

State and Peacebuilding Fund Notes Series

Improving M&E in fragile settings: meet MARTA

Disclaimer: This grant is still active. However, given the current COVID-19 epidemic, the preliminary lessons learned of this innovative monitoring and evaluation system are deemed useful and worth sharing at this time for the benefit of TTLs that are embarking in COVID-related projects in FCS. This note is a continuation of a previous note on the same grant that focused on community engagement and that can be found [here](#).

The Monitoring Automated for Real Time Analysis (MARTA) is the remote supervision system designed for an emergency large-scale public works program in Ebola-affected areas of the deeply fragile Democratic Republic of Congo (DRC).

Project Background – Ebola in Eastern DRC

The 10th Ebola outbreak in the DRC (2018-2020) was described as one of the [most complex emergencies](#) the international community had seen because of the challenging and inter-related humanitarian, political, and security contexts in which it took place. For the first time, the epidemic spread in an active conflict zone covering two of the most FCV affected provinces in eastern DRC, with presence of over 70 armed groups, a contested presidential election, and six million people already in need of humanitarian assistance. After decades of conflict in DRC, communities had developed an entrenched distrust of state institutions and external actors.

The increasing resentment from communities against the internationally funded system set up to respond to Ebola and the so-called “Ebola business” became the key factor that was hindering the efforts to end the epidemic. The absence of redistributive impacts of the Ebola response despite the unprecedented mobilization of resources fed resentment and violence. Ebola hotspots like the cities of Beni and Butembo saw an increased number of violent incidents, spanning from citizens refusal to cooperate with Ebola response teams to rejecting vaccination and even attacking treatment centers.

Amidst this highly complex crisis, a large-scale emergency Public Works Program (PWP) was designed and piloted to reach three main goals:

1. **Strengthen community resilience** by providing temporary jobs and support the local economy in Ebola hotspots.
2. **Address long-standing gaps in access infrastructure** that were hampering surges in medical and humanitarian responses.
3. **Improve the acceptance of medical teams** by delivering quick, tangible results for the overall population.

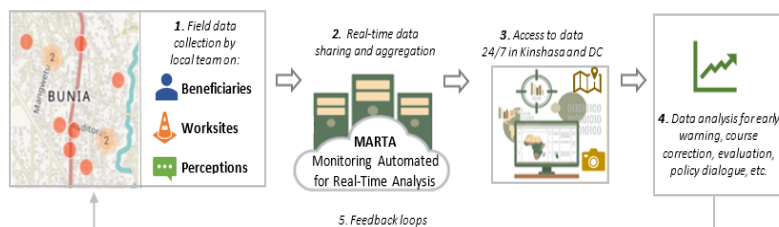
Furthermore, this intervention would also **address the long-term grievances** that were fueling community resistance and help rebuild trust to complement the health response, providing temporary jobs and maintaining social infrastructures to the communities affected by this Ebola outbreak.

Upon inception, however, the task team was immediately challenged by the need for speed and scale to deploy this emergency safety net operation, in contrast to the **limited capacity for supervision in insecure and hard to reach areas**. As highlighted in the book [“Data Collection in Fragile States: Innovations from Africa and Beyond”](#) it is possible to collect high-quality data in fragile settings without spending more than in other settings.

The design of the Monitoring Automated for Real Time Analysis (MARTA) system

The State and Peacebuilding Fund (SPF) provided funds for the technical assistance needed to design and set up the MARTA system. MARTA was created by building on the [GEMS](#) initiative and the integration of simple and open source [ICT tools](#) for digital data collection. This customized system was developed to monitor the program’s implementation in low-capacity, high-risk, remote environment.

MARTA is a set of high frequency surveys on beneficiary profiles, execution of work, and community perceptions that allows tracking the implementation of the program in nearly real time. It helps for early detection of issues, timely course-correction and to document results.



A team of local surveyors is recruited and trained in each area of intervention to deploy the set of questionnaires and collect the data in an ongoing basis. Data can be collected offline but is typically shared within hours to a server that allows for access and analysis in real time by the teams in Kinshasa and Washington, DC. In partnership with the DRC Crisis Observatory (Poverty GP) an automated dashboard was built to transfer, analyze, and visualize the increasing amount of data collected via MARTA, allowing for fast analysis and course correction when required.

MARTA was successfully piloted from September 2019 to January 2020, with more than 42,500 field surveys (900,000 data points), photos and GPS coordinates collected to supervise implementation in real time and remotely, track key project indicators and document results of this emergency PWP operation.

Preliminary Lessons Learned: Assess, pilot and keep it simple!

1. Initial assessment. Start with getting your bearings: evaluate resources, capacities and key actors before developing any data collection exercise. Asking advice to other colleagues or organizations can help tailor the data collection to the specific context, avoid duplications or even identify opportunities for synergies or partnerships.

WB units, such as POV, DIME and GIL conducting research can provide valuable advice on data collection. A series of field missions also allowed the task team to consult with key local stakeholders such as UNICEF and IFRC, to collect community perceptions.

2. Piloting is key. It is important to allow time and flexibility in your data collection exercise to test procedures, analyze the first waves of data and progressively refine your project's M&E system.

During the first weeks of piloting in the first health zone, the team revised the questionnaires several times—identifying issues and opportunities for improvement, simplifying the wording and confirming relevance of the questions and response options. Lessons and improvements from the first program area were then quickly adopted for the launch of the pilot in new health zones in a process of continuous learning-by-doing.

3. Data minimization. A sustainable M&E system should integrate data collection as a core element of project implementation; however, a clear tradeoff arises between increasing the amount of data for more precision and minimizing the burden of the data collection in the other project activities. Following this rationale, the team tried to simplify and shorten each questionnaire, collecting only needed information allowing for an increased frequency of data collection. [Data minimization](#) is also a key principle for the protection of beneficiaries' data.

4. Invest time in building your local team. To ensure its well-functioning and management, MARTA relies on local capacity. For this reason, it is crucial to identify a strong focal point in charge of the day-to-day management of the system, ensure data quality and capacity building. Likewise, local enumerators are trained and supported throughout the data collection process to improve the quality of the data.

Outcomes and results

MARTA provides a practical example of cost-effective data collection in a high-risk environment to inform operations and improve project management. Since September 2019, more than 165,000 surveys on beneficiaries, worksites and community perceptions have been collected through the MARTA system (close to 3M data points).

The information collected from MARTA has allowed to:

- Build a basic demographic and vulnerability profile of beneficiaries and understand household composition
- Validate the targeting mechanism of the PWP (self-selection and public lotteries)
- Shorten processing times and streamline procedures (e.g. registration in one day)

- Build a basic registry of poor and vulnerable individuals (80,400 people as of November 2020) that can also help other organizations for beneficiary targeting
- Monitor compliance with safeguards in the worksites (heightened safety measures due to Ebola)
- Collect GPS coordinates and key indicators (KPI) on worksites
- Timely identification of issues for course correction (e.g. delays in payments to beneficiaries or missing hand washing stations/temperature checks for safeguards compliance)
- Monitor perceptions of communities and key informants as an early warning mechanism
- Validate beneficiary satisfaction at the exit of the program
- Evidence collected on investments on Human Capital and Productive Inclusion of beneficiaries

Moreover, the KPI and GPS coordinates of worksites were shared with the UN Ebola Emergency Response Team to contribute to the [3W](#) mapping (Who, What, Where) and coordinate activities with other actors intervening in the broader response to Ebola and helping to strengthen the Humanitarian-Development-Peace nexus.

As the COVID-19 crisis unfolded, the task team swiftly partnered with the DRC Crisis Observatory to leverage MARTA's individual's registry and phone numbers database and set up a high frequency phone survey (HFPS) to assess the social and economic impacts of COVID-19 and design appropriate response mechanisms. The HFPS was launched in May 2020 and it calls the same households every few weeks to monitor the well-being of the population in Eastern DRC.

Furthermore, this registry has also been useful to other actors in identifying beneficiaries, saving precious time and resources for humanitarian action during the COVID crisis. A data sharing partnership with the NGO, Give Directly has allowed them to quickly launch an emergency cash transfer operation benefiting more than 8,000 households in three cities since August 2020.

Next steps

The Social response to Ebola program (and MARTA) is currently being scaled up to all the Ebola affected health zones (some of them hard to reach and in conflict) aiming to reach 50,000 beneficiaries by June 2021.

An impact evaluation led by the Africa Gender Innovation Lab will leverage MARTA to measure the effectiveness of this public works program and any gender-differentiated impact (for instance gender specific constraints, norms, gaps, vulnerabilities...) to inform operations in the DRC and in similar FCV context.

Thanks to its versatility, MARTA is currently being adapted and scaled up to monitor the entire [Social Protection portfolio](#) in DRC, including monitoring of infrastructure construction and cash transfer operations.

Mainstreaming lessons learned

Fast to deploy, cost effective, client friendly, and privacy safe, MARTA provides an example of a customized GEMS system that has been key in the project's successful implementation in a low capacity, remote, and high-risk environment.

MARTA's experience has generated interest and has been shared with teams working in similar FCV settings, the DRC CMU and SPJ unit. However, given the flexibility of supervision technologies, an instrument like MARTA can be adapted to respond to different project needs, sectors or contexts. For more information on MARTA contact the task team. The GEMS initiative is also frequently conducting trainings and provides support in an ongoing basis for teams to leverage field-appropriate technology for digital data collection and analysis.

Resources

[Leveraging the HDP Nexus During a Pandemic](#)

Blogs

[Can humanitarians, peacekeepers, and development agencies work together to fight epidemics?](#)

[Can public works help fight Ebola in the Democratic Republic of Congo?](#)

[GEMS: Using "Pocket Science" to Monitor and Supervise Operations in Fragile and Conflict-Affected Setting](#)

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