



PROJECT BRIEF

Thinking and Working Politically Series: Conserving Guatemala's Ecosystems

April 2021

About This Brief

This is part of a series of case studies highlighting Chemonics' experiences and lessons learned with thinking and working politically (TWP) and applied political economy analysis (APEA). This work is supported by Chemonics' [Center for Politically Informed Programming](#), which serves as a resource hub to build

PROJECT OVERVIEW

The USAID/Guatemala Biodiversity Project works in three protected areas — Maya Biosphere Reserve, Sierra de las Minas Biosphere Reserve, and the Pacific Coast — focused on four objectives:

1. Improve conservation approaches through better information on key species and ecosystems
2. Support national and sub-national policy and legislative reforms
3. Build capacity for effective enforcement and prosecution of crimes committed within protected areas
4. Engage local stakeholders in conservation efforts.

GBP's Theory of Change: *If* the national information system offers updated information of the key indicators of biodiversity, local organizations managing the protected areas have the capacity to take appropriate decisions to implement conservation actions, justice system institutions enforce environmental law, and local actors have the incentives to protect the ecosystem, *then* governance of the SIGAP and conservation of biodiversity will improve.

awareness and best practice of TWP and related approaches. Drawing on the Chemonics-implemented USAID/Guatemala Biodiversity Project, this brief highlights the process, findings, and tools of the baseline APEA (as well as the second APEA iteration), and how it oriented the project team to TWP.

Introduction

The [USAID/Guatemala Biodiversity Project](#) (GBP) aims to build national capacity to improve management and governance throughout Guatemala's System of Protected Areas. It employs a strategy that strengthens conservation approaches through better information on key species and ecosystems, supports national and sub-national policy and legislative reforms, builds capacity for effective enforcement and prosecution, and engages local stakeholders in conservation and sustainable use initiatives. The project operates within unstable and highly complex contexts, marked by endemic structural and institutional challenges in addition to emergent developments that test institutional response capacities. For example, the recent economic recession coupled with a slowdown of remittances is deepening inequalities, triggering social unrest, and raising heated debate over the use of protected areas. An upsurge in organized crime and forced recruitment increasingly pervades Guatemala's social fabric and encroaches on its havens of protected areas. Consequently, a steady pressure over protected lands has exacerbated the degradation of ecosystems, threatening the survival of endemic species. Furthermore, fragmented electoral and interinstitutional politics hinder essential progress as it heavily affects relationships, incentives, and possibilities for policy implementation. Lastly, a strained relationship with the United States between 2018 and 2020 halted U.S. funding for projects already underway, worsening these challenges.

At the onset of GBP, the team's primary challenge was to better understand and navigate the multidimensional operational landscape surrounding the project to achieve

meaningful and sustainable results. To do this, the project team designed tools to gain an adequate understanding of contextual dynamics and identify actionable pathways for achieving project goals and expected results. GBP staff were trained in the function of TWP and tools such as APEA within a project and how to use their findings to guide decisions and implementation strategies.

This brief focuses primarily on GBP's initial APEA, which informed the Year 2 work plan. To a lesser extent, it touches on a second APEA iteration conducted in Year 3 and the use of foresight tools for strategy development as part of TWP efforts.

Designing the Baseline Applied Political Economy Analysis

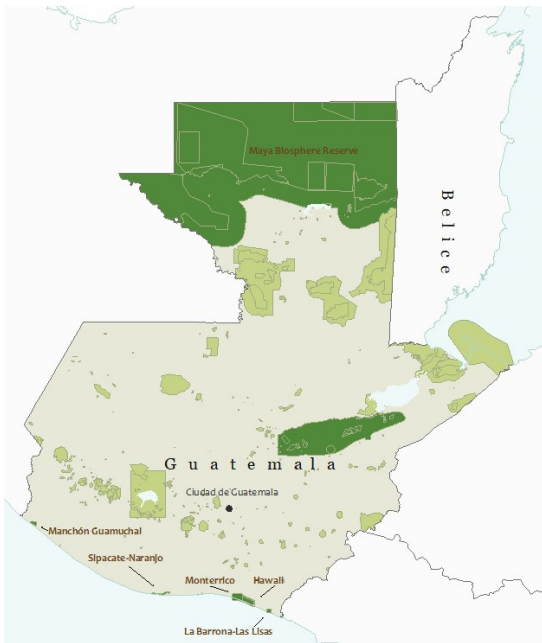


Exhibit 1. Map of the three areas included in GBP: 1) The Mayan Biosphere Reserve, 2) The Sierra de las Minas Biosphere Reserve and 3) Pacific Coast coastal protected areas.

Due to the contextual complexity in which GBP operated, Chemonics included a baseline APEA activity at the proposal stage and USAID incorporated this into the contract. As part of project startup in the second half of 2018 and in collaboration with Chemonics' Center for Politically Informed Programming (the Center), GBP hired a local consultant responsible for ensuring coordination of fieldwork among all project staff and for data analysis. Center political economy analysis (PEA) experts guided project staff through a collaborative process to customize the APEA to the needs of GBP, ensuring that the thematic focus aligned with the four project objectives and clarified the theory of change (ToC) suggested in the GBP logic framework (see text box, pg. 2). The end product was a baseline APEA

designed to provide the lay of the land, highlighting actors and opportunities and finetuning implementation strategies across each project objective while accounting for specificities in each pilot region (see map of protected areas in Guatemala, including the three GBP supports).

After design of the APEA, the Center provided training on APEA implementation and fieldwork, including customizing the fieldwork protocols, guiding questions, identifying a broad spectrum of actors to converse with in each region of GBP, conducting conversations, and following leads. The training emphasized project staff engaging the actors in their own daily routines and actions, and through this engagement, capturing the actors' stance and insights on the themes and questions that the APEA was designed to answer. As Carlos Morales, former GBP chief of party (CoP), notes regarding the APEA fieldwork, "While conducting the baseline APEA, we needed to ensure we were capturing the stories, insights, and realities of key project beneficiaries, most of them rural dwellers engaged in a variety of tasks to make ends meet. We made a point in meeting them in their own vital spaces so as to understand in a more nuanced manner their own realities. We conversed with women leaders of the Asociación de Mujeres Pescadoras de Monterrico, in their own canoe while fishing, and in Sierra de las Minas, we met in the xate and cacao gardens of a local farmer while harvesting."

All the implementation team members had similar fieldwork experiences, widening their understanding of the multiple layers of actors, the positions that shape the contours of GBP's operating environment, and, most importantly, connecting these experiences with the goals and expected results of the project. More than 20 staff members participated throughout the APEA process, with the CoP leading interviews together with the technical leads, the monitoring, evaluation, and learning specialist, and field staff, all with the coordination support of the local consultant. Overall, the broad participation boosted the impact of the team's insights.

The Value of the APEA



Exhibit 2. Fisheries women association in the Pacific Coast of Guatemala. Credits. Danilo Valladares, Guatemala Biodiversity Project 2019.

The baseline APEA findings provided GBP with the insights needed to realign the project’s scope and actions with the realities and opportunities specific to the three regions. The findings emphasized the need to revisit initial project design assumptions, considering the time gap between USAID’s initial conceptual design and project kickoff. Insights from the APEA allowed the project team to 1) finetune the project’s ToC and results chain; 2) identify local and regional incentives common to multiple actors; 3) weave alliances to leverage change; and 4) build common ground within the team for evidence-based work processes and decision-making.

Finetuning the Project’s Logic Framework

APEA insights allowed the project to calibrate aspects of the ToC and logic framework regarding local governance that were lacking a more robust participation from community members in the governance of conservation. Illustrative examples, below, highlight these shifts.

The original ToC included a broad and diffuse mandate to work with governmental agencies (without specifying which and in what manners) and to promote community involvement in patrols within protected areas. Through APEA insights, the GBP team identified four main governmental agencies as spearheads for conservation governance engagement: the Environmental Protection Agency of the Guatemala National Police (DIPRONA), the National Council for Protected Areas (CONAP), the Attorney General’s Office, and the courts. Specifically, GBP finetuned intermediate results around the task “build capacity for effective enforcement and prosecution of environmental crimes related to protected areas.” In addition, APEA insights highlighted forest fires, both natural and induced, as most critically in need of concrete and coordinated actions

between state agencies and communities. This led the project to focus intermediate results of the task “improve conservation approaches through better information” in actionable efforts around alliances, training, information gathering, and sharing between community-based organizations, local municipalities, CONAP, the Guatemalan Army, and the Wildlife Conservation Society (WCS).

Leveraging Change in a More Informed Manner

The baseline APEA was pivotal in providing the project with a rich and nuanced understanding of local actors, including an informed awareness of what motivates them to advance change and how best to leverage those motivations to support project efforts. The most salient insight the APEA provided was how to weave strategic alliances on top of common incentives and change agendas among a diverse set of regional and municipal actors. Described below are key insights that the GBP translated into actions, which directly enhanced achievements in two of the four GBP objectives.

Revisiting Types of Engagement with Local Actors

In the region of Laguna del Tigre, local governance has been deeply compromised due to the encroachment of international crime in protected areas. The baseline APEA provided pathways for the GBP to assist in restoring local governance, including: 1) facilitating a space for multi-actor dialogue and local decision making with WCS, the United Nations High Commissioner for Refugees, the Catholic Church, local populations, and the Guatemalan Office of the Attorney for Human Rights; 2) convening working groups with local farmers to identify viable options for economic wellbeing; and, 3) establishing a joint conservation agreement with 11 localities to prevent the encroachment of farms in protected areas and promote good environmental practices.

On the Pacific Coast, the APEA identified COCODES (Community Council for Development), a key actor that voices the interests of local fishermen grouped around informal

associations. By supporting and working through COCODES, the project was able to break a stalemate between private buyers — who were interested in buying only from formal associations — and local fishermen by helping the latter organize their production and freezing chains without becoming a formal cooperative or a legally established association. These actions were key in achieving concrete results in Component 4 of the project: engage local stakeholders in conservation efforts.

Strengthening the Role of Community-Based Organizations in the Management of Natural Resources

The baseline APEA helped the GBP understand the importance of incorporating community-based organizations in the governance of protected areas. It also triggered a process to establish local and national dialogues around political and regulatory reforms in the sector, create ADR mechanisms for dispute resolution within protected areas, and incorporate informal indigenous networks that bring together the interests of ancestral inhabitants within protected areas into local governance structures. This action was key in bringing concrete results to two GBP components: support national and sub-national policy and legislative reforms through engaging local stakeholders in conservation efforts.

Multi-Actor Engagement Around Sustainable Tourism

The baseline APEA identified that local guides, entrepreneurs, and park rangers had a common interest in teaming up for activities that minimize the impact of visitors on protected areas within the Maya Biosphere Reserve. The project, using the recent trend in birdwatching in the country, assisted in organizing the Guatemala Bird Fair 2019 with the participation of national and international experts. The forum served as a catalyst to design training and a roadmap for sustainable micro, small and medium enterprises and community-based tourist service providers. It increased the capacity of local communities through birdwatching training, equipment for community guides, and the use of digital

platforms (eBird and Merlin) to enhance the user experience and contribute to the science of conservation efforts in the country. This training laid the groundwork for commercial partnerships between national and international tour operators, Cornell University, and local services providers. This action was key in bringing concrete results to two project components: improved conservation approaches through better information on key species and ecosystems and engaging local stakeholders in conservation efforts.

Investing in Local Initiatives That Build Upon Cultures of Legality

The baseline APEA was instrumental in providing the project with insights into the viability of the use of technology for monitoring and surveillance in protected areas experiencing high encroachment of organized crime. In partnership with the WCS and CONAP, the project funded overflights in critical areas within the Parque Nacional Laguna del Tigre, documenting the use of induced fires by land grabbers and the incursion of livestock. The project also used a Spatial Monitoring and Reporting Tool (SMART) to assist local enforcement in measuring, evaluating, and enhancing their effectiveness over more than 62,000 square kilometers of land in the Maya Biosphere Reserve. This action was key in bringing concrete results to Component 3 of the project: build capacity for effective enforcement and prosecution of crimes committed within protected areas.

Embedding Evidence-Based Decision-Making Within the Project

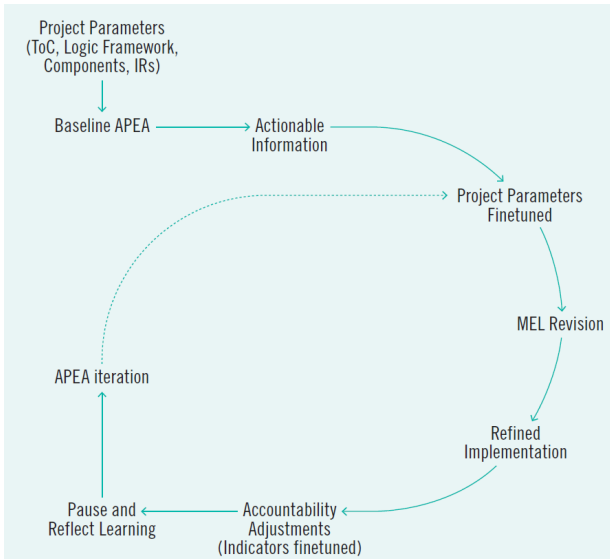


Exhibit 3. Workflow of TWP and adaptive management. Santiago Villaces 2020.

The baseline APEA and the active participation of key program staff in the whole process from design to implementation and analysis — including the CoP, deputy CoP, component leads, MEL specialist, local consultant, and field staff in regions — were pivotal in reinforcing team cohesiveness, critical thinking, and establishment of common ground around evidence-based strategy and implementation priorities. Routine staff meetings incorporated evidence-based, informed discussions around the best paths of action for alignment between context dynamics, actors, and incentives, and pathways for change and fulfillment of the project’s goals and intermediate results. This

fundamental shift in internal work dynamics assured a fluid integration of the TWP framework into internal procedures to facilitate adaptive management, with impacts seen in programming, work plans, pause and reflect exercises, result chains, and MEL systems. This overall TWP and adaptive management workflow (see Exhibit 3) illustrates how the information produced by the baseline APEA finetuned the logic framework and triggered a revision of the MEL plan and the incorporation of actionable information from the APEA findings (see the sections “Finetuning the Logic Framework” and “Leveraging Change in a More Informed Manner” above). This, in turn, led to adjustments of program indicators. In pause and reflect learning exercises prior to Year 2 work planning, the team considered the outstanding implementation challenges and contextual shifts (from electoral cycles and their impact over programming to black swans like the COVID-19 pandemic), and defined the scope and focus of APEA iterations, giving headway to further adaptation in project parameters, implementation priorities, and strategies.

Insights from the Second APEA Iteration

In Year 2, the project team conducted a second iteration of APEA to better understand the context, opportunities, and constraints for the project given the implications of COVID-19 and other context dynamics. For this iteration, the project focused on Costa Sur, Sierra de las Minas, and the Peten. Through it, the project gained granular knowledge of how the pandemic was impacting the project and exacerbating the challenges identified in the baseline APEA. In particular, the pandemic deepened the challenges in the governance of protected areas via budgetary cutbacks, restricted public officials' mobility, and caused a pullback in state-led conservation and protection activities. These factors contribute to a wider expansion of the encroachment of organized crime in protected areas and a fracturing of the capacity of local actors to engage in biodiversity and conservation efforts.

The team also piloted the use of Parmenides Eidos software as part of the second iteration to explore context dynamics and determine how and to what extent different scenarios may affect project implementation (see more on Eidos below, under Tools). Based on the data gathered in fieldwork and through the engagement of key stakeholders, the project team was able to generate plausible scenarios for the next two years. These in turn were used to build an implementation strategy robust enough to withstand these scenarios, providing the project with a clear pathway for sustainability during and after the project ends. For example, through the analysis, the team decided to reduce efforts in monitoring wildlife in specific areas of the Pacific Coast, such as Manchón Guamuchal and Sipacate, and prioritize partnerships with other stakeholders in the Sierra de Las Minas Biosphere Reserve to increase the possibility of sustaining conservation efforts through a strategy that engages local organizations more directly.

Supporting Tools For Evidence-Based Decision-Making

The senior management of the GBP promoted the extensive use of software to ensure effective management and analysis of the information generated by APEA fieldwork. These included:

- [Google Forms](#) as input platforms capturing fieldwork conversations.
- [Otranscribe](#) to assist in transcription of conversations and initial data analysis.
- [MACTOR](#) to assist in the mapping of actors, positions, and hubs of divergence and convergence among them.
- [Orange](#) for data mining and visualization

These tools, further described below, were instrumental for a swift and thorough baseline PEA analysis. They provided project leadership with accurate, actionable data to better understand the context, leading to both the finetuning of the project's logic framework and identifying concrete actions to promote change (see the Value of the APEA section above). In conjunction with the second APEA, the team used [Eidos](#) to explore various future scenarios and their implications for the project to guide decision-making.

Managing Fieldwork Data

The use of [Google Forms](#) allowed the APEA teams to work simultaneously in the construction of a single database as a repository for fieldwork notes and conversations. Google Forms was used to feed information prior to fieldwork (who conducted APEA interviews, where, when, and with whom), during fieldwork (general interview notes), and post-interview (interview findings, emerging themes to further explore, additional actors to interview). Some conversations were recorded with prior consent of the people interviewed (recordings included conversations held remotely via network

platforms or telephone); in such cases, the team used [Otranscribe](#), a free web-based platform that allows users to upload audio files and manually transcribe with an open-source editor, avoiding the need to invest in physical equipment. The open-source editor can be exported to any of the most commonly used text applications. The raw interview information was fed into Excel and was used as source repository to run other software programs that enhanced the ability to understand the richness of the APEA findings and use machine learning to facilitate analysis and evidence-based decision-making.

Understanding Actors' Convergences and Divergences

The project used [MACTOR](#), a free software application, to visualize and understand the behavior of networks of the actors. This led to a better understanding of how actors and organizations construct gravitational hubs that are pulling together key issues/themes for the project, while additionally

qualifying if this pull is either positive or negative. For example, by running MACTOR with APEA-generated information, the team was able to contrast the positions of key project stakeholders around two key aspects with direct impact over project implementation: 1) the capacity of the stakeholder to cooperate with other stakeholders, and 2) the quality of that cooperation. Exhibit 4 orders all project stakeholders around their capacity to cooperate with others (CORG in the graphic).

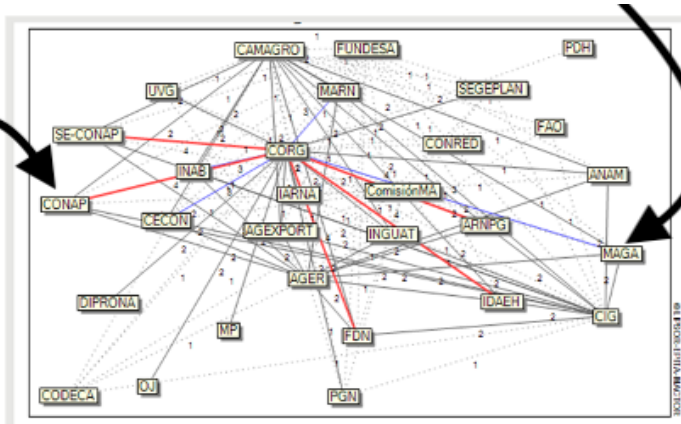


Exhibit 4. Relationship between the key stakeholders applying the MACTOR tool.

For example, CONAP, one of the project's main partners, has relationships with various other key project stakeholders. This is shown with the different types of connecting lines. The red line connecting CONAP with the main variable (CORG or capacity to cooperate) indicates that the quality of that cooperation is poor, limited, and negative, highlighting a major challenge for project implementation. Another example is the Ministry of Agriculture (MAGA), seen with a blue line connecting it to the main variable (CORG), which highlights that it has a productive, positive relationship with other stakeholders.

With this information, the project shifted activities, giving more weight to a) conservation agreements between the Ministry of Agriculture and the Paso Caballos community (encroached within the Laguna del Tigre protected area); b) support to the Ministry of Agriculture and “Jaguars Forever” WCS program geared to embed best management practices with cattle ranchers to reduce the hunting of jaguars; and c) support to local communities and farmers to access the Ministry of Agriculture’s Probosque program, which provides financial incentives for conservation efforts.

Visualizing Opportunities and Contextual Dynamics

The project used [Orange](#), a free software used for data mining and analysis through machine learning and graphic

interfaces, to help the team zoom in on key APEA insights, reducing analysis time and interpretation biases. For example, using APEA insights from the Maya Biosphere Reserve in Petén and running the information through Orange, the team discovered that “community” was the most frequent word throughout the 24 interviews held in Petén, followed by other keywords such as “forest fires,” “conservation,” and “protected areas” (see box for word cloud).

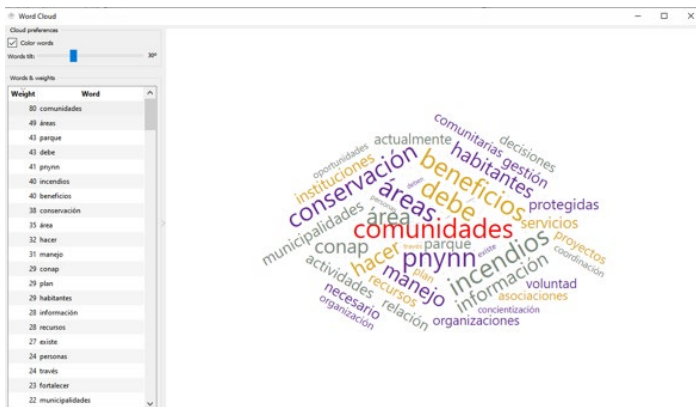


Exhibit 5. Word cloud of interview pre-analysis applying text mining methodology with the Orange© software.

Based on the word cloud, the team filtered the information through algorithms that unveil affinities between the word “community” and phrases in which it appears, producing a set of clusters visualized as a heat map. With clusters identified, a third filter is used to run a latent semantic indexing (a mathematical process that helps classify and retrieve information on specific key terms and concepts). This process highlighted that: a) communities in Petén know and are committed to conservation but get few, if any, benefits from the national park services; b) communities have very good relationships with local authorities; and c) communities are the first line of defense of protected areas, often at their own expense. Based on this information, the project decided to emphasize activities strengthening community participation and models of local conservation governance,

while at the same time assisting local communities in alternative forms of income generation such as sustainable tourism (see above, “Leveraging Change in a More Informed Manner”).

Planning for Future Scenarios

In conjunction with the second APEA, the team used Parmenides Eidos, an innovative software designed to facilitate complex decision-making, strategic reasoning, and problem solving for development project teams. The platform can be customized to analyze inputs and reports such as APEAs, visualize power dynamics among key actor relationships, and ultimately produce plausible future program scenarios. Building on basic project information (background, strategic objectives, and key performance indicators) and granular information provided by APEAs, Eidos allows teams to dive deeper using analytical exercises and scenario building that considers possible or anticipated changes in the political, social, environmental, and economic context to create a comprehensive, adaptable strategic model (see box, pg. 11). This process resulted in a renewed team mindset that provided a clearer vision of the project’s effectiveness, its influence on main project actors and beneficiaries, and foresight into how the current reality could vary. The team now operates with updated contingency plans to be revisited regularly based on contextual shifts.

Eidos in Action

“The value of Eidos is the dynamic generation of ideas to gradually redefine the strategy, [to] think outside the box, and [aid in] establishing limits for the project.”

– Carlos Morales, former Chief of Party for the USAID

Key Lessons

Development projects often operate in highly complex environments while aiming to advance sustainable change and improving quality of life. To this end, a dynamic and granular understanding of the context, as well as technical and political viability, are necessary from the onset of design and implementation. The Guatemala Biodiversity Project’s experience highlights the following lessons:

Strategic. The baseline APEA at the outset of the project was critical in defining realistic and context-sensitive guidance for

project implementation. With this tool, the project avoided misguided interventions, saved valuable resources, and directed its engagement with the most appropriate actors within each of the regions of the project and throughout all its components (see above “Leveraging Change in a More Informed Manner”). Ongoing TWP analysis guided the project to stay attuned to context shifts to inform adaptations to the project’s strategy and activities.

Operational. Project leadership and buy-in from the CoP down was key in ensuring a shift by staff to the use of APEA as a strategic tool for programming. It is worth noting how the APEA helps inform staff in how best to navigate key conservation issues while avoiding compromising situations in contexts with a significant amount of organized crime (see above, “Revisiting Type of Engagement with Local Actors”). This stems from the active engagement of key staff throughout the process, who promoted critical thinking within the project and fostered innovation based on a systematic, nuanced understanding of context, actors, and emerging opportunities. Lastly, strong project leadership throughout the process and sustained engagement and accompaniment of TWP/APEA experts from the Center ensured that tools were embedded within strategic and day-to-day decision-making (see above, “Embedding Evidence-Based Decision Making Within the Project”).

Methodological. Involving TWP/APEA experts from the Center was pivotal in ensuring that the APEA was adequately designed. From the outset, the Center emphasized the importance of concrete alignment between the scope and reach of the APEA and the type of guiding questions that inform fieldwork — and thus the universe of data that could yield insights into the contextual dynamics of the goals, components, and expected results of the project. A customized design is fundamental to ensure that fieldwork analysis yields programmatically actionable insights. The use of specialized software facilitated the analysis of APEA fieldwork data, bringing agility to the translation of the richness and depth of the information gathered to concrete

actions and insights for programmatic decision-making. Bypassing this process would have led to a loss of key analytical insights and less robust use of the evidence produced in fieldwork.