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Rosangela Bando

Inter-American Development Bank Office of Strategic Planning and Development Effectiveness

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The Role of Agents and the Nature of Limitations in the Performance of Development Projects

Rosangela Bando¹

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Abstract

Development practitioners aspire to improve lives, but achieving results is challenging. What prevents operations from achieving their objectives? Answering this question is critical to promote success. This Discussion Paper proposes to analyze operations first to identify if they faced limitations to effectiveness, then to identify which key stakeholders faced those limitations, and finally, whether such limitations were exogenous. Such an approach may strengthen accountability and learning. An analysis of 62 project completion reports evaluated in 2022 by the Inter-American Development Bank shows that success was contingent upon critical agents' performance and the influence of exogenous factors. Four in 10 operations that failed had agents other than the executing agency face challenges. The same share of operations had agents face limitations, the proposed framework may provide insights for future work that promotes effectiveness.

JEL Codes: D04, H43, I38, O19, O22.

Keywords: project evaluation, effectiveness, theory of change, project logic, development

¹ Rosangela Bando (<u>rosangelab@iadb.org</u>) is a Principal Economist in the Office of Strategic Planning and Development Effectiveness (SPD) at the Inter-American Development Bank.

1. Introduction

Development practitioners aspire to improve lives, but achieving development results is a challenging task. For example, of the Inter-American Development Bank (IDB) non-sovereign operations evaluated in 2022, the Office of Independent Evaluation (OVE) rated 53 percent as having achieved a satisfactory performance at closure (<u>IDB 2022a</u>). What prevented 47 percent of the remaining operations from achieving a satisfactory rating? Answering this question is critical to promote the success of operations.

Several studies have provided information to answer this question. IDB administrative data show that canceled funds, disbursement delays, and the quality of the results matrix correlate with project performance (<u>Corral et al. 2022</u>; <u>Álvarez et al. 2021a</u>, <u>2021b</u>). Project Completion Reports (PCRs) frequently cite institutional changes, external factors, or evaluating before the project has time to mature or results to materialize as constraints to success (<u>OVE 2022</u>). These studies prescribe strengthening project design, risk management, and monitoring and evaluation systems.

This paper aims to build on previous work by proposing an evaluation approach to identify agents and if the limitations they faced are exogenous. The evaluator identifies the limitation by following the projects' logic order and assessing which of the project agents that could not deliver results was closer to the project beneficiaries. Then, the evaluator assesses whether the limitation was associated with the agent's performance or with information, environmental, or third-party agency shocks. While previous studies rely on analyzing administrative records, this paper generates new data by analyzing the evidence presented in PCRs authored by project teams. The approach requires labeling the limitations to achieving objectives as to whether they were due to the government, executing agency, or project users. It also requires determining whether the limitations are exogenous to the relevant project agent—with agents defined as individuals or entities that conduct project activities or making value judgements for taking decisions to use project resources to produce outcomes. The analysis presented here applies the evaluation approach to 62 projects evaluated in 2022. The new data allow for identifying areas where the current IDB evaluation framework needs strengthening. If more than one agent is critical to success, then the IDB can enhance transparency by identifying the agents that face limitations. If external factors play a role in achieving objectives, then the IDB can improve accountability by differentiating the treatment of factors within or outside the control of project agents. Finally, the data allow for assessing if the treatment of such features in an evaluation influences performance.

The findings of this analysis contribute to previous findings and recommendations in three ways. First, the research demonstrates that project success depends on the performance of many agents. While in 6 of 10 operations the executing agency faced critical challenges, government or project users faced such challenges in the remaining four. Therefore, identifying agents can enhance accountability because holding them accountable for tasks for which they are responsible will strengthen incentives for good performance. As per learning, tools to overcome such limitations in future projects will depend on the conditions of the relevant agencies. For example, the choice of lending instrument may be a tool to support government agencies. Monitoring and management support may be more appropriate for executing agencies or users. Thus, institutions may benefit from agent-specific strategies to address limitations. The second way this analysis contributes to previous findings and recommendations is by showing that success is contingent on exogenous factors. The performance of a project agent is the main limitation in almost 6 of 10 operations. Shocks in the project environment or to third-party providers limited success for the remaining operations. Indeed, 8 of 10 operations analyzed were designed six years before the evaluation, and environments can change over time. A realistic understanding of promoting development recognizes that not all operations will be effective as designed. Understanding this has the potential to improve accountability and learning. Evaluation can provide better incentives to enhance performance if it holds agents accountable for factors within their control. It may further incentivize the active identification of challenges and adaptation to overcome them. As per learning, the tools to overcome such limitations in the future will depend on their nature. Factors associated with the performance of project actors would suggest a need to strengthen capabilities or align incentives. Limitations related to exogenous factors would suggest a need for risk assessment, mitigation actions, and diversification.

Finally, the proposed approach illustrates that the treatment of project agents and the nature of limitations influence performance. Consider a comparison of evaluative approaches of the IDB versus those of the World Bank and Asian Development Bank (ADB). The IDB evaluates based on targets set at project start-up regardless of the performance of project agents or shocks to the environment during execution (IDB 2020). In contrast, the World Bank and ADB evaluations allow for the formal revision of targets (World Bank 2022a; ADB 2016). They treat limitations associated with government decisions and shocks to the project environment as valid triggers for adaptation. A simulation of the evaluation of IDB operations treated using the ADB approach shows the rate of IDB projects with satisfactory performance would be between 63 and 76 percent. In the case of IDB projects evaluated using the World Bank approach, between 74 and 81 percent would be rated as having a satisfactory performance. Thus, treatment of the performance of project actors and the nature of limitations in the evaluation process influence success rates.

This study has several caveats, the main one being that it relies on information in PCRs. The authors of PCRs are not required to track the main limitations of projects, so there may be errors in identifying project agents and the nature of limitations. Future work should address this limitation and other caveats discussed in this paper. Such a line of work may contribute more broadly to efforts to assess the effectiveness of development projects. A uniform approach to identifying project agents and limitations across a wide variety of projects could strengthen evaluation systems. Such improvements may further extend to strengthening design and monitoring tools, which could further enhance the efforts of institutions to promote development results.

2. A Simplified Model

A project is a specific investment activity with specific start and end points. It intends to achieve a specific objective. The project agents are responsible for using their authority or making value judgments to take decisions on the use of project resources. They employ resources to produce outputs and contribute to accomplishing the project objectives. Often, the technology to achieve the project objectives has two features: (i) it relies on the performance of multiple agents, and (ii) it relies on many factors, some of which are exogenous to these agents.

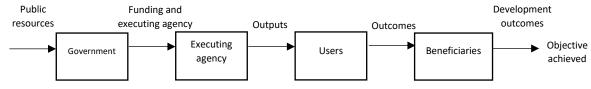
2.1. Agent Performance

Project agents depend on other agents' outputs to produce their own outputs. Agents that fail to conduct the activities for which they are responsible will negatively impact the project's odds of success. To illustrate this point, consider the traditional definition of project logic, which has four agents.

- **Government.** This refers to a set of agents that define a project's objectives. These agents designate the executing agency and provide it with resources and institutional support to carry out project activities.
- **Executing agency.** This refers to a set of agents whose key role is to deliver goods or services to project users. Such delivery must be congruent with achieving the project's objectives. The responsibilities of these agents include the following:
 - Coordinate with key stakeholders and other relevant agencies
 - o Process permits, licenses, and authorizations
 - Carry out procurement processes
 - o Identify users
 - Carry out monitoring and evaluation
 - Provide users with the goods and services necessary to act.
- **Users.** The set of agents whose key role is to use a project's goods or services in a manner congruent with achieving success. Users provide goods or services to the intended project beneficiaries. Their actions are critical to achieving the project's development objectives.
- **Beneficiaries.** Agents whose key role is to use the goods and services the users provide and realize development outcomes.

Figure 1 illustrates the relationship of the agents in the typical logic of a project. Effectiveness is contingent on the successful delivery of the outputs of each agent to the next agent. The dependence of outcomes on the performance of agents creates a natural categorization for issues. The main limitation to success will be that faced by the agent closer to achieving the objective that did not deliver output to the next agent. Such an approach is helpful to the extent that the lack of that output will limit the ability of the subsequent agents in the project's logical framework to conduct their functions. More generally, the main issue is what prevented the output most critical for other agents from fulfilling their functions. Appendix A provides a glossary of terms, and Appendix B provides an example.

Figure 1. The Technology of a Project



Source: Prepared by the author.

2.2. Exogenous Factors

Development projects are subject to changes, some of which stem from factors beyond agents' control. The output of an agent is contingent on exogenous factors. Project design defines three categories to group such factors:

- i. **Projects are subject to information shocks.** Project design relies on incomplete information. The cost of diagnostic data and the expected value of such information imposes a tradeoff. The more information generated to design a project, the higher the cost to prepare it. The resulting data limitations imply that projects may face unidentified challenges during execution. For example, a project in Peru approved in 2011 aimed to improve the environment by providing sewerage and treating wastewater. During the project design, the project team identified plots of land for works outside archeologically protected areas. A study to finance digging to ensure project viability was as expensive as funding the first stage of the works. The project design assumed that there would be no significant archeological challenges, but in fact archeological findings were identified in 2012.² Evaluation experts acknowledge such design limitations. Therefore, the most rigorous project evaluation methods assess project impacts regardless of the information available at the design stage. For example, the standard economic analysis and impact evaluation approaches favor the comparison of benefits and costs relative to the scenario without a project, and not to predetermined expected values established at design (ECG 2012). The Evaluation Cooperation Group, established by five development banks in 1996, supports this approach.
- ii. Teams execute projects in a dynamic environment. The operational environment refers to a particular configuration of economic, social, and environmental conditions. For example, the objective of a multi-stage project approved in 2018 for Argentina was to promote private investment. Instead, the government had to reallocate resources to respond to the COVID-19 crisis. The project design assumed that financing would be available for all project stages, but there was no funding available in 2021.³ The circumstances faced by this project are not unique: before 2020, there was a negligible likelihood that the COVID-19 epidemic and the war in Ukraine would materialize, but they did. These factors have impacted everyday global activities in Latin America and the Caribbean, leading to inflation, depressed investment, and slowed economic growth (Cavallo et al. 2022). Development operations are not immune to shocks in the environments in which they operate.

² For more information on the project see the <u>Project Completion Report for PE-L1060</u>.

³ For more information on the project, see the Project Completion Report for AR-L1283.

iii. **Projects depend on third-party inputs.** Agents rely on the decision of third-party agents beyond those key stakeholders directly involved in the project. The executing agency demands inputs from contractors and consultants to deliver outputs. They in turn require permits, licenses, or authorizations from authorities. If a third-party agent fails to act, it could affect the ability of the project agent to deliver. For example, a project in Argentina approved in 2010 aimed to improve the competitiveness of fruit, vegetable, and tourism clusters.⁴ However, two contractors abandoned urbanization works during execution. As a result, the project faced an unexpected set of administrative and legal setbacks not foreseen at design. Such problems are common. As of December 2022, the World Bank had a list of almost 1,300 firms ineligible to conduct business (World Bank 2022b) due to prohibited conduct as defined by its procurement guidelines.

The stochastic nature of factors implies that project-level risk management systems may not always be enough to mitigate every event. Institutions may need to take reasonable risks as part of a cost-effective approach to promote development. Estimates of the magnitude and severity of risks

will rely on risk management systems. The stochastic nature of factors also has implications for performance evaluation. Evaluation should not hold agents accountable for issues beyond their control. Evaluation should instead incentivize the timely reporting of such problems when they materialize. It should incentivize agents to adapt and gear the project toward effectiveness.

3. Evaluation Extension

The following steps categorize the main factors that prevent operations from achieving their objectives:

Step 1. **Determine the objectives that limited the ability of operations to achieve success.** The IDB's 2022 Evaluation Guidelines establish that for an operation to be successful, it must achieve most of its objectives (IDB 2020). The evaluation method considers an objective met if at least an average of 80 percent of its targets are met. The objectives not achieved must then be identified.

Step 2. Identify agents. In focusing on those objectives not achieved, the agents closer to the development outcome in the project logic that failed to deliver output for the next level of agents must be identified. The order of priority will be government, executing agency, and users. The main restrictions of the projects will be the restrictions of those agents. The primary limitation for projects with multiple objectives will be that of the agent that affects most other agents.

Step 3. **Categorize the type of restriction**. It is necessary to label factors that are behind agent limitations, such as agent performance, a change in the project environment, failure by a third-party agent to deliver, lack of information, or other factors.

3.1. Project Example

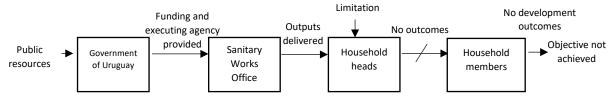
A project in Uruguay in 2012 aimed to improve the living conditions of the population in marginalized neighborhoods. In the design stage, the project relied on the actions of four sets of

⁴ For more information on this project, see the <u>Project Completion Report for AR-L1106</u>.

agents. First, the project expected the government of Uruguay (agent 1 - government) to allocate US\$27 million (output 1) to the executing agency. Second, the project expected the Sanitary Works Office (agent 2 - executing agency) to provide households with access to sanitation (output 2). Third, the project expected household heads (agent 3 - users) to connect household pipes to the sewage network (output 3). Fourth, the project expected household members (agent 4 - beneficiaries) to properly dispose of wastewater and improve living conditions. Finally, the evaluation would assess improvements to living conditions by measuring contamination levels in the ground and the local river (output 4). In this example, there are four agents with well-defined roles. Their results depend on the inputs provided by the previous agent. The project achieves its objective upon the realization of development outcomes.⁵

The proposed analysis would identify user performance as the main limitation to success. Figure 2 illustrates the logic of the project and the level at which agents faced significant limitations. The project faced hurdles at several stages. The government's complementary funding facilitated by a local municipality was delayed and incomplete. The executing agency found that the census data were inappropriate for informing the locations of the connections. At the user level, household heads needed more resources and incentives to connect. The government provided sufficient resources for the executing agency to provide users with a sewage network despite all these limitations, yet only 61 percent of the targeted households connected. The evaluation found that household heads lacked the technical knowledge to connect and did not see the benefit. Many households continued to dispose of wastewater through septic tanks. As a result, there were only limited improvements to local contamination levels. Users were not immediately affected by shocks to the environment, failure to deliver by a third-party, or information shocks, so they did not have sufficient incentive to connect to the sewage network. Assuming the same technology, a lesson for the design of future projects may be to diagnose the capacity of household heads to connect. A project should allocate resources to provide the necessary outputs and incentives. This conclusion would not prevent evaluators from deriving more lessons at the executing agency or government levels.

Figure 2. Identification of Project Limitation Level



Source: Prepared by the author.

4. Data

This study applies the proposed evaluation extension to 62 projects approved by the IDB between 2009 and 2020 and implemented in 19 countries. The total amount of the projects was US\$6.3 billion (IDB 2022a). The date of approval of the PCRs in 2021 defines the set of projects evaluated. Investment operations have six months after operational closure to approve a PCR. Therefore, 56 of the 62 operations were investment projects that closed in 2019 or 2020. The rest of the operations were policy-based loans. Their quick execution time and focus on policy

⁵ For more information on this project, please see the Project completion report for UR-L1081.

reforms allow for an extra 24 months to evaluate and approve the PCR. The policy-based loans evaluated closed in 2018 or 2019. Appendix C lists the projects analyzed in this study. The IDB website provides links to the PCRs of all operations in the analysis (<u>IDB 2022b</u>).

5. Results

Of the 62 operations examined, 17 achieved their objectives. The remaining 45 faced limitations at the following levels: 9 at the government level, 27 at the executing agency level, and 9 at the user level. Of these 45 operations, 25 faced challenges in terms of agent performance, 11 due to third-party delivery, and 9 due to changes in the operational environment. Only one operation failed due to an information shock. Figure 3 illustrates the distribution of limitations among agents and the nature of the limitations. It groups incomplete information with changes in the environment for clarity. Table 1 lists examples of constraints cited by the projects, and Appendix D presents examples.

The results show a variety of agents and types of limitations play a role to limit project success. This fact suggests identifying agents and types of limitations may be used to enhance evaluation. First, evaluation could differentiate between agents to motivate good performance. Agents at all levels face restrictions. A general evaluation approach at the project level, leaving roles out, would send a noisy message. For example, consider a naïve reader who assumes project failure implies that the executing agency failed. Experience with most projects may prompt such an assumption (12 projects). Assuming project success relies on the executing agency would exclude half of the agents with weak performance with no direct incentives or learning derived from the evaluation: 6 at the government level and 7 at the user level. It would make executing agencies feel unmotivated and frustrated, since their evaluation relies on the performance of other agents. Moreover, it would leave governments or users with no incentives to perform. There would be a lack of transparency.

Second, evaluation could recognize exogenous factors to provide effective incentives to agents. Take, for example, the performance of the executing agency. Of the 27 projects that faced restrictions at that level, 15 had limitations beyond the control of the executing agency. Third-party performance limited 10 projects, and the project environment limited 5. Consider an evaluation that fails to recognize exogenous factors. Such an evaluation would not be realistic because parameters set at the design stage would not match actual conditions during execution. The evaluation would leave more than half of executing agencies with an evaluation setup in which success is unattainable and fail to provide agencies with the incentives to adapt to actual conditions and steer the project towards success.

Finally, in terms of learning, the results show solutions could be tailored to agents and types of limitations. Lending instruments may be more relevant to governments, while project management tools may be more relevant to executing agencies. Likewise, addressing endogenous and exogenous factors demands different approaches. Addressing limitations associated with endogenous factors demands a focus on strengthening capacity and improving incentives. Addressing limitations associated with external shocks demands improved risk management. Sectors that rely on third-party performance may focus on contractor selection and monitoring. Understanding how different pieces of the project fit together and deriving lessons learned from each piece contrasts with a broader approach to strengthen execution.

Figure 4 shows agent restrictions by region and sector. The small number of operations in each group prevents a comparison of statistical distribution. Yet some patterns start to arise. The figure shows that most regions and sectors have operations that face challenges with agents at all levels (government, executing agency, or user) and exogenous factors (information shocks, third-party performance, or shocks to the project environment). Therefore, the implications of the analysis for accountability and learning can be extended within regions and sectors. Panels A and B show that the executing agency is the level at which most operations face limitations across regions and sectors. Panels C and D show that performance is an issue across operations in all regions and sectors. Factors beyond agents' control more frequently prevent success than does performance in Central America, Haiti, Mexico, Panama, and the Dominican Republic. A reason may be that 42 percent of regional projects aim to improve Infrastructure or energy. Third-party reliance poses a significant limitation on this sector.

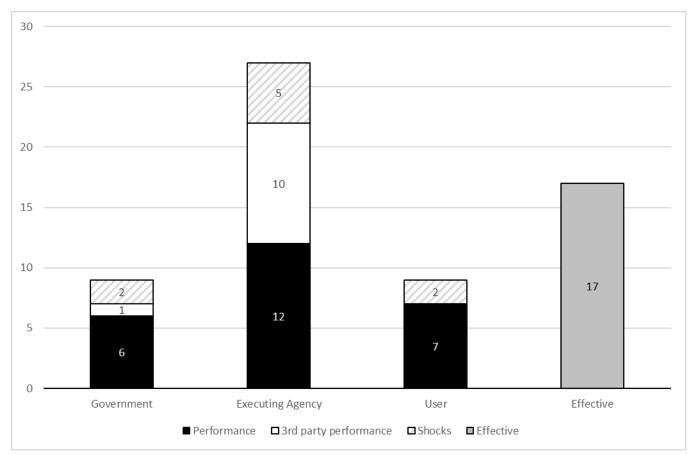


Figure 3. Number of Operations with Limitations Classified by Primary Project Agent and Type of Limitation

Source: Author's calculations based on IDB Project Completion Reports validated in the 2023 validation cycle.

Performance	Exogenous Factors that Limit the Performance of Project Agents	Third-party Performance
A. User		
 Farmers do not apply for benefits. Small firms weakly demand funding for innovation. Local banks display a weak capacity to identify eligible firms to get credit. Users of mobile communication do not demand call or data services. Subnational entities do not put in place any systems for interconnectivity. B. Executing Agency (EA) 	• Farmers face a fall in harvest market prices.	
 EA has delays in administration or procurement. EA has delays in obtaining legal permits. EA faces administrative problems. EA makes targeting errors. EA collects data for evaluation in a sample not representative of the target population. C. Government 	 EA faces changes in local prices rendering the budget insufficient. EA experiences changes in municipal regulations. EA has to deal with the approval of a new law that restricts execution. 	 EA has third-party institution redefine an indicator that does not allow for verification results. The IDB's Office of Evaluation and Oversight does not find indicators to be valid or the attribution arguments sufficient.
 The government changes the executing agency. The government cancels funds for a component. The government does not provide political support. The government truncates a part of the project that jointly aims to achieve an objective. 	 The government reallocates funds because COVID-19 limits resources. The government cannot allocate funding because the local authority is impeached. 	 The government cannot provide full funding because a donor cancels funds. The government cannot prevent duplicity of output provision despite an effort to coordinate with other independent government offices.

Table 1. Limitations to Project Success by Agent

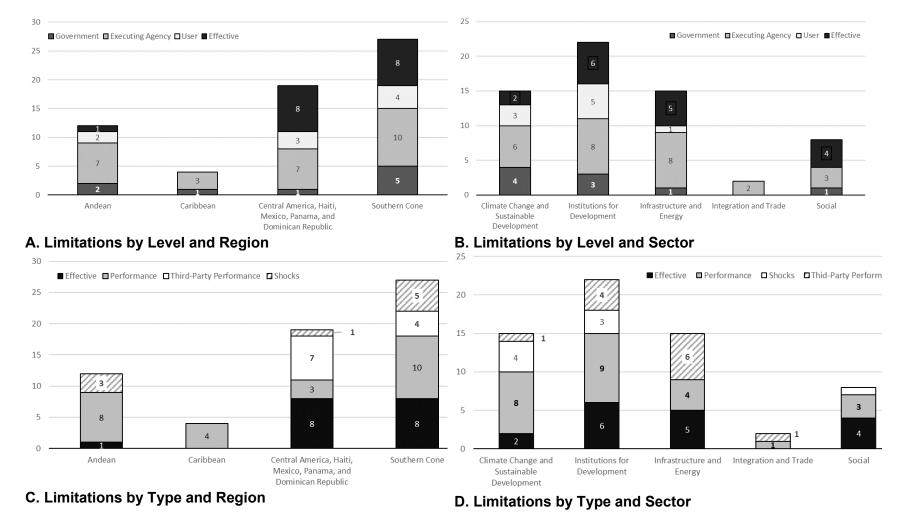


Figure 4. Limitations by Level and Type according to Region and Sector (Number of projects)

Source: Prepared by the author.

5.2. Implications for Evaluation

Addressing the treatment of agents and types of limitations is critical for success. To show how these two project features influence performance, consider a comparison of the IDB success rates with those of other development banks. While 53 percent of the IDB's operations that closed in 2021 were rated as satisfactory, 85 percent of World Bank operations and 70 percent of ADB operations received satisfactory ratings for operations that closed in 2021 (IDB 2022a; World Bank 2022; ADB 2022).

A review of evaluation methodologies across institutions reveals stark differences. For example, the IDB evaluates projects based on expectations set at start-up, and no modifications are possible during execution. In contrast, the World Bank and ADB allow for the revision of targets (<u>World Bank 2022a</u>; <u>ADB 2016</u>).⁶ The rationale for allowing targets to be revised is to keep them realistic and maintain incentives during execution. Such adjustments incentivize necessary adaptations during execution and keep agents accountable.

What would be the IDB's success rate if it were to adopt the World Bank or ADB treatment of agents and limitations? Consider the World Bank or ADB treatment of government changes or exogenous factors. Assume the IDB allowed for the adjustment of targets as a result of modifications required by the government.⁷ Further, assume such an approach improved effectiveness at the margin for one of the four points on the rating scale.⁸ Assume no other evaluation areas were affected by the change.

Figure 5 illustrates the results. The share of IDB operations with a satisfactory rating would be 58 percent. Now consider allowing a revision of targets for exogenous factors. The percentage of IDB operations with a satisfactory rating would be 63 percent. Finally, consider evaluation to address performance shortcomings. In this case, the share of successful operations would be 74 percent. Further, consider a medium improvement of two out of four points on the effectiveness scale. Allowing adjustments for government changes or exogenous factors would result in 76 percent of IDB operations being rated as satisfactory. Allowing for adjustments for performance would result in 81 percent of operations being rated as satisfactory.

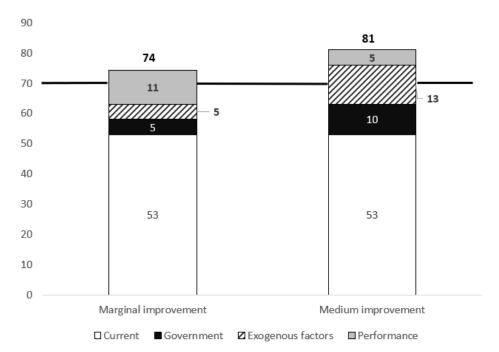
The analysis shows that the treatment of agents and limitations in evaluation influence performance ratings. Given different treatments, the performance across institutions is not comparable. Despite differences in evaluation methods, the three institutions analyzed here have similar corporate targets. The IDB aims for a 70 percent satisfactory rate, the World Bank a 75 percent rate (IDB 2022c; World Bank 2022c), and the ADB an 80 percent rate (ADB 2022). Some corporate targets may be ambitious, considering their methodological evaluation. For example, even if the IDB addressed all shortcomings of the executing agency or user,

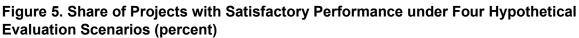
⁶ The World Bank's method evaluates performance based on both the original and the revised targets. It derives a rating by weighting the proportion of the share of disbursements before and after the approval of modifications. In some cases, the World Bank evaluates the whole project on the reviewed scope. For example, it evaluates projects with canceled funds based on commensurate revised targets. The ADB reviews the whole project based on updated targets when the adjustment is derived from exogenous factors. It also reviews the project based on reviewed targets when the government requests a reduction of scope of less than 50 percent of the original targets.

⁷ For a comparison with the ADB, further assume that such requests do not reduce the scope of the project by more than 50 percent.

⁸ Evaluators rate each section on a 1 to 4 scale. Effectiveness measures the extent to which a project achieves its objectives. An IDB operation's overall success rate depends on four criteria: relevance, efficiency, effectiveness, and sustainability. Effectiveness contributes 40 percent of the overall rating for investment operations and 60 percent of the overall rating for policy-based loans. For more information, see IDB (2020).

exogenous factors and government decisions would set the rate of satisfactory operations at 77 percent (100%-20%-13%). The IDB would need to succeed in 70 percent of the 77 percent of projects within its control to achieve its corporate goal. This target represents a 90 percent success rate. Such a rate is ambitious, given the performance of the World Bank and ADB.





Source: Prepared by the author.

Note: "Government" shows the scenario including adjustments by the government. "Exogenous factors" adds exogenous factors at the executing agency or user levels. "Performance" adds executing agency or user performance. The line at 70 percent shows the IDB Institutional performance target.

6. Discussion

The analysis in this paper has shortcomings that point to caution in interpreting results and potential areas for future work. One caveat is associated with data availability for the analysis in this study. Two caveats point to hurdles to overcome in future analyses: measurement shortcomings, and changes in incentives for reporting.

Data for the analysis in this study were not readily available. The PCR guidelines do not demand that authors identify agents or the nature of limitations. As a result, the analysis here had to infer such information from the narrative, which can result in a misclassification. For example, a report may state that the government changed priorities and reallocated funding. However, it may fail to note that such a change followed a response to the COVID-29 pandemic. As a result, the analysis would misclassify the restriction as a government performance limitation, when, there was a shock to the project environment that triggered a response by the government. Future analyses need to ensure the correct identification of critical restrictions.

As per future analyses, asking project teams to identify limitations will demand an independent verification mechanism. The evaluation may incentivize agents to rely on the third-party performance or become negligent in mitigating risks. Development institutions must record instances of unexpected events. They must make project teams liable for reporting, mitigating, and managing risks. Project teams may not be responsible for unforeseen circumstances, but an institution relies on its institutional knowledge to deem an event as likely and treat it.

Finally, it is possible that there may be shortcomings in the classification. There may be complex situations in which there are limited ways to objectively prioritize an agent. This may demand a revision of roles and responsibilities. There may be events with features that make it difficult to classify the project type. Such events may trigger further detailed analysis. In the extreme, such situations may require the use of conventions. Such revision should be part of a learning exercise.

7. Conclusions

This study has shown that project success is contingent upon the performance of critical actors and exogenous factors. Transparency is essential for accountability and learning. Governments, executing agencies, and project users play a role. Shocks to information, changes to the project environment, and third-party performance influence performance. An evaluation approach that differentiates agents and the nature of factors may strengthen accountability and learning. Incentives for agents will be weak in a system that fails to recognize factors beyond their control. Incentives will be absent for agents that face events they cannot plausibly overcome. Regarding learning, solutions may be more effective when tailored to the needs and realities of the agents they aim to assist.

The findings of this study point to areas where the IDB could further strengthen evaluation. The Bank could explore the use of a stronger evaluation focus on actual conditions. The current approach favors design resilience over adaptation. While design resilience is desirable, it is costly. Given the tradeoff that such cost imposes and the presence of exogenous factors, evaluation could contemplate adaptations during execution. An evaluation focusing on actual conditions may incentivize awareness of the project environment as it evolves and the adoption of solutions to unexpected hurdles. Agents may benefit from adopting a forward-looking and adaptive management style to overcome manageable issues.

This analysis is neither exhaustive nor comprehensive. Despite its limitations, however, the proposed framework may provide insights for future work that promotes effectiveness. Future work could focus on incentives for reporting on the factors that explain success and data systematization. Future work could also explore whether identifying agents and the nature of limitations might strengthen tools beyond evaluation. For example, monitoring may be more effective if it tracks government and user performance by allowing for the detection of issues with those agents. Another area to explore is the use of an effectiveness risk management system. Projects will face shocks, but a systematic risk assessment may aid the institution in choosing optimal systemic risk levels and diversifying non-systemic risk. Such a system may allow the IDB to establish risk mitigation strategies at the institutional level, keeping track of critical design limitations to assess risk and inform diagnosis investments. Finally, another area to explore is whether overly ambitious corporate goals are perceived as realistic and incentivize performance improvements.

Identifying agents and the nature of factors may improve the dialogue among crucial project stakeholders and strengthen check-and-balance mechanisms. Such mechanisms are essential to incentivize good performance and foster learning and innovation. Achieving development results is challenging. Accountability, knowledge, and innovation are critical to the IDB and other multilateral institutions as they aspire to reach people in need and improve their everyday lives.

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Appendix A. Glossary

Project. A project is a specific investment activity with specific start and end points intended to achieve a specific objective.

Agents. Individuals or entities that conduct project activities and are responsible for exercising authority or making value judgements for taking decisions to use project resources to produce outcomes and contribute to accomplish the project objectives.

Effectiveness. The extent to which a project is expected to achieve its stated objectives.

Executing agency. A set of agents whose key role is to deliver goods or services to project users in a manner congruent with achieving the project's objectives. The role of the agents includes coordinating with key stakeholders and other relevant agencies; processing permits, licenses, and authorizations; carrying out procurement processes; identifying users; and carrying out monitoring and evaluation.

Government. Agents whose role is to define a project's objectives and provide project resources and institutional support. These agents designate the executing agency.

Operational environment. A particular configuration of economic, social, and environmental conditions in which a development project is implemented.

Third-party. A person or group other than those agents with an explicit role in the project to achieve its objective.

Users. Agents whose key role is to use a project's goods or services in a manner congruent with directly providing goods or services to the intended project beneficiaries and contribute to achieving the project's development objectives.

Appendix B. Example

This appendix presents a simplified description of an education project implemented in Belize in 2014 (BL-L1018). Figure B1 illustrates the project logic. The government (agent 1 - government) allocated US\$10 million (output 1) to improve the quality of education over four years. It provided these resources to the Ministry of Education Youth and Culture (MOEYSC) (agent 2 - executing agency) to provide teacher training and mentoring services (output 2) to elementary school teachers. As a result, teachers (agent 3 - users) received training and mentoring to improve classroom instruction quality (output 3). Students (agent 4 - beneficiaries) received better instruction and improved their mathematics and science scores (output 4). In this example, there are four agents with well-defined roles. Their results depend on the inputs provided by the previous agent, and together the agents achieve the objective upon the realization of development outcomes.

Appendix Figure B1. Belize: The Technology of a Project



Source: Prepared by the author.

		-		
No.	Operation Number	Operations Name	Region	Sector
1	AR-L1068	Program for Rural Development and Family Agriculture,	CSC	CSD
•		PRODAF		
2	AR-L1101	Development Program for Metropolitan Areas Outside the	CSC	CSD
-		Capital		
3	AR-L1106	Productive and Tourism Infrastructure Program for the	CSC	INE
4	AR-L1130	Province of Río Negro Lending Program for Productive Development in the	CSC	IFD
7		Province of San Juan	000	
5	AR-L1283	Program to Drive Growth	CSC	IFD
6	AR-L1298	Program to Support Gender Equality Policies	CSC	SCL
7	AR-L1303	Program to Support Transparency and Integrity Reforms in	CSC	IFD
		Argentina II		
8	AR-L1304	Program for Strengthening of the Digital Agenda:	CSC	IFD
		Connectivity, Electronic Government and Digital Productive Transformation		
9	BA-L1014	Coastal Risk Assessment and Management Program	ССВ	CSD
10	BA-L1016	Skills for the Future	CCB	SCL
11	BH-L1016	Trade Sector Support Programme	CCB	INT
12	BO-L1084	Irrigation Program with a Watersheds Approach II	CAN	CSD
13	BO-L1093	La Paz - El Alto Highway Rehabilitation	CAN	INE
14	BR-L1160	São José dos Campos Urban Structuring Program	CSC	CSD
15	BR-L1175	Rio de Janeiro Low-income Neighborhood Urban	CSC	CSD
		Development Program - Stage III		
16	BR-L1187	PROCIDADES - Novo Hamburg	CSC	CSD
17	BR-L1210	National Tourism Development Program - PRODETUR	CSC	CSD
18	BR-L1224	Nacional - Rio de Janeiro Program for the Modernization Federal Government	CSC	IFD
10		Immovable Asset Management in Brazil	000	
19	BR-L1241	Serra do Mar and Atlantic Forest Mosaics System	CSC	CSD
		Socioenvironmental Recovery		
20	BR-L1336	Santa Catarina Logistics Infrastructure Program	CSC	INE
21	BR-L1344	PROCIDADES-CASCAVEL Integrated Development	CSC	CSD
22	BR-L1521	Program Promotion and Innovation of Access to Multisector Medium	CSC	IFD
~~		and Long-Term Credit for Productive Investments by Micro,	000	
		Small And Medium-sized Enterprises (MSMEs)		
23	CO-L1093	Support Program for Quality Education Plan for Prosperity	CAN	SCL
24	CO-L1102	Citizen Service Efficiency Project	CAN	IFD
25	CO-L1133	Fiscal and Public Expenditure Strength in Subnational	CAN	CSD
26	0014464	Entities - Barranquilla Banawahla Energy Financing Bragram for the Nan	CAN	
26	CO-L1161	Renewable Energy Financing Program for the Non- Interconnected Zones	CAN	IFD

Appendix C. List of Operations Analyzed

	Operation			
No.	Number	Operations Name	Region	Sector
27	CR-L1049	Power Sector Development Program 2012-2016 (Reventazon Hydroelectric Project)	CID	INE
28	DR-L1053	Support for Consolidation of the Social Protection System	CID	SCL
29	DR-L1059	Support for the Progressing with Solidarity Program	CID	SCL
30	DR-L1121	Formalization and Productivity Improvement Program in the Dominican Republic II	CID	IFD
31	EC-L1155	Sector Support for Quality Education in Ecuador	CAN	SCL
32	ES-L1016	Proposal for Reduction of Vulnerability in Informal Urban Neighborhoods	CID	INE
33	HA-L1058	Support for Transport Sector in Haiti II	CID	INE
34	HA-L1059	Technology Transfer to Small Farmers	CID	CSD
35	HA-L1078	Private Sector Development through Investment Promotion	CID	INT
36	HO-L1039	Support for the Integration of Honduras in the Regional Electricity Market	CID	INE
37	JA-L1046, JA-X1007	Public Sector Efficiency Program	CCB	IFD
38	ME-L1142	Human Resources Training Program (Proforhcom)	CID	SCL
39	ME-L1172	Financing Program for Investment and Risk Management in Gas and Clean Energy Pro	CID	IFD
40	ME-L1259	Third Program for Productive and Inclusive Rural Financing	CID	IFD
41	ME-L1284	First Operation Under the CCLIP for the Financing of the Shared Telecommunications Network	CID	IFD
42	NI-L1033	Public Sector Financial Management System Modernization Project	CID	IFD
43	NI-L1049	Support Program for the Transportation Sector I	CID	INE
44	NI-L1052	Support Program for the Transportation Sector II	CID	INE
45	NI-L1071	Support Program for the Transportation Sector III	CID	INE
46	NI-L1080	Credit Access to Rural Productive Chains	CID	IFD
47	PE-L1031	Modernization of the Justice Administration System to Enhance Services Peruvian Citizens	CAN	IFD
48	PE-L1060	Cajamarquilla, Nievería and Cerro Camote - Expansion of Water and Sanitation	CAN	INE
49	PE-L1068	Innovation Project for Competitiveness	CAN	IFD
50	PE-L1122	Project to Improve the Agricultural Statistical Information System and the Agri	CAN	CSD
51	PE-L1223	Program Supporting Reforms to Increase Productivity in Peru	CAN	SCL
52	PN-L1047	PPP Multiphase Road Infrastructure Program to Enhance Competitiveness-II	CID	INE

	Operation			
No.	Number	Operations Name	Region	Sector
53	PR-L1019	National Rural Roads Program Second Stage Phase II	CSC	INE
54	UR-L1038	Local Development and Subnational Management Program	CSC	IFD
55	UR-L1064	Rural Productive Development Program	CSC	CSD
56	UR-L1070	Punta del Tigre Combined Cycle Power Generation Project	CSC	INE
57	UR-L1074	Institutional Capacity Program for the Ministry of Economy and Finance	CSC	IFD
58	UR-L1081	Second Program of Ciudad de la Costa	CSC	INE
59	UR-L1083	Program to Support DINAMA (Dirección Nacional de Medio Ambiente)	CSC	CSD
60	UR-L1096	Innovation Program for Productive Development	CSC	IFD
61	UR-L1099	Financial Program for Productive Development	CSC	IFD
62	UR-L1171	Global Credit Program for Safeguarding the Productive Fabric and Employment	CSC	IFD

Source: Prepared by the author.

Note: Codes for regions: Andean (CAN), Caribbean (CCB), Central America, Haiti, Mexico, Panama, and Dominican Republic (CID), and Southern Cone (CSC). Codes for IDB Sectors: Climate Change and Sustainable Development (CSD), Institutions for Development (IFD), Infrastructure and Energy (INE), Integration and Trade (INT), and Social (SCL).

Appendix D. Examples of Limitations to Project Effectiveness

Case 1. Third-Party Performance Limits Effectiveness via Government Outputs

A project in Uruguay (UR-L1096) aimed to improve the productivity and competitiveness of small and medium-sized firms by promoting innovation through training and technology adoption subsidies. However, the government funded a similar program via a third-party office with institutional independence, resulting in reduced demand for the project subsidies. See the full Project Completion Report <u>here.</u>

Case 2. Performance Limits Government Outputs

A project in Haiti (HA-L1059) aimed to improve small farmers' agriculture income by subsidizing technology adoption and providing support. As part of this effort, the project aimed to establish mechanisms to allow the National Seed Service to control seed quality. However, the government did not support the program because it perceived it as too complex and too large-scale to be viable within the project's timeframe. See the full Project Completion Report <u>here</u>.

Case 3. Incomplete Information at Design Limits Executing Agency Outputs

A project in Peru (PE-L1060) aimed to improve the environment by providing sewerage and wastewater treatment. Archeological findings delayed the sewerage works, limiting the volume of wastewater treated when the project closed. See the full Project Completion Report <u>here</u>.

Case 4. Third-party Performance Limits Executing Agency Outputs

A project in Argentina (AR-L1101) aimed to improve the operation of services in metropolitan areas in the country's interior by implementing innovative project management methods and providing services that required the concurrence of two or more territorial jurisdictions. The targets proposed to verify the achievement of objectives established at approval were achieved at an average rate of 95 percent. However, the Office of Evaluation and Oversight (OVE) did not consider the indicators sufficient to demonstrate improvements in service provision and classified the project's achievement as partially unsatisfactory. See the full Project Completion Report here and the OVE validation report here.

Case 5. Performance Limits User Outcomes

A project in Peru (PE-L1031) aimed to increase access to justice services and improve their quality by providing technological infrastructure and learning resources to support the interconnection between administrative justice system entities. However, these entities corresponded to constitutionally separate state powers and lacked incentives to achieve an integrated information system. In addition, many of the entities had infrastructure deficiencies, further increasing the cost of implementing an integrated information system, which restricted the achievement of the objective. See the validation report <u>here</u>.