

China and Globalization

Henry Huiyao Wang
Mabel Lu Miao *Editors*

Global Development and Cooperation with China

New Ideas, Policies and Initiatives
for a Changing World

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China and Globalization

Series Editors

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This series is designed to have a wide range of global views on issues related to China and Globalization, opportunities and challenges on China's rise to the world and China's roles in global governance, global economy, global development and global security. It outlines China's international relations with major global powers and the rest of the world and it contains recommendations and proposals for the future of sustainable development, prospects of China's further capital and market liberalization, and China's globalizing trajectories as experienced by the world.

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ISSN 2730-9983
China and Globalization
ISBN 978-981-96-2451-5
<https://doi.org/10.1007/978-981-96-2452-2>

ISSN 2730-9991 (electronic)
ISBN 978-981-96-2452-2 (eBook)

This project was supported by Center for China and Globalization.

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Preface

Despite a handful of regional conflicts that persist today, the relative peace and prosperity the world enjoys today is based in an international system of global governance that was born out of the lessons of two world wars with the hope of providing the world with a common platform to manage an increasingly smaller and more integrated planet.

This is why we feel it is important to remember and reflect on the fact that this year marks around 80 years since the Bretton Woods system and the United Nations, two of the seminal institutions that have contributed to the current system of governance, were established. The Bretton Woods system was put in place to manage global financial markets and currencies, marking the first time in history that independent states agreed on a unified system of monetary management and greatly enhancing global trade and commerce. Similarly, the United Nations, which was established at nearly the same time, but is perhaps even more significant to the current global order, provides a geopolitical mechanism for maintaining international peace and security, promoting friendly relations among nations and coordinating the action of member nations.

At a time in human history when it seems as though these institutions have become ineffective or even irrelevant to some, we must remind ourselves that the spirit that they represent and the foundations that they have laid should not be carelessly cast aside. They should not be discarded or simply replaced; they must be updated for the needs of today's world, ensuring that they can meet the changing needs of a changed world.

As we face challenges unseen in a century, and even some that have never before been seen in human history, the world is in need of new ideas, new initiatives and new ways of interacting to ensure that the systems currently in place can meet those needs. This is especially true in today's world of rapid technological advancements, radical shifts in the distribution of power and social changes at the global, national and local levels.

With the end of active colonialism and global empires, the world has seen previously impoverished nations become some of the most vibrant economies and societies on the face of the earth. This has been particularly true in Asia with the rise of Japan,

Korea, the Four Asian Tigers and, of course, China, which has benefitted from a reintegration into global political and economic systems following the implementation of its policy of reform and opening. Beyond Asia, the Global South has also seen increased prosperity and deserves a greater voice in the systems by which it is governed.

For the first time in centuries, the overall balance of power and influence in the world is shifting from West to East and from North to South. This, combined with the threats of climate change, geopolitical instability and public health crises, has created challenges far different from those that the world faced nearly a century ago. That said, the answer is to move forward in the same spirit of these enlightened institutions and find a path that is beneficial to all.

Historically, it has been governments and militaries that have shaped the destiny of mankind as well as the institutions and systems upon which the world is based, including such revolutionary institutions as the Bretton Woods system and the United Nations. However, in today's modern world, the influence of the private sector has become increasingly important and in many ways plays an equally vital role, often working in concert with governments and international institutions.

This is especially true in the case of regional and interregional institutions that augment and support the work of existing global institutions. This includes institutions like BRICS and ASEAN that leverage a rising global south, providing member states with platforms that better address their specific needs based on their current stage of development or unique historical experiences. However, the goal of these organizations or the global south as a whole is not to overturn the current system of global governance, but to ensure that it is more inclusive and able to address the practical needs of a broader range of nations.

International organizations are now essential to finding solutions to the challenges we face in the world today. In this book, we will explore the new ideas, new initiatives and new relationships that are taking shape through a collection of essays written by current and former members of a wide range of international organizations, including United Nations agencies, multinational banks, NGOs and a number of other institutions. It is our hope that their perspective and knowledge will inspire our readers to think outside the box and inspire even more people to consider solutions to our common challenges.

It is for this reason that the Center for China and Globalization, China's leading non-governmental think tank and the first Chinese think tank to have been granted special consultative status by the United Nations, has been working tirelessly to contribute to the conversation surrounding reform and improvement of the global governance system. This book is the latest addition to our growing collection of insights and wisdom gathered from representatives and experts from international institutions, which we hope will be used to contribute to a stronger and more robust system of global governance.

One of our proudest achievements is that we have been able to cooperate with the United Nations on a variety of projects over the years, including the celebration of the 75th anniversary of the UN Charter as well as the 50th anniversary of China's return to the United Nations. In order to better promote and carry forward the spirit

of multilateralism and the achievements of the United Nations as well as other international organizations, CCG would like to showcase our work here in China, which has been consistently supported by UN China. We are deeply grateful for this and we hope that we can continue that cooperation in this new endeavor.

In addition to our deep cooperation with the United Nations, CCG is also active in working with other international organizations, chambers of commerce, embassies, the business community and NGOs through the organization of seminars and roundtable discussions that ensure lines of communication stay open and that ideas from all members of the global community are respected and shared.

CCG's team of researchers and support staff also ensure that we are able to share the fruits of these discussions and interactions with the wider world through our internal publishing center, which publishes more than ten major works annually in both English and Chinese. We feel that the written word is an important part of sharing the insights and wisdom of the most brilliant minds that we have the honor to welcome to CCG. These publications ensure that their ideas and recommendations reach those in positions of power and influence.

This continues to be true for the latest volume in the China and Globalization series, which has collected the insights and viewpoints of current and former members of international organizations to provide an innovative and sometimes alternative perspective on the future possibilities of global governance.

Divided into three parts, we start this book off with a look at New Concepts in Global Governance. Shifts in the global balance of power have made current models of global governance untenable, whether multilaterally in the context of an increasingly hogtied United Nations or bilaterally in terms of interstate relations exemplified by the friction between the USA and China or outright conflict between Russia and Ukraine. It has become increasingly clear that new concepts of global governance are needed to address the issues that we face on a number of levels as a global community.

This part begins with a piece by Siddharth Chatterjee, United Nations Resident Coordinator in China, titled "A United Nations 'Fit for Purpose' to address the current geopolitical environment and challenges facing the community of nations," which proposes a new concept of a United Nations that is better equipped to deal with today's geopolitical environment. This is followed by a commentary from Jin Liqun, President of the Asian Infrastructure Investment Bank (AIIB), who uses the AIIB as an example of new concepts, put forward by China, of how member countries are addressing global challenges by financing development and sharing their vision of an alternative way of doing things.

Dr. Hans d'Orville takes a broader perspective by looking at new dimensions of global governance in the context of the many crises we face in the world today with an emphasis on science diplomacy as a key tool in achieving the UN-proposed SDGs. Next, Justin Vaisse of the Paris Peace Forum takes a look at the future of global governance in the context of an increasingly polarized world, noting that both competition and cooperation have the potential to foster positive change. From yet another perspective, Mabel Lu Miao and John Zhanjie Zhao of CCG focus on talent mobility as a microcosm of global governance and how the newly minted Alliance

of Global Talent Organization is exploring new ideas of how talent can be better shared, cultivated and utilized.

Returning to the finance sector, Qiangwu Zhou of the New Development Bank focuses on how global governance reforms are needed to ensure that emerging markets and developing countries can adapt to unprecedented developmental changes and how both BRICS and the New Development Bank are providing a platform for these countries to achieve the SDGs and improve efficiency.

The next part in this book focuses on New Initiatives of Growth and Development with essays from organizations that cover a wide range of sectors and experiences. The first piece in this section is a joint effort by M. Ayhan Kose and Franziska Ohnsorge of the World Bank, who provide an overall assessment of the current challenges the world faces in terms of development and growth, calling for expanded financing and capacity building in emerging markets, developing economies and middle-income countries. Next, Michele Geraci, former Undersecretary of State at the Italian Ministry of Economic Development and the architect of Italy's Participation in the Belt and Road Initiative, seeks to clarify the rationale for Italy's decision to join the BRI, address criticisms, and counter arguments for its withdrawal under Prime Minister Meloni. Former WTO Director General and vice-president of the Paris Peace Forum, Pascal Lamy, re-imagines the international trading system in a new era of globalization, focusing on four major areas ranging from digital and the environment to economic security and subsidies. Another WTO veteran, former deputy DG and former vice-minister of commerce for the PRC, Yi Xiaozhun, calls for new multilateral models to address global challenges in a world that seems to be moving increasingly toward protectionism.

Next, Yabin Wu of UNIDO ITPO Beijing discusses a new model of inclusive and sustainable development and China's approach, highlighting the parallel nature of economic development and green transformation that is such an integral part of China's modernization drive. Maintaining the theme of green innovation, the UNDP Resident Representative in China, Beate Trankmann, highlights China's leadership in renewable energy and green technologies as paving the way toward a new model of low-carbon development. At the grassroots level, Ali Mchumo and Renfei Wang of the International Bamboo and Rattan Organization showcase how bamboo offers new models for renewable and sustainable construction that can provide a nature-based solution for climate change mitigation and adaptation.

The last two pieces in this part focus on the power of technology in fostering new models of development. First, Chunli Bai, President of the Alliance of International Science Organizations, discusses how revolutions in technology and mega-science facilities are cultivating new models for cooperation to benefit the world. Similarly, Sihan Bo Chen of GSMA discusses how the combined power of connectivity can ensure that new models are shared and discussed across borders and industries, creating a positive impact on the achievement of the SDGs.

The final part of this book looks at new relationships and how the world interacts today, from practical regional and global diplomacy and international aid to culture and philosophy. First, Josep Borrell Fontelles of the European Commission provides an overview of EU-China relations in the context of China's transition to

a technological powerhouse as the world reevaluates economic integration in light of global crises and changing economies. Next, a team from Development Reimagined, including founder Hannah Ryder, Africa-China program manager Jing Cai, and Huiyi Chen, examine the relationship between China and Africa, and how African countries have leveraged their relationship with China to secure reforms in global governance and establishing multilateral links.

Transitioning to the non-state sector, Director-General of the ICRC, Pierre Krähenbühl, outlines how the 160-year humanitarian mission of the International Red Cross has been constantly working to alleviate the impact of conflict, promote peace and restore amicable relations between peoples and countries. In the same vein, Amakobe Sande of UNICEF focuses specifically on children and the work that her organization has been doing to promote cooperation and improved relations to ensure the welfare of children around the world, but especially those in impoverished or conflict-prone regions.

The final two essays in this part and the book focus on culture as a way to reimagine relationships. Shabbaz Khan of UNESCO discusses the power of cultural heritage, which can serve as a basis for a common vision that fosters understanding and stronger relationships between the peoples of the world, especially in terms of eco-civilization, which incorporates Chinese concepts of the relationship between man and nature. The final contribution in this book comes from Roger T. Ames of the International Confucian Association, who reminds us of the common human emphasis on family, but also touches the Chinese understanding of the family as an institution and a basis for how China governs its people. He goes on to remind us that with the “gathering storm” of global crises we all face, our global village must work together, as a family, for the good of the global community as a whole. It is this kind of relationship that will carry the world forward and help us to resolve the many challenges we all face.

In a world full of uncertainties and constant change, it is often difficult for large governments and institutions to adjust course. It is the obligation and unique mission of international organizations of all kinds to contribute new ideas, new models and new channels of communication to ensure that the world remains connected by fostering dialogue and sharing knowledge so that we can address the challenges that we all face. It is our hope that this book contributes in a small way to providing these institutions with a platform to present that knowledge as well as a resource for our readers to access valuable information that could be decisive in their decision making processes.

Beijing, China
March 2025

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Acknowledgements

Global governance has been a key part of the international order for the past 70 years, rooted in international institutions centered around the United Nations. We have great respect and admiration for the role of the United Nations and other international institutions like the World Health Organization, World Bank and many others. We would sincerely like to thank all of the representatives from international institutions and experts for their invaluable contributions to this book.

We would also like to recognize the immense contribution from our commissioning editors at Springer Nature Group and their team, particularly Yingying Zhang and Leana Li. We thank them once again for their continued support and partnership in creating books that provide the world with alternate perspectives and workable solutions. It is our combined effort and dedication that makes this possible.

We also are grateful to the researchers and other professionals who have worked closely with our team at the CCG Publishing Centre to ensure the contributions of each author were treated respectfully and incorporated in a way that was both relevant and in keeping with their wishes. We are proud of our team and would like to express our warmest thanks and appreciation to Yueyuan Ren, Joshua Dominick, Yan Li, Hong Liu, Beijie Tang, Zhanjie Zhao and Yuchen Qin.

The breadth and depth of the views expressed by our contributors means that there is something for everyone, which is why our final message of appreciation goes to our readers. We encourage you to explore the topics in this book. We thank you for your support and welcome your feedback. You are why we continue to strive to

produce timely, insightful and engaging communications on global trends. Thank you!

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New Concepts in Global Governance

A United Nations “Fit for Purpose” to Address the Current Geopolitical Environment and Challenges Facing the Community of Nations



Siddharth Chatterjee

Abstract The convergence of multiple crises and conflicts has negated much of the progress the world has made in past decades and is threatening the ability of the global community to achieve the Sustainable Development Goals (SDGs), making multilateralism more important than ever. The United Nations was created with the purpose of bringing nations together to address global challenges and conflicts and we must ensure that the UN is “fit for purpose” so that it can effectively address those we face today. China is playing an increasingly important role in multilateral processes, having chaired COP15 on biodiversity and launched programmes like the Global Development Initiative, with enhanced international and South-South Cooperation in achieving the SDGs. The UN remains committed to the idea that multilateral solutions are needed to resolve our global challenges and will continue to support China and all other member states to address these challenges and to achieve the SDGs.

Keywords United Nations · China · SDGs · South-south cooperation · Multilateralism

The world is currently facing profound, growing, and interconnected challenges: a persisting global pandemic; climate change and an accelerating frequency of extreme weather events; an increase in conflicts; a fragile and uneven recovery; growing inflation; more poverty and hunger; and rising inequality between and within countries.

The latest forecasts from the World Bank Flagship Report, *Global Economic Prospects*¹ in January 2023, indicate a sharp, long-lasting slowdown, with global growth declining to 1.7% in 2023 from the projection of 3.0% in their last report, just six months ago. The deterioration is broad-based: in virtually all regions of the world, per-capita income growth will be slower than it was during the decade before

¹ World Bank, 2023, *Global Economic Prospects*, January 2023, Washington, DC.

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COVID-19. This setback to global prosperity will likely persist, and by the end of 2024, GDP levels in emerging-market and developing economies will be about 6 per cent below the level expected on the eve of the pandemic. Median income levels, moreover, are being eroded significantly by inflation, currency depreciation, and under-investment in people and the private sector.

The ripple effects of these multiple crises and conflicts are exacerbating the already increased insecurity in food and energy amidst a period of global economic and financial stress, all of which threaten the achievement of the Sustainable Development Goals (SDGs), particularly in developing countries.

More than three years into the global pandemic, we have witnessed the loss of millions of lives and an unprecedented socio-economic impact. Recovery efforts to date have been uneven, inequitable, and insufficient for sustainable development. However, not all of the fault for our lack of progress and regression should fall on the impact of the pandemic, as at the end of 2019, the countries of the Asian and the Pacific region were already off-track for achieving any of the 17 SDGs by 2030.

Now, nearly 90 million people in the region are likely to have been pushed into extreme poverty, with the pandemic's impact on health, education, and income estimated to equal a loss of six years of gains in the Human Development Index. At the same time, a staggering 100 million people have now been forced to flee their homes globally.² Last year, the UN Refugee Agency, UNHCR, highlighted worldwide food insecurity, the climate crisis, the war in Ukraine, and other emergencies from Africa to Afghanistan, as leading causes. There are 27 ongoing conflicts across the world. This is tragic and unacceptable.

All of this has occurred against the backdrop of what many have observed as an intensified period of geopolitical competition in the region and globally.

The Necessity of Multilateralism to Address These Challenges

Global challenges, such as those mentioned above, require global solutions, and these solutions can only be found through dialogue and international cooperation. UN Secretary-General António Guterres put it best: "Strong collaboration among countries is the only sustainable path to a peaceful, stable, prosperous world for all. Strengthening multilateralism is not a choice, but a necessity".³

² The UN Refugee Agency, 2023, *Refugee Data Finder* (accessed: 29 January, 2023), <https://unhcr.org/refugee-statistics/download/?url=2bxU2f>.

³ UN Secretary-General António Guterres, *Speech at G20 Foreign Ministers Meeting*. Bali, Indonesia, 8 July 2022.

With the regressions in many sustainable development indicators as a result of the pandemic across all three pillars of sustainable development, no single country can undertake the responsibility to revert these trends alone, and global cooperation is imperative if we want to regain the ground lost on the path towards sustainable development.

But we have seen in the last few years several important examples of how a UN that is “Fit for Purpose” can rapidly respond to emerging challenges to mitigate the human impact of the multiple crises we face. For example, the COVID-19 Vaccines Global Access initiative (better known as COVAX) brought together developed and developing countries to deliver over 1 billion COVID-19 vaccine doses to low- and middle-income countries at no or a reduced cost. This is because the global community recognized that “nobody is safe until everyone is safe” and that universal vaccination was the best way to avert additional loss of life. Another important example is the Black Sea Grain Initiative. This initiative, spearheaded by the UN Secretary-General, allowed for the export of grains from Ukrainian ports, which were halted due to the war in Ukraine. These grain exports helped to mitigate the food insecurity, malnutrition, and hunger for many millions of people, principally in Africa, who had been affected by a reduced supply and increased prices of grains due to the conflict.

Finally, we have seen how multilateralism has been able to generate significant breakthroughs in addressing and mitigating climate change via the annual Conference of Parties (COP) meetings. At the most recent COP27, in Sharm El-Sheikh, Egypt, the global community came together to agree on the creation of a Loss and Damage Fund, which will provide financial assistance to nations most vulnerable and impacted by the effects of climate change, most of whom bear little responsibility for the increased global temperatures due to CO₂ emissions. The full participation of China and the USA, the world’s largest emitters, in the run-up to and at the meeting in Sharm El-Sheik was critical to the positive outcome of the conference. Against the background of complex geopolitical dynamics, the UN made every effort to support the parties and facilitate open and substantive discussions.

Chaired by China and hosted by Canada, COP15 saw a similar breakthrough to address biodiversity loss and restore ecosystems reached in the adoption of a landmark agreement, which contains proposals to increase finance to developing countries, and will guide global action on nature through to 2030.

These are just some of the examples of how a UN that is “Fit for Purpose” can rapidly respond to emerging challenges to help reduce the human impact of myriad crises. A fit for purpose UN also recognizes that not all initiatives and assistance should be provided from developed to developing countries, and that, in many cases, the countries best placed to provide support are those countries in similar situations. For this reason, South-South and triangular cooperation have gained increased importance within the UN in recent years.

The International Day for South-South Cooperation reminded us that Global South countries, including those in Asia and the Pacific, have the collective means to achieve sustainable development by working together and sharing knowledge and expertise. Regional cooperation and multi-stakeholder partnerships, through frameworks such

as South-South and triangular cooperation, can play a critical role in scaling up solutions that ensure an inclusive and resilient recovery.

Platforms such as the Forum on China-Africa Cooperation (FOCAC) show us the value of such partnerships, with the mechanism already identifying shared priorities, including climate change, agriculture, and global health, among others, between China and Africa.

The Global Development Initiative (GDI) and Other Similar Mechanisms Hold the Potential to Accelerate the Achievement of the SDGs

President Xi Jinping made it clear when he said, “we need to jointly build international consensus on promoting development”.⁴

China’s responsible leadership at this critical time is significant. The Global Development Initiative (GDI), announced by President Xi in September 2021, is a promising response to the call of UN Secretary-General António Guterres for a Decade of Action to accelerate the achievement of the SDGs globally.

Following that, at the BRICS summit in June 2022, President Xi announced major steps to implement the GDI, including creating a Global Development and South-South Cooperation Fund, increasing input in the UN Peace and Development Fund, and setting up a global development promotion centre. Afterwards, 32 steps were released by the Government of China to kick-start the implementation of the GDI.

Many of the GDI’s priorities are aligned with the SDGs, including in the areas of poverty eradication, food security, health, climate action, the planet, industrialization, innovation, and means of implementation. However, the opportunity remains for the GDI to improve this alignment and address other development challenges faced by vulnerable groups, for example, in the areas of gender or youth, in order to ensure that that development is equally prioritized for the realization of peace and security and universal human rights. One set of rights cannot be enjoyed without the other.

In this regard, the UN in China has offered to support the implementation of the GDI and to provide technical assistance to the Government of China, to ensure the GDI is in alignment with the SDGs and with international norms and standards. The UN in China is keen to support the early development of the GDI to drive greater SDG impact. In addition, the UN in China is committed to leveraging the GDI as an opportunity to advance a series of cross-cutting areas of the 2030 Agenda for Sustainable Development, including gender equality and women’s empowerment, youth employment, vulnerable populations, and digital education, with the overarching goal to Leave No One Behind.

⁴ President Xi Jinping, *Speech at the High-level Dialogue on Global Development*. Beijing, China. 24 June 2022.

China’s Success, the Potential for Cooperation, and the Role of the UN in China

The UN Secretary-General, António Guterres, has recognized China’s role in international cooperation, saying, “China’s achievements provide valuable lessons in poverty alleviation that are being shared with other countries through South-South Cooperation”.⁵

The rapid socio-economic development in China represents the fastest long-term growth and most rapid reduction in poverty rates that any country has experienced. Since the commencement of its reforms in the late 1970s, China has witnessed remarkable economic and social transformations and eventually lifted over 770 million people out of extreme poverty, becoming an upper-middle-income country and the world’s second-largest economy.

Despite these rapid gains, China’s journey towards sustainable development is not complete, and it still faces several challenges on the road to completing its transition to a sustainable and equitable economy that can serve as a model for countries around the world. Nonetheless, its experiences over the past 40-plus years, and its leadership role among countries in the Global South, make it well placed to share its experiences and offer potential learning opportunities to countries that are further behind on the path towards sustainable development.

The UN has been a partner in China’s remarkable socio-economic progress since 1979 and has played and continues to play an important role in connecting China with other countries in the Global South in order to ensure these experiences are disseminated widely, while acknowledging that no one model fits all.

There are growing opportunities for the UN to act as a conduit and independent broker to leverage China’s experience in the interest of other developing countries at earlier stages of development. On this, the UN system in China hopes to engage with China as an international development cooperation partner to promote South-South Cooperation (SSC), and the China-Africa relationship specifically, and to ensure that China-Africa collaboration is demand-driven, serves national priorities, and is fully aligned with agreed international norms and standards.

UN in China’s Work to Support Enhanced South-South Cooperation

The UN in China has supported several multilateral initiatives to increase cooperation among countries in the Global South, in particular African countries. Such an example was seen in our support of the bilateral FOCAC process. Since 2021, the UN in China has worked to increase synergies between FOCAC, the 2030 Agenda, the African

⁵ UN Secretary-General António Guterres, Remarks on the 50th Anniversary of General Assembly resolution 2758, 25 October, 2021.

Union's Agenda 2063, and the national development strategies of China and countries in Africa, with a view to creating a transformative China-Africa-UN partnership.

While respecting the bilateral FOCAC process, the UN in China has held a series of high-level policy dialogues, in collaboration with the African Ambassadors' Group in China, the Host Government, and UN Country Teams in Africa and in Asia and the Pacific, with the aim to forge partnerships with the private sector and turn plans into projects that bring real impact to the people of Africa, focusing, at least in the first stages of this partnership, on agriculture and food security.

At the request of representatives of Horn of Africa (HoA) countries, the UN in China supported the "Dialogue on Agricultural Cooperation and Food Security: Toward a more resilient and sustainable Horn of Africa" in September 2022. The dialogue brought together a diverse range of stakeholders to explore concrete areas for project-based cooperation towards greater food security in HoA countries.

We see these events as the first in a series of targeted activities through which the UN in China provides technical assistance with the aim of achieving a strong and balanced partnership between China and Africa, one that adopts the SDGs as the blueprint for cooperation.

The United Nations Sustainable Development Cooperation Framework for the People's Republic of China 2021–2025 (UNSDCF),⁶ the principal document that details the planned support of our Country Team in China, includes a pillar specifically focused on the development of international development cooperation partnerships. In the first year of UNSDCF implementation, the UN in China has helped to promote South-South Cooperation partnerships, helping to connect the expertise and resources of China to local demands and needs in more than 60 partner countries of the Global South, particularly in the areas of poverty reduction and public health.

From a programmatic standpoint, during 2021, the UN in China supported over 70 countries in the Global South in accessing China's resources, expertise, and experiences to address their needs, including in trilateral cooperation projects, totalling more than USD 40 million. Of this, more than half went to African countries.

We also welcome the pragmatic steps China has recently taken to support SSC, including upgrading the South-South Cooperation Assistance Fund to a Global Development and South-South Cooperation Fund—adding USD 1 billion to the fund on top of the USD 3 billion already committed.

The UN's Ongoing Commitment

As custodians and guarantors of the 2030 Agenda, the UN will continue to underscore the importance of the SDGs, which are cohesive and integrated, encompassing all three pillars of the UN System: peace and security, human rights, and development.

⁶ UNSDCF 2021–2025, <https://china.un.org/index.php/en/128946-united-nations-sustainable-development-cooperation-framework-peoples-republic-china-2021>.

The UN and its Country Team in China will also equally prioritize the three pillars, recognizing their codependence and the understanding that sustainable development requires advancement across all areas, not one area at the expense of another. We also continue to stress the importance of the central promise of the 2030 Agenda, to Leave No One Behind, which should be specifically centred on the individual.

The UN is focused on building partnerships that respond to the current global and regional challenges and allow for information sharing and capacity building, both at the Global Level through the annual ECOSOC Partnership Forum, which brings together UN Member States and stakeholders to discuss innovative efforts that are driving sustainable development, and with the UN in China, through one of the three strategic priorities identified in the UNSDCF. The UN in China is ready to act as a bridge to leverage China’s expertise, experiences, and resources to respond to the many global, regional, and national emergencies and development needs, specifically focused on benefitting developing countries.

We are committed to working in partnership with our Chinese partners in support of the next phase of the poverty reduction agenda, to protect the gains of the past and tackle a series of new and complex challenges. We also stand ready to develop more concrete steps to support the implementation of our host country’s South-South Cooperation efforts by providing technical assistance to ensure compliance with recognized international norms and standards.

While the UN’s SDG Fund supports the peer-to-peer exchange of knowledge and experiences in development among programme countries, the UN also promotes effective public, public-private, and civil society partnerships, building on the experience and resourcing strategies of relevant stakeholders.

The UN Deputy Secretary-General Amina J. Mohammed has contended that the SDGs are, “our practical blueprint for the world we want and need—a world of dignity, of solidarity, and opportunity for all on a safe and healthy planet”.⁷ Meanwhile, UN Secretary-General António Guterres, stated, “We must rise higher to rescue the Sustainable Development Goals—and stay true to our promise of a world of peace, dignity, and prosperity on a healthy planet”.⁸

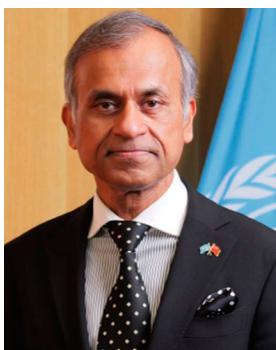
With only seven years remaining to achieve the promise of the SDGs, there is an urgent need for more solidarity, more cooperation, more partnerships, more compassion, and, above all, more multilateralism.

⁷ UN Deputy Secretary-General Amina J. Mohammed, *Achieving Sustainable Development Goals (SDGs) and Realizing Youth Aspirations in a Disrupted World*, Lecture at Sophia University, Tokyo, Japan, 20 October 2020.

⁸ UN Secretary-General Antonio Guterres, Remarks at the ECOSOC meeting on *Operational Activities for Development*, New York, USA. 17 May 2022.

Role of the United Nations Resident Coordinator Office in China

The United Nations Resident Coordinator Office supports the work of the Resident Coordinator (RC) and brings together different United Nations (UN) entities to improve the efficiency and effectiveness of operational activities at the country level. As the highest-ranking UN official in the country and the designated representative of the Secretary-General, the RC leads relationships with local authorities and ensures effective advocacy of the core values, standards, principles, and activities of the UN system in China. The RC also leads the UN Country Team in the country and plays a central role in making possible the coordination of UN operational activities for development in support to China's national priorities, in line with international norms and standards, including through the implementation of the UN Sustainable Development Cooperation Framework.



Siddharth Chatterjee has been the UN Resident Coordinator in China since 16 January 2021 and is the designated representative of—and reports to—the UN Secretary-General. He presented his letter of credence to the President of China on 14 April 2021. Mr. Chatterjee has more than 25 years of experience in international cooperation, sustainable development, humanitarian coordination, and peace and security in the United Nations and the Red Cross movement. He has served in many fragile and war-torn countries all over the world.

A three-time TEDx speaker, he is a regular opinion contributor on humanitarian and development issues for a range journals including Newsweek, Los Angeles Times, Reuters, Huffington Post, Forbes, CNN, Al Jazeera and the Guardian as well as of late he has also published in mainstream Chinese journals.

Mr. Chatterjee holds a master's degree in public policy from Princeton University in the USA.

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Upholding Multilateralism, Establishing and Maintaining an Image as a Responsible Major Country



Jin Liqun

Abstract Faced with formidable challenges including global sustainable development, climate change, major infectious diseases, ecological protection, and biodiversity, China's global development initiatives have provided essential support for the UN SDGs. As China has benefited from the international development system, it has also taken an active role in the AIIB's establishment, its aspirations and mission, its governance and operational principles, and its role in the broader international economic governance system. This has enabled it to undertake more international obligations, promote improvement of the current international economic system, and provide more international public goods. It is also a move that will help bring mutual benefits and win-win outcomes to all sides.

Keywords AIIB · MDBs · Sustainable development · Public goods · Win-win · Mutual benefit

This year commemorates the 45th anniversary of China's reform and opening-up. Over the course of this 45-year journey, multilateralism has consistently stood as the fundamental value orientation for China. In his speech marking the 40th anniversary of China's reform and opening-up, President Xi Jinping emphasized that China will unswervingly follow a path of peaceful development and pursue a mutually beneficial strategy of opening-up. He also highlighted China's active participation in the process of economic globalization, advocating for the establishment of an open world economy, building a community with a shared future for mankind, and contributing to the reform of the global governance system. This commitment aligns with the core spirit of multilateralism, embodying the responsibilities that a great nation should shoulder in advancing the common interests of humanity.

Translated from a keynote speech in Chinese delivered by Jin Liqun at the 30th anniversary celebration and academic seminar of the Shanghai Development Research Foundation (SDRF) held on September 21, 2023. He reviewed the founding and development process of the AIIB and shared his views on multilateralism.

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China not only articulates these principles but also translates them into action. In the process of reform and opening-up, especially over the past decade, China has played a significant role in the world economic system as an engine of growth, a stabilizer of development, and a promoter of global agendas.

China has consistently contributed over 30% of global economic growth for an extended period of time, establishing itself as the largest trading partner for more than 130 countries and regions. Global trade in goods has nearly doubled since China acceded to the WTO. In both the financial crises of 1998 and 2008, China showcased the resilience of its economy by adeptly sustaining its economic and financial stability. Furthermore, through active participation in global and regional multilateral forums like the G20, 10 + 3, and APEC, China engaged in extensive coordination of macroeconomic policies, playing a pivotal role in the global economic recovery. Confronted with the challenges posed by the COVID-19 pandemic and intricate geopolitical landscapes, China ensured the smooth and stable operation of global supply chains. It has firmly supported and upheld multilateral trade rules while vehemently opposing unilateralism and trade protectionism.

Faced with formidable challenges including global sustainable development, climate change, major infectious diseases, ecological protection, and biodiversity, China has actively championed the ratification and execution of the Paris Agreement. China has made a solemn commitment to peak carbon dioxide emissions before 2030, achieve carbon neutrality by 2060, and refrain from constructing new overseas coal-fired power projects. China's global development initiatives have been instrumental in providing essential support for the United Nations' 2030 Agenda for Sustainable Development.

In October 2013, President Xi Jinping, on behalf of China, proposed the establishment of the AIIB, which received a positive response from the international community. This signified an important move for China to further open up and position itself as a responsible great power to enhance international economic governance and support the global development agenda. President Xi Jinping's vision of building a community with a shared future for mankind is part of China's goal behind proposing the AIIB's establishment and its aspirations and mission, its governance and operational principles, and its role in the broader international economic governance system. China has taken an active and constructive part in, and benefited from, the international development system. The AIIB is a constructive move that will enable China to undertake more international obligations, promote improvement of the current international economic system, and provide more international public goods. It is also a move that will help bring mutual benefits and win-win outcomes to all sides. The overarching goal of establishing the AIIB is to advance infrastructure construction and connectivity in the Asian region, deepen regional cooperation, and foster mutual development. The AIIB is expected to become a new platform that promotes a community with a shared future for mankind, serving as a bridge for both South-South and North-South cooperation, emphasizing rules and operations that are shaped through consultation among member countries—not unilaterally decided

by China. It advocates for open and inclusive regionalism, encouraging active participation from all interested nations and working toward mutually beneficial cooperation, embracing the principles of multilateralism, complementing existing multilateral development institutions, enhancing cooperation, and collectively advancing the prosperity of both Asian and global economies. To realize this vision, the AIIB should learn from the experiences of established multilateral development banks, adhere to international, standardized, and high governance standards in areas such as business policies, human resource management, and ensure professional and efficient operations, transparency, and integrity.

Looking back at the proposal made ten years ago and the successful operation over the past eight years, the AIIB has continued to develop rapidly, demonstrating the value and essence of multilateralism amid the evolving international landscape.

First, it has consistently upheld mutual benefit and promoted common development. Over the past eight years, the AIIB, through various investment and financing operations, has continuously made efforts to promote sustainable infrastructure development, advancing infrastructure connectivity, and deepening regional cooperation. As of now, the AIIB Board of Directors has approved 233 projects with a total amount of nearly \$45 billion, leveraging a total investment of nearly \$150 billion, benefiting 35 member countries and regions. These projects cover infrastructure projects in areas such as transportation, energy, urban development, and water management, as well as the development of social infrastructure in the fields of public health and education. The AIIB has made significant contributions in advancing common and sustainable development around the world.

Specifically in the area of green infrastructural development, the AIIB has outlined a target in its first Corporate Strategy for 2021–2030 to achieve a 50% proportion of climate financing by 2025. By the end of 2022, our investment in climate change had exceeded \$11 billion, accounting for 56% of the AIIB’s total investment that year, achieving the mid-term development strategy’s target three years ahead of schedule. In July of this year, we ensured that all financing projects were fully aligned with the goals of The Paris Agreement.

It is the AIIB’s unshirkable responsibility to help developing member countries, particularly low-income countries, respond to crises and challenges. In the wake of the COVID-19 pandemic in 2020, the AIIB swiftly established the “COVID-19 Crisis Recovery Facility” to support developing countries in combating the pandemic and recovering their economies. To date, the AIIB has provided nearly \$14.7 billion in rapid funding support to 26 developing member countries. Beijing, Chongqing, and Wuhan in China have also benefited from the AIIB’s financial support for pandemic response. Meanwhile, the AIIB has provided relief support to Sri Lanka, grappling with internal and external impacts, and to Pakistan, facing the aftermath of rare floods, with \$100 million and \$1.5 billion respectively since last year.

Second, it has consistently adhered to openness and inclusiveness, cooperating to advance the global development agenda. As the AIIB’s initiator and largest contributor, China, from the very beginning of the AIIB’s establishment, has adhered to the concept of a community with a shared future for mankind and open and inclusive regionalism. Following the principles of joint consultation, joint construction, and

shared benefits, China has worked together with all parties to create this multilateral platform. On the one hand, in negotiations, China consistently upholds the principle of democratic consultation, striving to find common ground while respecting differences, treating all parties equally, and avoiding a domineering approach. On the other hand, China does not create exclusive blocs, instead keeping the door open, actively inviting countries such as the USA, Japan, and European nations to participate. The AIIB has expanded from 57 founding members to include 106 member economies spanning all six continents. During the AIIB Annual Meeting in Egypt, the Board of Governors approved three new members, bringing the total to 109. Our network of friends is growing larger, with developing countries as the primary participants, including a substantial number of developed nations. It now stands as the second-largest global multilateral development institution in terms of membership. In terms of shareholding structure, although developing countries have the majority of shares, total shares belonging to Western countries also exceed 25%, giving them veto power on important decisions requiring a super majority of 75%. The Board of Directors and management negotiate and reach a consensus when facing issues, seeking common ground while reserving differences. They make decisions on important matters based on consensus, eliminating the need for voting. Everyone coexists in harmony, discusses major development plans through consultation, and maintains a cooperative atmosphere. This balanced arrangement and unique advantage lay the institutional foundation for the AIIB to play a bridging and linking role in South-South and North-South cooperation.

As a part of the family of multilateral development institutions, the AIIB has actively worked together with all parties to promote the global development agenda since its inception. In 2022, the AIIB established an Operational Partnership Office to further strengthen collaboration with various institutions. The AIIB has forged solid partnerships with traditional multilateral development institutions such as the World Bank, the Asian Development Bank, and the European Bank for Reconstruction and Development. Furthermore, it has signed memoranda of understanding with 32 multilateral and regional financial institutions, including the China International Development Cooperation Agency. These agreements facilitate collaboration in joint financing, knowledge sharing, capacity building, and various other areas, collectively contributing to the sustainable development of low-income countries. I have also engaged in or chaired meetings of multilateral development bank presidents, which encompassed 12 multilateral development banks. In these sessions, we fostered international dialogue and deliberated on multilateral solutions to global issues, ranging from macroeconomic stability to climate change, green development, and the digital economy.

Third, it has consistently operated according to high standards and norms based on multilateral rules. In terms of internal governance, the AIIB has established a complete three-tier structure of Board of Governors, Board of Directors, and Management following the common practices of multilateral development banks, ensuring that every member, regardless of its economic size, has a say and is respected and heard. As the largest shareholder, China also plays a constructive role through the Board of Governors and the Board of Directors. Meanwhile, the AIIB has established

an effective banking supervision and accountability mechanism based on the principles of transparency, openness, independence, and accountability. This includes a clear division of responsibilities between the President and the Board of Directors and the annual performance evaluation of the President. These systems and mechanisms build trust and facilitate efficient decision-making.

In terms of institutional development, the AIIB has continuously improved and enhanced various policies and internal governance guidelines, including the formulation and revision of important policy rules such as the Environmental and Social Framework, Operational Policy on Financing, Accountability Framework, Procurement Policy, and Policy on Public Information. The AIIB has also established mechanisms such as the Project-affected People's Mechanism (PPM) and the Independent Accountability Mechanism (IAM) to rigorously enforce anti-corruption measures during project execution and internal management and address conflicts related to the environment, society, and governance.

In terms of personnel selection and training, the AIIB's charter explicitly emphasizes the principles of "openness, transparency, and merit-based selection" in operational management. This principle is embodied in the institution's highest legal documents, making the AIIB the first among all major multilateral development banks to adopt such practices. The recruitment of AIIB staff is not limited to members but open to all countries and regions globally. Currently, the AIIB has assembled a high-quality workforce with core personnel from 65 countries and regions, totaling 500 professionals. As our business continues to evolve, we anticipate attracting more outstanding talents from various countries to join the AIIB.

Thanks to the AIIB's consistent nature as a multilateral institution and its positioning as a cooperative platform, its adherence to international, normative, and high standards in operation, the AIIB has withstood various challenges in a complex geopolitical environment. This resilience has garnered widespread recognition and praise from the international community. Notably, the AIIB has consistently received the highest AAA credit rating from the three major international rating agencies (Moody's, Standard & Poor's, and Fitch).

The successful establishment and operation of the AIIB mark a victory for multilateralism, showcasing the shared pursuit of peace, development, and cooperation by all countries. It also demonstrates China's leadership, credibility, and appeal as a responsible great power. In 2017, at the World Economic Forum in Davos, an Associated Press reporter asked me whether the establishment of the AIIB was a success of China's foreign policy. I answered, "Of course! But it is also the diplomatic achievement of the other 56 founding members. There is no denying it."

Facing great changes unseen in a century, Chinese leaders proposed the establishment of the AIIB with a focus on the common interests of humanity. They have consistently provided strategic guidance for its robust operation and long-term growth. In July 2020, during his speech at the opening ceremony of the AIIB's fifth annual meeting of the Board of Governors, President Xi Jinping suggested that the AIIB should aspire to become a new type of multilateral development bank that promotes development across the world, a new type of development platform progressing

with the times, a new type of high-performance institution for international cooperation, and a new paradigm of multilateral cooperation. This sets ambitious goals for the AIIB's future development. Confronted with overlapping global challenges, the AIIB is poised to rise to the occasion, holding high the banner of multilateralism and collaborating with all stakeholders to generate dividends in peace, development, trust, and governance.



Jin Liqun is the inaugural president and chair of the Board of Directors of the Asian Infrastructure Investment Bank (AIIB). On July 28, 2020, he was elected to serve a second term of five years, beginning on Jan. 16, 2021. Before being elected as the Bank's first President, he served as Secretary-General of the Multilateral Interim Secretariat tasked with establishing the Bank. Jin has rich experience across the private and public sectors and with MDBs. Jin spent nearly two decades at the Chinese Ministry of Finance, reaching the rank of Vice Minister. He holds a master's degree in English Literature from the Beijing Institute of Foreign Languages (now Beijing Foreign Studies University) and was a Hubert Humphrey fellow in the Economics Graduate Program at Boston University from 1987 to 1988.

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New Dimensions for Global Governance in a World Undergoing Multiple Crises



Hans d'Orville

Abstract New global governance models are needed to keep up with a changing and often deteriorating global environment—locally, regionally, and globally—that are more networked and inclusive, fostering cooperation across borders and societies. The United Nations system still leads in the multilateral arena, but it must also adapt to meet today's needs and live up to tomorrow's expectations. Meanwhile, science diplomacy is effectively addressing the UN SDGs, science-policy interfaces, “boundary spanning,” and anticipation of future science-policy interactions.

Keywords Global governance · Institutional reform · Multilateralism · Science diplomacy · Science policy

Multilateral institutions provide the platforms for putting multilateralism into action and are the basic architecture underpinning global governance. The twenty-first century has experienced a panoply of crises and new governance challenges that have often been triggered by different processes of globalization and their outcomes.

These myriad crises include worsening climate change, the inconclusive race to realize the Sustainable Development Goals (SDGs), environmental degradation, biodiversity loss, earthquakes and natural disasters, successive COVID-19 waves or pandemics, increasing food insecurity worldwide, deepening inequalities, the ongoing war in Ukraine and other new and lasting conflicts, and instabilities of global consequences with attendant dramatic humanitarian crises. These crises are also coupled with a set of new global challenges: the quest to strengthen health systems, the impact of new technologies, the scope of digital and economic transformations, and the management of ungoverned global common spaces, such as the seabed, outer space or Antarctica, as well as the responsibility for common custody of global public goods.

Consequently, new global governance models with institutional innovations are needed at different levels to keep up with a changing and often deteriorating global

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environment—locally, regionally, and globally. Governance models must be more networked and inclusive, providing for cooperation not only across borders but also across the whole of society, with their transparency and effectiveness safeguarded. An active and effective multilateralism requires flexible formats, light structures, and efficient tools. Only an organization that is inclusive and equitable will be able to sustain the world for the future. As the UN General Assembly stated in its resolution 75/1 on the occasion of the UN's 75th anniversary:

We need a new social contract within States and a new global deal between States. We need new global governance, rebalanced financial and trade systems, effective delivery of critical global public goods and decision-making guided by standards of sustainability....A renewal of multilateralism must be based on fair globalization, on the rights and dignity of every human being, on living in balance with nature, on taking account of the rights of future generations and on success measured in human rather than economic terms.

The United Nations system still holds a leadership role in the multilateral arena but it must also change and adapt in order to meet today's needs and live up to tomorrow's expectations—in short to become fitter for future purposes. It must become more inclusive and must find ways and modalities to engage with all relevant stakeholders and partners, including regional and subregional organizations, city councils, non-governmental organizations, civil society, youth representatives, the private sector, academia, and parliamentarians to respond to common challenges.

The period between 2020 and 2030 has been designated by the UN as the Decade of Action to SDGs. It will be the most critical decade of our generation to build a meaningful and stable future. It will be central to achieving a fair globalization, boosting economic growth, combatting new health challenges, and preventing conflict. To this end, we need a strong United Nations development system and effective collaboration between the United Nations and a whole range of other actors.

Global governance encompasses the norms, standards, rules, and decision-making processes in a world undergoing different stages of globalization. Following the multiple crises of the past five years, some observers have predicted the onset of deglobalization, while others perceive the onset of a period of re-globalization. Yet, all pundits agree that we are witnessing a world in fragmentation with uncertain outcomes.

It is beyond any doubt that international security, poverty eradication environmental protection, climate protection, urban development, science cooperation, technological and digital engagement, and respect for human rights must be part and parcel of a new emerging set of global governance structures for the next decades. Global governance in such a fragmented world comprises a wide range of topics, disciplines, knowledge, and skills. It is bound to include the creation of new global norms, standards, and practices commensurate to the contours of the new world, enhanced by digital tools from the industry 4.0 toolbox. It should also provide modalities for enhanced coordination among countries beyond the traditional realm of international organizations, mostly created after World War II. This shall include also new modes of cooperation between all stakeholders and new types of entities, new modalities aiming at equitable economic and political representation as well as improved

mechanisms for dispute and conflict settlement and resolution, not constrained by ineffective structures like the UN Security Council.

In addition to developing norms and standards, the impact of digital innovations and technologies, managing urban development, and promoting sustainable development, one particular focus in this paper will be on science, which is universal and a global public good, and its contribution to global governance. Science is apt to bring to the fore progress toward a more sustainable world, crossing national, cultural, and mental borders while drawing on a whole range of disciplines from natural sciences to social sciences and the humanities.

Governance in the digital era needs to be not only innovation-friendly but also innovative. Interoperable standards, frameworks, and regulatory cooperation are indispensable. With the involvement of all relevant stakeholders, international as well as national policy formulation is instrumental to cope with a wide range of societal challenges and to facilitate the incorporation of technologies into policy processes.

Innovation is the process of turning new ideas into value, in the form of new products, services, or ways of doing things. Innovation is a deceptively complex activity that goes beyond creativity and invention, poised to include practical steps necessary for adoption. It is now widely accepted that innovation fuels a majority of the world's long-term productivity and economic growth. Pushing the boundaries of information technologies, many innovations will generate disruptive technologies.

Establishing new norms of ethical behavior regarding digital technology, especially artificial intelligence, will be critical for a successful future. Digital governance is an essential leverage of prosperity, social inclusion, and environmental sustainability with measurable results.

In the age of globalization, cities have been playing an increasingly important role in the development of their countries and the world as a whole. Urbanization has changed and continues to change countries, as intercity connections and cross-country relationships have become new dynamic features of geopolitics.

The density of cities enables innovation, providing testbeds to gauge the effectiveness of solutions. Through the collective efforts of all actors and through the harnessing of transformative technologies and enlightened urban policies, the true potential of the cities of the future can be demonstrated. This also necessitates a focus on innovative means for governance, drawing on the power of new digital tools.

Cities are at a crossroads. Rapid urbanization—if not effectively managed—threatens to paralyze local economies and to jeopardize advances in the quality of life. Cities must innovate to achieve sustainability, to advance social well-being, and to boost economic competitiveness.

To contribute to sustainable and inclusive growth in urban areas, and to give rise to smart cities, networking and experience-sharing among cities are essential. The demands on cities are diversifying, deepening, and quickening. Traditional governance structures and policy-making models no longer suffice; they must become more agile and responsive. Governments must move beyond simply understanding major technological advances. They must stimulate and harness them to govern better.

Urban governance is influenced by many uncertain factors, which pose great challenges to the sustainable future of cities. The growing concentration of populations in urban areas leads to serious congestions, shortages of goods and services as well as environmental degradation. The demand for interconnectivity between cities is continuously growing, as cities innovate better when they connect and cooperate in an organized way. The most successful cities will be those that recognize and adapt to specific local challenges, while pushing innovation forward. This connectivity can help build an open economic system that includes policy communication, connectivity of facilities, smooth trade conditions, and people-to-people exchanges and interactions. The application of artificial intelligence technology and big data will generate new engines for the construction of urban networks.

China can contribute to global governance in a fragmented world by providing leadership, transparency, and openness in all these areas engaging in constructive dialogue with other states and global partners, thereby underlining the value of multilateral cooperation. China can play an important role in helping to foster global economic growth and development by adhering to the rules-based global economy and trade and refining it further. Today, the fastest growing flows in the world economy are no longer trade in goods, but data, services, capital and intellectual property, standards, talents, and ideas. Global value chains and prosperity in the world economy are built on such flows. Dispelling the notion of deglobalization, the world remains deeply interconnected with different types of resilient resource flows, which are dynamic and subject to shifts in their composition over time. Today, no region is self-sufficient and every region imports significant portion of resources or manufactured goods required. Global flows are central to the functioning of economies and of businesses. Multinationals, which account for about two-thirds of global exports, play a pivotal role and are guided by established global rules.

China, in collaboration with other countries, is also engaged in helping create and implement new norms and standards. Such standards form the core of a global technical governance framework that helps develop worldwide, agreed-upon norms and procedures. In 2021, China's National Standardization Development Outline (NSD) was the first such document in the public domain. The NSD visualizes a standardized system that promotes high-tech innovation and “opening up” in the technology sector while also leading to high-quality development.

Standardization will allow China to optimize its manufacturing industry and improve economic returns. Technical standards can provide better economic gains through licenses and royalties for its already established manufacturing sector. The Chinese government is now banking on technical standards to achieve competence and excellence in critical technologies, which will be critical for the global economy in the coming decades.

China's growing influence and leadership in global standard-setting bodies such as the International Telecommunications Union (ITU) has raised concern among Western powers. Under Beijing's “Standards 2035” project, the country's approach

toward technical standardization is tied closely with the country's economic development and its geopolitical aspirations. China is influencing supply chains worldwide, given its accomplishments with respect to several emerging technologies, such as telecommunications, quantum computing, and electric vehicles (EVs). In these areas, innovation goes hand in hand with standardization.

China has successfully demonstrated its diplomatic skills and state influence by increasing the number of Chinese officials, technocrats, and private sector leaders in key leadership positions in UN institutions as well as other multilateral entities, major working groups, and technical committees of international technical standard-setting bodies. Moreover, with the influence it has achieved at such organizations, China has pushed for the acceptance of its businesses standards as de facto international technical standards in several crucial sectors.

Beyond trade and standardization, we are living in an era in which the importance of cooperation between scientists and diplomats, and the need for mutual understanding in a variety of areas is rising. In the last ten years, science has become intertwined with the development of human society to the extent that the interests of countries as well as global companies are now deeply involved.

As the world experiences continued breakthroughs, whether it is the exponential advances in science and technology, such as advanced artificial intelligence (AI), genome editing, quantum computing, or synthetic biology, at an unprecedented pace, new governance arrangements and multilateral approaches will be needed. This will entail rethinking and reorganizing the complex relationships and interactions between scientists, politicians, diplomats, entrepreneurs, academicians, and citizens, whose agendas, worldviews, mindsets, experiences, and responsibilities are all very different, and sometimes contradictory.

Science lies at the heart of sustainable development as it establishes a factual basis, anticipates future consequences, and contributes to finding pathways to sustainable transitions. Scientific input could help us move past geopolitical debates that compromise progress and it is essential in addressing specific challenges such as the sustainable management of natural resources, disaster risk reduction, or climate change action. Science can also help build resilience and deal with natural disasters, the management of limited freshwater or mineral resources, as well as the loss of biodiversity and ecosystem services.

Inspired and guided by the UN's 2030 Agenda for Sustainable Development, the international scientific and engineering communities are poised to help shape the future of global societies, in particular through the emerging interdisciplinary field of sustainability science.

The complexity of contemporary global challenges has increased the need and space for "science diplomacy," which is defined as the use of scientific input and collaboration among countries to address common problems facing humanity in the 21st century. It is primarily the intentional application of sciences, both natural and social, and of scientific expertise in furtherance of diplomatic objectives and to build constructive international partnerships.

While the concept of science diplomacy first emerged in the Cold War era as major actors projected soft power, it is now a concept and a process that can be used by

all countries to further their direct national interests and those shared with regional and global communities. A three-part typology introduced in 2010 by the Royal Society and the American Association for the Advancement of Science (AAAS) distinguishes between: science in diplomacy, diplomacy for science, and science for diplomacy. Anticipation of future science-policy interactions and challenges focus on anticipation and foresight regarding future developments in science-policy interactions.

In the past decades, science diplomacy has become integral to reaching foreign policy and internationally agreed development goals. It mirrors the importance of science for modern society in the face of a myriad of challenges. Science for diplomacy can also contribute toward more international cooperation and, ultimately, more peaceful international relations.

Science diplomacy is increasingly relevant in the context of the UN's 17 Sustainable Development Goals (SDGs), the proliferating science-policy interfaces, the practices of "boundary spanning," and anticipation of future science-policy interactions. Increasingly, non-governmental entities are also being created, such as the Geneva Science-Policy Interface (GSPI) or the Diplomacy Anticipator (GESDA), based in Geneva. Science cooperation must further be intensified also among academies and universities and by forging new corporate alliances transcending national frontiers.

More than a fashionable concept in current multilateral diplomacy, the concept of science diplomacy represents a fundamental element in reshaping and reinforcing international cooperation. As an approach that enables the development and implementation of policies based on scientific evidence, science diplomacy could contribute to alleviating the consequences of current major challenges, from armed conflicts, climate change, and loss of biodiversity, to inequalities and global health issues. Global governance systems will have to adjust and evolve accordingly.

But structures for effective and systematic science diplomacy are often lacking. Few governments have science deeply embedded within their diplomatic or strategic approaches. Instead, they may perceive science as something primarily to support trade or security negotiations. However, good examples of science diplomacy exist at the regional or bilateral level with many heads of government appointing chief scientific advisers and a number of foreign ministers have formed a Network of Science and Technology Advisors. At the multilateral level, the UN Secretary-General established in 2012 a Scientific Advisory Board, chaired by the UNESCO Director-General, the Secretariat of which I was privileged to direct. From China, Prof. Gong Ke of Nankai University served on this Board which was unfortunately dissolved in 2015. Several other intergovernmental organizations, such as the World Bank and other regional development banks, UNCTAD, UNEP, WHO, FAO as well as international organizations like the IUCN have appointed highly respected chief scientists to guide their mutual interactions and their engagements with governments and other organizations. At the insistence of the General Assembly and the Economic and Social Council, the UN Secretary-General has also recently resumed efforts to create a scientific advisory structure. Many national academies of science and leading universities are similarly engaged in global, regional, and cross-border interaction and scientific exchanges.

Science, technology, and innovation (STI) can make significant, if not essential contributions toward mitigating the sustainability challenges facing urban societies, which are also in the process of recovering from the COVID-19 pandemic. This can happen outside formalized international agreements and understandings. Across borders, STI have helped build resilient communities by extending access to education and health, monitoring environmental and social risks, connecting people, enabling early warning systems, driving economic diversification, and economic development. Combined with ICTs and digitization, STI have enhanced human welfare, economic prosperity, and employment.

The international policy system receives high-quality scientific advice on specialized topics in the form of reports by the Intergovernmental Panels on Climate Change (IPCC) or Intergovernmental Panels on Biodiversity and Ecosystems (IPBES) or at the July 2021 Conference on the Oceans in Lisbon. These are also put forward through established bodies like the International Hydrological Programme (IHP), the Man and Biosphere Programme (MAB), the Intergovernmental Oceanographic Commission (IOC)—all part of UNESCO. These programmes are science diplomacy in action, designed to strengthen scientific cooperation and to bring knowledge and evidence on various dimensions of earth sciences into the public policy mix concerning natural resources. Indeed, they are an entirely new generation of global governance tools and processes. Beyond state-driven and other public sector exchanges, there are also private sector technology R&D ventures, including technology for disease surveillance and early warning systems.

The range of emerging issues is driving a much-needed enhanced emphasis on the shared global objectives and thus the greater need for science diplomacy. We are living in a paradoxical age: while globalization is being impaired by various countries and actors, the need to address the many issues of the global commons as well as regional challenges is rising which might benefit from scientific inputs to find solutions. Riding out these multi-crises and preventing a destructive world polarization, we need to foster a renewed cooperative world order and multilateralism in the midst of a volatile and fast-changing context.

Through the science-policy-society interface, science can advance the UN's 2030 Agenda. In that context, science encompasses the natural sciences and engineering, life sciences and medicine, social sciences and humanities, law, and more. Although not all technological innovations directly originate from science, many scientific advances are key to the process of producing new and more sustainable technologies.

Drawing lessons from the COVID-19 pandemic, we must build a new global research architecture so as to strengthen and organize interdisciplinary scientific collaboration in a transparent and accountable manner. During the COVID pandemic, we also have seen the pivotal role played by cities and city leaders worldwide, which have demonstrated the effectiveness of new types of international cooperation.

Interdisciplinary research has received growing support from international programmes, facilitated by the International Council of Science Unions and the International Social Science Council. The related rise in interdisciplinary research led not only to a rapidly expanding body of valuable evidence but also to the symbolic merger of those institutions into the International Science Council (www.council.science).

It brings together more than 140 national scientific organizations, including academies and research councils, and 40 international scientific unions and associations. It works to catalyze and convene international scientific expertise on issues of major global concern and to effectively integrate science into policy and public action. Other leading non-state organizations are the World Federation of Engineering Organizations (www.wfeo.org) with more than 110 multidisciplinary engineering organizations from across the world and the InterAcademy Partnership, which is raising awareness and understanding of the SDGs among academies, and encouraging them to engage with national and regional processes to ensure that they can be more informed by evidence.

Overall, scientific research and science diplomacy focused on sustainable development must uphold the highest standards of scientific rigor, in particular transparency, reproducibility, falsifiability, and compliance with specific standards of the discipline. There are inspiring examples of scientific evidence stirring awareness of global challenges, such as stratospheric ozone depletion, deforestation, and HIV/AIDS, which led to the creation of new international governance frameworks in the UN framework.

Improvements in data availability and new methods, such as integrated modeling and scenario building, have enabled exploration and discussion of possible trajectories of environmental change and given birth to initiatives like The World in 2050, which explores transformational pathways to the SDGs and beyond.

Major international environmental agreements have scientific assessment bodies that present evidence and common understandings to decision-makers on deciding difficult and complex topics. International scientific assessments can collect existing knowledge and build consensus on key insights. However, more effort is needed to integrate regional perspectives and maximize synergies across different scientific assessments.

At present, there are three types of assessments, which differ greatly in terms of their scope, organization, participation, and perceived degree of policy relevance:

- (a) *Intergovernmental scientific assessments* by the Intergovernmental Panel on Climate Change, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, the International Assessment of Agricultural Knowledge, Science and Technology for Development or the Global Environment Outlook;
- (b) *Scientific-technical assessments* in the form of United Nations flagship reports including the Global Biodiversity Outlook, the Human Development Report, and the World Economic and Social Survey;
- (c) *Scientific research collaborations* such as the Millennium Ecosystem Assessment and the Global Energy Assessment.

In any scientific field, differences can result from different methodologies, varying research questions, divergent sample sizes, time horizons, and so on. Such differences can be resolved through international scientific assessments, which provide platforms for sharing, comparing and peer-testing results.

Science, technology, and innovation strategies are integral elements of national sustainable development plans and strategies, strengthening knowledge-sharing, collaboration, and scale up investment in science, technology, engineering, and mathematics education. Their interlinkages will give rise to new governance features, while arrangements for and the promotion of international, regional, subregional, and interregional joint multi-stakeholder research and development projects, as well as training programmes and university-to-university collaborations can provide new and stabilized governance frameworks. These can help strengthen synergies and build international coherence.

Science, technology, and innovation play an ever-increasing role in accelerating the pace of economic diversification and transformation, improving productivity and competitiveness, as well as enabling the full participation of developing countries in the global economy. The creation, development, and diffusion of new innovations and technologies and associated know-how, including the transfer of technology on mutually agreed terms, are powerful drivers of economic growth and sustainable development overcoming divides in knowledge, skills, and professional abilities among countries and peoples of different gender and age groups.

A key enabler of sustainable development and a driver of science diplomacy in the coming years will be the digital revolution, constituted by ongoing advances in artificial intelligence, connectivity, digitization of information, additive manufacturing, virtual reality, machine learning, blockchains, robotics, quantum computing, and synthetic biology. The digital revolution is already reshaping work, leisure, behavior, education, and governance. Overall, those contributions can raise labor, energy, resource, and carbon productivity, reduce production costs, expand access to services, and may even dematerialize production.

Emerging technologies like artificial intelligence and digital ecosystems also play a fundamental role in the digital development and facilitation of STI while science diplomacy can also entail strategic foresight exercises on global and regional challenges of a geostrategic nature, the conduct of technology assessments, and the establishment of a mapping system, thus encouraging a structured debate among stakeholders toward creating a shared understanding of the implications of rapid technological change.

New technologies increase the demand for digital skills and competencies. Education, training, and capacity-building in science, technology, and innovation have the potential to not only provide new skills and widen employment opportunities, but also address market needs and solidify governance structures.

To sum up, science, technology, and innovation, including environmentally sound technologies and information and communications technologies, are critical in the pursuit of sustainable development and are one of the key means of implementation of the intergovernmentally agreed development outcomes, including the 2030 Agenda and its Sustainable Development Goals. Action in these fields will determine the new facets of global governance.



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Future of Global Governance in a Polarized World



Justin Vaisse

Abstract We know two things about the current age of the international system—that great power competition is in full swing and that global challenges like climate change and pandemics will grow ever more existential for human beings, making cooperation even more necessary. Both cooperation and competition have the potential for driving change. These must be embraced by world powers through a variety of platforms, including those like the Paris Peace Forum.

Keywords Paris Peace Forum · Great power competition · Climate change · Pandemics · Cooperation · Competition

Despite my role with the Paris Peace Forum, I want to be clear that I am not an official and nothing I say can be attributed to the French government or to the EU Commission, but the Paris Peace Forum does partner with the French government and with the EU Commission, among others. The Forum is an independent organization, and half of the governing organizations that make up the forum come from the global South. This is why I see the world as a European, but also with a global perspective, as a globalist, and from the vantage point of the Paris Peace Forum, which has been building bridges between North and South as well as between East and West, since 2018 to try and address some of the world's most difficult challenges in an innovative way. Each year, we've been lucky to have a Chinese delegation, including one from the Center for China and Globalization as well as a governmental one that include several ministers from Beijing. In 2019, Vice President Wang Qishan gave an opening speech and in 2020, at the height of COVID when we held the edition online, Chinese President Xi Jinping attended via video link.

In this article, I would like to address the future of global governance in a polarized world. We know two things about the current age of the international system. The first

Adapted from a speech given on April 4, 2023 at the Center for China and Globalization (CCG) by Justin Vaisse, Founder and Director-General of the Paris Peace Forum.

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is that great power competition is in full swing, especially in terms of the US-China rivalry, which has made competition an inescapable feature of our world. Second, we know that global challenges like climate change and pandemics will grow ever more existential for human beings, making cooperation even more necessary.

To use a metaphor, in the past, passengers of the ship called Planet Earth could quarrel as much as they wanted; they could fight among themselves and the ship would keep sailing. But with climate change, disappearing biodiversity, dangerous pandemics, and the perils of technology, passengers just can't ignore the icebergs and the storms coming, and they need to face them together one way or the other. So the question is, how do we cooperate? How do we articulate competition with cooperation, the inevitable with the necessary? I believe the US and China have a responsibility to regulate and moderate their rivalry in the face of global dangers like climate change, and I believe Europe has a responsibility to push things in that direction by taking the lead in offering initiatives and solutions for the global public good. Lastly, I believe that other actors than states can help smooth the competition and help solve global problems.

A Demand for Global Rules

Now I'd like to offer five remarks on the foundations of these statements. First, the demand for global rules is growing faster than our capacity to produce these rules. There are several reasons for this. The first is growing multi-polarity. The US, as the dominant power between the 1990s and the 2010s, more or less, used to provide many of the public goods the rest of the world relies on. Let me give you a very concrete example, which is one of the areas in which the Paris Peace Forum is active space and the sustainability of orbits. So what happens when a satellite from China, or from Egypt, or from France, or from the US is on a collision course with another one?

As you may know, there are more and more satellites and an increasing amount of debris, especially in lower orbits, which is dangerous, but there is no "traffic police" in space like we have on streets or in our air space; no one regulates that. Space is a common use zone that all humans, or at least spacefaring nations, are using, but it's not regulated. So when there's danger of a collision, the 18th Squadron of NORAD in the US sends a collision notice to the owner of the satellite that is in danger, which then moves the satellite, or takes other evasive measures. This can be confirmed by individual nations like China or the EU, which have the means to monitor potential collisions. This service is essentially provided by the US, but in a world that is increasingly multipolar, the US will not provide this service for the rest of the world for much longer.

Previously, this was in the interest of the US when it was dominant and when there were not so many objects in space. But right now, because many other nations have grown, not least of which China, it probably won't do that. This is why one of the reasons why we need more rules. We need to decide how we administer space traffic,

and how we make sure that we can enjoy the benefits of space through satellites without having collisions threatening them.

The second reason is technology. The fact that technologies are changing faster than any other moment in history opens up many questions. Of course, man creates technology, which then needs to be regulated, but regulation only comes afterward. We have to agree on a number of things in the digital space, in the space domain, also in biotechnologies, and in number of other domains where we'll need more rules.

The third reason is the degradation of the planet. We all know the current state of climate change and the very clear risk of overshooting the 1.5 °C goal, which is pretty much an all-out certainty at this point, not to mention the disappearance of biodiversity, which is threatening in many other ways.

So here again, we need rules, but of course, the difficulty is agreeing on these rules. I remember about ten years ago when the EU tried to put in place a system of taxation on emissions from planes. You may know that among the different industries or domains that emit CO₂, neither aviation nor shipping is taxed, which is very shocking, because generally people taking planes have the means to pay taxes on the CO₂ they emit, but they're not taxed due to a longstanding arrangement among nations. The plan ten years ago to put in place a plan to tax emissions coming from flights was rebuffed by the US, China, and India in particular, which threatened to stop buying Airbus planes, which prompted the EU to fold its plans. To this day, aviation is still not taxed in any way, which indeed is a problem. This is just one example illustrating the fact that we need common rules if we are to address these challenges.

The last reason, I think, is that people demand it. That is to say, people are very much aware of these global challenges, and they're asking for rules. You know, most of the time, national governments cannot provide these rules, because these are global problems that ignore borders. You need some kind of international coordination to put those rules in play. There's a gap that people can't just communicate to their government, and there need to be some kind of cooperation. The fact is that we need more and more rules to manage that international system, but we have limited capacity to do so.

Competition Is Good

Competition, including US-China competition, can be good sometimes for the world, if it's kept in check. When you think about competition, it's not altogether bad, right? For example, the Cold War prompted the US and Russia and China and Europeans and others to compete, in areas like space issues, or on technological processes, on the digital domains, etc. The Cold War was pretty much one of the main motivating factors behind the technological advances that we see today. The race to the moon is a good example of that, and it produced good things for the world. So competition can be good.

Let me give you a more recent example: solar panels. You may be familiar with the story of solar panels, especially for us Europeans, where we were overtaken by Chinese production of solar panels. But at the end of the day, the large, massive production of cheap solar panels is good for the world, right? Because one of the main issues we need is how to decrease CO₂ emissions, while I would have preferred Europe be able to produce more of the world's solar panels on its own, that's not how it happened. But Europe now is trying to compete, which points again to the fact that competition is good.

A third example is in terms of infrastructure in the developing world, and the associated issue of debt. While there are limits to this, once again, it's good if it's additional and not just a zero-sum game. One of the big challenges of today is making sure that we have an international financial architecture that allows developing countries to access liquidity to finance their quest to achieve the SDGs and also to ensure that they can make a successful green transition, which comes after foundational development goals are reached. But the two are linked, and interestingly, in 2015, the world gave itself two sets of rules or agendas in this area—and they were came about only three months apart. One was in September 2015, with the SDGs at the UN, and the second set of rules was with the Paris Agreement in December that established climate goals, including the 1.5 Degree Goal.

The question now is how we reconcile them, and how we make it so that China, the US, Europe, and others can cooperate to provide sufficient financial resources for these countries, not only for their development and eliminating poverty, but also for their climate transition. Interestingly, President Macron convened a summit on June 22 and 23, called the "Summit for a New Global Financial Pact," that was very well attended and included China. The reason for this is that China has been going outside of its borders quite a bit in the past three years, building infrastructure and lending money to many countries. China needs to be part of a solution that includes a reform of international financial flows to make sure that these countries have a resolution of debt when they are in distress or in a crisis. Also, in the longer term, to be able to finance themselves and finance their transition. There are many things that should be done, but the issue of debt is one where China is now a big player. Here again, we find ourselves in a situation where a virtuous, not vicious, circle of competition needs to prevail.

One last example of how competition can be good is critical minerals. We all know that in order to succeed in terms of a green transition as well as a digital transition, we need access to many more critical minerals, including lithium, cobalt, coltan, and many other rare Earth minerals that we produce now. As a global community, we have a combined interest in making sure that these are produced in a large enough quantity and in acceptable conditions so that we don't replace one environmental problem with another by ensuring that there are norms guaranteeing that they are mined in good conditions.

Competition can be good and China has acquired a relatively dominant position in this area, while encouraging others to do the same thing. However, the question is whether this cycle is fundamentally virtuous or vicious. If that competition pushes us to adopt higher standards, in terms of making sure that mines in Africa, in South

Asia, or in Latin America adhere to operational standards and they are able to get their fair share of the minerals extracted from their own territories, it would be good. Of course, the vicious version of this, in which the US, China, Europe, and others compete in a race to the bottom through corruption, and lower environmental and social standards, it would less than desirable. The Paris Peace Forum is currently pushing an initiative to establish common standards among great powers including China, on this issue.

Unregulated Competition Is Bad

Unfortunately, competition is harmful and dangerous, that's why it needs to be moderated, especially in the context of the US-China rivalry. This is especially true in crisis like we had with COVID. The mutual vulnerability of all nations, even rival nations, highlights the need for positive cooperation. However, great power politics often prevail and operate based on a zero-sum logic. The risk of this is that all issues become zero-sum and we only focus on issues in which we compete, including the issues where we have a common interest in cooperating.

Essentially, we must either tame competition, reduce it, try to keep it in check and try to regulate it, or we must decide to compete widely and compartmentalize. The result of this could be a rivalry in the geopolitical sphere, but cooperation on the climate. However, the danger is that compartmentalization is difficult and sometimes does not work. For example, a month ago, John Kerry, the US special presidential envoy for climate, was telling a journalist that his discussions with his Chinese counterpart had stalled because of the larger tensions between the US and China, including the balloon incident and other irritants between the US and China, which diminished the joint efforts with his Chinese counterpart. I'm not sure I would say that we can compete freely, but we can compartmentalize and keep cooperating on other issues.

However, I'm worried that the field of cooperation will be contaminated by this competition, especially since subjects of cooperation can sometimes be taken hostage. We all know the recent tendencies to weaponize interdependence among great powers, either through trade sanctions, or through migration flows, or through the digital domain. So even an area where it might be conceivable to cooperate is sometimes used as a tool of competition. Therefore, to address the difficulty of compartmentalization, the only solution, in a sense, is to reduce competition.

This inspiration comes from a dinner organized at the Munich Security Conference that included a discussion on climate during which Graham Allison made the point that it's even conceivable that this could extend to a sort of MAD theory from the Cold War in which one party could take a global issue hostage in order to compete. Even if we leave the global problems like climate change aside, the extreme tensions between the US and China, whether they remain conventional or geopolitical or even become nuclear, this is bad news for the rest of the world as it would increase polarization and have an impact on trade and extended political relations. At this

point, I can't see other ways to manage that competition in order to leave some space for cooperation.

Increased Leadership by Great Powers

A fourth area is that the current situation calls for more leadership on both sides of the tension—US and China—but also on Europe's side, to propose a third way to avoid a face-off and instead develop a kind of triangular relationship. Paradoxically, I think the situation would be more stable if it were triangular, rather than face to face. It's interesting to note that during the Cold War, even at times of great tension between the US and the USSR, the superpowers managed to cooperate. It's true that it was more in the 1990s and 1970s than at the beginning of the Cold War, but they managed to cooperate and even signed binding UN treaties, whether on the Antarctic, space, arms control, or smallpox eradication, which was one of the big victories in global health during the Cold War. It's striking that it now seems more difficult to get anything through the UN than it was during the Cold War.

However, not everything is going in the wrong direction. The Kunming-Montreal Global Biodiversity Agreement was signed at the end of 2022, which was really important, and China played a positive role. This is something that should be appreciated. The second example was even more recent in the form of the UN High Seas Treaty, which basically protects the high seas and everything that is beyond national jurisdiction in the high seas. This is very important, because protecting biodiversity in this huge swath of planet Earth is essential. There are some good signs and I think we can cooperate in the multilateral domain.

However, if we take a step back and look more broadly, things are not great for the rest. All of these calls for diplomacy, not only between the US and China, but also others, as well as contributions from the EU in terms of what President of the EU Commission, Ursula von der Leyen, called diplomatic de-risking rather than decoupling. This is a much more promising concept than decoupling, which would almost surely harden the lines between the powers. Secondly, this calls for a reinforcement of the UN and playing the full game of multilateralism, which includes the creation of binding rules and cooperating on these binding rules.

The Paris Peace Forum

That leads me to my fifth and final point, which is about the Paris Peace Forum. I think that all the forums of cooperation are necessary, especially for the US and China, which should learn to mix cooperation and competition, which are inescapable and indispensable. I think that Europe can also help in this regard.

Outside government, civil society, and other actors in the international community can help as well. In many domains, intergovernmental cooperation is largely blocked

or it's not sufficient to address global challenges. And in any case, if you think of it, the world is becoming at the same time both more polar and less polar. We've been talking about bipolarity in the Cold War, then uni-polarity, and now multi-polarity. But the question is what is polar? Is polar the concentration of power in one government or a number of governments? Governments took on a greater importance during COVID because of rising tensions, but this all reinforces the traditional concept of the nation state. That's the whole story of Europe in the fifteenth, sixteenth, and twentieth centuries. And while competition among European powers during that period obviously led to European advances in weaponry, technology, and economy, it is obvious that the good also came with the bad.

However, the point is that the increased importance of governments has resulted in more polarization, but also less. If we look at different sectors, it is clear that there are other forces at work. For instance, in technology in the twentieth century, advances often came from the state. Nuclear technology, for example, was largely developed by governments and was harnessed by governmental institutions, labs, and research teams. But if we look at the digital domain, which has grown considerably in the last 30–40 years, it has largely been in the hands of private industry. You could say the same thing for biotechnology and other aspects of technology, which are also largely in private hands. In many other domains, like global health, you see many other actors than governments, including philanthropic foundations, NGOs, and others. There is such an array of issues that associating other actors in addition to government is more effective. This is what the Paris Peace Forum has been doing for a number of years.

While we do have governmental representatives, we incorporate forces from the private sector, civil society, think tanks, among others, and we build coalitions around issues that are currently stalled in the UN. We try to help that process by making progress in norms and political mobilization. One example of this is an initiative we launched with a number of companies around the world called Net Zero Space, including space agencies from both North and South. Chinese companies were also included in that consortium and we worked to try and stabilize, then diminish the amount of debris in orbits over the northern hemisphere. If we can make orbits sustainable, we can enjoy space for decades and centuries to come, ensuring we do not spoil it like we have spoiled many parts of the Earth.

One other program I should mention is called the Climate Overshoot Commission, which was implemented in cooperation with China and is headed by Pascal Lamy, the former president of the Paris Peace Forum. The Climate Overshoot Commission looks at what we do when we go beyond 1.5 °C, which is unfortunately more than likely. Reducing emissions is key and should remain central. But we have to think a bit further and think about what we do more in terms of adaptation, because we'll suffer through the consequences of climate change, even if we are very good on mitigation. Since it's cumulative, there will be more global warming and more bad consequences for human beings. Another question is how do we use the technologies that could provide part of the solution? And how do we put some sort of global governance system in place? Just a couple of areas include carbon capture and solar engineering, which are relatively controversial technologies and need to be discussed among all nations and all actors.

One last example is critical minerals, where the forum has launched a co-action pretty much along the lines mentioned previously. That is to say, we know we need these minerals in great quantities to ensure a green transition and a digital transition, but we need to make sure that competition doesn't block or hinder production, and that we produce them in a way that is socially, environmentally and geopolitically acceptable to all. Chinese participation in this and all of the other initiatives is and will remain essential.

Conclusion

The tensions in the world today have the potential to hinder cooperation and the resolution of common issues we all face not least climate change. However, tension and competition have also been known to drive innovation and cooperation in certain areas and on certain issues. The China-US rivalry is a key element in this and could potentially be balanced by Europe or other global actors in a compartmentalized context, which, if managed properly, could drive effective responses to existing issues.

Lastly, we should not overlook the important role that civil society and non-governmental institutions play in driving change. Platforms like the Paris Peace Forum and think tanks provide key insights and initiatives that augment government actions and could be further leveraged in the context of solving pressing global issues.



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Trends, Challenges, and Innovations in Global Talent Mobility and Governance



Mabel Lu Miao and John Zhanjie Zhao

Abstract The challenges to global talent mobility and fluctuations in global governance are inextricably linked and the Alliance of Global Talent Organizations (AGTO) provides innovative ideas for facing these challenges. After analyzing the existing operating models of other international organizations, the AGTO has created a model that focuses on talent mobility in a changing world that addresses a new era of globalization.

Keywords Talent mobility · Global governance · International organization · Alliance of Global Talent Organization

Since the end of the World War II, the global flow of goods and capital has become increasingly free, which has greatly promoted social development and, in turn, global talent mobility. According to the United Nations *Global Migration Data Report 2024*,¹ the number of global migrants reached 280 million in 2020, accounting for 3.6% of the global migration, compared to 173 million and 220 million in 2000 and 2010, respectively. The mobility of international populations, especially high-level talent, has continuously promoted global scientific and technological innovation, accelerated the advancement of social production methods, and brought new topics to the governance of global population mobility. This change is related to promoting and improving the overall welfare of a community with a shared future for mankind.

However, while there has been significant progress in global talent mobility, both in theoretical research and in practice, there is still a lack of global governance in this field. Talent's role in global economic and social development has not been brought into full play yet. Therefore, how to make better use of its role, how to guarantee and regulate reasonable mobility, and how to balance the interests of individuals between their home countries and destination countries require the creation of an international

¹ World Migration Report 2024 | World Migration Report (iom.int).

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organization to address and finally resolve the current and coming various problems encountered in this area of development.

Trends and Challenges in Global Talent Mobility

Global Talent Mobility Trends

Despite the existence of transnational talent mobility ever since countries came into being, the scale, scope, and level of mobility have differed greatly at different points in history. The acceleration of economic globalization over the past 20 years has intensified transnational talent mobility and expanded the scale of migration. In recent years, global talent mobility has shown the following distinct trends.

Increases in Scale and Speed of Growth

On the one hand, the economic pressure caused by aging populations has led to the introduction of various measures to attract international talent to revitalize economic and social development. On the other hand, the constant globalization of enterprises has created many transnational corporations operating global businesses and promoting transnational talent mobility within corporations. This is against a backdrop of continuous improvement in aviation and general infrastructure that has facilitated the rapid flow of global talent. As of the end of 2018, there were 15,684 scheduled passenger flights between China and major countries around the world each week with the number of international routes opened in a year exceeding the total for the 30 years before China implemented its policy of reform and opening-up in 1978.²

Huge Demand for High-Tech Talent and Intense Competition

With the rapid development of a new round of scientific and technological innovation through big data and artificial intelligence, the demand for high-tech talent in many countries is increasing, leading to a shortage of high-tech talent in the global labor market.

According to LinkedIn's 2020 Emerging Jobs Report, the demand for AI specialists has surged, with a 74% annual increase in job listings. In order to cope with global competition for talent, countries have successively introduced talent development strategies, which have intensified the competition for international talent between countries.

² https://www.thepaper.cn/newsDetail_forward_2733059, 2018-12-13.

Widespread Brain Drain

Global “North-South” competition has already started among countries for high-end talent such as scientists, engineers, professors, administrative professionals, and entrepreneurs. With better living and working conditions as well as policies designed to attract talent, developed countries have the advantage in the competition for talent, while the developing countries have lost talent due to their lack of competitiveness.

In Angola, Burundi, Kenya, and other countries, 33–55% of people with higher education have gone to work in OECD countries. However, it should be noted that the brain drain problem also exists in the developed countries. Canada lost two-thirds of recent software engineering graduates from its top universities to the USA, according to a new study.³

Connections Between Global Talent Mobility and International Relations

As many countries come to recognize talent as a strategic resource in winning in international competition, the competition for talent is becoming increasingly fierce. The accumulation or loss of talent has had a significant impact on the balance of power in international relations. Talent in some sensitive technical sectors may even trigger conflicts among countries.

The changes in international relations have also increasingly affected global talent mobility. For example, the tension in Sino-US trade that began in 2018 has spread to the talent sector. The USA has made policy changes related to Chinese students that have limited visas for Chinese students studying robotics, aerospace, and high-tech manufacturing to one year.

Global Talent Mobility Governance Challenges

In an era of increasingly fierce global competition for talent, we still lack a proper corresponding global governance mechanism, resulting in a certain degree of chaos in global talent mobility. In the long term, this will cause talent to go to waste and an “age of talent lag” that may hinder sustainable development. The following challenges remain in global talent mobility governance.

³ Colin R. Singer, Canada’s Brain Drain: Figures Show Technology Graduate Exodus, <https://immigration.ca/canadas-brain-drain-figures-show-technology-graduate-exodus/#:~:text=Canada%20is%20suffering%20a%20major%20brain%20drain,%20with%20large%20numbers>.

Lack of a Common Consensus on Global Talent Cooperation

With deepening globalization, the division of labor and cooperation on a global scale is becoming increasingly common. However, in terms of global talent mobility, countries are more concerned about the aspect of competition. Precious little attention or research has been paid to the value of international talent cooperation, thus leaving a lack of consensus.

Lack of a Mechanism for Conversation, Coordination, and Cooperation on Global Talent Mobility

At present, there is no mechanism dedicated to conversation and coordination on talent mobility at the global level. The various differences among countries in talent policies, mutual recognition of professional qualifications, etc. require solutions through cooperation and coordination. So far, some relative mechanisms have been promoted within the EU and ASEAN, including those between China and EU, such as the “EU-China Dialogue on Migration and Mobility Support Project.” However, the mechanisms mentioned above remain regional, unstable, and often limited to relevant government departments.

Lack of Data and Information Resources on Global Talent Mobility

Although the scale of global talent mobility keeps increasing, precise data on the scale, gender, age, and specialty of migrant talent is still lacking. This data shortage is hindering decision-makers and researchers from making accurate decisions and deeper analysis.

In recent years, the global workplace social network LinkedIn has helped to fill this data gap. With a population of 645 million users, LinkedIn has amassed a wealth of data on global talent. However, its identity as a business also restricts its ability to use this data.

Innovative Solutions for Global Talent Mobility Governance

The organizational structures and operating models of many international organizations and forums require clear-cut and accountable systems, effective operational and management mechanisms, self-sustaining profit generating models, and brand building power. It should also be noted that most of the existing organizations were established in the mid-to-late twentieth century, which created structures with clear hierarchies and explicit powers and responsibilities that stem from the post-industrial

era. In developing innovative solutions, it is important to study their successful experiences and combine them with the current organizational trends, while ensuring operational efficiency and enhancing flexibility.

The Impetus and Purpose of the Alliance of Global Talent Organizations

The Alliance of Global Talent Organizations (AGTO) was founded with a commitment to promoting the international talent mobility, strengthening the extensive exchange and cooperation of talent, providing basic talent protection and intellectual support for developing countries, and reinforcing talent cooperation in key fields with developed countries, thereby facilitating talent mobility and cultivation of talent in member countries. Specifically, the AGTO has the following purposes:

The first is to create an international talent exchange and dialogue based in fair competition, promoting discussion, and dialogue on talent mobility at regional and global levels to improve understanding of the opportunities and challenges emerging in the process of international talent mobility, enhance identification and development of effective policies and measures, and identify comprehensive methods and measures that benefit for international cooperation.

The second is to promote the well-being of people around the world and the sharing of international talent. This requires providing governments, non-governmental organizations, individuals, and other stakeholders with professional knowledge and technical support, which ultimately will improve the ability of countries to utilize human capital efficiently, and promote the flow of talent between countries and regions.

The third is to protect the legitimate rights and interests of global talent and fill the gaps in international talent governance. Existing international organizations that focus on population movements include those that focus on refugee issues as well as those that focus on protection of workers' rights. Today, it is necessary for these institutions or organizations to actively guide and regulate the legitimate rights and interests of the global talent pool and protect their basic rights and opinions under the principles of fairness, justice, and reason. This is one of the essential missions of the Alliance of Global Talent Organizations.

Specific Functions of the AGTO

As a platform for exchange and cooperation for global talent, the AGTO is working to create a series of cooperation mechanisms, build platforms, gather information, promote the development and cooperation of global talent, and contribute to effective guidance on issues including the exchange, mobility, employment, certification, and residency of global talent. The AGTO has the following specific functions:

First, reaching consensus. The AGTO, as a governing body for global talent, works to reach a general consensus in the international community in expanding exchange and open cooperation of international talents and achieving mutual benefit.

Second, building mechanisms. This includes building a global mechanism for dialogue, coordination, and cooperation on talent through events like the Global Talent Summit, mutual certification of academic qualifications, certification of professional qualifications, establishing quotas for future immigrants and the management of international students. At the same time, the AGTO also examines the talent policies and talent development status of different countries and regions, selecting best practices.

Third, creating platforms. (1) Information platforms such as an official website and media platform to collect information on talent and demand provide consulting services for members and non-members and provide important guidance. (2) Academic platforms for research and the publishing of an annual report on global talent mobility. (3) Data platforms in the form of a database on world human resources, statistics, and services to serve members and non-members. (4) Event platforms for annual meetings, conventions, forums, job fairs, and other activities on a regular or irregular basis focusing on global talent. (5) Cooperation platforms to strengthen exchange and cooperation among members, cities, and even countries on talent development and mobility. (6) Training platforms to provide training related to talent development, improve talent management, and enhance ability of governments and institutions to serve the talent pool.

Fourth, information aggregation. AGTO will collect and analyze information related to global talent over the long term, support the development of general concepts, patterns, and methods in the governance of global talent, and provide effective information to members using big data and an information resource bank of global talent. At the same time, AGTO will consult with governments to help in decision-making based on information analysis.

Governance of the AGTO

The AGTO is a non-governmental international organization with a global vision that targets group members and welcomes internationally renowned talent organizations, institutions, and associations to participate.

Operations of Current International Organizations

This study examined at potential models for AGTO by examining the operational strategies of six influential global institutions. Analyzing their approaches to governance, membership, funding, and activities will shed light on effective mechanisms for fostering collaboration and addressing talent mobility challenges on a global scale.

Comparison of the operation models of international organizations

Organization types	International population organizations	International economy organizations	International economy forums
Name of organizations	International Labor Organization (ILO)	International Organization for Migration (IOM)	World Trade Organization (WTO)
Number of members	185	165	164
Operation model	Tripartism and Social Dialogue	Highly decentralized management mechanism	Wide participation, sound management system and close cooperation with other organizations
Major institutions	International Labor Conference, the Governing body The International Labor Office	The Council, the Executive Committee, Administrative Centers	The Ministerial Conference, the General Council, Committees and Secretary
Funding resources	Membership fees	Voluntary contributions and membership fees	Membership fees, fund income and publication income

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Organization types	International population organizations	International economy organizations	International economy forums
Name of organizations	International Labor Organization (ILO) International Organization for Migration (IOM)	World Trade Organization (WTO) Asian Infrastructure Investment Bank (AIIB)	World Economic Forum Boao Forum for Asia (BFA)
Major events	Holding the International Labor Conference, Promoting International Labor Legislation and Monitoring the Implementation of International Labor Standards	Trade negotiations, trade agreements, trade disputes	Investing for infrastructure projects in Asia Agenda for Global Industries and Regional Conferences
Keywords	Labor Legislation and Supervision	Migration cooperation	Trade agreement Infrastructure projects, Asia Global Economic Conversation Regional Development in Asia

Regarding the institutional settings, main tasks, and activities of international population, economic, and other organizations, the distinctive characteristics and operating models of existing international organizations offered certain reference values to the establishment of AGTO. It was found that the international organizations listed exhibited the following characteristics:

- (1) A concise and efficient organizational structure.
- (2) Extensive international influence.
- (3) Broad participation of member states.
- (4) A focus on global topics.
- (5) A sustainable financial strategy.
- (6) Emphasis on brand building.

AGTO Governance

After a comparative analysis of the three mainstream models above and two other optional models, we found that under the current international situation, it was more appropriate to reference the Davos model, which bases talent-related international organizations in civil society.

The AGTO's organizational structure includes the AGTO Council, an Advisory Committee, a Secretariat, a Research and Consultancy Unit, and a Fund Management Department. The council is the AGTO's decision-making entity. It selects the Director General and Secretariat and accepts advice and guidance from the Steering Committee. It directs and monitors the work of the AGTO's fund management and research and consultancy departments. The secretariat is the managing body of the AGTO and oversees the regular operations of all AGTO units. It is also responsible for liaising with the AGTO's offices, networks, and partner contacts worldwide and in acquiring new projects and communicating with member organizations and other supporters. The AGTO strives to have council and advisory committee members and senior staff members from around the world.

In terms of institutional membership, the AGTO welcomes all relevant entities to join provided that these entities correspond with the AGTO's focus, goals, and activities in the area of talent mobility, human resource management, and providing innovative policy and governance solutions. Members are invited and proposed by the AGTO Secretariat, requiring 2/3 majority approval in the AGTO Council. Partners and agencies that have already provided support include the Center for China and Globalization, the International Organization for Migration, the Organization of Economic Cooperation and Development, and the Association of Executive Search and Leadership Consultants.

Concluding Remarks

The Alliance of Global Talent Organizations was registered in Hong Kong in April of 2020. On November 13 of the same year, it was officially launched at the third edition of the Paris Peace Forum, accompanied by an expert panel to discuss its main objectives and perspectives. During the COVID-19 pandemic, AGTO organized a series of webinars on talent mobility. In 2023, AGTO organized the first Global Talent Summit, and in the future, we will continue working to pursue our mission of creating an innovative platform to promote global talent exchange.



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Reforming Global Governance for Sustainable Development: Role of the NDB and its Cooperation with China



Qiangwu Zhou

Abstract Formed in the aftermath of World War II, the current global governance system has major shortcomings, the most salient of which is that it does not adequately reflect the inherent rights and interests of developing countries. Reforms in the global governance system are urgently needed to help EMDCs become more resilient and better cope with unprecedented development challenges. BRICS has become an important platform for developing countries to engage in constructive dialogue and cooperation, while also driving reform. To this end, BRICS countries established the New Development Bank (NDB) to mobilize financing, enhance innovation and knowledge exchange, assist member countries in achieving the SDGs, and further improve efficiency and effectiveness to fulfill its mandate.

Keywords New Development Bank · EMDC · Global governance reform · SDGs · Sustainable development

Challenges to Global Development and Cooperation and Urgently Needed Reforms

After World War II, a new global governance system was created with the establishment of multilateral institutions such as the United Nations, the World Bank, the International Monetary Fund, and the General Agreement on Tariffs and Trade. This system has evolved over 70 years and played an important role in maintaining international stability and promoting global development. However, the current global governance system has major shortcomings, the most salient of which is that it does not adequately reflect the inherent rights and interests of developing countries. Most notably, despite having larger shares of global output and financing needs than developed countries, developing countries are under-represented in multilateral financial institutions such as the World Bank and the International Monetary Fund (IMF).

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Faced with such a complex and turbulent global landscape, developing countries are increasingly calling for reforms in the current global governance system. In 2009, leaders at the G20 Pittsburgh Summit reached a consensus to back an increase of at least 3% of voting power for developing and transition countries in the World Bank and a shift of at least 5% of the IMF quota share to dynamic Emerging Markets and Developing Countries (EMDCs). As of today, this consensus has still not been fully implemented, and further reforms are being met with increasing resistance.

Reforms in the global governance system are urgently needed to help EMDCs become more resilient and better cope with unprecedented development challenges. Although emerging economies have made up a larger share of global GDP since 2008, the retreat of multilateralism and globalization in trade and finance casts shadows over their future development, which relies on an open and multilateral economic order. Technology protectionism and the lack of global cooperation in innovation may also hinder the efforts of EMDCs for industrialization, re-industrialization, and industrial upgrading. Therefore, the EMDCs are at the risk of being left behind in this new round of scientific and technological revolution and the resulting industrial transformation.

Meanwhile, development issues, which are most relevant to the fundamental interests of developing countries, are increasingly marginalized within the international agenda. In addition, extreme climate events and the COVID-19 pandemic have brought additional challenges to achieving the 2030 UN Sustainable Development Goals (SDGs). Yet, in recent years, few concrete actions have been taken by the global governance system to address development issues.

Take the persistent lack of development financing as an example. The global SDG investment gap has skyrocketed from approximately USD 2.5 trillion annually¹ to USD 4.2 trillion annually in the wake of the COVID-19 pandemic, despite trillions of dollars flowing across international financial markets.² The recent rapid monetary tightening in the US, the Euro Area, and other advanced economies, apart from jeopardizing EMDCs' financial stability through currency depreciation and capital outflows, also raises their external debt burdens, making it even harder for them to access affordable financing for development. Meanwhile, the fragmentation of global financial networks, given the dominance of the US dollar and other hard currencies in the international financial architecture, does not incentivize investors to increase their exposure in EMDCs. In addition, developed countries' commitments to providing financial resources for development remain largely unfulfilled.

Against this background, EMDCs will need to be more active and forceful in pushing for reforms in global governance to defend multilateralism, to safeguard open and connected trade and investment networks, to promote global cooperation on technologies and innovation, and to bring the development issues back to the center of global governance platforms.

¹ Gaspar, V. et al. (2019), "Fiscal policy and development: Human, social, and physical investments for the SDGs," Staff Discussion Note, No. 19/03, International Monetary Fund, Washington, DC.

² OECD (2020), *Global Outlook on Financing for Sustainable Development 2021: A New Way to Invest for People and Planet*.

Specifically, the current global economic governance system needs to increase the representation of EMDCs, which is critical to promoting an inclusive, just, and sustainable global development path. An equally important step is to encourage the development of a multipolar currency-based global financial architecture, which will channel more capital to EMDCs, mitigate the risks brought by monetary policy shifts of advanced economy, and increase development finance for crucial infrastructure investment for productivity gains. In addition, internal governance mechanisms of the existing multilateral institutions should be recalibrated to step up their support to the sustainable development of EMDCs.

Meanwhile, deepening cooperation among EMDCs is indispensable given that certain advanced economies are reluctant to forego their interests in established multilateral institutions, undermining their operational capacity as well as the prospects of reforms. EMDCs need to explore the possibility of establishing and strengthening their own platforms for dialogues and policy coordination and creating economic and financial institutions by and for themselves. In recent years, much progress has been achieved in this regard, with the BRICS cooperation mechanism and the New Development Bank being the prominent representatives of the alternative multilateral governance framework and new types of multilateral institutions, respectively.

BRICS Economies and the BRICS Mechanism

BRICS is an acronym for five of the world's most rapidly growing economies—Brazil, Russia, India, China, and South Africa. They represent about 30% of global land area and 40% of the world's population. In 2022, in Purchasing Power Parity (PPP) terms, BRICS economies made up around 32% of world GDP, nearly 1.2 ppts higher than G7 economies.

The BRICS mechanism began to take form with the meeting of the foreign ministers of Brazil, Russia, India, and China (BRIC) on the sidelines of the UN General Assembly in 2006, and BRIC leaders held their first annual summit in 2009. BRIC was upgraded to BRICS when South Africa officially joined in 2011. For more than a decade, the BRICS countries, with their diverse political, social, and cultural backgrounds, have been strengthening cooperation and coordination on a foundation of reciprocity, mutual respect, and mutual benefit. Their efforts have transformed BRICS from a concept into a multi-dimensional framework, covering cooperation in a wide range of areas including finance, central banking, trade, culture, agriculture, education, tourism, energy, environment, anti-corruption, and climate change.

In 2015, BRICS countries created a Contingent Reserve Arrangement (CRA) with USD 100 billion in capital to provide short-term liquidity support. BRICS countries also established the New Development Bank (NDB) in 2015 with an authorized initial capital of USD 100 billion. The establishment of these two concreted financing mechanisms, the CRA and the NDB, has brought BRICS cooperation to a higher level.

BRICS cooperation has evolved into an important platform for developing countries to engage in constructive dialogue and cooperation, while also accelerating global governance reforms. The recent expansion of the BRICS mechanism will certainly raise the block's international influence, give it more say in development-related issues, and help bring about sustainable and inclusive economic growth in more EMDCs.

The New Development Bank: A Concrete Result of BRICS Cooperation

In 2012, BRICS leaders envisioned a new type of development bank designed for the twenty-first century. Two years later, an agreement was signed to create the New Development Bank (NDB) at the 6th BRICS Summit in Fortaleza, with Brazil, Russia, India, China, and South Africa as founding members. The NDB began operation in July 2015, becoming the first global multilateral development bank (MDB) created by EMDCs, for EMDCs. As enshrined in its Articles of Agreement (AoA), the NDB is mandated to mobilize resources for infrastructure and sustainable development projects in BRICS and other EMDCs, complementing the existing efforts of multilateral and regional financial institutions for global growth and development. With its headquarters located in Shanghai, China, and regional centers in Brazil, Russia, India, and South Africa, the NDB maintains a strong and diversified presence in EMDCs to ensure close collaboration with clients and stakeholders.

The steady development of the NDB could not have been achieved without the continued political guidance and support from BRICS leaders, as reflected in discussions during BRICS Summits and subsequent declarations. Most recently, at the 14th BRICS Summit, in the Beijing Declaration BRICS Leaders encouraged the NDB to *“follow its member-led and demand-driven principle, mobilize financing from diversified sources, enhance innovation and knowledge exchange, assist member countries in achieving the Sustainable Development Goals (SDGs) and further improve efficiency and effectiveness to fulfill its mandate, aiming to be a premier multilateral development institution.”*

In addition to providing strong political support, the founding members of the NDB have made good on the USD 10 billion paid-in capital commitment to which they initially subscribed, laying a solid foundation for NDB's operations. In 2022, the non-founding members of the NDB also started contributing paid-in capital. The timely receipt of capital contributions not only demonstrates member countries' firm commitment and strong support for the NDB but also places the NDB among the largest MDBs globally in terms of capitalization.

In 2021, the NDB admitted Bangladesh, Egypt, UAE, and Uruguay as new members, adding over additional 280 million people that could benefit from the Bank's development solutions. The NDB plans to continue its membership expansion in a gradual and balanced manner, while ensuring geographic diversity and a

reasonable mix of countries at different stages of development. With more countries joining, the NDB will be better positioned as a global multilateral financial institution with a membership base that reflects its focus on EMDCs. Membership expansion also enhances the NDB's role as one of the key platforms for international development cooperation and therefore contributes directly to the global development agenda.

In the eight years since its inception, the NDB has been contributing to global development in the following ways.

Firstly, the NDB has been contributing to a global economic governance system based on equality and mutual respect. Rooted in BRICS countries' shared vision for a better global economic governance framework, the NDB has been exploring an equal, well-represented, and fair approach on its own governance. This is well reflected in NDB's equal shareholding among the founding members, while no single member possesses veto power. This contrasts with the shareholding structure of legacy development institutions, including global and regional MDBs and specialized development agencies, in which the advanced economies usually hold the majority shares and therefore the dominant decision powers. The equal share holding of the NDB is a testimony of the BRICS spirit of mutual respect, mutual beneficial cooperation, and inclusiveness.

Secondly, the NDB has maintained a strong momentum in terms of impactful project investment for infrastructure and sustainable development. As of the end of 2022, the NDB approved a total of 96 projects with financing in the amount of USD 32.8 billion in sectors covering clean energy and energy efficiency, transportation, water and sanitation, environmental protection, social infrastructure, and digital infrastructure. These projects are expected to generate substantial development impacts, including the construction or upgrading of 17,000 km of roads, a reduction of 13.2 million tons in carbon dioxide emissions annually, a daily increase of 209,000 m³ in drinking water supply capacity, a daily increase of 635,000 m³ in sewage treatment capacity, and the new installation of 2800 MW of renewable and clean energy generation capacity. In addition, the NDB was one of the first multilateral development banks to provide financial support to combat the COVID-19 pandemic, committing up to USD 10 billion in emergency loans to member countries to help them contain the epidemic and recover economically, of which around USD 8 billion had been disbursed by the end of 2022.

Thirdly, the NDB has been pioneering in local currency financing. The NDB has maintained strong credit ratings by international agencies, AA+ from S&P and AA from Fitch, which help it to raise funds at competitive pricing. As of the end of 2022, it had borrowed USD 14.2 billion worth of proceeds through bond issuance and other means. Meanwhile, the NDB is also a pioneer MDB in the utilization of EMDC financial markets. As of December 2022, it had issued RMB 33 billion worth of Panda Bonds in the China Interbank Bond Market, while 22% of its lending portfolios were denominated in the currencies of emerging economies. With local currency financing, the NDB helps its clients mitigate exchange rate risk and reduce their dependencies on foreign currency income for repayment. On a macro-level,

the NDB's special focus on local currencies has been promoting the development of local capital markets of its member countries.

Fourthly, the NDB attaches paramount importance to the national sovereignty of its member countries and respects their development paths. The NDB has been working closely with its member countries to support their national development priorities, especially those aligned with the 2030 Agenda and the Paris Agreement. The NDB's lending does not negotiate with conditions, which differentiates itself from the legacy Bretton Woods institutions. As such, the NDB does not impose stringent measures to accompany its loans that might infringe upon the sovereignty of borrowers. Further, this also means that the NDB considers the political, regional, and cultural diversities of borrowers instead of imposing a pre-determined worldview, and it fully respects and supports the development path and strategies of its member countries. The NDB also, while using global practices and benchmarks to a large extent, focuses on country systems in its Environmental, Social, and Governance (ESG) and procurement practices, relying on policies and legislation from the country of operation. This allows the NDB to include the local socioeconomic and regulatory context into the big picture more effectively than other MDBs.

Last but not the least, in addition to providing crucial development financing to its member countries, the NDB aspires to become a knowledge hub and expand the voice of EMDCs in the global community. The NDB attaches great value to member countries' experience in infrastructure investment and sustainable development and promotes the generation and dissemination of development knowledge among BRICS countries and other EMDCs. It strives to serve as a platform for EMDCs to engage in constructive dialogues and cooperation to share best practices and solutions to development challenges. The generated synergy has allowed it to complement existing institutions in the global development communities by bringing perspectives from EMDCs.

The NDB is on its way to becoming a premier development bank for infrastructure and sustainable development for BRICS countries and other EMDCs, a goal set out by its General Strategy for 2022–2026. The Strategy targets enhancements in the Bank's capacity to mobilize resources at scale, finance diversified types of projects, employ sophisticated instruments, maximize impact, and continue building a robust institutional profile. It envisages that the NDB, over the 2022–2026 period, will provide USD 30 billion in funding from its own balance sheet, extend 30% of total financing in local currencies, co-finance 20% of its projects with partner MDBs, direct 40% of total financing to projects contributing to climate change mitigation and adaptation, and provide 30% of total financing to non-sovereign operations.

The NDB's Engagement with China

The NDB has maintained a firm, constructive, and mutually beneficial relationship with China, one of its founding members and the host country of the bank. Since the very beginning of NDB's journey, China has been providing strong support on

all fronts. During the 2014 BRICS Summit in Fortaleza, Brazil, the strong political support of President Xi Jinping was instrumental in reaching agreements with other BRICS leaders to establish this new multilateral development institution. At the 2022 BRICS Summit in China, President Xi called for “*greater development of the New Development Bank and a steady process to admit new members.*” Other state officials in China have also been supporting and guiding the NDB, including Premier Li Qiang, who visited the NDB in 2017 as the then Party Secretary of Shanghai, and Vice-Premier Ding Xuexiang, who delivered a speech at the NDB’s 8th Annual Meeting of the Board of Governors. Meanwhile, senior government officials from China have also been playing an indispensable role in NDB’s Board of Governors and Board of Directors, guiding the strategic directions of this institution.

The NDB’s Operations in China

The NDB’s financing operations in China support infrastructure and sustainable development projects with a distinct focus on bringing socioeconomic and environmental benefits. As of the end of Q1 2023, the NDB had cumulatively approved 24 projects in China worth USD 9 billion, about 25% of its total approvals,³ the highest share among NDB member countries. Within the broad spectrum of infrastructure and sustainable development, the NDB has successfully diversified its portfolio in China across a set of key operational areas, including both traditional infrastructure, such as highways and airports, and new types of infrastructure, such as the offshore wind power stations and distributed solar power systems. As local currency financing has been a key component of the NDB’s value proposition, around two-thirds of the Bank’s loans to China are denominated in RMB. It is worth mentioning that in March 2020, just two months after the outbreak of the COVID-19 pandemic, the NDB approved an emergency assistance loan worth RMB 7 billion to China, one of the first multilateral development banks to provide financial support to member countries in combating the pandemic, and another RMB 7 billion in loans to support China’s economic recovery in February 2021.

Case Studies: Selected NDB Projects in China

Lingang Distributed Solar Power Project. In April 2016, the NDB approved its first loan of RMB 525 million for the Lingang Distributed Solar Power Project, which also marks the beginning of local currency lending by the NDB. The project was designed to install a total of 65 MW distributed solar photovoltaic power plants by harnessing rooftop space primarily within the Shanghai Lingang Industrial Area, a newly established industrial development

³ NDB’s portfolio or active portfolio refers to the Bank’s cumulative approvals net of cancelled and fully repaid loans.

zone with advanced manufacturing and technological innovations. The project is expected, on average, to supply over 65 million kWh of “green” electricity energy annually to users within the industrial area as well as the State Grid Company, leading to an elimination of 52,000 tons of carbon dioxide (CO_2) emissions per year. The project was completed in December 2021 and is now fully operational.

Putian Pinghai Bay Offshore Wind Power Project. In 2016, the NDB approved a loan of RMB 2 billion to support the development of 246 MW in offshore wind power capacity in the Pinghai Bay near the City of Putian in Fujian Province. The project achieved full capacity grid connection in December 2021, and it is estimated to generate 873 million kWh of electricity per year. By generating electricity from a renewable energy source, the project will reduce emissions by 870,000 tons of carbon dioxide (CO_2) annually. The project has a strong technological component and represents the world’s first solution for a large-scale, single-pile foundation for wind turbines, which significantly reduces the cost installation of turbines in rocky seabed areas. It is emblematic of Chinese technological progress and leadership in the production of offshore wind energy, which has increasingly benefited other countries around the world.

Luoyang Metro Project. In 2018, NDB approved a loan of USD 300 million to help develop the first metro system line (Metro Line 1) in Luoyang, a historical city located in Henan Province. By providing a safe, reliable, and sustainable mode of transport for commuters in the city, the project aims to reduce heavy traffic in the highly congested urban area and improve mobility and accessibility. The project was put into operation in March 2021, with a total length of 25 km covering 19 stations and a design capacity of more than 500,000 passengers per day. The project connects residential areas to the city center and provides easy access to public services, business, and commercial centers; it also contributes to promoting the city’s considerable cultural history by providing convenient access to cultural tourist destinations. The project has not only improved the infrastructure in Luoyang but also had a strong positive socioeconomic impact by creating a convenient urban layout, improving traffic flows, reducing environmental pollution, and speeding up economic development.

Beijing Gas Tianjin Nangang Emergency Reserve Project. In 2021, the NDB approved a loan of EUR 436 million for the construction of a liquefied natural gas (LNG) reserve project in Tianjin’s Nangang Port. The project included the construction of an LNG unloading wharf and an LNG terminal with the ability to receive, store, and regasify LNG. Upon completion, an LNG receiving facility with an annual capacity of 5 million tons and ten storage tanks with a volume of no less than $200,000 \text{ m}^3$ each will be commissioned. A

regassification facility with a maximum daily operating capacity of 60 million m³ of natural gas will also be installed. Annually, the project is expected to help avoid emissions of CO₂ by about 7.5 million tons, nitrogen oxides (NO_x) by about 78,000 tons, and sulfur dioxide (SO₂) by about 27,000 tons. Ultimately, the project will contribute to improving the region's energy mix and supporting its low-emission and sustainable development.

Case Studies: The NDB's Emergency Support to China in Response to COVID-19

In response to the COVID-19 outbreak in 2020, the NDB quickly established a USD 10 billion Fast Track COVID-19 Emergency Assistance Response Facility and provided rapid support to its member countries to fight the pandemic and its socioeconomic consequences. In March 2020, just two months after the outbreak of the COVID-19 pandemic, the NDB approved an emergency assistance loan worth RMB 7 billion to China, one of the first initiatives of multilateral institutions to support to member countries in combating the pandemic. The loan was fully utilized in 2020 to finance public health expenditures related to outbreak control in Hubei, Guangdong, and Henan—the three provinces hit hardest by COVID-19 at the time. Proceeds from the NDB loan provided relief to local governments by reducing their financing gap and freeing up fiscal resources to cushion the subsequent socioeconomic impact.

Following the successful implementation of the first emergency assistance loan to China for combating COVID-19, the NDB approved another loan of RMB 7 billion to China in February 2021 to support the country's economic recovery from the adverse impacts of the pandemic. The loan seeks to reinforce early economic recovery and stimulate job creation by financing labor-intensive infrastructure development, and to promote long-term sustainable development through investments in high-tech and innovative infrastructure. The loan was on-lent through the Export-Import Bank of China and Agricultural Development Bank of China to projects in selected sectors that are targeted for support.

NDB Treasury Operations in China

Leveraging its robust capital base and its high credit ratings, the NDB has been accessing capital markets and diversifying its investor base through public bond issuances and private bond placements, both globally and in China. In particular,

the NDB has been a pioneer in promoting the use of the Renminbi in its financing operations. It is also the first multilateral development bank to issue a green bond and the largest issuer of Panda bonds in China. In terms of treasury portfolio management, the NDB has been an active player across various markets in China. Through these operations, the NDB is fulfilling its commitment to local currency financing and supporting the development of the local capital markets.

The NDB is the largest issuer of Panda Bonds in Chinese debt capital markets among MDBs. The NDB entered the Panda bond market in 2016 when it issued a CNY 3 billion green bond, which was also the first green bond issued in the Chinese interbank market by a multilateral development bank.⁴ For this bond issuance, the NDB was awarded the “*Best Multilateral Development Bank Green Bond Issuer*” in 2016 by the China Central Depository and Clearing Company (CCDC). Since 2019, the NDB has issued CNY-denominated bonds every year, raising its annual issuance from RMB 3 billion in 2019 to RMB 13 billion in 2022. By the end of 2022, the NDB had borrowed a total amount of RMB 33 billion across ten different bond issues, making it the largest issuer of Panda bonds in China. In the first half of 2023, the NDB successfully issued RMB 8.5 billion in Panda Bonds in the China Interbank Bond Market and USD 1.25 billion in green bonds. The proceeds raised were used to finance the NDB’s lending to Chinese borrowers and to offshore projects in other currencies.

The NDB is also a major player in the Chinese Interbank Market in numerous instruments across various markets, including the money, capital, derivative, and foreign exchange markets. The NDB regularly places deposits with banks in China in Chinese Renminbi, as well as other currencies such as the US dollar and European Euro. The NDB also trades in interest rate swaps, foreign exchange, cross currency swaps, foreign exchange forwards, and foreign exchange swaps on CFETS. Due to the NDB’s prominent role in these markets, it was awarded “*Best RMB/FX Cross Currency Market Member*” by CFETS for the year of 2021 and 2022. The NDB is an active trader in repo and reverse repos, serving as a good provider of Renminbi liquidity to the Chinese repo market. Lastly, the NDB actively participates in the Chinese bond market. It has bought bonds of the Chinese government and policy banks in the primary and secondary markets, and Panda Bonds. This participation helps support the development of the China’s domestic bond market.

The NDB’s Strategic Partnership with China

The NDB continues to strengthen its cooperation with all the member countries and with China in particular. The NDB is set to support further China’s development strategy such as high-quality development and the implementation of the

⁴ It was the first time that an international financial institution issued a green financial bond in the Chinese interbank bond market according to the guidelines set by the Peoples Bank of China (PBOC) in December 2015.

New Development Philosophy of innovative, coordinated, green, open, and shared development through investment projects in economic and social infrastructure. The NDB is serving as a platform for development cooperation between China and other member countries, such as those envisaged in the Belt and Road Initiative and the Global Development Initiative, and it is disseminating China's development experiences to the global audience. This closer relationship between the NDB and China will steadily support the greater development of the NDB and better enable it to contribute to the global community.

More specifically, the NDB has formed strategic partnerships with various Chinese agencies, including governments at national and regional levels, the central bank and other financial regulators, development finance and commercial finance institutions, academia, enterprises, non-government organizations, and multilateral organizations operating in China. These strategic partnerships are formalized in the signed Memorandums of Understanding (MoUs) between the NDB and relevant parties. By March 2023, the NDB had signed MoUs with major partners operating in China, including all Big-5 banks in China, the three policy banks, other financial institutions, universities, and research institutions.

A case in point is the NDB's cooperation with the BRICS Partnership on New Industrial Revolution Innovation Center, a public institution directly under the Fujian Provincial Government of China with a mandate to enhance the capacity of BRICS countries to jointly addressing the challenges in the new era of the Fourth Industrial Revolution. The fields of collaboration in the current digital age include but are not limited to new-generation information and communications technology, artificial intelligence, industrial internet, green industry, energy conservation and environmental protection, biomedicine, and energy electronics. Another example is the MoU the NDB signed with Ministry of Finance of People's Republic of China, together with 11 major MDBs, to establish the Multilateral Cooperation Center for Development Finance (MCDF), with the purpose of promoting knowledge exchange and improving project preparation and capacity building.

In the future, the NDB intends to intensify its engagement with these partners in China by further leveraging their expertise, co-financing projects, and cooperating in other areas such as treasury, financial markets, and knowledge exchange.

Synergies Between the NDB and its Host City Shanghai

In February 2016, the NDB and the Government of the People's Republic of China signed the Headquarters Agreement which governs the establishment of the permanent headquarters of the NDB in Shanghai, China. In September 2021, the NDB and the Shanghai Municipal Government celebrated the NDB Headquarters building hand-over and move-in ceremony.

As an international financial center, Shanghai makes the staff of the NDB feel at home and provides the NDB with world-class financial infrastructure. This would not have been possible without the dedication of government officials in Shanghai

and relative ministries in the central government, who see the development of the NDB as an indispensable facet of the city's contribution to global governance as an international metropolis.

As the first international organization headquartered in Shanghai, the NDB is uniquely positioned to support Shanghai's agenda to become an international financial center. The presence of the NDB, as well as future international organizations to set up their headquarters in Shanghai, will benefit the city directly by bringing highly trained personals, financial resources, advanced technologies, and diverse cultural. Furthermore, the expansion of NDB's member countries and an increasing of the NDB's workforce in recent years have brought Shanghai steady demand for employment opportunities, housing and rental demand, and consumption in goods and services in general. The NDB also strives to bridge Shanghai with the governments of its member countries and therefore constitutes an important channel for Shanghai to improve its global recognition. The NDB's permanent headquarters building is gradually turning itself into a new business card of Shanghai.

The synergies between the city of Shanghai and the NDB have proved to be a win-win outcome, demonstrating the huge potential for Shanghai to attract more international organizations. The thriving experience of the NDB is a key testimony to Shanghai's journey toward high-quality opening up and the creation of a modern and international metropolitan.

Conclusion

Focusing on international cooperation, advancing global governance reforms, and promoting inclusive and resilient economic growth are the keys to solving present global and regional problems. It is of paramount importance to embrace multilateralism and the principles of fairness and justice in global governance. The NDB, as a crystallization of BRICS cooperation, has been playing its own part in serving as a platform for EMDCs to strengthen cooperation and coordination within an environment of mutual respect, mutual beneficial cooperation, and inclusiveness. As guided by its mandate, the NDB will continue playing an indispensable role in promoting infrastructure and sustainable development in BRICS and the other EMDCs.

On March 24, 2023, Mrs. Dilma Rousseff was elected as President of the NDB. As a former president of the Federative Republic of Brazil who played an instrumental role in creating the NDB, President Rousseff brings her extensive knowledge of public policies, deep understanding of EMDCs, great passion for sustainable development, as well as her visionary leadership and international influence, all of which will contribute to strengthening the NDB's role in representing the development aspirations of EMDCs.

As a platform for cooperation among EMDCs, the NDB will enhance its facilitation of development cooperation between China and other member countries, while as a development financial institution, the NDB will further strengthen its capacity to promote Renminbi internationalization in the development financing universe.

Further, on the path to becoming a knowledge hub for EMDCs, the NDB will continue sharing China's development experience and knowledge to other EMDCs. The synergy between the NDB, China, and other member countries will continue to be a shining example of how multilateral institutions initiated by developing countries can progress and thrive and how such institutions can effectively support the development agendas of EMDCs.



Qiangwu Zhou is Vice-President and Chief Administrative Officer of the New Development Bank. Previously, Mr. Zhou has served in various senior positions in the public sector including Director General of the Department of International Economic and Financial Cooperation in China's Ministry of Finance. Prior to that, Mr. Zhou was Director General of International Economic and Financial Institute (IEFI), MOF's leading think tank on international economics and development. He also represented China in the UN's Administrative and Budgetary Committee Advisor as well as Senior Advisor to the Executive Director for China in the World Bank Group. Mr. Zhou holds a master's degree from Peking University.

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New Initiatives of Growth and Development

Reviving Growth: Challenges and Policies



M. Ayhan Kose and Franziska Ohnsorge

Abstract A wide range of factors have led to broad economic slowdown and fiscal tightening, linked to a deepening crisis of development. Factor reallocation between firms has slowed and gains from better education and health have faded. A weakening of investment growth in EMDEs and slower growth in working-age populations has weighed on productivity growth. In addition to assistive policy measures, the global community should help expand financing and capacity-building to promote growth in EMDEs, MICs and to achieve the SDGs, with specific emphasis on contributions from the global community and the private sector.

Keywords Cross-border investment and trade · Economic slowdown · Fiscal policy · EMDEs · MICs · SDGs

The past four years have dealt major shocks to the global economy, including a pandemic and a war. After the necessary accommodation during the pandemic, cyclical policies turned contractionary. The steep rise in inflation over the past two years has led to the sharpest tightening of global monetary policy over the past four decades. Fiscal policy has also become less supportive following the significant deterioration of fiscal positions after debt levels reached historical highs during the 2020 global recession. Between these multiple adverse shocks and limited policy space, the global economy has experienced the deepest growth slowdown of the past six decades following a global recession.

While policy makers are fighting these short-term challenges, a slower-moving, longer-term setback of considerable importance has been brewing quietly: the fizzling

Kose (Prospects Group, World Bank; Brookings Institution; CEPR; CAMA). Ohnsorge (Prospects Group, World Bank; CEPR; CAMA). This article is based on the overview chapter of “Falling Long-Term Growth Prospects: Trends, Expectations, and Policies” edited by M. Ayhan Kose and Franziska Ohnsorge (World Bank Press, 2023). The findings, interpretations and conclusions expressed in this paper are entirely those of the authors and should not be attributed to the institutions they are affiliated with.

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out of long-term growth prospects. Global growth declined from a recent peak of 4.5% in 2010 to a projected low of 1.7% in 2023. The slowdown was widespread: in 80% of advanced economies and 75% of EMDEs, average annual growth was lower during 2011–21 than during 2000–10.

The slowdown was pronounced in emerging market and developing economies (EMDEs). As a result, the pace at which the per capita incomes of these economies are catching up to those of advanced economies (so-called income convergence) has fallen: In 2011–21, EMDE per capita incomes grew 2.0 percentage points a year faster than advanced-economy per capita incomes. But that was considerably lower than the differential of 3.4 percentage points a year during 2000–10.

The convergence process was set back in all EMDE sub-groups and regions. Middle-income EMDEs (MICs) were somewhat harder hit than low-income countries (LICs). MIC per capita income growth slipped by 1.4 percentage points, from 4.9% in 2000–10 to 3.5% in 2011–21. LIC per capita income growth also slowed, by 1.2 percentage points, to 1.7% in 2011–21 from 2.9% in 2000–10.

Behind this slowdown has been a deepening crisis of development as all the fundamental drivers of economic growth have regressed. For example, factor reallocation from less to more productive firms and sectors has slowed. Gains from better education and health have faded as improvements in education and healthcare systems have leveled off. A weakening of investment growth in EMDEs has weighed on productivity growth. Growth of the global working-age population has slowed and the working-age share of the global population has stabilized since around 2010 after rising over the preceding decades. Global policy uncertainty has risen while attitudes toward the traditional engines of growth, such as trade integration, have shifted.

Magnifying Challenges

These trends are expected to continue weighing on growth over the remainder of the current decade. Weaker long-term growth gives rise to a wide range of challenges. First, it slows the pace of poverty reduction. At currently projected growth rates, the sustainable development goal (SDG) of reducing global extreme poverty to 3% of the population by 2030 is out of reach. Second, slower output growth tends to feed back to lower investment growth. In fact, declines in long-term growth prospects have tended to be associated with more than proportional slowdowns in investment growth. Without sustained investment growth, it is very difficult, if not impossible, to address climate change and make material progress toward other development goals. Third, slower long-term output growth limits job creation and wage growth which in turn provide fertile ground for social tensions. Finally, slower long-term output growth increases debt-service burdens and undermines debt sustainability which in turn leads to financial stress.

Longstanding, Widespread Decline in Potential Growth

It is critical to understand the evolution of potential growth to have a better grasp of the broader growth challenges confronting the global economy. Potential growth is the maximum growth rate that an economy can sustain in the long term at full employment and full capacity without igniting inflation. An economy's potential GDP growth rate is effectively its speed limit. It influences the full spectrum of policies that determine economic and development outcomes: the level of benchmark interest rates, the scale of government spending, and even the expected size of returns to investors. The speed limit can be raised—through policies that expand the labor supply, boost productivity, and ramp up investment.

Global potential growth fell to 2.6% a year during 2011–21 from 3.5% a year during 2000–10; meanwhile, EMDE potential growth fell to 5.0% a year during 2011–21 from 6.0% a year during 2000–10. The weakening of potential growth was highly synchronous across countries: during 2011–21, potential growth was below its 2000–10 average in almost all advanced economies and nearly 60% of EMDEs.

This slowdown in potential growth can be attributed to many factors as all fundamental drivers of growth faded. The period between 2011 and 2021 was marked globally by slower TFP growth, slower labor supply growth, and slower investment growth than in the period 2000–10. In addition, the global economy has been rocked by financial crises, global recessions, bouts of inflation, health crises such as epidemics and a pandemic, climate-related disasters, and wars and conflicts of varying severity. Almost all of these shocks, and especially the global recessions, left lasting legacies of damaged drivers of, and slower rates of, potential growth.

Diminishing Growth Expectations: A Lost Decade in the Making?

The slowdown in potential growth during 2011–21 is projected to extend into the remainder of the current decade. Projections for its fundamental drivers suggest that global potential growth will slow further, by 0.4 percentage point a year from 2011–21, to an average of 2.2% a year in 2022–30, the slowest pace since 2000. About half of the slowdown is due to demographic factors from an aging population, including slowing growth in the working-age population and declining labor-force participation.

EMDE potential growth is projected to slow by 1.0 percentage point a year to an average of 4.0% a year in 2022–30. The decline will be internationally widespread: Economies accounting for nearly 80% of global GDP, including most EMDEs, are projected to experience a slowdown in potential growth between 2011–21 and 2022–30. All traditional drivers of growth, including trade, are expected to weaken in the remainder of this decade.

From Technological Innovations to the “Roaring 2020s”?

Against the backdrop of weakening actual and potential growth around the world, the implications of technological innovations for growth prospects have been a subject of intense debate. Some claim that the global economy will enjoy a surge in economic growth in the coming decades, driven by improvements in productivity thanks to new technologies. Others caution that future growth could stall, or even fall, because new technologies will likely have a declining marginal impact on productivity, and structural challenges associated with aging and sluggish growth of investment will adversely affect prospects.

It is tempting to look back to the 1918 Spanish flu and hope for a decade of rapid global growth reminiscent of the “Roaring Twenties” of that era because of recent technological innovations. Building on technological breakthroughs in earlier decades, North America and Europe enjoyed rapid modernization and strong economic growth in the 1920s. Automobiles replaced horse-drawn transportation and became ubiquitous as improvements in assembly lines cut costs. Newly built electrical grids paved the way for rapid industrial and household electrification. The economies of the USA, Japan, and some European countries became more productive. Global growth that averaged 3.6% in the 1920s was double that of the preceding two decades.

There is no question about the potential of recent technological innovations in transforming our lives across the world, in many dimensions. However, in light of the trends of the past two decades and the persistent slowdown in the fundamental sources of growth, policy makers need to be prepared that the 2020s are more likely to be “disappointing” than “roaring” for the global economy, unless a comprehensive set of policies are put in place.

Policies to Boost Potential Growth

It is possible to reverse the slowdown in potential growth through structural policy interventions. Structural policies associated with higher physical capital investment, improved human capital, and faster labor supply growth could raise potential growth by 0.7 percentage points a year in 2022–30—both globally and in EMDEs. This would offset the 0.4 percentage points projected decline in global potential growth between 2011–21 and 2022–30 and most of the 1.0 percentage point slowdown for EMDEs. Global potential growth would rise to 2.9% per year—above its 2011–21 average of 2.6%, but still well below its 2000–10 average of 3.5%; EMDE potential growth, at 4.7% per year would remain below its 2011–21 average of 5.0% but by a much-reduced margin. These policies need to be accompanied by robust policy frameworks involving fiscal, monetary, and financial-sector policies. They also need to be supported by interventions by the global community.

Investment. Policy makers in EMDEs can turn these challenges into opportunities by focusing on interventions that can boost investment. Given the enormous challenges associated with climate change, there is a well-defined need for an ambitious investment push. Climate change is expected to exacerbate extreme poverty by reducing agricultural output, increasing food prices, and worsening food and water insecurity in EMDEs, and increasing the disaster-related damages to the physical environment. As discussed above, climate-related disasters are becoming more common, and they weigh particularly heavily on vulnerable countries such as small states. They can also worsen government fiscal positions through lower tax receipts and lower productivity alongside increased spending on reconstruction and public services.

Addressing gaps between current spending on infrastructure and the level needed to meet development goals can promote investment growth. Prioritizing investment in green infrastructure projects with high economic returns, and fostering the widespread adoption of environmentally sustainable technologies, can support higher growth levels in the long-run while contributing to climate change mitigation. Sound investments aligned with climate goals in key areas—such as transport and energy, climate-smart agriculture and manufacturing, and land and water systems—can all boost long-term growth, while also enhancing resilience to future natural disasters.

Although green transitions need to be carefully managed, sustainable investments—including by the private sector—offer significant opportunities. Besides their broader benefits, green investments may represent an important engine for job creation as they tend to be labor intensive. Addressing climate change and other development challenges also requires structural reforms that encourage the mobilization of private capital and lower barriers of access for the private sector. In many EMDEs, governance and institutional reforms are necessary to improve and unify the often fragmented regulatory and institutional environment. Reforms that improve the business climate can stimulate private investment directly and amplify the positive effects of investment, such as less informality and more job creation. All of these policy interventions also help attract FDI.

Labor supply and human capital. Policies can aim to raise the active share of the working-age population, in particular policies to “activate” discouraged workers or groups with historically low participation rates, such as women and younger or older workers. Globally, average female labor-force participation in 2011–21, at 54%, was three-quarters that of men, which stood at 72%; the gap between male and female participation was even larger in EMDEs, at 25 percentage points. Similarly, in both EMDEs and advanced economies, the average participation rate of workers aged 55 years or older was about half that of 30–45-year-old workers, and labor-force participation among those aged 19–29 years was only four-fifths that of their 30–45 year olds.

A set of reforms that gradually raises participation rates in each five-year age group from 55–59 years onwards and that raises female labor-force participation rates by their best 10-year improvement on record could increase global potential growth rates by as much as 0.2 percentage point per year on average during 2022–30. Improvements to health and, especially, education could be one prong of such a set of

reforms to boost labor-force participation, since better-educated workers tend to be more firmly attached to labor markets. In addition, improvements in education and health outcomes on par with the best ten-year improvement on record could boost productivity and lift EMDE potential growth by an additional 0.1 percentage point per year, on average, for the remainder of this decade and more over the longer term.

Trade. Trade has flagged over the past decade. A major effort to rekindle it could yield large growth dividends over the next one. The costs added to internationally traded goods remain high: on average, they are almost equivalent to a 100% tariff, roughly doubling the costs of internationally traded goods relative to domestic goods. The bulk of the costs is accounted for by transportation and logistics, non-tariff barriers, and policy-related standards and regulations; tariffs amount to only 5% of average goods trade costs. Trade costs for services tend to be even higher than for goods, largely reflecting regulatory restrictions.

To reduce elevated trade costs in EMDEs, comprehensive reform packages are needed. Trade agreements can reduce trade costs and promote trade, especially if they lower non-tariff barriers as well as tariffs and generate momentum for further domestic reforms. However, even if the global environment is not conducive to progress in such agreements, countries can take action at home to rekindle trade. For example, they can streamline trade processes and customs clearance requirements; enhance domestic trade-supporting infrastructure; increase competition in domestic logistics and in retail and wholesale trade; reduce tariffs; lower the costs of compliance with standards and regulations; and reduce corruption. Empirical analysis suggests that reforms that lift an EMDE in the quartile of countries with the highest shipping and logistics costs to the quartile of those with the lowest costs could cut its trade costs in half. For maximum effect, such reforms need to be embedded in broader improvements such as in human capital and digital connectivity.

Trade can also play a critical role in the climate transition. It has the potential to promote the production of goods and services necessary for transitioning to low-carbon economies. In addition, trade delivers goods and services that are key to help countries recover from extreme weather events. However, evidence indicates that in some countries, entry into global value chains in manufacturing has been accompanied by greater carbon emissions, and that global value chains have contributed to greater waste and increased shipping. Shipping accounts for 7% of global carbon emissions and 15% of global emissions of sulfur and nitrogen.

A number of policies can be implemented to reduce trade costs in a climate-friendly way. For example, policies can be designed to remove the current bias in many countries' tariff schedules favoring carbon-intensive goods and eliminate restrictions on access to environmentally friendly goods and services. In addition, multilateral negotiations can focus not only on tariffs on environmental goods but also on nontariff measures and regulations affecting services—access to which is often vital for implementing the new technologies embodied in environmentally friendly goods.

Services. Policy interventions can also help countries unlock the potential of the services sector to drive economic growth. Supporting the diffusion of digital technologies in EMDEs remains central to deliver better growth outcomes. In this context, investing in ICT infrastructure, updating regulatory frameworks around data, and strengthening management capabilities and worker skills are important. Countries can promote the expansion of productive, high-skilled, offshorable services by enabling greater use of online communications and digital platforms, reducing barriers to services trade, and supporting training in relevant skills.

Where education systems are weak, but reliable and widespread internet access exists, it would be possible to increase utilization of higher-quality online schooling and training. Digital technologies may expand access to finance in the poorest countries, enable more effective government service delivery, and accelerate the trend toward the automation of some routine occupations. In addition, regulatory reforms can support investment to revive low-skilled contact services, such as transportation, that employ large numbers of people.

The prospect for services-led growth will also be influenced by climate change considerations. The services sector can play an important role in climate mitigation and adaptation. For instance, financial services can play a fundamental role in mobilizing the resources needed for necessary investments. Similarly, engineering and environmental consulting services will likely be central to enabling energy-efficiency improvements.

Macroeconomic policies. Macroeconomic policy frameworks can play an important role in boosting long-term growth prospects. They can help pro-actively smooth business cycles to avoid the disruptions and distortions associated with adverse shocks. They can ensure that social protection systems are geared toward minimizing long-term damage from such shocks. In addition, they can instill confidence in sound policy making and buttress the credibility of institutions.

Robust fiscal and monetary policy frameworks are founded on transparent and rules-based approaches. Fiscal rules and medium-term budget frameworks can help countries maintain sustainable finances and accumulate reserves when the economy is doing well. These types of disciplined fiscal policy frameworks are especially critical nowadays to support growth prospects amid elevated debt levels and tight global financial conditions. In a deficit-neutral manner, they can guide government spending toward policies with long-term growth benefits, such as in health, education, or transport, or expand revenue bases to increase financing for such priority policies. Better fiscal frameworks also assist monetary policy by restraining procyclical spending that could contribute to demand pressures.

A transparent and independent central bank will be better placed to maintain price stability, thereby helping to create a macroeconomic environment that is conducive to strong growth. In particular, by establishing an environment of low and stable inflation over the medium term, and thus fostering confidence in macroeconomic stability, central banks can support private investment growth. Strong monetary policy frameworks are currently particularly important to overcome inflation and stabilize inflation expectations. Monetary policy can also play a countercyclical

role through its management of interest rates and credit growth, thereby supporting investment growth when activity is weak and inflation is low but helping to contain investment when the economy is overheating.

To avoid boom-bust cycles that do lasting damage to investment and potential growth, proactive financial-sector supervision and regulation can mitigate risks—especially in countries with financial markets that are developing rapidly and becoming more integrated globally. In EMDEs without a prudential authority or prudential powers, creating or empowering these institutions is a priority. In EMDEs with the appropriate institutions, flexible and well-targeted tools are needed to manage balance-sheet mismatches, foreign-currency and capital-flow-related risk, and asset-price misalignment with economic fundamentals.

Global cooperation. Since many of the challenges faced by EMDEs transcend national borders, it is essential to strengthen global cooperation to address them. The increasing frequency and severity of climate-related disasters in recent years highlight the escalating costs of climate change: the global community must therefore work together to accelerate progress toward meeting the goals of the Paris Agreement. In addition, there is a pressing need to reduce the economic, health, and social costs of climate change, many of which are borne disproportionately by vulnerable populations in EMDEs, particularly in LICs.

More pressingly, the global community can help to expand the financing and capacity-building needed to promote growth in EMDEs—including by scaling up climate change adaptation, increasing green investments, and facilitating a green-energy transition. The increase in investment spending (relative to GDP) needed to achieve the SDGs will be much larger for LICs than for the average EMDE. That implies that substantial additional financing from the global community and the private sector will be needed to close investment gaps. For some LICs that are already in—or at high risk of—debt distress, such financing may need to be accompanied by debt relief to allow them to steer spending toward development goals instead of debt service.



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The Belt and Road Initiative and Italy's Exit: A Personal Perspective



Michele Geraci

Abstract The Belt and Road Initiative (BRI), introduced by China in 2013, represents one of the most ambitious global infrastructure projects in modern history. As a development strategy, it aims to enhance connectivity and economic integration across Asia, Europe, and Africa through investments in infrastructure, trade, and cultural exchange. Italy's participation in the BRI, signed in 2019 during my tenure as Undersecretary of State at the Ministry of Economic Development, marked a significant milestone as Italy became the first G7 country to endorse the initiative formally. While my decision generated significant international and domestic attention, much of the debate has been clouded by ideological positions and political slogans, with insufficient focus on empirical evidence. This chapter seeks to clarify the rationale for Italy's decision to join the BRI, address criticisms, and counter arguments for its withdrawal under Prime Minister Meloni.

Keywords China · Belt and Road · BRI · BRICS · Italy

Premise

In February 2019, two journalists from the Financial Times visited my office for a routine interview on the state of the Italian economy. Toward the end of our discussion, I made an announcement: “When President Xi visits Italy next month, the Italian Government will sign a Memorandum of Understanding with China, becoming the first G7 country to join the BRI.” This, in my view, was the most significant act of Italy’s foreign and trade policy in decades (Davide Ghiglione 2019).

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Italy's Rationale for Joining the Belt and Road

The BRI's transformative potential became evident to me as early as 2013, following President Xi Jinping's speech at Nazarbayev University in Kazakhstan. At the time, I was a professor in China and had been studying international trade and economic development for years. The concept of a modern Silk Road revitalizing ancient trade routes resonated deeply with me, particularly as I reflected on the historical exchanges facilitated by Marco Polo and the Roman Empire. Over the years, I observed how China's infrastructure-driven development model lifted millions out of poverty and transformed its economy. My vision was to leverage this model for Italy, not just to enhance bilateral trade and investment with China but also to collaborate on infrastructure projects in Asia and Africa. This collaboration, I believed, could bring economic stability to these regions and, in turn, mitigate migratory pressures on Europe.

During my tenure as Undersecretary of State at the Ministry of Economic Development of the Republic of Italy, between 2018 and 2019, I was the person who made the decision for Italy to join the Belt and Road. My vision was not simply to improve trade and investment between our two countries, however important that is for the short term, but to create a long-term China–Italy economic and development partnership that would span across 150 countries to foster the development of infrastructure projects in Asia and Africa. By doing so, we would also bring peace and prosperity to those two continents and, in turn, stabilize the migratory flow to Italy and to Europe. All of this would have brought visible and tangible benefits to the economy of Italy, to our enterprises and to the standard of living of our citizens. Italy would have benefited from the pull factor offered by a country like China with a strong financial muscle and with an already established presence in most of Asian and African countries. China would have also benefitted from such a partnership as the presence of Italy in Chinese investment in Africa would have mitigated some of the criticism that China faces, rightly or not is another matter, accusing it of economic neo-colonialism and not fully adhering to international work practices. A win–win situation for both.

Of course, the “Win for Italy” part of the equation was always my guiding star in both the negotiation of the actual Memorandum of Understanding and, later, in assessing the pros and cons of each individual project. But I had more in mind: I would have liked the EU and the US to also join the BRI. I had witnessed, during my decade living in China, how the Chinese development model based on “Urbanization + Transport Infrastructure + Manufacturing + Real Estate” had succeeded in guaranteeing high single digit GDP growth for China, lifting millions of people out of poverty and transforming its economy from a low-end, low added value export-led economy, into a high-end manufacturing, investment-innovation led system, a process with its own challenges, but one that is still ongoing.

A similar development model, after taking into account individual countries' needs and development goals, would have offered Asia and Africa a similar path to development, and the BRI's focus on Transport and Infrastructure did offer one of the key pillars of this model. We also knew that the need for infrastructure investment

in Asia and Africa was vast and that there would be room for other players. I had already discussed the potential benefits of the BRI with other European members of government and even with some US representatives, pointing out that, in fact, the more they viewed the Chinese initiative as suspicious or as a competitor, the more the “West” should engage and be part of it, enabling it to monitor more closely what their “competitor” was doing. There was a brief window during which some more visionary and pragmatic members of some European and American government were seriously looking into how the Belt and Road, the EU Global Gateway, the G7 Build Back Better World, and the India–Middle East–Europe Economic Corridor could all be part of a coordinated effort to develop the Global South.

But why did Italy need the BRI to achieve those goals, while other countries like France and Germany managed to have florid trade and investment relations with China and even join investment projects in third countries? Could Italy achieve the same without joining the BRI?

The answer is “no.”

Having lived in China for a decade, from 2008 to 2018 and having worked as an investment banker for a decade before that, I knew how hard it was for Italian companies to operate outside the relatively comfortable markets of the EU and the US and how difficult it was for our industrial base to gain access to infrastructure development contracts around the world. Unlike Germany, France, the UK and even Holland, the Italian economy is made up by many very small SMEs. “Italy Inc.” does not operate in a systemic way and the many SMEs are left alone with no real government guidance or protection in difficult Asian and African markets.

For example, Italy is the second largest wine exporter in the world (US\$ 8.4 bn in 2023) and while our wine exports to the Europe and the US are very strong (US\$ 1.9 bn to the USA and US\$ 4.5 bn to Europe), our wine exports to China are a mere US\$108 mn, while France exports five times that. Why is there such a large difference? The answer is that it is difficult for our wine producers to compete with a country like France, which has an airline (Air France), a chain of supermarkets (Carrefours, until recently) and a chain of hotels (Sofitel) across many of China’s provinces, where their wines are served 24/7. When it comes to FDI, in theory, we welcome foreign inbound investment, but when it comes to it, we always worry that a foreign company may make predatory acquisitions into our strategic assets. We have built a “Golden Power” system, which, like the US CFIUS and the Chinese Negative List, gives the Italian Government final approval of a proposed acquisition. International procurement projects are even more challenging for Italian companies given both their small size and the strong need for a government-to-government relationship with the target country. From the point of view of Italy, governmental relationships are more important and potentially more beneficial with those countries where there is a strong presence of government or state-owned enterprises in the local economy. When I visited the UK, which is a very open market economy, I knew that cordial relationships with my counterparts, Ministers of State, was important, but I also knew that they would not be particularly instrumental to increase the exports of products Made in Italy to London consumers. On the contrary, a small word of appreciation of our products, or of the beauty of the landscape and the historic

heritage of, say, Sicily, uttered by a member of the Chinese Government, maybe more likely to set the tone for a quick response by large Chinese travel agencies.

It was against this backdrop of challenges for our companies that the Belt and Road was seen as a way for Italy to circumvent those difficulties, strengthen our relationship with the Chinese Government and with that, lower the risk for our companies of doing business in China, while at the same time stimulating bilateral trade, both imports and exports. But the BRI, in my view, is not only about trade and investment between Italy and China; this is a minor issue. The vision I had was for Italy to work with China and the other 150 BRI countries to carry out joint development projects around the world and, as a sort of icing on the cake, make Italy the European terminal of the Silk Road. Our strategic position at the center of the Mediterranean makes Italy an ideal partner for China to better access Africa and Middle Eastern markets, and even Latin America. China could benefit from our strategic landing pad and Italy Inc. would benefit from the Chinese pull effect in those markets. Through this win-win opportunity, Italy would regain his historic role as the terminus of the ancient Silk Road.

Critics of the Belt and Road and My Response

Despite its promise, the BRI has faced significant criticism, particularly from Western policymakers and academics. Concerns range from allegations of debt-trap diplomacy, high interest rates, loss of strategic assets, and lack of transparency to environmental degradation and geopolitical ramifications. While these issues merit scrutiny, many critiques are overly simplistic or fail to consider the nuances of specific projects. As Undersecretary of State, my priority was to assess the BRI through the lens of Italy's national interests rather than external pressures or ideological biases. Below, I address some of the most prominent criticisms:

Debt-Trap Diplomacy and loss of strategic assets. One of the most prominent criticisms of the BRI is the accusation that it creates “debt-trap and geopolitical dependency.” Critics argue that China provides loans to countries that lack the capacity to repay, effectively leveraging their debt for political and strategic gains and even support in multilateral organizations of various kind. This narrative, notably advanced by Brahma Chellaney (Chellaney 2017), claims that China’s lending practices are designed to ensnare developing nations into economic and political dependency. The most cited example is Sri Lanka’s Hambantota Port, financed through Chinese loans totaling over US\$1 billion. Due to insufficient revenue generation, Sri Lanka faced difficulties servicing the debt. In 2017, the Sri Lankan government leased the port and 15,000 acres of surrounding land to China Merchants Port Holdings for 99 years as part of a debt restructuring agreement. Another example often cited is Montenegro’s motorway project, financed in part by Chinese loans. The Bar-Boljare motorway, intended to improve connectivity and economic growth, faced delays and

cost overruns, exacerbating concerns over debt sustainability and growing dependence of Montenegro on China. Criticism has also been made at Greece's sale of the Piraeus Port to China's COSCO Shipping on the basis that this caused Greece to lose control of one of its main strategic assets. The same worry was raised when we were discussing with China the possibility of a cooperation with the Italian port of Trieste that would have, according to our vision, become the main terminal of the BRI in the Mediterranean and attract more containers from China and Asia, diverting traffic from other European and Mediterranean ports and create jobs and GDP for Italy, a clear win for us.

There are many ways to respond to those critics. In the case of Sri Lanka, while it is true that this allowed China to gain a strategic foothold in the Indian Ocean, it is essential to clarify that Sri Lanka's debt distress was largely caused by domestic fiscal mismanagement and borrowing from multiple creditors—not only China. According to a study by the Center for Global Development (Hurley 2018), Sri Lanka's debt to China accounted for approximately 10% of its total external debt while the majority was owed to non-Chinese international financial institutions. Montenegro's debt challenges stem primarily from broader structural economic weaknesses in the country, high public spending, and dependence on external financing, rather than predatory lending practices. Greece, yes, lost equity control of an important strategic asset, but the deal brought significant investment, modernized port infrastructure, and transformed Piraeus into one of Europe's busiest ports. According to data from the Hellenic Statistical Authority (2022), cargo traffic at Piraeus increased from 700,000 TEUs in 2010 to over 5 million TEUs in 2022, significantly boosting Greece's economy and global trade connectivity.

The fear of infrastructure ending up in the hands of the Chinese fails to recognise the fact that these infrastructure projects did not exist before China's intervention, so even in the very worst case, host countries (i.e. Sri Lanka or Montenegro) would lose an asset they never had in the first place. The debate on potential debt traps and political dependency still has some merit, but only when applied to small and medium economies.

That said, my concern is not what happens in Sri Lanka, but what happens in Italy. Italy is a US\$ 2 trillion economy and it is impossible that China were to invest an amount that would make us politically vulnerable. In the last 25 years, total Chinese investment in Italy was US\$ 25 billion, a relative drop in the ocean. When it comes to the possibility of losing control of our ports or other strategic assets, this is also impossible, since Italian port authorities are not companies limited by shares, but rather public assets whose ownership cannot, by law, be transferred to anyone, whether that would be an Italian or a foreign entity.

High Interest Costs. Another criticism of debt distress under the BRI is the relative high interest rates charged by China compared with concessional loans from multilateral institutions. Chinese loans often carry interest rates of 4-5% (AidData, 2023), whereas concessional loans from the World Bank range between 0.25 and 3% (closer to the higher band). According to the Center for Global Development, eight countries—including Djibouti, Laos, and the Maldives—face heightened debt distress,

with Djibouti's Chinese debt accounting for 71% of its GDP. Moreover, while most concessional loans feature low and fixed interest rates, Chinese lending has increasingly shifted toward variable interest rates, exposing borrowers to greater financial uncertainty. AidData (2023) reveals that the share of new Chinese lending commitments to low- and middle-income countries with variable rates grew from 60% in 2014 to 90% in 2021. Such a shift can significantly increase repayment burdens when interest rates fluctuate, exacerbating concerns about debt sustainability of recipient nations.

While it is true that Chinese money is more "expensive" than that from World Bank/IMF, this is because the fundamental terms/structure of loans are different. Firstly, China lends not only to sovereign nations but also to private companies which bear a higher risk and therefore require a higher return to compensate for the risk. It is therefore perfectly normal that sovereign debt have lower interest rates than corporate debt. Secondly, loans from the World Bank and IMF have seniority, meaning they have absolute priority in repayment in case of default or financial distress. This seniority further reduces the risk for the lending institutions, allowing them to offer loans at rate lower than the already low sovereign debt. Chinese loans, instead, often do not have such senior status and therefore demand higher rate for higher risks. **It is therefore totally compatible with risk that the weighted average of interest rates of Chinese loan is higher than those of multilateral organizations.**

Lack of Transparency and Sustainability Concerns. Another issue associated with BRI is the alleged lack of transparency and inadequate consideration for environmental and social sustainability, leading to significant long-term risks. Many projects lack clear terms and conditions, fueling allegations of corruption and mismanagement. For example, Malaysia's East Coast Rail Link (ECRL) initially cost US\$16 billion and sparked concerns about inflated costs and opaque procurement processes. The project was later renegotiated to reduce costs by a third, highlighting the risks of exploitative contracts. Furthermore, critics emphasize that BRI infrastructure projects often disrupt ecosystems, displace communities, and contribute to environmental degradation. In Pakistan, under the China–Pakistan Economic Corridor (CPEC), the construction of highways and energy projects has reportedly endangered wildlife and local ecosystems, while coal-fired plants have raised concerns about rising carbon emissions. Similarly, in Southeast Asia, projects like the China–Laos railway have led to the displacement of thousands of villagers and the clearing of 70,000 hectares of forest, impacting both biodiversity and livelihoods. A World Resources Institute report highlights that up to 60% of BRI energy investments are in fossil fuels, undermining global climate commitments.

The answer to these concerns can be found in exactly the text of the MoU on the BRI between Italy and China. During negotiation with our Chinese counterpart, we worked word by word to ensure that every single provision adhered to international standards, legal compliance, and disclosure regulations. The MoU contains the following paragraphs: "In the framework of the Belt and Road Initiative, they [Italy and China] will promote transparent, non-discriminatory, free and open trade and

industrial cooperation, open procurement, level playing field, and respect for intellectual property rights” and “Reiterating their commitment to honor the purposes and principles of the UN Charter and to promote inclusive growth and sustainable development, in line with the 2030 Agenda for Sustainable Development and the Paris Accord on Climate Change.” Far from being criticizing, Western government should have praised the efforts of the Italian Government to bring China closer to our standards and practices.

By maintaining this rigorous approach, we not only safeguarded our national interests, but also helped China adopt practices that are more transparent and aligned with sustainable development objectives, so that China too can refer to the text of the MoU to dispel criticisms.

Prime Minister Meloni's Choice to Exit the BRI: A Strategic Misstep

In December 2023, the Meloni government announced Italy's decision to withdraw from the BRI, citing insufficient benefits and a growing trade deficit with China. This decision, in my view, is a strategic misstep with far-reaching consequences. Firstly, the claim that the BRI brought no benefits is factually incorrect: from 2019 to 2023, Italian exports to China grew by 43%, outpacing France and Germany. Secondly, the trade deficit argument reflects a misunderstanding of economic fundamentals. Increased imports from China have supported Italy's manufacturing value chains and helped manage inflation. Finally, the decision overlooks the long-term nature of infrastructure projects, which often take years to yield measurable economic benefits. By exiting the BRI, Italy forfeits its role as a key player in global development and risks isolating itself from emerging markets in Asia and Africa.

- (1) **It is factually not true that there have been no benefits:** since it joined the BRI in 2018 until it left in 2023, Italy's exports to China grew by 43%, significantly outperforming our competitors. During the same period, France's exports to China grew by only 15%, while Germany experienced a decline of 2%. One of the goals of the MoU was indeed to short-circuit the difficulties that our companies face vis-à-vis our European competitors and try to fill the gap. Is the BRI a panacea for Italy's lack of a strong industrial base? No. But the improved image of Made in Italy products in the eyes of Chinese consumers following our accession to the Belt and Road, a flagship project for China Inc. and the encouragement from the Chinese establishment to pursue more business contacts with Italian enterprises had contributed to this significant growth. Therefore, there have been some benefits. More worryingly, after Meloni's decision to pull out BRI in December 2023, Italy's exports to China dropped by 23% in the first nine months of 2024 compared to the same period the previous year, up 43% while in the BRI, down – 23% after exiting it.

- (2) **The Belt and Road is not a Free Trade Agreement (FTA) and does not open the door to unlimited imports from China.** Italy, unfortunately, has passed on its trade policy to the European Union and therefore all tariffs and quota decisions on imports from countries outside of the EU. The Italian Government's statement that Italy has suffered an increase of involuntary imports due to the BRI is legally impossible under EU law.
- (3) **Meloni is correct in saying that Italy's deficit against China has doubled from \$18 bn in 2018 to \$34 bn in 2022, but the deficit itself does not indicate economic harm,** it simply reflects the structural differences in production capacity, specialization, and consumer demand. It is wrong to say that trade deficit is negative for our economy on three counts: first, we were not forced, but chose to import more from China because what we buy from China is essential to our manufacturing production value chain (components, raw materials) and not goods that compete with local production. Far from damaging our economy, goods imported from China generated GDP for Italy, since we are a "transformational economy" and we need those imports to function properly. According to our analysis, the top products that contributed to the increase in deficit from 2018 to 2022 were smartphones, switcher/routers, laptops, lithium batteries, and electrical static converters. These items are complementary to, rather than competitive against, Italian products. Secondly, increased imports from China over the last few years have had a positive deflationary impact on our economy, precisely when the European and Italian economies are suffering from high inflation caused initially by the unraveling of zero-interest rate policies over the last decade and, more recently, by the energy crisis in 2021 and 2022. Thirdly, and more importantly, there is no economic trade theory that postulates that bilateral trade deficits, that is, between two country pairs, is damaging to economies. A simplistic, non-expert observation of the standard $GDP = C + G + I + Exp-Imp$ would infer that the negative sign before "Imports" indicates that an increase of this item would lead to a decrease of the GDP, but this is a mistake we teach first year students to avoid making.
- (4) **The Memorandum of Understanding between Italy and China on the BRI carries no obligation on either governments nor any Italian or Chinese enterprise to engage in any projects.** Participation is a free option that individual companies are free to use or not, depending on their own strategy and appetite to engage in projects in Asia, Africa, or China. Unlike an FTA, which imposes specific terms, such as tariff reductions, or market access commitments, the MoU is a flexible framework for collaboration. It does not enforce commitment but instead serves as a protective umbrella offered by the government of Italy and China to their own enterprises, providing protection needed much more by our small medium enterprises who cannot navigate the difficult waters of the Asian and African markets alone. In finance, it is well known that one should never give up a free option and this is the most obscure part of Meloni's decision to exit an agreement that she could have just rolled over for another five years at zero cost.

- (5) **Meloni's decision to exit the BRI because "it has not brought benefits" seems to ignore the long timeframe that infrastructure development projects require** before bearing fruit. Infrastructure projects take years, if not decades, to reveal their full economic impact. Ports, railways, and logistics hubs require time to integrate into global supply chains. Our plan to integrate Trieste as a terminal of the BRI would have taken years, just as it took years for COSCO's investment in the Greek port of Piraeus to increase the number of containers from the old 700,000 to the current 5 millions. Asia and Africa are on a long path to development that requires slow adjustment of their large populations and work forces to adapt to new economic situations. Fertility rates, migratory flows, and evolution from agriculture to manufacturing to service industries are processes that require time. It is most unusual for Meloni to expect Italy's participation in infrastructure development project to result in benefits within a few months.
- (6) **With the change of government in 2019, any critique to lack of results must be address to those ministers in charge from then on, not to the BRI.** We signed the MoU in March 2018. A few months, later our Conte I Government was replaced by a new cabinet; hence, there was no one that, like me, put their heart into the Belt and Road and the project was left rotting in a drawer in the Ministry of Foreign Affairs. Projects without people are just pieces of paper. This was followed by two years of the COVID-19 pandemic, then two more years of war. It is particularly difficult to understand how anyone could ever offer a negative assessment of a complex infrastructure development initiative across three or more continents at a time when it was impossible to have any business meetings or any cross-border investment. This was despite the fact that the growth in Italian exports to China showed that the coals still burning under the ashes.

Conclusions

By withdrawing from the Belt and Road, Italy has decided not to be a main player in the development of the Global South and effectively close the door to diverse markets and partnerships with emerging economies, which is certainly a step backward in an increasingly multipolar world. Meloni's government seems to have misunderstood the value and importance of the BRI, believing it is simply an agreement to boost Italian exports to China. No logical explanation has been offered by the Italian Government for this sudden decision, and this has led to speculations that it may have been a decision made in Washington and not in Rome. Something that, if true, would be against the interest of the Italian economy, its citizens and its corporate sector.

As I reflect on my involvement with the BRI, I am reminded of Sicily's history as a crossroads of civilizations, Sicily is my homeplace where I had the pleasure to accompany President Xi on a tour of our cultural heritage. Just as my hometown of

Palermo once connected cultures and economies in the past, so it can do it again today. The BRI is a modern expression of this ancient role—a chance to build bridges, not walls. Let us not let this opportunity slip away. We still have time to fix the mistakes of the past.



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Re-imagining the International Trading System for re-Globalization



Pascal Lamy

Abstract Globalization and the ideologies that underpin it are experiencing unprecedented change, while geopolitical conflicts are exacerbating critical issues. This may necessitate a rethinking of globalization. Four major areas where these issues could be addressed include trade and the environment, trade and digital, economic security, and subsidization, especially in the context of US–China and EU–China relations, through discussion by states and decision-makers on both sides.

Keywords Globalization · Geopolitics · Macroeconomic policy · US–China relations · EU–China relations

Globalization is changing and if re-globalizing means moving to a different kind of globalization, I agree, that is unless re-globalization means moving back from globalization. We are living in a time of change in globalization, a big inflection that we are witnessing.

The old globalization was powered by three major engines—technology, ideology, and peace—that were pulling globalization together. We have known roughly from the 1970s or 80s to roughly 2010. We now are in a quite different period in which the three engines do not work the way they worked previously.

Technology keeps pushing globalization, creating world that is interconnected and becoming so more and more every day. So there is a huge potential for further globalization, notably in services with digitalization.

Ideology today is not what it was 20 years ago when there was a sort of ideological consensus that opening trade was the correct choice because of the merits of international division of labor, specialization, and multi-localization of production systems, spanning the planet with global supply chains. The consensus at the time

This essay is based on a keynote speech delivered by Pascal Lamy at CCG headquarters in Beijing on December 13, 2023.

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was that that was the way to go, and that obstacles to trade, either existing or to come, were to be addressed and reduced.

This has changed. In today's ideological picture, the relationship to trade is much more mixed with people saying trade should be reduced for reasons of national security, social security, and environmental security. The ideological landscape has clearly shifted.

As far as peace is concerned, I think we do not need a long demonstration to show that this world is not in peace, or really was in full peace. However, there has been no real big battle or war on the same scale as the one Russia started by invading Ukraine, or as the one which Hamas started in attacking Israel. While the latter has not resulted in a full-blown war in the Middle East, we know that the ingredients of that may be there.

We now are in a world where wars are multiplying and expanding, and in a context which has gone worse for the last 20 years, every time—hopefully for the moment stabilized—which is the US–China rivalry. And this of course has a lot of bearing on both the geoeconomics and the geopolitics of this planet.

We are in a different phase of globalization as trade keeps growing and record volumes of trade in 2022 by the statistics.

There are some elements of fragmentation and we can see how investment flows from the US to China dropped long before the war in Ukraine, roughly from \$20 billion a year in 2010 to \$8 billion in 2020. Over the same ten years, it also moved down same for EU investment in China and Chinese investment in the US or EU. If investment is a precursor to trade, there were already signals that before this major tectonic geopolitical development that the war in Ukraine triggered, but these elements coexist with an increase of trade.

With a combination of trade volumes growing, which is an element of globalization, and some elements of fragmentation, what this means for the future is unclear. However, the engines of growth like technology, ideology, and peace will keep pushing for globalization.

Now, what does this mean for the international trading system?

Agreements are becoming much more difficult because of polarization; not just East–West between the US and China, but also North–South. If you look at the votes at the General Assembly of the UN about Ukraine, or about Palestine and Israel, you can see that this world is now emotionally divided into two camps. In the case of Ukraine, there are those who buy Putin's narrative that NATO was strangling Russia, which had to intervene in order to be not strangled in the future. This is exactly the same with Hamas and Israel and a lot of people believe Israel is a colonizer, which is not my personal view, but I have to recognize that emotionally a lot of people see things very differently than we Europeans.

This ambiance is not conducive to proper international cooperative arrangements. The legacy of colonization makes many emerging countries believe that the international system is not fit for purpose. Today's relative power distribution and the way we handled COVID resulted in a kind of “vaccine apartheid,” which I deeply regret. Many other issues are creating more frustration, which Ukraine or Palestine are inflating.

This being said, we need the international trading system to address major issues, most of which have not been properly addressed, and some of them being new. Four of these major issues are trade and environment, trade and digital, economic security, and subsidization.

On trade and climate, there is a big problem in that the world trading system and the world climate systems are totally different. On trade, we have norms and no target, and on climate, we have a target and no norms.

In the WTO, nobody says trade should be open 60% or 80%, or even 100%, but we have rules of behavior that slowly reduce obstacles to trade in a fairly negotiated way. The fact that it is fairly negotiated is proven by the fact that countries agree to it.

On the climate side, it is exactly the other way around. We have a target of zero carbon, which is great and I am in favor of that because I now know what global warming really means and what we should do in order to address it, but the way we do it is left to nationally determined contributions.

The WTO works with multilaterally determined contributions and climate works with nationally determined contributions, which means there is a mess in trade. Europeans price carbon seriously, but the moment you price carbon seriously, trading with countries where the price of carbon is extremely low is a big problem. If you do that, you just incentivize carbon leakage. Producers within your constituency will move outside and emit carbon elsewhere, so the more you fight carbon in your constituency, the more you trigger more leakage and more carbon emissions elsewhere. So it makes no sense, which is why the EU now needs the CBAM.

The US does not like pricing carbon, so they do it with subsidization and by printing the dollar as much as they want. Europeans have created a trade obstacle with the Carbon Border Adjustment Mechanism, while the US creates a trade obstacle in delivering a playing field with their massive subsidization system to green their economy. This has trade consequences which need to be addressed.

We need WTO members to sit around the table and discuss how to intervene and understand how each other are doing things and find something which is reasonably compatible and comparable. Finding a way to make climate-related trade measures compatible is a big thing that I think needs to be done urgently, otherwise it will slow decarbonization. If trade frictions are not addressed, they will slow something that we are already way too slow to address.

Digital trade is in a little better shape. There has been a negotiation for now quite a number of years, and there is a digital trade facilitation package on the table. My view is that the next ministerial conference should pocket what is on the table and stop discussing so many options. There is a good base at present and we should move on from there, which, in my view, is something which is relatively doable now.

Economic security is of course in this context also a big problem. Mr. Trump pretends that exports of steel from Europe to the US are a threat to US, which is crazy, but for a variety of reasons, the EU decided that this case should not be brought to the WTO. I disagree with this.

However, whether EU or US export restrictions to China on the grounds of national security are justified or not is an open question. We know that there is a security

exception in the WTO charter and that this has already been litigated. So the WTO can adjudicate a dispute about economic security.

I believe that regardless of the dispute settlement decision given in the WTO, the US will protest it. Something should be done by the members of the WTO to give some sort of guiding interpretation of what economic security can do. I agree that sovereign nations need room to maneuver and do not have to be restricted by the WTO on grounds of national security. However, on the other side, this cannot be a blanket exemption and do anything under the banner of national security. This would destroy the multilateral trading system.

And finally, subsidization is not a new issue. China knows that full well. The US have turned Chinese and now subsidize their industry as much as China used to after complaining that China subsidized its industries too heavily, which is absolutely true and resulted in the level of capacities that we now have in the Chinese economic system.

Finally, the question is how much can the EU and China move this forward?

I think the overall answer is not much, given the state of relationship between the EU and China, which has seriously deteriorated. The main reason why it has deteriorated is the war in Ukraine. We Europeans do not understand why China sides with Russia.

China did not recognize the annexation of Crimea by Russia in 2014, which shows that China probably does not like a country invading or seizing the territory of another country, so why is China siding with Mr. Putin? The interpretation can only be that Mr. Putin is against the US and Europe, so China is moving with Mr. Putin because it is against the US and Europe. This also puts the US and Europe in the same bag, which in my view is a large over-interpretation of the situation. So the politics for the moment are bad and it is very difficult to have proper economic discussions in such a political context.

However, the economics themselves are not good either. Growth in Europe is far too low to adorn its Soziale Marktwirtschaft system in the medium term. Nor is the Chinese economy, in my view, in good shape in that its structural characteristics, i.e., the over-presence of the state-owned system, which leads to a number of production capacities that go against market rules and hence these over capacities due to sub-consumption in China. If you compare China to other developing countries in the same range, the savings rate of the Chinese people is far too high, which is why consumption is so low. This structural problem is at the core of our trade problem.

That said, a \$400 billion trade deficit is not a trade problem; it is a macroeconomic problem that needs to be addressed macroeconomically. If trade negotiates their job properly on this \$400 billion deficit, at best they will address \$100 billion of it. China may open its services market more and the EU may re-balance part of its current problems. But this will not shrink this \$400 billion deficit, which is there for other macroeconomic reasons, namely that the US consumes too much and does not save enough.

This is a difficult situation, which I think we need to recognize. The EU is not yet seen by China as a proper geopolitical interlocutor as it is unsure whether the EU will maintain proper economic integration and whether their dreams of becoming a

full-fledged geo-economic and geopolitical power will be fulfilled or not. China is very careful about this, carefully playing some of its cards with certain EU member states, and some of its cards with the EU institution.

And as long as we Europeans remain in this situation, I can understand why China will be cautious and why some in China will still believe the EU is America's lapdog. It is true that Europe has a problem also on our side which we need to address.

This being said, my final point is that there is ample room for the EU and China in the four areas I mentioned—environment, digitalization, economic security, and subsidization—and in moving these issues into the trading system.

The context is not propitious, but there are professionals negotiating and discussing these issues. My recommendation is that these issues are addressed on both sides, recognizing that the environment for the moment is not right, but that sometimes it is the deal you make when the environment is not right that contributes to changing the environment.



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Global Challenges Require Strengthening Multilateralism



Yi Xiaozhun

Abstract Impacts from the 2008 financial crisis, COVID-19, and the Russia–Ukraine conflict have shaken the rules-based global economic and trade governance. The WTO is facing huge challenges including protectionist policies that would have been previously unthinkable, but now common under the pretext of national security. Borderless challenges such as the COVID-19 pandemic require countries to work together and China should actively participate in this process while preventing the multilateral trading system from moving toward protectionism.

Keywords Global governance · Trade governance · Protectionism · Multilateralism

China's fast growth over the past decades would have been impossible without benefits from economic globalization. However, the 2008 international financial crisis heralded the decline of globalization, which was quickly followed by leading economies adopting a series of policies to promote unilateralism and protectionism. Such moves, coupled with the impacts COVID-19 pandemic raging across the world, fueled the process of deglobalization, and it is predicted that the Russia–Ukraine conflict is likely to put an end to the current round of globalization that has lasted for three decades. The energy crisis and food shortage triggered by the conflict will further reshape the global supply chain, making it shorter, regional, and friend-shoring, and even leading to the self-reliance of nations.

Transnational companies in developed countries now chose to prioritize the safety of the supply chain and so-called politically correct value-based trade, rather than low cost and high efficiency trade. Data released by the World Trade Organization (WTO) reveal that during the height of globalization from 1995 to 2008, global trade grew at an average annual rate of 9.4%. However, the figure plummeted to 1.7% in the decade after the 2008 global financial crisis. Today, it is estimated that due to

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the impact of the Russia–Ukraine conflict, the annual growth rate of global trade will be even lower in the post-pandemic era. Asian economies like China, which are highly reliant on foreign trade, will be the first to bear the brunt of this downward trend. After the major economies enter a period of recession, it is possible that a financial tsunami as grave as that in 2008 will sweep across the world. At that time, many economists predicted that a global economic crisis approaching, but no one was ready for it.

While the 2008 international financial crisis may have been violent and devastating, major economies demonstrated a political will for cooperation at that crucial moment and created the G20 that enabled multilateral cooperation within the framework of the IMF, World Bank, and WTO, preventing the further spread of the financial crisis. What is most worrying in the wake of the Russia–Ukraine conflict is that the three Bretton Woods institutions responsible for global economic governance are falling apart, and the G20, as the last line of defense against financial crisis, cannot function well. In this circumstance, if a new pandemic or international financial crisis breaks out, countries will resort to a “beggar-thy-neighbor” policy, thus creating unimaginable consequences that will only worsen the situation.

Obviously, the rules-based global economic and trade governance is collapsing. In recent years, the multilateral trading system embedded in the WTO has been facing huge challenges. Protectionist policies that one might feel ashamed of in the past, such as calling for buying domestic, putting one’s country first, and refluxing the production chain, have been adopted by major countries. The cornerstones of the WTO, such as trade liberalization, global economic integration, non-discrimination, and most-favored-nation treatment, have been shaken overnight with more and more protectionist measures and unilateral economic sanctions introduced under the pretext of national security, greatly threatening the authority and efficacy of the WTO. Even the WTO dispute settlement mechanism, which was hailed as the crown jewel of the WTO system, has been paralyzed and severely weakened the WTO’s role as a major institution for global trade governance.

The WTO is at a critical juncture where global trade cooperation is more vital than ever to global prosperity and peace while cooperation at the WTO has become harder to achieve. The gap between the global challenges facing members is growing due to the COVID-19 pandemic, digital revolution, climate change, restoring growth, widening development—and their collective ability to address them. The WTO has become more, not less, important to today’s globally integrated economy. It provides the global rules governing world trade, the central “court” for resolving trade conflicts, and an essential platform for negotiating new agreements, sharing information, and collectively solving problems. As the only global trade body, the WTO is by definition the only forum where all countries, including the most powerful, can cooperate on the growing number of trade issues that impact them collectively. In today’s hyper-connected, multi-polar global economy, there is no alternative to a global trading system. If the WTO did not exist, members would need to create it.

There is no other way to deal with today’s global challenges—from trade to the environment to human health—than through global cooperation and the COVID-19 crisis has strengthened, not weakened, the logic of multilateralism. A global

recovery will depend on countries sharing information, cooperating on treatments, and keeping the world economy open. The danger we face is not just the pandemic but international discord and fragmentation.

Global trade cooperation has also become more necessary, as integration gives rise to new challenges that trigger the need for further integrative steps. The reduction in tariffs and other border measures has meant that “inside the border” measures—such as health standards or tax regimes—have become more salient to international trade and require greater harmonization. Issues that were largely domestic in the past—such as financial or environmental policies—have international spill-overs in a world of “deep” integration and demand collective responses. National borders are no match for these increasingly borderless challenges, as the COVID-19 pandemic has starkly demonstrated; they require countries to work together.

But despite the WTO’s growing importance, it is struggling to respond to the challenges of rapid economic, technological, and environmental change. Although the WTO continues to function by implementing agreements, reviewing trade policies, and adjudicating disputes, it has largely failed to move ahead, negotiate new rules, and adapt to a shifting international landscape. The deadlocked Doha Round—the first major negotiating setback in the system’s history—is a major wake-up call that the system is facing an “functionality crisis,” as is the current impasse over the dispute settlement system.

Clearly, there is a need to update the WTO’s rule-book. The last major reform of the system took place 27 years ago during the Uruguay Round—before the explosion of the Internet, the spread of GVCs, and China’s accession to the WTO. The COVID crisis has only accelerated economic change—especially the shift to digitalization—putting even more pressure on WTO rules to catch up.

Calls to reform the WTO have become more urgent recently for three main reasons. First, advancing trade cooperation in the WTO is increasingly critical to global prosperity, sustainable development, and peaceful international relations. Second, multilateral trade cooperation has become more difficult in recent years. Third, if cooperation in the WTO continues to slow or stall, members will be persuaded or compelled to turn increasingly to regional approaches—with the risk of further weakening global trade cooperation, unraveling economic integration, and exacerbating geopolitical tensions.

Today’s fast-changing global trade landscape requires a parallel change in global trade governance. Reflecting this reality, most WTO reform proposals are broadly aimed at strengthening global trade cooperation, not weakening it. While the focus is often on improving specific aspects of the system’s core functions—negotiations, dispute settlement, or transparency—these functions are intrinsically linked, and one cannot be meaningfully “reformed” without reforming the others. Only by revitalizing negotiations and modernizing rules will pressure be taken off the dispute settlement system to substitute for cooperation or to resolve ambiguous or outdated provisions. Similarly, only by restoring and improving dispute settlement will there be an incentive to negotiate new trade rules. Finally, strengthening the system’s transparency, monitoring, and deliberative functions will ensure that policy cooperation has access to data, evidence, and robust analysis.

I am deeply concerned that the world is fragmenting into “distinct economic blocs with different ideologies, political systems, technology standards, cross-border payment, trade systems, and reserve currencies.” The DG of the WTO recently warned that “we need to think carefully before talking very carelessly about decoupling and deglobalization.” She asked countries to think twice before they split up economies and supply chains into political blocs. WTO economists have estimated that if the world split into two trading blocs it would lower the long-run level of real global GDP by about 5%. I fear even this grim forecast underestimates the economic and geopolitical fallout from dividing up the global economy. Many divorces start out amicably but end up in bitterness and resentment. My guess is global economic decoupling would end the same. My dream may be unrealistic, but instead of a zero-sum world of economic nationalism, I hope that major countries could work together to promote a positive-sum world of economic cooperation.

The WTO’s main role is to promote global economic integration and trade liberalization. Fracturing or fragmenting this foundation would undermine all these efforts—and fuel even more dangerous geopolitical divisions than we already face. So far, the WTO is holding up despite the extraordinary strains we are placing upon it. But an open, rules-based global trading system cannot survive if the world fragments and polarizes. Right now what we are seeing is the major economies are focusing much more on trade defense than on opening up trade. The latest WTO monitoring report shows that protectionist restrictions are already rising. More worrying are the signs that major trade powers are openly ignoring WTO rules they spent decades painstakingly negotiating. Then, there is the failure to restore the WTO’s dispute mechanism—the lynchpin of a rules-based system.

What can be done? Let me suggest three steps that could help repair—even improve—global cooperation and trust.

First, WTO members—especially major economies like the US, Europe, and China—need to acknowledge their common economic interests. Their geopolitical differences make the headlines, but I would argue that it is their shared geoeconomic interests that are more important and salient—whether its transitioning to low-carbon energy, spurring technological innovation, managing digitalization, ensuring financial stability, or addressing rising inequality. They have more in common than they realize—including a common interest in cooperating—and they need to focus more on that essential fact.

Second, WTO members need to identify the areas of economic cooperation where they see eye to eye—and can achieve meaningful progress and mutually beneficial results. One example is the progress made in the G20 on a global minimum corporate tax. The environment—from deforestation, to plastics pollution, to carbon pricing—is an even more important area where China, Europe, and the US face similar challenges, have similar objectives, and have a major stake in finding cooperative solutions. The WTO’s surprising success at its recent 12th ministerial conference demonstrates how multilateral cooperation can work—even under the most challenging circumstances—when countries focus on delivering outcomes that benefit everyone.

Lastly, we need to remember why we created an open, cooperative, rule-based global order in the first place—and why the alternatives would be far worse. Today's system was a response to the chaos and destruction of the first half of the twentieth century. It was based on a powerful idea that peace and prosperity go hand-in-hand, that trade can fuel growth and development, and that rules can promote security and fairness. Interdependence would give countries a stake in each other's success. Instead of a zero-sum world of economic nationalism, the goal was a positive-sum world of economic cooperation.

Those ideas are even more relevant today. No country—not even the most powerful—can solve the challenges it faces on its own. No country—even the biggest—will benefit from weakening a rules-based system and returning to the rule of power. If current global cooperation is not working, the answer is more and better cooperation, not less.

The last thing the world needs right now is more mistrust, more division, more of the ideas that we can solve our shared global challenges alone. Given the high stakes in the Multilateral Trading System, I believe that China should do everything it can to advance the reform discussion in the WTO with the aim of strengthening its authority and promoting global trade cooperation. Our broad objective for WTO reform is to find ways that members can work together more effectively to liberalize trade, improve rules, and solve collective problems while accommodating their increasingly diverse interests, priorities, and levels of development.

China should actively participate in this process and firmly uphold open, inclusive, and non-discriminatory principles, while preventing the multilateral trading system from moving toward protectionism.

In an increasingly interdependent and multi-polar world economy, it is the shared responsibility of WTO members to ensure that we bolster global economic cooperation—and that we leave a strong and well-functioning trading system for future generations.



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Inclusive and Sustainable Industrial Development (ISID) and the Chinese Approach



Yabin Wu

Abstract The UNIDO promotes and accelerates inclusive and sustainable industrial development in Member States and is recognized in SDG 9, which calls to build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation, while its investment and technology promotion offices serve as hubs of science, technology, investment, and innovation. UNIDO, along with other organizations, has established close cooperative relations with China and actively promoted the flow of investment and technology into China, which is exploring a parallel path of economic development and green transformation that is an essential part of Chinese-style modernization and of great importance to developing countries.

Keywords UNIDO · Sustainable industrial development · Chinese-style modernization · Green transformation · Poverty reduction

UNIDO ITP and China

In 1986, UNIDO introduced the very first investment promotion services, which would later form basis for the UNIDO Network of Investment and Technology Promotion Offices (ITPOs). Since then, the UNIDO ITPOs have contributed to reducing development imbalances by brokering investment and technology agreements between developed countries, developing countries and countries with economies in transition. Today, the Investment and Technology Promotion Network (ITP Network) is an umbrella-structured network strategically located in both hemispheres. Guided by the division of Investment and Technology Promotion Offices and Institutional Partnerships at UNIDO Headquarters, the UNIDO ITPOs promote investment and technology flows between investors and technology suppliers in their host countries and potential partners in developing countries. Currently, nine ITPOs operate around the world: ITPO Bahrain, ITPO China (Beijing), ITPO China

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(Shanghai), ITPO Germany (Bonn), ITPO Italy, ITPO Japan, ITPO Nigeria, ITPO Republic of Korea, and ITPO Russian Federation.

Established in 1990, UNIDO ITPO Beijing, which specializes in investment and technology promotion, has been playing an important role in attracting foreign investment, importing key technologies and advancing industrial transformation in China. In 2020, ITPO Beijing was relaunched after a brief hiatus and innovatively established four Regional Coordination Centers (RCCs) in Jinan, Xiamen, Chengdu, and Zhengzhou. This new structure is designed to strengthen the implementation of major foreign investment projects, help enterprises “going global,” and promote regional coordination and industrial transfer. For the past three years, each RCC has developed models for comprehensive cooperation with local governments and made unique contributions to the introduction of investment and talent, as well as the internationalization of each city.

The mission of UNIDO, as described in the Lima Declaration adopted at the fifteenth session of the UNIDO General Conference in 2013, is to promote and accelerate inclusive and sustainable industrial development (ISID) in Member States. UNIDO’s mandate is also fully recognized in Sustainable Development Goal 9, which calls to “build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation.” Aligned with UNIDO’s mandate, ITPO will become a hub of science, technology, investment, and innovation.

How should the interlinkage between investment promotion and ISID be understood? In May 2022, the Director General of UNIDO, Gerd Müller, met with António Guterres, Secretary-General of the United Nations and highlighted his new vision and motto for UNIDO—“Progress by Innovation.” We believe that innovation is the driving force behind realizing ISID, while investment and technology are the cornerstones of innovation. By leveraging investment, we can drive the realization of what we call the “three I’s” (Infrastructure, Industrialization, and Innovation).

With this goal in mind, we have taken a number of steps, including holding a global forum, capacity building events, investment, and technology matchmaking, while also promoting skills in research and consulting, platform and network, and partnership, so as to enhance the global competitiveness of China’s governments at all levels, investment promotion agencies, and enterprises. This will also advance technology innovation and tripartite cooperation, support inbound and outbound investment, and drive regional industrial transformation and upgrading. The ultimate goal of these efforts is to promote industrialization in developing countries and economies in transition.

As forecast in UNIDO’s Industrial Development Report 2022, three important megatrends expected to shape the post-pandemic landscape are digitalization, production rebalancing, and industrial greening. Currently, the two key areas of investment that ITPO Beijing is currently focusing on are digital transformation and green transformation, which also correspond to two of the megatrends in global industrialization. As a paradigmatic revolution, with an unprecedented speed, scale, scope, and complexity, the fourth industrial revolution, driven by advanced digital manufacturing technology, is fundamentally changing the methods of production and consumption habits, and even entire societies. It is no exaggeration to say that

the fourth industrial revolution will subvert every industry. What is more, smart manufacturing, smart agro-food, smart energy, and the concept of a smart circular economy, which are integral to the fourth industrial revolution, are all closely related to the green transformation of industries.

In order to show what we have done in China to achieve ISID, let me elaborate on the following programs held by ITPO Beijing.

Global Forums

We organized special forums and opened booths on China's three major national economic and trade exhibition platforms, namely the China International Fair for Trade in Services (CIFITS), the China International Import Expo (CIIE), and the China Import and Export Fair (Canton Fair). ITPO Beijing participated heavily in CIFITS. We also organized a forum titled “4IR Empowers Digitalization and Decarbonization” in 2021 and the “International Forum on ESG and Sustainable Investment” in 2022. ITPO Beijing also organized the “Fourth Industrial Revolution and Smart Mobility” forum at CIIE for three consecutive years.

We also supported three major international competitions in areas including industrial design, Internet and investment, and a global call for technical solutions. In 2023, we sent out a “Global Call” from UNIDO to find the best technological solutions for green and clean energy. The key areas we focused on were green hydrogen, energy efficiency, and clean energy innovation, hoping to use this event to promote green transformation on a global platform.

Capacity Building

From 2021, ITPO Beijing launched a training program titled “the Fourth Industrial Revolution Promotes Industry Support and Rural Revitalization,” with a focus on vocational education using innovative training tools and methods, such as virtual reality (VR), social media networks, MOOCs, and smart retail. The training took place in Beijing, Lingshou (Hebei Province), and Chengdu (Sichuan Province), with the aim of empowering youth, women, and SMEs to enhance employability and entrepreneurial skills and better cope with the risks and challenges created by the digital divide and the COVID-19 pandemic.

In June last year, ITPO Beijing and the Sri Lankan Embassy in China jointly held a training program titled “UN-China-South Asia and Southeast Asian Countries Tripartite Cooperation on Trade and Investment Facilitation and Empowerment” for more than 60 SMEs and trading companies from Sri Lanka. This training focused on introducing Chinese agricultural product import standards to Sri Lankan audiences and promoting the internationalization of Chinese standards.

Investment and Technology Matching

To promote investment, we supported the 2022 Xiamen Industry Exposition, which had the theme of “focusing on new industries, empowering, and promoting development” to promote cross-straits industrial exchanges and economic integration. We also assisted internationally renowned investment institutions, such as JP Morgan to enter into cooperation with Honor. We also created the Global Partnership of Sustainable Investment (GPSI) project database, which is available on our new website and includes Advanced Digital Manufacturing Technology projects, providing an online matchmaking platform for global investment opportunities.

Research and Consulting

In the pharmaceutical industry, ITPO Beijing has cooperated with the China Chamber of Commerce for the Import and Export of Medicines and Health Products for two consecutive years to jointly edit “The Blue Book on the Internationalization of China’s Pharmaceutical Industry.”

In the field of smart mobility, in 2022, ITPO Beijing continued to support the CIIE Auto Innovation and Development Special Committee, and Smart Mobility and New Energy Special Committee to jointly release the “2022 Annual Achievement Collection.”

Building Partnerships

In 2020, ITPO Beijing initiated the creation of a comprehensive, inclusive, and multi-partner industrial alliance of UNIDO for the Fourth Industrial Revolution. The 4IR Alliance includes four types of partners: policy partners, industry partners, business partners, and knowledge partners, closely working with various departments at UNIDO as well as external partners, to take collective action to deal with the impact of the COVID-19 pandemic. The Alliance has held a series of colorful activities, including visits to artificial intelligence and autonomous driving companies as well as participation in the “Well-known Chinese and Foreign Enterprises” tour in Sichuan.

The Impact of Global Experience on China's Industrial Development

Since Reform and Opening-up began, the world has watched China grow from a poor and underdeveloped agricultural country to the world's second-largest economy. We believe that international investment and international cooperation have played a vital role in this process. UNIDO, together with a number of international organizations, has established close cooperative relations with China and actively promoted the flow of investment and technology into China.

Firstly, with the help of external capital, technology, equipment, talent, and management experience, China has achieved rapid economic development and become more open. China's annual utilized foreign investment increased from 1.79 billion US dollars in the early 1980s to 173.48 billion US dollars in 2021. For the past ten years, China has ranked among the top three recipients of foreign direct investment and foreign capital has not only brought investment needed for development, but also advanced technology. The introduction of investment and technology runs throughout China's reform and opening up process, making significant contributions to the country's economic development and industrialization.

UNIDO has had a long history of cooperation with China since the People's Republic of China was recognized as a member of the Organization in 1972. Since 1979, UNIDO has conducted more than 500 programs in China covering the fields of agriculture, industry, environmental protection, standard setting, transportation, and energy, which have played a positive role in promoting China's industrial and economic development. In 1981, UNIDO placed a senior field technical advisor in Beijing to oversee these projects in China.

In September 1980, UNIDO organized a six-week study tour for a team of senior government officials from China, who visited special economic zones (SEZs) in six countries including Ireland, Malaysia, Mexico, Philippines, Singapore, and Sri Lanka. This was China's first delegation to visit SEZs abroad, and in the same year, China's first SEZs was under construction.

In October 1985, UNIDO and the then Ministry of Light Industry co-organized a one-month training program on foreign investment in Guangdong Province. Since then, UNIDO and China's local governments have organized multiple events promoting investment in Fujian, Shanxi, Liaoning, and Yunnan, which all strongly encourage foreign direct investment in China. Some of them have become regional or global trade and investment fairs, such as the China International Fair for Investment and Trade (CIFIT).

In 1996, UNIDO supported the then State Planning Commission in formulating regulations and establishing standard concession agreements for Build-Operate-Transfer (BOT) projects in the road, power, and water sectors.

In addition, UNIDO has also executed several projects that have introduced advanced technologies. In the 1980s and 1990s, UNIDO introduced the application of computer-aided design (CAD) and computer-aided manufacturing (CAM)

in China's process of industrial modernization, which was very important for the country's economic take-off in the early days of industrialization.

Secondly, international cooperation will help with China's economic transformation through the introduction of global experience and best practices. As in the case of green transformation, in order to achieve China's "dual carbon goals" (carbon emissions peaking in 2030 and carbon neutrality by 2060), China must learn from the experiences and practices of other countries. As of today, 137 countries and regions have committed to carbon neutrality and a global consensus is emerging that addressing climate change and accelerating green and low-carbon transformations are critical.

Following the announcement of China's "dual carbon goals," many research institutions and experts have proposed related plans and road maps.

However, the policies and paths required to achieve carbon peaking and carbon neutrality are very different. The reason is obvious: Many developed countries have already achieved carbon emissions peaking. Germany peaked in 1990, the United Kingdom peaked in 1991, the United States peaked in 2007, and Japan peaked in 2013.

China needs to learn from the experiences of these countries in their green transformation. One example is the UK's adoption of a modern industrial strategy that replaced fossil fuels with clean energy reaching its carbon emissions peak, while also introducing a series of preferential tax policies to encourage enterprises to develop low-carbon technologies and promote low-carbon awareness. The United States has also successfully reduced carbon emissions by increasing energy efficiency and optimizing energy consumption. Japan reduced its carbon emissions by 18.2% by 2020, but at a cost of a 20.8% reduction in industrial activities over the same period. The pressure of reducing emissions has made it difficult for some Japanese companies to transform, develop, and even survive.

Summarizing from those paths above, it can be found that: **Firstly, carbon peaking has been achieved through the transformation of industrial structures**, including increasing the size of the service industry as part of the economy or the application of new energy technologies; **secondly, developed countries generally began transitioning after reaching carbon peaks and there was not much pressure during the peaking process**. However, in subsequent carbon reduction efforts they will face increased pressure and higher costs; **thirdly, as we pursue carbon neutrality, it is necessary to address the relationship between economic growth and carbon emission reduction**, and to make sure the emission target does not overwhelm the economy. By learning from existing policies and industrial experiences in other countries, China can help industries and enterprises transform smoothly, maintaining business vitality while achieving efficient carbon reduction.

The Significance of the Chinese Approach to Sustainable Global Development

As the world's largest developing country, in only three decades, China has developed quickly from a recipient of capital and technology to a country with trade and technology surpluses. China's "going global" strategy allows for a capital, technology, talent, and equipment spillover effect, particularly to developing countries. This trend has been considered the "Chinese Approach" to sustainable global development.

First and foremost, the comprehensive development of Chinese industry played a significant role in the stability of the global value chain during the pandemic. China is the only country in the world to be listed in all the industrial categories according to United Nations industrial classification. China played a critical role in ensuring its security when the global value chains were severely impacted due to the pandemic.

According to the Industrial Development Report 2022, "countries with stronger manufacturing systems were able to withstand the crisis better." The report points out that industrial capabilities are of fundamental importance to resilience. Not only did the industrial sector generate employment and income opportunities domestically during the pandemic, it also provided access to essential goods and services for populations all over the world. Therefore, countries with stronger manufacturing capabilities and more diversified industrial sectors have weathered both the economic and the public health impacts of the COVID-19 pandemic better than their peers. According to the report, as of 2021, China has experienced the lowest output loss at only 1.4% compared to pre-pandemic estimates.

In an era of international trade, the importance of global value chains has become increasingly prominent. Relevant data shows that more than 80% of global trade is currently value chain trade, which means that the birth of a product requires the collaboration of multiple countries or regions that provide different production factors. China is the largest trading partner of more than 120 countries and regions, and China's efforts to maintain the stability of the manufacturing industry, despite the impact of the pandemic, have played a decisive role in the security of the global value chain.

Furthermore, China is also exploring a parallel path of economic development and green transformation that serves as a good example for developing countries. This path is an essential part of Chinese-style modernization, and it will be of great importance to developing countries.

The challenge we are currently facing is balancing the relationship between economic growth and green transformation. Carbon neutrality will not be achieved in a vacuum. China's per capita GDP is only 10,000 US dollars, but current per capita carbon emissions are as high as 7 tons or more. Frankly speaking, there are limited opportunities to increase carbon emissions before China reaches its emissions peak. At the same time, China must also achieve the goal of carbon neutrality while maintaining a relatively high economic growth rate. All these preconditions and requirements have increased the difficulty of this challenge.

To balance the relationship between economic growth and reductions in energy emissions, the Chinese government should strive to reduce the impact of green transformation on industry, especially small and medium-sized enterprises, by providing a policy transition period, increasing support measures, and encouraging and supporting zero-carbon and carbon reduction technologies. It is also believed that China can help developing countries find a new way to reduce carbon emissions.

Last but not least, China's development experience, especially in terms of poverty reduction, can be shared through South-South and Triangular Cooperation as a public good with developing countries. At present, the UN's 2030 Agenda for Sustainable Development has reached its "half-way" point, but there are only seven years left to achieve the goal. It is clear that the SDG process has been generally unsatisfying and the pandemic has erased decades of achievements made in this area. In this context, the significance of the "Chinese experience" and "Chinese wisdom" is even more prominent.

As indicated by DG Gerd Müller, UNIDO must be a voice for the poorest around the globe. "UNIDO is a key player addressing our global challenges: we are working to protect the climate, to feed a growing population and end hungry and poverty, and to create job perspectives for hundreds of millions of people, especially for young people."

We believe that international cooperation, especially South-South and Triangular Cooperation, is a prerequisite and an effective tool to promote global collaborative innovation and advance sustainable development. China's development experience, especially in poverty reduction, can be shared with developing countries through South-South and Triangular Cooperation models.

At the 76th session of the UN General Assembly, China proposed a Global Development Initiative, emphasizing the need to strengthen multilateral cooperation in the fields of industrialization, digital economy, climate change and green development. This initiative is highly aligned with the UN's 2030 Sustainable Development Goals.

In 2022, we assisted the Beijing Feb. 7th Locomotive Co., Ltd. and the Bill & Melinda Gates Foundation to carry out Sino-US technology transfer and project cooperation, actively supporting their solution for sanitation in Africa that is safe and environmentally friendly. This is one example of how we provide a Chinese approach to help solve urgent problems related to environmental pollution, energy production, building materials, and drinking water in developing countries.

"Hope begins in a place of despair." After the pandemic, it is time to look into the future. ITPO Beijing will make full use of tools of investment promotion and technology transfer under the UN sustainable development cooperation framework to make our own unique contribution to "ISID" and ensure the goal that "no one is left behind" is achieved.

In this process, we will continue to cooperate closely with the Chinese government, not only to support China in its efforts toward dual transformation, but also to make our cooperation more beneficial to developing countries, especially the least developed countries. I believe that, through our continuous efforts, developing countries will make steady progress on the road to modernization and ensuring the improvement of the livelihoods and well-being of their people.



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Building a Green and Inclusive Future: Accelerating China's Low-Carbon Development



Beate Trankmann

Abstract Since 2015, the Sustainable Development Goals (SDGs) have guided governments, businesses, and civil society toward building a sustainable future, protecting the planet and its most vulnerable people, and promoting universal peace and freedom. Yet, those critical goals for our shared survival risk are sliding out of reach. Progress has been slow, and the climate emergency in addition to global crises and wars put them in jeopardy. China is a key actor in this process, not only because it is a major producer of greenhouse gases, but also because it is leading the way in renewable energy and many of the green technologies required for the transition to low-carbon development. The SDGs are our compass for long-term sustainable development that delivers prosperity while protecting the planet and rely on three key factors—policy, financing, and international cooperation.

Keywords SDGs · Climate crisis · CO₂ emissions · Low-carbon transition · Renewables · Climate finance · International cooperation on climate

With 2030 Fast Approaching, a Paradigm Shift Is Urgently Needed

Seven years have passed since the world came together and launched the 17 Sustainable Development Goals (SDGs)—global goals to end poverty, protect the planet, and ensure that all people enjoy peace and prosperity by 2030. Since 2015, the SDGs have been a compass guiding governments, businesses, and civil society toward building sustainable future, protecting the planet and its most vulnerable people, and strengthening universal peace and freedom.¹

¹ <https://sdgs.un.org/2030agenda>.

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Yet halfway through our journey to 2030, those critical goals for our shared survival risk are sliding out of reach. Global crises in recent years have taken a heavy toll on the SDGs. While in 2017 it would have taken the world to 2052 to reach the 2030 targets, it is now estimated to take until 2065.² Furthermore, human development reversed in most of the 191 countries and territories under consideration. For the first time since its inception in 1990, the Human Development Index (HDI) has declined globally for two years in a row, both in 2020 and 2021.³

Ongoing shocks—from the COVID-19 pandemic to global conflicts and wars with snowballing effects on commodity prices, inflation coupled with monetary tightening—are squeezing public budgets and threatening lives and livelihoods of billions of people. This is further exacerbating the challenges posed by the climate emergency.

The last eight years have been the warmest on record, with average temperatures having already risen by 1.1 °C above pre-industrial levels.⁴ And their effects are being felt globally. Estimates of costs from weather disasters in 2022 including extreme droughts and floods in different parts of the world were around USD 360 billion globally, making last year the second costliest year on record.⁵ In China alone, severe heatwaves and droughts last summer led to power shortages and impacted food production and other economic activities affecting 900 million people.⁶

2022 also recorded another rise in global CO₂ emissions, climbing by around 1% to 37.5 billion tons, despite a small dip in China's emissions due to its economic slowdown under COVID-19 prevention and control measures. If the current rising trend in emissions were to continue at today's pace, we would exceed the maximum amount of carbon we can emit to keep global warming within the 1.5 °C threshold in the next nine years.⁷

The consequences of triggering these tipping points are highly uncertain but estimates and models give us a glimpse of what they might be: between 200 million⁸ and 1.2 billion⁹ people are expected to be displaced by the impact of climate change, mainly due to heatwaves and rising seas, by 2050. This could leave large swathes

² <https://www.unescap.org/kp/2022/asia-and-pacific-sdg-progress-report-2022>.

³ UNDP, 2022. Human Development Report 2021–2022.

⁴ <https://public.wmo.int/en/media/press-release/past-eight-years-confirmed-be-eight-warmest-record#:~:text=2022%20is%20the%208th,eight%20warmest%20years%20on%20record>.

⁵ <https://yaleclimateconnections.org/2023/01/dozens-of-billion-dollar-weather-disasters-hit-earth-in-2022/>.

⁶ <https://www.globaltimes.cn/page/202207/1270575.shtml>.

⁷ There is a 50% likelihood that this scenario would unfold. <https://www.globalcarbonproject.org/carbonbudget/22/highlights.htm>.

⁸ <https://www.worldbank.org/en/news/press-release/2021/09/13/climate-change-could-force-216-million-people-to-migrate-within-their-own-countries-by-2050>.

⁹ <https://www.zurich.com/en/media/magazine/2022/there-could-be-1-2-billion-climate-refugees-by-2050-here-s-what-you-need-to-know>.

of major cities underwater—including Shanghai and London—unless adaptation measures are taken in time.¹⁰

With just seven years left to achieve the vision of the SDGs and the 2030 Agenda, the world must urgently move to a sustainable development path to ensure a habitable future. Encouragingly, the recent COP28 Climate Summit reaffirmed the need “for urgent action and support to keep the 1.5 °C goal within reach in this critical decade.” It also marked the first time that more than 190 countries and territories *formally* agreed to transition away from fossil fuels in a just and equitable manner.¹¹

However, on finance, we continue to fall short and COP28 did not deliver any increase at the scale needed to tackle the climate emergency. With every year passing, the cost of inaction is increasing, dwarfing the investment needed to achieve a low-carbon transition. Estimates show that the cost of meeting the 1.5 °C Paris target has already risen considerably, from USD 1.3 trillion per year of inaction in 2010, to now around USD 5 trillion per year.¹² Yet it is not too late to reap solid rewards by taking climate action within the next seven years. The Global Commission on Adaptation estimates that investing USD 1.8 trillion from 2020 to 2030 could generate USD 7.1 trillion in total net benefits across five areas—including early warning systems, climate-resilient infrastructure, and more resilient water resources—saving countless lives and livelihoods.

The focus of policymakers and other stakeholders must shift to accelerating actions aimed at promoting human and economic development that respects and protects nature, while leaving no one behind. Long-term low-carbon solutions will only work if they also safeguard biodiversity and ecosystems.

China's Role in the Transition is Critical

China, with its size, influence, capacity, and interest, can play an important role in such efforts. As the second largest economy in the world,¹³ it saw its contribution to global GDP growth increase from 10.4% in 2000 to 24.6% in 2021.¹⁴ This rise has been fueled by unprecedented economic growth, particularly since 1979 (9.2% y-o-y on average), bringing socioeconomic transformations in China and beyond.¹⁵ Indeed, China is one of the few countries that has moved from low human development on

¹⁰ Climate Central Risk Screening Tool: https://coastal.climatecentral.org/map/12/-0.1016/51.5289/?theme=water_level&map_type=water_level_above_mhhw&basemap=roadmap&contiguous=true&elevation_model=best_available&refresh=true&water_level=1.0&water_unit=m.

¹¹ Para I.5 https://unfccc.int/sites/default/files/resource/cma2023_L17_adv.pdf.

¹² <https://www.nature.com/articles/s41598-020-66275-4>.

¹³ In current USD terms the US economy stands at USD 23.3 trillion versus China's USD 17.7 trillion. (World Bank database, last accessed 2 Feb 2023. <https://data.worldbank.org/>).

¹⁴ Calculated based on GDP (constant 2015 US\$) from World Development Indicators, last accessed on 10 Feb 2023, <https://databank.worldbank.org/source/world-development-indicators#>.

¹⁵ World Bank, 2022, <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?contextual=default&end=2021&locations=CN&start=1979&view=chart>.

the HDI index to high human development. As of 2021, China's HDI stood at 0.768, ranking 79 out of the 191 countries and territories assessed worldwide.¹⁶

The extraordinary improvements in human development were critical to both the Millennium Development Goals (MDG) and the 2030 Agenda for Sustainable Development globally. China's contribution to progress on SDG 1: No poverty is an example of this. Since 1978, China has lifted more than 770 million people out of poverty, accounting for close to 75% of the global reduction of people living in extreme poverty.¹⁷

China has also injected momentum into the environmental and climate discourse by announcing its dual carbon goals at the United Nations (UN) General Assembly in 2020. The goals involve peaking carbon emissions before 2030 and reaching carbon neutrality before 2060. Following that pledge, the Government and related government departments have issued more than 60 policy documents in the last two years, forming the bedrock of the low-carbon transition policy architecture under the “1+N” policy system.

Concrete actions have followed the dual carbon goals. According to provincial plans, wind and solar capacity additions are set to reach 874 GW between 2021 and 2025, implying that China will hit the target of 1.2 TW in 2025, five years ahead of the original target announced in 2020.¹⁸ While still uncertain, if effectively implemented, the fast pace embedded in the wind and solar capacity's provincial targets may mean that the power sector's low-carbon transition will be boosted, theoretically enabling China's CO₂ emissions to peak as early as 2025, well within the range set by the “before 2030” pledge.¹⁹ This positive dynamic will be challenged by (i) the time and complexity needed to set up complementary grid infrastructures that reduce curtailment as well as (ii) the expansion of the domestic coal-fired power fleet that is expected to grow until at least 2025.

At the global level, in 2021 China announced it will stop financing coal-fired power plants abroad and promote green growth in developing countries. This is key, given China's significant overseas financing capacities. Firmly sticking to such commitments is critical, as 63% of China's overseas energy engagements are still linked to fossil fuels, and 1.5 GW of new coal-related projects outside China have also been announced last year. These risks overshadowing the significant increase in

¹⁶ <https://hdr.undp.org/data-center/specific-country-data#/countries/CHN>.

¹⁷ <https://www.worldbank.org/en/news/press-release/2022/04/01/lifting-800-million-people-out-of-poverty-new-report-looks-at-lessons-from-chinas-experience>.

¹⁸ 874 GW is an aggregate of the official announcements by each province in 2022. The 1.2 TW target of wind and solar objective by 2030 was announced in 2020. International Energy Network (2022, September). 874.037GW! 30 provinces/municipalities to add new wind and solar power installations in the 14th Five-Year Plan period. <https://www.163.com/dy/article/HITQHOQH05111IA0.html>.

¹⁹ Carbon Brief (2022, May 3). <https://www.carbonbrief.org/analysis-what-do-chinas-gigantic-wind-and-solar-bases-mean-for-its-climate-goals/#:~:text=China's%20power%20generation%20is%20still,12%25%20of%20generation%20in%202021>.

emphasis on green energy engagement, such as solar, wind, and hydro, which rose by 50% in 2022 from 2021.²⁰

China's stewardship was also critical during the recent UN Biodiversity Conference (COP 15) in facilitating the adoption of the Kunming-Montreal Global Biodiversity Framework (GBF), which aims to stop biodiversity loss and restore global ecosystems. The GBF includes four goals and 23 targets to be achieved by 2030, including conserving 30% of the world's land, oceans, coastal areas, and inland waters, as well as an annual reduction of USD 500 billion in harmful government subsidies.²¹

Looking ahead, China's contributions to advancing the SDGs remain pivotal for the world in addressing global development challenges, such as climate change and biodiversity loss. In advancing progress on international agreements like the Paris Agreement and the recently adopted Global Biodiversity Framework, China can share valuable lessons from its own development experience and be an important source of technology, capacity, and financing for other developing countries.

Concrete Policy Action Points

First, Accelerating a Just, Low-Carbon Transition Is Key

Specific solutions to support the low-carbon transition have already been identified. The IPCC, among others, points to actions in key areas to effectively move the needle toward a low-carbon future. Boosting wind and solar power—fields that China is leading in—while phasing-out coal, are among these.²²

Indeed, China's shift to renewables domestically, while phasing-out fossil fuels, is key to realizing national priorities, climate commitments, and the SDGs—as well as achieving climate goals globally. China is the world's largest emitter, accounting for 27% of global CO₂ emissions and one third of GHG emissions.²³ To avoid the worst effects of climate change by 2030, efforts that support the switch from fossil fuels to renewable energy must be accelerated today, in addition to actions for greening transportation, along with hard-to-abate manufacturing sectors and agriculture, while also expanding the circular economy.

In this regard, it is encouraging to see that China is at the cutting edge of renewable energy technology and power transmission sectors. According to the latest China Electricity Council statistics, around 125 GW of solar and wind were deployed

²⁰ <https://greenfdc.org/china-belt-and-road-initiative-bri-investment-report-2022/>.

²¹ <https://www.cbd.int/article/cop15-cbd-press-release-final-19dec2022>.

²² IPCC (2022). Summary for Policymakers. In: Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. <https://www.ipcc.ch/report/sixth-assessment-report-working-group-3/>, p32 and p50.

²³ World Bank, 2022, China Country Climate and Development Report.

domestically in 2022 (87 GW for solar and 38 GW for wind).²⁴ For comparison, wind and solar additions amounted to 57 GW in the European Union²⁵ and to 16 GW in the US in the same year.²⁶ The 2023 target for new wind and solar capacity in China is even higher and set to increase by at least 160 GW.²⁷ Chinese companies account for 70% of the global market share in 2022 for photovoltaic modules, wind turbines, gear boxes, and other key renewable energy components.²⁸ Through successful international cooperation, China has also become the leading country in ultra-high voltage direct-current lines (UHVDC), enabling transfers of renewable energy supply from remote areas where it is often produced, to urban and industrial areas where most of the demand is concentrated.²⁹

UNDP has been working for decades to support China's Government to shift away from fossil fuels and promote innovative technologies, efficiency as well as nature-based solutions. Among our flagship initiatives, UNDP played a pivotal role in the initiation and development of the hydrogen and fuel cell industry in China, through a successful partnership with the Ministry of Science and Technology (MoST) and other key stakeholders. Development of green hydrogen and fuel cell vehicles has great potential to be part of the solution mix for the energy transition reducing the long-term GHG emissions from the transport sector. UNDP is also helping to support the use of innovative technology to enhance energy efficiency, in particular in public buildings and infrastructure, as well as leveraging nature-based solutions to reduce emissions, such as through our biodiversity conservation work which helps to protect and expand carbon sinks.

At the same time, it is critical for China to continue to build on its progress. In 2022, coal still represented 56.2% of China's energy mix³⁰ and 2022 saw an increase in coal capacity by 26.8 GW.³¹ Temporary shocks, like the recent rise in commodities and energy prices, as well as a difficult geopolitical context, highlight the difficulties

²⁴ <https://cec.org.cn/detail/index.html?3-317477>; <https://news.bjx.com.cn/html/20230118/1283936.shtml>.

²⁵ Enerdata (2023, March 1). <https://www.enerdata.net/publications/daily-energy-news/europe-built-19-gw-new-wind-capacity-2022-including-16-gw-eu.html#:~:text=Europe%20now%20has%20a%20total,reach%20the%20EU's%202030%20goals>. SolarPower Europe (2022, December 18). <https://www.solarpowereurope.org/press-releases/new-report-reveals-eu-solar-power-soars-by-almost-50-in-2022>.

²⁶ S&P Global (2023). <https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/us-generating-capacity-additions-down-oy-in-2022-solar-takes-top-spot-73918740#:~:text=Wind%20capacity%20additions%20declined%20the,GW%20more%20than%20in%202021>.

²⁷ Estimations vary between 160 and 165 GW. Carbon Brief (2023, February 15). <https://www.carbonbrief.org/analysis-contradictory-coal-data-clouds-chinas-co2-emissions-rebound-in-2022/>.

²⁸ <https://english.news.cn/20230213/320575a6885c40b7a0f48e04f006a90f/c.html>.

²⁹ CCIEE-UNDP (2021). Paving the way for low-carbon development globally and along the Belt and Road. <https://www.cn.undp.org/content/china/en/home/library/south-south-cooperation/paving-the-way-for-low-carbon-development-globally-and-along-the.html>.

³⁰ http://www.stats.gov.cn/english/PressRelease/202302/t20230227_1918979.html.

³¹ https://energyandcleanair.org/wp/wp-content/uploads/2023/02/CREA_GEM_China-permits-two-new-coal-power-plants-per-week-in-2022.pdf.

in balancing short-term priorities—such as residential cooling during the summer and heating in the winter, as well as maintaining economic activity—with long-term environmental goals.

Policies have a pivotal role to play in addressing China's fossil fuel dependency and promoting a faster move away from coal and other fossil fuels toward renewables.³² To align with the Paris target of 1.5 °C warming, the proportion of coal in primary energy consumption needs to fall to around 5% of the total by 2050, from 56.2%.³³ Research has shown that transmission infrastructures, market integration, and diversification, as well as technology upgrades are key to reducing fossil fuels in the energy mix. By providing access to new energy sources that were previously untapped, and with improved storage, forecasting and scheduling capacities, such measures can help decrease bottlenecks linked to solar and wind's intermittence and inherent unpredictability due to weather, while preserving energy security.³⁴ Furthermore, effective pricing signals and market mechanisms would also be critical to strengthen incentives toward lower carbon-intensive solutions, through pricing the negative externality of fossil fuel and coal use. China's national Emissions Trading System (ETS) is a welcome first step.

Finally, policy actions are also critical to ensuring that such transitions are just and inclusive. The coal industry, for example, employs 3.4 million people.³⁵ In the short term, dismantling it will have a significant impact on people, disrupting livelihoods in fossil fuel-dependent regions and across sectors and groups, such as workers in heavy industry and fossil fuels, who will bear the brunt of the change.

To realize the 2030 Agenda's promise of leaving no one behind, UNDP is actively working toward enhancing understanding of the social impact of the green transition. Through evidence-based analysis with Chinese counterparts, we aim to inform policymakers and support them in striking a careful balance between short- and long-term priorities, ensuring vulnerable people and areas are compensated for the negative consequences of phasing-out entire sectors, including through retraining and social welfare. As new career opportunities in renewables emerge, as well as in low-carbon and green industries, skills retraining and capacity-building programs are especially useful for unemployed workers from coal mining and heavy industries to gain new jobs in these emerging sectors. For those who are heavily affected and

³² For more details on this topic, please refer to CCIEE-UNDP (2021), “Paving the way for low-carbon development globally and along the Belt and Road”. <https://www.cn.undp.org/content/china/en/home/library/south-south-cooperation/paving-the-way-for-low-carbon-development-globally-and-along-the.html>.

³³ Tsinghua University (2020). China's Long-Term Low-Carbon Development Strategy and Pathway. Slide presentation by Prof. He Jiankun. https://mp.weixin.qq.com/s/S_8ajdq963YL7X3sRJSWGg; UNDP (2022). China in Numbers: 2022. <https://www.undp.org/china/publications/china-numbers-2022>.

³⁴ CCIEE-UNDP (2021), “Paving the way for low-carbon development globally and along the Belt and Road”. <https://www.cn.undp.org/content/china/en/home/library/south-south-cooperation/paving-the-way-for-low-carbon-development-globally-and-along-the.html>.

³⁵ http://www.cnenergynews.cn/kuaixun/2022/11/30/detail_20221130128803.html.

unable to continue working, unemployment insurance and compensation can support them through the transition.

Addressing labor market bottlenecks due to the energy transition also offers an opportunity for broader reforms to enhance inclusivity and ensure that vulnerable groups including women enjoy equal access to opportunities in the economy of the future. For example, UNDP is working with partners to increase women's engagement in science and technology. This is being done through advocacy campaigns and youth initiatives, such as bootcamps for girls to increase digital tech skills, as well as by convening key stakeholders from policymakers to the private sector to examine key challenges and provide policy recommendations on the structural changes needed to advance gender equality in STEM (science, technology, engineering, mathematics).

Second: Boosting Financing Is Essential for Just, Low-Carbon Transition

Finance—in its multifaceted forms—is critical to the acceleration of actions toward a green and inclusive future. The World Bank estimates about USD 4 trillion of *incremental* investment cumulatively in China's power sector alone is needed between 2020 and 2060 to achieve the Nationally Determined Contributions (NDCs), for a total of between USD 8 to USD 12 trillion for investment in generation, transmission, distribution, and energy storage.³⁶

Finding the finance for a low-carbon transition and the SDGs is entirely possible: simply reallocating 1% of global assets would suffice.³⁷ The financial and business case for sustainable development is stronger than ever. Achieving the SDGs by 2030 would open USD 12 trillion of global business opportunities.³⁸ By prioritizing nature, businesses can unlock USD 10 trillion dollars in opportunities around the world, creating more than 395 million jobs by 2030.³⁹ Shifting to a green economy could yield a direct economic gain of USD 26 trillion through 2030, compared to business-as-usual.⁴⁰

Since 2016, Chinese authorities have emphasized guidelines and regulations to support the shift of private and corporate financial flows toward green sectors, planting the seeds for a booming green bond market. From barely any issuance seven years ago, today China's green bond market ranks second among global

³⁶ World Bank, 2022, China Country Climate and Development Report.

³⁷ Covid-19 Crisis Threatens Sustainable Development Goals Financing, OECD, 10/11/2020: <https://www.oecd.org/newsroom/Covid-19-crisis-threatens-sustainable-development-goals-financing.htm>.

³⁸ UNDP, 2020, <https://cebds.org/en/achieving-the-sustainable-development-goals-can-unlock-trillions-in-new-market-value/>.

³⁹ WEF, 2020, <https://www.weforum.org/press/2020/07/395-million-new-jobs-by-2030-if-businesses-prioritize-nature-says-world-economic-forum/>.

⁴⁰ United Nations, 2021, <https://news.un.org/en/story/2021/06/1094762>.

leading markets with the highest rate in green bond issuance globally.⁴¹ Efforts to harmonize standards, such as the Common Ground Taxonomy-Climate Change Mitigation (CGT), a joint initiative by the People's Bank of China (PBoC) and the European Commission, mark the first comprehensive step toward mutual approaches to green finance taxonomies.⁴² China and the European Union (EU) are so far the most advanced in green finance, representing 64% of the global market.⁴³ Standards fixed by them will have a worldwide impact, likely becoming international points of reference.

Efforts have also expanded to go beyond green, promoting broader SDG-aligned investments. In 2021, the major bond market regulator, the National Association of Financial Market Institutional Investors (NAFMII), introduced a pilot program on social and sustainability bonds in China's inter-bank bond market with significant contributions from UNDP China. Three bonds were issued under the pilot, for a total of about USD 260 million to date. Furthermore, the PBoC has been actively working on a range of guidelines around transition finance, including the *Transition Bond Management Statement* in 2021. At the global level, the PBoC is the co-chair of the G20 Sustainable Finance Working Group, while UNDP serves as the Secretariat. In this capacity, China's central bank led the development of the G20 Framework for Transition Finance as one of the key deliverables of the 2022 *G20 Sustainable Finance Report* approved during the 2022 G20 Summit in Indonesia.

Through our flagship Biodiversity Finance Initiative (BIOFIN), UNDP has also been able to demonstrate new approaches for mobilizing public and private investment to scale up development impact, promote nature-based solutions, and develop biodiversity finance plans. Fueled also by the newly adopted Kunming-Montreal Biodiversity Global Biodiversity Framework, this has had tangible policy impact. For example, in China, green finance regulations in Shanghai have been incorporating important biodiversity considerations, a first in China's regulatory framework.

To further build on these successes and redirect finance flows to where they are most needed, strengthening SDG impact measurement, disclosure, and reporting is critical. UNDP's SDG Impact Standards—a set of voluntary internal management standards—is designed to help businesses and investors embed sustainability and the SDGs into their management systems and decision-making practices. In 2020, these standards, together with the SDG Finance Taxonomy (China) developed by UNDP,⁴⁴ were tested by the successful piloting of China's first SDG bond issuance by the New Development Bank, raising RMB 5 billion.

UNDP also supports efforts to close the information gap between demand and supply of investment opportunities. Through the SDG Investor Maps, we identified multiple potential investment opportunity areas generating both business returns

⁴¹ https://www.climatebonds.net/files/reports/cbi_china_sotm_2021_0.pdf.

⁴² <https://www.ca-cib.com/pressroom/news/first-green-bonds-under-new-china-eu-common-ground-taxonomy#:~:text=The%20Common%20Ground%20Taxonomy%2DClimate,approach%20to%20green%20finance%20taxonomies>.

⁴³ CBI Interactive data platform, <https://www.climatebonds.net/market/data/>.

⁴⁴ <https://www.undp.org/china/publications/technical-report-sdg-finance-taxonomy>.

and development impact, in four sectors: health and agriculture released in 2021,⁴⁵ followed by just released maps in circular economy and renewable energy.

While mobilizing private finance and regulations are critical, increasingly and effectively enhancing the greenness of public finance is too. Unsustainable expenditures must end, including fossil fuel and other harmful subsidies, to improve fiscal space for pro-nature and climate finance.⁴⁶ In the latest *Finance for Nature* report, UNEP estimates USD 500 billion to 1 trillion of harmful subsidies were disbursed as of 2022, versus a paltry USD 154 billion public investment in nature.⁴⁷

Third: International Development Cooperation Is Vital for Just, Low-Carbon Transition—Climate Change Does Not Stop at Borders

Finally, a key enabler to firmly set countries on development paradigms that promote inclusive low-carbon transition pathways is international cooperation. Considering the scale and scope of the whole-of-society transformation required, no country can do this alone. The opportunities and challenges China is facing in this area are not unique to its local context. Indeed, being an important provider in South-South Cooperation, China's domestic experience and lessons learned in its own journey toward a net-zero target can be of value to partner countries pursuing sustainable development.

At UNDP, we see an opportunity for China to focus increasingly on green sectors and scale its partnerships with multilateral institutions and the UN for greater SDG impact. As one of the first agencies to partner with China on South-South Cooperation, UNDP has been actively engaging national counterparts at both policy and project levels to effectively incorporate international best practices and standards in advancing the SDGs in partner countries.

Our engagement comes in two main ways. On the one hand, we aim to inform Chinese development cooperation institutions and providers on demand-driven approaches to supporting a low-carbon transition and SDG attainment in their international cooperation and business engagements in partner countries. These approaches include boosting innovation, development, and transfer of clean energy; channeling investment and funding toward low-carbon projects; and strengthening human resource and institutional capacities.⁴⁸ On the other hand,

⁴⁵ <https://www.undp.org/china/publications/sdg-investor-map-china-summary-report>.

⁴⁶ G20, “G20 Bali Leaders’ Declaration,” The White House, November 16, 2022, <https://www.whitehouse.gov/briefing-room/statements-releases/2022/11/16/g20-bali-leaders-declaration/>.

⁴⁷ United Nations Environment Programme (2022). State of Finance for Nature. Time to act: Doubling investment by 2025 and eliminating nature-negative finance flows. Nairobi. <https://wedocs.unep.org/20.500.11822/41333>.

⁴⁸ <https://www.undp.org/china/publications/paving-way-low-carbon-development-globally-and-along-belt-and-road>.

UNDP also supports partner countries to access China's resources, expertise, and experiences—responding to local demands for clean and green solutions on the ground.

In addition, by leveraging its global platform, UNDP creates space for two-way dialogues and exchanges at the country level, sharing lessons learned and best practices from different stakeholders in China and abroad to advance the 2030 Agenda.

The SDGs are humanity's *only* path to ensuring a sustainable future for generations to come. But for them to become a reality, we need collective efforts and concrete, concerted steps by *all* nations over the coming seven years. The clock is ticking. For the sake of both people and planet, we must act now, and we *must* act together.



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Bamboo: A Potential Tool for Climate Change Mitigation and Adaptation



Ali Mchumo and Renfei Wang

Abstract With 50 member states and five regional offices located, INBAR has been making a real difference in the lives of millions of people and environments around the world, raising standards, promoting bamboo construction, restoring degraded land, capacity-building, and driving green policy and SDG objectives. With the rapidly intensifying climate crisis and the setting of carbon neutrality targets necessitates new solutions and sustainable materials, bamboo serves as a nature-based solution for climate change mitigation and adaptation.

Keywords Bamboo construction · Green policy · Sustainable development · Carbon neutrality · Climate change

Introduction: INBAR

The International Bamboo and Rattan Organisation (INBAR) is an intergovernmental organization that promotes environmentally sustainable development using bamboo and rattan. INBAR has 50 Member States. In addition to its secretariat headquarters in Beijing, it has five regional offices located in Cameroon, Ecuador, Ethiopia, Ghana, and India. Since its founding in 1997, it has been making a real difference in the lives of millions of people and environments around the world, with achievements in areas, such as raising standards, promoting safe, resilient bamboo construction, restoring degraded land, capacity-building, and informing people and organizations on green policy and Sustainable Development Goal objectives.

INBAR's Strategy 2015–2030 is to carry the message of the promise of bamboo and rattan as practical and economically attractive options in building sustainable

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solutions to the challenges of future development that producers and users of these products face. This strategy focuses on INBAR's efforts in four main areas:

- **Policy shaping:** Promoting the inclusion of bamboo and rattan in socioeconomic and environmental development policies at national, regional, and international levels.
- **Representation and advocacy:** Coordinating input on bamboo and rattan from a growing global members and partner network and representing the needs of members on the global stage.
- **Knowledge sharing and learning:** Sharing knowledge and communicating lessons learned, providing training and raising awareness of the relevance of bamboos and rattans as plants and commodities that can contribute to relevant Sustainable Development Goals, Aichi Targets, REDD+, and other relevant global, regional, or national frameworks.
- **Action research and country support:** Promoting adaptive research and innovation by piloting best practices and providing expert support to INBAR member states in the scaling-up of best practices.

Bamboo

An Introduction to Bamboo

Bamboo refers to a group of perennial evergreen plants belonging to the Poaceae family under the subfamily Bambusoideae. From a biological point of view, bamboo is a giant grass rather than a tree and can be categorized into two main types based on the nature of its rhizome system: sympodial (clump-forming) and monopodial (non-clump-forming). Clumping bamboo displays sympodial components in their rhizome structures, and each rhizome turns upward to form a culm. Running bamboo exhibits monopodial rhizomes and spreads horizontally through the growth of rhizome.

According to the FAO Forest Resource Assessment 2020, bamboo grows across an area of 35 million hectares. Bamboos are integral to forest ecosystems and also part of agricultural landscapes, acting as boundaries, shelter belts, block planting, and homesteads. There are 1642 known bamboo species belonging to over 120 genera distributed across tropical and subtropical regions worldwide. Out of these 1642 bamboo species, an approximated 1500 species are characterized as woody bamboo, while the rest are herbaceous bamboo. Most species have hollow internodes, while a few species have solid culms. Different bamboo species grows in different agro-climatic conditions, and the height, diameter at breast height, internode length, and color vary considerably between different bamboo species. Similarly, different bamboo species are amenable to different applications, providing opportunities for wide range of product and commercial applications.

Bamboo is mainly distributed in the Asia-Pacific, Sub-Saharan African, and Latin American regions, growing at elevations from sea level to 4000 m.a.s.l. The Asia-Pacific region is a hot-spot of bamboo biodiversity, comprising the largest bamboo growing area and leading region in bamboo technology. About 45% of global bamboo resources and 80% of bamboo species are found in the Asia-Pacific region. In this region, bamboo is widely used as food, pulp and paper, daily use products, household utilities, in the construction industry, transportation, agriculture, fisheries, textiles, and a plastic substitute. The most commonly found bamboo genera in the Asia-Pacific region are *Bambusa*, *Dendrocalamus*, *Gigantochloa*, *Indocalamus*, *Phyllostachys*, and *Schizostachyum*. Bamboo is integral to cultures and civilizations in this region. Countries, such as China, India, Indonesia, Japan, Vietnam, Malaysia, and Thailand, play important roles in global bamboo resource conservation, bamboo product manufacturing and trade, as well as technological innovation.

In Africa, bamboo can be found from Sudan to South Africa and from Senegal to Ethiopia as well as in the islands of Madagascar and Mauritius. A recent record shows there are 115 bamboo species distributed across 48 African countries. Two indigenous species, *Oxytenanthera abyssinica* and *Oldeania alpina*, are most widely distributed and have high economic importance. Africa is also an important region for bamboo in South-South cooperation. Several countries, specifically Ethiopia, Kenya, Uganda, and Madagascar, have already issued policies, strategies, and plans to develop bamboo value chains as part of national efforts to improve the livelihoods of their people and climate change mitigation strategies.

In Latin America, bamboo can be found between 28° N (Mexico and the West Indies) to 47° S (Chile and Argentina), with a total of 569 species (including all the herbaceous bamboos). Bamboo has been found in more than 20 countries in Latin America and the Caribbean, but existing databases of bamboo resources is only based on a few countries. Brazil, Colombia, Venezuela, Peru, Mexico, and Ecuador have a rich biodiversity in bamboo and widest distribution. *Chusquea* is the most commonly found bamboo genus in Latin America, while *Guadua angustifolia* and *Dendrocalamus asper* are the most economically important.

There are only three indigenous bamboo species in North America, and no indigenous bamboo species have been found in Europe. In recent decades, European countries, as well as the United States and Canada, have introduced a large number of bamboo species from some bamboo producing countries in Asia, Africa, and Latin America for landscaping and gardening purposes.

Uses of Bamboo

Bamboo is one of the fastest-growing plants in the world—some species can grow over 1 meter a day. New bamboo shoots can attain their full height (as high as 30 m and 30 cm in diameter) within 3–4 months of sprouting, after which they begin to mature. Depending on species, bamboo takes about 3–6 years to reach full maturity. 3–4-year-old bamboo culms of sympodial bamboo species are ideal for structural applications

as well as for being processed into industrial products. Older bamboo poles or culms die and deteriorate with age. Efficient use of bamboo resources requires selective harvesting of mature bamboo poles, which will be replaced by new bamboo culms. Thus, bamboo plantations can ensure a sustainable supply of raw material without deforestation or destruction, while continuously providing ecosystem services.

Its rapid growth, ability to be harvested annually, and quick maturation cycle make bamboo a sustainable resource for value-added industrial applications. With the technological development over the past four decades, bamboo has provided added value and been applied in 10,000 documented products and applications. Using traditional techniques, bamboo can be processed into a variety of products with little or no investment. Bamboo is widely used as an alternative to wood to build houses, requiring little processing to create columns, roofs, walls, floors, beams, trusses, and fences. It is estimated that about 1 billion people worldwide live in bamboo houses, most of them traditional houses that use bamboo poles as the main structural material. Apart from construction, bamboo is also used for the production of a number of common household products, such as furniture, mats, tools, hats, and traditional toys. Bamboo is also used in making more elaborate and artistic traditional bamboo products, including musical instruments and woven items, such as baskets, trays, bottles, jars, boxes, bowls, fans, screens, curtains, lampshades, and lanterns. Bamboo shoots are an important food source and a delicacy in many bamboo growing countries, especially in South East Asia. In general, processing is carried out by rural communities, providing them with livelihoods and income.

Through technological innovation in recent decades, bamboo has been exploited to explore the potential of higher value-added applications. The usage of bamboo affects multiple industries including modern constructions, infrastructure, furniture, pulp, paper and textiles, renewable energy, and artworks, among many others. Bamboo is currently processed into boards, laminated lumber, furniture, flooring, plywood, scrimber boards, composite materials, fibers and textiles, pulp and paper, bioenergy, plastic substitutes, and a wide range of daily use products. Other technologies have been developed and matured to make full use of the bamboo plant including the conversion of leaves into flavonoid products, beverages, and pharmaceutical applications. However, bamboo high value-added applications are mostly concentrated in few advanced bamboo processing countries like China. Improving the visibility of various bamboo products, eliminating misconceptions, and facilitating technology transfer from countries that have advanced bamboo industries are crucial.

Bamboo and Rattan Markets

Over the past two decades, the bamboo industry has grown rapidly. In 2020, the international trade value of bamboo and rattan commodities reached USD 3.4 billion, representing an increase of 89.6% compared with 2010. The most traded bamboo commodities are (a) daily use products, (b) bamboo tableware and kitchenware, (c) woven bamboo products, (d) bamboo shoots, and (e) bamboo furniture. Currently,

there are 24 harmonized systems (HS code) for bamboo and rattan commodities, of which 18 are for bamboo and six are for rattan. Due to their similarity with wood products, many bamboo and rattan commodities are misclassified under existing Harmonized Systems, which leads to a low estimate of the value of the global bamboo and rattan trade.

China is the biggest exporter of bamboo and rattan, accounting for 70% of global trade value of bamboo and rattan commodities. Other major exporters include Indonesia, Vietnam, and the Philippines. The European Union, United States of America, and Japan are top three importers of bamboo and rattan commodities, accounting for 30%, 27%, and 11% of global import value, respectively.

China's Bamboo Industry

China has one of the largest bamboo resources and the most advanced bamboo industry in the world. Currently, bamboo grows across over 7 million hectares, increasing rapidly from 3.2 million hectares in the 1970s thanks to planning and consistent development efforts. Bamboo is found in 18 provinces, with the highest concentration in Fujian, Jiangxi, and Zhejiang. The most important bamboo species in terms of cultivation and value added is *Phyllostachys edulis* (commonly known as Moso bamboo). China's export trade value of bamboo commodities has reached USD 2.76 billion. In 2020, the annual output value of China's bamboo industry reached RMB 320 billion (~ USD 50 billion). By 2035, the Chinese government expects the total output value of the bamboo industry to exceed RMB 1 trillion. There are more than 10,000 bamboo processing enterprises in China, and nearly 10 million people are directly engaged in bamboo industry. China has developed more than 200 bamboo-related standards, accounting for about 90% of global standards on bamboo. The bamboo industry is listed as one of the four most promising forest industries in China, and the Chinese government has actively formulated frameworks and plans to support the development of the industry. This includes the National Bamboo Industry Plan (2013–2020), which has been implemented at the national level to propel bamboo development. Bamboo development plans for accelerating the innovative development of the bamboo industry in the coming decades are also being finalized.

Climate Change—Bamboo, Carbon, and Communities

Climate change has posed many unprecedented challenges across the globe: frequent extreme weather, longer lasting droughts, disturbed wildlife habitats, decreasing biodiversity that are direct impacts on the livelihoods, income, and health of people and the planet. With a rapidly intensifying climate crisis and the setting of carbon neutrality targets, the need for solutions and sustainable materials are increasing. Bamboo is a nature-based solution for climate change mitigation and adaptation. The rapid growth rate and carbon storing capabilities make bamboo suitable as a timber substitute, energy crop, and can be manufactured into a wide range of products, which makes it a highly suitable material for use in the fight against climate change. Furthermore, bamboo's proven uses in providing people with livelihoods and opportunities for economic development address multiple aspects of development potential.

Mitigating Climate Change

The potential of bamboo for sequestering carbon is enormous. Bamboo can contribute to climate change mitigation in three ways. First, like any other plant, bamboo absorbs carbon from the atmosphere and sequesters it in the ecosystem. Carbon in bamboo is stored as aboveground biomass in bamboo culms and leaves and as below-ground biomass in the form of rhizomes and root systems. The carbon content of bamboo is similar to trees. However, when compared to trees, bamboo grows more rapidly and has a higher annual re-growth rate, which makes bamboo a net sink for carbon dioxide. Recent research reveals that the average annual carbon sequestration of 1 ha of managed Moso bamboo forest is 4.91–5.45 tons, which is 1.5 times more than a Chinese fir plantation and 1.33 times more than a tropical rain forest. A review of biomass and carbon storage for 70 bamboo species illustrates that the average aboveground carbon (AGC) biomass, below-ground carbon (BGC) biomass, and soil carbon biomass for bamboo ranges from 16–128 Mg C/ha, 8–64 Mg C/ha, and 70–200 Mg C/ha, respectively. With an estimated bamboo coverage of 35 million ha across the globe, the carbon storage of global bamboo forest ecosystems is estimated to be 3.3–13.7 gigatons, which is equivalent to 12–50 billion tons of CO₂. Compared to tree forests, bamboo forests are easier sustainably manage. Through selective harvesting, biomass and carbon stock can be kept at a constant level. New culms that bamboo forests produce every year offset the loss of harvested biomass and carbon storage.

Second, because of its rapid growth rate and competitive physical properties, bamboo can be processed into durable products that can lock in carbon for longer periods of time. Mature bamboo stems can be converted to industrial products that

have a much longer lifespan than the bamboo harvesting cycle. Given that nearly 40% of greenhouse gas emissions come from the construction sector, bamboo can play an important role in reducing carbon emission by replacing carbon-intensive materials. Studies on the carbon footprint of engineered bamboo indicate that bamboo products can be carbon-negative throughout their entire lifespan, including products that are transported to and used in Western European countries. A number of cases have successfully demonstrated the potential of integrating durable bamboo products into modern construction including the fourth terminal of the Madrid International Airport, which included a curved bamboo ceiling that meets the highest European fire safety standard M1. Bamboo was also used in interior decoration shaped according to the acoustic needs and architectural elements in the Wuxi Grand Theatre.

Third, bamboo products can be a sustainable substitute for high carbon-intensive products. With the target to reach carbon net zero by 2050, carbon-intensive industries, such as steel, aluminum, concrete, and PVC, are facing the urgent need to transition to carbon neutral industries. Bamboo can be used to substitute a certain amount of carbon-intensive products, such as fuel-based energy sources, plastic products, construction materials, and more. Bamboo could be a good option for speeding up energy source transitions. Bamboo charcoal is a renewable and clean energy source with a high heat value, but without generating smoke when it is burnt. Currently, bamboo charcoal is widely used in China, Ethiopia, Ghana, India, Madagascar, Mozambique, the Philippines, and Vietnam. Bamboo-based energy plantations are also emerging in South Africa, Sri Lanka, Philippines, Ghana, and India. Bamboo can also be used to generate bio-ethanol and bio-CNG for energy/electricity purposes. An estimated 1.2 kg of bamboo can generate 1 kWh of electricity, which is similar to the biomass of wood and better than the biomass generated by other powdered materials, such as peanut shells, coffee bean shells, and rice hulls.

Bamboo is also an effective tool to combat plastic pollution. In 2022, INBAR and the Chinese government jointly launched the “Bamboo as a Substitute for Plastic Initiative,” which aims to radically scale up the use of bamboo as a renewable resource to reduce plastic pollution and address climate change. The accumulation of plastics in natural environment has caused enormous terrestrial and aquatic pollution. More than 400 million tons of plastics are produced worldwide every year, and single-use plastic products consist for more than half of it. Unfortunately, more than 90% of single-use plastic products are not recycled. Bamboo, as a naturally biodegradable material, has great potential in replacing plastic toothbrushes, straws, bottles, cutting boards, bags, and more.

Climate Change Adaptation

Bamboo is an excellent tool for climate change adaptation in construction, preventing ecosystem degradation, restoring degraded ecosystems, providing protection, and diversifying jobs and incomes. Bamboo has a strong and extensive root system that holds the surface soils in place and improves soil quality. Bamboo is especially useful

for restoring degraded land, eroded slopes, mining lots, and landslide vulnerable areas. Bamboo grows over a large part of the world's poorest regions, which is also the most vulnerable region to climate change. Bamboo's rhizomes can withstand floods and hold on to mud to prevent soil depletion and contribute to flood control. In the Northern Savannah of Ghana, a prolonged dry climate, unsustainable land management practices, forest fires, and other natural disasters have led to a reduction in vegetation cover, which has resulted in a limited capacity to retain and drain water and hold nutrients. To combat this, the government initiated a program to reduce land degradation using bamboo to protect buffer zones on river banks. Farmers were provided with free bamboo seedlings and received training on bamboo cultivation. Within around six months of planting, five-meter tall stands of bamboo appeared—other plants would take longer to reach this height. This bamboo will be fully utilized by local people in value-added production and fodder.

Bamboo can be a suitable tool to enhance the income and self-reliance of farmers. Bamboo grows in a variety of climates and can adapt to degraded lands. In China, India, and Thailand, different bamboo agro-forestry models have proved to benefit farmers and the poor by providing off-season fodder for livestock, additional income, and as a wind break. Bamboo is also used for agricultural piping in Tanzania and also to supply water from natural streams to farms in North-Eastern India, while 30,000 bamboo shallow tube wells are used in irrigation in Bangladesh. Bamboo also generates numerous job opportunities along the entire value chain, specifically in activities related to the management of bamboo forests, harvesting, pre-processing and processing, which create employment and a source of income for rural communities. The established supply chain in China's bamboo sector employs 10 million people, with 80% being small enterprise and/or rural jobs. A study conducted in Vietnam revealed that the daily wages earned from managing restored landscapes with bamboo surpassed those earned from agricultural activities.

Bamboo's high tensile strength, flexibility, and lightness make it an ideal construction material for post-disaster recovery. Bamboo shelter prototypes have already been constructed in some countries, such as China, Ecuador, Ethiopia, India, Nepal, and Bhutan, among others. To withstand floods and tornadoes, bamboo is traditionally used in the construction of raised stilt houses in the Philippines, Ecuador, and Peru. Bamboo has also been used in reconstruction projects in post-earthquake areas in Sichuan, China. Bamboo was used to build low-cost, resilient shelters, and the sustainable supply chains of bamboo-based panels were developed to support the reconstruction efforts.

Conclusion

Bamboo benefits the world as a strategic resource to protect landscapes, biodiversity, support rural development, and achieve UN Sustainable Development Goals, yet its potential is still unrecognized and underestimated. Bamboo is widely available in Asia, Africa, and Latin America, especially in many of the least developed

countries. Little or no investment is required, and the techniques required to start up bamboo processing programs in bamboo-rich areas are easy to learn. Proper harvesting practices do not affect the ecosystems of bamboo forests, while the value added of bamboo materials offers livelihood opportunities to local communities. The remarkable carbon sequestration capacity, the contribution to ecosystem restoration, soil and water conservation properties, and potential substitution of carbon-intensive materials and plastics make bamboo a perfect choice for addressing pressing challenges like climate change, achieving sustainable development, and benefiting both human beings and the planet.

INBAR, together with its 50 Member States, currently works to promote bamboo and rattan within the framework of the UN Agenda for Sustainable Development. To wield bamboo as an effective tool against the impacts of climate change, specific strategies and action should be implemented. These include (1) strengthening bamboo resource base through the restoration of degraded lands and sustainable management of existing bamboo resources; (2) undertaking progressive bamboo industry development with targeted interventions and actions according to the development stage of individual localities; (3) undertaking interventions or actions in a small geographical cluster to validate proof of concepts for cluster-based species development, sustainable management, and on-farm processing, which should be integrated and supported; (4) adopting a value chain approach or circular economic model where the product structures can be optimized to increase utilization rates and minimize wastage; (5) converging resources to support actions across the value chain by formulating appropriate policies, strategies, and plans; (6) generating demand in the initial period of bamboo sector development to provide market pull; (7) supporting R&D and innovation to develop products as per market preferences; and (8) creating an overall enabling environment for all stakeholders to flourish.



Ali Mchumo is Chair of the Board of Trustees and former Director-General of the International Bamboo and Rattan Organisation (INBAR). Prior to this, Mr. Mchumo was Deputy Minister for Home Affairs before being appointed the Minister of Trade. Mr. Mchumo also served as Chairman of the General Council of the WTO, UNHCR, and the Governing Council of CFC. He also served as President of the Trade Development Board of UNCTAD and Deputy Secretary-General for Finance and Administration of the East African Community.

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Exploring the Frontiers of Science Through the Shared Use of Mega-science Facilities



Chunli Bai

Abstract Today, new revolutions in science, technology, and industrial transformation are happening at an increasingly rapid pace, while innovations in new areas herald the start of an era of “big” science and “big” convergence through the use of mega-science facilities, which have great potential to enhance our ability to explore the mysteries of nature and make breakthroughs in key core technologies. China’s mega-science facilities and scientists are working with the world for scientific advancement and the infinite benefits that can be achieved through cooperation and resource sharing to realize the full potential of these facilities and the scientists that use them.

Keywords Science and technology · Mega-science facilities · Inter-disciplinary R&D

At the 76th session of the United Nations General Assembly held in December 2021, it was announced that the year 2022 would be the International Year of Basic Science for Sustainable Development. This is the first time in the history of the United Nations that member states requested that basic science be made an annual theme. This decision highlights the significant role that basic science has played and continues to play in research, education, and sustainable development.

Today, a new round of revolution in science and technology and industrial transformation is in the making at increasingly rapid pace, while science and technological innovations continue to delve deeper and broader into new areas that have enabled us to enter an era of “big” science, “big” convergence, and increased integration. Inter-disciplinary scientific exchange has increased, technologies have become more integrated, scientific breakthroughs achieved through group efforts have increased, and scientific innovation is becoming increasingly more complex.

This article has been compiled based on Prof. Chunli Bai’s speech at the 16th General Conference of The World Academy of Sciences for the advancement of science in developing countries (TWAS) on 24th November 2022. Prof. Bai has been awarded the 2022 TWAS-Abdus Salam Medal during the conference.

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Meanwhile, major scientific discoveries and innovations now depend more and more on “mega-science facilities” and the support that they provide. Mega-science facilities provide the perfect conditions for exploring the unknown world, discovering the laws of nature and achieving real technological breakthroughs. They have become the material and technological foundations for pushing the frontiers of science and for solving major challenges in socioeconomic development and safeguarding national security. “Mega-science facilities” have clear research objectives and a broad range of applications, but require a huge amount of investment and advanced cutting-edge technologies. However, these unique characteristics make them more likely to become leaders in major scientific discoveries and play a major leading role in the advances of academic disciplines. The R&D that has been done to develop these facilities has integrated many new scientific principles and cutting-edge technologies, giving us a great potential to not only enhance our ability to explore the mysteries of nature and effectively drive inter-disciplinary research projects, but also establish key platforms and methods to promote high-tech development and make breakthroughs in key core technologies.

In this paper, I would like to focus on three major aspects of how these facilities can benefit the exploration of the frontiers of science. I will start with the role of “mega-science facilities”, including an introduction to their origins and development. Next, I will provide an overview of the current state of these facilities in the world and their unique contributions. Finally, I will present China’s commitment to ensuring that these facilities are open and foster a culture of sharing and cooperation.

The Role of Mega-science Facilities

R&D into mega-science facilities started 80 years ago in the United States during World War II. At the time, the United States invested heavily in the Manhattan Project and developed a series of nuclear reactors and accelerators to strengthen and support US research into nuclear energy, nuclear physics, and particle physics. After WWII, the United States, the Soviet Union, and other leaders in science and technology started to implement various large-scale research initiatives including artificial satellite programs, manned space programs, and the historic Apollo program that placed the first human on the moon. These programs were largely developed in “mega-science facilities” that were located around the United States.

Since the 1950s, the role of these large-scale facilities has become increasingly central. The unique research conditions that these facilities provide have resulted in a large number of original scientific breakthroughs and key technological innovations. Mega-science facilities are powerful tools in exploring new heights in science and technology, while research increasingly relies on these facilities to make major discoveries. Over the last 100 years, of the Nobel Prizes awarded for Physics, twenty have been given due to the support of mega-science facilities. Prior to 1950, only one prize had been awarded to someone doing work at a mega-science facility, but after 1970 more than 40% were given to individuals that received support from these

facilities, which provided tools like astronomical telescopes, scientific satellites, and particle accelerators just to name a few. Since 1990, this percentage has increased even further to as high as 48%. In the last 20 years, in the field of protein macromolecular structures alone, a Nobel Prize has been awarded every three years thanks to the access to synchrotron radiation facilities.

Looking into the future, major discoveries and innovative breakthroughs will rely increasingly on the support of these “mega-science facilities”. Einstein pointed out that the future of science is nothing more than a continuous exploration into the macroscopic and microscopic worlds, which these facilities have facilitated and are becoming increasingly central to the expansion of scientific research and exploration. This is what I would like to explore further now.

In China, many sum up the frontiers of science in the macro-world in terms of “Two Dark, One Black and Three Origins”. “Two darks” refers to dark matter and dark energy, “one black” refers to black holes, while the “three origins” stand for the origin of the universe, the origin of celestial bodies, and the origin of life. A major breakthrough in any of these areas will significantly enhance our understanding of the universe and may even trigger a revolution in the field of physics.

For example, in April 2019, after two years of observation and analysis of a massive amount of data, the Event Horizon Telescope, composed of eight submillimeter radio telescopes distributed around the world, released the first-ever image of a super-black hole located 55 million light-years away from Earth and a mass of 6.5 billion times of that of the sun, and did it simultaneously via live broadcast. This is the first time that humans ever saw the “face” of a black hole and it attracted global attention. In December 2021, NASA launched the James Webb Space Telescope, which is tasked with four important missions: to find the earliest galaxies in the universe; to study how galaxies evolve; to observe the formation of stars and planets; to measure the physical and chemical properties of planets, including those in our solar system; and to explore the possibility of life in other planetary systems. These findings will help scientists find clues and, ultimately, answers to some of the most elusive questions like the origin of the universe and whether extraterrestrial civilizations exist.

Exploring the nature and rules of movement of the material world and life at the microscopic level is another major part of pushing the frontiers of science. For example, in the field of particle physics, scientists once put forward a standard model describing three kinds of basic force (strong force, weak force, and electromagnetic force) and the basic particles that compose all matter, identifying a total of 61 elementary particles. It was facilities like the Large Hadron Collider (LHC) that made it possible to find and study these elementary particles. The LHC is the world’s largest and most powerful particle physics accelerator. In 2013, scientists used it to detect the Higgs boson and verified the last remaining elements of the Standard Particle Model, enabling the team to identify all 61 elementary particles that were predicted by the model.

After the discovery of the Higgs boson, the exploration of new topics in physics beyond the Standard Particle Model has become a central focus of the physics community today. In 2015, China Academy of Sciences scientists, in collaboration

with scientists from other countries, discovered a new neutrino oscillation mode using the Dayawan Nuclear Reactor Neutrino Experiment in Guangdong, which is considered one of the most important breakthroughs in the field in recent years. While the Dayawan Nuclear Reactor facility has completed its scientific goals and been retired, other neutrino physics-related work is still progressing at the Jiangmen Underground Neutrino Observatory in China, the Deep Underground Neutrino Experiment (DUNE) in the United States, and the Super-Kamiokande Neutrino Detection Experiment in Japan. Of these three, the Jiangmen Underground Neutrino Observatory is addressing one of the key questions in international neutrino research—neutrino mass ordering.

In the area of quantum control, quantum communication and quantum computation are key areas of research and face intense competition. So far, China has taken the lead in this field. In 2016, the Chinese Academy of Sciences successfully launched the world's first quantum science satellite, Micius. Within a year after the launch, three key milestones including satellite-to-ground quantum key distribution, satellite-based entanglement distribution to two locations on the Earth, and ground-to-satellite quantum teleportation had been achieved. In 2017, I personally experienced intercontinental secure communication in a phone call with TWAS Fellow Anton Zeilinger, the President of the Austrian Academy of Sciences and recipient of the Nobel Prize in Physics in 2022, which was made possible by the Micius satellite. These achievements have laid the foundation for the construction of a global quantum communication network, which has already been realized in the Beijing-Shanghai network, the world's first large-scale space-ground integrated quantum communication network.

Today, many countries in the world attach great importance to the research into cutting-edge, fundamental issues. However, many of these issues are either too big (heavenly movement, evolution of the galaxy, and the origin of the universe) or too small (particle structure and quantum control) and require access to and support from these “mega-science facilities”. To this end, many developed countries and even some emerging economies have increased investment in key “mega-science facilities” with the hope of taking the high ground in the future development of science and technology. We believe that these kinds of facilities will be central to future exploration of the endless stretches of the universe as well as the boundless depths of the microscopic world.

Major Mega-science Facilities and Their Contributions

Countries around the world are actively developing “mega-science facilities” to push the boundaries of scientific research. The development and purpose of mega-science facilities are very different from that of rank-and-file facilities in terms of the equipment they contain and even how they are built. Some of the unique characteristics of these facilities include:

- broader and farther-reaching impact on developments in science and technology;
- bigger in terms of scale, requiring more resources and more time to construct and operate;
- more comprehensive and sophisticated technologies, requiring a large number of non-standard equipment and parts that present challenges in both engineering and R&D;
- greater focus on scientific knowledge and technology innovation, not commercial application;
- greater latitude required in terms of project approval and R&D, as well as greater international cooperation.

For a long time, major developed countries, such as the United States and European countries and Japan, have attached great importance to R&D into mega-science facilities and have considered them a part of their core competitiveness in science and technology. They have tried to maintain this competitive edge by increasing investment and strengthening related R&D and strategic planning.

The United States, for example, has created a large number of mega-science facilities for use in high performance in fields, such as high-energy physics, nuclear physics, astronomy, energy, nanotechnology, eco-environment, and information technology, which are mainly funded and managed through the Department of Energy and the National Science Foundation. According to statistics, there are about 60 such facilities¹ that have been central to a number of major scientific discoveries and have made a number of major technological breakthroughs and thus played a key role in strengthening scientific and technological innovation, enhancing national security and driving the socioeconomic development of the United States.

In Europe, mainly represented by the UK, France, and Germany, a large number of mega-science facilities have been created in the fields of energy, life sciences, resources and the environment, space science, particle physics and nuclear physics, as well as engineering and technology. In order to integrate resources and enhance overall competitiveness in science and technology, EU countries have jointly developed and constructed a large number of world-leading mega-science facilities.² Major scientific achievements and innovations made by these facilities include the discovery of the Higgs boson and the invention of the World Wide Web, which laid the foundation for the Internet economy. These facilities have not only helped Europe maintain its competitive edge in science and technology, and they have also contributed

¹ A few key facilities include the Advanced Photon Source and its upgrades (APS, started to operate in 1996, to achieve upgrade in 2022); Laser Interferometer Gravitational-Wave Observatory and its multiple upgrades (LIGO, started to operate in 2002, completed the upgrade in 2015); Seismological Facility for the Advancement of Geoscience (SAGE, started to operate in 2014); James Webb Space Telescope (JWST, launched in 2021); Large Synoptic Survey Telescope (LSST, scheduled to operate in 2022); and Deep Underground Neutrino Experiment (DUNE, scheduled to be completed in 2026).

² Key mega-science facilities in the EU include the European Synchrotron Radiation Facility (ESRF, began operation in 1994, upgraded in 2015 with new upgrades expected by 2022); Large Hadron Collider (LHC, started operating in 2008, currently undergoing upgrades); Very Large Telescope (VLT, started operating in 2011); European X-Ray Free-Electron Laser Facility (EXFEL, started operating in 2017); and European Spallation Source (ESS, scheduled to be operated in 2025).

Table 1 Distribution of mega-science facilities in major countries

	US	Germany	UK	France	Japan	China
Under construction	4	36	17	6	7	25
In operation	54	35	43	85	25	32
Total	58	71	60	91	32	57

to peaceful cooperation between EU members while at the same time expanding Europe's footprint in the global technology market and a major role in the global industrial chain.

The above is a list of mega-science facilities in the world's major countries (Table 1).

China and Its Commitment to Cooperation in Mega-science Facilities

The Chinese government attaches great importance to the development of mega-science facilities and strongly supports the participation and initiation of international mega-science programs. After decades of investment and development, China has created a strong infrastructural base and formed a number of national centers for innovation and talent development linked to mega-science facilities.

So far, China has approved 57 major mega-science facility projects, 32 of which are already in operation and 25 of which are under construction. Some of these facilities are on par with the best centers for research and innovation in the world. The Chinese Academy of Sciences (CAS) is a pioneer in China's basic R&D infrastructure and contributed to the development of mega-science facilities. Generations of scientists and engineers at CAS have made noteworthy contributions to the construction and operation of over 30 of these facilities, or more than 50% of China's total. CAS has also carried out extensive cooperation with research institutions and universities around the world in the research and development of facilities, which are open to institutions and researchers from both China and abroad to explore the frontiers of science.

China's mega-science facilities have enabled Chinese scientists to make a number of major scientific achievements and technological breakthroughs. These include:

- “Wukong”, a satellite officially known as the Dark Matter Particle Explorer (DAMPE) developed and launched by CAS in 2015, which aims to find dark matter particles. Since it was put into service seven years ago, it has made four outstanding scientific achievements: direct detection of a break in the cosmic electron plus positron energy spectrum at an energy level of 0.9 TeV; the precise measurement of the energy spectra of the proton and helium components of cosmic rays, revealing new spectral features that are helpful in understanding the origin

of cosmic rays; the precise measurement of the spectra of cosmic ray boron-to-carbon and boron-to-oxygen ratios, revealing spectral breaks of such ratios which are essential in understanding the propagation of cosmic rays; and the release of all-sky gamma-ray data to the public and obtaining the most sensitive constraints on dark matter models to produce gamma-ray lines.

- The Large High Altitude Air Shower Observatory (LHAASO), developed and built by CAS, has found a dozen ultra-high-energy (UHE) cosmic accelerators within the Milky Way. It has also detected photons with energies exceeding 1 Peta-electron-volt (quadrillion electron-volts or PeV), including one at 1.4 PeV, the highest energy photon ever observed. These findings overturn our traditional understanding of the Milky Way and open up an era of UHE gamma astronomy. This discovery has laid the foundation to solve a century-old mystery—the “origin of cosmic rays and their acceleration”.
- In the field of fast radio bursts (FRBs), a new frontier of astrophysics, the Hard X-ray Modulation Telescope localized the X-ray counterpart of the first Galactic FRB; the Five-hundred-meter Aperture Spherical radio Telescope (FAST), also known as the “China Sky Eye”, has produced a number of top-level achievements in the last two years, including capturing the largest radio burst in history, which was voted into the top 10 Scientific Achievements of China in 2021.
- The Experimental Advanced Superconducting Tokamak (EAST), also called the “China’s artificial sun”, achieved a repeatable plasma discharge at a temperature of 120 million degrees Celsius with a pulse length of 101 s, once again setting a new world record for tokamak operation. These achievements signal China’s leading position in the research field of steady-state magnetically confined fusion.

China has actively participated in or initiated multiple mega-science programs in other countries. In March 2019, seven founding countries, including China, signed a cooperative agreement on the development of the SKA (Square Kilometer Array). So far, the design phase of the SKA has been completed, and the first phase of construction is underway. Once completed, the SKA will have a total collection area of one square kilometer composed of about 2500 dishes spread out over Southern Africa, and 1 million antennas in Australia. It will be the largest astronomical facility that has ever been built and will mark the beginning of a new era in our understanding of the universe. Phase 1 of the SKA is expected to be completed and in full operation before 2030.

Chinese scientists have also been actively involved in the International Thermonuclear Experimental Reactor (ITER) project. ITER is one of the largest multi-lateral collaborative projects second only to the International Space Station. The goal of ITER is to test and validate the scientificness and engineering feasibility of the peaceful use of nuclear fusion for the generation of electricity. ITER aims to fundamentally solve the energy, environment, and sustainable development challenges facing mankind. It involves over 30 countries including China, the EU, Russia, the US, Japan, South Korea, and India. Thanks in part to the achievements at the Tokamak facility mentioned above, Chinese companies won the tender for the Tokamak Assembly Contract 1 (TAC1) and will be the chief contractor of the

project. This is the largest contract in monetary terms since the initiation of the project. In 2017, international experts in nuclear fusion jointly issued the “Beijing Fusion Declaration—Supporting Fusion Energy Development in China”, supporting the construction of the China Fusion Engineering Test Reactor (CFETR).

A distinctive feature of mega-science facilities is openness and sharing. The Chinese government attaches great importance to this and has actively promoted the opening up and sharing of its mega-science facilities to the world. On December 2–4, 2019, the 14th meeting of the Group of Senior Officials on Global Research Infrastructures (GSO 14) was held in Shanghai, the first GSO meeting ever held in Asia. At the meeting, Chinese representatives presented the development of mega-science research facilities in China and international cooperation that has been achieved through these facilities, suggesting Chinese mega-science facilities be included in the GSO system as case studies to further strengthen the sharing and cooperation. So far, there are some successful cooperation models with international research institutions. On March 31, 2021, FAST officially opened for international cooperation, calling for research proposals from astronomers around the world. It received applications for a total of 7216 h of observation time submitted from scientists around the world, and 27 of which from 14 countries excluding China were approved.

China also works to help other developing countries build and operate their own mega-science facilities. One example is the new Siam Photon Source (SPS-II), which, once completed, will be operated by the Synchrotron Light Research Institute (SLRI) in Thailand. This will be the first fourth-generation synchrotron radiation facility in Southeast Asia and will receive technical support from the Shanghai Synchrotron Radiation Facility (SSRF) and Shanghai Advanced Research Institute (SARI) of the Chinese Academy of Sciences. Another example is the Thailand Tokamak (TT-1), and the main engine and the auxiliary systems for which were donated to Thailand by the Institute of Plasma Physics (ASIPP) of the Chinese Academy of Sciences. Once completed, it will be the first tokamak in Southeast Asia. ASIPP will assist the Thailand Institute of Nuclear Technology (TINT) in the areas of personnel training, cryogenic technology, power supply management, installation, and operation and will help Thailand build a new generation of tokamak in the future.

As Chinese President Xi Jinping has emphasized many times, China’s open door will never close and can only open wider. China’s mega-science facilities and Chinese scientists are determined to expand cooperation with institutions and individuals around the world for the common goal of scientific advancement. The benefits that these facilities can create for mankind are infinite, and it is only by working together and sharing these resources that we can realize their full potential. Achievements that have been made so far have advanced our knowledge of the universe and our own world considerably, and it is our belief that as the world reconnects more fully post-pandemic, cooperation and exchange will grow exponentially.

About ANSO

The Alliance of International Science Organizations (ANSO) is a non-profit, non-governmental organization founded in 2018 by 37 national academies, research institutions, universities, and international organizations from around the world in the coordination with the Chinese Academy of Sciences (CAS) with 67 members from 48 countries. ANSO's goal is to promote shared development and advance the UN Sustainable Development Goals by fostering multiple international programs in Science, Technology, Innovation, and Capacity-building (STIC).



Chunli Bai is President of the Alliance of International Science Organizations (ANSO). A chemist and expert in nanoscience, he is also former President of the Chinese Academy of Sciences (CAS), former President of The World Academy of Sciences (TWAS), and Honorary President of the University of Science and Technology of China (USTC) and the University of Chinese Academy of Sciences (UCAS). His research focuses include organic molecular crystal structure, EXAFS, molecular nanostructure, and scanning tunneling microscopy. He is a member of many prestigious academies including CAS, TWAS, the National Academy of Sciences, the Royal Societythe European Academy of Sciences, and the Russian Academy of Sciences.

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New Relations for Peoples and Governments

The Collective Power of the Connectivity Ecosystem



Sihan Bo Chen

Abstract The GSMA is a global organisation that unites the mobile ecosystem to discover, develop, and deliver innovation foundational to positive business environments and societal change. The GSMA's Connectivity for Good pillar engages members, governments, and civil society to advance positive policy and ensuring mobile technology has a significant positive impact on the achievement of the SDGs. GSMA also develops industry solutions and holds events around the world, including China, with which it works closely on industry development.

Keywords GSMA · 5G · Mobile · Ecosystem · Innovation · SDG · Agenda 2030 · Inclusion · MWC · Spectrum · Connectivity · China · Technology

The GSMA is a global organisation that unifies the mobile ecosystem to discover, develop, and deliver innovation foundational to positive business environments and societal change. Our vision is to unlock the full power of connectivity so that people, industry, and society thrive. Representing mobile operators and organisations across the mobile ecosystem and adjacent industries, the GSMA delivers for its members across three broad pillars: Connectivity for Good, Industry Solutions, and Events.

Connectivity for Good engages members, governments, and civil society, to advance positive policy and spectrum outcomes, facilitate digital innovation to reduce inequalities in our world, and tackle today's biggest societal challenges such as digital inclusion, climate change, and sustainability.

Industry Solutions supports the technology and interoperability that make mobile work. For instance, through our projects, working groups and other collaborative activities, we assist the industry's development in areas such as 5G, Mobile IoT, fraud, and security. While our services offer data, resources, and tools to help businesses in the ecosystem work together more effectively, leading to better customer experiences on mobile devices. Our events provide successful ways of bringing the ecosystem and

This essay is wrote in June 2023.

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adjacent industries together, to make strong business connections and drive positive impact. From the world's largest and most influential connectivity event, MWC, in Barcelona, Shanghai, Las Vegas, and Africa, to the growing M360 series that has a more regional focus.

China is one of the leading markets for the mobile industry. By October 2023, China had deployed more than 3.2 million 5G base stations, the highest number in the world, and has over 750 million 5G connections, which accounts for 58% of the global total.

It is home to some of the world's largest mobile operators—China Mobile, China Telecom, and China Unicom who are on the GSMA board alongside 23 other of the largest operator groups as well as smaller independent ones. In addition, China has a dynamic and comprehensive mobile ecosystem including prominent network equipment vendors and players along the value chain.

The GSMA works closely with a wide range of stakeholders, together with relevant government agencies, to support the industry's development in China and bridge them with the international community to ensure globalised and harmonised cooperation towards industry growth.

Mobile Technology's Impact on the Digital Economy

The mobile industry is at the heart of the digital transformation that is fuelling growth and improving lives across the planet. But as an industry, we also take a wider view, as responsible businesses. Our vision is to unlock the power of connectivity so that people, industry, and society thrive. These goals are encapsulated in the Digital Declaration, a GSMA-led, cross-industry initiative that unites 82 CEOs who are committed to acting ethically while promoting the pillars of consumer trust, inclusive growth, and innovation in the digital era.

The mobile industry is a key driver of the global digital economy. In 2022, mobile technologies and services generated 5.5% of global GDP, a contribution that amounted to \$1.1 trillion of economic value added. This figure is expected to grow to \$1.6 trillion by 2030. Over the period 2000-2017 on average, a 10% increase in mobile adoption increased GDP by 1%, with the effect increasing by approximately 15% when connections upgraded from one mobile network technology to another (from 2G to 3G and from 3G to 4G).

The mobile industry's contribution to the economy is broad-based. It supports jobs in a wide range of sectors, including telecommunications, retail, education, and health care. Mobile technologies also help businesses to become more productive and efficient. For example, mobile apps can be used to streamline supply chains, improve customer service, and automate tasks.

The mobile industry is playing a key role in the development of new technologies, such as artificial intelligence (AI) and the Internet of Things (IoT). These technologies have the potential to transform a wide range of industries, and the mobile industry is well placed to help to bring them to market.

Mobile technology is also having a significant impact on the achievement of the United Nations Sustainable Development Goals (SDGs). The SDGs are a set of 17 goals that were adopted by all UN member states in 2015. The goals aim to end poverty, protect the planet, and ensure prosperity for all by 2030. The GSMA led the mobile industry's commitments to help achieve all 17 SDGs.

The industry has also taken an active role in climate action, for example, defining its path to net zero carbon emissions by 2050 at the latest. Crucially, digital connectivity is increasingly recognised as a key enabler of the transition to a net zero carbon economy. It is estimated that mobile technology is enabling carbon savings 10 times greater than the carbon footprint of the mobile industry itself—and this could double by 2025.

Mobile technology can help to achieve the SDGs in several ways. For example, mobile can be used to:

- Provide access to education and training by delivering educational content to people in remote areas and to connect students with teachers and other learners.
- Improve health care by providing access to healthcare information, connect patients with doctors and other healthcare providers, and track and monitor diseases.
- Promote financial inclusion by providing access to financial services, such as banking and microfinance, to people who would otherwise not have access to these services.
- Support disaster relief and recovery by helping to coordinate disaster relief efforts, track the movement of people and goods, and provide information and support to those affected by disasters.

The GSMA has published several reports on the impact of mobile technology on the SDGs. These reports show that mobile technology is having a significant positive impact on the realisation of the SDGs.

Forward-Looking Digital Policies for the Future of the Industry

The rapid development of digital technologies is transforming the way we live, work, and communicate. This transformation is creating new opportunities for businesses and consumers, but it also raises new challenges for policymakers.

Sector-specific regulatory and fiscal requirements, such as asymmetric regulatory obligations, sector-specific taxes and fees, high spectrum costs and network deployment restrictions, combined with unbalanced market and bargaining powers along the digital value chain, could put pressure on operators' ongoing investments to maintain, expand, and evolve their networks.

The GSMA is leading the mobile industry's voice in the global debate on digital policy. The GSMA works to outline its analysis of the challenges facing digital policymaking and its recommendations for how to address them. The GSMA's collaboration with both governments and industry is vital for ensuring that digital policies are future-proofed and that the benefits of digital transformation are shared by all, especially in the following areas:

- *Regulatory Modernisation*: The GSMA advocates for a modernised regulatory framework that fosters innovation, investment, and competition in the mobile sector while ensuring consumer protection and social inclusion. This requires a shift from prescriptive rules to outcome-based principles, from *ex-ante* intervention to *ex-post* regulation, from sector-specific policies to horizontal policies, and from national silos to regional or global coordination.
- *Multi-stakeholder Collaboration*: The GSMA calls for a collaborative approach among different stakeholders, including governments, regulators, industry players, civil society, and academia, to address the complex and cross-cutting issues of digital policy. This requires a dialogue based on trust, transparency, and mutual respect, as well as a recognition of the roles and responsibilities of each stakeholder.
- *Evidence-based Policymaking*: The GSMA urges policymakers to base their decisions on robust evidence and data, rather than assumptions or perceptions. This requires a thorough assessment of the costs and benefits of different policy options, as well as an evaluation of their impact on innovation, competition, and consumer welfare.

The GSMA believes that reform based on the above principles will create a more conducive environment for investment in new technologies and help to ensure that digital policies are future-proofed.

GSMA's Work to Advance the Mobile Industry

Industry Services and Solutions

Industry Services and Solutions support the technology and interoperability that make mobile work. For instance, we assist the industry's development in areas such as 5G, Mobile IoT, fraud, and security, through our projects, working groups, and other collaborative activities. While our services offer data, resources, and tools to help businesses in the ecosystem work together more effectively, leading to better customer experiences on mobile devices.

Our industry evolves by adapting to and adopting the latest technologies in the most effective way. We are helping to maximise the potential of new, existing, and emerging technologies, through collaboration, regulation, and interoperability, to benefit businesses, consumers, and the wider ecosystem.

GSMA's industry services and solutions encompass a wide range of activities and forums, including:

- *5G and Network*

5G is the fifth generation of mobile networks, which promises to bring faster Internet speeds, lower latency, and greater network capacity than its predecessor, 4G. This technology is designed to support an increasingly connected world, where not only smartphones, but also a vast array of devices like cars, appliances, and machines, are connected to the Internet. GSMA provides a platform for collaboration, bringing together the world's leading organisations across industry and adjacent markets to open up the power of the network to accelerate innovation, growth, and interoperability of revolutionary 5G technologies between different networks and devices.

- *Internet of Things (IoT)*

GSMA helps mobile operators add value and accelerate the delivery of new connected devices and services in the IoT. This is to be achieved by industry collaboration, appropriate regulation, optimising networks as well as developing key enablers to support the growth of the IoT in the longer term. Our vision is to enable the IoT, a world in which consumers and businesses enjoy rich new services, connected by an intelligent and secure mobile network.

- *Security*

The GSMA continually enhances the security support offered to its membership as the threats targeting the mobile ecosystem emerge. We focus on three main areas:

- Industry collaboration by convening membership to define industry specifications, threat management guidelines, promoting baseline controls, and conducting external collaboration to ensure industry alignment.
- Providing expertise through subject matter experts by supporting solution and service offering development to internal and external stakeholders, as well as promoting industry fraud and security awareness.
- Defining the future by looking forward by assessing, analysing, and reporting on the industry threat landscape. This is also done through engagement with standards bodies and reviewing new technologies to ensure adequate protection by design.

- *Mobile Identity*

Mobile Identity and Data enable the digital transformation of verticals and governments. Building trust in the digital space is a crucial challenge. The mobile industry has a leading role to play in digital identity, and the commercial opportunities are significant due to the industry's unique assets. The GSMA supports its members with

their identity initiatives, as they pursue new business growth opportunities and the digital transformation of their own operations.

- *Working Groups*

Working towards common goals, including roaming, interconnection, billing, devices, fraud, security, and more, the GSMA working groups engineer the future of technology.

They facilitate collaboration, consensus building and harmonisation among GSMA members, create frameworks and requirements for operational matters, and influence mobile industry standardisation and solution development. Regular calls, meetings, and events provide forums for discussion, sharing, and invaluable networking with industry leaders.

GSMA working groups have resource pools of subject matter experts. They support GSMA's projects, provide specialist knowledge, and add considerable value to the entire mobile ecosystem.

- *Services*

The GSMA's suite of services improve and support global connectivity. Most of the services are based on the accurate, intelligent, and comprehensive data we collate, and some underpin important interoperable backend functions, which help the mobile industry run smoothly, such as TAC and EIN issuance, as well as universal remote eSIM provisioning.

Our services are expanding in line with technology trends and the imperatives identified by our product experts and GSMA members—they are grouped into five areas:

- Blockchain and roaming—innovative solutions for streamlining processes,
- Device identification—key for device management and network planning,
- eSIM—supporting the growth of eSIM,
- Fraud prevention and Security—essential to minimising costly traffic fraud and device crime,
- Network and interconnect solutions—developed to improve the customer experience.

- *Open Gateway*

GSMA Open Gateway is a framework of common network Application Programmable Interfaces (APIs) designed to provide universal access to operator networks for developers. From Brazil to China, Norway to New Zealand, nearly 40 mobile operator groups worldwide, representing 228 mobile networks and 64% of global connections are already part of the initiative by November 2023. The move represents a paradigm shift in the way the telecoms industry designs and delivers services in an API economy world. GSMA Open Gateway will help developers and

cloud providers enhance and deploy services more quickly across operator networks via single points of access to the world's largest connectivity platform.

- *Connectivity for Good*

The rapid pace of technological change and the impact of market forces are driving the evolution of the digital economy. But the digital industry is not only shaped by the market. By establishing the policies and regulations that frame market structure, governments also have a significant role to play. The GSMA, therefore, actively engages with policymakers and regulators to advance policy discourse, contribute to market research, and convey the perspectives of the mobile industry across the range of issues that surround the digital economy and society.

GSMA's key advocacy areas include:

- building a sustainable and inclusive digital economy,
- promoting a conducive regulatory environment,
- strengthening safety, privacy, and security,
- securing spectrum for mobile and advocate for spectrum policies that empower industry growth,
- promoting policy best practices.

Key global programmes include:

- *Spectrum*

Spectrum is a finite resource essential for so many vital communications services. It is crucial that mobile operators have timely and affordable access to appropriate spectrum. Without it, mobile operators cannot meet the growing demand for high-speed, mobile broadband services with good coverage in all parts of the world.

Sufficient internationally harmonised spectrum is essential to ensure the quality that consumers and businesses have come to expect, and rely on, from mobile networks. For this to work, spectrum assignments should go to the services and mobile operators that can generate the most value for society. Importantly, governments should prioritise improved mobile broadband services, ahead of revenue maximisation, when awarding and renewing spectrum licences.

The GSMA works with governments and regulators to ensure that mobile operators have access to the spectrum they need to meet the demand for mobile services, provides technical expertise and advice to governments and regulators on spectrum planning and allocation, and supports the development of new frequency bands for mobile in the radio regulation—an international treaty by the International Telecommunication Union, a specialised United Nations agency.

- *External Affairs*

The GSMA acts on behalf of the mobile industry to maximise its role and impact on economies and societies.

Positioning the mobile industry as a critical partner for digital transformation, the GSMA attracts the right relationships and partnerships with international organisations including the UN, OECD, ITU, the World Bank, and public and private partners worldwide, and advances industry responsible leadership. The External Affairs team amplifies the mobile industry's commitment to the UN Sustainable Development Goals to achieve a sustainable and inclusive digital economy. We unify the mobile industry on key global issues including AI, climate action, gender equality, etc.

For example, GSMA's AI for Impact programme is developing global partnerships to accelerate action and achieve impact in alignment with the United Nations Sustainable Development Goals (SDGs). This GSMA initiative, guided by a task force of 24 mobile operators and an advisory panel of 12 UN agencies and partners, defines the technical, commercial, and ecosystem requirements to deliver viable data-driven products and services that adhere to principles of privacy and ethics. At the national level, the GSMA supports real-world implementations, replicating proven models and delivering market-shaping campaigns to unlock demand and address barriers.

- *Mobile for Development*

GSMA's mobile for development team drives innovation in digital technology to reduce inequalities in our world.

Singularly positioned at the intersection of the mobile ecosystem and the development sector, it stimulates digital innovation to deliver both sustainable business and large-scale socio-economic impact for the underserved.

Our unique research and insights platform advances digital innovations and implementations that empower underserved populations to build a better future. Our in-market expertise informs partnerships between the mobile industry, tech innovators, governments, and the development sector.

- *Public Policy*

The mission is to advance policy and regulation that enables a safe, sustainable, and innovative mobile sector for all.

The rapid pace of technological change and the impact of market forces are driving the evolution of the digital economy. But the digital industry is not only shaped by the market. By establishing the policies and regulations that frame market structure, governments also have a significant role to play. The GSMA, therefore, actively engages with policymakers and regulators to advance policy discourse, contribute to market research, and convey the perspectives of the mobile industry across the range of issues that surround the digital economy and society.

- *GSMA Intelligence*

GSMA intelligence is the definitive source of global mobile operator data, analysis and forecasts, and the publisher of authoritative industry reports and research. Our data covers every operator group, network, and MVNO in every country worldwide.

It is the most accurate and complete set of industry metrics available, comprising tens of millions of individual data points, updated daily. GSMA Intelligence is relied on by leading operators, vendors, regulators, financial institutions, and third-party industry players, to support strategic decision-making and long-term investment planning. The data is used as an industry reference point and is frequently cited by the media and by the industry itself. Analysts and experts from GSMAi produce regular thought-leading research reports across a range of industry topics.

In 2022, GSMA Intelligence extended the depth and breadth of its mobile and fixed industry data to include 50 million data points, up from 30 million data points just a few years previously. The content agenda focussed on mobile operator strategies, priorities, and market opportunities and built out commercial content modules on enterprise digital transformation, digital consumer trends, spectrum trends, and fixed broadband, as well as key industry and organisational priorities, including digital inclusion, sustainability, and mobile network transformation strategies.

- *Convening*

The GSMA's global convening platform provides successful ways of bringing the ecosystem and adjacent industries together, to make strong business connections and drive positive impact. From the world's largest and most influential connectivity event, MWC, in Barcelona, Shanghai, Las Vegas, and Africa, to the growing M360 series that has a more regional focus.

The GSMA Ministerial Programme, an integral part of MWC Barcelona, is now the centre of policy debates within the mobile ecosystem. It has grown in popularity and scope since its launch in 2006. In the 2023 edition, it welcomed delegations from 151 countries/territories and 45 intergovernmental organisations. This unique programme is attended by industry CEOs, ministers, telecom regulators, data protection authorities, and senior representatives of international organisations—all gathering to share knowledge, stimulate debate around current issues, and provide an opportunity to engage with mobile industry experts on policy and regulatory topics.

Working with the Ecosystem

The GSMA plays an active role to engage with vertical sectors to enable members and the wider ecosystem to share industry business drivers, technology innovations, and best practices to ensure that they are well positioned to take advantage of new opportunities and overcome challenges. Across manufacturing, automotive, aviation, and FinTech and the technology domains include the Internet of Things, identity and data, the 5G Era, and open networks. These communities enable members and the wider ecosystem to share industry business drivers, technology innovations, and best practices to ensure that they are well positioned to take advantage of new opportunities and overcome challenges.

Key activities and communities include:

- *The GSMA Foundry*

The GSMA Foundry aims to fast-track cross-industry collaboration and business development, where GSMA members, industry, and ecosystem players come together to rapidly develop real-world solutions to industry challenges, nurture innovative ideas through initial commercial trials, and scale proven solutions at a regional and global level to forge our digital future, solving the industry's problems and challenges and scaling new solutions.

In 2023, the GSMA Foundry is focussing on projects in the fields of:

- 5G monetisation,
- Non-core revenues,
- Digital transformation,
- Network efficiency.

- *Digital Industries*

GSMA Digital Industries Forum brings together mobile network operators, enterprises, and the broader ecosystem to accelerate the benefits of mobile technologies in the industrial sector. We explore all aspects of the industrial value chain, from raw material extraction, refining, supply chain, component production, and assembly, to smart warehousing with the aim to understand and address the business and operational needs across the industrial value chain.

- *Smart Mobility*

The GSMA Automotive and Aviation Forums are working with mobile operators, automotive OEMs, aviation OEMs and suppliers, industry associations, and regulatory bodies to accelerate the growth of the smart mobility market by agreeing a common approach to security, regulatory, and infrastructure solutions.

- *Fintech*

The GSMA FinTech Forum is a body that explores key issues, monitors, and guides the developments of Fintech and mobile economy by promoting agile working group opportunities to build and deploy new solutions, and showcase use cases.

Working with the Mobile Industry in China

The GSMA has been engaging with the mobile industry in China to facilitate dialogues and advancing development with the international industry community to support mutual growth. Our work ranges from facilitating the adoption of GSMA's network equipment security assurance scheme (NESAS), supporting the planning of future IMT spectrum, to curating and promoting the industry's best practices.

We broadly focus on the following areas:

- **Communication and Dialogue with Governments:** The GSMA engages closely with Chinese policymakers, such as the Ministry of Industry and Information Technology, Cyberspace Administration of China, and China Academy of Information and Communications Technology, to help policymakers to better understand the challenges that industry faces and to support key growth opportunities that the industry is striving towards. We also work closely especially with the Ministry on spectrum issues, in particular future spectrum issues in relation to updates to ITU's international spectrum treaty.
- **Providing Market Research and Analysis:** The GSMA publishes reports and analysis on the Chinese mobile market, providing insights into key trends and developments. This information is used by mobile operators, vendors, and policymakers to make informed decisions about the future of the mobile industry in China as well as other regions. Some notable publications include:
 - Mobile Economy China series,¹
 - 5G in China: the enterprise story,²
 - Edge computing in the 5G era: Technology and market developments in China,³
 - Impacts of mmWave 5G in China,⁴
 - AI in Network Use Cases in China,⁵
 - 5G Use Cases for Verticals China series,⁶
 - The 6 GHz IMT Ecosystem: Demand Drives Scale,⁷
 - 5G Implementation Guidelines: SA Option 2,⁸
 - GSMA 5G Network Co-construction and Sharing Guide,⁹
 - Consumer Metaverse Opens the Next Era of Consumption,¹⁰

¹ <https://www.gsma.com/mobileeconomy/china/>.

² <https://www.gsma.com/asia-pacific/resources/5g-in-china-the-enterprise-story/>.

³ <https://www.gsma.com/iot/resources/edge-computing-in-the-5g-era-technology-and-market-developments-in-china/>.

⁴ <https://www.gsma.com/spectrum/wp-content/uploads/2020/03/mmWave-5G-Benefits-China-English.pdf>.

⁵ <https://www.gsma.com/greater-china/wp-content/uploads/2019/10/AI-in-Network-Use-Cases-in-China.pdf>.

⁶ <https://www.gsma.com/iot/resources/greater-china-5g-vertical-2022/>.

⁷ <https://www.gsma.com/spectrum/wp-content/uploads/2022/08/6-GHz-IMT-Ecosystem.pdf>.

⁸ <https://www.gsma.com/futurenetworks/wp-content/uploads/2020/06/5G-SA-Option-2-ImplementationGuideline-v1.3.pdf>.

⁹ <https://www.gsma.com/futurenetworks/resources/5g-network-co-construction-and-sharing-guide-whitepaper/>.

¹⁰ <https://www2.deloitte.com/content/dam/Deloitte/cn/Documents/technology-media-telecommunications/deloitte-cn-tmt-consumption-metaverse-opens-the-next-era-of-consumption-zh-220830.pdf>.

- 5G Business Model Innovation and Development Whitepaper,¹¹
 - Unleashing New Value with Innovative 5G Technology.¹²
- **Providing an International Convening Platform:** The GSMA helps the mobile industry in China to showcase their achievements and progress at GSMA's top international convening platforms such as MWC Barcelona, MWC Shanghai, and regional M360 conferences. We also host forums including Post-MWC Sharing, Innovation Forum, and topical workshops and discussions for mobile operators, ecosystem, and policymakers to discuss the latest trends and developments in the mobile industry.
 - **Facilitating Participation in Industry Specifications:** The GSMA develops and promotes industry specifications for mobile technologies and services, such eSIM, NB-IoT, and roaming. This helps to ensure that mobile devices and networks are interoperable and that consumers can benefit from the latest mobile services. We support Chinese stakeholders to better contribute their technologies into the GSMA specification processes and support them to better adopt internationally interoperable frameworks.
 - **Driving Novel Innovations in the Ecosystem:** The GSMA started the 5G Innovation and Investment programme (5G IN) in 2019 in China, which has since expanded and became a global initiative in 2021 that brings together mobile industry players, investors, vertical industries, and governments to accelerate the adoption of 5G in various use cases and sectors, such as smart manufacturing, health care, education, and AI. 5G IN works to help start-ups develop 5G-based solutions, sharing best practices and promoting cooperation. The programme has already brought together more than 300 start-ups, 80+ investors with the mobile industry stakeholders to facilitate the adoption of 5G in the wider ecosystem.

Concluding remarks

China is a prominent and influential player in the global digital economy and the world of telecommunications. China's participation in the global industry is crucial to help ensure its sustainable development, and vice versa. This requires concerted efforts from the GSMA and other international institutions to drive multi-stakeholder dialogues and cooperation to improve understanding and strengthen globalisation. The GSMA looks forward to continuing working with international institutions in China and Chinese stakeholders to support growth and prosperity.

¹¹ <https://www.gsma.com/greater-china/wp-content/uploads/2023/06/5G%E5%95%86%E4%B8%9A%E6%A8%A1%E5%BC%8F%E5%88%9B%E6%96%B0%E5%8F%91%E5%B1%95%E7%99%BD%E7%9A%AE%E4%B9%A6.pdf>.

¹² <https://www.gsma.com/greater-china/resources/unleashing-new-value-with-new-5g-technology/>.

About GSMA

The GSMA is a global organisation that unifies the mobile ecosystem to discover, develop, and deliver innovation foundational to positive business environments and societal change. Its vision is to unlock the full power of connectivity so that people, industry, and society thrive. Representing mobile operators and organisations across the mobile ecosystem and adjacent industries, the GSMA delivers for its members across three broad pillars: Connectivity for Good, Industry Solutions, and Events.



Sihan Bo Chen is Head of Greater China and Head of Asia for GSMA, the world's largest mobile trade association, working closely with governments, mobile industry leaders, and its ecosystem, to encourage industry innovation, promote advanced technologies and business models, and enhance the sustainable growth in the industry. Sihan joined GSMA in 2011 from London then relocated to Hong Kong later that year where she contributed to the development of GSMA in Asia. Sihan also has extensive experience in media, government relationships, and business management in both mainland China and United Kingdom. Sihan holds an MBA degree from the University of Surrey and Bachelor of Arts in Education.

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My Views on China and EU–China Relations



Josep Borrell Fontelles

Abstract China is no longer a simple producer of low-cost goods made with cheap labour. It's a technological powerhouse that has lifted hundreds of millions of people out of poverty. This was made possible by the policy choices of the Chinese authorities in favour of open markets and free trade. However, the world has changed, and the benefits of the economic integration are being re-evaluated as we face emergencies in climate, public health and geopolitics. In this context, we believe that everyone, including China, must exercise more responsibility for security and peace.

Keywords China-EU relations · National security · Globalisation · Trade deficit

My first visit to China was in 1987 when, as Spain's Secretary of State for the Treasury, I came to sign the first agreement on double taxation for our companies. At that time, China was beginning its impressive economic take-off and its opening to the world. I returned in 2006 as President of the European Parliament. It was already another China, the one that was at the heart of the shift in the centre of gravity of the world economy from the Atlantic to the Pacific. It had in the meantime joined the WTO and was emerging as a central player in global economic relations. I had a long conversation with President Hu Jintao, who then invited me to speak at the Chinese Communist Party Leadership School. At that time, China already had a large amount of foreign exchange reserves invested in U.S. government debt. I remember that in my lecture I pointed out that the irony was that the dollar exchange rate depended on the decisions of the Chinese Communist Party. But these decisions were double-edged, because a depreciation of the dollar would automatically reduce the value of these reserves.

Josep Borrell Fontelles, High Representative of the European Union for Foreign Affairs and Security Policy and Vice-President of the European Commission, was scheduled to deliver a speech in person at 11:00 am Beijing Time (GMT+8) on Friday April 14, 2023 at the conference hall of the Center for China and Globalization (CCG). This is the speech text.

J. B. Fontelles (✉)
European Commission, Brussels, Belgium

Later, in 2019, I also visited Beijing as Spain's Foreign Minister, invited to the celebration ceremonies of the “Belt and Road Initiative”. During all this time, China has continued its economic development. It is no longer a simple producer of low-cost goods with cheap labour, but a technological powerhouse that has achieved the historic feat of lifting hundreds of million people out of poverty over the past 50 years. This is a great achievement of mankind and was made possible by the policy choices of the Chinese authorities, being also in favour of open markets and free trade.

The Chinese and US economies have become deeply and increasingly intertwined, as has the European economy. 20% of our imports come from China, which is also the destination of 9% of our exports; our trade represents 2.3 billion euros per day. However, the imbalance is continuously getting bigger, and our trade deficit has doubled in the last two years. This is of course unsustainable and needs to be addressed, principally through the removal of the myriad of market access barriers that European companies still face in China. As the president of the European Commission said in Beijing only a week ago, we need transparency, reciprocity. In short, a level playing field.

The World Has Changed and so Has China

However, since then, the world has changed and so has China. The time of the “*mondialisation heureuse*” is over. The benefits of the economic integration are being re-evaluated through the lens of national security. We have to face the climate emergency, the consequences of the pandemic, and Russia’s war of aggression against Ukraine. This war has fuelled shocks on supply chains, and a food and energy crisis. In this context, we believe that China must exercise more responsibility, also for security and peace. It cannot avoid this. If we want an international order where cooperation prevails over confrontation, everyone must fully exercise their responsibilities to ensure respect for international law.

I strongly believe in the importance of public diplomacy, in personal and human exchanges and that both sides gain from knowing each other better. This is why cultural and personal exchanges between Europe and China must be resumed as soon as possible after three years of interruption. The primary foundation of our relations should be mutual knowledge and respect. The COVID-19 crisis and recent international tensions have widened the knowledge gap between Europe and China. We must work together to reduce this gap.

I know that the functioning of the EU, which is a kind of confederation of states, may seem complex. However, when it comes to foreign and security policy it is based on simple principles. The European Council, which brings together the heads of state and government of the member states, defines the strategic choices of the Union, The ministers and the European Commission implement them and the European Parliament monitors its activity.

In this system, the member states retain responsibility for their foreign and security policy. My role as High Representative is to build a common policy, which becomes the external policy of the Union, whether it is in relation to China or any other country, and to represent it in the world at ministerial level.

All this may seem complex. But this complexity has an advantage of creating a supranational and democratic European system that has ensured peace and prosperity among Europeans. And this is what counts.

In the face of the recent extreme challenges, the EU has been able to show remarkable unity in its foreign and security policy. As a response to the Russian aggression against Ukraine, it immediately took ground-breaking initiatives in record time, providing military and financial support to Ukraine and adopting ten packages of sanctions against the Russian war machine.

How Do We See China?

The EU's current position on China, endorsed by the European Council in 2020, is based on the known triptych: partner, competitor and systemic rival. A lot has happened since then. Bilateral relations between the EU and China have deteriorated in recent years, due to a growing number of irritants (like China's disproportionate response to EU's targeted restricted measures, China's trade measures against Lithuania, with a direct impact on our EU single market, and China's position on the war against Ukraine). But at the same time, we have remained committed to engagement and cooperation and recognise China's crucial role in solving global and regional problems. On climate change, for example, despite China's growing efforts in the fight against CO₂ emissions, China still burns as much coal as the rest of the world combined. There is no chance of finding a solution to global warming without a strong partnership with and engagement of China.

Having said that, I will come to my main point. And this comes down to two fundamental questions: how do we see China? And under what conditions can we learn to work together?

How do we see China? We see it as a power with a large population, the rise of which is part of the long history of humanity—with an average annual GDP growth rate of 9% over the last fifty years and a massive eradication of poverty.

However, we know from experience that as soon as a country achieves economic power it also naturally wants to project itself on political and strategic levels. If China has made great progress, it is thanks to its industrious and creative people, but it would not have happened without the introduction of market principles, the economic opening and the existence of an open multilateral system guaranteed by rules such as those of the World Trade Organization.

It is in the interest of all of us to respect these rules. But it is also in our interest to update them. Because between the beginning of the 2000s and today the world has undergone fundamental changes. Many issues as important as export subsidies,

energy transition, digitalisation, cyber security or intellectual property protection, which were not as pressing at the time, have become so since then.

And in this new world there are new powers emerging. They demand their place in the world order. We must accept the reality of the advent of a more multipolar world, in which claims with often different and sometimes divergent meanings are expressed. This reality is therefore imposed on us as on others, including of course China.

The Need to Reduce Imbalances

We do not fear China's rise. However, we know that the history of tomorrow's world will also depend on how China uses its power. We do not fear the changing world. While we are aware of the new realities, as Europeans we also have important political, industrial, scientific and cultural assets. Our normative influence is strong and often original. Our social and political model reflects this originality and strength. It does not blindly trust either the market or the state. It always strives to combine market efficiency with individual protection, good governance and political pluralism. In addition, there is indeed a European voice and a European way. In this, what remains vital is that we all respect the core rules and norms of the international system to which we belong.

As I said, China and the EU have strong economic relations, especially as pertains to trade. The total amount of our trade has reached nearly 850 billion euros in 2022. But these exchanges are increasingly unbalanced to our disadvantage. Our trade deficit has reached a record of 400 billion euros, or 2.3% of our GDP.

This imbalance must therefore be reduced. It must also be addressed by allowing much better access to the Chinese market for Europeans. We all have an interest in maintaining an open system. If imbalances are not corrected, we have to react. Europe will remain the most open major market in the world, but we will not hesitate to take measures to protect ourselves against practices that we consider unfair. Neither will we permit harmful activities that place at risk the national security of our member states.

The weaponisation of technology and interdependence is a reality to which we have become very sensitive. The pandemic and the Russian energy blackmail have taught us that we cannot be dependent on a single country. We know, for example, that we depend excessively on certain countries, including China, for certain raw materials such as cobalt, manganese or magnesium. In the end, our real dependence stems from the integration of these products in manufactured imports. Hence, the need to diversify our value chains because the strategic importance of a product does not only depend on the place where it is produced, but also on the place where it is refined or manufactured. We must also prevent our sensitive technologies from being used for military purposes.

Our ability to quickly get rid of our energy dependence from Russia shows that we are able to react quickly and strongly when our vital interests are threatened.

We have done this successfully, something Russia thought was impossible. We have diversified our supplies, reduced our consumption, increased the share of renewables and supported Ukraine. Europe is not threatening anyone. But it will not let anyone intimidate it.

As agreed by the European leaders at the informal Summit of Versailles in March 2022, Europe must now assume its responsibilities in all areas in order to assert its sovereignty by increasing its defence capabilities, reducing its dependencies and designing a new model of growth and investment by 2030.

You can call it as you prefer: increasing our strategic autonomy or de-risking, but it all comes down to the same thing. But let me emphasize that these measures that we are adopting to defend ourselves are not directed against a country and are compatible with WTO rules.

Work Together for the Common Good

I also believe that there is a multilateral space in which the European Union and China can manage to work together for the common good. For instance with the agreement of the Kunming Montreal Framework to protect biodiversity and terrestrial and maritime ecosystems, or with regard to tackling the excessive debt of the least developed countries in the framework of the G20 Debt Service Suspension Initiative. This will also be the case with the draft international treaty on pandemics proposed by the European Union. And above all we need to work together on the crucial issue of climate change, where we do need a higher level of ambition on China's side to progress. Working together concretely to tackle such global issues is one important way to restore the trust that has been eroded between us.

But this trust will only return if we manage to understand each other on major international political issues and make progress towards a peaceful resolution of conflicts. I know that from China's point of view, a key issue is Taiwan. I am fully aware of this. On this subject, China should know that the European Union's position is consistent and clear. It has not changed. We remain fundamentally committed to the EU's One China Policy and see no reason to question it. We must lower the tension; avoid verbal outbursts or provocations that can only fuel mistrust. However, any attempt to change the status quo by force would be unacceptable.

For our part, we have a major security concern—Ukraine. The sovereignty and territorial integrity of a European country has been brutally and flagrantly violated by Russia. It has been condemned by 141 member states of the United Nations, which shows how Russia has seriously damaged the international order.

I am not here to give lessons or advice to China. I have too much respect for its independence and sovereignty. However, I would like to say this in all friendship: it will be extremely difficult, if not impossible, for the European Union to maintain a relationship of trust with China, which I would like to see, if China does not contribute to the search for a political solution based on Russia's withdrawal from the Ukrainian territory. Neutrality in the face of the violation of international law is not credible.

We do not ask anyone to align with our own position. We simply ask to admit and recognise that in this case there was a serious violation of international law. This is why I believe that it would be helpful if President Xi spoke to President Zelenskiy, and if China provided more substantial humanitarian aid to the battered Ukrainian people.

Take on Responsibility and Help Russia to Listen to Reason

Russia is in great difficulty. The lightning war that Putin imagined has ended in failure. And because it is in trouble, it obviously wants to involve China on its side. Right after promising China not to deploy nuclear weapons outside their territory, it announced that it would do so in Belarus, increasing nuclear risk. China rejects the bloc mentality. So do we. This is why we will be particularly attentive to any steps that China might take to finally make the Russian leaders listen to reason. As a permanent member of the UN Security Council, China has major responsibilities. We hope that it will take on more of them, as it has for instance done in the Middle East by facilitating the re-establishment of diplomatic relations between Saudi Arabia and Iran.

Europe is defending Ukraine and prepares to welcome it one day in its family. But today, Europe's security is also at stake in Ukraine. This is why we will continue supporting Ukraine in every conceivable way: militarily, financially, politically, diplomatically and humanitarian. Our support is in no way the expression of a form of allegiance or submission to another great power, as I hear some say, but the expression of our own will. Please, understand this. It is our own destiny we are fighting for.

Come to Europe, you will see how much spontaneous support there is for Ukraine and its people. The area around my home in Madrid is surrounded by Ukrainian flags. It was not the government that demanded this. It is the people and the municipalities that have spontaneously mobilised alongside the Ukrainian people.

For Us, Human Rights Are Universal and Should Be Respected Everywhere

There is not enough space to discuss here in detail all the relevant issues, some of which bring us together and some that separate us. The issue of human rights, for example. We have deep and serious differences here. We must not hide this fact. However, this is also why we must speak frankly, calmly and resolutely. We have resumed the dialogue on human rights between the EU and China after a four-year interruption. For us, human rights are universal and should be respected everywhere.



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Why African Countries Have and Will Continue to Look to China for Global Governance Reform



Hannah Ryder, Jing Cai, and Huiyi Chen

Abstract Global South cooperation and Africa's relationship with China have created a great deal of discussion, but there is a gap in the understanding from Africa's perspective. This chapter seeks to explain collaboration between African countries and China on multilateral reform from an African perspective—and thereby answering several key questions including UN reform, global financial architecture, G20 membership and the relationship between global trade and climate change. African countries have successfully leveraged their relationship with China to secure global governance and multilateral reform and can do even more to realize sustainable and inclusive growth globally, producing huge wins in terms of global governance reform.

Keywords China-Africa relations · Multilateral global governance reform · Climate change response · Financial architecture · FOCAC

There is no doubt that the relationship between China and African countries has been primarily centered around economic development and cooperation, based on aspirations from the Chinese side as well as from the African side.¹ The mutual interest is particularly obvious considering the African Union's "Agenda 2063" development plan. Under this plan, including 15 flagship projects and six major policy frameworks, the continent has developed the now operational African Continental Free Trade Area (AfCFTA)—the world's largest free trade area by membership—and aims for monetary union, as well as various infrastructural, policy, and cultural integration. With a growing population, estimated to reach 2.5 billion by 2050, Agenda 2063 envisions the continent taking over from China to become the world's hub for manufactured goods, albeit with a greener hue, and shifting from the world's 8th largest economy to

¹ Development Reimagined (2021). *From China-Africa to Africa-China; A Blueprint for a Green and Inclusive Continent Wide African Strategy towards China*, available at <https://developmentreimagined.com/portfolio-posts/china-africa-to-africa-china/>.

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the third largest economy overall.² From the Chinese perspective, African countries are ideal destinations for offshoring some labor-intensive manufacturing,³ as well as offering new consumer markets.

Hence, it is easy to trace the increase in economic and development cooperation between African countries and China, in particular since the establishment of the Forum of China Africa Cooperation (FOCAC) in 2000 at the request of African governments.⁴

At the same time, the relationship between Africa and China is not solely driven by economic factors. For instance, many commentators point to China's geopolitical imperatives for engagement with Africa. Senior Fellow at the National Bureau of Asian Research Nadege Rolland in 2021 published a report on China's "new great game"—which, in her words: "*seeks to outflank the U.S. by mobilizing African endorsement of China's distinctive institutions and governing ideology.*".⁵ Other analysis points to China's ambitions to change global governance institutions such as the IMF and the WTO⁶ (although such analysis is invariably unclear in what direction!), as well as African countries "siding" with China in various UN forums.⁷ Similarly, Stephen M. Walt has suggested that "no single power can write and enforce all the rules of an order"; therefore, if China has ambitions to take the lead in reshaping the global governance institutions, that critically depends on enlisting the support from the Global South.

However, little to no analysis has been conducted on this question from an African perspective. Yet this perspective is incredibly pertinent. Are African countries themselves interested in leveraging their relationship with China to secure global governance and multilateral reform? Is this leveraging taking place and is it supporting

² Hannah Ryder (2022). *Africans Need More Seats at the Tables of Power*. Available at: <https://foreignpolicy.com/2022/02/07/african-union-multilaterals-more-representation-g20/>.

³ Davies, M. (2015) *What China's economic shift means for Africa*, World Economic Forum. Available at: <https://www.weforum.org/agenda/2015/03/what-the-shift-in-chinas-economy-means-for-africa/>.

⁴ Secretariat of the Chinese Follow-up Committee of the Forum on China-Africa Cooperation. *FOCAC Mechanisms*, Available at: <http://www.focac.org/chn/ltpj/ltpjz/>; Zeng Aiping & Shu Zhan (2018). *Origin, Achievements, and Prospects of the Forum on China-Africa Cooperation*. Available at: http://www.focac.org/eng/lhyj_1/yjcg/201810/P020210830627854979477.pdf.

⁵ Nadège Rolland (2021). *A New Great Game? Situating Africa in China's Strategic Thinking*. Available at: <https://www.nbr.org/publication/a-new-great-game-situating-africa-in-chinas-strategic-thinking/>.

⁶ Victor Shih (2022), *How China would like to reshape international economic institutions*. Available at <https://www.atlanticcouncil.org/in-depth-research-reports/report/how-china-would-like-to-reshape-international-economic-institutions/>; Yong Wang (2019), *China's New Concept of Global Governance and Action Plan for International Cooperation*. Available at: <https://www.cigionline.org/publications/chinas-new-concept-global-governance-and-action-plan-international-cooperation/>.

⁷ Dickens Olewe (2021). *Why African countries back China on human rights*. Available at: <https://www.bbc.co.uk/news/world-africa-56717986>.

⁸ Stephen M. Walt (2021). *China Wants a 'Rules-Based International Order,' Too*. Available at: <https://foreignpolicy.com/2021/03/31/china-wants-a-rules-based-international-order-too/>.

African development ambitions? And could this leveraging strengthen or reduce in future? This chapter seeks to fill this major gap in the literature by explaining collaboration between African countries and China on multilateral reform from an African perspective—and thereby answering these key questions.

Are African Countries Interested in Securing Global Governance and Multilateral Reform?

It is certain that African countries have been interested in securing massive global governance and multilateral reform, especially since their independence. The areas of reform they have been pursuing for years fall generally into three categories: (1) reform of the UN Security Council and other UN organs; (2) reform of the international financial architecture (for both public and private sources of finance); (3) reform of the global trade and climate change response architecture (for both goods and services).

African positions on each of these is explained in turn below.

With regard to **reform of the UN**, and especially the Security Council (SC), the African perspective must be distinguished from China—as China is one of five permanent members with veto power, while Africa currently has no permanent seats, and only three non-permanent seats. At the same time, African countries and China regularly coordinate their views and positions on other UN organs such as the General Assembly, the Economic and Social Council, and the work of UN agencies, especially through the G77 + China mechanism.⁹

The case for reform of the SC from an African perspective is very clear. Back in 1945 four out of the five permanent members of the SC were colonial powers. At the time, including their empires in Africa and other regions, they accounted for 10% of UN member states and over 50% of the world's population. Yet, since then, it is well acknowledged that the P5 have failed to demonstrate responsibility and capacity of working collaboratively to deliver global peace as well as distribute economic benefits to the rest of the world.¹⁰ Furthermore, the P5 now account for just 26 percent of the world's population, and just three percent of UN member states. Thus, there is today a very clear African position—the Ezulwini Consensus, agreed in 2005, which enumerates what African leaders believe is “full representation” of Africa, in line with other proposals for expansion of the Council: two permanent seats with veto power, plus five no-permanent seats. Other ideas for SC reform have also

⁹ UNECA (2024). A unified voice of the G77 plus China important at a time of multiple crises, says ECA's Claver Gatete. Available at: <https://www.uneca.org/stories/a-unified-voice-of-the-g77-plus-china-important-at-a-time-of-multiple-crises%2C-says-eca%20%99s>.

¹⁰ Hannah Ryder, Anna Baisch and Owigwe Eguegu (2020). *Decolonizing the United Nations Means Abolishing the Permanent Five*. Available at: https://foreignpolicy.com/2020/09/17/decolonizing-united-nations-means-abolish-permanent-five-security-council/#cookie_message_anchor.

been proposed, such as removing the permanency and veto power of all SC members completely,¹¹ but African leaders have so far maintained the Ezulwini Consensus.

When it comes to reform of the **international financial architecture**, many aspects of the African position have been very longstanding, and others developed more recently.

The most longstanding relates to the Bretton Woods Institutions—the IMF and World Bank. Only three African countries were independent, founding members of these institutions in 1944, and therefore although the African region now accounts for a major share of the World Bank in particular's operations, African governments had a minimal say in their rules and procedures, which have hardly shifted over the last close to 80 years. Most African governments believe the institutions are overly creditor-driven,¹² and this is the cause of their “disastrous” impact on the continent, especially the Structural Adjustment policy prescriptions in the 1980s and 1990s.¹³ China, unlike many African countries, was able to avoid seeking loans from the IMF during this period and therefore escaped these prescriptions. Furthermore, many African nations remain in need of external concessional finance. Hence, views on international financial reform by African leaders are complex and range considerably from the very broad—for example, related to increasing African decision-making representation and shareholding of the institutions,¹⁴ to the very specific—for example, changes to the surveillance mechanisms or interest rates charged on loans from the institutions.¹⁵

Beyond this, African leaders are not just focused on reform of financial institutions. They are also interested in reform of international financial architecture as it relates to private sources of finance, for example, globally applied taxation of multi-national companies that could provide new sources of external finance, or ending the monopoly of the dollar and SWIFT on currency exchange (for example, by introducing a new Pan-African payments system¹⁶), or reducing ties to the French currency and central banking system (for several former French colonies), as well as, for instance, the role of credit ratings agencies in driving (or not) foreign direct investment flows to African countries.

¹¹ Ibid.

¹² Attracta Mooney (2023). *Kenyan leader says World Bank and IMF are ‘hostage’ to rich nations*. Available at: <https://www.ft.com/content/df7f68b1-8362-4895-9d24-c8483a9c2ee5>.

¹³ Demba Moussa Dembele (2005). *The International Monetary Fund and World Bank in Africa: A “Disastrous” Record*. Available at: <https://www.jstor.org/stable/45138307>.

¹⁴ African Union Commission (2024). *Presidential Dialogue on African Union Financial Institutions; Reforms of the Global Financial Architecture; and the Launch of the Africa Club*. Available at <https://au.int/en/newsevents/20240217/presidential-dialogue-african-union-financial-institutions-reforms-global>.

¹⁵ Ivory Kairo (2023). *Beyond soft loans: Why international financial reform is essential for developing countries*. <https://venturesafrica.com/beyond-soft-loans-why-international-financial-reform-is-essential-for-developing-countries/>.

¹⁶ Afreximbank (2022). *Pan-African Payment and Settlement System Launched by President Akufo-Addo Foreseeing \$5 billion Annual Savings for Africa*. Available at <https://www.afreximbank.com/pan-african-payment-and-settlement-system-launched-by-president-akufo-addo-for-eseeing-5-billion-annual-savings-for-africa/>.

Several African leaders, in particular Senegal's President Macky Sall, believe that a key route to African-friendly reform of the international financial architecture is through **membership of the G20**, formed in 2009.¹⁷ The G20 can be thought of as the economic and financial version of the world's Security Council. Sall and other African leaders argue that the African Union should be a permanent member of the G20 in exactly the same way as the European Union has been since its founding.¹⁸

Similar considerations apply with respect to membership of other plurilateral groups such as the BRICS, as well as regional banks such as the African Development Bank (AfDB), the Asian Infrastructure Investment Bank (AIIB), and the New Development Bank (NDB). The ultimate African ambition is for the creation of an African Monetary Fund (Africa is the only region globally that does not have one), as well as an African Investment Bank and African Central Bank.

Given this reasoning, although China has a relatively lower dependence on the international financial architecture, as well as prior practical experience, for example, in setting up and regulating its own credit ratings agencies¹⁹ and SWIFT alternatives,²⁰ China's interests in reform of the international financial architecture may not particularly differ from African interests.

Last but not least, African governments have been pursuing reform of the **global trade and climate change response architecture** for decades. While much of the fundamental trade architecture was set up while African countries were colonies, first via the General Agreement on Trade (GATT) and then the World Trade Organization (WTO) in 1995, in fact most African countries joined the WTO before China, which only joined in 2001.²¹ Arguably, African countries have had more of a say in the design of the climate response architecture through the UN Framework Convention on Climate Change (UNFCCC), which was officially created in Berlin in 1995. However, some of the operational principles on climate action, supported by both African countries and China, such as "Common But Differentiated Responsibilities (CBDR)" was agreed earlier, at the 1992 Earth Summit in Rio. The kinds of reforms African countries tend to push in both trade and climate change forums are similar, for example, in more surveillance of and penalties for continued agricultural

¹⁷ Macky Sall (2022). *Opinion: A seat for Africa at the G-20—integrating the African Union*. Available at <https://www.devex.com/news/opinion-a-seat-for-africa-at-the-g-20-integrating-the-african-union-103664>.

¹⁸ Development Reimagined (2023). *Policy Brief: African Priorities for the G21 in 2024*. Available at: <https://developmentreimagined.com/policy-brief-african-priorities-for-the-g21/>.

¹⁹ Frank Tang (2021). *China pushes ahead with reform of credit rating sector in campaign to cut financial risk*. Available at: <https://www.scmp.com/economy/china-economy/article/3144814/china-pushes-ahead-reform-credit-rating-sector-campaign-cut>.

²⁰ Frank Tang (2022). *Explainer | What is China's Swift equivalent and could it help Beijing reduce reliance on the US dollar?* Available at: <https://www.scmp.com/economy/china-economy/article/3168684/what-chinas-swift-equivalent-and-could-it-help-beijing-reduce>.

²¹ Hannah Ryder (2024). *It's time for African countries to shape the WTO, not just sit in it*. Available at: <https://african.business/2024/01/trade-investment/its-time-for-african-countries-to-shape-the-wto-not-just-sit-in-it>.

or fossil-fuel subsidies by richer countries, which African leaders argue are distortionary and therefore impact their own potential to, for instance, scale up agricultural production.²² Over time, little substantive reform has been achieved in these areas—for example significant negotiations on agricultural subsidies have been in deadlock since 2001.²³ While many years ago the Chinese economy was structured in such a way that meant its interests were more aligned with African nations today, the fact that China is today the world's largest manufacturer of traded goods, has grown its services economy rapidly and is one of the world's largest polluters, means African and Chinese positions on governance of trade and climate action have the potential to differ significantly.

But do they differ? Are African countries managing to bring China into their vision for global governance reform in all three areas, or are African governments instead being led towards a Chinese vision of global governance reform?

Are African Countries Leveraging China to Support Their Vision for Global Governance and Multilateral Reform?

The best means and evidence to review whether African countries are leveraging their relationship with China to support their vision for global governance and multilateral reform is FOCAC documents themselves, which go back to 2000, as well as relevant speeches by African and Chinese leaders.

Indeed, language on global governance reform has been included in all outcome documents from FOCAC 1 in 2000 onwards (see Annex 1 for a compilation). The length of the joint commitments has changed over the period up to 2021, with 2012 and 2021 itself being the most detailed set of commitments. The subjects of the commitments have also changed over time, and in some cases, it is made explicit that China “supports African countries” and vice versa.

It is also possible to analyse the transitions that have been seen in the three areas of multilateral reform, as a means to assess to what degree African governments have been able to influence the Chinese government to support their positions over time.

²² Heinz Strubenhoff (2016). *The WTO's decision to end agricultural export subsidies is good news for farmers and consumers*. <https://www.brookings.edu/articles/the-wtos-decision-to-end-agricultural-export-subsidies-is-good-news-for-farmers-and-consumers/>; UNDP (2021). *UNDP: More spent on fossil fuel subsidies than fighting poverty*. Available at: <https://www.un.org/africarenewal/magazine/november-2021/undp-more-spent-fossil-fuel-subsidies-fighting-poverty>.

²³ Beginda Pakpahan (2012). *Deadlock in the WTO: What is next?* Available at: https://www.wto.org/english/forums_e/public_forum12_e/art_pf12_e/art19.htm.

Reform of the UN

A general thread in the language from FOCAC 1 through to FOCAC 8 is a commitment to maintain close communication through various frameworks, including the G77 + China mechanism, the ECOSOC, and the Second Committee of the UNGA.

And while FOCACs in 2000,²⁴ 2009,²⁵ and 2012²⁶ made direct reference to increasing African representation at the UN Security Council—in between and since then all other FOCACs have been much broader, for example in 2003 indicating that China will “support proposals and positions of the African Union”. In some ways, 2021 may have been the weakest reference to this issue, with no specific SC references at all.

In place, non-traditional security issues such as natural disasters, refugees and displaced persons, illegal migration, transnational crimes and drug smuggling were addressed for the first time in 2006.²⁷ FOCAC 8 also saw new references to China actively participating in UN peacekeeping missions in Africa, exchanging ideas and skills on peacekeeping policies, and supporting Africa’s independent capacity building for peacekeeping missions.

Furthermore, in recent years, China has increasingly taken peace and security initiatives in Africa outside of the UN framework. In January 2022, China proposed the Initiative of Peaceful Development in the Horn of Africa (HOA) and sent a special peace and security envoy to HOA. In June 2022, the first China-HOA Peace Conference took place in Addis Ababa, Ethiopia, as a collaborative regional event between China and the HOA nations.

Have these actions by China been requested by African countries as an alternative to what they feel is a dysfunctional and unrepresentative peace and security architecture? It’s possible. Our discussions with African Ambassadors in China suggest this as well as an accompanying view that China is a relatively more “neutral” member of the SC to engage directly with. However, notably, there has never been an explicit agreement by China to the 2005 Ezulwini Consensus in FOCAC or elsewhere.

²⁴ Secretariat of the Chinese Follow-up Committee of the Forum on China-Africa Cooperation (2000) *Programme for China-Africa Cooperation in economic and social development*. Available at: http://www.focac.org/eng/zjwx_1/zjwj/200909/t20090925_8079753.htm.

²⁵ Secretariat of the Chinese Follow-up Committee of the Forum on China-Africa Cooperation (2003) *Forum on China-Africa Cooperation-Addis Ababa Action Plan, Forum on China-Africa Cooperation-Addis Ababa Action Plan (full text)*. Available at: http://www.focac.org/eng/zjwx_1/zjwj/200909/t20090925_7933568.htm.

²⁶ Secretariat of the Chinese Follow-up Committee of the Forum on China-Africa Cooperation (2000) *Programme for China-Africa Cooperation in economic and social development*. Available at: http://www.focac.org/eng/zjwx_1/zjwj/200909/t20090925_8079753.htm.

²⁷ Secretariat of the Chinese Follow-up Committee of the Forum on China-Africa Cooperation (2006) *Forum on China-Africa cooperation Beijing Action Plan (2007–2009)*. Available at: http://www.focac.org/eng/zjwx_1/zjwj/200611/t20061116_7933564.htm.

Reform of the International Financial Architecture

Reform of the international financial architecture has been regularly raised in FOCAC, with increasing ambition and clarity over time. At FOCAC 1 and 2, the establishment of the “World Solidarity Fund” falls under this category, although that fund has not made particular impact. By 2009—the very same year the G20 was created—at FOCAC, African representatives were already getting China behind their push for the enlargement of the G20 and other international economic mechanisms, stressing the need for balanced representation of African nations in existing mechanisms.²⁸ This was reiterated in all subsequent FOCACs, and in 2021 China became the first country at the Heads of State level to explicitly support the renewed push for the African Union’s permanent membership in the G20.

The 2009 and 2012 FOCAC documents were a step forward in the breadth of the reform in the international financial system called for. The documents had language around aiming to enhance the representation and decision-making power of African countries, and also included specific calls around debt relief for African nations. In line with this, China has itself continued to provide varying degrees of debt relief on its existing lending to African countries, some of which has been announced during FOCAC meetings but also outside by recipient countries.²⁹ During the COVID-19 pandemic, China supported the G20’s Debt Service Suspension Initiative (DSSI)—which African leaders, amongst others, had called for and highlighted the need to suspend debt servicing to multilateral, bilateral, and private lenders for maximum effectiveness.³⁰

The most detailed support for Africa’s position on reform of international financial institutions was during the 2021 FOCAC 8 with China’s commitment to allocate 10 billion US dollars from its share of the IMF’s new allocation of Special Drawing Rights (SDR) to African countries to support with economic recovery—SDRs being a key IMF tool. The FOCAC 8 declaration also included a call on the IMF and World Bank to adapt their lending approval procedures to better support efficient access to development financing for African countries.³¹

²⁸ Secretariat of the Chinese Follow-up Committee of the Forum on China-Africa Cooperation (2009) *Forum on China-Africa Cooperation Sharm El Sheikh Action Plan (2010–2012)*. Available at: http://www.focac.org/eng/zjwx_1/zjwj/200911/t20091112_7933571.htm.

²⁹ Development Reimagined (2019). *China’s Debt Relief along the Belt and Road—What’s the Story?* <https://developmentreimagined.com/chinas-debt-relief-along-the-belt-and-road-whats-the-story/>.

³⁰ Etsehiwot Kebret and Hannah Ryder. (2023) *China’s debt relief position is actually reasonable*. Available at: <https://thediplomat.com/2023/02/chinas-debt-relief-position-is-actually-reasonable/>.

³¹ Ibid.

Reform of the Global Trade and Climate Change Response Architecture

The first FOCAC was held when China was still negotiating its entry into the WTO, and five years after the first UNFCCC COP in Berlin. Hence, in FOCAC 1 there are general references to WTO as well as other UN trade mechanisms such as UNCTAD, and climate only comes into the FOCAC framework in 2009 (FOCAC 4). Fairly clear positions in these areas are articulated up to 2012, including with respect to China itself “upholding” the systems by delivering for African countries in these areas, even if the formal international institutional frameworks do not explicitly compel China to do so.

For instance, having acceded to the WTO successfully, China pledged in 2003 to increase consultations and cooperation with African countries in international organizations, including supporting African countries not yet members of the WTO.³² China also itself promised special treatment for developing members and to support necessary reforms to safeguard the development rights of African countries. In subsequent FOCAC meetings, the focus was on the Doha Round of negotiations, with a call for special and differential treatment for developing countries and addressing the specific concerns of Small and Vulnerable Economies.³³

Similarly, in 2009, China stressed the importance of addressing climate change within the framework of sustainable development through the UNFCCC and its Kyoto Protocol. It also supported Africa’s legitimate demands for more financial support and technological transfer from developed countries to adapt to climate change, while emphasizing that combating climate change should not reduce attention to Africa’s development process.³⁴

However, in both 2015 and 2018, only very broad references are made with a return to more detail in the 2021 FOCAC,³⁵ including a separate Declaration on China-Africa Cooperation to Combat Climate Change that reiterated Chinese and African commitments to the UNFCCC, the Kyoto Protocol, and the 2015 Paris Agreement,

³² Secretariat of the Chinese Follow-up Committee of the Forum on China-Africa Cooperation (2003) *Forum on China-Africa Cooperation-Addis Ababa Action Plan, Forum on China-Africa Cooperation-Addis Ababa Action Plan (full text)*. Available at: http://www.focac.org/eng/zjwx_1/zjwj/200909/t20090925_7933568.htm.

³³ Secretariat of the Chinese Follow-up Committee of the Forum on China-Africa Cooperation (2006) *Forum on China-Africa cooperation Beijing Action Plan (2007–2009)*. Available at: http://www.focac.org/eng/zjwx_1/zjwj/200611/20061116_7933564.htm.

³⁴ Secretariat of the Chinese Follow-up Committee of the Forum on China-Africa Cooperation (2009) *Forum on China-Africa Cooperation Sharm El Sheikh Action Plan (2010–2012)*. Available at: http://www.focac.org/eng/zjwx_1/zjwj/200911/20091112_7933571.htm.

³⁵ Secretariat of the Chinese Follow-up Committee of the Forum on China-Africa Cooperation (2021) *Forum on China-Africa cooperation Dakar Action Plan (2022–2024)*. Available at: http://www.focac.org/eng/zjwx_1/zjwj/202201/20220124_10632444.htm.

and urged the international community to support Egypt's hosting of COP27 for Africa.³⁶

The revival of China's engagement on these areas in 2021 was also made clear outside of FOCAC, as evidenced by China's support for India and South Africa's proposal to the WTO for a temporary TRIPS waiver for COVID-19 vaccines in October 2021, ensuring equal access to life-saving vaccines and therapeutics for people living in developing countries.

On the other hand, some gaps remained in 2021. For instance, on the climate agenda the language of "just transition" for Africa to expand energy access while deploying a low-carbon trajectory was missing from FOCAC 8 declarations,³⁷ despite it being a strong, albeit emerging African position at the time.³⁸

How Are African Countries Leveraging China to Support Global Governance Reform?

Overall, the evidence suggests that African countries are doing a good job at bringing China into their vision for global governance reform in all three areas, although there remain significant gaps (e.g. "just transition"), and while at no point has China ever gone against African positions on global governance reform, in several periods China's explicit support for African views has been weaker and broader than other periods. It is also clear that 2021 represented a significant uptick in Chinese support for African positions on global governance reform.

What might be the reason for this overall trend of varying support? There are four possible drivers or causes—the "how":

- (1) The clarity of collective African positions on governance has changed;
- (2) African engagement with China to explain collective positions and therefore shape and influence China has changed;
- (3) China's own domestic policies on governance reform have changed over time and sometimes take more prominence over African positions;
- (4) China's understanding of African positions has changed.

Analysts that view China as being in the driver's seat of its engagement with other countries would place the most prominence on potential causes (3) and (4). And they must not be dismissed. For instance, China's Belt and Road Initiative (BRI), announced in 2013, has experienced a flux in its interaction with global institutions.

³⁶ Secretariat of the Chinese Follow-up Committee of the Forum on China-Africa Cooperation (2021) *Forum on China-Africa cooperation Dakar Action Plan (2022–2024)*. Available at: http://www.focac.org/eng/zywx_1/zywj/202201/t20220124_10632444.htm.

³⁷ Development Reimagined (2022). *5 Takeaways from Africa Climate Week 2022*, Available at <https://developmentreimagined.com/5-takeaways-from-africa-climate-week-2022/>.

³⁸ Lauren Ashmore and Yike Fu (2022). *Bolstering Africa's Strategic Climate Change Engagement with China*. Available at: <https://developmentreimagined.com/wp-content/uploads/2022/09/bolstering-africas-strategic-climate-change-engagement-with-china.pdf>.

In 2015, the world agreed on Sustainable Development Goals (SDGs), which means it could be argued that China was strongly focused on its overall positioning on development rather than African development specifically, despite a FOCAC taking place that same year.

With regard to understanding of African countries, although China is a leader in terms of government-to-government engagement with the continent, having since 2007 made over 100 visits to African countries and welcomed over 250 African leaders to China,³⁹ as well as hosting cross-regional FOCAC sessions every three years since 2000, African positions are not well reported in mainstream English and French media sources, and the agenda behind information about African countries presented by the traditional international institutions is often difficult to decipher. The need for translation into Chinese makes this task even more challenging. A good example is the recent framing of Africa's debt accumulation by international financial institutions as a Chinese-instigated "debt diplomacy" agenda. This framing was not only problematic for China's own reputation, but it was problematic from an African perspective as it—in a very colonial manner—castigated African sovereign borrowers as profligate and reckless, while masking the structural problems with the international financial system that simultaneously create higher costs for African countries to borrow while limiting funds available to invest for their future.⁴⁰ It still remains unclear whether Chinese leaders and officials truly understand this issue from an African position. Understanding African positions requires strong intentionality, strong understanding of African history, a strong degree of skepticism of existing "Africa narratives", plus institutional coordination mechanisms within China to make it happen. It seems plausible that such a complex understanding has wavered over a period of 20 or more years.

However, the reality is that a mix of all of these factors is likely to have driven these overall observed trends. And assessing the impact of potential drivers (1) and (2) is equally important.

With regard to (1), it is true that while African collective concerns and positions on global governance have been fairly consistent since independence as set out above, certain issues have taken prominence at different times, and African governments have prioritized detailed positions at different times given their own scarce resources. For instance, while African membership of the G20 was obviously a strong view in 2009, until the Senegalese Presidency of the African Union in 2021 (which incidentally coincided with Senegal's co-chairing of FOCAC) the AU Member States had not agreed an official resolution at Heads of State level on this issue. Many other areas of global governance reform are yet to receive such prominence, even if they can be articulated by certain AU or African government officials in the lead of those areas or issues. The translation into FOCAC and therefore official Chinese government

³⁹ Jade Scarfe and Jing Cai (2021). *Agency, Bargaining Power, and African Leadership Visits to China*. Available at: <https://thediplomat.com/2021/05/agency-bargaining-power-and-african-leader-ship-visits-to-china/>.

⁴⁰ Development Reimagined (2021). *Options for Reimagining Africa's Debt System*. Available at: file:///D:/%E4%B8%8B%E8%BD%BD/Options%20Paper%20-%20English.pdf.

policy therefore also requires a degree of coordination and intentionality, which is hard to maintain consistently, especially when certain international negotiations are not in session.

Similarly with regards to (2), influencing China requires consistent engagement with China to explain collective positions. From our experience working with Chinese policymakers, “*if you don’t ask, you don’t get*”. African policymakers and thought experts must come together to discuss the priorities of engagement with China and put this forward in a strong, demand-driven way. The evidence is clear that China will often reciprocate.

Yet there are two challenges to doing so.

First, Africa consists of 55 independent states with diverse needs and priorities. Some rely on China as a buyer for their commodities as a source of growth, while others rely on Chinese imports and risk inflation because they do not have diversified economic structures that allow for easy manufacturing and jobs for their populations. Many African countries have turned to China because they cannot easily obtain infrastructure and equity financing from elsewhere (e.g., South Sudan, Ethiopia, Zimbabwe for loans and Foreign Direct Investment). Other countries are trying to build a stronger relationship with China in myriads of ways—for instance, countries such as Kenya, Rwanda, Tanzania and Mauritius are hoping to increase Chinese tourism.⁴¹ These—often bilateral and sometimes subregional—are often prioritised versus positions on global governance reform in government-to-government engagement. The exceptions tend to be when an African leader has a prominent position on an international reform issue—for instance trade or finance. That leader will then likely prioritise engagement with China on this issue. The challenge is that African leaders are not often chosen by the international community to take a lead.

The second barrier is coordination. African ambassadors in China play an important role in facilitating cooperation with Beijing. Beijing has the highest number of African ambassadors outside of New York, and the group has over time established a clear structure for coordination amongst themselves for various reasons, including feeding information to FOCAC. The group’s Dean, Regional Deans, the African co-chair of FOCAC (currently Senegal) and the African Union representative in China, all support coordination. The strength of this coordination has varied over time.⁴² What is clear, however, is the strong correlation between the strength of this group and FOCAC outcomes. For instance, many policy-makers and government representatives in Africa were unable to travel to China for pre-FOCAC negotiations during the COVID-19 pandemic. The role of African Ambassadors in China FOCAC 2021 was therefore crucial. Furthermore, independent African organisations such as

⁴¹ Development Reimagined (2021). *From China-Africa to Africa-China: A Blueprint for a Green and Inclusive Continent-Wide African Strategy towards China*. Available at <https://developmentreimagined.com/from-china-africa-to-africa-china-a-blueprint-for-a-green-and-inclusive-continent-wide-african-strategy-towards-china/>.

⁴² Secretariat of the Chinese Follow-up Committee of the Forum on China-Africa Cooperation (2012). *The Fifth Ministerial Conference of the Forum on China-Africa Cooperation Beijing Action Plan (2013–2015)*. Available at: http://www.focac.org.cn/eng/zjwx_1/zwyj/201207/l20120723_8079762.htm.

Development Reimagined have emerged in recent years in China to *inter alia* also support such coordination and information sharing amongst the group of ambassadors, and in particular connecting discussions in Beijing to collective, pan-African positions agreed at the African Union Headquarters in Addis Ababa as well as at the IMF, World Bank, WTO, and so on.⁴³ Hence, also with the setting up of the African Union representative office in late 2018,⁴⁴ it is no surprise that FOCAC 2021 was a major success for global governance issues from an African perspective.

What Is Next for China-Africa Relations in Reimagining the Global Governance System?

So what next? Is it possible to leverage China-Africa engagement under FOCAC to find new approach to global governance? In particular, can and will African countries continue to bring China into its own vision of ambitious global governance reform, particularly in the aforementioned three key areas? As noted above, while at no point has China ever gone against African positions on global governance reform, with the exception of broad language because of a lack of understanding or to avoid explicit disagreement. There are, indeed, some areas where it is plausible that China's own domestic interest in global governance reform may differ from African collective interests—especially in proposals for a significant overhaul of institutional frameworks, such as the UN Security Council, or even in terms of shareholding in Bretton Woods institutions.

Put differently, the current “pro-reform” narrative by China on international organizations may not be sufficient for African countries’ visions of a more inclusive form of global governance. Taking into account China’s unique identity both as a “great power” and the largest “developing country”, which allows it to maneuver between both sides of the table, China has also been on a “multiple track” course: explicitly rejecting the label of “rule-breaker”—even going as far as to voluntarily

⁴³ Development Reimagined (2018). *Event: Development Reimagined Convenes Post-FOCAC Retreat for African Ambassadors Held In Beijing*. Available at: <https://developmentreimagined.com/development-reimagined-convenes-post-focac-retreat-for-african-ambassadors-held-in-beijing/>.

⁴⁴ Xinhua (2018). *AU officially launches representational office in Beijing*. Available at: http://www.xinhuanet.com/english/2018-09/03/c_137439699.htm; Development Reimagined (2022) *ECOWAS roundtable: Regional Infrastructure in West Africa*. Available at: <https://developmentreimagined.com/ecowas-roundtable-regional-infrastructure-in-west-africa/>; Development Reimagined (2022) *African Union and Development Reimagined: Special Dialogue on the African Union’s Program for Infrastructure Development for Africa (PIDA)*. Available at: <https://developmentreimagined.com/african-union-and-development-reimagined-special-dialogue-on-the-african-unions-program-for-infrastructure-development-for-africa-pida/>; Development Reimagined (2022). *Event: SADC Roundtable with China on the AU’s Program For Infrastructure Development For Africa (PIDA)*, Available at: <https://developmentreimagined.com/sub-regional-discussion-for-the-southern-africa-development-community-sadc-and-china-on-regional-infrastructure-projects-under-the-african-unions-program-for-infrastructure-development-for/>.

act even when not compelled to by international law, e.g., in the case of trade preferences or debt relief or climate finance, while backing the existing international institutions where its strategic interests are advanced (such as the Security Council and WTO), while vocal on issues that require power rebalancing (like reforming the IMF quota system). Is this sufficient for African countries? Many of the global governance reforms that align with African development are more detailed than the statement of “mutual support in international affairs”.

At the same time, FOCAC itself, conceptually, fills gaps left by the asymmetric access to resources that prevails in international institutions, which both China and Africa have accused of exclusively prioritizing the interests of a small batch of traditional powers.

The Africa-China relationship is currently presented with a unique opportunity and we have developed two recommendations to promote practical progress in the sphere of global governance and multilateral cooperation.

First, the FOCAC process must continue to provide a safe space for global governance reform issues to be discussed. On the Chinese side, Chinese institutions should be more proactive in seeking and commissioning African think-tanks and other organizations to explain key global governance policy questions in China. These analyses should incorporate the Chinese development outlook and a long-term development vision aligned with the local imperatives in Africa and will provide scope for joint formulation of new ideas and proposals for global governance reform.

Second, while African leaders should be more intentional about discussing global governance positions during their bilateral discussions with China, the successes of the processes leading up to 2021 from the African side should also be built on, to continue to utilize the influence of African ambassadors in China, the African Union Mission in China and the African FOCAC co-chair. Ambassadors and national governments should engage with and find a means to encourage Chinese engagement with pan-African bodies such as the African Union, the AfDB and also the AfCFTA, to empower these continental institutions, as well as African Ministers and officials leading in multilateral institutions (such as the IMF, WTO, etc.), to steer the FOCAC governance agenda.

The fact is, African countries are interested in leveraging their relationship with China to secure global governance and multilateral reform, have been doing so successfully, and can do so even more to realize both Chinese and African ambitious agendas for sustainable and inclusive growth globally. While this will require significant communication and intentionality on both sides, the wins in terms of real global governance reform could be huge.

Annex 1: FOCAC Commitments on Global Governance

	Commitments
FOCAC 1 (2000)	<ul style="list-style-type: none"> • Agreement to shape a new world order that reflects the need of both sides and to create a program for a strategic partnership in sustainable development • Strengthen co-operation and consultation at multilateral fora (UN System, UNCTAD, and the WTO) to safeguard the common interests of the developing countries • Coordinate efforts to reform multilateral economic and trade regimes, strengthen developing countries' bargaining power, and establish a just and equitable new international economic order • Reform of the UN (esp. UNSC) to be geographically representative and recognition of Africa's legitimate place in the Security Council and other UN agencies
FOCAC 2 (2003)	<ul style="list-style-type: none"> • China reaffirms its position and commitment that as a permanent member of the UN Security Council, it will always stand by the African countries at the United Nations and other international fora and support proposals and positions of the African Union • Both sides are resolved to intensify consultations and substantial cooperation between the two sides in the UN system, the World Trade Organization and other international organizations • China pledges to support those African countries that are not yet WTO members in their efforts to join the organization • The Two Sides welcome the adoption by the UN General Assembly during its 57th session of Resolution 57/265 related to the effective and immediate establishment of the "World Solidarity Fund for the Struggle against Poverty"

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	Commitments
FOCAC 3 (2006)	<ul style="list-style-type: none"> • Both sides welcomed the establishment of the Human Rights Council and vowed to cooperate on civil, political, economic, social, and cultural rights, and eliminate double standards and politicization of human rights issues • The two sides vowed to enhance cooperation to resume the Doha Round of negotiations and achieve a balanced package of outcomes. China supported African countries' efforts to join the WTO and called for special and differential treatment for developing members • The two sides pledged to strengthen the role of the UN in promoting development, establishing a progress evaluation framework • Both sides agreed to strengthen counter-terrorism cooperation, condemning terrorism and supporting the UN's role in the fight against terrorism • China welcomed the AU Convention on the Prevention and Combating of Terrorism and the establishment of the African Center for the Study and Research on Terrorism • China and Africa called for increased international cooperation in promoting nuclear disarmament and non-proliferation, with China supporting Africa's efforts towards a nuclear-weapon-free zone on a voluntary basis • China also pledged to support African countries in humanitarian de-mining operations and efforts to combat illicit trade in small arms and light weapons through financial and material assistance and related training • Both sides recognized the new challenge to global peace and security posed by non-traditional security issues such as natural disasters, refugees and displaced persons, illegal migration, transnational crimes, drug smuggling and communicable diseases • The two sides will work to safeguard the fundamental interests of Africa in the UN Security Council. China will enhance cooperation with Africa in the prevention, management and resolution of regional conflicts

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	Commitments
FOCAC 4 (2009)	<ul style="list-style-type: none"> • The African side stressed the urgent need to enlarge the G20 and other existing mechanisms for international economy. The Chinese side expressed its full understanding for this request and stressed that existing mechanisms for international economic order must be balanced to ensure the fair representation of Africa • The two sides reaffirmed their respect for the Charter of the United Nations, the Five Principles of Peaceful Coexistence and other universally recognized norms governing international relations • The two sides will work together to uphold the important role of the United Nations in international affairs and promote multilateralism and democracy in international relations • The two sides supported reform aimed at improving the authority and efficiency of the United Nations. Such reform should be based on democratic consultations and be conducive to upholding solidarity among member states, and should fully accommodate the concerns of developing countries • The two sides reiterated that developing countries should play a greater role in the United Nations, including its Security Council, and priority must be given to increasing the representation of developing countries, particularly African countries, in the Security Council • The two sides stand for reforms in the international financial system, and will work to increase the representation of developing countries and build an international financial system that is fair, just, inclusive and orderly • The two sides call on the international community, developed countries in particular, to promptly deliver their pledges of assistance and debt relief, continue to step up assistance and investment, and help African countries in particular to overcome the difficulties and realize the MDGs at an early date • The two sides stressed the importance of addressing climate change within the framework of sustainable development through the United Nations Framework Convention on Climate Change and its Kyoto Protocol • China supported Africa's legitimate demands for more financial support and technological transfer from developed countries to adapt to climate change, while emphasizing that combating climate change should not reduce attention to Africa's development • The two sides will work together to conclude the Doha round negotiations within 2010, addressing the concerns of developing countries, particularly LDCs, and Small and Vulnerable Economies • Both sides condemn all forms of terrorism and call for international efforts to combat it in accordance with UN Charter and other international norms. We will enhance their cooperation to counter-terrorism and promote international counter-terrorism cooperation

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	Commitments
FOCAC 5 (2012)	<ul style="list-style-type: none"> • The two sides will work together to uphold the purposes and principles of the Charter of the United Nations, the Five Principles of Peaceful Coexistence and other universally recognized norms governing international relations and promote a just and equitable international order • The two sides support the United Nations and multilateralism in international relations, particularly to increase the representation of African countries in the Security Council and other institutions • The two sides are concerned about the impact of the international financial crisis on developing countries, especially the LDCs, and will collaborate to build a fair and well-managed international financial system • Two sides support African representation in international financial institutions and G20 affairs. Africa needs increased representation in existing international economic mechanisms, and China understands and advocates for a more balanced international economic order • The two sides will work to implement the outcomes of the UN High-Level Plenary Meeting on MDGs and the United Nations Conference on Sustainable Development • The two sides will continue cooperation on climate change, calling on the international community to follow the relevant spirit of the United Nations Climate Change Conference in Durban and uphold the United Nations Framework Convention on Climate Change and its Kyoto Protocol. The two sides will urge relevant parties to act on consensus regarding the Durban Platform for Enhanced Action and make a joint effort to advance international cooperation on climate change • The two sides will work together to push WTO Doha Development Round negotiations toward early progress, accommodating the interests and concerns of developing countries, particularly the least developed ones • The two sides will strengthen dialogue and exchanges in the area of human rights • The two sides will strengthen communication and cooperation on fighting all forms of terrorism
FOCAC 6 (2015)	<ul style="list-style-type: none"> • It serves the common interests of China and Africa to strengthen international coordination and to establish a new model of global development that is based on equality, accountability, mutual respect and that is more balanced, stable, inclusive, and harmonious • The two sides are committed to supporting each other in international fora and further strengthen cooperation in areas of trade, finance, environmental protection, peace and security, cultural exchanges, economic and social development and the advancement of human rights, while maintaining the sovereignty to choose their developmental paths

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	Commitments
FOCAC 7 (2018)	<ul style="list-style-type: none"> • China and Africa reaffirm their commitment to mutual support in international affairs, and to the purposes and principles of the UN Charter, multilateralism, the authority of the United Nations, and the important role of the UN in international affairs • The two sides will strengthen coordination and collaboration in the United Nations and other multilateral organizations, and enhance cooperation in trade, finance, environmental protection, peace and security, cultural and people-to-people exchanges, economic and social development and human rights • The two sides will work to make the international order more just and equitable, make economic globalization more open, inclusive, balanced and beneficial to all, and uphold the common interests of developing countries
FOCAC 8 (2021)	<ul style="list-style-type: none"> • The two sides will support each other in international affairs and uphold the UN Charter, multilateralism, and the authority of the UN. Both sides will coordinate and collaborate in areas such as peace, security, and sustainable development to promote equity and justice • China will stay in close communication with African countries under the frameworks of the G77+, the United Nations Economic and Social Council as well as the Second Committee of the United Nations General Assembly, and maintain coordination and cooperation in areas such as poverty reduction, food security, COVID response and vaccines, climate change and green development • The two sides believe that Africa is a major partner for international cooperation, not an arena for big power rivalry, calling on more countries and organizations to join the Initiative on Partnership for Africa's Development. China is prepared for third-party and multi-party cooperation with relevant sides based on mutual partnership • China and Africa will work together to uphold the multilateral trading system with the WTO at its core and foster an open world economy. Both sides support the necessary reform of the WTO and greater liberalization and facilitation of international trade and investment and call for an early resumption of normal functioning of WTO's dispute settlement mechanism and efforts to increase the authority and effectiveness of the multilateral trading system • China supports African countries in implementing the 2030 Agenda for Sustainable Development, and is prepared to use the China-UN Peace and Development Trust Fund and the South-South Cooperation Assistance Fund • China is ready to channel to African countries 10 billion US dollars from its share of the IMF's new allocation of SDR. China calls on the IMF and the World Bank to take into account the new situation and reform their respective lending approval procedures in ways that are more adapted to the reality of African countries • China will continue to offer grants, interest-free loans and concessional loans to Africa. China calls for stronger actions by all relevant parties of the international community to ease the debt burden of African countries • China will exempt African LDCs from debt incurred in the form of interest-free government loans due by the end of 2021 for the least developed countries • Both sides will enhance cooperation under the framework of the UN, actively participate in UN peacekeeping missions in Africa, strengthen exchanges on peacekeeping policies and skills, and support Africa's capacity building for independent peacekeeping missions



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Progress for Children Is Progress for Everyone: Keeping Children at the Front and Centre of International Development



Amakobe Sande

Abstract In a world simultaneously facing multiple crises, children face widening disparities in terms of health, education, nutrition, sanitation and a number of other areas, while millions of children miss out on essential vaccines and live in active conflict zones. UNICEF and China have been working together to reach some of the most vulnerable children in low-income and middle-income countries through South-South cooperation, but all countries have a responsibility to get progress for children back on track and achieve the SDGs. Promoting children's rights and well-being is not separate from the development agenda; it is central to it.

Keywords UNICEF · SDGs · South-south cooperation · Children's rights · Development agenda

The Situation for Children—progress Derailed

Children today are growing up in a world facing interdependent crises: the COVID-19 pandemic with its lost years of learning; conflicts that are becoming more intense and taking a heavier toll on civilians; the devastating impacts of climate change and higher costs of living. The damage is not affecting all girls and boys equally. The marginalized and vulnerable are affected the most and vast disparities in health (including mental health), education, nutrition, water and sanitation and protection services are widening.

Even before the pandemic, around 1 billion girls and boys worldwide—half of them in developing countries—suffered at least one severe deprivation, without minimum levels of access to education, health, housing, nutrition, sanitation or water, or social protection. The pandemic has made this worse. The percentage of children living in multidimensional poverty is estimated to have increased from 46 to 48%

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before COVID-19, to around 52% in 2021. This is equivalent to an estimated increase of 100 million additional children living in poverty compared to 2019.¹

In 2020, over 23 million children missed out on essential vaccines, an increase of nearly 4 million from 2019, and the highest number since 2009. Mental health conditions now affect more than 13% of adolescents aged 10–19 worldwide. Around 50 million children suffer from wasting—the most life-threatening form of malnutrition—and it is estimated that this number increased by 9 million by 2022 due to the pandemic’s impact on children’s diets, the nutrition services they can access, and feeding practices.

At the peak of pandemic-related school closures, more than 1.5 billion students were out of school. Millions of children are either not in school or not learning the basic skills they need to build a better future. Sustainable development goal 4—quality education for all—is off track almost everywhere in the world. Nearly six out of 10 children globally are estimated to be affected by learning poverty—meaning children who cannot read and comprehend a simple text at the age of 10 years old.²

Pandemic-related lockdowns and school closures also made children across the world less safe, leading to higher rates of gender-based violence and violence against children. Services to prevent and respond to violence have been disrupted in 104 countries, where a total of 1.8 billion children live. While spending more time online, children have also been more exposed to inappropriate content and potential predators.³

Globally, nearly one in five children—426 million—live in conflict zones, with conflicts becoming more intense and taking heavier tolls on civilians, and disproportionately affecting children. Women and girls are at the highest risk of conflict-related sexual violence. Around 80% of all humanitarian needs are driven by conflict. More children are displaced than ever before, with 82 million people worldwide forcibly displaced in 2022. The climate change crisis continues to make things worse, and nearly half of the world’s children—approximately 1 billion—live in countries that are at an ‘extremely high risk’ from the impacts of climate change.

These numbers reflect progress for children being knocked off course, with real consequences for the health, education and well-being of children and their families.⁴

¹ Unless otherwise stated, and other than data on SDG 4, all the examples below are from *Preventing a Lost Generation, Urgent Action to Reverse the Devastating Impact of COVID-19 on children and young people*. <https://www.unicef.org/reports/unicef-75-preventing-a-lost-decade>.

² The State of Global Learning Poverty: 2022 by WB, UNICEF, UNESCO and others.

³ UN, “Policy Brief: The Impact of COVID-19 on children.”

⁴ *Preventing a Lost Generation, Urgent Action to Reverse the Devastating Impact of COVID-19 on children and young people*. <https://www.unicef.org/reports/unicef-75-preventing-a-lost-decade>.

Towards Restoration—Mainstreaming Children in the International Development Cooperation Agenda

The need for international development cooperation is not just evident; it is urgent. It is estimated that even in a best-case scenario, it will take seven to eight years to recover and return to pre-COVID-19 rates of child poverty.⁵ All countries have a role to play in working together to achieve this recovery and getting the sustainable development goals back on track.

UNICEF is the United Nations' global custodian for children in the Sustainable Development Agenda (and co-custodian with other UN agencies for a total of 18 global SDG indicators). The SDGs and child rights agenda reinforce each other. All the SDGs affect children, whether the goal relates to poverty (Goal 1), hunger (Goal 2), health (Goal 3), education (Goal 4), gender equality (Goal 5), climate change (Goal 13), violence against children (Goal 16.2) and in partnerships to address the SDGs (goal 17). More than 100 Member States have renewed their commitment to children's rights in the context of implementing the SDGs. An approach to implementing the SDGs that puts children's rights and well-being at the front and centre is not only imperative, it can also catalyse sustainable development by breaking down the transfer of poverty and exclusion from one generation to the next.

Investment in children, including those left behind, has strong spillover effects. Child development and well-being are cross-cutting and encompass several fields, including health, nutrition, water, sanitation and hygiene, child protection and social protection. Studies show that cross-sectoral improvements in these areas can contribute to alleviating multidimensional poverty and promote economic growth. For example, investing in compulsory education can contribute to improved results in nutrition, water safety and child protection.

This is an ambitious agenda. But by working together and ensuring that investments from international development cooperation from China and other countries reach children, we can contribute to the achievement of the SDGs with children at the centre.

The China-UNICEF Partnership

UNICEF works globally with governments and other partners to promote and uphold the rights of children, in line with the Convention on the Rights of the Child. UNICEF and the Government of the People's Republic of China have nearly 44 years of partnership in China, and China ratified the Convention on the Rights of the Child in 1992.

⁵ UNICEF report, *Preventing a Lost Generation, Urgent Action to Reverse the Devastating Impact of COVID-19 on children and young people* available at <https://www.unicef.org/reports/unicef-75-preventing-a-lost-decade>.

In addition to implementing eight successive country programmes of cooperation within the country, UNICEF and the Government of China have been working together to reach some of the most vulnerable children in low-income and middle-income countries through South-South cooperation. This collaboration dates back to 2010 when China hosted the initiative that birthed the *Beijing Declaration on South-South Cooperation for Child Rights in the Asia Pacific Region (2010)* with 28 countries, which focussed on (i) disaster risk reduction; (ii) child protection and welfare systems; and (iii) ensuring that economic and social development is equitable and reaches all children.

China, in cooperation with UNICEF, has been providing support through its Global Development and South-South Cooperation Fund (GDF)—previously the South-South Cooperation Assistance Fund (SSCAF). In 2020 and 2021, UNICEF worked with governments and a range of partners in African countries to implement projects funded by China. Projects ranged from expanding maternal, newborn and young child health and nutrition services, to supporting vulnerable families in recovering from the shocks of Cyclone Idai, the COVID-19 pandemic and a desert locust infestation.

UNICEF also received support from the Ministry of Commerce (MOFCOM) for projects in Myanmar, Cambodia, Ethiopia and Lao PDR in areas of early childhood development, oxygen for the COVID-19 response, and scaling up treatment for children with severe acute malnutrition.

Working with UNICEF, China has helped to ensure that some of Africa's and Asia's most vulnerable children get a fairer start in life. With support from China, and in partnership with national and local authorities, UNICEF offices were able to renovate and revitalize hospitals, maternity wards and special infant care clinics, in line with best practices. UNICEF brought new medical equipment, essential medicines and therapeutic foods to remote facilities, with many facilities receiving such items for the first time. Technical teams also supported doctors, nurses, healthcare workers and community volunteers in raising their skills, capacities and motivation to keep children alive, healthy and thriving.

Based on the mutually reinforcing nature of progress towards the SDGs and upholding child rights, there is a wide array of opportunities to contribute through continued partnership, building on the experiences that the Government of China and UNICEF have shared in international development through South-South cooperation.

Below are areas where China's international development cooperation could have an effective and positive impact on children, their rights and their well-being. These also represent opportunities for both partnering with UNICEF and other relevant multilateral organizations, and engaging children and young people in the issues that affect them in the world today.

Maternal, Newborn and Child Health

Outbreaks of infectious diseases are becoming more commonplace and more intense. Modern life, with widespread global travel, humans' deeper penetration into animal habitats, political instability and conflict, migration and accelerating climate change, is encouraging the more rapid spread of infectious diseases. A reduction in routine child immunization has only exacerbated these trends. Coverage of life-saving routine immunizations for children dropped sharply amid COVID-related disruptions and strains on health systems. Global coverage of routine immunization slid from 86% in 2019 to 81% in 2021. In the wake of these declines, 2022 saw large outbreaks of measles, and the World Health Organization has warned that the disease is now an 'imminent threat' in every part of the world. Reversing these trends will require ensuring every child receives life-saving vaccines, including children in the most marginalized communities.

We need comprehensive action to both restore vaccination services and prepare for new outbreaks. To achieve the Global Immunization Agenda 2030, WHO, UNICEF and GAVI are calling for: restoring services and vaccination campaigns, helping health workers and community leaders communicate with caregivers to explain the importance of vaccinations; rectifying gaps in immunization coverage, including identifying communities and people who missed vaccinations during the pandemic; ensuring continuous supply of affordable vaccines to meet global needs, and applying lessons from COVID-19 to other diseases.

China has experience in implementing a system for the Expanded Program on Immunization (EPI), providing vaccinations that protect against 15 diseases. Building on over 40 years of progress in the EPI, including experiences from COVID-19 vaccination, China can play an important role in partnership with the relevant international entities by providing countries in need with technical support, experience sharing, and expertise, to help implement global actions effectively and restore routine immunization for children.

Further, the Government of China and UNICEF have seen success in co-operating to mitigate some of the impacts of COVID-19. When the first cases of COVID-19 were detected in Africa, the Government of China provided resources from its Global Development Fund (GDF) through UNICEF in support of four African partner countries in need of an urgent humanitarian response. The resources were focussed on restoring access to basic health and nutrition services that keep children alive and growing. The project, implemented in Cameroon, Ghana, Liberia and Senegal, reached over 2.7 million people—including highly vulnerable mothers, infants and young children—with enhanced health and nutrition services.⁶

⁶ Hope for Every Child—How China and UNICEF are making a difference for children through South-South cooperation.

Nutrition

Children's diets are unacceptably poor. Despite the importance of good nutrition across the life cycle, globally, at all ages, millions of children and adolescents are not benefiting from diets that support healthy growth and development. This is a complicated issue—globalization, urbanization, inequities, environmental crises, health epidemics and humanitarian emergencies are just some of the critical challenges to feeding children sustainably, today and for generations to come. In the context of the ongoing global food and nutrition crisis, UNICEF is also drawing urgent attention to a global nutrition crisis in adolescent girls and women of reproductive age (15–49 years) which focuses on undernutrition, micronutrient deficiencies and anaemia and the barriers they face in accessing nutrition services and benefiting from positive nutrition and care practices. No region in the world is on track to meet the 2030 global targets to reduce anaemia and low birthweight, and acute malnutrition has risen by 25% since 2020 in crisis hit countries.⁷

To mainstream children's rights to nutrition, we need a new global response. This response must deliver diets, services and practices that promote breastfeeding and good nutrition at every stage of life and create a healthy food environment for all. The food system plays a central role, and the nutrition sector needs to work together with health, water and sanitation, education, and social protection systems, to provide nutritious, safe, affordable and sustainable diets for children.

Reducing malnutrition among children under 5 years old is a cost-effective investment in global development. Research has proven that early-life nutrition interventions, such as exclusive breastfeeding and micronutrients supplementation, can contribute to lifelong health. China's experience with the 'Ying Yang Bao' (YYB) is a helpful case study. YYB is a protein-rich, soy-based fortified complementary food supplement scientifically developed in China that contains vital vitamins and minerals needed for healthy development, such as iron, zinc, calcium, vitamin B2 and vitamin D. Research indicates that YYB consumption among infants and young children notably decreased anaemia and stunting.

The national YYB programme provides a case study for other countries to learn from. UNICEF in China supported the development of YYB products and an operational piloting study for the programme. UNICEF also helped set up the monitoring and evaluation system of the national YYB programme.

China and UNICEF also have a track record of collaborating successfully in the field of food security. Following a crop-destroying desert locust invasion that caused widespread damage in the Democratic Republic of the Congo and South Sudan in 2020, the Government of China, UNICEF and national partners provided nutrition supplies to treat over 30,000 children. The programme also improved the capacity of 2224 health workers to detect severe acute malnutrition (SAM), and it provided counsel to over 130,000 caregivers and mothers in how to provide better nutrition for

⁷ UNICEF, Undernourished and Overlooked: A global Nutrition Crisis in Adolescent Girls and Women, 2023.

their children. The capacity of government partners to monitor, report and provide timely inputs to their nutrition programmes was also enhanced.⁸

Water, Sanitation and Hygiene

Every child has the right to safe and equitable water, sanitation and hygiene (WASH) services and the right to live in a safe and clean environment. However, today 1.42 billion people—including 450 million children—live in areas of high or extremely high water vulnerability. Over 700 children under 5 years of age die every day of diarrhoeal diseases due to a lack of appropriate WASH services. Some 2.3 billion people worldwide, including hundreds of millions of school-going children, still do not have access to handwashing facilities with soap and water. Children living in rural areas, urban slums, disaster-prone areas and low-income countries are the most vulnerable and the most affected.

To address these challenges, UNICEF has set an ambitious goal to reach 450 million children and their families (1.42 billion people) living in areas of high or extremely high water vulnerability with resilient solutions by 2025. And by 2030, for all children to have access to safe and affordable water and sanitation. Such efforts include ensuring more sustained and resourced WASH access and systems, and empowering communities with gender-equal, inclusive, affordable and sustainable services to meet the rights of all children.

But this cannot be accomplished alone. Achieving SDG 6 for children requires international cooperation to galvanize all of society, from all sectors and a wide range of partners to enable policy commitments and changes, increased financing, enhanced capacity and innovations, including those coming from young people as champions and agents of change.

China's expertise, experience, practices and technologies in the water and sanitation sector can be leveraged to support SDG 6 with UNICEF and other partners for children globally through international cooperation. China's experience and solutions range from the nation-wide Rural Drinking Water Safety Project and the Rural Toilet Revolution, to affordable and sustainable technology solutions such as solar-powered water supply systems, circular treatment and utilization of wastewater and sanitary resources in agriculture and bioenergy, and others.

⁸ Hope for Every Child—How China and UNICEF are making a difference for children through South-South cooperation, p. 35.

Education and Digital Learning

The world is facing an unprecedented learning crisis – SDG 4 is off track almost everywhere in the world. According to a World Bank, UNICEF and UNESCO report, nearly six out of 10 children globally are estimated to be affected by learning poverty, meaning 60% of children globally cannot read a simple text with comprehension by the age of 10. The situation is even worse in low-income and lower-middle-income countries.

Connectivity and information technology can be powerful enablers and tools for transforming the way teaching and learning take place. But there are still more than 1.3 billion children between the age of 3–17 who do not have access to the internet in this increasingly connected world. The COVID-19 pandemic has highlighted the urgency of making educational technologies accessible for everyone. In today's job market, technology and digital literacy are essential skills. Children, especially girls, who do not have access to digital education will not be able to acquire all the abilities they need to enter the labour market.

To harness the power of digital learning to close educational divides, policies, actions and investments must be recalibrated to target those most in need of opportunities. We must invest more in bridging the digital divide and advancing world-class digital learning solutions.

Globally, in September 2022, UNICEF and its partners launched the Gateway Initiative, a global initiative to support children and youth anywhere in the world, including the most vulnerable, to have equal access to quality digital learning platforms and content to equip them with digital skills.

China has been advancing digital education and using technologies to support learning and skills development. China has taken the initiative to build the World Digital Education Alliance to join forces and advance digital education worldwide. There are opportunities for China and UNICEF to transform digital learning for children, and benefit more children in China and beyond.

Climate Change and the Environment

Climate change is increasing the risk of natural disasters and impacting health and socio-economic gains made over recent decades. In China, the impacts of climate change are evident, with extreme weather events affecting the health and socio-economic well-being of its citizens.⁹ According to the Intergovernmental Panel on Climate Change (IPCC), China's economic losses are expected to worsen as floods are becoming more frequent and sea levels rise, threatening coastal cities. Decreases

⁹ 2019–2021 Bulletin on the State of the Ecology and Environment, Ministry of Ecology and Environment of China, at <https://english.mee.gov.cn/Resources/Reports/bomeaesoc/>.

in crop yields, further loss of biodiversity and worsened water scarcity are also expected along with rising mortality and morbidity.¹⁰

Children are the most vulnerable to climate change. For example, they are more likely to be affected by undernutrition and vector-borne and diarrhoeal diseases. The physical dangers of extreme weather—flooding, heatwaves, mould growth in homes and schools, building collapse and pollution—also pose serious threats to children.¹¹ Children in the global South and countries situated in the lower latitudes are highly vulnerable because they have the fewest resources to adapt to climate change.

Recognizing the importance of climate change, China has promised to achieve peak carbon dioxide emissions by 2030 and carbon neutralization by 2060. Moreover, China continues to address reducing human exposure to environmental hazards through investment in environmental public health tracking and regulation. UNICEF is currently working with China to further environmental health.

To mainstream children in climate change and green development, we need stronger support for countries in the global South for their adaptation and mitigation efforts. China has renewable energy capacities, and it continues to improve its green technology and expertise. It is well positioned to not only advance its own carbon and adaption goals, but also in partnership with the UN share experiences, technology and resources with other countries in the global South.

Child Protection in the Digital World

UNICEF envisions a world where child survival, growth, development and well-being are improved through digitally enabled health and nutrition delivery systems, and where digital technologies and innovations are applied to solve a wide range of additional development challenges, such as the previously mentioned education divide. Digital applications can be used to improve information and counselling on maternal and child health, nutrition, child protection and social services for children and families. Digital solutions can enhance women's and girls' access and engagement, and they can provide greater access to children with disabilities, to equitable participation in society, and reducing some of the barriers they face.

Yet, fragmentation of the internet can exacerbate free and equal access to the internet for information and learning.¹² And digital technologies also come with risks for children and young people, such as inappropriate or harmful content, online abuse and bullying, and over-use.

¹⁰ Climate Change 2022: Impacts, Adaptation and Vulnerability at https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_FullReport.pdf.

¹¹ UNICEF, Healthy-Environments-for-Healthy-Children-Global-Programme-Framework-Summary.pdf (unicef.org).

¹² UNICEF Innocenti—Global Office of Research and Foresight, Prospects of Children in the Polycrisis: a 2023 Global Outlook, 2023 available at UNICEF-Innocenti-Prospects-for-Children-Global-Outlook-2023.pdf, accessed on February 1, 2023.

We need to ensure that girls and boys of all abilities, and backgrounds have equitable access to the digital solutions that can help them learn and develop. Regulations and safeguards are needed to protect children online. And, both governments and the private sector have a role to play.

China has the potential to support the development and use of technology for children's well-being. As this technology develops, we need together to champion regulations and standards that respect child rights and promote children's safety. At the same time, AI and other technologies, that can indeed contribute to children's well-being, should adopt rigorous age-appropriate design tools, that ensure safety and protection.

Addressing Multi-dimensional Child Deprivations

Addressing multidimensional child deprivations is an urgent task for both developed and developing countries. Globally, the climate crisis, increased conflict and the COVID-19 pandemic have significantly affected the well-being of children and their families.

If unaddressed, poverty and deprivations can persist from one generation to the next, creating an intergenerational cycle of poverty. Actions to address multidimensional child deprivations require a multi-sectoral approach. The children who are the most excluded and their families need to be prioritized.

Tackling multidimensional child deprivations also requires universal social protection systems, improved access to high-quality public services, better monitoring and reporting, as well as family-friendly policies and inclusion of measures to reduce multidimensional child deprivations in national budgets, policies and laws.

UNICEF supports governments to measure, monitor and report on multidimensional child deprivations to help understand which children are in poverty and to facilitate action and tracking progress. UNICEF also works with governments in identifying, designing and implementing policies, programmes and financing strategies. There is an opportunity to include this area and incorporate these steps within international development cooperation efforts.

Conclusion

All countries have a responsibility to get progress for children back on track and achieve the SDGs. Promoting children's rights and well-being is not separate from the development agenda; it is central to it. Supporting the world's children is critical as we collectively mitigate the effects of conflict, climate change and new and existing infectious diseases.

International development cooperation offers a wide range of opportunities for putting children at the centre. Child development is a cross-cutting discipline that

encompasses different fields, including health, education, nutrition, water, sanitation and hygiene, climate change and environment, child protection and social policy. Improvement in these areas is urgent for children and can help combat poverty and promote economic growth.

We need investment, and we need action—now, not tomorrow. UNICEF is calling for development resources to be mobilized from a broader range of stakeholders, including international financial institutions, the private sector, non-profit foundations and trilateral cooperation with other donor countries to amplify the results. Further, governments need to continuously improve their ability to allocate resources to development. Opportunities for the mobilization of resources, and improvements for the efficiency of resource allocation can be found through partnerships. Partnerships can use the strengths of different types of organizations and stakeholders and can build momentum to achieve results that individual stakeholders cannot reach alone.



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Humanitarian Action in Times of Crisis and Conflict: the Role and Experience of the International Committee of the Red Cross



Pierre Krähenbühl

Abstract For the past 160 years, personnel of the ICRC and of National Red Cross and Red Crescent Societies have carried out their humanitarian duties in almost every armed conflict that comes to mind on every continent. Challenges posed by contemporary armed conflicts for IHL and humanitarian action include the urbanization of warfare and the use of explosive weapons, which cause injury and death among civilians and their property. Faced so directly with the brutality of war and armed conflicts, we are thirsty for peace and improved coexistence of people and countries and whether in Ukraine, Myanmar, Afghanistan, Iraq, Mali, Colombia or elsewhere, the ICRC is fully engaged in its humanitarian mission.

Keywords International Red Cross · International Red Crescent · Humanitarian action · International humanitarian law · Urban warfare · ICRC

Wars and armed conflicts are among the most harrowing events to affect human communities. Every country has experienced their effects at one point in history and their consequences linger long after weapons have fallen silent.

The nature of the confrontations may evolve over time, but there is something about armed conflicts that never changes: they tear apart the very fabric of societies and lead to death, injury, disappearance or displacement of millions of men, women, and children; this happens every year. They also generate fear and lead to polarization. They sow the seeds of division among nations and create profound and lasting trauma among people.

Much of the attention generated by armed conflicts and other situations of violence focus on their political causes, military strategies, types of weapons used, as well as names and acronyms of parties to the fighting. For the International Committee of the Red Cross (ICRC), there is only one priority: to assist and protect the people affected by armed conflicts.

The ICRC was born on the battlefield of Solferino, Northern Italy, in June 1859, when a Swiss businessman, Henry Dunant, witnessed the extensive suffering of

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thousands of officers and soldiers, many of whom were left to die due to lack of care. In his written account of the experience, *A Memory of Solferino*, Dunant considered the creation “in a time of peace and quiet, of relief societies for the purpose of having care given to the wounded in wartime by zealous, devoted and thoroughly qualified volunteers [...]. The ICRC was officially founded on 17 February 1863.”

For the past 160 years now, personnel of the ICRC and of National Red Cross and Red Crescent Societies have carried out their humanitarian duties in almost every armed conflict that comes to mind on every continent, including World Wars I and II, many of the wars of national liberation and civil wars from the 1960s to 1990s, the conflicts that followed the end of the Cold War, as well as those that took place in the context of so-called counter-terrorism operations in the early 2000s.

At the beginning of 2023, the ICRC’s largest humanitarian operations are in Ukraine, Afghanistan, Syria, Yemen, South Sudan, Somalia, Iraq, the Democratic Republic of Congo, Ethiopia, and Nigeria, among others.

The Humanitarian Imperative and International Humanitarian Law

Caring for affected populations has been a reflex in every society for as long as wars have existed. The notion of sparing wounded soldiers, of protecting civilians, women, and children, of ensuring proper treatment of prisoners are notions found in every civilization, culture, religion and tradition.

The specific principles applied by the ICRC and the Red Cross and Red Crescent Movement include a strict adherence to neutrality, impartiality, and independence. ICRC staff operate in delicate conflict environments and therefore do not take sides. While the organization operates in highly polarized and politicized environments, its mandate is not political. It does not comment on the reasons that lead a country, region, or community to engage in armed conflicts. It focuses solely on protecting and assisting people affected by armed conflicts.

The ICRC is impartial in that it assists people based on need, without discrimination related to origin, race, gender or other factors in their identity. It is independent in that it is not affiliated with any given state, government or political entity and makes its own decisions, based on humanitarian considerations alone.

The ICRC engages in dialog with all parties to a conflict, be they state or non-state entities, internationally recognized or not, to obtain access to populations in need and to influence the behavior of combatants, fighters, and armed forces in general in times of war.

Indeed, even wars have limits, and these are enshrined in international treaties that constrain the means and methods available to parties when engaging in armed conflict. The most prominent of these instruments defining legal provisions of International Humanitarian Law (IHL) are the four Geneva Conventions (GC) of 12 August 1949. They respectively protect the wounded and sick soldiers on land during

war (GCI), the wounded, sick and shipwrecked military personnel at sea during war (GCII), the prisoners of war (GCIII), and civilians, including in occupied territory (GCIV).

The Geneva Conventions are among the most universally ratified treaties of international law. Through them, states parties have committed to respecting and ensuring respect of the rules and obligations contained therein and have given the ICRC its specific mandate to save lives and alleviate the suffering of people affected in times of conflict. In other words, the ICRC is not a self-declared actor, but the expression of the collective will of the community of states to see relief provided and humanity preserved in times of war.

The fact that the ICRC's role is so globally recognized and that the principles underpinning its activities reflect shared international values, provides the organization a crucial legitimacy and ability to act. In the specific case of the People's Republic of China (PRC), the Geneva Conventions were recognized by means of a statement by then Premier Zhou Enlai on 13 July 1952. In his communication, Premier Zhou highlighted that the PRC was recognizing these conventions because it was determined that they are "generally conducive to peace among all nations."

At times, one may be forgiven for wondering if rules applicable to war make any sense. Every day on television, social media and beyond, we receive accounts of the horrors of war. We read about massacres and killings, about the injured and the tortured, about destruction and devastation.

Do the rules of IHL truly make a difference in today's armed conflicts? It is certainly the case that there are violations of IHL in every conflict we have witnessed in the past and are witnessing today. It is also very much the case that without IHL, organizations like the ICRC would be in a much weaker position to engage parties to a conflict on how to preserve lives and reduce ill-treatment. As was famously stated by the Former South African leader, Mr. Nelson Mandela, who was visited several times by ICRC staff during his 27 years in prison: "What matters is not only the good the ICRC brings but the evil it prevents".

The Evolving Nature of Warfare, Contemporary Challenges for IHL, and Changes in Humanitarian Action

Among the many challenges posed by contemporary armed conflicts for IHL and humanitarian action, it is important to highlight the urbanization of warfare, in other words how protecting civilians is put at risk by the use of explosive weapons in populated areas, or during sieges. Increasingly fighting takes place in urban areas and the ICRC knows from direct experience that the use of explosive weapons in urban areas has wide area effects that are a major cause of injury and death among civilians and of damage to civilian objects. Their prolonged utilization represents a threat to sustaining life in urban settings, even after hostilities have ended. IHL

imposes limits on the choice of means and methods of warfare, protecting civilians and civilian infrastructure against unacceptable harm and destruction.

Another major trend impacting armed conflicts today—and likely to become increasingly significant tomorrow—are the new technologies in warfare, which include autonomous weapon systems, artificial intelligence, and machine learning, as well as the potential use of weapons in outer space. Technological advances can have positive consequences for the protection of civilians in armed conflict. In theory, weapons can be used with more precision and military decisions can be better informed. At the same time, these new means and how they are used can represent new risks for combatants and civilians. They can also challenge the interpretation of IHL. The ICRC is closely following these developments and engaging in dialog with states, militaries, and other stakeholders on the applicability of IHL to the utilization of these new means and methods of warfare.

One of the major patterns of contemporary armed conflicts over the past decades has been their long average duration. Many of the conflicts in which the ICRC operates have lasted for decades. The conflict between Israelis and Palestinians has lasted over seven decades, the conflict in Afghanistan began over forty years ago, the conflicts in Somalia, DRC or Yemen have all exceeded three decades already. This has impacted the way in which humanitarian action has evolved since the beginning of the century.

Humanitarian aid is often primarily associated with life-saving medical aid and health activities have indeed always been and continue to be at the heart of ICRC's identity: from first-aid and war surgery, to hospital support and medical supplies on battlefields around the world. The original humanitarian practice was, however, defined by notions of emergency and short-term interventions. Considering the protracted nature of most of today's armed conflicts, the approach had to be adapted and new methodologies devised.

In the medical field, building resilient health systems able to cope with the effects of long-lasting conflicts became necessary. Similarly, the traditional food distributions that helped communities bridge gaps during emergencies were no longer sufficient or adapted to prolonged armed hostilities. These required different approaches, such as vaccinating livestock to protect the assets of rural communities or developing drought-resistant seeds to improve harvest yields of affected communities.

The ICRC, like other humanitarian organizations, has improved partnerships with and learned from development actors and institutions, combining respective areas of expertise and competency, with the aim to improving positive outcomes for people in need.

Examples of Key ICRC Operations in 2023

The heart of humanitarian action takes place near frontlines, in cities, towns, villages and rural communities that suffer the brunt of fighting. ICRC staff travels regularly across frontlines to provide its assistance.

Ukraine

In Ukraine, since February 2022, the ICRC significantly increased its humanitarian response and staff numbers. Working in close cooperation with the Ukrainian Red Cross Society, the ICRC has assisted millions of people, with the support of other partners in the International Red Cross and Red Crescent Movement, such as the Red Cross Society of China.

Over a million people were provided with food and hygiene items and 400,000 people received direct cash assistance worth some 180 million Swiss francs. The ICRC also supported 170 health facilities in the country with much-needed drugs and medical equipment to continue their life-saving care, including in areas deeply affected by the fighting; worked closely with local authorities and supported water boards in 13 regions, restoring access to safe drinking water for more than 10 million people; delivering some 1 million liters of drinking water to communities in need. Over 40,000 families could repair their homes with ICRC tools and equipment and over 1.3 million people in the Kyiv, Kharkiv, Mykolaiv, and Chernihiv areas benefited from restored heating systems. This is on top of over 500 generators provided by the ICRC to local authorities—including the State Emergency Services, hospitals, and administrative bodies—in Kherson, Mykolaiv, Kharkiv, Sumy, and other regions.

In addition, in its regular confidential bilateral dialog, the ICRC continues to remind the parties to the conflict of their legal obligations under international humanitarian law, including those related to the conduct of hostilities and people deprived of liberty. The ICRC has been able to visit hundreds of prisoners of war (PoWs) to check on their situation, but there are thousands more it has not been able to see. It is actively pursuing dialog with the Russian Federation and Ukraine to secure broader, more regular and consistent access to all persons detained.

The ICRC has created a specialized Central Tracing Agency Bureau (CTA-B) for the international armed conflict between the Russian Federation and Ukraine. Its mandate, based on the Geneva Conventions and their first Additional Protocol of 1977, is to help prevent disappearances, account for the missing, protect the dead, and reconnect families. The CTA-B collects and centralizes information on the fate and whereabouts of PoWs, other protected persons deprived of their liberty and the dead in the hands of a party for onward transmission to those parties and the respective families.

Working in warzones is a delicate and often dangerous undertaking. To reach people in need requires traveling to areas affected by fighting, crossing frontlines, entering areas contaminated by unexploded ordnance and other weapons. The ICRC's operational philosophy and approach involves the rigorous and consistent respect of neutrality, which concretely means that the ICRC refrains from commenting on the political motives of the parties or publicly attributing blame for an attack or for casualties to one party or another.

Neutrality is not always welcome. It is at times misunderstood for indifference to suffering or even for siding with an invading or aggressing party. Nothing could be further from the truth. Every ICRC staff member has strong feelings about the

injustice, horrors and inhumanity witnessed during armed conflicts. However, it is our experience and deep belief that in order to reach and help people in need, in this case in Ukraine, but also elsewhere, it is essential not to favor one party or the other. This neutrality enables the ICRC to build the dialog with all sides in a conflict that is required to establish trust and gain access to populations at risk and in need of assistance. It is also a vital safeguard for the security of our staff.

Of the many dramatic situations that took place in Ukraine, the tragedy of Mariupol illustrated the challenges of humanitarian action particularly clearly in the early phase of the armed conflict in 2022. With hundreds of thousands of civilians trapped by heavy combat in the city, the ICRC repeatedly called for concrete humanitarian agreements to ensure both the delivery of aid to and safe passage for people seeking to leave Mariupol. The ICRC led prolonged negotiations with Ukrainian and Russian officials, including those at senior levels, in search of ways to alleviate the suffering and prevent further disaster.

In parallel, ICRC field teams spent days trying to obtain security guarantees from the parties to access affected neighborhoods of the city. They passed countless checkpoints, under fragile ceasefire conditions, with no certainty that these would be respected. Spending days and nights in the open, progressing slowly under extremely stressful conditions, the ICRC teams eventually managed on 6 April 2022 to lead a convoy of buses and private cars carrying more than 1000 civilians who managed to leave Mariupol for Zaporizhzhia.

It requires major effort and significant courage to achieve a single positive result like this. Knowing that many more civilians remain severely affected in countless other towns and communities across Ukraine, facing life-threatening conditions and lack of supplies, ICRC staff are acutely aware that much more needs to be done, including more dialog with the parties, more efforts to be understood and respected, and increased access to make a concrete difference in the lives of tens of thousands of people most urgently in need. Despite the hardship, the risks, the moments of disappointment and despair, ICRC staff do not give up.

Afghanistan

The conflict in Afghanistan has gone through different phases since 1979 and caused widespread suffering and devastation. Not a single Afghan family has been spared from the effects of the fighting and everyone has lost a close relative or friend that has been displaced, gone missing, been tortured or humiliated.

The ICRC began operating from neighboring Pakistan in 1979, setting up surgical hospitals in Peshawar and Quetta, that treated hundreds of thousands of wounded from Afghanistan. In 1987, the organization established a permanent presence in Kabul and other regions in the country, diversifying its humanitarian response.

Despite the political changes in August 2021 and the withdrawal of most international organizations from Afghanistan, the ICRC maintained and further expanded its operations in the country. Currently, it has offices in ten locations with a total

of 1,000 staff members, a large majority of which are Afghan and include female members.

The center of gravity of the operations is an ambitious Hospital Resilience Program. In light of the freezing of Afghan assets, suspension of banking operations and interruption of international funding to governmental institutions, there was a major concern related to the provision of health services to millions of Afghans and the possible departure of qualified Afghan medical personnel.

The ICRC opted to assume a key role in support of the Afghan health system, paying the salaries of 10,000 doctors, nurses, technicians, guards and other staff members to ensure the continuation of care in 34 hospitals and medical teaching facilities that served millions of Afghans. Thirty percent of the staff supported were female personnel. The ICRC also has provided medical supplies, training and other forms of assistance.

While security has improved in Afghanistan, the needs of the population remain acute, and it is crucial for the world to remain engaged, and ICRC is seeking broad cooperation with different partners. It is grateful for the support it has received through the Red Cross Society of China for its health activities in Kandahar, where the main hospital built by China in the 1970s receives regular assistance from ICRC.

A Global Commitment

While much justified attention today focuses on the conflict in Ukraine, the ICRC is determined to ensure that needs are met wherever they are, on all continents. It will draw attention to trends, the needs of populations in Africa, the Americas, the Middle East, Asia, and Europe, as well as to the importance of respecting international humanitarian law.

The ICRC is a daily witness to the unbearable human cost of conflict, and it was never the idea that humanitarian action should last for decades as is the case in the protracted conflicts of today. As we have described above, humanitarian access and assistance are very important during times of war, to save and protect the lives and dignity of people affected. At the same time, humanitarian responses should not become a lasting substitute for political action. The community of states must assume its responsibility and improve the collective capacity to prevent and resolve conflicts.

One can engage in conflict management for decades but the effects on individual human beings and societies at large are devastating. The fact that armed conflicts last as long as they currently do is a symbol of the failings of international conflict resolution processes.

Whether in Ukraine, Myanmar, Afghanistan, Iraq, Mali, Colombia, or elsewhere, the ICRC is fully engaged in its humanitarian mission. Every single day thousands of ICRC staff and their Red Cross and Red Crescent partners, travel to delicate areas to assist people in need. Faced so directly with the brutality of war and armed conflicts, we are thirsty for peace and improved coexistence of people and countries.

New ideas and approaches are urgently needed or else we will continue to see entire communities torn apart by war in coming years.

About the ICRC

The International Committee of the Red Cross (ICRC) is a neutral, impartial and independent organization with an exclusively humanitarian mandate that stems from the Geneva Conventions of 1949. It helps people around the world affected by armed conflict and other violence, doing everything it can to protect their lives and dignity and to relieve their suffering, often alongside its Red Cross and Red Crescent partners.



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The Chinese Way—Harnessing the Power of Cultural Heritage for Inclusive and Sustainable Development



Shabhz Khan

Abstract China's cultural wealth and rich heritage form part of the core of human civilization. After China resumed its position at the United Nations 50 years ago, its economic achievements have been astounding, but its “intangible wealth” in education, sciences, culture, communication, and information, deserves equal attention. China, which has had a deep and long-lasting relationship with UNESCO, has put culture at the center of its development strategy and blazed a path toward “eco-civilization” while also ensuring that no one is left behind as it pushes forward.

Keywords China · UNESCO · “Intangible wealth” · Eco-civilization · Cultural heritage

“Etiquette and culture are learned after the granaries of the people are full. Honor and shame are understood when the people have enough to eat and wear.”¹ The words of the ancient Chinese statesman and philosopher, Guan Zhong, who lived during the Spring and Autumn Period about 2700 years ago, demonstrate the Chinese philosophical understanding of the link between material abundance and social progress.

Since China resumed its rightful place in the United Nations 50 years ago, its economic success has left the world in awe: one of the world’s most populous countries, China became the second-largest economy in less than half a century and has accomplished the largest scale of poverty alleviation in human history. China’s economic prowess has become the most studied subject among economists—factors that have led to China’s material wealth are put under the microscope of a myriad of economic metrics and political analyses. Nonetheless, the measurement of China’s achievement in social progress, that is, China’s “intangible wealth” in education, sciences, culture, communication, and information, requires a different set of lenses.

¹ “仓廪实而知礼节,衣食足而知荣辱” (cāng lǐn shí ér zhī lǐ jié, yī shí zú ér zhī róng rǔ), which appears in the *The Works of Guanzi* by Guan Zhong.

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China's Contributions to Education, Science, and Culture

China joined UNESCO on November 4, 1946 and the United Nations General Assembly Resolution 2758 was passed on October 25, 1971, recognizing the People's Republic of China as "the only legitimate representative of China to the United Nations."² The UNESCO Beijing Cluster Office was established in 1984. The President of the People's Republic of China, Xi Jinping, made an historic visit to UNESCO's headquarters in Paris in 2014 as the first-ever Chinese Head of State to visit the organization.³ Over the span of a person's lifetime, the precious partnership between UNESCO and China has matured and grown ever stronger.

Since the inception of this historic relationship, UNESCO has been closely linked with China's steady and astonishing social progress.

In the cultural sphere, China has ratified five UNESCO culture conventions, and has made a considerable contribution to global cultural preservation and development efforts by adding 56 sites to the World Heritage List, 42 items to the list of Intangible Cultural Heritage (ICH), and 14 cities to the UNESCO Creative Cities Network.⁴

In the realm of nature and science, China has made great contributions in enhancing the harmony between human and nature on a scientific and institutional level by establishing 34 Biosphere Reserves in UNESCO's Man and the Biosphere program (MAB), 41 UNESCO Global Geoparks, and four Global Water Museums.⁵ China is also contributing to international cooperation and networking in the sciences to enhance institutional capacities and promote knowledge sharing by systematically building a series of science-related Category 2 Centers.

In education, China has seven education-related UNESCO chairs.⁶ In realizing its commitment to support the implementation of the UN's 17 Sustainable Development Goals (SDGs), notably to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all" (SDG 4) and "make cities and human settlements inclusive, safe, resilient and sustainable" (SDG 11), China has established several institutions which are members of the UNESCO-UNEVOC network that aims to strengthen and upgrade China's Technical and Vocational, Education and Training (TVET) systems and has a group of cities that are members of the UNESCO Global Network of learning cities.

² "Restoration of the Lawful Rights of the People's Republic of China in the United Nations," A/RES/2758 (XXVI), October 25, 1971, New York: United Nations, [https://undocs.org/en/A/RES/2758\(XVI\)](https://undocs.org/en/A/RES/2758(XVI)).

³ UNESCO. "President of China Xi Jinping pays historic visit to UNESCO." Last modified April 21, 2022. <https://www.unesco.org/en/articles/president-china-xi-jinping-pays-historic-visit-unesco>.

⁴ UNESCO World Heritage Centre. "China." n.d. <https://whc.unesco.org/en/statesparties/cn>.

⁵ UNESCO. "Asia and Pacific." n.d. <https://en.unesco.org/biosphere/aspac>.

⁶ UNESCO. "List of UNESCO Chairs and UNITWIN Networks." n.d. <https://en.unesco.org/sites/default/files/list-unesco-chairs.pdf> PDF.

Leaving no One Behind

From UNESCO's perspective, China's intangible social wealth is not simply a matter of strength in numbers, namely its mountains of eye-catching statistics on governmental brochures and business spreadsheets, China also possesses a genuine concern for the most vulnerable, marginalized, and underprivileged members of society, which resonates with UNESCO's fundamental humanitarian mission of shaping an inclusive and equitable society that "leaves no one behind."

The weight behind these four simple words is nonetheless easily ignored. Today's societies are constantly burdened with a hybrid reality—rampant hate speech in the cyberspace and staggering inequality manifested in both finance and ideology in real life. Discrimination, both as a destructive psychological tendency lurking behind our collective unconsciousness and as a repressive social construct sometimes blatantly institutionalized within different parts of our societal systems, must be eradicated in all its noticeable shapes and colors, if we were truly committed to achieve inclusive and equitable social progress.

In this regard, whether a country truly lives up to its promise to leave no one behind hinges on whether it allows the dividends of development to reach the most vulnerable and marginalized groups in society. This humanistic concern was a part of Chinese tradition of political philosophy very early on: "The blessing of a country that will lead it to prosperity is to treat its people with great affection as if they were wounded".⁷ This excerpt is from the fundamental principles of good governance written by the great Chinese historian, Zuo Qiuming, an esteemed contemporary of Confucius.

China has always been a good student of its own history. China recently lifted 770 million rural population out of poverty, which accounts for 70 percent of the world's total poverty reduction.⁸ As part of this unprecedented endeavor, more than 7 million persons with disabilities have been lifted out of poverty, around half of which are women. In recent decades, China has also made tremendous efforts in promoting the lives and livelihoods of the over 85 million people with disabilities living in the country.⁹ With the passage of more than 130 laws and administrative regulations formulated concerning the protection of rights of the disability community in China, over 1,700 cities and counties nation-wide have initiated efforts to improve accessibility and remove barriers for persons with disabilities. A new law titled Legislation on the Construction of Barrier-Free Environment in China is currently being developed, marking a huge step toward promoting and protecting the rights of persons with disabilities at the national level. The 2022 Winter Paralympics set an excellent example with a total of 336 thousand barrier-free facilities being added in Beijing

⁷ "国之兴也，视民如伤，是其福也" (guó zhī xīng yě, shì mǐn rú shāng, shì qí fú yě), which appears in the *Tso Chuan*, a commentary on the Spring and Autumn Annals.

⁸ World Bank. "Four Decades of Poverty Reduction in China: Drivers, Insights for the World, and the Way Ahead." World Bank Group, 2021.

⁹ UNESCO. *Handbook on Media Reporting for Promoting Disability Equality in China*. Beijing: UNESCO Beijing Office, 2021.

alone. This has elevated the public awareness and need for accessibility to an unprecedented level. Moreover, China has ratified The Marrakesh Treaty to facilitate access to published works for persons who are blind, visually impaired or otherwise have barriers to printed materials.¹⁰ The Treaty went into effect in May 2022 and will play a positive role in the cultural and educational sectors for the 17.32 million people with visual disabilities and other people with print disabilities in China.¹¹

In support of China's efforts in carrying forward this endeavor, UNESCO, also in its capacity as Chair of the UN Theme Group on Disability in China, has been working alongside persons with disabilities, as well as governmental and nongovernmental stakeholders, to promote inclusive education, tackle disability-related stigma and discrimination in and through media, as well as to harness technology and innovation for better access to information and knowledge for persons with disabilities.

Culture at the Center of Development

Confucius, the great Chinese educator, philosopher, and statesman, once commented on the value of culture to a nation's development, "if people from lands far away feel alienated from us, we should embrace them by cultivating our own culture and virtue."¹² Two thousand years later, UNESCO was founded after two devastating world wars in the twentieth century, and with a deep conviction similar to that of Confucius, that political and economic agreements between states are not enough to secure the sincere support of the people and that only a human-centered approach to development based on mutual respect and open dialog among cultures can lead to lasting peace.

However, the divisive forces underlying the global pandemic, the deepening climate crisis and the bleak international geopolitical reality, are driving us into an increasingly fragmented world plagued by all sorts of risks and insecurities. We have never been more in need of culture, as an indispensable soft power, which can restore social cohesion and rebuild the intellectual and moral solidarity of mankind. In this regard, China has set a wonderful example in harnessing the power of culture and heritage to foster international solidarity and to implement constructive global governance.

China ratified the World Heritage Convention in 1985, and has since demonstrated its strong commitment to implementing the Convention, which is by far one

¹⁰ World Intellectual Property Organization (WIPO). "Marrakesh Treaty." n.d. <https://www.wipo.int/treaties/en/ip/marrakesh/>.

¹¹ World Intellectual Property Organization (WIPO). "Notification No. 87." n.d. https://www.wipo.int/treaties/en/notifications/marrakesh/treaty_marrakesh_87.html.

¹² "故远人不服, 则修文德以来之" (gù yuǎn rén bù fù,zé xiū wén dé yǐ lái zhī), which appears in *The Analects*.

of the most important global conservation instruments in the world.¹³ Since its adoption on November 16, 1972, the 1154 natural and cultural World Heritage sites in 167 countries are a testament to the universal appreciation and achievement of this groundbreaking legal framework. It embodies a visionary idea—that some places are so important that their protection is not only the responsibility of a single nation, but is also the duty of the international community as a whole; and not only for this generation, but for all those to come.

From the very first batch of inscriptions in 1987, China has added 56 sites to the World Heritage List, including 38 cultural, 14 natural, and four mixed sites. Influenced by the Convention, over the years China has developed rigorous legislation and operational guidelines for cultural, natural, and mixed World Heritage sites with a team of over 50,000 site managers at local heritage conservation administrations. Young people in China have become more aware of and engaged in heritage conservation; since 2011, the annual University Student Forum on World Heritage and Conservation Proposal Competition, facilitated by the UNESCO Chair on Sustainable Tourism in UNESCO Designated Sites at Sun Yat-sen University has been actively participated in by thousands of students from over 100 colleges and universities around China. With the inauguration of the China Cultural and Natural Heritage Day, a nation-wide cultural celebration, in 2006 and the emergence of a number of TV programs and variety shows on World Heritage sites in China in recent years, World Heritage also gained in visibility and popularity in the public sector.

Over the past decades, China has also steadily become a leading figure in facilitating international dialog and collaborations on heritage conservation and sustainable development among member states, advisory bodies, experts and civil society, and has made commendable efforts in supporting other developing countries to enhance the implementation of the World Heritage Convention. For example, since 1989, China has been providing technical assistance to Cambodia in restoring the Angkor monuments. After a 7.8-magnitude earthquake hit the Kathmandu Valley World Heritage site in Nepal in April 2015, China pledged 94 million yuan to start a five-year project to restore the Basantapur Tower.¹⁴ Since 2017, China and UNESCO have jointly organized four International Youth Forums on Creativity and Heritage along the Silk Road, which have brought together young women and men from over 100 Silk Road countries to contribute to the dialog on heritage conservation and development. China has also forged strong collaboration with Africa in the field of World Heritage since 2018 through joint projects supporting long-term capacity-building and strengthening the monitoring and management of African World Heritage properties. China has also served four times as World Heritage Committee member, and has hosted the World Heritage Committee meeting twice—2004 in Suzhou and 2021 in Fuzhou.

¹³ UNESCO World Heritage Convention. “Convention Concerning the Protection of the World Cultural and Natural Heritage.” <https://whc.unesco.org/en/convention/>

¹⁴ Xinhua. “Nepal’s quake-damaged world heritage palace restored with Chinese aid.” UNESCO-HIST. December 29, 2020. <http://www.unesco-hist.org/index.php?r=en/article/info&id=1671>.

As the world's second-largest developing country and a major economy that has undergone rapid development and urbanization over the past decades, China has been at the forefront of addressing issues of heritage conservation that is in synergy with socio-economic development. It is heartening to see that China's national five-year development plans already address the role of culture and heritage as a pillar in achieving high-quality development, while a prominent culture component is featured in the 2021–2025 United Nations Sustainable Development Cooperation Framework (UNSDCF) for China,¹⁵ which will serve as an overarching framework for collaboration between the UN and China in the years to come. This reflection resonates with the spirit of the UN 2030 Agenda for Sustainable Development, in particular Sustainable Development Goal Target 11.4 - “Strengthen efforts to protect and safeguard the world’s cultural and natural heritage,” which highlights that culture and heritage are both ends as well as means to sustainable development.

For over 15 years, UNESCO's Beijing Office has been working closely with Chinese ministry offices, site administrations, academic institutions and local communities to enhance China's World Heritage site management capabilities, foster platforms for exchange, and explore heritage-driven approaches to key developmental issues such as poverty reduction and rural revitalization. Specifically, UNESCO is implementing a range of initiatives such as the “World Heritage Sustainable Livelihood” pilot activities for local communities, “Panda Ambassador” initiative on heritage education for youth, and “Heritage So Young” initiative on heritage communication in the digital era through the UNESCO-China Youth Development Foundation Mercedes-Benz Star Fund Funds-in-Trust Project “Conservation and Management of World Heritage Sites in China.” In the face of new challenges and opportunities, we need to broaden the definition of heritage, bring heritage into a broader framework, and engage more stakeholders. We need to look at heritage from the perspective of not only protection but also development. We need not only to retain the vitality and resilience of heritage itself, but also to let heritage play a new role in promoting the sustainable development of economy, society and environment.

The year 2022 marks the 50th anniversary of the World Heritage Convention. This landmark year comes at a watershed moment for conservation. Urban expansion and infrastructure development are exerting unprecedented pressures on traditional monuments and historic urban landscapes. Global climate change is also proceeding at a relentless pace with its effects increasingly extending beyond the environmental sphere, causing both irreversible impact on nature and biodiversity, as well as multiplying the risk of vulnerable communities. The COVID-19 pandemic has revealed the vulnerability of the heritage ecosystem in the face of sudden crisis, as demonstrated by the closure of 89% of World Heritage sites. More than ever, we need to explore and discuss new horizons for heritage conservation in the face of global challenges. To tackle these challenges, the international community should pool their wisdom through intercultural dialog, commit themselves to in-depth research

¹⁵ United Nations. “UN Sustainable Development Cooperation Framework for People’s Republic of China (2021–2025).” June 2020. <https://unsdg.un.org/resources/un-sustainable-development-cooperation-framework-peoples-republic-china-2021-2025>.

and practices, explore effective measures that meet national conditions and particularities of heritage sites, and achieve a balance between heritage protection and community development.

The Road Toward Eco-civilization

In addition to its gentle human touch for disadvantaged groups from specific social segments, China's governance style is also characterized by its long-term vision and grand design that focuses on the big picture of the synergy between society and nature. The notion of "eco-civilization" is a Chinese answer which incorporates environmental, economic, educational, political, agricultural, and other societal reforms toward sustainability in a whole-of-system approach. China is a global champion of the concept of "ecological civilization", which was enshrined in its Constitution in 2018.¹⁶ Since then, China has been developing this concept in greater depth and at a faster pace, placing ecological civilization on its five-in-one national modernization agenda. UNESCO shares the concept's core mission of enhancing harmony between society and nature, as well as responding to public demand for a healthy living environment.

In October 2021, the 15th meeting of the Conference of the Parties to the Convention on Biological Diversity (COP15) was held in the city of Kunming in China's southwestern Yunnan Province. One of the major achievements of the conference, the Kunming Declaration was adopted to ensure the development and implementation of the post-2020 global biodiversity framework to reverse the current loss of biodiversity and secure its recovery by 2030, which will lead to the fruition of the 2050 Vision of "Living in Harmony with Nature."¹⁷ As the host and the chief driver of the conference, China has demonstrated its staunch determination in taking a leadership role in promoting international cooperation on ecological development and environmental protection. In his speech during the leader's summit of COP15, President Xi has emphasized (1) the overarching role of the concept of "eco-civilization" as the fulcrum which sustains the balance between human society and nature; (2) green transformation, which is a green low-carbon recycling economy as the driving force to help global sustainable development; (3) focusing on people's welfare to promote social equity and justice as the guiding principle of all policies and actions; (4) staying rooted in the foundation of international law and maintaining a fair and reasonable international governance system that truly manifests multilateralism. Ambition needs to be combined with pragmatism.¹⁸

¹⁶ Hanson, Arthur. "Ecological Civilization in the People's Republic of China: Values, Action, and Future Needs." Asian Development Bank. October 2019. <https://www.adb.org/publications/ecological-civilization-values-action-future-needs>.

¹⁷ Convention on Biological Diversity. "Kunming Declaration." October 2021. <https://www.cbd.int/doc/c2db/972a/fb32e0a277bf1ccff742be5/cop-15-05-add1-en.pdf>.

¹⁸ Xi, Jinping. "Full text: Xi Jinping's speech at the COP15 leaders' summit." China Daily. <https://www.chinadaily.com.cn/a/202110/12/WS61653286a310cdd39bc6e685.html>.

Against this backdrop, China has taken the initiative of contributing 1.5 billion RMB (\$234.6 million) to establish the Kunming Biodiversity Fund to support biodiversity conservation in developing countries. China is also accelerating the construction of a nature reserve system with national parks as the mainstay of its most important natural ecosystems. In order to fulfill its promise of creating a green economy, China will release a wide range of national actions in key areas and industries to build up the “1 + N” policy system to achieve its carbon emission peak and carbon neutrality.¹⁹

UNESCO and China share the common vision that putting biodiversity on a path of recovery is a defining challenge of this decade. The implementation of a visionary and game-changing post-2020 global biodiversity framework calls for mutual trust and firm political support, which are vital pillars to multilateralism. Within the framework of the Kunming Declaration, UNESCO is fully committed to cooperating with China to further enhance collaboration and coordinate actions with ongoing multilateral environmental agreements; to increase the provision of financial, technological, and capacity-building support to developing countries necessary to implement the post-2020 global biodiversity framework; to ensure that postpandemic recovery policies, programs and plans contribute to the conservation and sustainable use of biodiversity, promoting sustainable, and inclusive development.

Contemporary sinologists have always described China as a “civilizational state” that is exceptional in its own way. The social progress achieved by China today and its contribution to international governance is not a historical coincidence. It has been made possible by the conscious efforts of 1.4 billion Chinese people in safeguarding their common cultural heritage and standing by their precious traditions of good virtues and resilience. It is guided by a responsible government that is convinced that no development can be sustainable without a strong cultural component and has consistently demonstrated an unwavering commitment to deliver for the well-being of its citizens.

As always, in support of China’s effort in carrying forward the Sustainable Development Goals at the national and global level, UNESCO reaffirms its humanist mission to safeguard and revitalize cultural heritages in China and beyond, and to realize our common vision in building an inclusive and equitable society that leaves no one behind. As a knowledge-based organization, UNESCO fully recognizes and cherishes this precious and unique partnership with China. With the roadmap of our successful cooperation within the framework of the 2030 Sustainable Development Goals, I’m confident that UNESCO and China will together build a sustainable future and march toward the dawn of an eco-civilization that leaves no one behind.

¹⁹ Xinhua. “Xi Focus: Chinese president announces establishing Kunming Biodiversity Fund.” Xinhua News Agency. October 12, 2021. http://www.news.cn/english/2021-10/12/c_1310239983.htm.

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Among his many degrees, Professor Khan holds a BS in Civil Engineering from the University of Engineering and Technology, Lahore, an MS in Water Resources Technology and Management and a Doctorate in Civil Engineering from the University of Birmingham.

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The Conception of the Political in Confucian Philosophy: The Philosophy of Family



Roger T. Ames

Abstract Tremors emanating from the newly emerging geopolitical order are testing the modern system of nation states, which emphasizes liberal individualism defined by individual autonomy and equality on an international scale. However, this has been wholly ineffective in addressing pressing issues like the COVID-19 pandemic, environmental degradation, income inequities, proxy wars, and global hunger. This gathering storm must be met by a global village working collaboratively for the good of the world community as a whole. This is expressed well in Confucian philosophy where there is a perceived isomorphism incorporating the family, state, and world, with the state and the world being a simulacrum of the family as an institution, making it uniquely suited to a twenty-first century with a more multiethnic and interreligious global context.

Keywords Confucian philosophy · Geopolitical order · Global issues · “Family as an institution” · Family feeling

The Pandemic Is Just the Beginning

Over the first two decades of the twenty-first century, the rise of East Asia and of China in particular has occasioned a seismic sea change in the economic and political order of the world. And add to this, China is not a country. With a population larger than Africa by some 200 million, it is a diverse and yet continuous civilization on a continental scale. Given the differential effects of the COVID-19 pandemic on global business and trade, it is now estimated that China will become the world’s largest economy before the end of this decade. Like it or hate it, friend or foe, China’s trajectory is upward, and it is not going away anytime soon. And if the anxiety conveyed through the popular media is any indication, the exponential ascent of what has been happily ignored over the past few centuries as the Chinatown of the world, has startled the once unchallenged liberal West, and shaken it to its very core.

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The tremors emanating from this newly emerging geopolitical order are testing the modern system of sovereign and equal nation states ushered in by the Westphalian Treaty more than three and a half centuries ago. This Westphalian model is an early version of liberal individualism with the defining values of individual autonomy and equality scaled-up to an international level. To the extent that such a system of single actors each playing to win has pitted the interests of each state against all others, it has drawn the world toward a politics of anarchism. And as a zero-sum game of winners and losers at an international level, it has proven to be wholly ineffective in addressing the pressing issues of our times, with the raging COVID-19 pandemic being only the first and most immediate crisis among many more to come. The compounding problems defining the human predicament—climate warming, environmental degradation, refugee migration, income inequities, food and water shortages, massive species extinction, proxy wars, global hunger, and so on—are themselves organically interrelated, and unless they are addressed in a wholesale manner, there is no effective resolution. Traversing any and all national, ethnic, and religious boundaries, this gathering storm can only be confronted and weathered effectively by a global village working collaboratively for the good of the world community as a whole.

Michael Walzer's Search for Solidarity

Philosopher Michael Walzer in his *Thick and Thin: Moral Argument at Home and Abroad* continues to endorse a politics of difference. But at the same time, he wants to describe and defend a kind of thin universal moral minimalism that resides within each thick and particularist morality. What Walzer wants from this minimalism is nothing less than a limited and yet hugely important sense of solidarity that can bring the people of the world together. Walzer advances a good argument that such a moral minimalism is not foundational in the formulation of all thick moralities in the sense of being the same in every case. Nor is it some commonality at the end point of cultural differences. This moral minimalism cannot be reduced to generalizable procedures or generative rules of engagement. And as for the substance of this thin morality, Walzer does not see such minimalism as minor or emotionally shallow morality; on the contrary, thinness and intensity come together for him as “morality close to the bone.”

While Walzer himself would look to a common, garden variety of “justice” expressed in resonant rules and principles as a possible source of this moral minimalism, I want to suggest an alternative answer to the same problem drawn from the Confucian tradition. If we begin from the fact that China even with a population almost twice that of a combined eastern and western Europe has persisted as a continuous civilization for some four thousand years and counting, we can appreciate the scale of the diversity that has been pursued over the millennia among so many disparate peoples, languages, ways of life, modes of governance, and so on. While this diversity is truly profound, at the same time there has been enough of

a shared minimalist morality to hold it together as a cultural and political entity. I will argue that it is the cluster of terms surrounding the prime moral imperative of “family reverence” (*xiao* 孝) that has made family feeling not only the ground of the Confucian minimalist morality, but also the root and the substance of the living Confucian social, political, and global order that continues today.

The Alternative Confucian Conception of the Political

The nub is that in this distinctively Confucian conception of the political, there is a perceived isomorphism incorporating the family, state, and world, with the state and the world being a simulacrum of the family as an institution. In speaking Chinese, you don’t say “country;” the expression is “country-family” (*guojia* 国家). You don’t say “everybody;” you say “big family” (*dajia* 大家). You don’t say “fellow man;” you say “human family” (*renjia* 人家). You don’t say “Confucian,” you say “literati family” (*rujia* 儒家). In the classroom, I am not “teacher,” but “teacher-father” (*shifu* 师父). And the students who address me thus are “student-older-sister” (*xuejie* 学姐) and “student-younger-brother” (*xuedi* 学弟). The distinguished late-Qing dynasty scholar Yan Fu who translated and introduced Western liberalism into the Chinese academy through the works of Adam Smith, T.H. Huxley, John Stuart Mill, Herbert Spencer and others, once remarked if we ask after the source of social and political order in imperial China over the past two millennia, thirty percent can be attributed to emperor, and seventy percent to family. Simply put, family is not only a governing metaphor in Confucian culture, but for good and for bad (ask the May Fourth Reformers and Mao Zedong who reviled this institution), family feeling is also the source and substance of social and political order. Indeed, one may even go so far as to say that for this Confucian culture with filial reverence as its most basic and defining value, all of the qualities that constitute human excellence are ultimately derived from this most immediate source.

The Role of the Ruler in Virtue Politics

There are several important implications of this seldom remarked upon cultural factor in our understanding of China in the modern world, some positive and some less so. Proper governance is firmly rooted in personal cultivation within the hierarchical and traditionally patriarchal institution of the family. It begins with the ruler as the “parents” of the people, and the stated ideal, as within any healthy family, is that the parents hold sway over other family members to the extent they are morally exemplary in what they do. Such an ancient tradition is much in evidence in the profile of the moral leadership of Xi Dada (“Papa Xi”—a term of endearment for Xi Jinping) promoted in contemporary Chinese society. And it seems to work. According to

the long-term 2003-2016 survey by Harvard's Ash Center for Democratic Governance and Innovation reported in the *Harvard Gazette* as "taking China's pulse," this concerted campaign to define leadership in moral terms has been successful to the extent it has given the Chinese central government an astounding 93% satisfaction rating among its population.¹ And a prominent factor that would explain a spike in positive public opinion at the traditionally more contentious local level, elevating the number of the "satisfied" to over 70%, has been the popular and unrelenting "tigers and flies" anti-corruption campaign unleashed by Xi when he came into office. With respect to the role of family and state isomorphism, however, we might note a decided irony here. It can be fairly argued the endemic culture of corruption that has been the crippling Achilles heel of governance in China throughout history and in the modern world as well has its origins in the intimate relations we associate with family feeling and in the manipulation of this *guanxi* as various forms of nepotism and parochialism. Such intimate relations misused are the ultimate source of corruption.

The primary role of the ruler described explicitly and pervasively in the Confucian classics is to serve as both an advocate and a role model for the kind of family-centered moral education of the population that would promote a consensus on its shared values. From the streets of Beijing to any available blank space in the remotest country village, an observer is overwhelmed by the ubiquitous murals and posters on walls, construction sites, and overhead walkways that exhort the population to respect a specific list of "core socialist values" understood in fundamentally traditional Confucian terms. And such efforts can best be described as the promotion of moral education because in Confucian philosophy, there is a perceived coincidence between morality and education itself. Both morality and education simply stated are growth in those personal relations that begin at home. Education is learning to become a meaningful and responsible member of the family and community, and the standard for determining moral worth is the same. To conduct oneself in a way that is conducive to growth in relations—to listen, to defer, to be caring, to be thoughtful, to be accommodating, to be supportive—is to be moral. And to behave in a way that occasions a diminution in relations—to be self-absorbed, aggressive, intransigent, thoughtless, uncaring, unkind, vulgar—is to be immoral. Confucianism is a culture of face: gaining it, giving it, and sometimes losing it. The internalization of the shared family and communal values galvanizes the sentiments of felt belonging and common cause attended as they are by a profound sense of personal shame in any failings one might feel in living up to social expectations. This shame culture as its ideal is directed at rendering the population self-ordering, thus enabling those in authority to preside rather than to rule. With the parental ruler celebrated as a role model for the shared values of the community and with the people thus inspired to invest themselves heavily in achieving propriety in their own family roles, there is the aspiration for an achieved symbiosis in what we might call a moral economy of Confucian "virtue politics" rooted firmly in family feeling.

¹ <https://news.harvard.edu/gazette/story/2020/07/long-term-survey-reveals-chinese-government-satisfaction/>.

A Family—Rather than God-Centered Religiousness

In this self-sufficient tradition, to the disappointment of centuries of evangelical missionaries who have worked hard and would wish it otherwise, the distinctively Confucian conception of “religiousness” is not grounded in an appeal to some version of an Abrahamic God or other such religious dogma. Indeed, the great French sinologist Marcel Granet once stated rather succinctly “Chinese wisdom has no need for the idea of God.” Confucian “a-theistic” religiousness from earliest times has taken the form of ancestor reverence, where its primary focus is on those who are living, rather than on the living who are now dead. That is, the religious aspect of family reverence (*xiao*) is to inform and strengthen the generational bonds within the family, and to promote the intergenerational transmission of the living culture. Each generation inherits and importantly embodies the tradition from those who have come before and is responsible for building the connector between it and the generation yet to come. Perhaps most obviously in the physicality of the progenitors but more importantly in their persistent values and way of life, they quite literally live on in their progeny, making all Chinese one family as the children of the Yellow Emperor. The living body and its embodied living are the conveyance of the cultural corpus of knowledge through which a living civilization itself is preserved and extended: social and political institutions, linguistic facility and proficiency, religious doctrines and mythologies, the aesthetics of refined living, the modeling of mores and values, instruction and apprenticeship in cognitive technologies, and so on.

A Politics of Relational Equity and an Achieved Diversity

In the Confucian philosophy of family, rather than the values of “individualism,” with persons being constituted by their roles and relations, primacy is given to vital relationality. Hence, the values of relational equity and an achieved diversity at the level of family, state, and world stand as Confucian alternatives to the dominant liberal values of autonomy and simple equality. Given the interdependence of familial roles (a good grandfather and good granddaughter arrive together or not at all), liberal values such as individual autonomy and equality are bypassed in favor of a relational equity (grandpa gets what he needs and granddaughter gets what she needs) that is resolutely hierarchical, with the goal being the achieved diversity or the “flourishing in our differences” that would follow from it. The much-touted slogan “harmonious community” promoted by the Chinese Communist Party is firmly rooted in family with the assumption this is the one social institution in which persons are most inclined to give everything they have without remainder: time, money, a body part, their very lives. Hence “harmony” is a persistent aspirational value activated and endorsed everywhere from the kitchen to the commons. Harmony is striving to get the most out of the ingredients in any particular situation, defining flourishing broadly by what we might call an optimizing symbiosis.

Equity takes the place of an ostensive equality because it has room for the particularity that makes each person, family, and situation unique. And diversity does the work of an ostensive autonomy in the sense that positive liberty is defined as each unique person participating fully in and benefiting from the shared life of their family, community, and nation state. Again, for this tradition, the entry point for developing moral competence is the institution of family and the family feeling natural to it. Thus, rather than equating morality with objective principles, Confucian philosophy is holistic in seeing an important role for both specific and more general considerations. That is, rather than invoking some transcendental moral standard or some faculty of impersonal reason as a warrant for claiming impartiality, a strategy necessarily hobbled by the contingencies of always specific circumstances, the Confucian tradition develops an alternative understanding of impartiality and objectivity true to its commitment to holism. Equity for each unique person can only be respected and diversity among them achieved by giving full affordance to both partiality and impartiality rather than choosing between them. At the same time, these same values of equity and diversity extend beyond any narrowly conceived family or communal locus to guarantee the mutual implication and inseparability of ethical, economic, and ecological considerations. They offer an inclusive and organic “*intra-national*” conception of the political as an alternative to the Westphalian notion of “*international*” relations among independent and equal sovereign states. Rather than *inter*-as the putting of two independent things together, *intra*-is an inside without an outside, beginning from the assumption that the locus of international relations is a living and functioning political ecology.

Family Feeling as a Universal Minimalist Ethic for *Intra-national* Relations

Going beyond this specifically Chinese historical experience and its values, what is the argument that family feeling rather than Walzer’s notion of justice can in fact be universalized to serve as the minimalist morality needed to secure a planetary commons? Can family feeling provide the solidarity needed to ground an alternative doctrine of *intra*- (rather than *inter*-) national relations? And perhaps most pressing, how can family feeling be practically activated to make this difference?

To begin with, families have been a source of economic strength and security in virtually every human culture and arguably will remain such. It is doubtful any national or transnational government will ever be able to provide adequate social welfare services that would diminish our reliance upon the institution of family for a population in a resource-shrinking and ecologically fragile world fast approaching eight billion. Family is the oldest and most pervasive human institution. Given that the word “familiar” is derived from family, can there be anything more familiar? Basing a minimalist ethic on family feeling is thus inclusive in appealing to those initial conditions most broadly defining of the human experience. For most people

with all of their differences, family is still their highest value. Even though families within thick moralities subscribe to significantly different values and are certainly lived in importantly different ways, there is sufficient congruence at the thin and yet intense level of family feeling to claim this locus as having the best chance of providing a common core morality for all of humankind. Universally shared, family feeling has the potential of bringing all people together past the “us” and “them” binary.

Since everyone has a family, family feelings provide us the broadest possible basis for developing appropriate ethical impulses, where such feelings are themselves more primordial than thinking or reasoning. Lived roles in families and their attendant values are more effective than abstract rules and principles to the extent they provide a concrete impetus for determining what to do next. “Because he is my brother” is a powerful argument that does not need to be further theorized. In this way, family feeling satisfies the pragmatic requirement of beginning from specifically experienced meaning rather than from second-order concepts or theories and thus aligns with Walzer’s observation that thin morality and intensity come together as “morality close to the bone.”

Loving others is a precondition for behaving morally—that is, for being appropriate and meaningful in one’s actions. With family as the most immediate locus of this love, one can only learn to love others by being loved oneself. With such intimacy being the only way, proper family relations in infancy are an essential ground for socializing persons and integrating them into the community. Simply put, familial nurturance is not optional in the process of becoming moral. And given the bedrock nature of family feeling, it is in need of no further theorizing or persuasion. Its underdeterminacy, informality, and ambiguity allow family feeling to function analogically rather than essentially or categorically, getting us past many other distinctions that might divide us. As for Walzer’s common, garden variety of justice, family is the schoolroom for such basic values, where a just society can hardly exist while injustices prevail within the families that constitute it.

Taking this minimalist argument a further step, the ultimate contribution cultivated family relations makes to the vision of a moral life is in its tendency to be preemptive rather than retributive. *Contra* the preoccupation of much contemporary ethical theory, ethics is about meaningful relations rather than particular motives, actions, or outcomes in isolation from each other. Family feeling is the source of a positive sense of shame that enables self-governance without external compulsion and that can be effective in preempting antisocial behaviors. Such family feeling, rather than offering a strategy for rational and principled calculation when confronted by difficult cases, provides a fabric of family and communal solidarity that can in important degree forestall the emergence of disintegrative conduct before it arises. Better to preclude spousal abuse in the first place than to address the unhappy problem after the fact.

From the perspective of historical continuities, family is the institution that serves in the process of intergenerational transmission as a conduit for the ongoing embodiment of living cultural traditions. At the end of the day, while human differences have high value as a resource for promoting cultural diversity, in order for these differences

to be understood and activated, they must be informed by a more fundamental sense of a shared and situated sameness. The institution of family provides this ground.

And finally, family in underscoring the inseparability of privilege and responsibility, of entitlements and obligations, is the model of human organization that can most effectively challenge the prevailing ideology of self-interested individualism. Family teaches the wisdom of interdependence in which a good father can only be such with a good daughter, and hence, he does better when his daughter does better. The immediate implication of a relational understanding of oneself rooted in family is that if other members of your family flourish, you flourish too, and by extension, if your neighbor does better, you do better. Without making it crass or commercial, the point is that a generous disposition redounds to your own happiness. While this alternative conception of agency is derived from family feeling, it has immediate application to corporate and political entities at a higher level of abstraction.

Family Feeling Versus Liberal Individualism

One major problem for taking this thin ethic seriously, Confucian or otherwise, is that the contemporary philosophical discourse in theorizing the conception of the political has not regarded family with its partial relationships as a relevant model for its regulative institutions or as a paradigmatic source of social and political order. And certainly many of the citizens of the developed nations as well as the urban elites in those that are less-developed subscribe to the liberal model of society and government based upon the Enlightenment understanding of human beings as free, rational, and autonomous individuals. But the great majority of the rest of the world's peoples in Africa, Asia, the Americas, and the Middle East do not define themselves in such individualistic terms. Their self-understanding is they are embedded in a social ecology of daughters and sons, mothers and fathers, spouses, siblings, cousins, neighbors, members of clans, all with close ties to specific geographic areas, and communities, religious, and secular. Except for the Westernized urban elites in such areas, most of the people would define themselves in a much more relational, "Confucian" language than in Enlightenment and modern liberal terms. From Fei Xiaotong's "differential model of kinship association" 差序格局 to the concept of *pashtunwali*, ethical obligations radiate outward centrifugally in concentric circles from the family to community and analogically to the world beyond. With family-centered values rather than liberalism being the dominant norm among most of the world's cultures, in any discourse on a new geopolitical order, we have to resist our own cultural commonsense in either ignoring the institution of family or setting it aside as a special case. If in looking for resources for a changing geopolitical order we seriously desire to engage in an inclusive cross-cultural dialogue rather than merely a polemic, prudence would suggest that the familial terms must at least be allowed into the discourse, even if they do not come to dominate it.

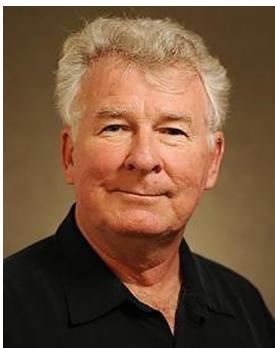
Virtue Politics and a Moral Economy

How do we activate family feeling as a universal minimalist morality to achieve global solidarity? Might we look to virtue politics and its moral economy. Harvard historian James Hankins in his recent monograph *Virtue Politics* argues the unifying goal of Renaissance humanism was the anticipated improvement of society through the education and careful training of its rulers. In asserting it was moral rulers rather than specific institutional or constitutional models that were able to galvanize good governance and human flourishing in renaissance Italy, Hankins traces the title of his book “virtue politics” back to the classical Confucian philosophers. In his “Conclusion,” he cites Matteo Ricci who in 1584 reports back to Rome “the Chinese through their statecraft, into which they have put all their effort and achieve such brilliance that they leave all other nations behind.”² G.W. Leibniz a century later echoes Ricci in his *News from China* when he observes “there is on earth a people who, though we are in our view so very advanced in every branch of behavior, still surpass us in comprehending . . . the precepts of ethics and politics adapted to the present life and use of morals.”³

Within a changing world cultural order that is following in the wake of the seismic political and economic disruptions, will moral rulers emerge to serve as role models and advocates for moral education grounded in family values? Will the Confucian values of equity and diversity grounded in the institution of family be a challenge to dominant liberal values of autonomy and simple equality and serve as a resource for the kind of *intra-nationalism* needed to respond effectively to our shared human predicament? Family feeling can be seen as necessary for living full social, moral, and religious human lives. Reconstructing social, political, and moral philosophy in the twenty-first century within a more multiethnic and interreligious global context must take this fact into account. The importance of intergenerationality in human relations and interactions can be appreciated anew; a different way of defining oneself can be envisaged; a more robust concept of social justice might replace the narrow definition currently in vogue; even death and dying may be approached differently. It is thus an urgent philosophical task to inquire more deeply into the role of family feeling in the formulation of a minimalist ethic for a new geopolitical order.

² James Hankins, *Virtue Politics: Soulcraft and Statecraft in Renaissance Italy*. Cambridge, Harvard University Press, 2019, p. 496.

³ See G.W. Leibniz, *Writings on China*, translated by Daniel J. Cook and Henry Rosemont Jr., La Salle, IL: Open Court, 1998, p. 46.



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Appendix

CCG-UN China Symposium “China and the United Nations: 50 years and beyond”

On November 2, 2021, the United Nations in China and the Center for China and Globalization (CCG) co-hosted a symposium to celebrate the 50th Anniversary of the restoration of the lawful seat of the People’s Republic of China in the UN at CCG’s Beijing headquarters.

Over the past 50 years, China has come to play an increasingly major role in the UN as a key driver for global recovery and as a major contributor to the realization of Sustainable Development Goals around the world.

Opening remarks were given by Siddharth Chatterjee, UN Resident Coordinator in China and Dr. Henry Huiyao Wang, CCG President. Special addresses were given by H.E. Wu Hongbo, Special Representative of the Government of China on European Affairs; H.E. Rahamtalla Mohammed Osman, Ambassador of the African Union to China; H.E. Mamadou Ndiaye, Ambassador of Senegal to China; and Tian Lin, Director-General of the International Department of the China International Development Cooperation Agency.

Siddharth Chatterjee, UN Resident Coordinator in China

Excellencies, Ladies and Gentlemen, Good afternoon!

I am pleased to welcome you all here in this ideal setting for this event. First, I wish to express my heartfelt thanks to the Center for China and Globalization (CCG) for partnering closely with the UN in China to co-host this afternoon’s high-level symposium. We in the UN are much indebted to CCG for its very generous support on the organization of this symposium to celebrate the 50th Anniversary of Restoration of China’s Lawful Seat in the United Nations.

2021 is genuinely a critical year for China and the World. It marks the Centenary of the Chinese Communist Party, the successful establishment of a moderately prosperous (*Xiao Kang*) society, and also the 50th Anniversary of the restoration of the lawful seat of the People’s Republic of China in the United Nations.

For the past 50 years, we have witnessed the miraculous economic and social transformations that have taken place in the country. During this time, China has

lifted over 750 million people out of absolute poverty, strengthened investment in education and public health to create a happier and healthier workforce and become the “*world’s factory*”. It also multiplied GDP per capita from \$180 in 1979 to nearly \$12,000 today.

The UN has been a trusted development partner of China, with the first UN office in China opened back in 1979. In the four decades following that year, the role of the UN in China has shifted from that of a traditional donor to that of a partner providing technical expertise and support, both within and beyond its national boundaries, including in its activities under the framework of South-South cooperation. As we celebrate the great progress achieved, we also need to focus on the big challenges ahead.

There is no doubt that humanity has entered a decisive decade for our world. The COVID-19 pandemic has taken the lives of about 5 million people and significantly disrupted the global economy. The impact of COVID-19 has an even larger impact on the vulnerable population, with as many as 150 million people brought back to extreme poverty by 2021. To realize goals set in the 2030 agenda, targeted and innovative solutions are needed for a rapid and sustainable recovery.

While the world is struggling to recover from the impact of the pandemic, another systemic crisis is imminent. The time remaining for human beings to reverse climate change is running out.

As the UN Secretary-General António Guterres noted, the “*red code for humanity*” has struck and we need to act fast to avoid “*the point of no return*”.

Faced with global uncertainties, China has a number of challenges in achieving its ambitious development goals. China needs to bridge the gap between rural and urban areas, boost up the social security system to care for the vulnerable, and leave no one behind. Moreover, China needs to transition to a new development paradigm: a green, equitable, and sustainable growth model that aims at achieving common prosperity for all people. We are pleased to see China is preparing to move fast to address these challenges. We, in the UN, stand ready to work with the Government and people of China to realize ambitious plans such as rural revitalization and the 2060 goal of carbon neutrality.

Next, let us reflect on the following key questions. What will future collaboration between the UN and China look like? How can the UN be fit for purpose in China and deliver with greater impact in the next 50 years?

I can talk from my experience when I worked in Africa on developing partnerships between the UN, the Government of Kenya, and businesses including technology companies Huawei from China and Safaricom from Kenya as well as Merck USA, Philips from the Netherlands, and GSK from the UK. We successfully reduced maternal mortality in some of the most affected counties. More recently, Huawei, the UN, and the Government of Kenya have implemented telemedicine projects which are now being scaled up nationwide, and these projects can be replicated globally.

In this Decade of Action to realize the Sustainable Development Goals by 2030, the UN is more than ever well positioned to build partnerships with the private sectors and non-profit organizations to unlock cutting-edge solutions to global challenges like shared prosperity and climate change.

Today, we are honored to have leading experts from the Chinese Government and UN Country Team in China to discuss the future of collaboration between the UN and China on precisely these two areas: inequality and climate change. Both challenges are complex and multi-faceted. The kind of intellectual exchanges that we are today promoting together with our co-host CCG is essential to prepare us to adapt and act fast to form effective and impactful partnerships around key development issues.

In conclusion, allow me to reiterate that the UN will continue to march in lockstep with the people of China to defend multilateral cooperation and contribute to global governance. As President Xi Jinping said at the 76th UN General Assembly, “*the baton of history has been passed to our generation, and we must make the right choice, a choice worthy of the people’s trust and of our times*”. The UN in China is here to work with you, side by side, united for a better world.

I wish you fruitful deliberations.

Xie xie!

Dr. Henry Huiyao Wang, Founder & President of CCG

Excellencies, distinguished guests and experts, ladies and gentlemen,

Firstly, I would like to welcome everyone on behalf of the Center for China and Globalization (CCG) to today’s special occasion. We are honored to collaborate with UN China to celebrate “China and the United Nations: 50 years and beyond”, to commemorate the restoration of China’s lawful seat in the United Nations, jointly hosted by the United Nations in China and CCG. Today, honorable representatives from the UN system, Chinese government officials, representatives from embassies and international organizations in China, and experts are gathered here to share insights and stories of the friendship and cooperation between China and the UN and look forward to the future.

During a dialogue I had with my friend Kishore Mahbubani, someone who worked in the UN for 10 years as Singapore’s Ambassador to the UN and president of the UN Security Council, he told me that he loves the UN and thinks the UN is one of the most wonderful organizations in the world and the UN Charter is one of the most beautiful documents in the world. As a globalist and an advocate for multilateralism, I, too, feel the same way and share the vision of his and everyone here for the UN to continue to make the world a better place. The United Nations General Assembly is a crucial place to unite everyone in every corner of the world, address global issues, and push forward sustainable development goals for the future of mankind and our beloved planet. As a matter of fact, we are gathered here against the background of COP 26 in Glasgow, which is organized by the UN.

50 years in, amid constant changes and shifts in the global context, China’s participation to the UN system has made significant advancements, improved its status in the international community, and contributed to global unity and initiatives with resilience. It has been a story of change-making. It has become a major contributor to the peacekeeping force of the UN, aiming to protect civilians and promote peace and stability for those who are in need. China’s efforts in eliminating extreme poverty and setting the agenda for the SDGs have renewed hope for not only itself

but also other developing countries. Further, China has been a strong supporter of South-South cooperation for her friends in the UN to ensure inclusive growth and prosperity for all. In July this year, China issued “China’s VNR Report on Implementation of the 2030 Agenda for Sustainable Development”, sticking to the path of implementing the SDGs. Last month, during the UN Biodiversity Conference (COP15) in Kunming, China pledged 1.5 million RMB (223 million US dollars) in support of biodiversity protection in developing countries and successfully pushed forward the Kunming Declaration. As we embark on the next journey, I sincerely hope that the future of China and the UN will be one with concrete actions and greater openness, to deliver more networked multilateralism and promote inclusive growth for all member states in the UN.

CCG and the UN agencies in China have also embraced great friendship and built a strong rapport for many years and we appreciate the support and collaboration with UN China. Together, we have co-organized a great number of past events including the annual CCG China and Globalization Forum, our annual China Inbound-Outbound Forum, and other seminars and roundtables involving topics of global governance and sustainable development including the Annual Silk Spice Road Dialogue and Himalayan Consensus Dialogue. We truly appreciate this friendship and the help from UN in China. As the only think tank in China granted Special Consultative Status by the United Nations ECOSOC and one of the world's top 100 Chinese non-governmental think tanks, CCG has been actively engaging in conducting multilateral research, advancing multilateral activities, and promoting multilateralism under the UN Charter.

Facing unprecedented changes and challenges in today's world owing to the pandemic, climate change, widening inequalities, the rise of populism and deglobalization, the reinvigoration of multilateralism, and the upgrading of the UN are urgently needed. China and the UN are at the forefront of this endeavor. It is my earnest hope that the friendship between China and the UN will continue to remain strong, the bond between CCG and UN China will endure, and multilateralism will flourish. I also hope our afternoon discussions will be a success. Thank you all very much!

H.E. Wu Hongbo, Special Representative of the Government of China on European Affairs

Ladies and Gentlemen,

In 1987, the 42nd UN General Assembly endorsed an important document called “Our Common Future”, also known as “Brundtland Report”. It is defined for the first time the “sustainable development” as “the development that meets the needs of the present without compromising the ability of future generations to meet their own needs”.

Ever since then, the international community has been working actively to enrich the content of sustainable development with enormous outreach efforts. 28 years later, the UN reached two landmark agreements in 2015, namely the 2030 Agenda for Sustainable Development and Paris Agreement on Climate Change. The UN has

further defined sustainable development as development that combines economic growth, social justice, and environmental protection. As a former UN official, I am very pleased to see that the sustainable development is enjoying increasing and widespread popular support.

This year is extraordinary for the Chinese people. It marks the centennial of the Communist Party of China and celebrates the 50th anniversary of the restoration of China's lawful seat in the United Nations.

Over the past 50 years, China has successfully moved from a poor country to the world second-largest economy. China has been sharing COVID response experiences with the rest of the world while sending large quantities of supplies, vaccines, and medicines to other countries.

China successfully met the UN Millennium Development Goals and the Chinese people have now enjoyed moderately prosperous living standards with the unprecedented eradication of absolute poverty this year. China has reached SDG1 ten years ahead of schedule and contributed over 70% of global poverty reduction.

As the UN Secretary-General António Guterres said, China has become an increasingly important contributor to the work of the Organization and a major pillar of international cooperation.

The COVID-19 is threatening our health, destroying economies and livelihoods, and deepening poverty and inequalities, thus threatening our very existence.

COVID-19 pandemic has pushed 70 million people back to extreme poverty, added 83 million more to populations facing hunger, making SDG1 of eradicating poverty and SDG2 of ending hunger more difficult to reach.

The fortunes of the world's 2500 billionaires has increased daily by 5.2 billion dollars while 4 billion people the world over lack even basic forms of social security. Meanwhile, 7.6 million people are also displaced by conflict and crisis.

The density of carbon dioxide is 148 times higher than pre-industrial levels. One billion species in the world are in danger of extinction, while 10 million hectares of forest are lost every year. We are now on the fringes of a disaster and the window of hope is closing on us fast.

Our organizers have correctly chosen Common Prosperity and Climate Change as the main topic for today's round table discussions. I shall leave these subjects to panelists for their valuable opinions and expert advice. As former UN USG personally involved in the formulation of the SDGs, I wish to share with you my observations on the governance in implementing the sustainable development.

1. Political Will

- (1) This will must be “people-oriented”. We have witnessed too many cases where political factions' interests prevail over the interest of general public. Recently, the Federal Reserve reported that the combined wealth of the super-rich accounting for 1% of the US population surpassed for the first time the total wealth of the entire middle-class families in the country. When you read this you would understand the significance of people-centric concept.

- (2) This will should remain unchanged despite the change of governments. The recent change of US government is a case in point. We all know that how much damage could be done to SDG implementation and climate change efforts.

2. Organization

- (1) Localization. SDGs, though internationally agreed, are not legally binding. Therefore, they should be incorporated into national development strategies for better implementation. Soon after the UN endorsed the 2030 Agenda in 2015, Chinese President Xi publicly committed to incorporating all the SDGs in China's 13th Five Year Plan.
- (2) Cross-cutting. SDGs are all cross-cutting in nature and call for trans-ministerial coordination. China had put in place a cross-sector mechanism composed of 47 ministries for SDG implementation in China.
- (3) Field operation. The Chinese government sent 250,000 task teams with 5 million officials to each and every poor village for poverty relief operation. As a result, nearly 100 million people have been lifted out of poverty.

3. Accountability

- (1) Division of responsibility. All Chinese government agencies and officials have their specific responsibilities. China even invented a “river and lake chief” system to ensure all the rivers and lakes are under supervision and well managed.
- (2) Disciplinary sanctions. Those failing to perform their duties shall be disciplined accordingly. Since the Delta variant of COVID-19 appeared, China held more than 100 officials accountable for neglecting their duties and no patients died, while in one of the world’s large developed countries, no one was held accountable and more than 50,000 patients died. The sharp difference is obvious.

4. Data and Indicators

- (1) Basic data. More than 100 countries have no accurate birth or death registration, and over 77 countries have no sufficient information on poverty. Without basic data there will be no way to assess whether the SDGs have been achieved or not.
- (2) Disaggregated data. This is extremely necessary for focused relief efforts. However, disaggregated information is even challenging for rich countries. Now China has both complete basic data and disaggregated information for both SDG implementation and climate change actions.
- (3) Indicators. We have 17 goals, 169 targets, and 232 indicators. However, the UN indicators, designed to cater to all circumstances, are general in nature. They need to be strengthened with local indicators. For example, in SDG1 extreme poverty is daily consumption less than 1.25 USD (now raised to 1.9 USD). In China, we have “Two Not Worries” (food and clothing) and “Three Guarantees” (education, medical care, and housing), which makes

Chinese indicators more specific and practical with standards higher than UN indicators.

5. Financing

- (1) Full Mobilization. We should make the best use of all resources, including domestic public resources, private finances, development cooperation, trade, sustainable debt, and capacity building. In the past eight years, the Chinese government earmarked 25.3 billion USD for poverty relief, created 14,000 large enterprises and 719,000 farmer coops that benefit 72% of poor families.
- (2) Innovation. Conventional financing is not sufficient; innovation is necessary. In China, the public, private enterprises, and NGOs are all mobilized to help. Poor people are helped with vocational education and professional training, small-sum relief loans, e-commerce, tourism, and forestation. For example, PV power stations were built in 100,000 poor villages, which have brought 30,000 USD to each village, creating new jobs and subsidizing the poor. E-commerce also covers all 832 poor counties to boost local trade. In short, we need people-centered and efficient governance for both implementing SDGs and stopping global warming.

President Xi said in St. Petersburg, Russia, that sustainable development is the golden key to the solutions of current global challenges. Let us work together for global sustainable development for our generation and generations to come.

H.E. Rahamtalla Mohammed Osman, Ambassador of the African Union to China

I wish to thank the United Nations Association of China and the Chinese People's Institute of Foreign Affairs for having invited the African Union Permanent Mission to participate in this seminar of celebration of the 50th anniversary of the restoration of the lawful seat of China in the United Nations as well as for allowing me to share my reviews of the China's journey back to the United Nations and its contribution to its causes.

As the largest developing country and a permanent member of the United Nations Security Council, China has always embraced the principles and ideals of the United Nations by contributing to humanity's cause of peace, stability, and development and promoting with concrete actions a community with a shared future for mankind.

You would recall that, in 1971, African countries provided the crucial majority which ensured the joining of China to the United Nations and also allowing it to take its lawful seat on the United Nations Security Council as one of the five permanent members. Since then, an unbreakable bond between China and Africa was forged. This bond was testified by the leadership of China in supporting African countries in their fight for national independence and liberation against colonialism, apartheid, and segregationist regimes which laid a solid foundation for long-term friendship and cooperation with African countries.

China, as a founding member of the United Nations and the first country to sign the United Nations Charter, has made tangible contributions to the United

Nations, especially in global governance, peacekeeping, and poverty reduction and development.

Over the years, China supported multilateralism and the work to improve global governance in international development cooperation, including safeguarding the international system with the United Nations at its core as China continues to adhere to the universal values of humanity—peace, development, equity, justice, democracy, and freedom.

In recent years, in particular, China has taken an active role in United Nations peacekeeping operations. For instance, in December 2018, China’s share of the United Nations peacekeeping budget for 2019-2021 increased from 10.24% to 15.22%, making it the second-largest contributor only after the USA. China has dispatched more than 40,000 peacekeepers to over 30 missions, contributing more peacekeepers than any other permanent member of the United Nations Security Council.

The China’s active role in peacekeeping has special meaning in Africa since most of the United Nations peacekeeping missions currently deployed throughout the world are in Africa.

The continued support to Africa at various levels, including contributions to peace-keeping missions and the operation of the African Standby Force (ASF) as well as the work toward a better representation of Africa in the international system, in the United Nations Security Council, as part of a new global governance system, continues to be a priority for China in the recent engagement in the United Nations, with special emphasis on enhancing African capacities.

These developments have also facilitated the strengthening of the partnership between the African Union and the United Nations, based on the principles of mutual respect and African ownership. In fact, the African Union and the United Nations are actively implementing joint frameworks on peace and security and on sustainable development, including the 2030 Agenda for Sustainable Development and African Union Agenda 2063. Africa, China, and the United Nations are also cooperating on a number of specific situations before the United Nations Security Council.

Moreover, China plays a great role in the reform of the United Nations Security Council, in particular the call for the increasing representation and role of developing countries in the Council in order to enhance its authority and efficiency and enable it to better fulfill the responsibilities of maintaining international peace and security conferred on it by the United Nations Charter.

Ending poverty by 2030 is at the heart of the United Nations’ Sustainable Development Goals (SDGs). Recently, China achieved the goal of eliminating absolute poverty 10 years ahead in its plan to realize the goals established under the United Nations 2030 Agenda for Sustainable Development. 99 million rural poor living below the current poverty line were lifted out of poverty. These achievements have written a new chapter in world history as China’s contribution to poverty reduction represents more than 70 percent of the global poverty reduction effort, and has significantly reduced the world’s impoverished population.

The willingness of China to share the proceeds of its development path with the rest of the developing world to further their economic and social development and

people's wellbeing are a great contribution to global agenda on poverty eradication. As such, an understanding of China's experience in poverty reduction provides a reference for other countries to fight against poverty, particularly those in South Asia and Africa, which have around 85% of the world's poor.

With regard to Africa, the government and people of China have shown the world that they are still true partners of Africa through their support of the continent's commitment to its own path of growth and development. In particular, the commitments made to help Africa in the implementation of Agenda 2063 and the United Nations Sustainable Development Agenda 2030 will steadily reinforce African capacities to fight poverty and move toward continent-wide development.

China is at the frontline of the promotion of South-South cooperation, in particular the China-Africa cooperation through the Forum on China-Africa Cooperation (FOCAC) and the Belt and Road Initiative (BRI), covering a range of areas such as industrialization, agricultural modernization, infrastructure, finance, green development, trade and investment facilitation, poverty reduction, public health, cultural and people-to-people exchanges, and peace and security, which testify that South-South cooperation can respond to development needs of our continent.

Equally, in the face of COVID-19, China has actively responded to the United Nations-initiated Global Humanitarian Response Plan: a cash donation of 50 million US dollars to the World Health Organization, assistance in kind to over 150 countries and international organizations, and medical exports to more than 200 countries and regions.

African nations have also benefited from China's support in fighting against the COVID-19 pandemic and in improving their public health systems, fortifying their public health defenses, and improving the speed of their response and their capacity for disease control, which has been done by establishing a cooperation mechanism that pairs with African hospitals and accelerates the construction of health infrastructure in the continent. China has further committed to make COVID-19 vaccines available as a global public good and for Africa.

As such, I wish to conclude by reiterating that the African Union will remain China's strategic and longstanding partner, as we jointly pursue common development goals based on mutual respect, good faith, shared interests, and practical results. I am sincerely hopeful that the commemoration of the 50th Anniversary of the restoration of the lawful seat of China in the United Nations will provide an opportunity to renew China's commitment with multilateralism, partnership, and cooperation toward world peace, stability, and development.

H.E. Mamadou Ndiaye, Ambassador of Senegal to China

We are gathered here today to commemorate the 50th anniversary of the restoration of the lawful seat of the People's Republic of China in the United Nations.

In doing so, we also recognize and celebrate China's outstanding role in the United Nations and its sterling contribution to international development.

Over the past 50 years, China, as a responsible member of the international community, has been striving to safeguard the values and principles of the United Nations. China has also continued to be at the forefront of all major global initiatives

aimed at making this world a better place to live in. One of its major contributions is undoubtedly its precious support to the African countries’ efforts to fight against poverty and to achieve development and prosperity.

Through various mechanisms, China’s development cooperation has constantly been present in Africa where it has played a major role in the economic and social development of many countries and brought tremendous changes to the living conditions of its populations.

For instance, it is thanks to China-Africa cooperation that many African countries have seen a sharp increase in the number of their citizens who now have access to essential infrastructure like roads, electricity, potable water, schools, and hospitals.

Capacity building and human resources training are also two areas where China-Africa cooperation has made significant strides, with China offering wide-ranging training opportunities to African students and civil servants.

Most importantly, Africa has learned from China’s development trajectory and rapid transformation the lesson that poverty is not a fate and can be eliminated.

Since the establishment of the Forum on China-Africa Cooperation (FOCAC) in the year 2000, China-Africa cooperation has given new impetus to South-South cooperation. Based on principles such as *inter alia*, equality, mutual respect, and mutual benefits, FOCAC has expanded China-Africa cooperation to new domains and demonstrated that the potential of international development cooperation is far from being exhausted.

As we prepare for the 8th Ministerial Conference of the Forum on China-Africa Cooperation to be held later this month in Dakar, we are confident that FOCAC will remain true to its reputation as a win-win partnership and a pragmatic cooperation platform.

In this regard, it is important to build synergy between FOCAC, the UN 2030 Agenda for Sustainable Development, Agenda 2063 of the African Union, and the national development strategies of China and the African Countries.

This was a commitment made at the 2018 Beijing Summit and it would be pertinent to enhance it at this crucial moment when the world is facing unprecedented challenges in relation to the COVID-19 pandemic.

In particular, after 21 years of existence, FOCAC must demonstrate that it is possible to unlock the potential of African countries and to develop the continent by leveraging international cooperation which can be supplemented by a greater participation from the private sector.

For this to be achieved, it is essential to invest in building an ecosystem of knowledge development in Africa that is conducive to sustainable economic and social transformation.

With an extremely young population projected to reach 2.5 billion in 2050, Africa is today the world’s largest reservoir of human capital and prospective talent. These young men and women are Africa’s most precious assets. If provided with appropriate education and training, they can become the next generation of skilled workers, managers, engineers, and entrepreneurs who will scale up the productive capacities of their countries and turn Africa into an industrial and economic powerhouse.

Having successfully made the journey from poverty to prosperity, China is most qualified to be the strategic partner of the African countries at a time when Africa is resolutely determined to change the course of its history as epitomized by the implementation of the African Union’s Agenda 2063.

In this regard, I strongly believe that the United Nations can provide precious guidance and coordination to Africa and China so as to ensure a better planning of their cooperation within the FOCAC framework.

In conclusion, I would like to reiterate my warm congratulations to China on this 50th anniversary and I wish the Chinese people continued peace and happiness.

I also thank the UN Resident Coordinator’s Office in China and the Center for China and Globalization for giving me the opportunity to speak at this very important event.

Tian Lin, Director-General of the International Cooperation Department, China International Development Cooperation Agency (CIDCA)

On the occasion of the 50th anniversary of the restoration of the lawful seat of the People’s Republic of China at the United Nations, it is my pleasure, on behalf of the China International Development Cooperation Agency and Chairman Luo Zhaohui, to attend the symposium of “China and the United Nations: 50 Years and Beyond”.

Please allow me to extend my warm congratulations on the opening of the symposium. My sincere thanks also go to our hosts, UN in China and the CCG, for your thoughtful arrangements.

Fifty years ago, the People’s Republic of China and the United Nations joined hands and opened a new era in our relations. Over the past 50 years, China has faithfully followed the purposes and principles of the UN Charter and has become an important builder of world peace, a contributor to global development, and a defender of the international order.

In promoting the noble cause of global sustainable development, China and the United Nations have walked hand in hand, becoming important partners.

China has spared no effort to realize the 2030 Agenda for Sustainable Development. We have actively implemented a new philosophy of innovative, coordinated, green, open, and shared development, solved the problem of absolute poverty, and built the largest social security and compulsory education system in the world. We have taken the lead in both pandemic prevention and control and economic recovery, becoming the only major economy that has achieved positive economic growth last year. China’s success has set a model for global poverty eradication, pandemic response, and sustainable development and has enhanced the confidence and strength of developing countries.

China actively leads the global governance on international development cooperation. President Xi Jinping recently proposed the “Global Development Initiative”, calling for an adherence to the concept of “prioritizing development and being people-centered”, promoting global development to a new stage of balance, coordination, and inclusiveness, and sharing China’s solutions with the world as we approach a crossroads in history. The initiative is open to the world, and we welcome the participation of all parties.

China actively promotes the common development of the world. We form accurate synergy between foreign aid and other countries' development strategies, providing them with timely assistance and sharing our development experiences without any political conditions. We also actively promote joint high-quality development of the Belt and Road Initiative, building the widest and largest international cooperation platform in the world that has worked to combat the impact of COVID-19. We have provided foreign assistance to more than 160 developing countries, implemented thousands of material assistance projects, ten thousands of technical and human resources cooperation projects, and have trained about 400,000 personnel of all kinds in developing countries.

China actively responds to global humanitarian challenges. We have never been absent from global humanitarian crises including public health, natural disasters, or refugee and migration crises. Following the outbreak of COVID-19, we launched the largest emergency humanitarian operation since the founding of the People's Republic, have provided anti-pandemic material assistance to 150 countries and 13 international organizations, and have sent 37 medical expert teams to 34 countries. This year, we have been actively implementing the solemn commitment by President Xi Jinping to make China's vaccine a global public good, providing over 1.6 billion doses of vaccine to more than 100 countries and international organizations, and playing a crucial role in the global cooperation against the pandemic.

China actively advocates multilateral cooperation. We have established the South-South Cooperation Assistance Fund, cooperated with more than 10 agencies of the United Nations, and implemented more than 100 livelihood projects in over 50 countries to the benefit of more than 20 million people. We have set up the Institute of South-South Cooperation and Development to share our development experience and build a platform for research and exchange. We have established the China-UN Peace and Development Fund, providing support to more than 100 developing countries. Recently, China also successfully sponsored COP15 and the Second United Nations Global Sustainable Transport Conference.

The world today is under the combined impacts of the pandemic and worldwide changes, both unseen in a century. We are facing challenges that emerge one after another. Implementing the 2030 Agenda for Sustainable Development is at the core of current international development cooperation.

As the most universal, representative, and authoritative inter-governmental international organization, the United Nations should hold high the banner of true multilateralism and become the core platform for all countries to jointly safeguard universal security, share development achievements, and jointly guide the destiny of the world.

China will work closely together with the United Nations to meet challenges and advance the cause of human development.

We will fully support international cooperation in fighting the pandemic. We will continue to provide vaccines and necessary anti-pandemic supplies to countries in urgent need, continue to carry out medical and technical cooperation, help developing countries better their public health systems, improve the level of international public health, and provide support for recipient countries to accelerate their economic and social recovery.

We will continue to implement the goal of green development. We will engage in in-depth cooperation projects to deal with climate change, increase support for clean energy projects such as hydropower, photovoltaic, and wind energy, share green development experience, and jointly promote a “Silk Road of Green Development”. We will assist recipient countries in building a resource-saving and environmentally friendly society and constructing a community with a shared future for mankind and nature.

We will actively support global economic recovery. We will continue to pay close attention to the fundamental human rights of survival and development in all countries, focus on the array of livelihood issues such as poverty, unemployment, hunger, health, and education, constantly increase the supply of global public goods, and actively ensure the safety and stability of industrial chain and supply chain.

We will continue to optimize the governance of global development. We will actively participate in dialog and cooperation in the field of development, strengthen exchanges and mutual learning between China and various assistance providers, increase support for international organizations, help developing countries remove developmental bottlenecks, and make new contributions to building a community with a shared future for mankind.

China’s foreign aid and international development cooperation will continue to play an important role in the promotion of the common development of the world. Guided by Xi Jinping Thought on Diplomacy, our mission will be creation of a community with a shared future for mankind. Our principle will be the right approach to justice and interests. We will take into account both bilateral and multilateral assistance and combine hard aid with soft aid, so as to build an all-round and multi-dimensional pattern of foreign aid.

We will continue to strengthen our exchanges and cooperation with the traditional donors, the United Nations, and other international organizations, while also actively exploring triangular cooperation. We will strengthen the whole-chain supervision, prevent corruption, improve quality, and enhance evaluation, thereby ensuring the sustainable development of projects. We will continue to release, through different channels, information and data on China’s foreign aid in a timely manner to improve transparency.

Regardless of changing international circumstances, China will always remain a staunch supporter of the United Nations and multilateralism, a staunch promoter of the 2030 Agenda for Sustainable Development, and a staunch practitioner of the cause of international development cooperation.

We firmly believe that a multilateral system with the United Nations at its core will be strengthened at a higher level, in a wider scope and across a wider field, and that greater glory will be achieved in the undertaking of the development and progress of mankind.

The symposium featured two roundtable discussions. “Toward a new development model for common prosperity” featuring Cynthia McCaffrey, Representative of UNICEF China; Smriti Aryal from the Head of Office of UN Women China; Matteo

Marchisio, Country Director and Representative in China, ROK and DPRK at IFAD; Xu Xiuli, Professor and Dean of the College of International Development and Global Agriculture (CIDGA) at China Agricultural University; Shahbaz Khan, Director of the UNESCO Cluster Office in Beijing; and Cindy Mi, Founder and CEO of VIPKid.

Roundtable 1: “Toward a new development model for common prosperity”

The goal of “reducing inequality within and among countries”, which lies at the heart of UN’s 2030 Agenda for Sustainable Development, is a priority for most countries. China’s recent creation of the long-term goal of common prosperity, as a means to “properly deal with the relationship between efficiency and fairness”, aims to strike a balance between reducing inequality and maintaining economic growth, a critical part of which is enhancing strategies for rural and agricultural development.

Progress towards the first SDG, which calls for “ending poverty in all its forms everywhere”, has been uneven across the globe. While alleviating extreme poverty was achieved ten years ahead of schedule in China, many parts of the world are lagging behind due to multiple factors including a lack of public infrastructure and inadequate access to education. In the meantime, COVID-19 has significantly hindered the progress of ending poverty, drawing attention to issues such as the unequal distribution of public health resources and highlighting the need for a sustainable recovery plan.

Cynthia McCaffrey, Representative, UNICEF China, said that the UN Charter is a roadmap for how we move forward with a common understanding to put in place the right programs, policies, and guidelines in order to truly realize every single child’s rights and to advance those rights. Cynthia mentioned three things to illustrate what UNICEF has done with the government of China. First, China and UNICEF are working on creating equal access to quality services in order to advance the rights of children. The second way is to have equal access for all children to social security benefits, the idea of which is to integrate financial investment with the services provided to children. The third thing is investment throughout their entire childhood, from the earliest days all the way through adolescence. According to Cynthia, UNICEF is working with the government to continue investing in systems of education and learning that go beyond middle school into high school, creating robust opportunities.

Smriti Aryal, Head of Office, UN Women China, spoke on the importance of gender equality and women’s empowerment in common prosperity and achieving the SDGs. Smriti highlighted three considerations from the perspective of gender equality and women’s empowerment. First, she emphasized that empowering women in the economy and closing gender gaps in the world of work is a precondition to achieving common prosperity and the 2030 Agenda for Sustainable Development.

Secondly, expanding care services as a global public good and increasing social security benefits to informal sector workers is another important stepping stone toward the common prosperity agenda. According to UN Women’s global analysis, enhancing public investment in care services could increase jobs by 40-60%, which would address the deficit of care support. Finally, Ms. Aryal stressed that

development financing for gender equality and SDG 5 is relatively low, while needs have widened due to the impact of the COVID-19 pandemic. One way to address the deficit is by innovating public financing and fiscal policies, and the other is to boost public-private partnerships by encouraging industries and companies to play a greater role in broadening investment for the SDGs and socially conscious business practices.

Matteo Marchisio, Country Director and Representative in China, ROK and DPRK, IFAD, talked about inequality and the divide between rural and urban areas. Matteo mentioned labor migration from rural places to urban cities, especially the youth population, which is not a socially sustainable phenomenon in the long term. This issue was also mentioned in a policy note on poverty alleviation and rural revitalization in post-2020 China by IFAD. However, Mr. Marchisio attributes this situation to the lack of jobs and development opportunities in remote places. In order to deal with this regional inequality, Matteo suggests that China needs to invest more in rural areas, to create attractive employment and investment opportunities. Moreover, he said it is likely that a full transition to large-scale and mechanized agriculture will take time in China, because of which, he proposed a dual strategy to integrate smallholders into modern agriculture while releasing labor currently engaged in smallholder farming to more productive and remunerative activities and new opportunities. He summarized his speech by suggesting that China needs to focus on creating more opportunities outside the agricultural area.

Xu Xiuli, Professor and Dean of the College of International Development and Global Agriculture (CIDGA), China Agricultural University, noted that the priority now is to spread new development knowledge. She took her organization as a case study to explain this process. From 2001 to 2009, China Agricultural University started a program in Tanzania which aimed at poverty alleviation and capacity building. They linked different government officials with the local communities to improve efficiency. Finally, she summarized that China should share more global development experiences and foster a new development path through South-South cooperation.

Shahbaz Khan, Director, UNESCO Cluster Office in Beijing, began by noting that there were 56 UNESCO World Heritage Sites in China as of 2021, with the latest one in Quanzhou. They were granted this status not just because of their beauty but also because of their sustainable development strategies linked to education, rural revitalization, protection of species, science, and culture. He emphasized this new development model, which includes three important pillars: rural revitalization, ecological civilization, and shared prosperity. Prof. Khan said China has established an online platform for heritage education to promote the process of rural revitalization. Ecological civilization is also a new model. He mentioned that in ecological civilization, it is very important for us to achieve coexistence between nature and humans. New ecosystems and new rural livelihoods need to be created. Finally, for shared prosperity, China is actively contributing to UNESCO centers and the development in the Southern Hemisphere.

Cindy Mi, founder and CEO of VIPKid, focused on her idea for common prosperity in education. She has been working in the education sector to promote equitable education and lifelong learning for all. Looking back at her personal life and working experience, she highlighted three challenges related to common prosperity education. First is cross-cultural connection. COVID-19 has created great difficulties for transnational education; however, technological platforms have made cross-cultural connection much easier and will be a popular trend. The second issue is the challenge created by a divide in digital literacy for learners and teachers. She noted that with the help of technology and the private sector, online teaching can help to overcome this digital divide and create a world-class sector where knowledge can be shared among teachers and learners alike around the world. The third challenge is social responsibility. In order to foster better common education, social responsibility is integral for private sectors and individuals to set their missions in accordance with the goals for all human beings. In the end, she expressed her gratefulness for this discussion.

“Towards 2030 and 2060: sustainable development and climate” featured Justine Coulson, the Representative for China and Country Director for Mongolia at UNFPA; Beate Trankmann, Resident Representative at UNDP China; H.E. Wang Hua, CCG Senior Fellow and Deputy Secretary-General of the China Foundation for Peace and Development (CFPD); H.E. Tania Romualdo, Ambassador of Cape Verde to China; and Vivian Tan, Deputy Representative at UNHCR.

Roundtable 2: Towards 2030 and 2060—sustainable development and climate

2021 is a crucial year for addressing global environmental issues. During COP15 and COP26, systematic changes and concrete plans were called for to avert a climate catastrophe.

In the fight against climate change, reconciling the relationship between nature and economic development remains a crucial question for China. In line with the Paris Agreement, President Xi has outlined landmark targets for China to peak its carbon dioxide emissions by 2030 and achieve carbon neutrality by 2060. As China is poised to embrace multilateralism on the road towards a green future, carbon neutrality will create numerous opportunities for partnerships in the future.

Beate Trankmann, Resident Representative at UNDP China, explained how the UNDP’s role has evolved from providing training and support on grassroots poverty alleviation programs when it first opened its China office in 1979, to now having a greater focus on policy advice that addresses the frontier issues of China’s development journey. These include the green economy transformation, SDG financing, digitalization and data governance, and South-South cooperation. In particular, she emphasized the UN and China’s central role in fighting climate change and the importance of international cooperation. Pointing to China’s 2030/60 carbon pledges as key commitments, she referenced the 1 + N strategy as an important opportunity to make further progress toward carbon peaking and neutrality. Highlighting the need to

finance the response to climate change, she suggested three specific actions that will be required among others, and which the UNDP stands ready to support: (a) redirecting public investments and government budgets from climate/nature-negative to climate/nature-positive, (b) leveraging market tools like carbon pricing to incentivize sustainable management, and (c) creating policy incentives for corporate investments into green development.

Justine Coulson, Representative for China and Country Director for Mongolia, UNFPA, emphasized the connection between health and climate change and its effects on people and the possible solutions toward these issues. Coulson praised China’s great achievement in poverty alleviation, and she encouraged the Chinese government to share the expertise gained in this process. Coulson stressed tight linkages between climate change and its effects on people, as well as the omission of this topic at grand global climate summits.

H.E. Wang Hua, Deputy Secretary-General of China Foundation for Peace and Development (CFPD), former Ambassador to the Republic of Guinea-Bissau, and CCG Senior Fellow, highlighted the urgency of tackling climate change and fostering substantial development in his three experiences in poverty alleviation. He mentioned that cooperation between the Chinese government and the UN in introducing technology greatly accelerated the process of poverty alleviation.

H.E. Tania Romualdo, Ambassador of Cape Verde to China, in her statement, placed great emphasis on the significance of sustainable development and the urgency of taking measures toward preventing climate change, for not only African countries but also the rest of the world. Apart from the negative effects that COVID has brought to the world, Ambassador Romualdo also mentioned the positive impact—that nature has recovered to some extent because many people were confined to their homes.

Vivian Tan, Deputy Representative, UNHCR, talked about one of the most overriding effects of climate change—the displacement of people. Tan pointed out not only the direct effect of climate change—abnormal extreme weather such as typhoons—but indirect impacts such as food shortages and social tensions, which have contributed to the refugee problem. Also, she highly praised China’s contribution to the world on climate change issue and proposed some feasible resolutions that the China government can make use of in tackling the negative effects of climate change.

Closing remarks were delivered by CCG Secretary-General Dr. Mabel Lu Miao.

Dr. Mabel Lu Miao, Secretary-General of CCG and founder of GYLD (Global Young Leaders Dialogue)

As we approach the end of today’s symposium to commemorate the 50th anniversary of the restoration of China’s lawful seat in the United Nations, on behalf of CCG, I want to express our gratitude to our honored guests today. It has been a meaningful afternoon to listen to extremely inspiring insights from representatives from the UN

system including UNICEF, UNESCO, UN Women, UNFPA, UNHCR, and UNDP, as well as experts from China Agricultural University, China Foundation for Peace and Development, and the Embassy of Cape Verde to China. Ensuring the rights of children and women and bolstering rural development are important parts of sustainable development and should be guided by the United Nations Charter and the 2030 UN Agenda. China’s recent establishment of the long-term goal of common prosperity echoes with the SDGs. And as China is poised to embrace multilateralism on the road toward a green future, carbon neutrality will create numerous opportunities for a partnership with the United Nations and its agencies in China in future.

As Mr. Siddharth Chatterjee, Ambassador Wu Hongbo, Director-General Tian Lin, and Dr. Henry Huiyao Wang, all pointed out at the start of the event, the last 50 years of China in the UN has been a story of progress. However, given the global challenges in today’s circumstances, the success of the next 50 years of China in the UN demands fast action from all parties involved to defend multilateral cooperation and contribute to global governance and promote sustainable development.

And as Ambassador Rahamtalla Mohamed Osman and Ambassador Mamadou N’Diaye both noted, the friendship between China and Africa goes back a long way, and this long-term friendship has laid a foundation for cooperation between China and African countries. CCG is a strong supporter for this cooperation. In December last year, CCG held our Ambassador Roundtable on “China and the World in the Period of China’s 14th Five Year Plan”, inviting over 60 African Ambassadors and representatives to discuss new opportunities for international cooperation in the context of the 14th Five-Year Plan (FYP), and ways to strengthen cooperation between China and the African Continental Free Trade Area (AfCFTA). As the forum on China-Africa Cooperation (FOCAC) summit 2021 to be held in Dakar, Senegal, is around the corner, topics including Africa-China collaboration on trade, infrastructure, technology, the Belt and Road Initiative have been put under the spotlight. CCG is actively engaging in conducting research, drafting policy brief and engaging in discussions in order to advance this unique friendship between China and Africa.

Growing up in the context of a dynamic era of China and a world that has become more and more globalized, I myself have passions for promoting globalization and multilateralism and the power of youth in future of the world. That’s why I launched the Global Young Leaders Dialogue (GYLD) last year, a program that enables young people to voice their views in global issues and unites young professionals to explore China and observe China’s progress in working toward the SDGs as part of the 2030 UN Agenda. Now is the time for youth power in China and the world. I hope GYLD can make the Chinese experience more interesting, and I hope young people around the world can unite to overcome global challenges and contribute to multilateral efforts.

Finally, I want to congratulate Mr. Siddharth Chatterjee and Dr. Henry Huiyao Wang, who have been working for two months to organize this event. CCG is excited to work shoulder to shoulder with the United Nations in China to embrace multilateralism and do practical work. Thank you, and we look forward to many more collaborations to come!

About the Center for China and Globalization

The Center for China and Globalization (CCG) is a Chinese non-governmental think tank based in Beijing. CCG has been granted the official special consultative status by the Economic and Social Council of the United Nations (ECOSOC) as a non-governmental organization. In the “2020 Global Go To Think Tank Index” by the University of Pennsylvania Think Tank and Civil Society Program (TTCSP), CCG ranked 64th of the top think tanks worldwide and among the top 50 global independent think tanks. CCG has also been recognized as a “4A non-governmental organization” by Beijing Municipal government civil affairs department.

Founded in 2008 and headquartered in Beijing, the Center for China and Globalization (CCG) is China’s leading global non-governmental think tank. It has more than ten branches and overseas representatives and over 100 full-time researchers and staff engaged in research on globalization, global governance, international economy and trade, international relations, and global migration. CCG is also a national Post-doctoral Programme Research Center certified by the Chinese Ministry of Human Resources and Social Security.

While cultivating its own research teams, CCG has also built an international research network of leading experts in China and overseas. CCG engages in ongoing research on China and globalization from an international perspective. CCG publishes more than 10 books every year in English and Chinese and a series of research reports. It shares its research findings with the public and has published hundreds of thousands of related books and reports, which receive hundreds of thousands of website visits annually.

CCG has been involved in promoting many national development and global governance policies. It regularly submits policy recommendations to relevant state agencies and ministries, many of which have been commented on by the central leadership and have served as reference for major decisions made by relevant departments, continually promoting government policymaking and institutional innovation.

About the China and Globalization Series

This series is designed to present a wide range of global views on issues related to China and Globalization, opportunities and challenges on China's rise in the world and China's roles in global governance, global economy, global development and global security. It outlines China's international relations with major global powers and the rest of the world and contains recommendations and proposals for the future of sustainable development, prospects of China's further capital and market liberalization, and China's globalizing trajectories as experienced by the world.

The first of its kind to publish the works of over two hundred contributors internationally, this book series seeks to create a balanced global perspective by gathering the views of highly influential global opinion leaders, former statesmen, ambassadors, well known academics and think tank experts, multinational CEOs and foreign chambers of commerce from China and around the world.

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Our Previous Publications:

The Ebb and Flow of Globalization: Chinese Perspectives on China's Development and Role in the World

Author: Huiyao Wang

Publisher: Springer (August 2, 2022)

Globalization is an irresistible force. Given the high stakes at hand—for stability, continued growth, and the future of our planet—it is more important than ever that China gain a deeper understanding of the rest of the world and that the rest of the world also comes to a clearer understanding of China.

This book focuses on globalization and China's evolving role in the world, offering unique perspectives on a remarkable period, which saw the global landscape reshaped by China's continued rise, intensifying great power competition, and a deadly pandemic.

The essays center on three interconnected themes—China's remarkable development under its policy of Reform and Opening-up, China's deepening integration into the global economy and rise in an increasingly multipolar world, and the quest to reinvigorate global governance and multilateralism to address the pressing global challenges of the twenty-first century.

These insights are useful for academics, policymakers, students, and anyone trying to deepen their understanding of China's development and role in making globalization work for our multipolar world.

Enhancing Global Governance in a Fragmented World: Prospects, Issues, and the Role of China

Editors: Henry Huiyao Wang and Mabel Lu Miao

Publisher: Springer (June, 2023)

This open-access book explores the “polycrisis” currently affecting nearly all nations by exploring key themes such as multilateralism and globalization from the perspective of think tanks from nearly every continent, searching for various solutions to the ills that currently plague the world and a way to create a future in which everyone benefits.

As China’s preeminent non-governmental think tank, the Center for China and Globalization (CCG) has invited 30 leading figures from the global think tank community to sift through the myriad layers of multilateralism and global governance and provide a contextual analysis of major themes both from a theoretical and practical perspective, focusing on China in detail, but also examining the world as a whole.

Think tanks are essential in analyzing current trends and providing potential solutions that aid governments, international organizations, and business in finding solutions that are beneficial to all. As a key source of innovative ideas, they have become even more valuable today as the pace of change accelerates, geopolitical complexity increases and the world has to deal with global crises that no country can address on their own.

A common, central theme through all of the 25 essays in this book is the need for a more universal, inclusive, and multilateral approach to reforming global governance. It is our hope that the views of the experts from think tanks and other non-governmental organizations in this compilation will provide valuable insights to help heal the gaps in our fragmented world.

Soft Power and Great-Power Competition: Shifting Sands in the Balance of Power Between the USA and China

Author: Joseph S. Nye, Jr.

Publisher: Springer (April 26, 2023)

This open-access book consists of essays selected from Joseph S. Nye, Jr.’s last three decades of writing and illustrates a variety of perspectives on the nature of power, the role of the USA in the world and US-China relations. Through this collection, it is hoped that readers will gain a better understanding of today’s global environment and find that while great power competition may be inevitable in a world as centers of power shift, cooperating to address transnational challenges can be a positive sum game.

The contents of this book are divided into four main parts. Part One discusses the origins and political progress of the concept of “Soft Power”. Part Two explores soft power in the American experience, its sources and interaction with US foreign policy, as well as its ebb and flow in the age of Obama, Trump, and Biden. Part Three examines the rise of and the opportunities and difficulties for Chinese soft power, focusing on China’s investment in soft power and how this demonstrates its commitment to a peaceful rise. However, it also addresses the question of how can China get “smart” on how it uses soft power. Part Four provides a bird’s-eye view of power shifts in the twenty-first century and the interactions between the USA as an established power and China as a rising power, while also reassuring readers

that Thucydidean fears are unnecessary and a Cold War is avoidable. Both countries have to realize that some forms of power must be exercised with others, not over others; the development of soft power need not be a zero-sum game. Ultimately, the US-China relationship is a “cooperative rivalry” where a successful strategy of “smart competition” is necessary and cooperation on transnational challenges like climate change, pandemics, cyberterrorism, and nuclear proliferation will serve to benefit not only China and the USA, but the world as a whole.

The Future of China’s Development and Globalization

Editors: Henry Huiyao Wang and Mabel Lu Miao

Publisher: Springer (January 1, 2024)

As the world continues to recover from the fear and uncertainty of the COVID-19 pandemic, a new set of challenges like increased geopolitical tensions and climate change have become increasingly prominent. This open-access book, which contains the views of ambassadors to Beijing on topics ranging from bilateral relations to potential cooperation, global development, and even more of the most immediate issues, aims to help readers make sense of our changing world and China’s role in it.

Building on the success of our previous volume *China and the World in a Changing Context: Perspectives from Ambassadors to China*, the Center for China and Globalization (CCG) has invited 27 ambassadors to examine China’s role in this context of constant flux, focusing specifically on China’s perspective, including its trade and investment ties with other countries, as well as its role in multilateral regional relations and global governance.

These diplomatic envoys from countries around the world serve as pivotal contact points between nations across a wide range of fields, from economics and culture to health and the environment. Their perspectives, representing both developing and industrialized countries, are both invaluable and illuminating—not only in conveying the views and experiences of their own country, but also for their insights into global affairs and China’s development.

It is our hope that the views expressed in this volume will inspire even more discussion on the next best step to take in finding solutions to the problems we face, and in particular, how China can use its own experience and wisdom to better contribute and engage with the world in finding solutions together. This book provides a wealth of perspective and insight that we hope will benefit not only academics and policymakers, but also the private sector and individuals.

China and the World in a Changing Context: Perspectives from Ambassadors to China

Editors: Huiyao Wang and Lu Miao

Publisher: Springer (March 5, 2022)

This book is open access under a CC BY-NC-ND license.

Ambassadors are diplomatic envoys serving as pivotal contact points between nations across a wide range of fields, from economics and culture to health and

the environment. The special group of ambassadors in this book—those based in Beijing—are at the forefront of what for many countries is one of their most important bilateral relationships, as well as one of the most striking and consequential aspects of global affairs in the twenty-first century: the rise of China on the world stage.

This book aims to present an overview of China and the world from diverse angles. It brings together essays by ambassadors to China on a range of bilateral and multilateral issues, including trade and investment, regional economic cooperation, sustainable development, technology and innovation, and entrepreneurship. Given their familiarity with China and extensive international experience, the insights of these ambassadors are useful for policymakers, academics, entrepreneurs, students, and anyone trying to make sense of our rapidly changing world.

Transition and Opportunity: Strategies from Business Leaders on Making the Most of China’s Future

Editors: Huiyao Wang and Lu Miao

Publisher: Springer (February 17, 2022)

This book is open access under a CC BY-NC-ND 4.0 license.

Multinational corporations (MNCs) have long played a crucial role in the Chinese economy. This role is one that is set to continue in the post-pandemic era as China works to transition to a high-quality growth model that is more sustainable and innovation-driven. With global experience and frontline involvement in some of the most pressing economic, technological, and environmental issues of our day, leading figures in MNCs and chambers of commerce are well placed to share insights that could potentially contribute to policymaking and development strategies so that everyone can “make the most” of China’s future.

This collection of essay aims to share these invaluable insights with a wider audience, offering balanced and diverse perspectives from companies and advocacy groups working on a range of issues related to China’s domestic development, international economic cooperation, and China-US competition. These insights are useful not only for the wider business community, but also for academics, policymakers, students, and anyone trying to deepen their understanding of this exciting period of “transition and opportunity”, and make the most of China’s bright future.

The Asian Twenty-First Century

Author: Kishore Mahbubani

Publisher: Springer (January 1, 2022)

This open-access book consists of essays written by Kishore Mahbubani to explore the challenges and dilemmas faced by the West and Asia in an increasingly interdependent world village and intensifying geopolitical competition.

The contents cover four parts. Part one discusses the end of the era of Western domination. The major strategic error that the West is now making is to refuse to accept this reality. The West needs to learn how to act strategically in a world where they are no longer the number one. Part two discusses the return of Asia.

From the years 1 to 1820, the largest economies in the world were Asian. After the spectacular rise of the West in the nineteenth and twentieth centuries, even great Asian civilizations like China and India were dominated and humiliated. The twenty-first century will see the return of Asia to the center of the world stage. Part three discusses the peaceful rise of China. The shift in the balance of power to the East has been most pronounced in the rise of China. While this rise has been peaceful, many in the West have responded with considerable concern over the influence China will have on the world order. Part four discusses the challenges of globalization, multilateralism and global cooperation. Many of the world's pressing issues, such as COVID-19 and climate change, are global issues and will require global cooperation to deal with. In short, human beings now live in a global village. States must work with each other, and we need a world order that enables and facilitates cooperation in our global village.

Consensus or Conflict? China and Globalization in the Twenty-First Century

Editors: Huiyao Wang and Alistair Michie

Publisher: Springer (September 28, 2021)

This open-access book brings together leading international scholars and policy-makers to explore the challenges and dilemmas of globalization and governance in an era increasingly defined by economic crises, widespread populism, retreating internationalism, and a looming cold war between the USA and China. It provides the diversity of views on those widely concerned topics such as global governance, climate change, global health, migration, S&T revolution, financial market, and sustainable development.

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