DEVELOPMENT CORRIDORS PARTNERSHIP

IMPACT ASSESSMENT FOR CORRIDORS: FROM INFRASTRUCTURE TO DEVELOPMENT CORRIDORS

Edited by:
Jonathan Hobbs and Diego Juffe Bignoli

2022

The Development Corridors Partnership

The Development Corridors Partnership (DCP) is a research and capacity development initiative. It is a collaboration between institutions from China, Kenya, Tanzania and the UK. The main objective is to deliver effective research and capacity-building to help improve corridor planning and management. It aims to ensure that development corridor decision-making is based on sound scientific evidence and effective use of available planning tools and procedures, to ensure that risks are avoided and opportunities exploited. The DCP comprises partners from the University of York, the University of Cambridge, London School of Economics, Sokoine University of Agriculture, the University of Nairobi, as well as the UN Environment Programme World Conservation Monitoring Centre (UNEP-WCMC), African Conservation Centre, the World Wide Fund for Nature (WWF), the Chinese Academy of Agricultural Sciences and the Chinese Academy of International Trade and Economic Cooperation (CAITEC).

DCP Partners:

For the purposes of this publication, DCP collaboration was extended to experts representing Netherlands Commission for Environmental Assessment, the Centre for Energy, Petroleum and Mineral Law and Policy at the University of Dundee, the University of Queensland, the Columbia Centre on Sustainable Investment, the GOBI Framework for Sustainable Infrastructure Initiative (comprising the University of Oxford, University of Central Asia and the Independent Research Institute of Mongolia), The Biodiversity Consultancy, the Wildlife Institute of India, the Endangered Wildlife Trust and Ecotecnia Ingenieros Consultores SRL.

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Foreword

In the course of a long and varied working life, I have been privileged to work with, or learn from, a stimulating panoply of individuals who are committed to contributing to the economic, social, and environmental development of all aspects of the United Nations Sustainable Development Goals.

Jon Hobbs and Diego Juffe-Bignoli are, thankfully, two of these individuals. I was delighted to learn that they had come together to produce, for the Development Corridors Partnership, a rich and stimulating collection of research reports, case studies and assessments relating to the array of efforts made under the rubric of 'development corridors'. They were determined to express the conviction that decisions made, primarily by governments, regarding the planning and building of Corridors, really must be informed by an evidence-based understanding of the consequences – positive or negative – of these decisions. And they have succeeded. But Jon Hobbs will never read these words. He was hospitalized after the bulk of the work was complete, and, to the deep sadness and regret of all who knew him, he passed away at the end of September, 2021.

Jon and Diego sought out and recruited a daunting array of researchers, scholars and stakeholders to shed light on the processes currently underlying the world of development corridors today. They certainly succeeded.

The work was initiated before the onset of the COVID-19 pandemic, and as governments turn to the formidable challenge of restoring economic vitality without further damage to the climate, it becomes even more imperative that impact assessment be understood, embraced and improved. Jon and Diego have shown us the way forward for a journey which absolutely must be embarked upon.

They would be first to recognise that the Development Corridors Partnership as a whole must be commended for showing – in many different ways and places – that, not only is the need for impact assessment clear and present, but so are the skills and commitment of researchers, scholars and stakeholders. These are to be found in an impressive coming together of universities, civil society organizations and business groups, and communities.

All are part of an outstanding initiative, funded by the UK Research and Innovation Council, and managed by the UNEP-WCMC. This initiative has been embraced by some of the best minds that have been turned to the task of ensuring that – while we attempt to bring economic and social benefits to people, in line with the United Nations Sustainable Development Goals – we do not risk significant environmental and social costs, and thus actually undermine long-term development successes.

So, I urge you to read this book, and figure out how you might improve your own contribution to the challenges ahead. Jon and Diego have set out a case. It needs to be taken up, not set aside; acted on, not just talked about. It is in your hands.

John Harker

Chair of the Development Corridors Partnership Independent Advisory Board,
Nova Scotia, Canada.

Dedicated to the memory of Jon Hobbs
who was the architect and driving force of this book

Executive Summary

Driven by increasing globalisation, the development aspirations of nations, and the need to access resources, an infrastructure boom is impacting many regions of our planet. New infrastructure projects are traversing diverse landscapes over hundreds of kilometres, often crossing international borders and penetrating into remote areas previously unaffected by industrialisation and urbanisation. These large-scale projects, mostly spanning several regions in a same country, but often linear and transnational in nature, are generically called corridors. Depending on the nature and objectives, they can be transport, infrastructure, growth, resource or economic corridors.

The rapid development of corridors globally presents environmental planning professionals with numerous challenges. **The primary need is to ensure that decisions about these developments are informed by an evidence-based understanding of their consequences – both positive and negative.** This will enable infrastructure development to meet development needs without adversely impacting ecological systems or human welfare. Improving the quality of infrastructure policies, plans, programmes and projects, by ensuring they include the necessary environmental and social scrutiny, is urgently required now - and will be for the foreseeable future. This challenge is the unifying theme of this publication.

Using insights from Africa, Asia and South America, this sourcebook compiles 24 contributed papers written in 2021, covering many facets of the opportunities and challenges presented by the rapidly growing number of infrastructure and corridor developments around the world. Prevailing planning practices are reviewed through case studies along with the efficacy of some of the available tools to conduct systematic and comprehensive impact assessments. The latter includes Strategic Environmental Impact Assessment (SEA) and Environmental Impact Assessment (EIA).

As the title suggests the underlying thesis of this publication is that, where they are justified, **there are significant benefits in ensuring that corridors that contain single purpose infrastructure developments (utility, infrastructure or transport) progress through a carefully planned sequential process of diversification and expansion to ensure the maximisation of benefits in full-blown 'development corridors'.** In this book, development corridors are therefore aspirational. They comprise areas identified as priorities for investment to catalyse economic growth and development. They should be developed with multiple stakeholders and social, economic and environmental interests and interdependencies in mind. With the integration of sustainability principles and appropriate environmental and social standards, development corridors could become true '(sustainable) development corridors'. They should be planned to maximise positive opportunities and minimise negative risks. Without this, today's short-term successes will become tomorrow's challenges and long-term human welfare and ecosystem integrity will be undermined.

Overview of contents

This book brings together a wide range of perspectives from experts, researchers, and practitioners around the world with the purpose to foster greater collaboration and increase our global understanding of corridors and their benefits and potential negative impacts. 13 of the 24 chapters are written by independent experts and researchers from Australia, Bolivia, Brazil, China, India, Kenya, Mongolia, South Africa, Tanzania, UK, and the USA. The book also includes 11 chapters containing material gathered by the Development Corridors Partnership, a programme of work led by UN Environment Programme World Conservation Monitoring Centre (UNEP-WCMC) and funded by the UK Government via their Global Challenges Research Fund.

The collection of papers in this sourcebook is divided into five sections. First an introductory section where we introduce some key terms and definitions that underpin this work (Chapter 1). We then explore some key principles and aspirations of corridors such as delivering the Sustainable Development Goals (Chapter 2), ensuring theory and practice align (Chapter 3), ensuring financial sustainability (Chapter 4), properly assessing environmental sensitivity (Chapter 5) respecting human rights (Chapter 6), or maximising, co-benefits (Chapter 7).

In the next three sections, we present 15 case studies from three continents: Africa, Asia, and Latin America. These case studies explore key challenges and lessons learned from specific planned, ongoing, and already implemented developments. They are presented as individual stories that readers can explore.

The final and fifth section aims to summarise lessons learned from a 4-year research and capacity building programme specifically aiming to understand the key challenges and opportunities around corridors and that has been the major driving force of this work: The Development Corridors Partnership project (DCP). DCP is a collaborative partnership across UK, Kenya, Tanzania and China, funded by the UK Research and Innovation Global Challenges Research Fund (see Chapter 23).

The book finishes with an overview of the lessons learned from the contributed papers included in this book and develops ten principles for corridor planning and delivering a meaningful and comprehensive impact assessment (Chapter 24), which we summarise here as ten key messages.

Key messages

1

Corridors must seek to achieve positive sustainability outcomes:

The mindset underwriting environmental planning of most infrastructure developments has been to mitigate negative impacts. The planning of few existing corridors is based on their role in supporting a sustainability vision for a country or region in which they are situated. Corridor developments must therefore be based on sustainability principles and support progress towards national, regional and international sustainable development goals. A true development corridor will seek to do good, as well as to mitigate negative impacts.

2

Integrated and inter-disciplinary approaches are needed:

Corridor developments are extensive, complex, multifaceted features traversing many landscapes. They can bring about significant transformational change to physical, economic, social, and cultural systems, and serve as interconnecting features. Yet engagement in corridor planning is often constrained by limited disciplinary and institutional involvement, with projects often superimposed upon communities. Corridor developments need diverse expertise and experience in their planning and management, including local stakeholder knowledge, avoiding disciplinary, institutional, or sectoral silos, that can result in policy conflicts, contradictions, and inconsistencies.

3

Corridor proponents should clearly demonstrate consideration of alternatives:

Corridor options should not be limited to a preferred proposal favoured by an elite. Corridor developments must consider all feasible alternatives (including maintenance of the status quo and no corridor development) and make the risks and opportunities of each option explicit and transparent through meaningful consultation. An important requirement in all corridor planning is to justify the need for a wide choice of options and an explanation of the potential benefits it will bring and to whom, in comparison with the alternatives. Any necessary trade-offs and how any significant potential negative impacts will be effectively managed, and opportunities created must be explained.

4

Public participation and stakeholder engagement should be at the core of corridor planning:

Corridor planning frequently fails to include meaningful participation of all stakeholders. Corridors can profoundly affect the lives and rights of indigenous peoples and local communities, potentially for generations. A common failing is that the first opportunity for local stakeholders to engage arises only after all strategic decisions have already been made and the only option remaining is for them to react negatively to a fait accompli. The meaningful engagement of all stakeholders is necessary to ensure their role is more than reactive. The way corridors are viewed by different stakeholders must be identified, understood, and addressed. Corridor developments must ensure that all interested and affected people are provided with adequate information about a proposal and have meaningful ways to engage in decision-making processes from the outset of strategic planning.

5

Mainstreaming and tiering are fundamental for corridor success:

Corridor planning requires a tiered assessment process, ensuring that environmental and social issues are considered alongside financial and technical considerations from the start of strategic planning or programme development, right though to project specifics. Conceptual corridor planning is frequently dominated by technical and financial suitability criteria with environmental, social, cultural, and human rights sensitivity issues being considered, at best, as externalities, retrospectively, once issues and problems arise. Strategic planning is important because it is when the full range of options is still open for discussion. It also establishes the parameters that will frame and implement a corridor plan or programme. Environmental and social considerations (and the interactions between them) should be considered early in strategic decision-making alongside (and to inform) technical, financial, and economic considerations.

6

An iterative process is needed:

Corridors exist in dynamic environments and need to be responsive to changing circumstances and priorities. Planning must adjust as circumstances and available information changes. The process should identify, map, and engage all interested and affected stakeholders from the earliest stage of corridor planning and throughout the planning and management of the corridor. New concerns and evidence will likely emerge as a corridor development progresses. Corridor planning frequently places undue emphasis on the production of a report (Environmental Impact Report) and its influence on the decision to proceed. The process may not be so linear in nature. It may involve many adjustments and decisions as new evidence emerges and predictions improve. A good-quality report and recommendations is necessary, but they are dependent upon a comprehensive process of ongoing dialogue and engagement with all stakeholders.

7

Corridors must ensure effective use of available tools:

Many corridor environmental impact assessments fail to meet required international standards. Corridor planning and management should make systematic and adequate use of available impact assessment procedures, methods, techniques, and tools to ensure good-quality decisions. The available procedures discussed in this publication (notably Strategic Environmental Assessment and Environmental Impact Assessment) and their associated methods, tools and techniques should be used when appropriate to help ensure that a systematic process identifies all significant potential benefits and development outcomes, and that they outweigh the costs and risks to affected people and their livelihoods and environments. The objectivity and quality of corridor decisions are dependent upon the effective use of the available tools.

8

Plan corridors with resilience and adaptability in mind:

Prevention will always be better than cure in addressing the negative impacts of corridors, and this should be the priority. However, some circumstances dictate an inevitability of negative impacts. Corridors, therefore, need to be designed to be made resilient to anticipated changes and adaptation measures may be necessary as 'coping' mechanisms or to offset unavoidable impacts, such as the impacts caused by climate change. The suitability of measures will require ongoing monitoring and adaptation as needs arise.

9

Seek impact, influence, and implementation capacity:

The decision to proceed with a corridor is ultimately the responsibility of decision makers. They are usually the representatives of all stakeholders' interests and custodians of their natural resources. Any impact assessment report must provide adequate information to ensure sufficiently good-quality decisions. If they are to be effectively implement the recommendations provided. Attempts to improve the performance of planning and associated assessment processes of corridors must tackle the ways in which outcomes are shaped by political contexts and institutional capacities. Approaches to working on assessment processes should integrate political economy analyses and institutional capacity assessment from the outset and on an ongoing basis. Resulting insights should inform the design and implementation of interventions intended to improve planning practice.

10

Evolve from Infrastructure to Development Corridors:

The prospects for linear infrastructure projects to evolve into comprehensive development corridors are often left to chance and spontaneity. Infrastructure projects are often developed in isolation and in an incremental way. For infrastructure projects to progress and become true development corridors, the transition must be systematically sequenced into planning from the start. Assessments must include consideration of potential induced, secondary, synergistic, transboundary, and cumulative impacts likely to result from the corridor development. The progression from infrastructure to development corridors must be based on a systematic, comprehensive, and integrated assessment of the potential positive environmental, social and economic opportunities and the rigorous avoidance or management of negative impacts.

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The Belt and Road Initiative in Mongolia: Infrastructure Development and Impact Assessment

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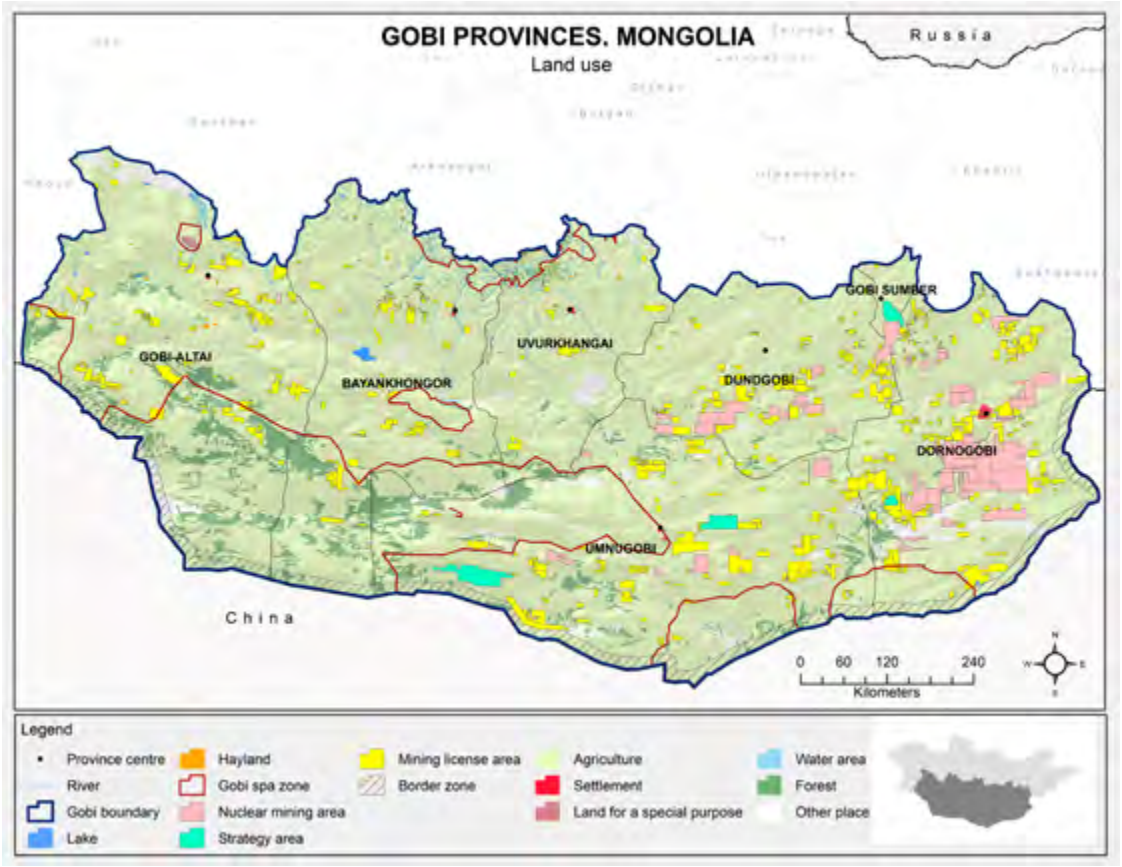
ABSTRACT

Situated between Russia and China, Mongolia has a central geographical role in regional transnational connectivity and infrastructure development between these super-powers. This has been escalated recently by the evolving concept of the Russia-China-Mongolia corridor (CMR) (a part of the Belt and Road Initiative [BRI]). This chapter situates the CMR with reference to historical and current connectivity projects and related governance institutions. The BRI (see Chapter 16) is a larger system of infrastructure development projects, led by a diversity of investors and companies. As elsewhere, in Mongolia these projects are governed by a range of national laws and regulations, as well as, in some cases, financier compliance mechanisms. This chapter reviews the history of Mongolia's Environmental Impact Assessment (EIA) law and the development of related social impact assessment (SIA) guidelines. The Gobi Framework's[166] Economic and Social Research Council (ESRC) and Global Challenges Research Fund (ESRC-GCRF)-funded project's research findings underpin this analysis and focuses on resource corridor developments associated with several anchor projects mainly in the mining sector. Mining projects invariably include constellations of infrastructure. Those considered to be part of the BRI emphasize energy development, trade, resource extraction and opening up of markets. We conclude with three recommendations for policy action, including: (1) all financiers should require and strengthen robust environmental, social or governance (ESG) standards and compliance mechanisms; (2) the capacity of stakeholders to engage in these projects needs to be developed; and (3) in the Central Asian context, it is also necessary to ensure any ESG interventions are appropriate for mobile peoples and are respectful of their traditional culture and land tenure rights.

166 The Gobi Framework for sustainable infrastructure development promotes inclusive economic development and social welfare in the context of mega infrastructure initiatives in Mongolia and Kyrgyzstan. With funding from the UK's Economic and Social Research Council (ESRC) and Global Challenges Research Fund (GCRF), this 30-month project (2018-2021) was a collaboration between the University of Oxford's School of Geography and the Environment, Independent Research Institute of Mongolia (IRIM) and the University of Central Asia.

19.1 Introduction: the China-Mongolia-Russia corridor overview

Figure 19.1 Research sites for the Gobi Framework project were located in the Gobi provinces, depicted here showing existing mining license areas. Map by Enkhbat Sainbayar.



Mongolia, situated between Russia and China, has a long history as a transit country for east-west-east commerce and trade. For example, it was host to some of the historic 'silk roads' between Europe and East Asia dating back to the first millennium BC, and initiated the *Pax Mongolica* that protected traders using those routes. Later the 17th century, a tea road or tea horse road between China and Russia traversed the region (Batbayar and Tsenddoo 2018). These ancient trade routes have been cited as the inspiration (and provide an updated vision) for a reinvigorated cooperation programme in the guise of the BRI. Today, Mongolia's size, its low population density, landlocked geography and limited modern infrastructure creates a dependency on trade relations with its near neighbours. Mongolia hosts part of the iconic Trans-Siberian Railway linking Russia and China. The historical Russian influence over Mongolian infrastructure and industry reached its peak in the 20th century, but it has shifted significantly following the collapse of the Council for Mutual Economic Relations and the wider Soviet trading bloc.

A monument to the Tea Trade route erected when hosting the 11th Asia-Europe Summit (ASEM) 2016, Ulaan Baatar, Mongolia.

(Image credit: Jon Hobbs)

Since the 1990s, and the collapse of the Soviet Union, Mongolia has broadened and diversified its ties with others, including the USA, Canada, Australia, Japan and Europe (Reeves 2012). Agencies such as the World Bank, the European Bank for Reconstruction and Development (EBRD) and the Asian Development Bank (ADB) are also now critical sources of investment in infrastructure, economic development and government capacity-building. However, the importance of both China and Russia remain, with imports from both countries accounting for over 76.9 per cent of trade as of 2019. Economic analysts such as the World Bank identifies Mongolia's poor transport infrastructure as hampering economic diversification and growth (World Bank 2020). Most recently, the Chinese-led BRI has emerged as a significant potential source of financing to address this infrastructural gap.

Mongolia's status as a democratic country with successful and relatively peaceful election cycles makes it stand out as an example in the wider Central Asia region. This has attracted the interest of international investors due to its status as a mineral resource-rich country. The predominance of low-cost, high-volume commodities has increased the requirement for extensive infrastructure. Consequently, Mongolia is experiencing an unprecedented expansion of interest in resource, trade and utility corridors to serve mining anchor projects, predominantly supplying their industrializing neighbours and fuelling its own recent economic growth; yet such rapid develop-

ment and land acquisition also includes risks for Mongolia's population of rural mobile pastoralists.[167] The extractive sector comprises almost 30 per cent of Mongolia's gross domestic product, including over 80 per cent of export products and over 70 per cent of foreign direct investments. Currently explored minerals valuation varies from US$ 1.2 to US$ 2.5 trillion, with a population of only over 3 million. Over 90 per cent of Mongolia's mineral exports (primarily coal, copper and gold) are sent to China (World Bank 2020, p. XI). In 2018, US$ 6.36 billion of a total of US$ 7.71 billion were exported to China, amounting to 82 per cent of total exports (Observatory of Economic Complexity 2021). This has led to concerns over foreign influence, over dependence on limited markets and consequent vulnerabilities. This has been so high that, as Pieper (2020) recalls, the Mongolian National Security Concept of 2010 was created, introducing restrictions to the amount of foreign investment that one single state could account for in the country.

19.2 The China-Mongolia-Russia corridor

The CMR is one of six regional corridors that constitutes China's BRI. The CMR was officially announced following a tripartite meeting between the Russian, Chinese and Mongolian Heads of State in 2014 (Grossman 2017). This was formally launched in Tashkent at the 2016 Shanghai Cooperation Organisation's Summit. A programme was announced, including 32 projects to be implemented in Mongolia (Campi 2018). Infrastructure projects included were seven rail and four road corridors, one logistics, one telecommunication, and associated projects (such as one border cooperation, four customs and trade control points as well as three environmental, three scientific and education cooperation, three social and humanitarian, one agricultural and one health initiative). Mongolia selected these 32 projects after reviewing many proposals including 190 economic projects (Narantuya 2020). The total cost of the projects was estimated at over US$ 50 billion and China expected to fund US$ 30 billion with possible extension up to US$ 90 billion (Kenderdine 2017; Organisation for Economic Co-operation and Development 2019, p. 150). Even though significant funding will be channelled through Chinese and Russian sources, Mongolia plans to raise funds on its own, including soft loans from development organizations. Eighteen out of the 32 projects, mainly non-infrastructural projects, have been started according to the National Institute for Security Studies (National Institute for Security Studies 2020). The tripartite agreements surrounding the proposed CMR economic corridor aligns domestic initiatives in each country; namely, the Chinese BRI, Russia's Trans-Eurasian Belt Development Initiative and Mongolia's Steppe Road programme. As Zemanek (2020) notes, the BRI has, therefore, been introduced into a wider system of regional connectivity and trade initiatives, including the Shanghai Cooperation Partnership and the Eurasian Economic Union.

Additional projects identified as part of the CMR corridor include the establishment of Confucius Institutes and Mongolian access to Chinese ports (Grossman 2017), cooperation in the banking sector (Pieper 2020), and agri-

167 The links between the extractive sector, energy and transport infrastructure in the context of the BRI deserves further investigation in future research. Currently nearly five per cent of Mongolia's territory is occupied by mining licenses, totalling 2,651 licenses (36 per cent exploration and 64 percent exploitation) (Mineral Resource and Petroleum Authority of Mongolia (MRPAM, 2020); In Dalanjargalan soum (county) of Dornogovi aimag (province), almost 80 per cent of the territory is occupied by the mining licenses while in others, this number ranges between 30 to 60 per cent of the total territory (Kh. Maamuu 2020).

cultural projects, such as an agricultural land lease agreement in Mongolia's eastern Dornod aimag/province (Grossman 2017). There is a general emphasis on updating and building infrastructure to connect provinces in Western China and Eastern Russia. New railway routes will allow for the faster transportation of goods and raw materials (Zemanek 2020). A direct railroad line between Russia's Zabailkalsk and China's Manzhour is also currently used for freight but does not pass through Mongolian territory.

According to a recent OECD report (2019), a number of key national infrastructure development projects such as the Western Regional Road Corridor Investment Programme, which will connect Russia and China, are funded with AsDB support. In this sense, investments from the major Chinese development banks labelled as BRI components in Mongolia sit alongside a range of similar projects that broadly make up Mongolia's national development programme.

While the CMR is projected as regional in nature, and therefore multinational, the infrastructure and mining projects established within the corridor agreements are regulated by national laws and procedures. There is little attention to transboundary impact assessment, yet regional connectivity is not often smooth, frictionless and free of international boundary and border issues. For example, a lack of standardization, such as the size of rail gauges between Russian and Chinese tracks presents an ongoing obstacle (Pieper 2020; Wu 2020).

The BRI builds upon existing infrastructure that has developed to connect China, Mongolia and Russia. Mongolia is inevitably impacted by such influential neighbours. The history of cooperation (and periodic competition) between these countries is complex, and continues to be so. Russia exercised years of political, cultural and infrastructural influence in Mongolia during the Soviet period from 1921-1990. During the nearly 70-year history of the Socialist People's Republic of Mongolia, the organization of the Mongolian state and economic system was closely modelled after the Soviet Union and Moscow played a strong role in foreign and domestic policy (Morozova 2002). Collectivization of pastoralism, city-building, electrification (Sneath 2009) and industrialization characterized what might be called the "development corridor of 20th century Mongolia"; Humphrey (2005) eloquently articulates the relationship between Soviet architecture and socialist ideology, while Reeves (2005, p. 84) identifies the Soviet Union's infrastructural expansion throughout remote Central Asia as a means to link various territories into a single economic logic.

19.3 The Mongolian Steppe Road Programme

Mongolia's Steppe Road National Programme's development objectives are situated within Mongolia's Sustainable Development 2030 Vision. The general concept of the programme specifies a focus on agriculture and industry, including light industry, food, construction materials, copper processing, coal, petrochemical, metallurgy, tourism and mining sectors. The development of the extractive and energy sectors requires associated infrastructure development (Legalinfo 2019). These priorities are also reflected in China and Mongolia's Comprehensive Strategic Partnership, which was further elaborated in 2019 (Communique, Ministry of Foreign Affairs of the People's Republic of China 2019).

The overview of the programme further states that the Steppe Road projects will be implemented within the respective Russian and Chinese regional economic integration frameworks. The plan lays out 10 key objectives, including domestic rail and road construction (including the Millennium Road, Tourist Roads and Mining service Roads),

transport and logistics (including airports), the creation of free trade zones, and domestic energy sector projects, with the aim of establishing an integrated energy system (urban power, mining power supply, wind and solar farms). Additional domestic projects include the construction of processing plants for coal and the production of synthetic gas, the establishment of tourist complexes, further development of light industry and agriculture (including irrigation facilities, water transfer schemes and beekeeping), and lastly, security infrastructure in urban areas and border crossings (Legalinfo 2019**)**. Additional projects specifically focused on regional cooperation include the development of regional electricity transmission and natural gas infrastructure, export energy from solar and wind resources in the Gobi region, and infrastructure for a high-speed data network connecting Asia and Europe (Legalinfo 2019).[168]

19.4 Mongolia and the Belt and Road Programme

Given the long history of relations between China, Mongolia and Russia, what would the proposed BRI regional development corridors look like in practice and what legal mechanisms and standards for impact assessment are currently implemented in Mongolia, and are they effective to manage environmental and social consequences?

Potential BRI-related projects are diverse in terms of geographical setting and scope, and environmental and social risks can be significant (Xiheng 2019). As Zemanek (2020) has pointed out, unlike organizations such as the World Bank and the International Finance Corporation, proponents of BRI related projects are unlikely to push for legal or institutional reforms in host countries. This is because they are in line with Chinese government development models that stress principles such as "sovereignty, non-interference, […] and a plurality of political systems conceiving their own participation in integration" (Zemanek 2020, p. 200). As Carrai (2020) explains, Chinese investors do require some conditionality with its investments such as adherence to the "One-China" principle. There has been increasing scholarly attention on the complexity of legal regulation of BRI projects, including contract dispute resolution (i.e. what legal system adjudicates – national, Chinese or international courts) (Chaisse and Górski 2018; Erie 2019a; Erie 2019b). Some scholars speculate that new standards and legal frameworks specific to the Chinese development vision will emerge over time (Anh and Ha 2020).

In research carried out in Mongolia and Kyrgyzstan as part of the Gobi Framework project, the authors have observed clear differences in Chinese company/local community relations. These differences may partially be influenced by national political culture, including the rule of law and access to the courts, the role of civil society, and legal reforms related to transparency and promotion of human rights. These differences also indicate that approaches to community relations and impact assessment processes for BRI projects differ depending on the host country systems. Xiheng (2019) makes an important point in this regard which resonates with our own research findings; he states, "Chinese companies have been used to relying on local governments to deal with communities as is usually the case in China, and many have not realized the need to acquire a 'social contract' from local peo-

168 It is important to note that private sector companies will participate in Concession projects listed under the Steppe Road through tendering processes (list of state property concession items are available here: https://www.legalinfo.mn/annex/details/2732?lawid=3089). In Chapter 5 of the Steppe Road National Programme, there is no explicit reference to Chinese investment or aid. Rather, sources of project investment are listed as "the state budget, foreign assistance and aid, foreign and domestic investment, PPPs, and other financial sources" (Legalinfo 2019**)**.

ple" (p. 61-62). Sternberg (2020), highlights findings from the Gobi Framework project in Kyrgyzstan, where he indicates that "nebulous BRI presentation(s) play well in the capital but a lack of jobs, water and environmental degradation and little community engagement make mines a target for local frustrations. The dichotomy arises that though a foreign company may satisfy its legal licensing requirements assigned in the capital, it fails to obtain a 'social license to operate' in the rural host community". Understanding company behaviour and company/community relations in different national settings is crucial for understanding impacts and potential conflicts. Wang's (2022, forthcoming) extensive study of two BRI projects funded by the EXIM Bank in Kenya and Ethiopia is instructive in this regard and germane to Chapters 11, 12 and 13 in this publication.

Such difficulties are not only experienced by Chinese investors. Beyond national legal regulations, major projects that are financed by the IFC, the World Bank, EBRD and so on follow standards required by these investors. The Oyu Tolgoi copper gold mine, which includes extensive infrastructure such as airports, a pipeline, roads and energy followed IFC Performance Standards, though two subsequent complaints from local herders surrounding a lack of due diligence exposed problems in assessment and subsequent managing and monitoring procedures.

In 2014 the EBRD also received complaints in relation to their investments in Energy Resources, a company working at the Tavan Tolgoi coal mine, regarding impacts of roads on fragmenting herder pasturelands, and dust and waste generated from mine-related transport (European Bank for Reconstruction and Development 2013). Again, in 2015, the EBRD received complaints from local herders in relation to an iron ore mine run by the company Altain Khuder in Gobi Altai province (European Bank for Reconstruction and Development 2015). All of these complaints address issues of inadequate social and environmental safeguarding, despite the standards required by financiers such as the IFC and EBRD.

Evolving official guidance for a "Green Belt and Road" emphasizes environmental protection and attention to climate change impacts as well as promotion of the idea of 'shared benefits.' (Xiheng 2019, p. 51). This is an essential requirement in the transition from infrastructure to development corridors. Xinhing (2019) compares the IFC Performance Standards with China's Green Credit Guidelines, demonstrating alignment in some areas.

However, a recent United Nations Development Programme (UNDP) publication on Chinese private-owned enterprises (POEs) along the BRI reports that fewer than half of the surveyed companies had completed an EIA in relation to their project (United Nations Development Programme China 2019). This indicates that the presence of impact assessment procedures for all projects across the Russia-Mongolia-China economic corridor is reliant upon national legal procedures and requirements, the principles and frameworks required by financiers and voluntary commitments, as well as the extent to which host partner countries have signed and incorporated international conventions into their national legal system (i.e. ILO C 169, and others). With this in mind there remain open questions around the governance of infrastructure investments although they could represent an opportunity to encourage or help host governments to reform domestic environmental and social standards and safeguards.

19.5 Impact assessment in Mongolia: the legal context

The legal processes governing major projects in Mongolia are largely a combination of national laws and regulations, as well as voluntary standards used by companies and/

or Performance Standard conditionalities required by lenders or investors (e.g. IFC or EBRD). The Mongolian Constitution ensures protection from environmental pollution and harm. Based on this stipulation (Article 16.2 of the Constitution), the Government of Mongolia adopted several laws related to environmental protection in the late 1990s and mid-2000s, including the Law on Water (1995) and the Law on Air (2004), which were later revised between 2010 and 2012. These laws created a basis for regulating relations between the government, public and private sector companies.

Since 1976, the Mongolian government has been a signatory to the International Covenant on Economic, Social and Cultural Rights (ICCPR). Impacts on minority and indigenous groups are of concern in Mongolia and have included loss of traditional land, lack of participation of local peoples in decision-making, and a developmental vision which has struggled with implementing principles of transparency and human rights. (Burgés, Simm and Cooper 2019; Anh and Ha 2020). The Asian Infrastructure Investment Bank (AIIB), which was set up to assist with funding BRI projects, does have an environmental and social framework that includes reference to environmental and social assessments, managing impacts on Indigenous peoples and outlines processes for free, prior and informed consent for Indigenous peoples and outlines processes for free, prior and Informed consent for indigenous peoples (Asian Infrastructure Investment Bank 2019). However, the AIIB only funds a small percentage of projects in Mongolia, with the majority of funding coming from China's large banks such as the China Development Bank, China Exim Bank and so on (Organisation for Economic Co-operation and Development 2018).

In 1998, Mongolia adopted the Law on Environmental Impact Assessment (which was revised again in 2001 and 2012) (Byambaa and de Vries 2020). The EIA Law states that the government shall adopt impact assessment guidelines or methodologies (in Mongolian) for environmental, social and health impact assessment and define the operational procedure of the government councils to monitor, review and adopt these assessments. Article 7.7 of the revised 2012 EIA Law states "The Government shall approve procedures and methodologies for impact assessment, which shall include issues related to Environmental Impact Assessment, assessment analysis, review and regulation of professional council activities, and social and health impact assessment" (Legalinfo 2012).

Following the 2012 EIA law revisions, the government was obliged to adopt EIA, SIA, and health impact assessment (HIA) procedures and detailed guidelines. The government was required to adopt guidance documents for EIA, SIA and HIA, as well as three sets of government administrative procedures (i.e. processes for review of assessments) in addition to strategic and cumulative impact assessment (SCIA) guidelines and procedures. The government adopted procedures for EIA and SCIA by the Environmental Minister's resolution A/11 of 2014. However, this resolution was annulled by the subsequent minister in 2017 (Resolution A/80).[169,170]

The Ministry of Health followed by developing HIA guidelines in 2014 (Order 413), but these have struggled in practice due to an absence of complementary procedures for implementation (Byambaa, Wagler and Janes 2014).

The lack of progress in developing specific SIA guidelines has been a key policy gap identified by the Gobi Framework project and civil society partner Steps without Borders. Probably due to lack of knowledge and expertise, SIA guidelines have not been developed by any government agency (as of 2021) and reference to social impacts have been

169 See: Legalinfo http://www.mne.mn/wp-content/uploads/2017/07/2014.7.pdf).

170 In 2019, Orkhon province citizens filed a case against the Ministry of Environment for not conducting a cumulative impact assessment for contamination and health risk caused by Erdenet Mining Corporation to the surrounding area. The litigation went on for about 1.5 years and the Ministry agreed to conduct an investigation of Erdenet's surrounding area in 2020. The Administrative court decided that the parties have reconciled and dismissed the case. The Ministry has sent the methodology to the Orkhon province Environmental Department and instructed them to procure a professional organization to conduct the assessment.

inadequately included in EIA guidelines. Additionally, a publicly available electronic database of EIA documents in Mongolia shows a lack of substantive analysis on social impacts within completed project EIAs.[171]

This is to say that EIA's have not been effective in addressing social and livelihood issues including Indigenous land use practices.

In 2020, a Government Working Group was formed in Mongolia, with the explicit aim of developing national guidelines for SIA; the authors of this chapter in collaboration with the NGO Steps without Borders, have contributed to the working group over the course of 2020-2021 and helped develop SIA guidelines (as well as conducting training and stakeholder consultations in Ulaanbaatar and remote rural areas). This has helped fill the policy gap identified above. The final draft of the guidance was submitted to the Mongolian Cabinet Office in 2021,[172] and discussions are ongoing regarding Ministry implementation procedures.

A long line of trucks transporting coal and copper concentrate line up in Khanbogd, Mongolia while waiting to cross Chinese border.

(Image credit: Jerome Mayaud)

171 The Environmental Information Centre database (Environmental Information Centre 2020) includes 8,560 General EIA reports and 6,206 Detailed EIA reports. Currently, there are 102 companies licensed by the Ministry of Environment to conduct an EIA in Mongolia, 20.8 per cent of which are mining related, 12.6 per cent infrastructure, 25.8 per cent agriculture and manufacturing, and 40.8 per cent in service projects (Environmental Information Centre 2020). (See Purevsuren, Darambazar and Lkhagvasuren [forthcoming] for further analysis of these reports).

172 The analysis in this chapter, while focused on impact assessment, is based on research conducted on the social impacts of mining and mining-related conflicts more broadly from 2016-2020 as part of the Gobi Framework research project (ES/S000798/1). In this case, mine development involves the installation of a range of infrastructure including power stations, pipelines, roads, railroads, airports and accompanying border infrastructure to facilitate export. Therefore, reference to mining in this case refers to infrastructural development beyond local sites where minerals are removed from the earth (see also Lezak et al. 2019). This chapter will present recent developments in Mongolian national requirements for social impact assessments, which would apply to mining and infrastructure projects beyond, but including BRI projects.

Two camels relax in Bayanhongor province, Mongolia. Traditional land tenure allows for free range grazing of livestock

(Image credit: Ariell Ahearn)

Mongolian households summer together in Bayanhongor, Mongolia. Herders practice traditional mobile pastoralism across the country; development-inducted displacement and pasture fragmentation is happening across the country, especially in areas which are heavily impacted by mining.

(Image credit: Ariell Ahearn)

19.6 Effectiveness of impact assessment policies and procedures

A 2020 World Bank Report identified institutional complexity as a challenge in addressing future investment infrastructure in Mongolia. In this way, the confusing nature of national requirements and procedures may pose a challenge to the effectiveness of the implementation of impact assessment procedures in Mongolia, especially when it comes to transboundary programmes such as corridors.

The frequency of grievances and national court cases on issues such as resettlement, compensation and harmful impacts from projects indicates a problem with the implementation of impact assessment policy and company understanding of social and environmental risks in the particular context of the region. Prior to launching the Gobi Framework project, the work of the authors for the IFC CAO (Office of the Compliance Advisor) Ombudsman concerning community grievances against Oyu Tolgoi (see MDT/IEP Final Report 2017) highlighted knowledge gaps of key experts tasked with doing initial environmental and social baseline assessments. Problematic understandings about (and in some cases lack of attention to) mobile pastoralist livelihoods and land-use practices resulted in many families not receiving appropriate or adequate compensation for involuntary resettlement and livelihoods of vulnerable groups not being improved or restored following resettlement. The CAO-facilitated dispute resolution process related to these complaints, which took place over approximately seven years, demonstrated the effectiveness of multi-stakeholder engagement through a tripartite committee (TPC) structure (consisting of representatives from herder groups, local government and local mine management) (Sternberg, Ahearn and McConnell 2019). While this process was a success, it is an anomaly in Mongolia. The great majority of mines and infrastructural projects are not required to comply with external Performance Standards, and grievance mechanisms for local citizens, if they exist, are opaque and difficult to navigate. Additionally, the extra-legal nature of the TPC means that it did not have an impact on national policy related to environmental, social and health impact assessment, resettlement and compensation.

The Gobi Framework was initiated with the aim of understanding the successes and limitations of the TPC model and its potential for being scaled up to similar environmental and social conditions in Central Asia. The research on the TPC indicated that training and capacity-building were crucial to the success of this model, according to interviews with TPC representatives. Training in negotiation and communication skills and joint fact finding helped to equalize power and knowledge inequalities between the groups. Over the course of the research on community/company relations in Mongolia and Kyrgyzstan from 2018-2020, the authors observed significant issues related to involuntary and forced resettlement, pasture fragmentation, lack of complaint mechanisms for locals, negative impacts on livestock and breakdown in social cohesion. Additional issues identified in the research include: limited access to and decline of clean water; inaccessibility of local people to employment positions at mining companies; lack of adequate compensation and resettlement policies; unfair valuation of their assets; increased stress and health-related problems due to blasting; loss of land titles by herders; dust from unpaved roads; lack of monitoring of environmental management plans; lack of discussions, notifications and public engagement prior to the licensing and local development agreements; absence of accountability and association between an environmental restoration and license extension and so on.

In conclusion, while Mongolia does have an existing legal requirement for EIA, the lack of specifications for HIA procedures, and the absence of both procedures and detailed guidance on SIA has limited the effectiveness

of a holistic set of assessment processes. As Vanclay et al. (2015) have emphasized in a Social Impact Assessment Handbook, assessment processes are not simply a box-ticking exercise. Rather, the SIA is a living assessment that should be managed and monitored over the life of a project and provide an opportunity for community engagement and decision-making at every stage of the development project.

The empirical work in Mongolia carried out by the Gobi Framework project on mining and mining-related infrastructure – including pipelines, roads, airports and railways, which include a range of investments – indicates a lack of attention to and systematic analysis and understanding of social and human rights impacts. Recent decades of policy development in Mongolia have emphasized concerns over environmental damage from major development projects, evidenced in civil society movements (Byambajav 2015). Likewise, most of the recent academic work on environmental and social standards has emphasized the natural environmental risks and dimensions (Tracy et al. 2017). This focus on natural environmental issues, while important, has limited focus on equally pressing concerns related to social protections, cultural heritage and Indigenous knowledge and livelihoods (including nomadic).

With the absence of consistent and enforceable principles (with the possibility for third-party verification) for environmental and social safeguards, it is up to national governments of BRI host countries to set out clear legal regulations regarding IAs. While Mongolia has made progress in developing detailed EIA procedures and guidance, and has created a legal requirement for HIA and SIA, an absence of guidance and procedure for SIA, and a delayed procedure for HIA combined with the lack of synthesis between these different but intricately related forms of assessment poses a challenge. While the EIA law requires cumulative and strategic environmental assessments, these have not been conducted consistently in practice. This is particularly problematic as collective risks cannot be addressed. Gobi Framework research in Gurvantes county clearly illustrated this issue. In this case, multiple mining companies excavated a single large resource, each following different company protocols for community relations, compensation and corporate social responsibility agreements. In this way, enforceable legal regulations are needed in Mongolia to enable responsible and sustainable development of infrastructure and hold companies accountable for their impacts.

Additionally, the increasing significance of Human Rights Impact Assessment (HRIA) (Götzmann 2021) highlights a quickly moving field within impact assessment that is often poorly understood by local actors. At this point, Mongolia has not considered implementing HRIA, though it has implemented a United Nations Working Group to assess the impact of business on human rights starting in 2011 (see Chapter 6). A key challenge in implementing SIA, and in the future HRIA is the lack of domestic expertise and capacity in social science research methods and analysis. Relying on international consultants to conduct impact assessments will not be sustainable in the long run. Mongolia will need domestic expertise to conduct assessments and broaden and deepen related management and monitoring plans which will require significant investment in training and educational programmes.

As mentioned in previous sections, when social issues are bolted onto EIA in Mongolia, the analysis often overlooks critical issues related to the sociocultural and economic aspects of pastoral nomadism. This issue has been corroborated by Byambaa and de Vries (2020), who importantly identify the issue that "static land use-oriented methods underlying the current EIAs restrict them to sufficiently mitigate impacts on dynamic land use in nomadic pastoralism" (p. 40).[173] The lack of attention to mobile pastoralist livelihoods is a

173 The Oyu Tolgoi Resettlement Action Plan document, for example, exhibits an inappropriate criterion for determining impact zones that does not consider local herder mobility patterns, seasonal camp sites or differences in livestock water and pasture requirements.

major shortcoming that has resulted not only in infrastructure-related conflict, but in a disregard for local herder land rights, traditional practices and their concern for long-term livelihood security in the face of multiple risks to livelihood health and well-being.

Another challenge mentioned above relates to the coherence of policies in Mongolia and the frequency of policy change. Further clarity is needed on the obligations of companies and how the impacts of projects will be assessed by government agencies. This is particularly challenging with BRI-related projects because the nature of investments is often not available for public scrutiny or may be in the form of government concessions (the usual method for BRI projects). Concession agreements should be published in a Glass Account according to the Law on Glass Account (2014). In Mongolia. Information on projects is accessible through Mongolian government websites such as Legalinfo or local business associations (e.g. Chinese Chambers of Commerce). However, in Mongolia this information is currently very limited. Without transparent information on infrastructure projects, there is little opportunity for public consultation or debate.

19.7 Impact assessment in planning and management of corridors

From an empirical point of view, the Russia-China-Mongolia economic corridor is not a smooth, frictionless and borderless corridor. It is also not (yet) a regional trade agreement. Investment actors, project types, policymakers, political priorities and physical geographies are diverse across the three countries. As Xiheng (2019) highlights, any recommendations for future action needs to take into account the diverse range of actors involved in corridor projects. Relying on financiers and project proponents to implement standards, however, results in a fragmented regulatory environment. If social and environmental risks are too high, financiers with higher standards will not take on the investment, leaving it open to private companies or financial organizations who may lack awareness of, commitment to or alignment with United Nations principles and international standards. Additionally, principles that uphold national sovereignty and non-interference assume a political will and put the burden on national governments to create robust legal frameworks requiring standard sets of environmental and social assessments for investment projects across their national territories.

19.8 Key recommendations for Central Asia

19.8.1 Infrastructure financiers should encourage mandatory environmental and social standards in line with United Nations human rights frameworks

Infrastructure projects are implemented through a diverse range of financiers and companies (both state-owned and private). This diverse investment landscape is operating in a range of political and geographical contexts. The Gobi Framework's research in Mongolia and Central Asia illustrates clear disconnects between aspirational

development projects brokered in Bishkek or Ulaanbaatar, and the reality of implementation in remote rural settings that pose serious risks for local communities. Such risks need to be predicted and avoided or managed, while development opportunities are maximized.

19.8.2 Capacity-building for stakeholders in infrastructure projects should be prioritized

A wide range of stakeholders are involved, including national and provincial governments, companies, financiers, local community groups and NGOs, and embassies and Chambers of Commerce among others. For example, BRI projects exists alongside World Bank and IFC investments in infrastructure which arguably make up the envisioned Russia-Mongolia-China economic (or development) corridor. Civil society organizations, academic institutions and other associations may be in a position to create knowledge exchange around the business case for more effective impact assessment processes to stakeholders, including government.

19.8.3 Develop appropriate guidelines and indicators for mobile peoples

A significant gap in impact assessment processes is a lack of tools and methodologies to represent and address infrastructural impacts on mobile pastoralists and other mobile peoples in an appropriate way. The application of mapping techniques which reproduce private property and sedentary land use patterns has contributed to conflicts, human rights violations and serious mistakes related to resettlement of Mongolian herders. Better accounting of seasonal and common property regimes, mobile grazing patterns, water use and access, and herder rights to these forms of property should be developed in collaboration with local Mongolian NGOs and herders themselves. This issue is not only specific to Mongolia. Mobile pastoralists live across all countries of Central Asia and their rights should not be discounted in the assessment of corridor initiatives.

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