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Making the Belt and Road Environmentally Sustainable in Southeast Asia

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EXECUTIVE SUMMARY

- China's Belt and Road Initiative (BRI) is expected to be the largest infrastructure development scheme of the 21st century.
- There are mounting concerns over its potential impacts on biodiversity and the environment. Infrastructure development and energy projects supported by BRI have the potential to threaten the biological diversity in Southeast Asia, a global biodiversity hotspot.
- Environmental regulations and enforcement in China are improving, though the question is whether Chinese companies and China-funded projects operating outside China adhere to these improved standards.
- It will take multiple actors coming together to bring about sustainable growth and opportunities for Southeast Asia. The Chinese government and financiers as well as agencies and governments where BRI investments take place need to make concrete commitments to sustainable development beyond impact mitigation.

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INTRODUCTION

In 2013, President Xi Jinping launched the Belt and Road Initiative (BRI) with the aim to sustain China’s global “economic cooperation”. The BRI is expected to be the largest infrastructure development scheme of the 21st century, involving over 80 countries and an estimated US\$1 to 8.5 trillion in investments.¹ The primary goals of the BRI are to create policy coordination between countries, increase cultural exchange, promote financial integration and cooperation, facilitate international trade, and increase connectivity through infrastructure development.

Concerns around the possible environmental impacts of the BRI have featured in recent public discussions. Of the five goals, perhaps the most visible is infrastructure development, notably six terrestrial infrastructure corridors, a marine economic route and a recently announced polar BRI. Direct and secondary impacts associated with major infrastructure corridors have been identified as posing threats to biodiversity.² Infrastructure development could negatively affect the atmosphere, hydrosphere, geosphere, and biosphere.³

Environmental impacts are especially of concern for China’s neighbours in Southeast Asia, where much of the BRI investment is taking place. This region is a global biodiversity hotspot and home to numerous threatened species not found anywhere else in the world⁴ including charismatic megafauna such as tigers and Asian elephants. In this article, we provide an overview of the potential environmental impacts from the BRI in Southeast Asia, summarising for policy makers and planners some of the key challenges and some solutions for addressing the problems.

CURRENT INVESTMENTS AND BRI PROJECTS IN THE REGION

The range of Chinese assistance provided to countries in Southeast Asia via the BRI is both numerous and diverse. It is therefore difficult to objectively gauge the extent of its involvement. The two main types of financing are overseas direct investments (ODI) and development finance, largely coming from two policy banks—the China Development Bank (CDB) and China EXIM Bank (EXIM). These two policy banks do not disclose lending criteria or their portfolio of regional investment loans, leaving researchers to rely on third party estimates, which are also challenging to obtain⁵ Geographically, most BRI investment has gone to Southeast Asia and South Asia (Table 1), with Southeast Asia offering an ever-widening range of investment opportunities. The largest recipients of Chinese investment are Singapore, Indonesia, Malaysia and the Lao PDR (Table 2).

Table 1. Outgoing Chinese overseas investments (US\$ billions) in 2014-2017

| | Bloomberg ⁶ | China MOFCOM ⁷ |
|-------------------------|------------------------|---------------------------|
| China-Indochina | 58.2 | 40.4 |
| China-Bangladesh-India | 23.1 | 1.6 |
| China-Pakistan | 36.2 | 2.6 |
| China-Central/West Asia | - | 10.5 |
| China-Mongolia-Russia | - | 7.1 |
| Total | 117.5 | 62.2 |

Table 2. Outgoing Chinese overseas investments to ASEAN countries (US\$ millions) in 2014-2017⁸

| | 2014 | 2015 | 2016 | 2017 |
|--------------|--------------|---------------|---------------|---------------|
| Brunei | 3 | 4 | 142 | 71 |
| Cambodia | 438 | 420 | 626 | 744 |
| Indonesia | 1,272 | 1,451 | 1,461 | 1,682 |
| Lao PDR | 1,027 | 517 | 328 | 1,220 |
| Malaysia | 521 | 489 | 1,830 | 1,722 |
| Myanmar | 343 | 332 | 288 | 428 |
| Philippine | 225 | 28 | 32 | 109 |
| Singapore | 2,814 | 10,452 | 3,172 | 6,320 |
| Thailand | 839 | 407 | 1,122 | 1,058 |
| Total | 7,816 | 14,659 | 10,279 | 14,119 |

China’s energy projects and the natural resource extractive industries are responsible for much of the country’s investments into Southeast Asia. Since the launch of the BRI, energy construction contracts and investments have increased significantly. Despite China expressing a strong commitment to ‘Greening the BRI’ during the second ‘Belt and Road Forum for International Cooperation’, investments and contracts in energy are mostly in fossil fuels.⁹ According to Zhou et al., between 2014 and 2017, fossil fuel investment accounted for 91% of the energy-sector syndicated loans by the six major Chinese banks and 61% of energy-sector loans financed entirely by China Development Bank and/or China Exim bank.¹⁰ Two out of the five countries with the largest investments in coal globally are in Southeast Asia: Indonesia and the Philippines. These projects will lock these countries into fossil-dependent futures for decades. Moreover, large hydropower plant projects in Myanmar and Lao PDR are also threatening the regional ecosystem by diverting the course of important rivers (and changing natural flow regimes) such as the Irrawaddy and the Mekong, which will in turn affect the livelihoods of nearby communities.

BRI’S POTENTIAL NEGATIVE IMPACTS ON THE ENVIRONMENT

A number of recent studies have identified some of the potential environmental impacts attached to BRI developments, especially in relation to biodiversity.¹¹ Direct impacts from infrastructure projects, in particular, linear transport infrastructure, are well documented and include habitat loss and fragmentation, increased wildlife mortality from roadkill and the opening up of frontier landscapes making them susceptible to illegal poaching and logging.¹² Research indicates that greater sea traffic from marine routes will also increase the movement of invasive species and pollution.¹³

The impacts of BRI infrastructure development on biodiversity is likely to be greater in Southeast Asia since the region enjoys high biodiversity (Figure 1a). Nature has already been undergoing existing anthropogenic impacts such as land use conversion for agriculture and urbanisation. In addition, Southeast Asia is comprised of expanses of frontier landscapes with ecosystems that historically have received very little anthropogenic pressure (Figure 1b). As a consequence of Southeast Asia’s biodiversity and weak governance systems, it is a major hub for illegal wildlife trade and the massive expansion of transport networks stimulated under the BRI risks increasing negative impacts from the harvest of wild species within and between countries.¹⁴

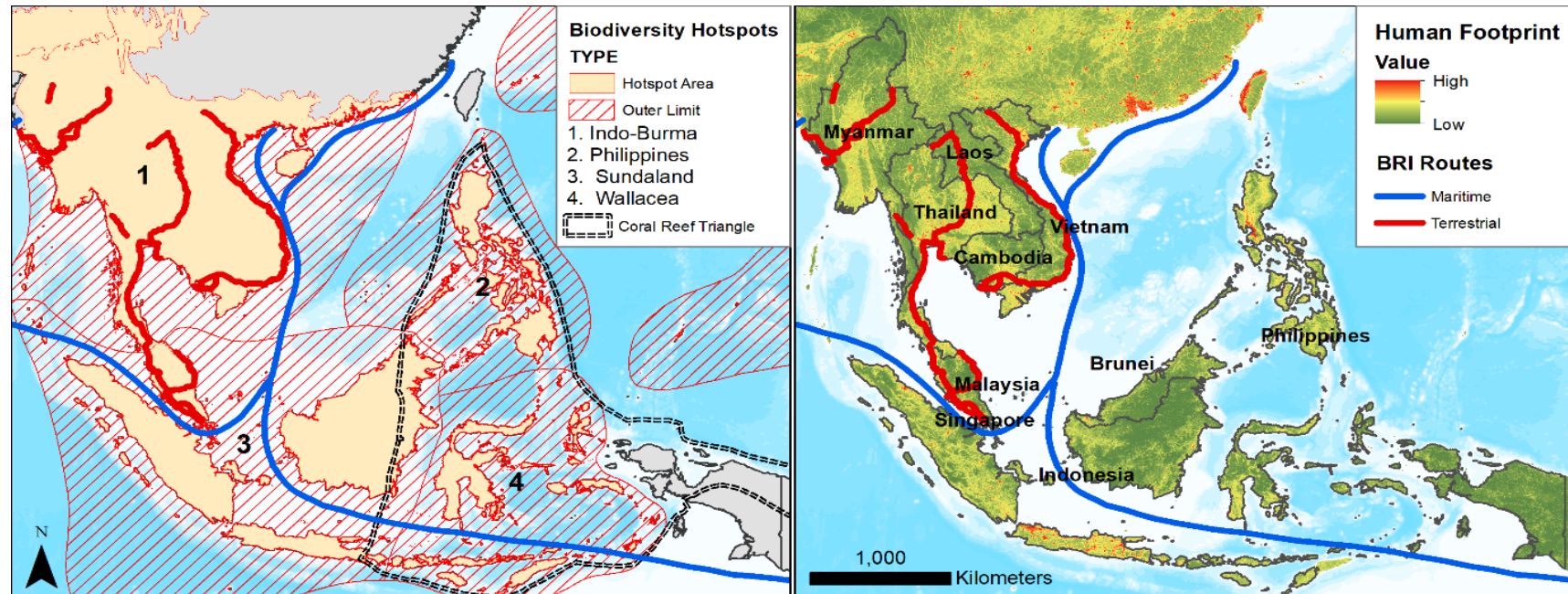


Figure 1. Biodiversity and BRI terrestrial and marine routes¹⁵ (Left). Conservation International Biodiversity hotspots which represent biologically rich areas around the world that cover just 1.4 percent of Earth's land surface but contain more than 60 percent of all terrestrial species^{16 17} and Coral reef triangle a hotspot for marine biodiversity¹⁸ (Right). 2009.¹⁹

In addition to the direct and indirect impacts from infrastructure development, any increase in economic productivity supported by BRI will have negative environmental impacts from increased pollution, including greenhouse gases and waste. The magnitude of these impacts will be driven by the choice of investment. If BRI countries continue with their current carbon-intensive growth models, it is likely that BRI investment will cause a dramatic growth in global emissions.²⁰ Another related concern is the potential relocation of polluting industries from China to countries with weaker environmental and labour standards.²¹

RECOMMENDATIONS

Assessing the environmental impact of BRI-related projects is critical to ensuring that growth is manageable across and within the governance capability of the region. A host of fundamental recommendations that draw on good environmental practice in the scientific literature for infrastructure development has been made for the BRI beyond the commonly advocated Environmental and Social Impact assessments.²² These include:

- Early assessment of impacts at the feasibility or scoping stage to ensure that environmental risks are factored in early.²³
- Application of strategic environmental and cumulative impact assessments to characterise effects beyond the boundaries of a project footprint.²⁴
- The application of the mitigation hierarchy to ensure that there is no impact on the environment and that there is an aspiration for overall net gain.²⁵
- At a broader level, a move away from old models of growth, which depend on energy intensive and polluting infrastructure such as coal power plants.
- Application of fair, prior and informed consent (FPIC) to ensure that stakeholders are adequately consulted and are supportive of any project.

Whether the environmental practices described above will be applied in Southeast Asia — especially in poorer and resource-stricken nations with weak institutions and poor governance — is unclear. The BRI's success in stimulating growth and opportunities for Southeast Asia depends on decisions rendered on two sides: the Chinese government and financiers as well as agencies and governments where BRI investments and co-financing take place. However, it is promising that high-level Chinese policy documents such as the “Belt and Road Ecological and Environmental Cooperation Plan 2017” and the “Guidance on Promoting Green Belt and Road 2017” do promote sustainability. While the Asia Infrastructure Investment Bank's “Environmental and Social Framework” document which provides safeguards for investment includes many of the key elements recommended above, they only fund a small proportion of current BRI investments.²⁶

In China, environmental regulations and enforcement are improving, though the question is whether Chinese companies and Chinese-funded projects operating outside China adhere to these improved standards. This is a legitimate concern since some Chinese firms purportedly misrepresent the feasibility or sustainability of infrastructure projects in countries where weak institutions and bad governance prevail.²⁷ Nonetheless, there are signs of improvement: evidence exists that Chinese companies are increasingly adopting corporate social responsibility and stakeholder engagement into their operating models

because of the process of working in countries outside China. Some BRI countries have strengthened local regulations and direct BRI investments to areas of need, spelling out conditions for BRI plans (i.e. Indonesia, Malaysia and Myanmar).²⁸

A key concern in less developed nations in Southeast Asia with weak governance and corruption is that BRI infrastructure projects tend to bolster existing power structures, greatly accelerating access to and control over territory and people. Stakeholders may not be consulted or included in the planning. For example, in Myanmar, infrastructure projects are implemented between Chinese firms, Sino-Burmese business elites and the Myanmar military, often without the participation of ethnic minority community leaders which in tandem promotes resource grabs.²⁹ The practical application of legislation between national and autonomous regions can result in people being displaced without due compensation.³⁰ In both Myanmar and the Lao PDR, security, human rights and environmental impacts cannot be easily separated.³¹ Even in highly developed Malaysia, the previous government of Najib Razak negotiated three large deals in the energy sector with large Chinese State-owned enterprises linked to the much publicised 1MDB graft scandal. The construction cost of two oil pipelines connecting Sarawak to Peninsular Malaysia were allegedly inflated to cover outstanding interests associated with the 1MDB.³²

Even though governments across the world are rushing to be part of the BRI, the BRI is conceptually nebulous, difficult to pin down and examples of good environmental and social practices have yet to materialize. There is also still great debate in the media and literature on whether BRI is a debt trap³³ or a programme that opens up unprecedented opportunities.³⁴ Since western nations including Italy, UK and New Zealand participate in the BRI there are questions about how these nations will manage BRI projects and influence the social and environmental sustainability of BRI projects, given their commitment to tougher environmental and social standards around infrastructure development. While China's priorities turn towards sustainable technology and reducing corruption within its own country, the BRI may promote these values abroad and contribute substantially to a more global uptake of international sustainability standards.

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