



China's Belt and Road Initiative

Sustainability in the New Silk Road

The University of Cambridge Institute for Sustainability Leadership

The University of Cambridge Institute for Sustainability Leadership partners with business and governments to develop leadership and solutions for a sustainable economy. We aim to achieve net zero, protect and restore nature, and build inclusive and resilient societies. For over three decades we have built the leadership capacity and capabilities of individuals and organisations, and created industry-leading collaborations, to catalyse change and accelerate the path to a sustainable economy. Our interdisciplinary research engagement builds the evidence base for practical action.

Authors

Elia Apostolopoulou
with inputs from Han Cheng, Hitesh Pant and Alejandra Pizarro

Citing this report

University of Cambridge Institute for Sustainability Leadership (CISL). (2022). *China's Belt and Road Initiative: Sustainability in the New Silk Road*. Cambridge, UK: University of Cambridge Institute for Sustainability Leadership.

Acknowledgements

This paper was written by Elia Apostolopoulou with inputs from Han Cheng, Hitesh Pant and Alejandra Pizarro. Review of drafts and comments were provided by Jake Reynolds, Theo Hacking and Gianna Huhn.

Copyright

Copyright © 2022 University of Cambridge Institute for Sustainability Leadership (CISL). Some rights reserved. The material featured in this publication is licensed under the Creative Commons Attribution-NonCommercial-ShareAlike License.

Contents

Introduction3

Key findings4

Recommendations.....7

References9

Introduction

The New Silk Road, also called China's Belt and Road Initiative (BRI), was announced in 2013 by the Chinese President Xi Jinping and is the largest single infrastructure project since the Marshall Plan with a scope and scale that has no precedent in modern history (Ferdinand, 2016). It is organised around six economic corridors (OECD, 2018). The Belt aims to facilitate the land-based integration of Central Asian, African and European constellations. The Road targets the maritime regions of Southeast and South Asia, the Middle East, East Africa and the Mediterranean. BRI's illustrations reveal a planetary scope encompassing a Digital, a Polar and a Space Silk Road rendering the initiative an exemplar of a new global paradigm of infrastructure-led development (Schindler and Kanai, 2021; Tooze, 2018). It is estimated to cost up to US\$8 trillion, involve 140 countries, and impact more than 65% of the world's population. As its vision document, the location of key investments, multi-lingual journalistic evidence and an emerging academic literature show, **the New Silk Road is a global agent of massive urban transformation** (Apostolopoulou, 2021a, b, c; Apostolopoulou et al., manuscript; Smith, 2022; Zheng et al., 2021). By combining large-scale infrastructure with industrial projects and major investments in the built environment, the BRI transforms cities to financial, tourist and trade hubs, establishes novel links between urban regions, and creates new cities from scratch, remaking the entire urban fabric and influencing global development at a historically unparalleled scale.

The BRI is shaping global discourses on the future of cities¹, echoing the ways in which the Ancient Silk Road was critical to the growth and decline of cities from the Pacific to the Mediterranean (Frankopan, 2015). China has already addressed a significant part of the global infrastructure gap, creating hopes that the BRI may reduce global poverty. However, evidence also suggests that local communities impacted by the BRI across the globe are dealing with challenges in livelihoods and housing due to the intensification of land uses, labour conditions and environmental impacts. It drives concerns that a new stage of BRI-driven urban development is emerging, which may unevenly reshape urban space and urban lives. **If the BRI marks a new global era where infrastructure, industrialisation and urbanisation are more complementary than ever, then how cities along its route will forge an inclusive and socially-ecologically sustainable urban development trajectory may be one of the key challenges of the 21st century** (Hillman, 2020).

This policy brief seeks to contribute to understanding the links between the BRI, urban transformation, and global development. It draws on fieldwork that has been conducted in 5 cities across the Global South and North where BRI infrastructures and investments on the built environment are being currently materialised. These are London (UK), Athens (Greece), Colombo (Sri Lanka), Kathmandu (Nepal) and Chancay (Peru). These cities have been selected not only because they allow the exploration of BRI's unfolding in three continents (Asia, Europe and Latin America), but also because in all of them the BRI is expected to remake urban and rural spaces via new transport infrastructure (eg port expansions, trainlines), real estate projects and the establishment of Special Economic Zones (SEZs).

¹ See eg <https://sdg.iisd.org/events/bridge-for-cities-4-0-connecting-cities-through-the-new-industrial-revolution/>; https://www.unido.org/sites/default/files/2017-09/makingit_24_full_web_0.pdf; <https://www.urbaneuchina.eu/en/>



Picture 1. Piraeus Container Terminal in Athens, Greece.

Key findings

In official Chinese discourses, the BRI has been presented as a call for an open and inclusive model of international economic, political and cultural cooperation that draws on the enduring meanings of the ancient Silk Roads. In that sense, the BRI reflects China's contemporary "re-emergence" as a global power, and involves transnational industrial capacity transfer, increased trade, investment and development cooperation, and the need to diversify energy sources and transport routes. The BRI allegedly establishes a framework for open cooperation and "inclusive globalization" (Chen, 2018; Liu and Dunford, 2016). This is achieved through multiple types of increased connectivity and is financed by new multilateral financial instruments that are designed to lay the infrastructural and industrial foundations to help extend the march of poverty reduction and sustainable development to partner countries (Liu and Dunford, 2016). Through the deployment of multiple new infrastructure projects, the establishment of SEZs and the construction of new urban spaces, from real estate projects and smart cities to new transportation hubs and large-scale urban regeneration projects, the BRI is transforming cityscapes at an impressive scale and rapidity. As our research has shown, despite important variations in local planning and governance processes, the implementation of BRI projects in different places across the Global South and North includes the following four key elements.

1. All BRI projects we explored encompass significant changes in land uses, the expansion of large-scale infrastructure, and the intensification of social and environmental processes.

A key aspect here concerns inadequate environmental regulations and impact assessments related to BRI infrastructures. In almost all the cases we explored, the companies responsible for the construction of BRI projects have not paid the appropriate attention to international and national environmental requirements and have not sufficiently informed affected populations about the impacts of these projects. National governments have not only allowed this to happen but have also chosen to simplify the necessary procedures for approving BRI projects by often bypassing environmental regulations. This has resulted in a number of BRI projects with significant environmental impacts that have disproportionately affected local communities.

A characteristic example is Piraeus port, in Greece, where the environmental impacts of China COSCO Shipping Corporation's operations include a major increase in atmospheric and noise pollution that primarily affects the adjacent neighbourhoods with people living in particular areas exposed to 24-hour light and noise pollution. The new port expansion is expected to aggravate the situation by causing significant accumulative environmental pressure in the area. Several national environmental NGOs argue that COSCO's operations are threatening Saronikos' marine ecosystems and fishing grounds as well as public health due to the release of hazardous waste in an area adjacent to primary schools, homes, and playgrounds (Apostolopoulou, 2021c). It is indicative that recently (March 2022), Greece's highest administrative court, the Council of State, ruled that previous governmental decisions on the expansion of the port of Piraeus by COSCO were illegal because of the absence of an official Strategic Environment Impact Assessment as required by national and EU law. Similarly, in Colombo, Sri Lanka, scientists and environmentalists argue that sand excavation for the construction of the new City Port would damage Colombo's coastline, coral reefs, and fish breeding areas. This poses threats of erosion and flooding to an area prone to natural disasters while also affecting the livelihoods of people living in Colombo's beaches and depending on marine ecosystems for fishing (Apostolopoulou, 2021c).

2. BRI mega-projects have often led to mixed implications for local communities.

Our ethnographic work in Chancay city, Peru, shows that after the agreement for the construction of a USD \$3 billion port by COSCO and the Peruvian mining company Volcan, the companies announced their plans to reduce explosives on a hill that is home to more than 50 families. The companies had announced no official plans for relocation or compensation in order to mitigate the effects of noise and dust generated by construction work (Apostolopoulou and Pizarro, manuscript). Similarly, our research in Nepal shows that a number of road improvement projects that have as their primary goal either to improve the infrastructural and trade connectivity of its capital city Kathmandu, or to link new smart cities to former rural areas that have now been reclassified to urban, have caused the displacement of rural populations (Apostolopoulou and Pant, in press). Both cases show the important role of national and local governments in counteracting such negative developments for local communities by, for example, demanding relocation measures before giving out permits.



Picture 2. The constructions in Chancay Port, Peru.

3. In many places where BRI projects materialise, there are significant changes in labour relations, standards and conditions of employment.

For example, growing labour insecurity has been linked to the privatisation of key ports, including the Port of Piraeus in Greece and the International Container Terminal in Colombo, Sri Lanka. This is primarily due to the combination of direct hiring with subcontracting that led to a reduction of the workforce and workers being hired at lower wages and fewer labour rights (Apostolopoulou, 2021c; Neilson, 2019).

4. More needs be done to enhance the inclusion of local communities in the decision-making processes through which BRI projects have been negotiated and agreed.

A major concern in all the places we conducted research is the major lack of accurate information about BRI projects, including their location, impacts to the local economy and the environment, and timelines. Moreover, and relatedly, national governments in the recipient countries, as well as other key institutions, businesses and public associations have not contributed in providing adequate information, inform and engage local communities and all relevant stakeholders and establish open forums to discuss BRI infrastructure projects, their relation to regional, national and local spatial plans, investment decisions, funding mechanisms and cooperation agreements with China in a transparent way. For example, in the case of the Royal Albert Dock, in London, the enclosure of public space has been decided without the community's consensus and public consultation has been replaced with informal participation in community workshops with no decision-making power. In Piraeus, the expansion of the port and COSCO's operations have never been discussed with the affected communities and meaningful public participation has been replaced with a tightly circumstanced participation that favours representatives which support the projects' implementation. Finally, in both Chancay and Kathmandu, local communities have very limited information on the details of the BRI projects and their implications.

Recommendations

Our results point to the need for a list of measures in places where BRI infrastructural projects materialise to minimise their impacts and support a transition to social-environmental sustainability and justice. We suggest that the following **9 recommendations can ensure less environmentally and socially damaging and more resilient and fair infrastructures that could avoid the risks of “business-as-usual” approaches:**

1. Strengthen the capacities of national policymakers and state officials of involved countries to formulate integrated, system-level approaches and policies for BRI infrastructures and projects.

This could, inter alia, build on UN's capacity development projects that have emerged to assess the implications of the Belt and Road Initiative for the countries along the New Silk Road (see eg CCIEE and UNDP, 2017), the 2030 Agenda for Sustainable Development², the International Human Rights Framework³, and the International Good Practice Principles for Sustainable Infrastructure (UNEP, 2021). Key principles include: (i) strategic planning to ensure the alignment of infrastructure policies and decisions with global sustainable development goals, (ii) comprehensive lifecycle assessments of the sustainability credentials of BRI infrastructures, (iii) avoidance of environmental impacts, (iv) resource efficiency and circularity, (v) fiscal sustainability, (vi) and evidence-based decision-making that includes the regular monitoring of BRI infrastructure impacts based on agreed performance indicators and data sharing with all relevant stakeholders.

2. Deepen and facilitate policy dialogue among policymakers and experts from the participating countries along the BRI, including engagement with international organisations, to achieve equitable sustainable development.

This could occur under the auspices of international organisations, like the United Nations and related intergovernmental organisations, and supported through the creation of open, inclusive Forums where all relevant stakeholders from civil society, public and private sector along with representatives of affected communities, including Indigenous people, will participate.

3. Develop comprehensive, effective and scientifically sound environmental and social impact assessments of BRI projects.

National governments should support, implement and apply strict environmental and social regulations for BRI projects, disseminate public information in a systematic and rigorous way and conduct open and effective environmental and social impact assessments for all BRI projects, as well as strategic environmental assessments for cross-border projects. These should be supported by open meetings and workshops that would help local communities understand the impacts of BRI projects, something that is currently lacking in all the locations where we have conducted research.

4. Enhance information disclosure, consultation, and accountability in BRI projects, including appropriate grievance mechanisms at national, sub-national, and local level.

This should be in accessible languages and formats for all affected stakeholders and communities to receive and facilitate the resolution of the concerns of affected communities (IFC, 2012). This should include grievance mechanisms for workers to address any workplace concerns (ibid).

² <https://www.un.org/en/desa/jointly-building-%E2%80%9Cbelt-and-road%E2%80%9D-towards-sustainable-development-goals>

³ https://www.ohchr.org/sites/default/files/Documents/Publications/TheOtherInfrastructureGap_FullLength.pdf

5. Undertake meaningful public participation.

This would, inter alia, include all relevant stakeholders, notably local communities, in decision-making processes, and equal opportunities for participation for all, along lines of class, race, ethnicity and gender from the very first stages of each project and before on-the-ground implementation commences. Participation should be based on free and prior availability of project information as early in the decision-making process as possible and throughout the project life cycle.

6. Enhance economic benefits for local communities by generating decent employment opportunities and by actively supporting the local economy.

This should include carrying out comprehensive analysis of the number and types of jobs that BRI projects are expected to create for local communities, embrace openness regarding working conditions (salaries, contracts, working hours etc.) and clearly support the creation of local jobs. Making job creation an integral part of the BRI is critical for promoting beneficial outcomes for affected communities, such as full and decent employment and balanced development (CCIEE and UNDP, 2017).

7. Develop an in-depth analysis of the social, economic and cultural impacts of BRI projects and the way these are expected to influence the livelihoods of affected communities.

This should be based on the principles of equity, inclusiveness and empowerment and on achieving a balance between social and economic infrastructure investments to protect human rights and promote well-being, especially of the most vulnerable and marginalised groups, including women, the elder and Indigenous peoples.

Crucial here is the inclusion of a clear gender and anti-discrimination perspective. Policy-makers and decision-makers should address the serious lack of data on the distributional impacts of mega-infrastructure projects on key groups. Special attention should be paid to the impacts of BRI infrastructures of women, children, persons with disabilities, minorities, Indigenous peoples, migrants, displaced people and inhabitants of informal settlements, those who are excluded from social or political life, and those experiencing discrimination for any possible reason.

8. Prepare clear consideration of alternatives to BRI projects.

This includes processes of design innovation to limit environmental and social harm or, ultimately, the cancellation of projects in the case of major unavoidable adverse impacts. Alternatives should be prepared in close collaboration with investors and key shareholders to ensure that altering or cancelling high profile and high value projects do not lead to public discreditation.

9. Establish the appropriate governance processes and forums.

These should ensure that transparent, inclusive and participatory decision-making is taking place and that the BRI projects are aligned with local and regional spatial plans, embrace the principles of social and environmental sustainability and address local communities' social needs and aspirations.

References

- Apostolopoulou, E. (2021a). A novel geographical research agenda on Silk Road urbanisation. *The Geographical Journal* 187, 386-393.
- Apostolopoulou, E. (2021b). How China's Belt and Road Initiative is changing cities – and threatening communities. *The Conversation UK*, https://theconversation.com/how-chinas-belt-androad-initiative-is-changing-cities-and-threatening-communities-153515?utm_source=twitter&utm_medium=bylinetwitterbutton.
- Apostolopoulou, E. (2021c). Tracing the links between infrastructure-led development, urban transformation and inequality in China's Belt and Road Initiative. *Antipode* 53(3), 831-858.
- Apostolopoulou, E., Cheng, H., Silver, J., Wiig, A. Cities on the New Silk Road: The Global Urban Geographies of China's Belt and Road Initiative. Manuscript.
- Apostolopoulou, E., Pant, H. "Silk Road here we come": Infrastructural myths, post-disaster politics, and the shifting urban geographies of Nepal. *Political Geography*, *in press*.
- Apostolopoulou, E., Pizarro, A. Silk Road promises and realities: Unravelling the conflict around the construction of Chancay Port in Peru. *In press*.
- CCIEE and UNDP (2017). The Belt and Road Initiative: A new means to transformative global governance towards sustainable development. Available at: <file:///Users/elia/Downloads/UNDP-CH-GGR%202017.pdf>
- Chen, X. (2018) Globalisation redux: Can China's inside-out strategy catalyze economic development and integration across its Asian borderlands and beyond? *Cambridge Journal of Regions, Economy, and Society* 11(1), 35–58.
- Ferdinand, P. (2016). Westward ho-the China dream and 'one belt, one road': Chinese foreign policy under Xi Jinping. *International Affairs* 92(4), 941-957.
- Frankopan, P. (2015). The silk roads: A new history of the world. Bloomsbury Publishing.
- Hillman, J.E. (2020) The Emperor's new road: China and the Project of the century. Yale University Press.
- IFC. 2012. Performance Standards on Environmental and Social Sustainability. Available at: https://www.ifc.org/wps/wcm/connect/c02c2e86-e6cd-4b55-95a2-b3395d204279/IFC_Performance_Standards.pdf?MOD=AJPERES&CVID=kTjHBzk
- Liu, W., Dunford, M. (2016). Inclusive globalization: unpacking China's Belt and Road Initiative. *Area Development and Policy* 1(3), 323-340.
- Neilson, B. (2019). Precarious in Piraeus: On the making of labour insecurity in a port concession. *Globalizations* 16(4), 559-574.
- OECD (2018). *The Belt and Road Initiative in the global trade, investment and finance landscape*. OECD Business and Finance Outlook 2018. OECD, Paris. Available at: https://doi.org/10.1787/bus_fin_out-2018-6-en
- Schindler, S., Kanai, J.M. (2021). Getting the territory right: infrastructure-led development and the re-emergence of spatial planning strategies. *Regional Studies* 51, 40-51.
- Smith, N.R. (2022). Continental metropolitanization: Chongqing and the urban origins of China's Belt and Road Initiative. *Urban Geography*, <https://doi/10.1080/02723638.2021.2014670>.
- Tooze, A. (2018). *How a decade of financial crises changed the world*. Allen Lane, New York.
- UNEP. 2021. International good practice principles for sustainable infrastructure. <https://wedocs.unep.org/bitstream/handle/20.500.11822/34853/GPSI.pdf>.
- Zheng, H.W., Bouzarovski, S., Knuth, S., Panteli, M., Schindler, S., Ward, K., Williams, J. (2021). Interrogating China's Global Urban Presence. *Geopolitics*, <https://doi/10.1080/14650045.2021.1901084>.