamin Yang. Meanwhile, Chapter 7 revisits climate change adaptation strategies in KwaZulu-Natal, led by Mubecua,

Dlamini, and Maziya. Taking a global perspective, Chapter 8 by Swatson and colleagues discusses the innovative potential of BRICS countries in ensuring food security. Chapter 9 by Nesterenko and co-authors identifies challenges to sustainable agriculture within these nations. Chapter 10, authored by Bueno and Fiorezzi, examines how the BRICS framework can influence global climate governance for sustainable agriculture. Focusing on China, Chapter 11 by Rahman and colleagues provides a forward-looking perspective on its agricultural sector, while Chapter 12 by Zhang Yu et al. analyses the impacts of COVID-19 on Chinese agriculture and the lessons that BRICS nations might draw from rural revitalisation efforts. Chapter 13, by Apanovich and Maslova, scrutinises Russia's food security strategy within the BRICS context. India's integration of agriculture and tourism is explored in Chapter 14 by Sharma, Arora, and Dash, highlighting both economic and social benefits. Chapter 15, authored by Kuklina and her team, discusses digital transformation in Russian agriculture, while Chapter 16 by Buainain et al. presents structural shifts within Brazilian agriculture. The final chapter, by Cele, Tshikovi, and Netswera, concludes by illustrating how Sustainable Development Goal 2 (Zero Hunger) can be achieved through agropreneurship, using community training programmes in South Africa as a case study. This anthology provides a comprehensive analysis of agricultural innovations and sustainable practices within BRICS nations, offering essential insights into global agricultural development.



Entrepreneurship in the BRICS Economic Development and Growth in the Post-Pandemic World

Editors: Tshikovhi, Ndivhuho, Netswera, Fulufhelo and Rena, Ravinder

Publisher: Routledge Taylor & Francis group

Macroeconomic indicators reveal a direct connection between entrepreneurship intensity and economic growth, highlighting entrepreneurship as a vital driver of economic progress. It leverages new methodologies and opportunities to fill economic gaps, fostering job creation and contributing to overall economic stability through innovative, cost-effective solutions. This stability encourages increased investment across various sectors. The BRICS nations (Brazil, Russia, India, China, and South Africa) represent the emerging world's leading developmental

block. Without robust policies to promote entrepreneurship, the growth trajectories of these nations—and their impact on the global economy—would be limited. Furthermore, the COVID-19 pandemic has disrupted the entrepreneurial landscape, shifting government funding priorities away from entrepreneurship support worldwide.

This research book investigates the effects of COVID-19 on government funding, policy interventions, and the implications for the entrepreneurship environment, economic growth, and employment, particularly within BRICS. It offers insights on the state of entrepreneurship in the context of BRICS, the pandemic's effects, and future pathways for strengthening entrepreneurship. The volume caters to researchers, policymakers, academics, and advanced students in fields such as entrepreneurship, innovation, strategy, international relations, and economic development.

The book begins with an introduction by Ndivhuho Tshikovhi, Fulufhelo Netswera, Ravinder Rena, and Lillie Ferriol Prat, setting the stage for a multifaceted analysis of COVID-19's impact on BRICS entrepreneurship.

Part I delves into the pandemic's effects on small and medium-sized enterprises (SMMEs) across BRICS. Chapter 1, by Matenda, Sibanda, and Chirima, outlines policy responses aimed at alleviating the pandemic's repercussions on SMMEs. Chapter 2, by Langry, details South Africa's policies designed to support local SMMEs during this crisis, while Chapter 3, authored by Raghuvanshi and Rena, examines the Indian government's efforts to sustain micro, small, and medium enterprises (MSMEs). Further, Chapter 4 explores the broader impacts of the pandemic on South African entrepreneurship, and Chapter 5, by

Chen, Kumar, and Li, discusses survival strategies for China's SMEs. Chapter 6 considers emerging trends among Indian entrepreneurs, and Chapter 7 reflects on the future of entrepreneurship in post-pandemic South Africa. Finally, Chapter 8 addresses the learning experiences of restaurant entrepreneurs during the crisis.

Part II centers on governance and innovation within BRICS entrepreneurship. Dhasmana emphasises governance's critical role, and Matenda and Sibanda discuss how entrepreneurship drives economic growth in emerging economies. Chapter 11 evaluates mixed ownership reforms promoting innovation within China's state-owned enterprises, while Chapter 12 by dos Santos highlights strategic integration opportunities through BRICS innovation cooperation. Chapter 13 by Rahman, Lal, and Rena examines the contributions of SMEs to industry, innovation, and infrastructure in developing economies.

Part III presents country-specific perspectives on entrepreneurship within the BRICS bloc. Chapter 14 analyses Brazil's street market urban economics, while Chapters 15 and 16 focus on entrepreneurship's role in Russia's economic growth and technological entrepreneurship, respectively. Chapter 17 provides a case study on post-COVID-19 creative industries in Russia's Urals region, and Chapter 18 explores how entrepreneurship education shapes students' entrepreneurial intentions in South Africa. The concluding Chapter 19 advocates for viewing entrepreneurship as a vital driver of economic development in South Africa.

Through these chapters, the book offers a thorough exploration of entrepreneurship within BRICS nations, highlighting pandemic-induced challenges and recovery opportunities moving forward. **BR**

16th BRICS Academic Forum



C Capturing the essence of the 16th BRICS Academic Forum, held in Moscow, 22 - 24 May 2024. Through a lens focused on “BRICS New figures at the Global Chessboard,” witness the convergence of academia, diplomacy, and policy shaping the future of global cooperation. Exploring themes of collaboration, innovation, planet diversity, international trade, just finance, and inclusive development in this vibrant photo essay. **BR**



From left to right: Dr Vyacheslav Nikonov, First Deputy Chairman, Committee on International Affairs, State Duma of the Federal Assembly of the Russian Federation; Chairman of the Board, National Committee on BRICS Research; Prof Victoria Panova, Head, BRICS Expert Council - Russia; Vice Rector, HSE University; Russian W20 Sherpa; Prof Sarah Mosoetsa, CEO, Human Sciences Research Council & Interim Chair of the South African BRICS Think Tank; Walter A. Desiderá Neto, Researcher, Institute for Applied Economic Research; Dr Xin Jin, China Council for BRICS Think-tank Cooperation; Dr Jafar Bedru Geletu, Executive Director, Institute of Foreign Affairs; Nandan Unnikrishnan, Distinguished Fellow, Observer Research Foundation





Dr Alireza Khoda Gholipour, Deputy Director General and Director for Asian Studies, Institute for Political and International Studies



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AI Technology: Friend not Foe? Session, 16th BRICS Academic Forum



Dr Jafar Bedru Geletu, Executive Director, Institute of Foreign Affairs and Mr Nandan Unnikrishnan, Distinguished Fellow, Observer Research Foundation

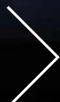


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From left to right: Mr Sergei Ryabkov, Deputy Foreign Minister of the Russian Federation, Russia's BRICS Sherpa; Prof Victoria Panova, Head, BRICS Expert Council - Russia; Vice Rector, HSE University; Russian W20 Sherpa and Dr Vyacheslav Nikonov, First Deputy Chairman, Committee on International Affairs, State Duma of the Federal Assembly of the Russian Federation; Chairman of the Board, National Committee on BRICS Research



Dr Xin Jin, China Council for BRICS Think-tank Cooperation



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NATIONAL INSTITUTE
FOR THE HUMANITIES
AND SOCIAL SCIENCES

Email: info@nihss.ac.za
Tel: +27 11 480 2300
Fax: +27 11 482 3068

2nd floor, 24 St Andrews
Johannesburg, Parktown
Gauteng, 2193

Postnet Suite 413
P/Bag X30500
Houghton, 2041

www.nihss.ac.za