



# THE CHALLENGES OF DATA COLLECTION IN CONFLICT-AFFECTED AREAS: A CASE STUDY IN THE LIPTAKO-GOURMA REGION

SHOURJYA DEB AND VIRGINIE BAUDAIS

## I. Introduction

Conflict-affected areas are often high-risk zones for external actors. But it is in these exact areas that humanitarian and development organizations, donors and national authorities are often needed most in order to implement projects, policies and aid programmes that address the impacts of conflict. To support the development of this work and, thus, effectively manage or prevent conflict, policymakers and national authorities require objective and evidence-based information from these areas. As a result, data collection in conflict-affected areas is crucial for mapping, monitoring and analysing security developments as well as planning and assessing projects. That is, reliable data collection is foundational to the success of countless projects, policies and programmes. However, insecure conditions surrounding the data collection can substantially impact its quality and may lead to the ineffective implementation of such projects. Thus, it is imperative that researchers have in place scientific data collection methods that are highly attuned to the multidimensional sensitivities associated with conflict-affected areas.

Conducting research in the Sahel has become more challenging over the past 10 years. The continuing deterioration of the security situation has restricted access to many areas in the region. This, de facto, often limits field research to areas that are considered safe and, therefore, results in findings that are not representative of the entire area. To overcome these challenges, the SIPRI Sahel and West Africa Programme has developed a context-sensitive approach that works with local partners to deploy a highly trained regional network of facilitators to conduct a complex data collection effort that combines both quantitative research (e.g. perception surveys) and qualitative research (e.g. focus groups, semi-structured interviews and participant observation).

As part of its ongoing research in the Sahel, SIPRI has been working on a humanitarian protection project in the tri-border area of Burkina Faso, Mali and Niger known as the Liptako-Gourma region.<sup>1</sup> This project was

<sup>1</sup> This project was funded by the Arts and Humanities Research Council (AHRC)–United Kingdom Research Initiative (AHRC–UKRI) and began in 2020.

## SUMMARY

● Conducting research in the Sahel has become more challenging over the past 10 years, and the continuing deterioration of the security situation has restricted access to many areas. This SIPRI Insights paper provides an overview of the main challenges for researchers when conducting data collection in conflict-affected areas.

The paper employs a case study of a humanitarian protection project that SIPRI has been working on in the Liptako-Gourma region. The project was designed in collaboration with the Danish Refugee Council (DRC) and three local research partners: the Centre for Democratic Governance (CGD) in Burkina Faso, Point Sud in Mali and the Laboratoire d'Études et de Recherche sur les Dynamiques Sociales et le Développement Local (LASDEL) in Niger. Using the case study, the paper identifies and outlines how the project addressed specific challenges. The paper also highlights key considerations for researchers to take into account when carrying out data collection and fieldwork in conflict zones.

Evidence-based research can influence humanitarian and development initiatives and support shifts in policy and programming. The bottom-up research approach gives a voice to communities and alternative perspectives and advances evidence-based solutions that are locally driven, meaningful and sustainable for target populations.



designed in collaboration with the Danish Refugee Council (DRC) and three local research partners in the region: the Centre for Democratic Governance (CGD) in Burkina Faso, Point Sud in Mali and the Laboratoire d'Études et de Recherche sur les Dynamiques Sociales et le Développement Local (LASDEL) in Niger. The project aimed to understand knowledge gaps in the contexts where organizations implement projects and to identify local population's perception about their needs and priorities, as a way of making humanitarian protection programmes more effective, in particular the DRC's cycle of programmes.

The findings were based on desk research, and quantitative and qualitative data collection. Perception surveys were used to collect quantitative data from respondents (1091 in 2020 and 1457 in 2021) spread over two areas in Burkina Faso (Nord and the Sahel regions), one in Mali (Mopti region)

***Perception surveys were used to collect quantitative data from respondents across the Liptako-Gourma region***

and one in Niger (Tillabéri region). The qualitative data collection consisted of 60 focus group discussions and 250 semi-structured interviews, as well as fieldwork observations. A key aspect of the data collection was the network of researchers and facilitators deployed by partners in the three countries: collecting data for the project involved coordinating and collaborating with a team of 10 local researchers and 38 facilitators. Members of the network were trained to collect quantitative data and lead focus group discussions. Their knowledge of the context and of the local languages was vital for the data collection.

Linking directly to SIPRI's work in the Liptako-Gourma region, this paper provides an overview of the main challenges for researchers when conducting data collection in conflict-affected areas. It identifies and outlines how the following specific challenges were addressed: designing a representative sample (section II); collecting data according to the sample (section III); forming an effective data collection team (section IV); and protecting researchers and respondents (section V). Reflections and an overview of the main challenges of the project are also provided, and it concludes with a brief summary (section VI).

## II. The challenge of designing a representative sample

One of the most challenging aspects of conducting research in conflict-affected areas is sampling. Sampling refers to techniques used by researchers to select individual units that together reflect the attributes of the actual population of a geographical location. Therefore, the first step in a research project is to create a sampling framework based on an extensive and accurate understanding of the population residing in the area of interest. For most researchers, this begins by looking at the census data collected by countries. However, countries that have seen extended periods of conflict may not have been able to conduct a census at all, as governments and transitional authorities often do not prioritize such work during years of active conflict. Moreover, the conflict itself gives rise to forced displacement and migration, which may render existing census data redundant.

This challenge arose while creating a sample for the Liptako-Gourma project. Burkina Faso and Mali last conducted a national census in 2009; while in Niger, the last census was in 2012. All three countries have since



experienced significant demographic changes. In 2020, for example, the World Bank estimated an annual population growth rate of 3.8 per cent for Niger, 2.8 per cent for Burkina Faso and 3 per cent for Mali.<sup>2</sup> In light of these estimates, using outdated census data for sampling runs the risk of creating a sample that is not truly representative of the population residing in the region. Moreover, the project faced the additional challenge of how to include refugees and internally displaced persons (IDPs) in the sample. At the end of 2020, the International Organization for Migration (IOM) estimated the number of IDPs and refugees in the Liptako-Gourma region at 1 594 824—a significant figure requiring appropriate representation.<sup>3</sup>

***Data collection depends on a strong methodology and continuous capacity building***

To circumvent this problem, the project used population estimates produced by the United Nations Office for the Coordination of Humanitarian Affairs (OCHA). OCHA estimates population size by region, cercle (or department) and commune. It also disaggregates the data by gender for each administrative unit. To design the sample for the Liptako-Gourma region, OCHA population estimates were used to calculate the total population size of the host community in the areas of interest, which was then used as a reference for the sample of the host community.

Collecting data on the number of refugees and IDPs required a different approach, as this data can be notoriously difficult to find. Three sources which are regularly updated—OCHA estimates, UN High Commissioner for Refugees (UNHCR) reports and IOM reports—were used to ascertain the number of refugees and IDPs in the target areas. The project then used reports from local partners and facilitators to assess the most recent estimates. The sum of the population estimates of IDPs, refugees and the host community was then used to calculate the sample size and design the exact sample breakdown. Using this approach, the sample size for the first survey was estimated to be 1091 respondents. In the second survey, the number of respondents was increased to 1457, as adjustments were made to account for the increasing number of IDPs in the areas of interest.

### III. The challenge of collecting data according to the sample

While designing a representative sample to conduct surveys in conflict-affected areas can be challenging, collecting data from the sample is even more so. Even where precautions have been taken during the design of the sample and when fieldwork is monitored continuously, some issues require that data collection is adapted in real time. Ideally, the assessment process will flag areas where fieldwork might be difficult due to security issues (e.g. discovering geographical areas witnessing a rapid population loss often indicates increasing security concerns in the area). In the case of the Liptako-Gourma project, the questionnaire and sample training phase with the local partners also provided a platform where local researchers and facilitators could provide feedback about potential security issues during the fieldwork.

<sup>2</sup> World Bank, 'Population growth (annual %)—Niger', 21 Apr. 2022; World Bank, 'Population growth (annual %)—Burkina Faso', 21 Apr. 2022; and World Bank, 'Population growth (annual %)—Mali', 21 Apr. 2022.

<sup>3</sup> International Organization for Migration (IOM), 'West and Central Africa—Liptako Gourma Crisis', IOM Monthly Dashboard no. 12, 31 Dec. 2020.



However, sporadic violent incidents can trigger sudden migration or render a pre-selected sample area inaccessible, and there is always the possibility that fieldwork in these areas may be suspended completely. In such cases, the project depended on desk research, previous experience of fieldwork in the area and the local partners to identify an area with similar demographic characteristics.

To ensure that the fieldwork for this project corresponded to the designed sample, facilitators were instructed on how to conduct the survey questionnaire and familiarized with their sampling quotas during the training phase. The same information on sampling quotas was also made available to local partners and coordinators for communication and coordination during the fieldwork. The project also released daily automated monitoring reports about the data collected, which measured the trends in the data collection process. It elaborated on the critical demographic components of the data. These reports helped facilitators to determine whether their sampling quotas were met while also ensuring data quality. These trends were then used to course-correct the data collection if a specific demographic group was over- or under-sampled during the fieldwork.

Clear lines of communication between local partners and facilitators are a valuable source for understanding any possible impediments to data collection from the point of view of security. In such unforeseen circumstances, decisions on the correct course of action rely heavily on inputs from local partners, facilitator reports and in-house experts. For example, in 2021, the security situation in Burkina Faso deteriorated rapidly after the project sample had been designed. The initial sample design spread over two regions, but given the worsening security conditions, the sample was redesigned and restricted to one region. Such modifications, if made, are noted during the data cleaning and analysis stage and are communicated while reporting results.

### ***Data collection must adapt to rapidly-evolving environments***

## **IV. The challenge of forming an effective data collection team**

Among other factors, the quality of the data collection depends on how the collection has been designed and conducted; here, the role of the data collection team is crucial. The team is instrumental in ensuring that the designed sample is collected as planned. However, in conflict-affected areas, the recruitment, composition and maintenance of the data collection team can be particularly challenging. Over the years, SIPRI has worked in the Sahel with local research centres to identify people who can act as ‘facilitators’. These facilitators are recruited from various groups, including local university students and community or civil society organizations. In the Sahelian context, given its diverse communities with multiple spoken languages and dialects, recruiting local facilitators with varying language proficiencies leads to new challenges. In addition, varying education levels, especially in places where languages or dialects are seldom written, affect the time needed to complete training activities. Therefore, these activities need to be well planned. Data collection requires a significant time commitment: it is essential that all team members understand the workload involved when they agree to participate. For projects that last several years, there



needs to be continuity in the team of facilitators. The more the research team works together, the more effective the data collection. Facilitators are trained regularly, which improves the quality of the data they collect, the focus group discussions they lead and subsequently the context analysis.

With the Liptako-Gourma project, the development of the questionnaire was a long process. The questionnaire was designed by SIPRI in collaboration with the DRC and SIPRI's partners in the countries and coded by a researcher/statistician in Stockholm. The questionnaire was then discussed with the facilitators during dedicated workshops organized in the three countries. This phase was one of the most important to ensure the terms used would be understood locally and that the terms took into consideration cultural barriers and were sensitive to the specific context.

The discussions with the facilitators also ensured that all facilitators had the same understanding of the terms (e.g. armed groups, self-defence groups, local protection mechanisms) and that the language used applied to the three contexts.

A test session was then organized on-site with a twofold objective: to give facilitators the opportunity to practise giving the questionnaire; and to make final checks before finalizing the questionnaire and starting the survey.

Facilitator training is essential to ensure high-quality data collection. For SIPRI's research in the Sahel, pre-deployment training was conducted systematically before each round of the survey. In July 2020 and May 2021, the facilitators received training by SIPRI on quantitative research; by the CGD on the KoboToolbox (a data collection platform), by LASDEL on qualitative research methods (focus-group discussion and field work), and by the DRC country offices on humanitarian protection.<sup>4</sup> During data collection, facilitators were supervised by a team of senior researchers.

***The terms used in the questionnaire must be understood locally and be sensitive to the specific context***

As soon as the fieldwork was completed and the results had been analysed by the statistician, validation workshops were organized in the three countries for the facilitators and researchers and moderated by SIPRI to discuss the results and comment on the context.

## V. The challenge of protecting researchers and respondents

In conflict-affected areas, research remains dangerous even when undertaken by local proxies, and precautions are essential.

The security challenges in doing this type of research can be separated into different categories. First, the protection of interviewees is of paramount importance, as the presence of a researcher or facilitator can trigger hostile reactions. Second, the implementation of the survey may be affected by security conditions, obtaining research authorization, the lack of an internet connection or telephone network, the inaccessibility of localities, rainfall, local travel restrictions, relationships with local authorities and community leaders, or military operations.

It is essential to consider the safety and security of the data collection team and respondents first; therefore, the data collection phase should change locality immediately should insecurity arise. Facilitators are primarily

<sup>4</sup> On the KoBoToolbox, see the KoboToolbox website, <https://www.kobotoolbox.org/kobo/>.



selected from the surveyed regions to facilitate local interactions. Thus another risk is that local researchers become overwhelmed by the various demands of their communities, which are in a precarious situation, and find that, as facilitators, they are in a position to intercede with projects or donors for them. Moreover, talking to vulnerable people can challenge the researcher and cause them to use emotions to feed their analysis. On the respondents' side, stable conflict-affected environments can lead to 'response' bias. That is, given that many respondents are routinely exposed to surveys conducted by researchers, and development and humanitarian organizations, their responses can be semi-automatic or be tied to financial prerequisites.

While respondents consent to participate, their participation is nevertheless sensitive and can pose a range of personal risks. In the Liptako-Gourma region, insecurity and the multiplication of armed groups and self-defence militias have led to resentment and mistrust between communities. While conducting research in such a context, it was imperative to avoid causing harm and putting respondents at risk, either through their mere

***While respondents give consent, their participation is nevertheless sensitive and can pose a range of personal risks***

presence or by asking them to respond to sensitive questions about local security (e.g. the role of communities, armed groups and terrorism), their (dis)satisfaction with the state services (e.g. corruption and human rights abuses by the defence and security forces) and so on. The same applied to the researchers' and the facilitators' postures and the risks of being identified as an informant (e.g. by the government or foreign troops). By extension, there was a risk of interviewees being considered informants, putting their life at risk. However, there were mitigation measures; for example, the data was collected anonymously via the KoBoToolbox on tablets or smartphones, and interviews were conducted privately or abandoned at the request of any respondent feeling at risk.

Fieldwork for the project started in early August 2020 in the three countries, and from the outset, researchers faced serious security challenges. In Niger, the project had just started when seven aid workers were killed in Kouré. Several military operations then took place, and the Nigerien collection team was prevented from working in certain areas. This led to some localities being replaced and, as a consequence, the size of the sample was readjusted accordingly to match the new survey locations. In Mali, the coup d'état of August 2020 slowed down data collection considerably. In June 2021, an attack on the village of Solhan in Burkina Faso occurred a week before the deployment of the data collection team. The research team made the choice to abandon the Sahel region and concentrate the survey in the Nord region. The researchers then had to choose new localities, calculate a new sample for Burkina Faso, and revise the deployment plan. In such conditions, constant communication with the research partners and coordination with the DRC home office was crucial: the country offices supported the deployment of the teams, including sharing information related to the security conditions in surveyed areas. To address this, a WhatsApp group dedicated to coordinating the fieldwork was used at the management and field levels. Taking into consideration the risks mentioned above, SIPRI has developed a safeguarding policy as an integral part of the research process that applies to researchers and partners. Notwithstanding the challenges



of working in conflict-affected areas that limited the project's capacity to conduct field research, the field research was finally completed in June 2021.

## VI. Conclusions

The deteriorating security situation in the Liptako-Gourma region in 2022 resulted in more areas being labelled high-risk zones. Yet, these are also the zones where populations are in great need of help from humanitarian organizations, as well as targeted development assistance. This requires a good understanding of the situation. As discussed, data collection can help to provide information to support more effective assistance.

This paper on SIPRI's research in high-risk areas highlights a number of lessons learned. Any data collection should adapt to changing circumstances, such as deteriorating security conditions or changes due to population displacement. In the Liptako-Gourma project, constant coordination between staff at the field level, researchers and facilitators, DRC field security supervisors, SIPRI, and the research centres was essential. This allowed the team to respond to requests, revise travel itineraries and take appropriate action when necessary.

Data collection is furthermore dependent on good methodology that is shared with, adopted and applied by all. Principally, it requires building trust and mutual respect with partner research centres and sharing a research ethic that provides a guide for conducting the project responsibly. Continuous capacity building is another key activity. The training equips teams with a methodology that is replicable across different areas. This allows the Sahel and West Africa Programme to mobilize teams that are already trained and accustomed to working in conflict-affected areas to other places.

In the Liptako-Gourma region, security remains a major problem. Conducting surveys in the region is becoming increasingly difficult. Experience of the region and the longstanding collaboration with research centres have allowed SIPRI and partners to continue working there. However the team now has to consider alternative measures and may even have to abandon some areas altogether should the situation continue to deteriorate.

Giving voices to vulnerable populations is an objective that should not be neglected. Understanding local populations' perceptions and priorities are essential for improving the design and development of intervention programmes, underscoring possible gaps between needs and interventions, and responding better to the needs. Evidence-based research should influence humanitarian and development initiatives and support shifts in policy and programming. This type of bottom-up approach gives a voice to communities and alternative perspectives and advances evidence-based solutions that are locally driven, meaningful and sustainable for target populations.

Despite the aforementioned challenges, it is imperative to continue conducting research in conflict-affected and fragile settings and regions. As this paper points out, one key to success is the collaboration between researchers and practitioners, which can help address some of the challenges of conducting fieldwork in conflict zones and thus lead to fruitful outcomes and better responses to populations' most urgent needs.

**SIPRI** is an independent international institute dedicated to research into conflict, armaments, arms control and disarmament. Established in 1966, SIPRI provides data, analysis and recommendations, based on open sources, to policymakers, researchers, media and the interested public.

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### ABOUT THE AUTHORS

**Dr Shourjya Deb** (India) is a Researcher in SIPRI's Sahel and West Africa Programme.

**Dr Virginie Baudais** (France) is a Senior Researcher and Director of SIPRI's Sahel and West Africa Programme.



**STOCKHOLM INTERNATIONAL  
PEACE RESEARCH INSTITUTE**

Signalistgatan 9

SE-169 72 Solna, Sweden

Telephone: +46 8 655 97 00

Email: sipri@sipri.org

Internet: www.sipri.org