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Managing Risk in Chinese Overseas Development: Lessons for the Andean Amazon

REBECCA RAY, KEVIN P. GALLAGHER, CYNTHIA SANBORN

Rebecca Ray *is a post-doctoral Research Fellow at the Global Economic Governance Initiative (GEGI) at the Global Development Policy Center.*

Kevin P. Gallagher *is a professor of Global Development Policy at the Frederick S. Pardee School of Global Studies and the director of the Global Development Policy Center at Boston University.*

Cynthia Sanborn *is the Research Vice President at Universidad del Pacífico and a Professor in the Academic Department of Social and Political Sciences. She is also a member of the Regional Board of the David Rockefeller Center for Latin American Studies (DRCLAS), and holds a Ph.D. and M.A. in Government from Harvard University.*

As public Chinese banks become increasingly active in the Andean Amazon region – the central Andean highlands and western Amazon basin of Colombia, Ecuador, Peru, and western Brazil – it would be prudent for China to take stock of the lessons and experiences of development finance institutions (DFIs) that have a history there. The Andean Amazon is a region that is rich in cultural and ecological heritage, a source of significant local, national, regional and global economic benefits. Key to maximizing those benefits are understanding, preventing, and mitigating the significant risks associated with development finance in the Andean Amazon. China has become a valuable and sought-after partner for development finance in Latin America. As China's DFIs expand their presence in the region, past lessons can help ensure that Chinese development finance is beneficial for China and host countries alike.

The history of DFIs in the Andean Amazon has been rife with challenges. Over time however, DFIs operating in the region, including China's, have learned to navigate some of these challenges in order to maximize mutual benefits and prevent and mitigate risks. While no single DFI has proven to be a complete success, the collective evidence make it clear that a strategy of deference to host country standards has not served the interests of DFIs or host countries and communities. Rather, the most successful projects tend to occur when DFIs, host country governments, and other actors each establish *mutually-reinforcing networks* of support and accountability.

The most successful projects tend to occur when DFIs, host country governments, and other actors each establish ***mutually-reinforcing networks*** *of support and accountability.*

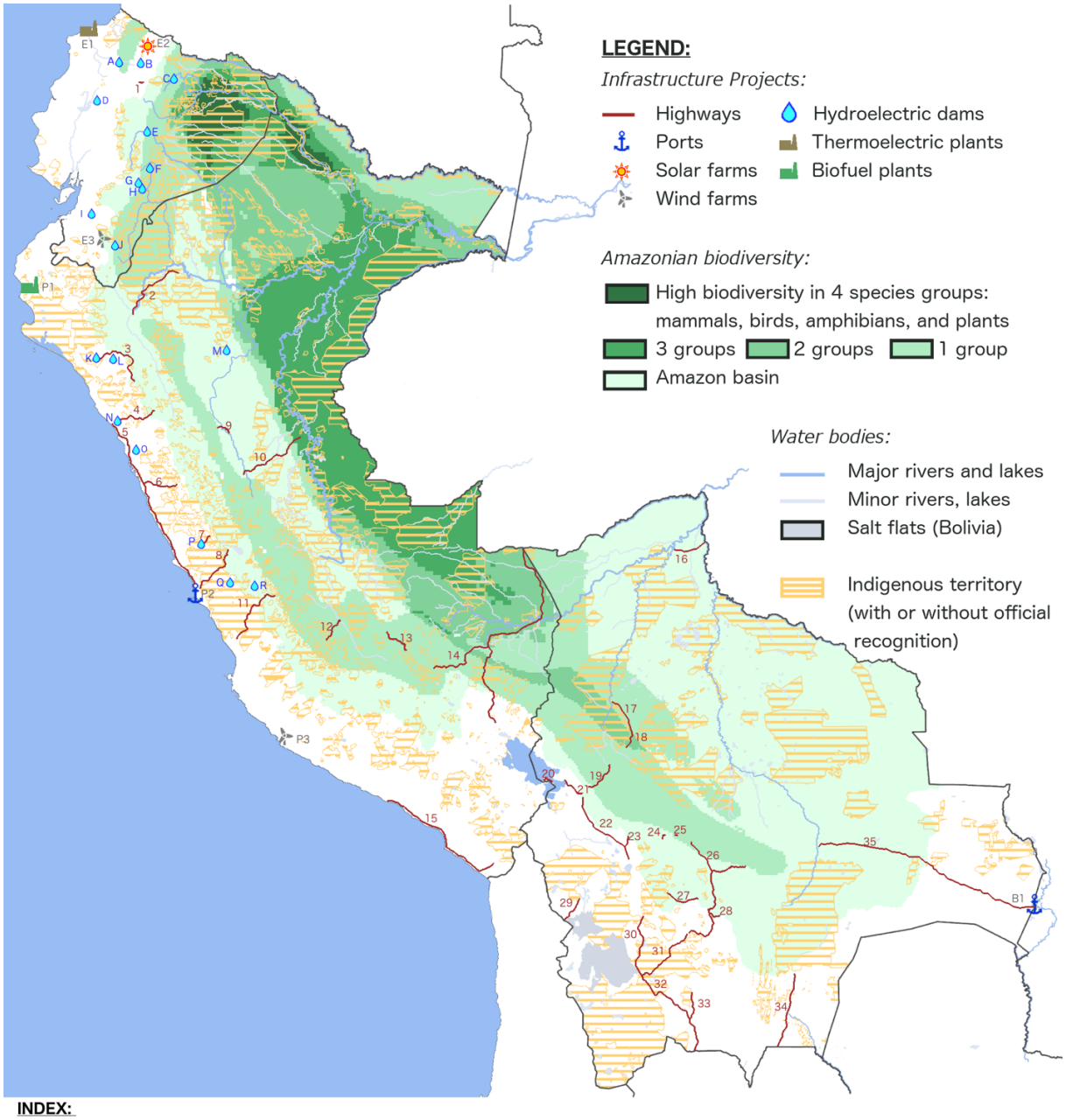
These are the findings of a multi-year, interdisciplinary study carried out by economists, political scientists, ecologists, geographers, and engineers from Boston University's Global Development Policy Center, the Universidad del Pacífico in Lima, Peru; the Facultad Latinoamericana de Ciencias Sociales in Quito, Ecuador; and the Instituto de Estudios Avanzados en Desarrollo in La Paz, Bolivia (Ray et al, 2018). Through cross-cutting statistical analyses and four country studies (in Ecuador, Peru, Bolivia, and Brazil), the team collectively examined the extent to which international DFIs, host country governments, and civil society deployed environmental and social risk management (ESRM) frameworks to ensure that infrastructure projects bring shared economic benefits to nations while mitigating risks to ecosystems and communities. Among our major findings:

The Andean countries of Ecuador, Peru, and Bolivia -- and particularly the regions of those countries within the Amazon basin -- are currently experiencing an ***infrastructure boom***. From 2000 to 2015, fewer than half of the 60 international DFI projects in Ecuador, Peru, and Bolivia were in the Amazon basin. Roughly an equal number of international DFI projects have moved forward since 2016 in these countries, and over $70 billion in total infrastructure projects are planned for the Amazon basin overall.

The infrastructure boom is characterized by an increasing share of ***Chinese policy banks – the China Development bank and the Export-Import Bank of China*** – which are relative newcomer DFIs with ESRM strategies that are largely deferential to host country standards. There are signs of a trend where host country governments seek out financing from newcomer DFIs for especially risky projects. A deferential approach can falter when host countries do not enforce those regulations and thus leave Chinese DFI's overly exposed to social, environmental, political, and reputational risks.

The Andean infrastructure surge has been associated with an accentuation of ***significant environmental risk***. From 2000 to 2015, the perimeters of international DFI-financed infrastructure projects in the Andean countries of Ecuador, Peru, and Bolivia experienced tree cover loss at a rate of over four times the average in comparable areas without projects in these countries. That infrastructure-associated tree cover loss is equivalent to 209.5 million metric tons (MMT) of CO_2 emissions, roughly the equivalent of the annual emissions of Colombia, Chile, and Ecuador combined, and leading to an estimated social cost between $2.1 and $10.5 billion. Such degradation is due to the *direct* impacts of the projects as well as *indirect* impacts such as illegal mining that can follow official opening of the forest.

INTERNATIONAL DFI-FINANCED INFRASTRUCTURE PROJECTS IN ECUADOR, PERU, AND BOLIVIA, 2000-2015



INDEX:

HYDROELECTRIC DAMS — ***ECUADOR:*** A. Manduriacu (BNDES); B. San José de Minas (CAF); C. Coca Coda Sinclair (CHEXIM); D. Baba (IADB); E. San Francisco (BNDES, CHEXIM); F. Abanico (IBRD); G. Sopladora (CAF, CHEXIM); H. San Bartolo (CAF,); I. Minas San Francisco (CDB); J. Sabanilla (IBRD); ***PERU:*** K. Cerro Mulato (IBRD); L. Las Pizarras (CAF); M. El Sauce (IBRD); N. Moche (IBRD); O. Tanguche (IBRD); P. Cheves (IFC); Q. Túnel Graton (IBRD); R. Canchayllo (CAF).

HIGHWAYS — ***ECUADOR:*** 1. Ruta Viva (CAF); ***PERU:*** 2. Reposo-Saramiriza (CAF); 3. Chongoyape-Cajamarca (CAF, IBRD); 4. Trujillo-Huamacucho (CAF); 5. Pativilca-Trujillo (CAF); 6. Casma-Huaraz (CAF); 7. Churín-Oyón (CAF); 8. Canta-Lima (IBRD); 9. Tocache-Dv. Tocache (CAF); 10. Tingo María-Pucallpa (CAF); 11. Lunahuaná-Chupaca (CAF); 12. Quinua-San Francisco (IBRD); 13. Ollantaytambo-Quillabamba (CAF, IBRD); 14. CVIS, Sections 2-4 (CAF); 15. Camaná-Tacna (CAF); ***BOLIVIA:*** 16. Riberalta-Guayamerín (CAF); 17. Rurrenbaque-Yucumo (IADB); 18. Yucumo-Quiquibey (IADB); 19. La Paz-Caranavi (IADB); 20. Tiquina-Copacabana (IBRD); 21. Huarina-Rio Seco (IBRD); 22. La Paz-Oruro (CAF); 23. Caracollo-Colquiri (CAF); 24. Quillacollo-Suticollo (CAF); 25. Sacaba-Chinita (CAF); 26. La Y de Integración (CAF); 27. Chacapuco-Ravelo (CAF); 28.Yamparáez-Sucre (IBRD); 29. Huachacalla-Pisiga (CAF); 30. Uyuni-Cruce Condo K (CAF); 31. Uyuni-Potosí (CAF); 32. Uyuni-Tupiza (CAF); 33. Integracióon Sur, Phase 2 (CAF); 34. Yacuiba-Boyuibe (IBRD); 35. Río Grande-Puerto Suárez (CAF, IADB).

OTHER - ***ECUADOR:*** E1. Termoesmeraldas (CDB); E2. Gransolar (CAF); E3. Villonaco (CDB); ***PERU:*** P1. Maple Inc. Biofuel (IADB); P2. Callao Muelle Norte (IFC); P3. Marcona-Tres Hermanas (CAF, IADB); ***BOLIVIA:*** B1. Puerto Aguirre (IFC).

The surge has also been marked by ***social conflict***. Every case study covered by this project suffered from setbacks due to conflicts produced by community displacement, water contamination, and labor conditions that did not meet national legal standards or ESRM frameworks.

The various social and economic risks we identified with these projects also often ***jeopardized the economic goals and outcomes*** of the projects themselves. The case studies show that social and environmental problems often led to project delays, significant reputational damage, and in one case study – the Inambari dam in Peru – the cancellation not only of that project but of the larger multi-dam initiative of which it was to be the first.

ECONOMIC RISKS FROM INADEQUATE ESRM

Domain	Risk	Case Study Example
Project risk	Shutdowns or delays of individual projects	San Buenaventura – Ixiamas Highway (IBRD, Bolivia) Montero-Yapacaní Highway (IDB, Bolivia) Baba Multipurpose Dam Project (IDB, Ecuador)
Local economic risk	Costs to local economies from protests, conflict-related debts, and other project-related costs Legal and administrative conflict resolution costs	Coca-Codo Sinclair Hydroelectric Dam (CHEXIM, Ecuador) La Paz – Oruro Highway (CAF, Bolivia)
Systemic economic risks	Costs to contractors involved in projects, which can cascade into the commercial banks and sub-contractors that are in financial relationships with them	San Buenaventura – Ixiamas Highway (IBRD, Bolivia) Montero-Yapacaní Highway (IDB, Bolivia)
Risks to future business potential	Lost opportunities for future business, stemming from reputational costs from failed projects	Inambari dam (expected to be BNDES, Peru)

Key measures to prevent and mitigate risk in the Andean Amazon:

How did ESRM frameworks fail to prevent these project-endangering damages? This project uncovers three core areas in which international DFIs and national governments commonly fell short of implementing their stated safeguards and risk management strategies: inadequate stakeholder engagement, environmental impact assessments (EIAs), and project transparency and oversight.

Incorporating **stakeholder engagement** early in the project development process can help protect against environmental degradation. For example, projects that took place within regulatory frameworks that guaranteed access to prior consultation for affected indigenous communities were associated with significantly less deforestation than those projects that did not. However, projects that neglected to heed communities' needs were associated with greater environmental damage, serious social conflict, and the loss of millions of dollars of potential business for DFIs due to relationship and reputation damage.

Pursuing **comprehensive environmental impact assessments (EIAs)** can alert international DFIs and national governments to a variety of risks--especially when they are built into the upstream parts of the

planning process. Every DFI active in the Andean Amazon Environmental damage can be serious even when it is indirect, brought about through new migration into sensitive territories. When DFIs and governments limit the scope of EIAs, they may expedite project planning in the short term, but in doing so they leave themselves vulnerable to unforeseen environmental, social, and political risk. For example, Peru's Southern Interoceanic Highway was financed in segments, with separate DFIs and separate EIAs for each segment. As a result, the overall impact of the project as a whole was not taken into account.

Policies and processes related to ESRM need to emphasize **transparency and accountability,** with built-in measurement and monitoring instruments. Where project plans or follow-up reports are inaccessible, stakeholder participation becomes impossible. Nor is it realistic to expect commitments to be fulfilled if stakeholders cannot monitor progress. Where contractor obligations are not set forth clearly, and where a lack of transparency prevents civil society from monitoring outcomes, performance can easily fall short of commitments, leaving communities with unmet needs in employment, safety, and even access to infrastructure itself.

These failures can be triggered by a perceived need to save *time*, to save *money*, or to save *face*. The case of the CVIS highway in Peru shows an example of *saving time*, as a Supreme Decree exempted the project from some of the usual feasibility study requirements for transportation projects. The Bolivian highway connecting La Paz and Oruro suffered from efforts to *save money*, as an inability to adapt to rising asphalt prices led to shortcuts on road safety and quality. Finally, particularly ambitious "showcase" projects such as Ecuador's Coca-Codo Sinclair dam can create particularly strong temptations to *save face*, by falling short of transparency requirements such as the mandate to publish relevant environmental audits to enable stakeholders to monitor the project's progress and impacts.

However, the project also shows that when development banks, governments, and communities work together to actively prioritize these areas, they have mitigated the damage. This project has shown that the benefits of effectively designed and implemented ESRM frameworks extend to local, national, and even global levels.

BENEFITS OF EFFECTIVE ESRM

Stakeholder(s)	Benefits
Global	Equitable use of resources
	Enhancement of global public goods
Development banks	Greater project effectiveness
	Mitigation of environmental and social risk
	Realization of broader development goas
Borrower governments	Better management of natural resources
	Strengthened institutional capacities
	Mitigation of environmental and social risk
	Realization of broader development goals
Local communities	Enhanced voice and ownership
	Reduced vulnerability
	Improved livelihoods

Source: Gallagher and Yuan (2017).

These methods are far too onerous for any one party to take on alone. Our work suggests that **mutually-reinforcing networks** of project planning and oversight between international DFIs, national governments, and civil society are needed.

DFIs face social and environmental risks that can be mitigated by early identification, consideration, monitoring, and engagement. While some DFIs have built-in ESRMs, others rely on host country standards and would benefit from upstream understanding and incorporation of those standards.

International DFIs and national governments commonly fall short in three areas: inadequate stakeholder engagement, environmental impact assessments (EIAs), and project transparency and oversight.

Governments have social and environmental standards that reflect the priorities of their citizenry but often need institutional capacity assistance to successfully implement these standards, as well as accountability mechanisms to ensure that these standards are met.

Civil society has specialized knowledge and capacity to improve project outcomes through their input, but need greater transparency in order to participate in the project process. Communities have intimate knowledge of local terrain and cultural or workplace expectations, and academic scholars can contribute cross-cutting research, but both of these groups need inclusion into the project planning process.

The challenge of uniting the strengths of these actors and addressing their gaps may require the involvement of regional platforms such as COSIPLAN (the South American Infrastructure and Planning Council or ACTO (the Amazon Cooperation Treaty Organization), or barring such initiatives, the leadership of international DFIs, whose scope of work allows for information sharing across networks of related projects. This type of upstream due diligence need not run counter to China's Five Principles of Peaceful Coexistence. In fact, proper risk assessment prior to and during major infrastructure project rollout helps **ensure** peaceful coexistence, through incorporating greater understanding and stronger cooperation into the process. Through case studies and analysis, our work shows that only by working together, early in the project planning processes, can these actors successfully navigate the many risks intrinsic to infrastructure building in the Andean Amazon and beyond.

Boston University
53 Bay State Road
Boston, MA 02215

gdp@bu.edu
www.twitter.com/gdpc_bu
www.bu.edu/gdp

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The views expressed in this Working Paper are strictly those of the author(s) and do not represent the position of Boston University, or the Global Development Policy Center.

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