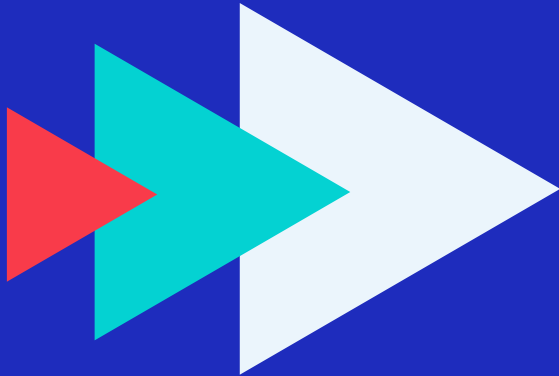




International
Labour
Organization



Brazil-China Cooperation in OSH and Skills Development Feasibility Study : a South-South approach

In the Framework of the 50th Anniversary of China-Brazil Diplomatic Relations



Brazil-China Cooperation in OSH and Skills Development Feasibility Study¹

Department for Multilateral Partnerships and Development Cooperation/PARTNERSHIPS
International Labour Organization (ILO), October 2023, revised September 2024

¹ Edited by Anita Amorim & Prepared by ILO consultant Karin Costa Vazquez with inputs from: Anita Amorim, Feixia Li, Anastasiia Pavlova, Andrea Villavicencio, Vinicius Pinheiro, Fernanda Barreto, Chang-Hee Lee, Dai Xioachu, Joaquim Nunes, Xian Guan, Qingyi Li, Patrick Daru, Anne Posthuma, Duncan Chando, José Ribeiro, Stefano Merante, Laetitia Dumas, Roman Novozilov and Fábio Silva & Graphic Design: Kwassy Adjah.

Table of Contents

Preface

1. Cooperation Between Brazil & China on Decent Work. The example of OSH and skills development in ILO
2. Opportunities for Brazil-China cooperation in OSH
 - 2.1 Brazil
 - 2.2 China
 - 2.3 Differences and similarities between Brazil and China's approaches to occupational safety and health
 - 2.4 What can the two countries share with each other?
 - 2.5 Opportunities for cooperation
3. Opportunities for Brazil-China cooperation in skills development
 - 3.1 Brazil
 - 3.2 China
 - 3.3 Differences and similarities between Brazil and China's approaches to
 - 3.4 What can the two countries share with each other?
 - 3.5 Opportunities for cooperation
4. Engagement with the New Development Bank
5. Summary of recommendations

Preface

South-South Cooperation (SSC) has emerged as a transformative force in international development over the past four decades, enabling developing nations to share knowledge, skills, and resources to address common challenges. Within this framework, the International Labour Organization (ILO) plays a pivotal role, leveraging SSC to promote decent work and social justice worldwide. Recognizing the potential of collaboration beyond the Global South, the ILO embraces South-South and Triangular Cooperation (SSTC), a modality that includes support from Northern partners, fostering self-reliance, mutual learning, and solidarity.

As Brazil and China celebrate the 50th anniversary of their diplomatic relations on August 15, 2024, it is an opportune moment to reflect on their significant contributions to SSC and SSTC, particularly within the context of BRICS—a group of emerging economies comprising Brazil, Russia, India, China, and South Africa. Both Brazil and China have demonstrated leadership in advancing decent work and social justice within BRICS and beyond. Their collaboration under the SSTC framework has been instrumental in addressing key labor issues, promoting sustainable development, and fostering inclusive economic growth.

The ILO's cooperation with Brazil and China within BRICS is characterized by initiatives that enhance occupational safety and health (OSH) and skills development, reflecting the priorities identified in recent bilateral agreements. These efforts align with the broader objectives of the BRICS Productivity Ecosystems and the pursuit of high-quality development. As the ILO continues to work closely with Brazil, China, and other BRICS countries, this collaboration not only contributes to the realization of the Sustainable Development Goals (SDGs) but also reinforces the ILO's mission to promote social justice and decent work for all.

This study focuses on the potential for Brazil-China collaboration in OSH and skills development, areas that are central to both countries' SSTC agendas. It aims to guide future cooperation activities, ensuring that they contribute to the ILO's objectives and the broader development goals of the Global South. As Brazil and China deepen their partnership, the ILO remains committed to supporting their efforts to create a more equitable and sustainable world.

1. Cooperation Between Brazil & China on Decent Work. The example of OSH and skills development in ILO

South-South Cooperation (SSC) has emerged as a pivotal mechanism in the field of international development over the past four decades. The underlying rationale for this collaborative framework is rooted in the understanding that developing nations possess a wealth of knowledge, skills, resources, and technical expertise that can be mutually beneficial when exchanged. This exchange transpires through a complex web of regional and interregional collective actions. These actions encompass a diverse array of partnerships that involve not only governments but also regional organizations, civil society, academic institutions, and the private sector. It is crucial to note that SSC serves as a complement to, rather than a replacement for, traditional North-South cooperation. Guiding the SSC agenda are the principles of respect for national sovereignty, equality, solidarity, non-conditionality, and mutual benefit.²

According to the ILO, Triangular Cooperation (TC), on the other hand, is a specialized form of South-South Cooperation that involves the support of a Northern partner. South-South and Triangular Cooperation (SSTC) has thus evolved into a significant modality of development cooperation. The ILO has opted to use the term SSTC, rather than SSC exclusively, as there are always open doors for cooperation with additional partners from the South and the North in this modality. It is characterized by both financial and non-financial exchanges among the participating entities from the Global South and the North.³ SSTC aims to foster self-reliance, mutual learning, and solidarity among developing nations. It places a strong emphasis on the principle of mutual benefit and underscores the significance of horizontal partnerships. These partnerships are instrumental in addressing common challenges, catalyzing innovation, and facilitating the achievement of the Sustainable Development Goals (SDGs). The Brazilian government prefers the terminology “trilateral”, finding that it is more equitable, and does not lead to any ambiguity on the question of the “tip of the triangle” possible hierarchy. Nevertheless, as the UN system still uses the term “triangular”, we opted to maintain it throughout the study.

The International Labor Organization (ILO) has adopted a comprehensive approach to SSTC in recognition of the potential of this collaborative framework in advancing decent work and social justice worldwide. ILO engages in SSTC by working with governments, workers, and employers’ organizations to identify, document and disseminate good practices; facilitate exchanges and peer-to-peer learning approaches; promote knowledge sharing between social partners and other actors through multi-stakeholder partnerships (MSP); broker agreements and memoranda of understanding; and share

² https://www.ilo.org/wcmsp5/groups/public/---ed_norm/---relconf/documents/meetingdocument/wcms_617990.pdf

³ https://www.ilo.org/wcmsp5/groups/public/---ed_norm/---relconf/documents/meetingdocument/wcms_617990.pdf

good practices. In implementing its SSTC program, ILO cooperates with the UN Office for South-South Cooperation and other UN agencies and programs to promote inclusive and sustainable development, enhance social protection, improve working conditions, and ensure fundamental rights at work, contributing to the achievement of the 2030 Agenda for Sustainable Development.

In the pursuit of its SSTC program, the ILO collaborates closely with the Inter-Agency Mechanism for South-South Cooperation. This collaborative approach aligns with promotion of the SDGs and, by doing so, the ILO plays a vital role in ensuring the realization of fundamental rights at work, under the over-arching agenda of promoting decent work for all and promoting social justice.

ILO also cooperates with Brazil, Russia, India, China, and South Africa (BRICS) and the five additional countries that joined in 2024. In implementing its SSTC program. Since 2005, Brazil has contributed more than US\$ 45 million to ILO for projects in Brazil and in more than 35 developing countries. Recently, Brazil and ILO have launched the South-South Cooperation Program 2023-2027 “Social Justice for the Global South” to promote decent work and social justice in developing countries in Latin America, Africa, and Asia-Pacific.⁵ China signed its first SSTC agreement with ILO in 2012 and contributed more than US\$ 10 million since then in support to SSTC, the decent work agenda, and, more recently, the development of laws and regulations for mutual skills recognition in the ASEAN region. Currently it has signed an agreement under the Global Development Initiative (GDI) for the promotion of Public Employment Services and Entrepreneurship in ASEAN countries, through SSTC. Russia contributed US\$ 20 million to ILO-G20 training strategy between 2012-2021. Currently, due to the Russia-Ukraine conflict, the funding had to be halted. India and ILO have been cooperating through the ILO’s International Training Centre since 2012, as well as the India Fund for South-South Cooperation (close to US\$1 million), while South Africa has contributed US\$ 32 million to ILO programs in public infrastructure and employment policy planning, through direct trust funds. ILO and South Africa have also been cooperating under the BRICS Employment Working Group during the 2023 South African presidency of the BRICS.⁶

Engaging with emerging partners in SSTC offers several advantages and opportunities for ILO. First, it allows ILO to tap into the diverse expertise and experiences of emerging countries. By fostering collaboration and knowledge exchange, ILO can learn from the successful strategies and innovative solutions implemented by these countries and take them to other contexts on a demand basis. Second, it enables ILO to leverage additional resources and technical assistance for SSTC. Many emerging countries have experienced significant economic growth and possess resources that can be harnessed to support

⁵ <https://southsouthpoint.net/2023/06/16/brazil-and-ilo-sign-new-agreement-to-promote-decent-work-and-social-justice-in-latin-america-africa-and-asia-pacific/>

⁶ Based on ILO BRICS Factsheet from May 2023.

ILO's SSTC initiatives. BRICS countries alone have contributed over US\$ 60 million to ILO in the last ten years through SSTC, direct trust funds, development cooperation projects and PPPs.⁷ Third, engaging with emerging partners enhances ILO's reach and impact, as these countries often have substantial labor markets and influence in regional and global forums. Partnering with emerging economies like India or South Africa, for instance, allows ILO to advocate for social justice, workers' rights, and decent work on a broader scale, benefiting other countries in the Global South.

Advancing decent work and social justice is at the heart of BRICS cooperation. Since 2009, the BRICS leaders' joint declarations have addressed various labor-related issues such as creating sustainable and inclusive employment opportunities as well as addressing unemployment through policies that promote job creation and skills development; strengthening social safety nets, expanding social security coverage, and improving access to quality healthcare, education, and housing to ensure the well-being and social security of the population; upholding fundamental labor rights and standards, fair working conditions, non-discrimination, and the elimination of child labor and forced labor; promoting employment, productivity, and innovation through skills development and vocational training; empowering women through equal opportunities and the elimination of gender-based discrimination in the workplace; and creating green jobs and pursuing sustainable and inclusive growth.⁸

Under the 2023 South African Presidency, BRICS countries have been discussing how to optimize the relationship between productivity and decent work to boost economic growth and develop sustainable enterprises for job creation and poverty reduction. The BRICS countries have identified the need for more integrated policies at the national level and enhanced collaboration to shape the complex puzzle where productive and sustainable enterprises lead to more and better jobs, better social protection, increased gender equality, the transition from the informal to the formal economy and sustainable and inclusive economies and societies. As a result, the South African Presidency has proposed the creation of a collaborative platform for BRICS Productivity Ecosystems within the context of the Strategy for BRICS Economic Partnership 2025 to reallocate factors of production towards more productive sectors and to create more and better-quality jobs.

As two major SSTC partners and BRICS countries, the cooperation between China and Brazil holds significant potential to contribute to advancing decent work and social justice within the BRICS and beyond. Brazil and China's approach to decent work and social justice is rooted in their understanding of labor as a driver for economic and social progress. The two countries have taken proactive steps to promote this agenda within

⁷ Based on ILO BRICS Factsheet from May 2023.

⁸ Based on a review conducted by the author of BRICS leaders' joint declarations since 2009. <http://www.brics.utoronto.ca/summits/index.html>

their respective jurisdictions, albeit with different strategies reflective of their distinct socio-economic contexts. Brazil has committed to advancing decent work and social justice through a multi-faceted approach, which includes safeguarding labor rights, fostering inclusive labor markets, and extending social security coverage.⁹ China, for its turn, has made concerted efforts to balance its rapid economic growth and large-scale industrialization with the need for decent work and social justice by adopting policies aimed at improving working conditions in both rural and urban areas, and enhancing employment especially among the youth.¹⁰

ILO has worked closely with Brazilian and Chinese government, workers, and employers' organizations to promote decent work and social justice. In Brazil, major areas of cooperation have included social protection, combating forced labor and child labor, promoting social dialogue, and strengthening labor inspection and employment policies.¹¹ ILO work in China has been focused on promoting employment, enhancing social protection, strengthening tripartite dialogue, and addressing labor issues such as discrimination and occupational safety and health (OSH).¹² As Brazilian President Luiz Inácio Lula da Silva and Chinese President Xi Jinping are renewing ties with a view to achieving green reindustrialization, high-quality development, and a multipolar global order¹³ opportunities for bilateral cooperation to advance decent work and social justice increase, thanks to the Presidential visit to China in April 2023.¹⁴ And so does the prospects for Brazil-China collaboration with other developing countries and ILO under the SSTC framework. During the visit, the two sides signed fifteen accords¹⁵ in areas ranging from science and technology to social development - including the launch of an initiative to fight hunger and extreme poverty, even foreseeing the development of an alliance with multilateral organizations to place the issue on the international agenda.¹⁶

BOX 1 – Brazil President Luiz Inácio Lula da Silva visit to China and relevant MOUs signed

Brazil stands as the first developing country to enter a strategic partnership with China and the first country in Latin America to form a comprehensive strategic relationship and to achieve a bilateral trade volume exceeding US\$100 billion with the Asian powerhouse.

⁹ Based on ILO-Brazil Factsheet from May 2023 and literature review. <https://southsouthpoint.net/wp-content/uploads/2023/05/BRICS-Factsheet-April-2023-FINAL-VERSION.pdf>

¹⁰ Based on ILO-China Factsheet from May 2023 and literature review.

¹¹ Based on ILO-Brazil Factsheet from May 2023.

¹² Based on ILO-China Factsheet from May 2023.

¹³ <https://www.ft.com/content/766ed3aa-3f51-4035-8573-43254c9756d5>

¹⁴ http://ae.china-embassy.gov.cn/eng/zgyw/202304/t20230414_11059515.htm

¹⁵ <https://www.gov.br/secom/pt-br/assuntos/noticias/2023/04/brasil-e-china-fecham-15-acordos-e-reforcam-parceria>

¹⁶ <https://noticias.uol.com.br/colunas/jamil-chade/2023/03/23/brasil-e-china-fecharao-acordo-para-criar-alianca-internacional-contra-fome.htm>

Since 2009, China has consistently been Brazil's most significant trading partner. In 2022, Brazil's trade surplus with China reached an unparalleled US\$61.8 billion. China has made considerable investments across various sectors in Brazil, maintaining an investment stock that exceeds US\$70 billion.

A platform for advancing Brazil's new industrialization

President Luiz Inácio Lula da Silva's visit to China in May 2023 represented more than a renewal of bilateral ties; it signified a pivotal moment for Brazil to seek in China a strategic partner to advance the structural reforms and policies it aims to promote. In the first days of his term, President Lula outlined a comprehensive vision for Brazil that encompasses an "energy and ecological transition towards sustainable agriculture and mining, enhanced family farming, and a more environmentally conscious industrial sector." With its experience in reforestation and clean and efficient energy technologies, China emerges as a partner for Brazil in its transition to a low-carbon economy.

Specifically, Brazil has an opportunity to diversify its exports to China and enhance their value within a reindustrialization process that can leverage the partnership with China for the transfer of green technologies and investments in sectors conducive to employment generation, emissions reduction, integration into new global value chains, and the implementation of the 2030 Agenda in Brazil. The Memoranda of Understanding (MoUs) signed aim to facilitate a more seamless integration of Foreign Direct Investment (FDI) with technological advancement and value addition within agricultural and industrial production chains.¹⁷ This entails both the transfer and collaborative development of technology to expedite Brazil's technological catch-up while fostering investments in sectors capable of fostering greater economic complexity.

Fostering a more equitable and sustainable global governance structure

From China's perspective, Lula's visit holds particular significance as he would be the first head of state to visit the country following the Two Sessions, thereby accentuating Brazil's importance within President Xi Jinping's vision for a New Era. Both Lula and Xi converge on the need of a new world order predicated on human progress, poverty eradication, widespread prosperity, and ecological harmony. This shared vision is not confined to bilateral relations; both leaders acknowledge that Brazil and China have the collective potential to make substantial positive contributions on a global scale.

During the visit, the two countries formalized a cooperation agreement in social development¹⁸ and initiated dialogues aimed at establishing a global alliance to combat

¹⁷ See: <https://agenciabrasil.ebc.com.br/en/politica/noticia/2023-04/brazil-and-china-sign-memorandums-new-industrialization>

¹⁸ See: <https://static.poder360.com.br/2023/04/12-acordo-brasil-china-combate-fome-pobreza.pdf>

poverty and hunger.¹⁹ This prospective alliance would build on Brazil's and China's respective successes in eradicating extreme poverty and hunger, the pivotal role of Brazilian agriculture in ensuring China's food security, and the mutual interest in reconfiguring food systems to enhance sustainability and resilience in global food access. The alliance is expected to be launched during Brazil's G20 presidency starting December 2023.

One of the Brazilian Government's priorities is the promotion of SSTC to combat hunger and poverty and to foster decent work and the conditions necessary to improve human development indexes worldwide.²⁰ To achieve these goals, Brazil's approach to SSTC focuses on creating long-term, systemic impact through capacity building, institutional strengthening, and knowledge transfer. This so-called "structuring impact approach" aims to empower partner countries to drive their own development agendas, fostering self-reliance and creating lasting positive change.^{21,22} In June 2023, the Brazilian Cooperation Agency (ABC) of the Ministry of Foreign Affairs and the International Labor Organization (ILO) signed the new South-South Cooperation Program 2023-2027 "Social Justice for the Global South," designed to support the promotion of decent work and social justice in developing countries in Latin America, Africa, and the Asia-Pacific region. Established in 2009, the Brazil-ILO South-South Cooperation Program has already implemented over 20 projects, collaborating with more than 40 countries in Africa, Latin America, and the Caribbean. In its new phase, the initiative seeks to contribute to the implementation of the 2030 Agenda, particularly Sustainable Development Goal 8 (decent work and economic growth) and 17 (means of implementation). It will support the enhancement of partner countries' capacities in four areas of action: eradication of child labor and forced labor; strengthening of inspection, OSH; promotion of equality and equity in gender, race, and generational issues in the world of labor; and promotion of decent employment and social protection.

China approaches SSTC with a commitment to promoting common prosperity. Through initiatives like the Belt and Road Initiative (BRI) and the Global Development Initiative (GDI), China supports infrastructure development, skills training, and technological cooperation in partner countries notably to achieve full employment and to eradicate poverty, mainly among youth and women. In 2015, the New Development Bank (NDB) was born out of South-South solidarity, as well as new multipolar geopolitical approaches among Brazil, China, and the other three BRICS countries to finance infrastructure and sustainable development in emerging markets and developing countries.²³ These

¹⁹ See: <https://noticias.uol.com.br/colunas/jamil-chade/2023/03/23/brasil-e-china-fecharao-acordo-para-criar-alianca-internacional-contra-fome.htm>

²⁰ Based on ILO-Brazil Factsheet from May 2023 and literature review.

²¹ Vazquez, K. C. and Lucey, A. (2016). *Advancing South-South Cooperation in Education and Skills Development: Lessons from the Field*. New York: UNDP.

²² <https://brapci.inf.br/index.php/res/download/133878>

²³ Roychoudhury, Supriya, and Karin C. Vazquez. "What is New About the BRICS-Led New Development Bank?" *Devex*, June 9, 2016. Accessed June 9, 2016. Available at: <https://www.devex.com/news/what-is-new-about-the-brics-led-new-development-bank-88126>.

approaches and institutions possess the potential to guide collaborations aimed at promoting decent work and social justice in Brazil, China, and the wider Global South.

Against this background, this study aims to identify Brazil-China collaboration potential in the labor field under the SSTC framework. By analyzing and comparing the development orientation of the two countries and identifying their demands, this study will shed light on potential avenues for mutual learning and collaboration in priority areas pre-identified by ILO, namely OSH and skills development. The study is funded through the project “South-South Cooperation on mining safety training between China, South Africa and Zambia”, which justifies the selection of OSH as one of the focus areas. The selection of skills development is justified by its centrality in both Brazil and China SSTC, the two countries’ pursuit of high-quality development and green reindustrialization, and the development of BRICS Productivity Ecosystems. The findings will guide ILO support to future cooperation activities between Brazil, China, and other developing countries while ensuring they contribute to the realization of ILO's decent work and social justice agenda and the SDGs.

August 15, 2024 marks the 50th anniversary of the establishment of diplomatic relations between the Federative Republic of Brazil and the People’s Republic of China. This is the right time to reflect on the path taken and to plan for promising prospects for the future.

The study has focused in two areas: Occupational Safety and Health and Skills Development. The areas of cooperation, based on the agreements and over 15 [MOUs](#) signed at highest levels during the Presidential visit in April 2023, several these linking to important areas of ILO’s work such as skills, gig economy, trade and investment, etc. We narrowed down the study to these two areas due to the source of funding for the study which was the ILO’s regular budget support to development cooperation (RBTC) assigned to SSTC in Asia, which had OSH and Skills among key topics identified for the biennium 2022-2023.

The UN has been steering global efforts to tackle the challenges in the field of work. The 2030 Agenda for Sustainable Development addresses aspects of decent work and economic growth (SDG 8) such as promoting safe and secure working environments for all workers (Target 8.8). The 2030 Agenda for Sustainable Development also stresses the role of education as a means towards decent jobs (SDG 4) and of lifelong learning to keep up with the changing skills needed for the labor market (SDG 8). Targets 4.3, 4.5, 4.7 and 8.6 stress different ways to break the vicious circle of low education, low productivity, and poverty for the promotion of inclusive economic growth and decent jobs through skills development.

ILO has played a pivotal role in establishing conventions, goals, guidelines, and other normative frameworks to guide global efforts to protect workers and promote safe and

healthy workplaces. These include more than 40 international labor standards, namely the fundamental OSH conventions, the Occupational Safety and Health Convention, 1981 ([No. 155](#)), and the Promotional Framework for Occupational Safety and Health Convention, 2006 ([No. 187](#)). Convention No. 155, which set out core principles and requirements for national OSH governance and OSH management systems, risk assessment, prevention, and workers' participation²⁴ At its 110th Session in June 2022 the International Labor Conference recognized a safe and healthy working environment as a fundamental principle and right at work.

These normative frameworks have guided ILO strategies, including the [Global Strategy on Occupational Safety and Health](#).²⁵ Adopted in 2003, the Global Strategy on Occupational Safety and Health outlines the strategic objectives and key areas of action to improve OSH at the national and international levels. These normative frameworks also guide ILO various programs and initiatives to support OSH, namely projects under the [Safety and Health for All](#) flagship program and its [Vision Zero Fund](#).

ILO also places a strong emphasis on skills development as a crucial component of its mission to promote decent work. ILO approach to skills development is anchored in the Human Resources Development Convention, 1975 ([No. 142](#)), which sets out principles for national policies on training and skills development. Complementing these frameworks, the [ILO's Global Skills for Employment Initiative](#), launched in 2011, aims to enhance the relevance, quality, and inclusiveness of skills development systems worldwide. Through various programs and initiatives such as the [Skills for Jobs Database](#) and the [ILO Skills Academy](#), the ILO promotes lifelong learning, skills recognition, and improved access to quality training opportunities.

The 111th International Labor Conference (ILC) adopted a new [Recommendation on Quality Apprenticeships](#), with the aim of supporting "opportunities for people of all ages to continuously qualify, re-skill and improve" in rapidly changing labor markets. The recommendation provides a clear definition of apprenticeship and specifies the standards to which quality apprenticeship is aspired, including the rights and protection of apprentices.

ILO recognizes the crucial role of skills development in preparing individuals for the challenges and opportunities of the digital economy. ILO's approach to skills development for the digital economy is guided by a range of major normative frameworks, including the Skills for Employment Recommendation, 2004 ([No. 195](#)), which provides guidelines for designing effective skills development systems. Additionally, the ILO's [Global Initiative on Decent Jobs for Youth](#) focuses on enhancing skills development opportunities for young

²⁴ List of OSH standards available [here](#).

²⁵ The pillars and guiding principles for a new strategy have been adopted by the ILO Governing Body in March 2023 (GB.347/INS/7).

people in the digital economy. The ILO also implements various programs and initiatives to support skills development for the digital economy, such as the Skills for Trade and Economic Diversification (STED) program, which aims to strengthen the capacity of enterprises and workers to adapt to changing technologies and market demands.

To effectively address the challenges and opportunities posed by the digital economy, the ILO has developed [the ILO's Digital Skills for Decent Jobs Campaign](#). This campaign aims to promote the acquisition of digital skills and bridge the digital divide, particularly for vulnerable groups and those in disadvantaged situations. It aligns with the ILO's broader Decent Work Agenda, which emphasizes the need to provide decent work opportunities, promote social protection, and uphold workers' rights in the digital era. Furthermore, [the ILO's Global Skills for Employment Knowledge Sharing Platform](#) serves as a repository of best practices and resources related to skills development for the digital economy, enabling countries to learn from each other's experiences and foster collaboration. By employing these strategies and programs, the ILO endeavors to ensure that individuals have the skills and capabilities necessary to thrive in the digital economy, while promoting inclusive and sustainable development.

2. Opportunities for Brazil-China cooperation in OSH

Brazil and China have implemented various measures to promote workplace safety and safeguard the health and well-being of their workers. This section highlights the norms, policy directions, programs, and SSTC initiatives undertaken by both countries in the field of OSH.²⁶ It examines the similarities and differences in their approaches, identifies areas of potential knowledge sharing between Brazil and China, and explores opportunities for cooperation with third countries. It further addresses the challenges and risks associated with such collaboration.

2.1 Brazil

Brazil has taken an innovative approach to OSH, mainly considering the historical challenges associated with precarious employment practices that have perpetuated social inequalities in the country. The country has established a comprehensive regulatory framework aimed at promoting workplace safety, preventing occupational hazards, and safeguarding workers' rights. This regulatory framework encompasses key legislation such as the [Federal Constitution](#), the [Consolidation of Labor Laws](#), and the [Occupational Safety and Health Norms](#), which lay out many workers' rights that, in other countries, would be handled only through [statutes or regulations](#). For instance, the

²⁶ The topics were pre-identified after a desk review of key documents provided by ILO. The author sought ILO experts' validation to the topics pre-identified.

Constitution and the Consolidation of Labor Laws delineate maximum weekly working hours and prohibits hazardous work for those under 18 years of age.

The Occupational Safety and Health Norms, for their turn, consist of 38 standards called “regulatory norms” (NR) encompassing a wide range of topics such as risk assessment, safety equipment, chemical hazards, machinery safety, and occupational health services. These NRs provide guidelines and impose rights and duties on both employers and employees, ensuring the provision of a safe and healthy working environment to all workers, including those in formal and informal employment, the military, and civil servants.²⁷ Compliance with these NRs is mandatory for all companies, and failure to adhere to them may result in penalties, fines, and legal action.

[Tripartite commissions](#) bear the responsibility for the surveillance and revision of the NRs. These commissions also conceive and execute worker protection programs to confront specific occupational hazards and health risks across various industries. One such program is the Prevention of Work-Related Musculoskeletal Disorders, which aims to prevent injuries or disorders affecting muscles, nerves, tendons, joints, cartilage, and spinal discs through ergonomic interventions. At the workplace level, Occupational Health Committees are constituted by representatives of workers and employers to deliberate and propose solutions to occupational safety and health issues. These committees foster dialogue, cooperation, and participatory approaches to tackle workplace hazards and enhance working conditions.

Brazil has also developed a comprehensive [National Policy on Occupational Health and Safety](#) to promote and ensure safe and healthy working conditions. The National Policy emphasizes the prevention of occupational hazards, the integration of occupational health initiatives into broader public health policies, and the protection of workers' rights. Enacted in 2011, the National Policy is the first official document specifically dedicated to OSH in Brazil. Prior to its establishment, OSH efforts were dispersed across various ministries such as the Ministry of Labor, the Ministry of Health, and the Ministry of Environment. The National Policy consolidates these efforts into a unified approach, bringing together government sectors, voluntary participation from companies, unions, and workers. In alignment with the principles of the Brazilian Unified Health System (SUS), the National Policy upholds the principles of integrality, universality, and prevention, ensuring comprehensive protection of the work environment and providing assistance in the event of accidents.

²⁷ One notable example is Pattern 7, which specifically addresses hearing health in the workplace. This standard establishes permissible decibel levels and mandates the implementation of dedicated programs to assist workers in all sectors exposed to noise hazards. Additionally, there are broader programs that outline preventive measures and procedures to be followed both before and after workplace incidents. For instance, regulations stipulate the requirement for pre-employment and periodic medical examinations to monitor and safeguard workers' health.

The [National Network for Workers' Health Assistance](#) integrates occupational health actions into the broader framework of the Brazilian public health system, ensuring that workers have access to essential occupational health care, preventive measures, and rehabilitation services. This network comprises public health services dedicated to providing comprehensive occupational health services to workers and implements the National Policy on Occupational Health and Safety within SUS. Through the establishment of this network, Brazil ensures the health of its workers and establishes a surveillance and monitoring service under the auspices of the SUS. This initiative aims to enhance access to occupational health services, develop proactive measures for protection, prevention, and health monitoring in the workplace, and promote specialized health care for workers. Furthermore, it encourages the integration of the National Network for Workers' Health Assistance with other thematic networks within the SUS, fostering collaboration and knowledge sharing among different sectors to address workers' health concerns.²⁸

Brazil has recently started to share its experience in the field of OSH with other developing countries.²⁹ Initiatives have mainly comprised knowledge sharing (e.g., sharing information on policy frameworks, regulatory systems, risk assessment methodologies, preventive measures, and worker protection programs that have proven effective in Brazil) and capacity building in selected value chains and areas like labor inspection. Two frameworks guide Brazil's SSTC in OSH. The first is the US\$ 4 million project looking specifically at fundamental labor rights. The second is the recently signed Brazil-ILO Partnership for South-South Cooperation Promotion Program for the years 2023-2027. This program is designed to promote decent work conditions and social justice in developing countries in Latin America, the Caribbean, Africa, and the Asia-Pacific through SSTC. To this end, Brazil and the ILO agreed to foster the development, strengthening, and integration of labor inspection and OSH promotion policies, programs, and initiatives in one of the workstreams. The Brazilian government has also identified elaboration of OSH norms, national campaigns to prevent hazards in the workplace as the areas it would like to share in its SSTC engagements.³⁰

Examples of Brazil's SSTC in OSH include the integration of Brazil's experience in OSH into ILO efforts to combat child labor across Latin America, the Caribbean, and Africa.³¹ In Peru and Paraguay, there have been efforts to adapt Brazilian experiences such as the "[Self-Learning Manual in Health and Safety of Child and Youth Labor](#)". In Suriname, Brazil is sharing experiences in strategies for planning, implementation, and modernization of labor inspection, including occupational health and safety practices, under the framework of the [Regional Initiative for a Latin America and Caribbean Free from Child Labor](#).

²⁸ For instance, if a worker is identified as being exposed to carcinogenic factors or hazardous work environments, the commission responsible can collaborate with the relevant network within the SUS that specializes in oncological issues.

²⁹ Interview with ILO specialist in July 2023.

³⁰ Based on project document.

³¹ Based on ILO-Brazil Factsheet from May 2023 and project document.

Moreover, a project with the Community of Portuguese Language Countries (CPLP) will facilitate a knowledge sharing space for the dissemination and understanding of OSH guidelines³² under CPLP Declaration and 2021-2025 Plan of Action to Combat Child Labour. CPLP countries have further agreed to join the global partnership to catalyze action on SDG Target 8.7 on eradicating forced labor, ending modern slavery and human trafficking and the elimination of child labor.

Brazil also actively participates in international forums and organizations related to OSH, such as the ILO and the WHO. Through these platforms, Brazil and other developing countries have advocated for improved occupational safety and health standards, policies, and practices globally (e.g. safe and healthy working conditions, fair wages, social protection, and workers' rights; comprehensive occupational safety and health regulatory frameworks and enforcement mechanisms to protect workers from hazards, prevent work-related injuries and illnesses, and promote a culture of safety in the workplace; thorough hazard identification and risk assessment processes; workers' participation and social dialogue in decision-making processes related to occupational safety and health; etc). In 1992, Brazil ratified Convention 155 on Occupational Safety and Health. This year, the Promotional Framework for Occupational Safety and Health Convention (Convention 187) has proceeded for ratification.³³ Table 1 below provides additional examples of Brazil's SSTC initiatives in OSH.

TABLE 1 – Examples of Brazil's SSTC initiatives in OSH

| | |
|---|--|
| <p>Worker's Health International Course: A flagship initiative of the Brazilian Ministry of Health and the Oswaldo Cruz Foundation (Fiocruz), it offers an international training course on workers' health, aiming to build capacity and promote best practices in OSH. The course attracts participants from various developing countries.</p> | <p>Brazil-Africa Cooperation: Brazil has been actively engaging in cooperation with African countries in the field of OSH. Through various initiatives, such as technical assistance, training programs, and knowledge sharing, Brazil supports African countries in strengthening their OSH systems.</p> |
| <p>Triangular Cooperation Initiatives: Brazil also engages in TC with other developing countries, and international organizations. In these initiatives, Brazil shares its</p> | <p>PAHO/WHO Collaboration: Brazil collaborates with the Pan American Health Organization and the WHO in promoting occupational safety and health in the Latin</p> |

³² Based on ILO-Brazil Factsheet from May 2023 and literature review.

³³ Interview with ILO OSH specialist in July 2023.

experiences and resources in OSH to support the development efforts of developing countries, with the assistance of international organizations such as the ILO and WHO.

American and the Caribbean. The collaboration includes sharing expertise, conducting joint research, and providing technical assistance to member countries.

2.2 China

China's continued efforts to strengthen domestic regulations on OSH have resulted in significant advancements in workplace vitality in recent years. The [Law on the Prevention and Control of Occupational Diseases](#) (职业病防治法) and the Work Safety Law (安全生产法) establish the normative foundation for fostering workplace safety, preventing occupational diseases, and safeguarding workers' rights nationwide. The Chinese Government prioritized occupational health in the [National Plan on Prevention and Control of Occupational Diseases](#) (2016–2020) and the [Healthy China 2030](#) as one of its 15 major health projects. It has further detailed targets and strategies for reducing exposure to occupational hazards, advancing health education, enhancing prevention and treatment of occupational diseases, and fortifying occupational health surveillance and evaluation.

China has emphasized prevention and control of occupational diseases through the extensive use of data and technology. The [Occupational Safety and Health Management System](#) (OSHMS), for example, has allowed the Chinese government to assist organizations in adopting more systematic approaches to maintain safe and healthy working environments. OSHMS provides a framework for organizations to evaluate and manage workplace risks, establish safety policies, undertake regular safety audits, and encourage continuous improvement in occupational safety and health. The Occupational Health Surveillance Program, for its turn, gathers data on occupational diseases, workplace exposures, and health outcomes to identify emerging issues and inform policy and intervention strategies. This program aids in assessing the effectiveness of preventive measures and guides decision-making in occupational health management.

The Chinese government has also established a robust set of measures to strengthen workplace monitoring, improve occupational health services, enhance the diagnosis and treatment of occupational diseases, and set up compensation mechanisms for victims of occupational diseases. Safety inspections and enforcement measures have been implemented to ensure compliance with these regulations and initiatives. These measures are particularly pertinent to high-risk industries such as mining, construction, and manufacturing. For instance, the Ministry of Emergency Management has implemented measures such as the closure of small mines and the replacement of

underground workers with machines. Consequently, China has observed a significant decrease in the fatality rate within the coal mines over the past 30 years.³⁴

An additional initiative involves the cultivation of a safety-oriented culture in workplaces through training programs, campaigns, and other endeavors aimed at enhancing awareness among employers and workers about best practices in workplace safety, risk prevention, and the significance of maintaining a secure working environment. China has also developed a comprehensive [occupational health service system](#) to deliver basic health services to its workforce. These services encompass pre-employment health examinations, regular health check-ups, the diagnosis and treatment of occupational diseases, health education, and rehabilitation services. The government encourages employers to establish occupational health clinics and supports the professional development of occupational health specialists.

China has started to engage in SSTC to promote OSH standards in partner countries through capacity building programs (e.g. training and scholarships for foreign officials and experts, enabling them to gain deeper insights and practical expertise in OSH). The country also invests in joint research initiatives involving data sharing and scientific exchanges to broaden understanding of occupational health risks and to devise effective prevention strategies and interventions. It further promotes technology transfer through the donation of sophisticated equipment and tools to support OSH monitoring and improve the provision of occupational health services.

Through infrastructure projects and investments, including under the BRI, China contributes to promoting workplace safety, health protection, and worker well-being in other developing countries. For example, ILO and the Ministry of Emergency Management signed an MOU on “South-South Cooperation on Work Safety Under the Framework of the Belt and Road Initiative” to leverage China’s experience with reducing accidents and fatalities at work, while recognizing the need for continuous training and other preventive measures that can be supported by the ILO’s experience in OSH.³⁵³⁶³⁷ ILO also signed a MOU with the Ministry of Transport of China intended to support occupational safety, safeguard the lives of seafarers, and improve the well-being of maritime staff along the 21st Century Maritime Silk Road.³⁸

China has also been engaging in SSTC in OSH in the agricultural sector with the goal to strengthen food chain value addition and resilience in developing countries while ensuring food security in China. For example, China and IFAD have cooperated to

³⁴ Interview with ILO China program specialist in July 2023.

³⁵ <https://www.undp.org/sites/g/files/zskgke326/files/migration/cn/2017-Report-on-the-Sustainable-Development-of-Chinese-Enterprises-Overseas.pdf>

³⁶ <https://www.ilo.org/pardev/donors/china/lang--en/index.htm>

³⁷ https://www.ilo.org/wcmsp5/groups/public/@dgreports/@exrel/documents/publication/wcms_550919.pdf

³⁸ Based on ILO-China Factsheet from May 2023 and project document.

strengthen the bamboo value chain in Africa. Bamboo farmers from Cameroon, Ethiopia, Ghana and Madagascar went to China to learn about bamboo production and OSH. By exploring various ways bamboo could be used and strengthening OHS in the bamboo chain, these farmers moved to higher value addition bamboo chains upon return to their countries. China has also contributed financial resources to SSTC including through the creation of a US\$50 million fund for agriculture development in IFAD.³⁹

New opportunities for cooperation in OSH emerge as China launches the GDI and endeavors to more closely align the BRI with the the 2030 Agenda. According to a UNDP survey, Chinese enterprises operating in BRI regions are conducting Social Impact Assessments prior to the implementation of their projects and establish occupational health and safety management systems. These enterprises report that adherence to local laws and regulations concerning labor force employment is a vital aspect of establishing harmonious labor relations.⁴⁰ There are also opportunities for cooperation in norm-setting. In 2007, China ratified Convention 155 on Occupational Safety and Health. However, it has not yet ratified the Promotional Framework for Occupational Safety and Health Convention (Convention 187). Table 2 below provides further instances of China's South-South Cooperation (SSC) and Technical Cooperation (TC) in the domain of Occupational Safety and Health (OSH).

TABLE 2 – Examples of China’s SSTC initiatives in OSH.

| | |
|--|---|
| <p><u>China-ASEAN Occupational Safety and Health Cooperation:</u> China actively engages in cooperation with ASEAN countries on OSH. This includes technical exchanges, capacity building programs, and joint research initiatives to promote OSH standards and practices in the region.</p> | <p><u>China-ILO South-South and Triangular Cooperation:</u> China partners with the ILO on SSTC in the field of OSH. This collaboration involves knowledge sharing, technical exchanges, and capacity building initiatives to promote OSH standards and practices globally.</p> |
| <p><u>China-Africa Occupational Safety and Health Cooperation:</u> China has established cooperative partnerships with African</p> | <p>Triangular Cooperation with International Organizations: China engages in TC with international organizations, such as UNDP</p> |

³⁹ Interview with ILO SSTC consultant in July 2023. For more information on the IFAD project see: https://www.ifad.org/documents/38714170/43438658/china-ifad_sstcf_report2020.pdf/9168e910-1e10-d370-fc33-f7fb5f719be4?t=1627305439577

⁴⁰ <https://www.undp.org/sites/g/files/zskgke326/files/migration/cn/2017-Report-on-the-Sustainable-Development-of-Chinese-Enterprises-Overseas.pdf>

countries to enhance OSH. This cooperation involves training programs, knowledge sharing, and capacity building initiatives tailored to address the specific OSH challenges faced by African nations.

and WHO to enhance OSH in developing countries. These initiatives involve joint projects, technical assistance, and resource sharing to support OSH capacity building.

2.3 Differences and similarities between Brazil and China's approaches to occupational safety and health

Brazil and China see OSH as an important area and share the overarching goal of safeguarding workers' rights, promoting workplace safety, preventing occupational hazards and diseases, and ensuring safe and healthy working conditions. The two countries take a preventive approach to OSH that emphasizes risk assessment and the promotion of workplace safety culture through training programs, educational initiatives, and awareness campaigns.

As large countries, Brazil and China experience some decentralization in the implementation of OSH standards. This decentralization offers benefits as it allows the two countries to align norms and policies more closely with the specific realities and requirements of different regions and provinces. However, it also presents challenges in maintaining coherence with the broader national system, as recommended by ILO Conventions 155 and 187.⁴¹ For example, Brazil employs a specific and prescriptive approach that covers most potential risks and diseases, ensuring comprehensive coverage nationwide despite diverse practices at the local level. Conversely, China has enacted specific laws to address OSH in the most hazardous industries, while providing a broader framework outlining general principles for the remaining industries.⁴²

Another difference lies in the approach to occupational health services and the prevention of occupational diseases. China also places a significant emphasis on the prevention and control of occupational diseases and has implemented a comprehensive program to strengthen workplace monitoring, the provision of occupational health services, and compensation mechanisms. Brazil, too, prioritizes the prevention of occupational diseases, but its strategies for implementation vary compared to China's approach.⁴³ For example, Brazil operates a network of public health services under the auspices of the National Network for Workers' Health Assistance and takes a participatory approach for tackling workplace hazards and enhancing working conditions.

⁴¹ Interview with ILO OSH specialist in July 2023.

⁴² Interview with ILO OSH specialist in July 2023.

⁴³ Interview with ILO OSH specialists in July 2023.

Both Brazil and China engage in SSTC in OSH, albeit their approaches differ in terms of focus areas and strategies. A review and analysis of project and program documents suggests that China's SSTC is still very little. The few ongoing initiatives seem to focus on infrastructure development, technology and financial resources transfer, and research collaboration for workplace risk prevention. Conversely, Brazil's approach seems to revolve around policy and norms sharing, worker participation, integration with public health, and targeted programs in occupational hazards.

2.4 What can the two countries share with each other?

Brazil and China have valuable experiences and initiatives in OSH. By exchanging best practices, the two countries can enhance their respective approaches and contribute to the overall improvement of occupational safety and health for their workforce.

As demonstrated in the previous sections, China holds a comparative advantage in utilizing new technologies for training in occupational safety, as well as in the management and analysis of data for workplace risk prevention. Additionally, China displays a comprehensive understanding of the Asian system, which can facilitate access for Brazil to share its experiences with other countries in the region. On the other hand, Brazil possesses a comparative advantage in areas such as labor inspection systems, and its practices align more closely with the principles and ILO conventions compared to China.

Both countries may explore in areas such as OSH practices in agriculture and the informal economy especially the high-risk sectors. This exploration may include how China promotes OSH in rural areas and how both countries manage to reach the most vulnerable groups by integrating OSH with skills development, such as the competencies needed to protect oneself and co-workers. Table 3 below highlights specific areas that Brazil and China can share with each other.⁴⁴

TABLE 3: Areas Brazil and China can share with each other.

| What Brazil can share with China: | What China can share with Brazil: |
|--|---|
| Occupational Disease Prevention: China has implemented a comprehensive program for the prevention and control of occupational diseases. Brazil can learn from China's approach and strengthen its focus on occupational disease prevention, including robust monitoring, early | Detailed Occupational Safety and Health Norms: Brazil's OSH norms provide detailed guidelines and requirements for various aspects of workplace safety. China can learn from Brazil's approach to develop more specific and prescriptive standards, helping to ensure clearer implementation and enforcement of |

⁴⁴ Interview with ILO OSH specialist in July 2023.

| | |
|--|---|
| detection, and intervention measures with the use of data and technology. | occupational safety measures domestically and in overseas initiatives such as the BRI. |
| National Occupational Health Surveillance Program: China has a well-established Occupational Health Surveillance Program that collects data on workplace hazards and health outcomes. Brazil can benefit from implementing a similar program to systematically monitor occupational health indicators, identify emerging issues, and inform evidence-based policy decisions. | Occupational Health Committees: Brazil encourages the establishment of Occupational Health Committees at the workplace level. China can learn from Brazil's emphasis on worker participation and cooperation in addressing occupational safety and health issues, fostering dialogue and collaboration between employers and workers. |
| | Worker Protection Programs: Brazil has implemented worker protection programs targeting specific occupational hazards. China can learn from Brazil's programs and consider developing targeted initiatives to address specific occupational health risks prevalent in its industries. |

2.5 Opportunities for cooperation

Brazil-China cooperation in OSH should be built upon bilateral, regional, and multilateral frameworks. At the bilateral level, the memoranda of understanding signed during President Lula's visit to China in April 2023 could serve as an entry point for the two governments to continue a dialogue on OSH. This could eventually lead to pilot initiatives that, upon delivering meaningful results to both parties, could be scaled up to deepen their working relationships. At the regional level, the recent ILO-Brazil program for promoting social justice in the Global South could provide an opportunity for China to collaborate with Brazil and third countries in the realm of OSH. In the preparatory workshop for the elaboration of the program, this was identified by participants from Brazil: the Brazilian constituents were keen on learning on some of the digitalization methods of China to deal with OSH. Moreover, at the global level, the Collaborative Platform for BRICS Productivity Ecosystems, proposed by South Africa, could lay the foundation for Brazil-China cooperation with other BRICS countries and beyond.

The ILO could play a facilitating role at each of these levels by offering tools, forums, and mechanisms to catalyze cooperation. Additionally, ILO may consider partnering with other UN agencies to establish links between OSH, agriculture, and skills development

throughout value chains, including those under the BRI. For instance, ILO could identify common challenges faced by Brazil and China in OSH, agriculture, and skills development and initiate a Challenge Call to identify development solutions and implement and upscale them. Furthermore, ILO could further develop OSH and skills methodologies to promote decent work in selected value chains and combat child and forced labor.

Taking these considerations into account, Brazil-China cooperation in OSH could be prompted by Brazil's commitment to reindustrialization and China's experience in balancing rapid industrialization and economic growth with decent work and social justice, including through the application of new technologies. Bilateral cooperation could be anchored in the development of an early warning system to collect data on workplace hazards and health outcomes, systematically monitor occupational health indicators, identify emerging issues, and inform evidence-based policy decisions and intervention measures. This early warning system could integrate Brazil's "Digital Health Observatory", launched by the Public Labor Ministry and the ILO to facilitate access to georeferenced data on the incidence and number of work accident notifications, accumulated social security expenses, and lost workdays, among other data and statistics.⁴⁵

Bilateral cooperation would entail sharing China's experience in data collection and processing to anticipate workplace risks and developing predictive technology and models for decision-making, technology transfer, and capacity building facilitated by ILO. Brazil would benefit from predictive technology to further consolidate its own OSH model. This cooperation would also serve to propagate Chinese best practices and consolidate a positive perception of China's role in OSH. Moreover, it would help raise awareness in both Brazil and China about the significance of investing in OSH, inclusive of its potential to raise companies' productivity and competitiveness in both domestic and global markets as well as to minimize the state's financial burden associated with workplace accidents.

This cooperation could serve as the foundation for a broader bilateral dialogue on Brazil and China OSH frameworks and the relevant institutions and actors involved. This bilateral dialogue could be framed under ILO Conventions 155 and 187, specifically, how each country is implementing or preparing to ratify them. This approach could help foster a more tangible strategy within the context of the two conventions and develop a substantial cooperative agenda between Brazil and China facilitated by ILO. For example, China has been endeavoring to establish OSH committees, a necessity that became glaring during the pandemic. Brazil could share its experience developing specific and prescriptive standards regulatory norms, Tripartite Committees, and Occupational Health Committees, emphasizing the participatory role of social entities such as trade unions and their history of dialogue and collaboration with employers in addressing workplace safety and health issues. On the other hand, Brazil has high incidence of road accidents. China

⁴⁵ Interview with ILO Brazil OSH specialist in July 2023

has established a robust road safety [standardization system and a methodology](#) to improve road safety and workplace cooperation, which could be shared with Brazil.⁴⁶

This strategy could also be beneficial in examining the role that Brazil and China could play in other countries. As key players in Latin America and Asia respectively, Brazil and China could champion the implementation of ILO Convention 155, including through the BRI and the GDI. For instance, China could invite Brazil to share its experiences in the China-ASEAN Occupational Safety and Health program, facilitated by the ILO. Both countries could share their respective practices pertaining to workplace inspections, particularly in relation to hazards associated with traditional sectors such as mining and agriculture.⁴⁷ For example, ILO could partner with the Brazilian Ministry of Social Development, the Ministry of Agrarian Development, and relevant UN agencies to have an OSH component included in the [Global Alliance Against Hunger and Poverty](#) signed during President Lula's visit to China earlier this year. The OSH component could target food chain value addition and resilience building on Brazil and China's experiences for the benefit of third countries amid the current instability of food chains worldwide. Initiatives could include the documentation of experiences, as well as the collation and sharing of tools developed in the two countries.⁴⁸ These tools could then be extended with other countries where agriculture constitutes a significant proportion of the GDP through a dedicated ILO Knowledge Series and seminars.⁴⁹

The ILO should continue providing support to the development and subsequent implementation of the Collaborative Platform for BRICS Productivity Ecosystems at the BRICS level. Once approved by the BRICS leaders, the platform could be the basis for broader cooperation with ILO and the New Development Bank as detailed in the last section.

Potential challenges and risks

Including OSH within the framework of the BRI is a desirable approach to give more visibility and traction to ILO in China. However, this strategy poses two potential risks. First, although China has programs to foster OSH within the BRI, the principles and values used may not align with those of the ILO. Consequently, they may not be fully coherent with ILO's standards.⁵⁰

Second, the success of whichever approach is chosen may be contingent upon funding opportunities. The ILO's work in SSTC has been entirely reliant on individual Chinese

⁴⁶ Interview with ILO OSH specialist in July 2023

⁴⁷ Interview with ILO OSH specialist in July 2023

⁴⁸ Interview with ILO China program specialist in July 2023

⁴⁹ Interview with CINTERFOR Executive in July 2023

⁵⁰ Interview with ILO OSH specialist in July 2023

ministries, meaning that the ILO has not managed to secure funds from outside these departments.⁵¹

At this juncture, activities of a smaller scale, such as seminars and capacity-building initiatives with countries involved in the BRI, might be the most suitable approach. The execution of these activities predominantly relies on the interest of the countries in question. Therefore, the success of such endeavors ultimately hinges on the ILO's ability to sensitize and engage with key governmental officials in Brazil and China.

3. Opportunities for Brazil-China cooperation in skills development

Brazil and China have implemented various measures to address the skills gap, ensure digital inclusion, and leverage the opportunities presented by digitalization for socioeconomic advancement. This section highlights the norms, policy directions, programs, and SSTC initiatives adopted by both countries in skills development with a focus on the digitalization of skills systems and digital skills.⁵² It examines the similarities and differences in their approaches, identifies areas of potential knowledge sharing between Brazil and China, and explores opportunities for cooperation with third countries. It further addresses the challenges and risks associated with such collaboration.

A recent study visit from Chinese and Indian Authorities to South Africa ([July-August 2023](#)), that included a high-level tripartite policy dialogue, depicts the potential for South-South cooperation in the field of apprenticeships. In the next biennia, Brazil could also share its expertise therein. Some of the elements of the Chinese good practices can be found in the ILO's unpublished report therein, reflected in ILO's South-South meeting point: "China's Commitment to Skills Development: In Changxing County, China, a visionary approach to apprenticeship and skill development has taken root through dedicated continuing education institutes in every town. These institutes serve as catalysts for personal and community growth, addressing a wide spectrum of educational needs with a strong emphasis on skill enhancement. Their comprehensive programs encompass workforce transfer training, reskilling initiatives, enterprise staff training, and community education, all meticulously tailored to urban residents' specific requirements. What sets Changxing County's model apart is its emphasis on practicality and alignment with local job markets. Two notable examples, the Continuing Education Institute of Si'an Town and the Continuing Education Institute of Lijiexiang Town, stand as beacons of success. They collaborate closely with local businesses, nurturing apprentices and imparting them practical, job-relevant skills that align seamlessly with the region's

⁵¹ Interview with ILO China Executive in July 2023

⁵² The topics were pre-identified after a desk review of key documents provided by ILO. The author sought ILO experts' validation to the topics pre-identified.

employment landscape. Township enterprises have wholeheartedly embraced and supported these programs, recognizing the quality of education they provide.”⁵³

3.1 Brazil

Brazil is making significant strides in skills development for digitalization, closing the digital skills gap and paving the way for a digitally inclusive society. Given the rapid pace of technological advancements and the ever-evolving digital skills demand, it is critical that the country maintains and deepens these efforts. The country has taken significant steps to establish norms and policy directions aimed at skills development for digitalization. The [National Education Plan](#), implemented in 2014, introduced ICT training across all education levels. Subsequently, the [Digital Transformation Strategy](#), launched in 2018, outlined a roadmap for developing digital skills to foster digital inclusion, innovation, and competitiveness. The Ministry of Education's "[Novos Caminhos](#)" initiative further supplements these efforts by emphasizing vocational training in ICT and fostering a culture of lifelong learning.

Brazil has launched several programs and initiatives to foster skills development for digitalization. Among these, the National Digital Inclusion Program, "[Computers for All](#)," stands out. This program aims to equip low-income households with computers and internet access and provide them with digital literacy training. Another notable initiative is the "[Brasil Mais TI](#)" program to provide free online courses in various ICT areas and to train professionals for the expanding digital market. The government has also collaborated with private enterprises like Google and Microsoft to improve digital skills among students and teachers. These partnerships have resulted in numerous training programs, resources, and tools to promote digital education.

Brazil has a well-established system and innovative approaches to apprenticeship. Brazil's regulatory framework for apprenticeship is defined under the Consolidation of Labor Laws, which mandates that firms of a certain size must fill a percentage of their positions with apprentices aged 14-24. The SENAI (National Service for Industrial Training), part of the "S" system⁵⁴, offers robust apprenticeship programs aligned with

⁵³ High-Level Policy Dialogue in South Africa – South-South Meeting Point (southsouthpoint.net)

⁵⁴ The Ministry of Labour of Brazil sets the labour training policy, which is carried out by training institutions, all of whom have a title which starts with an “S” (hence the S-system). The S-system is made up of the following: the National Commercial Apprenticeship Service (Serviço Nacional de Aprendizagem Comercial - SENAC); the National Industrial Apprenticeship Service (Serviço Nacional de Aprendizagem Industrial - SENAI); the National Transport Learning Service (Serviço Nacional de Aprendizagem do Transporte - SENAT); the Brazilian Micro and Small Enterprises Support Service (Serviço Brasileiro de Apoio às Micro e Pequenas Empresas - SEBRAE); the National Cooperative Learning Service (Serviço Nacional de Aprendizagem do Cooperativismo - SESCOOP); the Social Transport Service (Serviço Social de Transporte - SEST); Industry's Social Service (Serviço Social da Indústria - SESI); Commerce's Social Service (Serviço Social do Comércio - SESC); and the National Rural Apprenticeship Service (Serviço Nacional de Aprendizagem Rural – SENAR). Training provided through the S-system are mainly

industry needs. Brazil "S" System also serves as a unique model, akin to sector skills councils, where industry-led entities oversee skills development in their sectors. Entities like SENAI, SENAC, and SENAR cater to industrial, commercial, and agricultural sectors, respectively.

Brazil's Technical and Vocational Education and Training (TVET) programs have started integrating green skills in curricula, with SENAI playing a significant role. However, the greening of TVET programs is an area requiring greater attention. Competency standards, curricula, and training processes need more alignment with sustainability principles, necessitating robust collaborations among government, TVET institutions, and industry.⁵⁵ As for recognition of prior learning (RPL), initiatives are primarily driven by SENAI and SENAC. These efforts can have a positive impact on formalizing the labor market, offering better job opportunities for workers.

Brazil's SSTC strategy in skills development has often revolved around leveraging the expertise of its 'S System', especially SENAI. SENAI, with its robust vocational training infrastructure and expertise, has played a significant role in transferring Brazilian TVET experiences to other developing nations, particularly those in Africa and Latin America. One concrete example is the South-South project launched in 2010 between [Brazil and Haiti](#), facilitated by ILO. This project aimed to rehabilitate vocational training centers in Haiti and provide Haitian youth with the skills needed for the reconstruction of their country, post-earthquake. Brazilian experts, mainly from SENAI, helped revamp curricula, train Haitian instructors, and establish mechanisms for TVET public-private partnerships. Over 2,000 Haitians were trained in construction-related skills.

Brazil has also participated in various ILO-facilitated SSTC initiatives focused on digitalization. For example, ILO's Skills for Trade and Economic Diversification ([STED](#) [program](#)) has been instrumental in helping countries anticipate skills needs in sectors with export potential. Through such programs, Brazil has shared its experiences in developing digital skills necessary for modern global trade. Moreover, through ILO, [Brazil has partnered with Germany](#) in a TC project aimed at developing green jobs and sustainable businesses in the construction sector. This project leverages Brazil's progress in sustainable skills development, Germany's technical expertise, and the ILO's global reach and experience. More than 100 trainers were trained to deliver courses on sustainable construction. Table 4 below provides further instances of Brazil's SSTC in the domain of skills development.

financed through 1-2.5% employer payroll levies, which are collected through the social security system. The exception to this is SENAR, which is financed by a levy on the sale of agricultural goods.

⁵⁵ Interview with ILO OSH and skills specialists in July 2023.

TABLE 4 – Examples of Brazil’s SSTC initiatives in skills development.

| | |
|---|---|
| <p>SSTC in TVET with African countries: Brazil has been collaborating with countries like Angola, Mozambique and Guinea Bissau to strengthen TVET programs, improve vocational training and facilitate labor market integration. These initiative aim to develop skills relevant to the labor market demands and promote employability.</p> | <p>Brazil-Timor-Leste Skills Development in Agriculture: Brazil has been providing technical cooperation to Timor-Leste in the agricultural sector to develop skills and enhance agricultural productivity. This initiative includes training programs and knowledge transfer in agricultural practices by Embrapa.</p> |
|---|---|

3.2 China

China's comprehensive and strategic approach to skills development for digitalization has yielded substantial results. Its policy directions, education system, digital inclusion measures, and focus on green skills provide valuable lessons for countries looking to navigate the digital transition. China has consistently prioritized the digital economy in its national policies, recognizing the vital role it plays in socioeconomic advancement. The 13th Five-Year Plan (2016-2020) highlighted the "[Internet Plus](#)" strategy to integrate internet technologies with traditional industries while the [14th Five-Year Plan](#) (2021-2025) underscores the significance of new technologies, including artificial intelligence (AI), big data, and the Internet of Things (IoT) for digital literacy and the acquisition of skills necessary for a digital economy. One of the key policies to make China the world's primary AI innovation center by 2030 is the "[Next Generation Artificial Intelligence Development Plan](#)" to cultivate talent and create a favorable environment for AI research and development.

China’s education system has undergone substantial digital transformation. The country's "[Double First Class](#)" initiative aims to improve the quality of education and promote world-class disciplines in selected universities. Digital technology is heavily integrated into the curriculum. Vocational education and training, also an essential part of China's skills strategy, is gradually being seen by Chinese employers as a viable alternative to university degree and by citizens as way to position in an increasingly evolving economy. There is a strong emphasis on developing applied skills and strengthening the integration between industry and education. Digital skills have also been incorporated into vocational programs across a variety of sectors to create a workforce equipped with the skills needed in the digital age.

China is exploring a more responsive and comprehensive vocational training system. The Ministry of Human Resources and Social Security (MOHRSS), in collaboration with the

Ministry of Finance, has been implementing the China New Apprenticeship Program since 2018. The program aims to establish a dual system involving enterprises and schools to integrate work and learning, with financial incentives. It also focuses on conducting courses according to training standards and strengthening training in technical skills, digital skills, green skills, and occupational safety. According to this national scheme, it is expected that 500,000 apprentices will be trained annually.

China is also implementing a well-structured apprenticeship system. The [Vocational Education Law of the People's Republic of China](#) and the Apprenticeship Measures set the legal and policy framework for apprenticeships. Work-integrated learning and school-enterprise collaboration programs have been introduced to foster the symbiosis between industry and academia, effectively creating a bridge between vocational education and industry needs. Furthermore, policies have been initiated to allow vocational school students to earn both a diploma and one or more vocational skill level certificates, encouraging the formalization of apprenticeships and enhancing the practical skills of graduates. Companies in partnership with vocational schools also provide apprenticeship programs, focusing on skills needed in the labor market.

China has demonstrated a top-down approach in establishing and managing sector-specific councils to identify skill gaps, develop competency standards, and facilitate training programs in various industries. For instance, the Automotive Industry Development Policy, issued by the State Council, created the Automotive Talents Council to ensure the availability of skilled labor. These councils comprise government, industry, and academic representatives, ensuring a comprehensive understanding of skills needs.

The Chinese government has also recognized the importance of digital inclusion and has implemented various measures to ensure it, particularly among rural and disadvantaged populations. To bridge the digital divide, China has implemented policies to ensure nationwide internet access. Through programs like the [“Broadband China,”](#) the country has focused on increasing internet access and AI literacy, including in e-commerce skills to enable rural digital economies.

China's commitment to achieving carbon neutrality by 2060 has necessitated the incorporation of green skills into digital skills training. The [Green Development Guidance for Promoting the Green Transformation of Industrial Development](#) advocates green vocational training, with updated competency standards, curricula, and training and assessment processes. The government has actively integrated green competencies into TVET programs, emphasizing low-carbon technologies and practices. This includes establishing competency standards, curricula, training, and assessment processes, and training instructors on green technologies and sustainability practices. Vocational training institutions are working on integrating renewable energy and energy efficiency into their digital skills training programs.

China has made significant strides in utilizing South-South Cooperation mechanisms to share its skills development experiences, particularly with developing countries in Asia and Africa. Through various bilateral and multilateral partnerships, China has increasingly focused on sharing its knowledge and resources in vocational education and training, digitalization, and skills anticipation. One of the pillars of China's South-South Cooperation approach in skills development is the BRI. The initiative has facilitated cooperation in vocational education and training between China and other developing nations, including the establishment of more than 130 vocational training centers. The China-ILO SSTC project reached nearly 30 African and Asian countries, sharing China's experiences and methodologies in skills development and employment promotion. A specific instance is the partnership between [China and Pakistan](#), which includes the establishment of vocational training centers and the provision of vocational training for local Pakistani youth in various sectors.

Moreover, China's cooperation with ILO has produced several initiatives in skills development. The Ministry of Human Resources and Social Security (MOHRSS) and ILO signed a MOU for "[South-South Cooperation under the Framework of the Belt and Road Initiative](#)" in areas such as social protection, skills development, and labor governance. The China-ILO SSTC project on promoting Decent Work in Asia and Africa (2015-2022) is another example. The project aims to share Chinese experiences in vocational training, skills development, and employment services with other developing nations. The China-ILO SSTC project reached nearly 30 African and Asian countries, sharing China's experiences and methodologies in skills development and employment promotion.

Another initiative is the project named "Promoting Quality Apprenticeship in India, South Africa, China, Ethiopia, and Switzerland through South-South and triangular cooperation." Its objective is to test and implement tried practices from similar countries, which are shared in the form of success stories or lessons learned. This initiative provides opportunities for national stakeholders to discuss, deep dive into case studies, and use the lessons learned to modernize their apprenticeship systems.

China has also implemented numerous programs to improve digital skills both domestically and in its SSTC initiatives. For example, China has been active in sharing its experiences in e-commerce skills development with other developing nations, such as through the [Electronic World Trade Platform](#) (eWTP) initiative. China has also engaged in TC, working with developed countries and international organizations to support skills development in other developing nations. For instance, China, the United Kingdom, and Kenya partnered in a TC project for vocational skills development in Kenya's horticulture sector, facilitated by ILO. Table 4 below provides further instances of China's SSTC in the domain of skills development.

TABLE 4 – Examples of China’s SSTC initiatives in skills development.

| | |
|--|---|
| <p>China-ASEAN Vocational Education and Training Cooperation: China has been working with ASEAN countries to strengthen vocational education and training systems. Through capacity building, knowledge exchange, and joint projects, this initiative aims to enhance the quality and relevance of vocational education in the region.</p> | <p>China-UNDP Skills Development and Entrepreneurship: China has partnered with the UNDP to support skills development and entrepreneurship in developing countries. This initiative aims to improve livelihoods and promote economic growth through capacity building and vocational training.</p> |
| <p>Promoting Quality Apprenticeship in India, South Africa, China, Ethiopia, and Switzerland through South-South this triangular cooperation aims to test and implement tried practices from similar countries, which are shared in the form of success stories or lessons learned. This initiative provides opportunities for national stakeholders to discuss, deep dive into case studies, and use the lessons learned to modernize their apprenticeship systems.</p> | |

3.3 Differences and similarities between Brazil and China’s approaches to skills development

The digital age has not left Brazil and China unaffected; both nations have recognized skills development as a vital conduit to socioeconomic advancement. Brazil and China understanding of aligning skills development with industry requirements and future trends is demonstrated through their emphasis on TVET and the digitalization of education. For example, Brazil and China have identified and emphasized the significant role of TVET in developing a skilled workforce. The two countries have also demonstrated a strong commitment to skills development through their respective national policies.

Despite these similarities, their approaches diverge in terms of scale, structure, apprenticeship regulations, skills anticipation, and RPL, each reflecting their unique set of challenges and opportunities. For instance, the scale and scope of China's investment in skills development outpace that of Brazil. Initiatives like China has marshaled

considerable resources for skills development. Conversely, Brazil has struggled to match China's level of investment, thus creating opportunities for skill financing in future SSTC initiatives with China in third countries.⁵⁶

The structure of implementing skills development programs in the two countries also presents a stark contrast. China follows a top-down, government-led approach where national policies and strategies play a pivotal role in guiding skills development.⁵⁷ Conversely, Brazil's approach to skills development is more pluralistic, involving a myriad of private and public entities. Notably, the "S" system plays a vital role in Brazil's vocational training landscape. Furthermore, concerning their apprenticeship frameworks, Brazil has a more structured system, which is mandatory for companies with more than seven employees. In contrast, China's apprenticeship programs are more voluntary in nature, emphasizing industry-academia collaboration.

Both Brazil and China recognize the significance of future-oriented skills. China has made considerable progress in anticipating high-tech skills; however, the country is still in its early stages when it comes to anticipating and responding to skills related to environmental sustainability. On the other hand, Brazil needs to focus more on digital literacy and green skills to further strengthen its position as a global leader in skills development.⁵⁸ The current challenge lies in bridging the digital divide, particularly in remote areas, by implementing comprehensive strategies to enhance digital infrastructure and literacy.

Regarding RPL, Brazil has a more developed system than China, with the 'S' System and mainly SENAI playing a crucial role in validating non-formal and informal learning. While this approach fosters relevant skills training, enhancing its effectiveness would involve greater synchronization with broader national development strategies.⁵⁹ The challenge is to broaden the reach of RPL initiatives, raise awareness about their benefits, and integrate them more comprehensively into the formal education and training system.

3.4 What can the two countries share with each other?

Brazil and China have taken different approaches to foster skills development for digitalization, each gaining unique experiences that can be mutually shared to better prepare their respective workforces for the triple transition. First, the digital transition, has been accelerated by the pandemic and will require TVET to be more digitalized, utilizing tools like virtual realities and AI. At the policy and grassroots levels, the digital transition can present opportunities to implement skills development centers that train

⁵⁶ Interview with ILO skills specialist in July 2023.

⁵⁷ Interview with ILO Deputy Director in July 2023.

⁵⁸ Interview with ILO Deputy Director in July 2023.

⁵⁹ Interview with ILO Brazil skills specialist in July 2023.

the workforce on digital technologies. Second, the green transition will compel countries to reform their TVET systems by offering training for jobs in the green economy and areas that can drive change, such as green competencies that promote sustainable practices within companies. Third, the inclusive transition must include a focus on gender and vulnerable groups.

In light of these circumstances, there is an opportunity for China to share its experience in the digitalization of the TVET system with Brazil. Beyond training in digital skills, experiences to be shared could cover aspects such as accreditation, certification, financing, monitoring and evaluation, and other TVET functions that could be digitalized. Another valuable experience to be shared is the use of AI and predictive models to anticipate industry needs and shape TVET systems based on the skills that will be required in the future. The two countries can learn together on how to make the TVET system more environmentally friendly. This could include initiatives to develop an inventory of tasks within existing occupations that could be made more environmentally sustainable and incorporating green aspects into existing curricula. Moreover, the two countries can explore how training centers can adopt greener practices, both in terms of competencies and training processes. Table 5 below highlights specific areas where Brazil and China can share their experiences with each other.

TABLE 5 - Areas Brazil and China can share with each other.

| What Brazil can share with China: | What China can share with Brazil: |
|--|--|
| <p>Leveraging technology for skills development: China's commitment to digitalization of education provides a valuable experience for Brazil. China's use of online platforms for vocational training and massive open online courses (MOOCs) allows remote and flexible learning, expanding access to education. Brazil, while making progress in digital education, could benefit from China's experience in integrating technology into the education system.</p> | <p>Bridging the digital divide: On the other hand, Brazil's efforts to bridge the digital divide, particularly in remote and underserved areas, could provide valuable insights for China. Brazil has worked towards digital inclusion through various programs, aiming to ensure equal access to technology. This experience could be beneficial to China, which also faces challenges in ensuring digital equity across its vast and diverse population.</p> |
| <p>Anticipating future skills: China's strategic foresight in high-tech skills anticipation, demonstrated in its AI Development Plan, could serve as an insightful lesson for Brazil, which is working to foster a future-ready workforce. In turn, Brazil's focus on environmental sustainability skills</p> | <p>Apprenticeship and work-integrated learning: Brazil's structured and compulsory apprenticeship system, which integrates theoretical learning with practical experience, could provide lessons for China, especially in relation to formalizing and strengthening its own</p> |

| | |
|---|--|
| <p>through its "Green Jobs and Sustainable Development" agenda provides an interesting case study for China, especially considering China's own emphasis on green development in its Five-Year Plans.</p> | <p>apprenticeship programs. Conversely, China's strong emphasis on industry-academia collaboration, as seen in the "Work-Integrated Learning" program, could provide Brazil with new insights on strengthening the nexus between education and industry.</p> |
| | <p>Recognition of prior learning: Brazil's developed RPL system could serve as a model for China as it seeks to build a comprehensive RPL system. The validation of non-formal and informal learning is crucial to include more individuals in the formal labor market and ensure that their skills are recognized and utilized effectively.</p> |

3.5 Opportunities for cooperation

Like Brazil-China cooperation in OSH, Brazil-China cooperation in skills development should also build on the existing bilateral, regional, and multilateral frameworks. At the bilateral level, the agreements signed during Lula's visit to China could provide an entry point for the two partners to start a dialogue on skills development, eventually leading up to pilot initiatives that could be scaled as they deliver meaningful results to both parties and as working relationships deepen. At the regional level, the recent ILO-Brazil program to promoting social justice in the Global South could serve an entry point for China to collaborate with Brazil and third countries in skills development. At the global level, the Collaborative Platform for BRICS Productivity Ecosystems, proposed by South Africa could serve as a foundation for Brazil-China cooperation with other BRICS countries and beyond.

Taking these considerations into account, Brazil-China cooperation in skills development could be prompted by Brazil's commitment to reindustrialization and China's experience in balancing rapid industrialization and economic growth with decent work and social justice, including the application of new technologies. Cooperation could be anchored in innovation at the macro, meso, and micro levels.⁶⁰ At the macro level, policy dialogue could focus on how governments effectively mainstream innovation. The meso level would target sectoral approaches, including dialogue and activities in high-priority sectors, such as using the ILO STEAD sectoral skills anticipation tool. Both countries could

⁶⁰ Interview with ILO skills specialist in July 2023.

partner with intermediary bodies in the skills systems, like Brazil's "S" System, to carry out these initiatives and improve systems for qualification and recognition of learning. The micro level would monitor the efforts of TVET centers, schools, apprenticeships, and companies in upskilling and reskilling human capital.

Initiatives could include a Knowledge Series on broader trends and frameworks in skills development in both Brazil and China, such as exploring certification and digitalization in the care economy. In a second stage, cooperation could delve deeper into specific ideas, interests, and issues that Brazil and China raise, as the two countries identify points of convergence and complementarity. This could be part of a scoping project between ILO and CINTERFOR, with ILO seed funding and possible ramifications to other funding agencies and partner countries and organizations.

BOX 2 – CINTERFOR

The Inter-American Centre for Knowledge Development in Vocational Training (CINTERFOR) is a specialized center that operates under the auspices of the International Labour Organization (ILO). Established in 1963, the center is headquartered in Montevideo, Uruguay. CINTERFOR aims to promote the exchange of experiences and knowledge in the field of vocational training and human resource development among the countries of Latin America and the Caribbean. It serves as a platform for cooperation, dialogue, and the sharing of best practices among governmental agencies, training institutions, and social partners such as employers and workers' organizations.

CINTERFOR's objectives are multifaceted. It seeks to improve the quality and relevance of vocational training, enhance the employability of workers, and contribute to sustainable development. To achieve these goals, the center engages in a variety of activities, including research, technical assistance, and capacity-building programs. It also organizes seminars, workshops, and training courses, and publishes materials that serve as resources for vocational training institutions and policymakers.

The center collaborates with a network of institutions and organizations, both within and outside the ILO framework. This network enables CINTERFOR to gather a wealth of information and expertise, which it disseminates through various channels, including its website, publications, and training programs. The center's activities are guided by the principles of social dialogue and tripartism, which involve the active participation of governments, employers, and workers in decision-making processes. CINTERFOR's work has been recognized for its contributions to the development of vocational training systems that are responsive to labor market needs.

Regarding informality, as members of BRICS, Brazil and China could use ministerial declarations to advance cooperation in skills. For example, during the 10th summit in

South Africa, there was a commitment to skills development and addressing the mismatch between demand for new skills. The BRICS business council also made a similar commitment in 2019, and in 2020, employment ministers reaffirmed their commitment to efforts to alleviate poverty through linking it to skills development. Progress reports could be presented before subsequent meetings, discussing challenges, targets, and areas that need assistance while holding each other accountable. One idea would be to create a trust fund to support and scale these initiatives, incentivizing longer projects and considering the SSC and TC perspectives, making it easier to monitor and evaluate these efforts.

China is eager to expand its partnerships in apprenticeship programs. Currently, people are traveling for training within BRICS, but there is a need to scale and align these initiatives with the new [ILO recommendations \(ILC\)](#) on how to build quality apprenticeships. These ILC recommendations include the idea that apprenticeships should be a regulated program, and there should be a national compact for apprenticeship promotion. The current SSC program does not necessarily encompass all these aspects, but it can proceed step-by-step. The initial approach would involve conducting a peer review process of the various apprenticeship programs in the countries, examining their regulations, and using a checklist to discuss them with partner countries. This would allow for a discussion on what works best and identify areas that need improvement in the apprenticeship systems.

Potential challenges and risks

The first challenge in building digital skills is the lack of prior basic skills in many developing countries and the need to avoid exacerbating existing inequalities within them. One approach is to consider the simplest technologies suitable for each location. Design also plays a crucial role in mainstreaming digital inclusion in the program to be implemented. For example, in Brazil, distance learning can be an option with technology reducing knowledge gaps and geographical distances.

Another challenge is how to engage Chinese companies in digital skills initiatives between Brazil and China. Companies like Alibaba, Huawei and Tencent have large skills development programs outside China and could be important partners in sharing their expertise and giving scale to existing projects. As a tripartite entity, ILO must involve the government. In the case of China, this necessarily involves working with government affiliated training centers and institutions. One option to engage Chinese private companies would be to first establish a cooperation with training centers and institutions academia under the guidance of the Chinese government and have PPP engagements as annex.

4. Engagement with the New Development Bank

The 2023 South African Presidency of BRICS has put forth a proposal to create a collaborative platform for BRICS Productivity Ecosystems as part of the Strategy for BRICS Economic Partnership 2025. This proposal is being assisted by ILO⁶¹ and aims to optimize the relationship between productivity and decent work, fostering economic growth, sustainable enterprises, job creation, and poverty reduction. Whereas each BRICS country may proceed with their own country program set up and institutional arrangements, ILO may also be requested to establish an ILO team of productivity experts in some countries where ILO supports the tripartite constituents and national productivity organizations through a development cooperation project for which funds could potentially be mobilized from the NDB.

Within the realm of infrastructure and sustainable development, the New Development Bank (NDB) has delineated its key areas of focus for the 2022-2026 period. These encompass clean energy and energy efficiency, transport infrastructure, water and sanitation, environmental protection, social infrastructure, and digital infrastructure. The NDB places priority on projects that are climate-smart, disaster-resilient, technology-integrated, and inclusive. The NDB also prioritizes the promotion of social inclusion through projects that reduce inequalities and enhance living standards for marginalized communities in the Global South. Beyond income growth, the NDB recognizes the importance of productive inclusion and access to public services such as health, education, sanitation, mobility, and housing. These essential services require investments in specific infrastructure, and the NDB intends to play a more substantial role in supporting such investments as it builds its own capacity and expertise in social inclusion, including in the labor field.⁶²

A mapping of NDB projects in Brazil and China indicates that the bank currently has seven projects that either address OSH indirectly (e.g., by considering OSH among its environmental and social impacts in its risk assessment framework) or directly as an ultimate objective. All seven OSH projects are located in Brazil. Furthermore, the mapping reveals that the NDB presently has four projects dedicated to supporting skills development, with two in Brazil and two in China. The projects in Brazil focus on constructing and upgrading hard education infrastructure, whereas the two projects in China concentrate on digitalization and skills development. These projects mainly aim to enhance institutional capacity for project implementation, including providing consulting services for improved management and operations, as well as staff training (Table 6).

TABLE 6 - NDB projects in Brazil and China related to OSH and skills development

⁶¹ ILO specialist mission to the BRICS Ministers of Labor Meeting in 2023.

⁶² Interview with NDB staff members in May 2023.

| Country | Project | Description | Work related area | Link |
|---------|---|---|--|---|
| Brazil | Clima – Brazil National Climate Fund | Support climate change mitigation and adaptation projects in Brazil. | OSH is listed among the E&S impacts of the project. | https://www.nbd.int/wp-content/uploads/2019/04/Fundo-Clima-Project-Summary-Brazil.pdf |
| Brazil | Banco do Brasil Sustainable Finance | Support investments in sustainable infrastructure associated with agribusiness, enhancing sustainability, productivity, and production output of the agribusiness sector in Brazil. | OSH risks associated with grain storage operations; in line with SDG 8 (decent work) and SDG 9 (Industry, Innovation and Infrastructure) | https://www.nbd.int/project/banco-do-brasil-sustainable-finance-project/ |
| Brazil | FONPLATA Sustainable Infrastructure | Promote the development of local and sustainable infrastructure in Brazilian federal states and medium and large size cities. | OSH | https://www.nbd.int/wp-content/uploads/2022/03/Approved-Projects-Summary-for-Public-Disclosure-FONPLATA-clean-March-2023-v2.pdf |
| Brazil | (VALE) North Region Transportation Infrastructure Improvement | Improve Vale’s capacity and ability to transport iron ore from its mines to its ports, and to global markets. | Improved labor standards - occupational health & safety risks. | https://www.nbd.int/wp-content/uploads/2022/09/19BR02-Vale-Approved-Project-Summary.pdf |

| | | | | |
|--------|---|--|---|---|
| | | | | |
| Brazil | Urban and Sustainable Infrastructure Program - Aracaju City of the Future | Increase of sanitation coverage, street paving, elimination of flood areas, and improve accessibility and mobility throughout the city. | OSH listed among the E&S impacts of the project. | https://www.nidb.int/wp-content/uploads/2022/03/Aracaju-Program-Summary-for-Public-Disclosure-12-13-2022-APPROVED.pdf |
| Brazil | Desenvolve SP (DSP) Sustainable Infrastructure | DSP will use the loan for on-lending to subprojects in the public and private sectors with the scope of works focused on sustainable infrastructure and urban development. Will lead to job creation and income opportunities. | OSH issues on construction site. *Note: multisectoral, consider only infrastructure construction | https://www.nidb.int/wp-content/uploads/2022/03/Approved-Projects-Summary-for-Public-Disclosure-DSP-1.pdf |
| Brazil | Pernambuco Water and Sanitation Efficiency and Expansion | Construction and rehabilitation of infrastructure aiming water security and environmental protection | OSH listed among the E&S impacts of the project. | https://www.nidb.int/wp-content/uploads/2023/03/CO-MPESA-Summary.pdf |
| Brazil | Aparecida de Goiânia 100 Years' Infrastructure | Urban development, mobility and social infrastructure. | Skills development with the construction of 15 school buildings. | https://www.nidb.int/project/aparecida-de-goiania-100-years-infrastructure-program/ |
| Brazil | Teresina Educational Infrastructure | Improve the educational system in Teresina through | Skills development | https://www.nidb.int/wp-content/upload |

| | | | | |
|-------|---|---|--|---|
| | | building and upgrading educational infrastructure to increase the number of students attending full time schools, enhance the availability of nursery places in the municipality, and enhance safety conditions for students to access the schools. | | s/2022/09/20BR01-Teresina-Approved-Project-Summary.pdf |
| China | Guizhou Qianxinan Rural Roads Improvement | Improve connectivity to rural areas. The program includes development of various digital platforms for comprehensive rural road management and operations, and capacity building activities to enhance the institutional capacity of the implementing entities | Digitalization and skills development. | https://www.nidb.int/wp-content/uploads/2022/03/Guizhou-Qianxinan-Rural-Roads-Summary-for-Public-Disclosure-final.pdf |
| China | Guiyang Urban Integration | There are elements of digital infrastructure involved in the project. A smart traffic management system, including a real-time traffic monitoring system and a data center, will collect and process traffic data in Baihua Lake Scenic Area. It will form part of the big data platform at the city level. | Digitalization and skills development, mostly for aiming institutional capacity building for the Project implementation, including consulting services for enhanced management and operation | https://www.nidb.int/wp-content/uploads/2023/04/Proposed-Projects-Summary-for-Public-Disclosure-GURI_31Mar2023.pdf |

| | | | | |
|--|--|--|---|--|
| | | | of roads and parks, and staff training. | |
|--|--|--|---|--|

As the NDB hosted its 8th Annual Meeting under the theme "Shaping a New Era for Global Development," it aimed to strengthen its role in connecting BRICS and other Emerging Market and Developing Countries (EMDCs) for infrastructure and sustainable development. The NDB's President, Ms. Dilma Rousseff, highlighted the bank's role as a cooperation platform originating from and serving the Global South. She also stressed the NDB's strategic objective to become the leading development bank for emerging markets and developing countries, fostering multilateral cooperation on climate and environmental agendas, social inclusion, and economic modernization. NDB governors also recommended that the bank makes greater use of technical cooperation funds, including for project preparation.⁶³

Building upon South Africa's proposal to create a collaborative platform for BRICS Productivity Ecosystems, the NDB current portfolio of projects, and President Rousseff's commitment to make the NDB a cooperation platform of the Global South, the ILO could explore opportunities for cooperation with the NDB in both the short and medium-to-long term.

In the short run, ILO and the NDB may seek ways to deepen contact and dialogue at the working level through participation in relevant meetings organized by both institutions. Additionally, establishing high-level dialogue during the BRICS Summit attended by NDB's President and ILO representative could further strengthen collaboration.

In the medium-to-long run, ILO and the NDB could explore how ILO's programmatic and sectoral expertise could complement NDB's infrastructure lending. For example, ILO office in Brazil and NDB Regional Office for the Americas could review their portfolios to identify possible complementarities between ILO technical assistance and NDB loans and entry points for collaboration in existing and prospective projects. A similar exercise could be conducted between the ILO office in China and the NDB Headquarters. ILO and NDB could also consider how ILO expertise in labor standards could contribute to NDB ESG policies. This could be done through workshops and other knowledge exchange initiatives.

The 9th Annual Review, hosted by South Africa in Cape Town, was also attended by ILO, and deepening of the relations between ILO and the BRICS bank have started.

⁶³ See Brazil Finance Minister, Fernando Haddad, speech at the NDB 8th Annual meeting at www.ndb.org.int

5. Summary of recommendations

For ILO

General:

- Prioritize engagement with key governmental officials in Brazil and China, sensitize them about the opportunities for SSTC in OSH and skills development, and facilitate smaller-scale dialogue and other activities based on the interest of the two countries.
- Identify entry points for Brazil-China support to regional initiatives such as the ILO-Brazil program for promoting social justice in the Global South. This support could include encouraging collaboration between Brazil, China, and other countries in OSH and skills development.
- Promote global collaboration on OSH and skills development, particularly in the context of the BRICS countries. The Collaborative Platform for BRICS Productivity Ecosystems could serve as a foundation for such cooperation.
- Utilise the G20 as an additional platform for cooperation between the two countries

OSH:

- Initiate Challenge Calls to identify development OSH solutions and implement them in collaboration with Brazil, China, and other relevant stakeholders.
- Explore how OSH initiatives within the BRI can best align with ILO standards and values to maintain coherence and international best practices.
- Explore funding opportunities beyond Chinese ministries to sustain SSTC in OSH.

Skills development:

- Initiate a Knowledge Series on broader trends and frameworks in skills development in both Brazil and China, facilitating discussions on certification, digitalization, and other relevant topics.

NDB engagement:

- In the short run, actively seek ways to enhance contact and dialogue at the working level. This can be achieved by participating in relevant meetings organized by both institutions.
- Establish high-level dialogue during the BRICS Summit. The presence of NDB's President and an ILO representative at this forum can provide a platform for strategic discussions and mutual commitments.
- In the medium term, the ILO and the NDB could undertake a comprehensive review of their respective portfolios, particularly in regions where their offices are located. The ILO's office in Brazil and NDB's Regional Office for the Americas could identify potential complementarities between ILO's technical assistance

programs and NDB's infrastructure loans. Similarly, the ILO's office in China and NDB's Headquarters should explore collaborative opportunities.

- Based on the portfolio review, the ILO and the NDB could actively seek collaboration in both existing and prospective projects. Identifying entry points for joint initiatives can maximize the impact of their efforts in areas of common interest.
- ILO's expertise in labor standards could be leveraged to enhance the NDB's ESG policies. This integration can be facilitated through workshops and other knowledge exchange initiatives.

For Brazil

OSH:

- Engage in knowledge sharing with China regarding OSH practices, particularly in areas where it holds a comparative advantage, such as labor inspection systems and alignment with ILO conventions.
- Learn from China's comprehensive program for the prevention and control of occupational diseases. This includes strengthening monitoring, early detection, and intervention measures using data and technology.
- Develop an early warning system for collecting data on workplace hazards and health outcomes. This system should integrate Brazil's "Digital Health Observatory" and leverage China's expertise in data collection and predictive technology.
- Collaborate with China on enhancing food chain resilience in third countries, leveraging their experiences. This can be done through initiatives like the Global Alliance Against Hunger and Poverty, with a specific focus on OSH.

Skills development:

- Learn from China's commitment to digitalization of education and explore the integration of technology, including online platforms and massive open online courses, into its TVET system.
- Engage in innovation at macro, meso, and micro levels. This includes policy dialogue, sectoral approaches, and monitoring of TVET centers, schools, apprenticeships, and companies for upskilling and reskilling human capital.
- Establish quality apprenticeship programs in line with ILO recommendations. Peer reviews of apprenticeship programs in both countries can identify best practices and areas for improvement.
- Explore opportunities to engage Chinese private companies, such as Alibaba, Huawei, and Tencent, in digital skills initiatives. These companies can provide expertise and scalability to projects.

For China

OSH:

- Engage in a bilateral dialogue on OSH frameworks and institutions, with a focus on implementing ILO Conventions 155 and 187 and aligning approaches to OSH.
- Champion ILO Convention 155. Both Brazil and China, as key players in Latin America and Asia, can champion the implementation of ILO Convention 155 in other countries, including through initiatives like the BRI and the GDI.
- Collaborate with Brazil on enhancing food chain resilience in third countries. This can be done through initiatives like the Global Alliance Against Hunger and Poverty, with a specific focus on occupational safety and health.

Skills development:

- Share experience in the digitalization of the TVET system, AI, and Predictive Models for Skills Anticipation with Brazil, including aspects such as accreditation, certification, financing, monitoring, evaluation, and other digitalization of TVET functions.
- Collaborate with Brazil on initiatives to incorporate green aspects into TVET curricula and training processes, aligning with both countries' emphasis on green development.
- Engage in innovation at macro, meso, and micro levels. This includes policy dialogue, sectoral approaches, and monitoring of TVET centers, schools, apprenticeships, and companies for upskilling and reskilling human capital.
- Establish quality apprenticeship programs in line with ILO recommendations. Peer reviews of apprenticeship programs in both countries can identify best practices and areas for improvement.
- Involve Chinese private companies, a phased approach involving collaboration with government-affiliated training centers and institutions should be considered, with public-private partnerships (PPPs) as potential annexes.