

Preliminary Assessment of the Effectiveness of Conservation Strategies to Address Infrastructure Governance in the Amazon SUMMARY

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Governance and
Infrastructure
in the Amazon



TCD Tropical Conservation &
Development Program

UF Center for
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Executive Summary

This report presents the results of a preliminary evaluation of the effectiveness of conservation strategies with regard to infrastructure projects in selected areas of the Amazon. Good governance of infrastructure requires addressing power inequalities that characterize business-as-usual infrastructure planning and implementation. While there is extensive literature on the negative social and environmental impacts of infrastructure, there is little on the effectiveness of conservation strategies to address infrastructure threats. Previous work largely consists of single-case or anecdotal evidence.

We present a framework to unpack factors that can help explain conservation effectiveness, including organizational strategies, conservation strategies, and exogenous factors. We then present 10 broad categories of conservation actions as defined by the Conservation Measures Partnership (CMP) 2.0 classification and apply them to infrastructure governance.

Our inquiry into the relevance and effectiveness of conservation strategies for addressing infrastructure governance was systematic, based on data collected from 55 GIA partner organizations¹ in four mosaics of protected areas threatened by infrastructure in the western Amazon. We conducted interviews, consulted websites, and held workshops in all four mosaics to identify each partner's conservation strategies. Using the CMP 2.0 classification system, we specified which set of distinct conservation actions are combined to constitute each organization's overall strategy with regard to infrastructure governance. We then created coding rubrics to evaluate the *relevance* of the partner strategies for infrastructure governance, as well as their *effectiveness* with regard to two key outcomes: 1) stopping or pausing infrastructure, and 2) mitigating the impacts of infrastructure. Data analysis proceeded in three steps. First, we evaluated the frequency of conservation actions and their distribution among the four mosaics; second, we identified the characteristics of highly effective conservation strategies, and analyzed them in light of our explanatory framework; and third, we identified a subset of conservation actions which were associated with highly effective conservation strategies but infrequently used. Our analysis goes beyond previous efforts that were more anecdotal, but is necessarily preliminary because we have limited information on how actions and strategies interrelate, the impact of the time and scale of efforts, the full extent of their effectiveness, and exogenous factors.

Conservation strategies that involved law enforcement (CMP 4) and communication and protest (CMP 3) had the highest reported *relevance* to infrastructure. Conservation actions most strongly associated with the highly *effective* cases were law enforcement (CMP 4), followed by communication and protest (CMP 3), and then legal and policy approaches (CMP 7). These three conservation actions comprise the broad approach of "political mobilization and negotiation." Furthermore, non-criminal legal action (a subset of CMP 4, law enforcement) was found to be highly effective but infrequently used in conservation strategies. Highly effective conservation strategies did not use these "high-impact" actions (CMP 3, 4 and 7) in isolation, but often combined them with widely-used conservation actions such as capacity building and research and monitoring (CMP 9 and 8). Another key finding is that grassroots groups were often highly effective conservation organizations, although they often work in conjunction with other types of conservation partners. A final finding is that networks, as well as collaboration more generally, are both extensively used, but are not unique to the partners considered to have more effective strategies for addressing infrastructure.

The findings will inform the next stage of work by the GIA project, in order to support and enhance the aforementioned strategies through specific local actions, case studies, formation of a working group on non-criminal legal action, webinars and our online learning platform, and documentation of learning and application by Community of Practice participants.

¹ 24 NGOs, 11 universities, 10 community organizations, and 10 government agencies.

The Challenge of Infrastructure Governance

Power inequalities between promoters of infrastructure and other constituencies create challenges for governance of infrastructure projects. We introduce a framework for understanding business-as-usual political and decision-making processes along the formulation pathway of infrastructure projects (Figure 1). While government ministries and agencies may develop plans and oversee projects using technical and economic criteria, control and direction may come from an “iron triangle” of: political leaders; construction companies and other large firms; and financial agencies (international or national) that often work in collusion, including through corruption. Other constituencies, both local and national, may be co-opted to support the projects out of economic aspirations, whether well-founded or not. Projects thus develop a self-reinforcing logic based on private political and economic interests that may be impervious to social and environmental considerations, especially insofar as these are considered only due to legal requirements, and come late in the process.

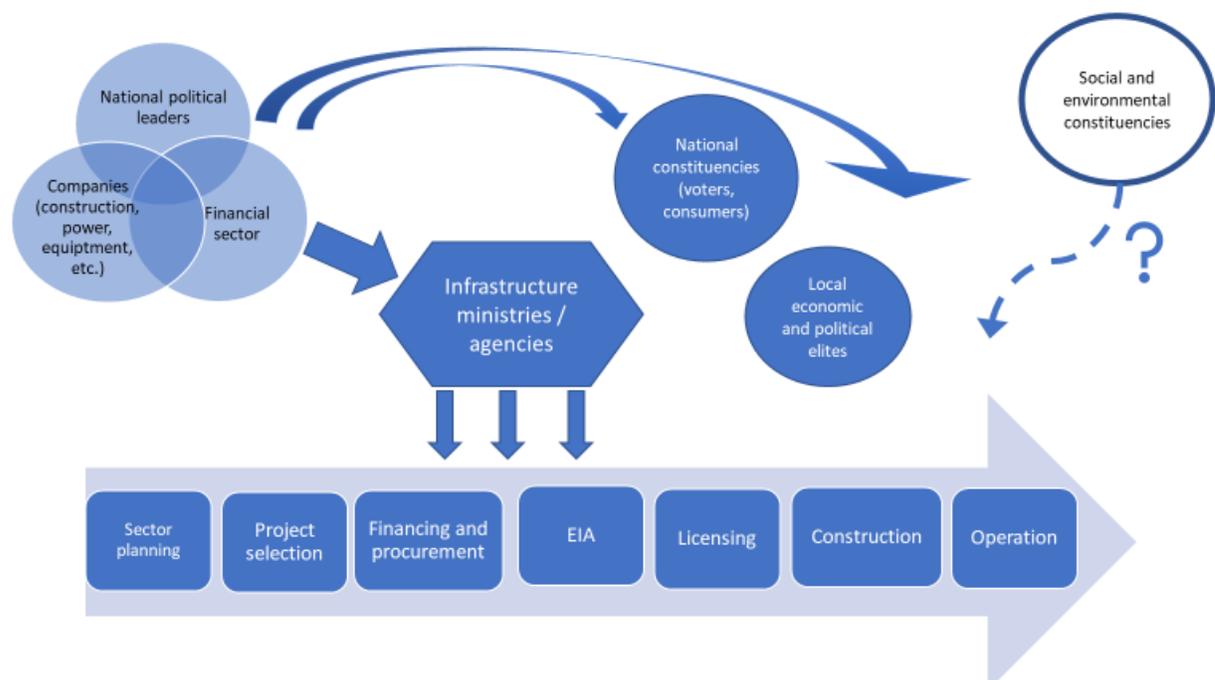


Figure 1. Stakeholder Roles in the Formulation of Infrastructure Development Initiatives (Business as Usual). The thickness of the arrows indicates the amount of influence over other actors involved.

Conservation Strategies and Actions to Address Infrastructure Governance

The framework above highlights influence relationships and underscores that stopping/pausing or mitigating threats to conservation and society from infrastructure projects requires moving beyond “business as usual” by reducing power imbalances so that social and environmental constituencies can engage with planning and implementation of infrastructure. To guide GIA’s actions and define a working agenda to overcome the *status quo*, we formulated a framework to identify basic elements of conservation strategies and actions partners may pursue to stop/pause or mitigate the impacts of infrastructure through enhanced socio-environmental governance (Figure 2). The basic framework posits that conservation effectiveness is determined by organizational strategies that create conditions

for conservation strategies that seek to influence infrastructure outcomes, all of which is influenced by positive and negative exogenous factors.

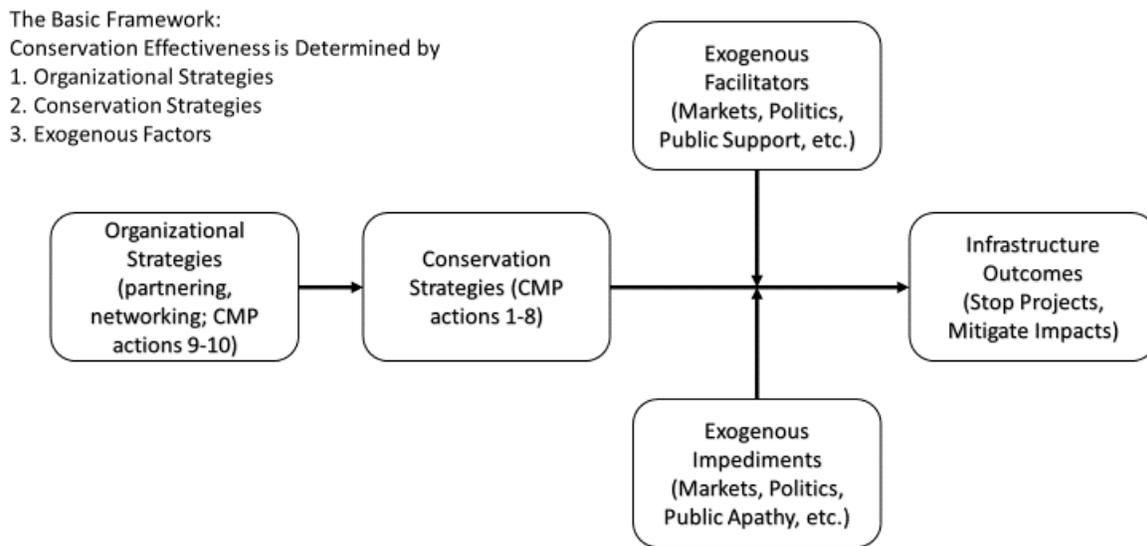


Figure 2. Basic Framework of Conservation Effectiveness with Regard to Infrastructure Projects.

As a basis for analysis of the strategies that conservation and other organizations use with respect to infrastructure, we draw on the established and well-known Conservation Measures Partnership (CMP) 2.0 Classification of Conservation Actions², which is organized around ten broad classes of “conservation actions,” each of which has subclasses (Table 1).

Table 1. Conservation Measures Partnership 2.0 Classification of Conservation Actions, and selected examples of conservation actions specific to stopping/pausing or mitigating infrastructure projects.

CLASSIFICATION OF CONSERVATION ACTIONS	EXAMPLES PERTINENT TO INFRASTRUCTURE GOVERNANCE
1. Land/ Water Management	Implementation of protected area management plans or sustainable resource management plans in areas threatened by infrastructure.
2. Species Management	Management of fisheries impacted by hydropower development.
3. Awareness Raising	Communication strategies: costs and benefits of infrastructure, perspectives of affected communities. Advocacy and negotiation: engagement with government agencies and construction companies. Political mobilization: online and/or in-street protest.
4. Law Enforcement and Prosecution	Non-criminal legal action: lawsuits over EIAs, work with Public Ministries.

² Conservation Measures Partnership (2016) Conservation Actions Classification (v2.0).

5. Livelihood, Economic and Moral Incentives	Improved market access for sustainably harvested forest products, or payments for ecosystem services to reduce deforestation in areas threatened by infrastructure.
6. Conservation Designation and Planning	Planning and creation of protected areas; recognition of indigenous lands.
7. Legal and Policy Frameworks	Engagement with government agencies to support policies favorable to conservation; legal clinics on infrastructure planning processes.
8. Research and Monitoring	Analysis of costs and benefits of proposed infrastructure; research and observatories on impacts; inquiry on corruption and non-compliance with consultations and other planning requirements.
9. Education and Training	Leadership development for policy advocacy and organizational capacity; technical training for environmental monitoring and management.
10. Institutional Development	Strengthening of indigenous and other community organizations; networking and coalition building among stakeholders.

The ten broad classes of conservation action can be grouped into three clusters that represent broad approaches to infrastructure governance (Figure 3). Conservation Actions 1, 2, 5 and 6 contribute to *Territorial Protection and Management*; such management may mitigate the impact of infrastructure on resources and territories directly and/or provide legal standing that can be used to stop/pause projects or mitigate them. Conservation Actions 3, 4 and 7 all relate to *Political Mobilization and Negotiation* to either contest or modify infrastructure planning and implementation. Conservation Actions 8, 9 and 10 were not considered to directly address infrastructure governance, but may create *Enabling Conditions* to enhance the effectiveness of other actions.

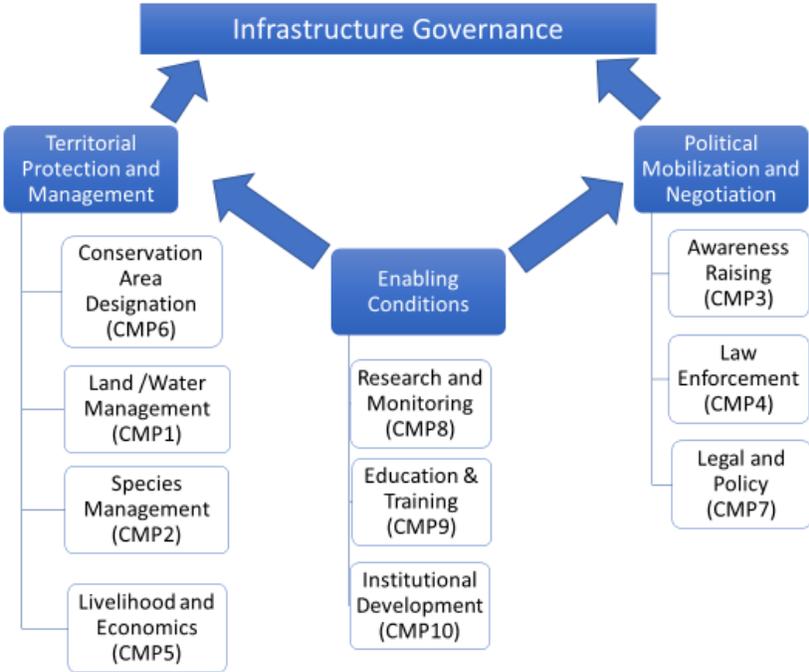


Figure 3. Broad approaches to addressing infrastructure governance (blue boxes) represented as clusters of CMP 2.0 conservation actions (white boxes).

Methods and Data

Our evaluation was an “evidence review” based on a systematic approach to the collection and analysis of data from GIA partners concerning the perceived effectiveness of their strategies to promote infrastructure governance. Via interviews, workshops, and online document analysis, we obtained data for 55 cases of organizations working in four mosaics in the western Amazon: 9 in the Upper Madera, Bolivia and Brazil mosaic, 16 in the Colombian Amazon, 14 in Loreto, Peru and 16 in Lower Madera / Southern Amazonas - Northern Rondônia Brazil. Using the CMP 2.0 classification system (Table 1), we specified which set of distinct conservation actions are combined to constitute each organization’s overall strategy with regard to infrastructure governance. We then characterized the relevance and effectiveness of each organization’s overall strategy with regard to infrastructure, and used this to analyze the relevance and effectiveness of the constituent conservation actions. We emphasize that the focus of our analysis is on the relevance and effectiveness of the ten categories of conservation actions based on findings from the entire set of 55 cases. We do not report findings from any individual cases, nor did we make any inferences about conservation strategies more broadly (i.e. beyond relevance and impact on infrastructure governance).

The relevance and effectiveness of each strategy was rated independently according to a rubric on a scale of 0 to 3 by the two senior members of the GIA team most familiar with the entire set of cases; divergences were discussed with the entire GIA executive committee and appropriate adjustments were made.

“Relevance” was understood as the extent to which infrastructure was a key focus of an organization’s strategy. We coded relevance=3 if a strategy was reported as directly, explicitly oriented to infrastructure, 2 if the strategy was indirect but explicit, 1 if it was indirect and implicit toward infrastructure, and 0 if there was no specific mention of infrastructure.

We assessed effectiveness separately with regard to stopping or pausing infrastructure and to mitigating the impacts of infrastructure projects. Specifically, we coded effectiveness=3 if a partner explicitly reported stopping/pausing or mitigating infrastructure, 2 if a partner had advanced toward stopping or mitigating without providing clear evidence of a specific outcome, or if the partner was creating conditions to stop or mitigate if infrastructure was proposed in the future, 1 if a partner was pursuing conservation goals that might indirectly influence infrastructure, and 0 if a partner indicated no reason to expect impacts on infrastructure projects or their planning.

Coding of each organization’s strategy resulted in separate scores for relevance, effectiveness with regard to stopping/pausing infrastructure, and effectiveness with regard to mitigating infrastructure impacts. These scores were then applied to each conservation action that was included in that organization’s overall strategy; the results of this analysis are reported below.

Results

The 55 cases of organizational strategies included a total of 255 conservation actions, for an average of 4.6 actions per strategy. The frequency and distribution of conservation actions varied across the four mosaics (Figure 4). Research and monitoring (CMP 8, n=43) and capacity building (CMP 9, n=42) were the most commonly used conservation actions. Some conservation actions were evenly adopted across mosaics (notably communication (CMP 3) and research (CMP 8)), while others varied much more.

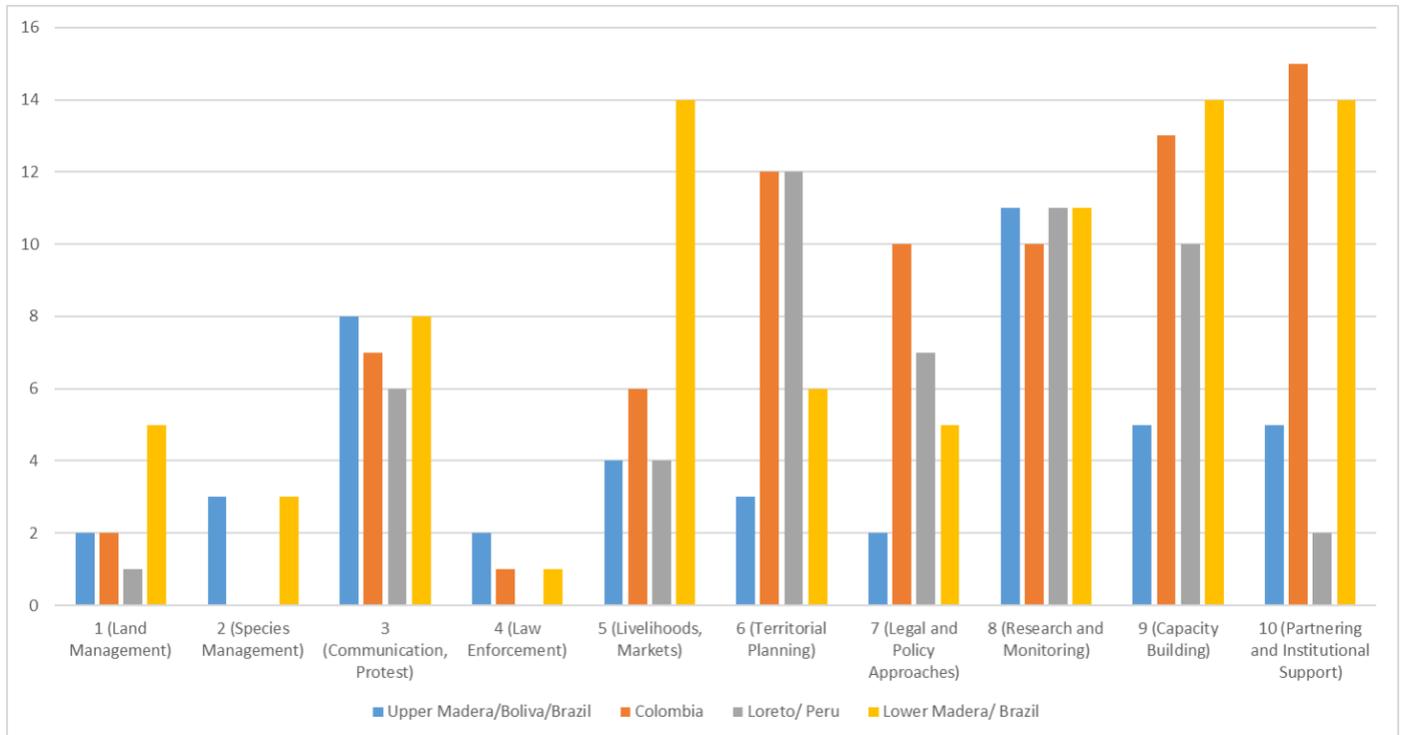


Figure 4. Frequency of reported cases of CMP 2.0 conservation actions in the strategies of GIA-partner organizations operating in four Amazon mosaics.

Figure 5 presents scores for conservation actions with regard to relevance to infrastructure and effectiveness at stopping/pausing infrastructure and mitigating infrastructure impacts. Overall, scores for relevance were around 2 on a scale of 0-3, while impact scores were mostly between 1 and 1.5. Organizations with conservation strategies that involved law enforcement (CMP 4) and communication and protest (CMP 3) had the highest relevance to infrastructure. Those conservation actions also had higher effectiveness scores for both stopping/pausing and mitigating infrastructure impacts, followed by land management (CMP 1) and legal and policy approaches (CMP 7).

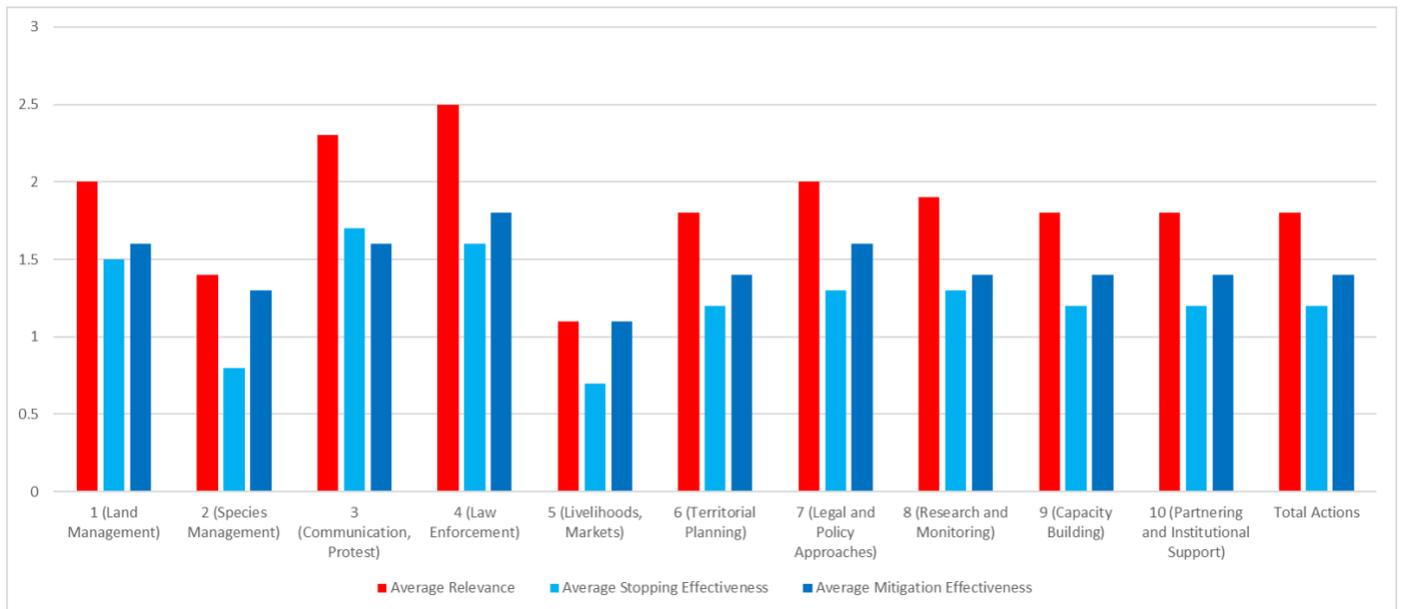


Figure 5. Average scores of conservation actions for relevance to infrastructure (red), effectiveness at stopping/pausing infrastructure (light blue), and effectiveness at mitigating infrastructure impacts (dark blue) (n=255 conservation actions within 55 cases).

Highly Effective Strategies

We then focused our analysis on the conservation actions that were included in the organizational strategies rated as having the highest effectiveness for stopping and/or mitigating infrastructure projects, with scores of 2 or higher on our 3-point scale (Figure 6).

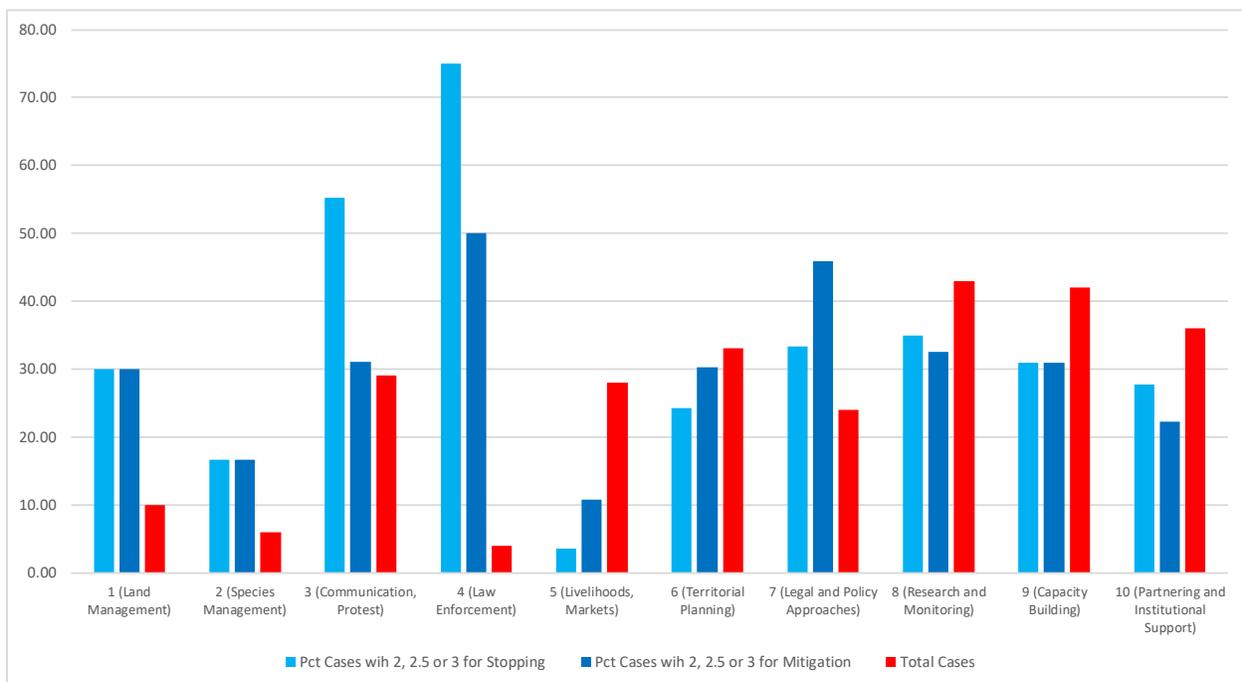


Figure 6. Frequency of conservation actions (percent) in cases with high average effectiveness (≥ 2 on a 3 point scale) for stopping/pausing infrastructure (light blue) and mitigating infrastructure impacts (dark blue), versus their frequency in all cases (red).

The conservation actions that were most frequently used in the highly effective cases were law enforcement (CMP 4), followed by communication and protest (CMP 3), and then legal and policy approaches (CMP 7). These findings hold for both effectiveness at stopping/pausing infrastructure (light blue bars) and mitigating infrastructure impacts (dark blue bars). It should be noted that all three of the most highly effective conservation actions relate to the overall approach of “Political Mobilization and Negotiation” in Figure 3.

Another important finding from our analysis is that the actions that were most often effective were not the most frequently used (red bars). In particular, law enforcement occurred most frequently in highly effective conservation strategies, but was the most rarely used of all conservation actions. It should be noted that the CMP category 4 “law enforcement” includes sub-category 4.3, non-criminal legal action; this is the type of activity referred to in the cases herein.

When we ranked all of the 55 cases by an index based on their total scores for relevance and both types of impact, two other findings emerged. While these organizations’ overall strategies heavily weighted CMP actions 3, 4 and 7 (i.e. political mobilization and negotiation), other conservation actions were often present, notably capacity building (CMP 9), research and monitoring (CMP 8), and territorial planning and management (CMP 6). CMP actions 8 and 9 are included in the cluster of “enabling conditions” in Figure 3, and while these actions were not *disproportionately* represented in the most effective strategies (i.e. they were present in both more and less effective cases), they clearly play an important role in effective strategies.

When we analyzed networks and collaboration among the most effective organizational strategies, we found that both are extensively used, and not unique to the more effective conservation partners. However, we also found that while grassroots organizations represented only 18% of our overall sample, they represented 50% of the highest tier of most effective cases. This indicates that such organizations can play a key role in infrastructure governance strategies related to political mobilization and negotiation, perhaps because of the high relevance and effectiveness of communication (CMP 3), which includes protest and civil disobedience, as well as the legal standing of such groups with respect to law enforcement and policy (CMP 4 and 7).

Limitations and Caveats

Our assessment is intended to serve as a point of departure for further discussion about how conservation actions and strategies can impact infrastructure governance. The extensive discussion of caveats in the full report reflects the incipient state of research on the effectiveness of conservation strategies for stopping/pausing and mitigating infrastructure impacts in the four Amazon mosaics. For example, we have limited knowledge on the importance of the broader context and exogenous factors in shaping perceptions of effectiveness. In addition, our analysis reflects information at one point in time, and is very specific to particular scales; we lack information regarding the time of implementation of each action and, given the dynamic nature of the socio-environmental and political context where infrastructure projects develop, governance outcomes may (and have) changed. All these issues require further investigation.

Implications for the GIA Community of Practice and Learning

The findings of this preliminary assessment indicate that the following approaches, specifically aimed at reducing power inequalities that characterize business-as-usual infrastructure planning and implementation, offer promising opportunities for positively influencing infrastructure governance:

- Integrated conservation strategies -- incorporating communication and protest, law enforcement, and legal and policy approaches (conservation actions CMP 3, 4 and 7) -- aimed at political mobilization and negotiation.
- Potential synergies between grass roots organizations and other kinds of organizations.
- Complementary conservation actions, such as research and capacity-building, to the extent that these support and strengthen CMP 3, 4, and 7.

The GIA project will focus its research, analysis and dialogue over the coming year on supporting and enhancing the above approaches. Specific activities will include:

- Complement the ongoing work of partner organizations in selected mosaics to advance experience, reflection and learning on the aforementioned priority conservation strategies, according to specific contexts, opportunities and partner priorities.
- Carry out case study research in partnership with GIA participants on promising examples, identified in this preliminary assessment, of the application of these conservation strategies, looking in particular at the complementarity between different conservation actions and types of organizations in effective strategies, and the role of exogenous enabling and limiting factors.
- Develop a thematic working group across regions on the promising but little-utilized (among GIA partners) CMP action 4.3, non-criminal legal action, to exchange experiences, document and analyze the use of this action, and explore opportunities to complement existing strategies with this action.
- Utilize webinars and our online learning platform as a virtual forum among practitioners to promote learning and analysis about the use of these conservation strategies.
- Document learning and application of learning by Community of Practice participants.