

MODULE IV

Gathering and Analyzing Data



PURPOSE: A wide range of strategic- and operational-level information is required to measure progress of development investments in FCV settings. And while development professionals often bemoan the lack of data, the fact is there is more available than ever before. For one, World Bank and other partner organizations need to invest in data collection, leverage partnerships, and harness new methods and tools that have recently become available. This module sets out a range of sources of macro- and micro-level data to help better track change in complex environments.

Most development professionals working in FCV contexts are acutely aware of data shortages and gaps. Even when national statistics on governance, health, education, employment, security, and justice are available, there are understandable concerns that they are patchy, poor quality, and periodic. Consequently, results frameworks and M&E systems are often highly flawed or partial. This section summarizes some useful sources of data to measure strategic and operational progress. It calls on teams to not only rely on existing administrative or internal data but also to look outside the organization and generate new information where feasible.

What Kind of Data is Needed to Monitor FCV?

A combination of macro-level strategic data and micro-level operational data is often required by teams regardless of whether they are based in FCV countries or not. Strategic data are intended to inform, for example, Systematic Country Diagnostics, Country Partnership Frameworks (CPFs), Country Engagement Notes (CENs), Multi-Donor Trust Fund Strategic Result Frameworks, and Post-Conflict Needs Assessments (PCNA), among other planning tools.²⁵ Operational data is often used to set benchmarks for specific programs and projects. While strategic data can be high-level and aggregated, operational data must be higher resolution and allow for high-quality and, ideally, real-time tracking of the delivery of activities.

Although separated here for analytical purposes, the **linkages between strategic and operational data** are stronger than often acknowledged. In practice, teams do not conjure up data from thin air. Instead, they mobilize data previously generated from discrete projects and programs to inform higher-order strategic documents. More problematically, aggregated metrics (and associated data) are often used to track discrete interventions where more finely grained information may be more appropriate. While conflated in practice, it is useful to maintain distinctions between the two types of data since this can shape practitioner decisions around data source selection and application.

Generally, **strategic-level** data is typically oriented toward assessing higher order goals and targets at the sector, program, or country level. These data focus on medium- and long-term trends across core sectors. There is comparatively less focus on intervening and attribution issues, at least not to the same extent as operational-level data. By contrast, operational-level data tends to focus more on the outputs, outcomes, and impacts of short- and medium-term activities and interventions. The emphasis is on measuring intended outcomes, including, where possible, through feedback from beneficiaries. Both kinds of data are required to monitor and evaluate FCV dimensions.

What Kind of Data is Available to Track Progress on FCV Elements?

Data is available in FCV settings to inform strategic and operational priorities. While not always standardized or of the highest quality, data is sometimes available from official sources such as departments of statistics, line agencies, and public service providers.²⁶ Such data is rarely centralized: there is often a con-

25 As of 2013, more than a dozen PCNAs were administered in Afghanistan, Georgia, Haiti, Iraq, Liberia, Pakistan, Somalia, Sudan, Timor-Leste, Yemen, and Zimbabwe.

26 National statistics systems are typically composed of four key elements: data producers, data users, data respondents, and data analysts.



Box 5. Supporting Statistical Capacity in FCV Settings

The World Bank is developing experience to strengthen statistical capacity in FCV settings. The Trust Fund for Technical Capacity Building, for example, has initiated initiatives in a wide variety of settings, including Afghanistan. There, the World Bank, together with DFID and the EU, has supported the Central Statistics Organization (CSO) to improve the quality and quantity of administrative data. This has included updating the National Statistics Plan and prioritizing surveys. The Bank has supported detailed collection of social, economic, and governance data including conducting internal validity tests on micro-data and triangulation with other sources such as *shuras*, tribal leaders, and farmers. Not surprisingly, data is least reliable in areas characterized by acute insecurity.

Meanwhile, other organizations, such as the Inter-American Development Bank (IADB), have also made inroads into enhancing national capabilities to organize, gather, analyze, and disseminate statistics on a range of security and justice issues in Central and South America. For example, since 2007 the IADB has supported the “standardized regional system of indicators for citizen security and violence prevention” (SES) in 19 countries and cities. The initiative involves building consensus on standardized metrics, hosting seminars and panel discussions to share information platforms and methods. In this way, the SES program has fostered regional agreement on the use of 22 indicators based on administrative registries and surveys.

Most of the SES indicators touch on security and justice. They include, among others, homicide rates per 100,000, traffic lesion deaths per 100,000, firearm death rates per 100,000, rate of sex crime reports per 100,000, rate of domestic violence per 100,000, reported automotive theft per 10,000 registered vehicles, kidnapping rate per 100,000, prevalence of sexual violence, crime victimization rate over 18, perceptions of insecurity of over 18, percentage of the over-18 population who justify the use of violence, and percentage of the over-18 population with confidence in public institutions.

siderable lack of coordination between statistical offices at the national level, and between national headquarters and state or municipal-level agencies that can undermine data quality. Moreover, data standards and criteria may differ between them or change over time. There are still comparatively few instances of data being digitized in FCV contexts; this is discussed at length in Module VI.

The World Bank is working in some settings to support statistical capacity, as well as commissioning new data to fill gaps (see Box 5). For example, a World Bank–led Trust Fund for Technical Capacity Building supports national statistics offices where catalytic effects are possible, including Afghanistan, Democratic Republic of Congo, Ethiopia, Ghana, Lao PDR, Nigeria, Rwanda, and Senegal. The program seeks to empower government partners and develop a shared or

common approach over a three-to-five-year time horizon. Rather than creating parallel structures, the program develops existing or emerging official statistical systems.²⁷ The World Bank has established a new virtual statistics initiative to remedy this, but it is still in development.

It is important to stress that teams can obtain increasingly reliable data, even in FCV environments. Where data is in short supply, it may be necessary to **invest in data generation**. This could include improving the reliability, validity, and comprehensiveness of existing publicly generated data, commissioning new data collection exercises, and supporting national counterparts to generate information, while simultaneously building up their oversight and data management and analysis capacities. At a minimum, it will require triangulating different types of data—including administrative, survey-based, and stakeholder interview-based findings—to ensure results measurement is more robust.

Where possible, World Bank teams can **work in partnership** with national research institutions, nongovernmental organizations, and private firms to generate new information. Several academic institutions have expertise in data collection, including in FCV contexts. Likewise, large companies tend to invest major resources in risk monitoring, including in fragile settings. The World Bank has in some cases worked with strategic partners to generate monitoring and evaluation data. For example, the World Bank has partnered with the Asia Foundation to track data on conflict and violence.

What Is the Difference Between Macro-Level and Micro-Level Data?

It is useful to distinguish between **macro- and micro-level data**. Macro-level data tends to include aggregated and system-level data. Aggregated data include summaries of household property, unemployment statistics, GDP, and GNI per capita figures. System-level data includes information on the properties of a state or political system, including political indicators, regime indices, and others. Meanwhile, micro-level information is individual-based and collected through household surveys, focus groups, and interviews. Such information can include more detailed data on population attributes, perceptions, and levels of access to key services (Box 6).²⁸

In terms of **macro-level data**, many organizations gather aggregate and system-level information. In FCV contexts, entities such as the Fragile State Index reproduce existing metrics on demography, migration, grievances, develop-

27 While not problem-free and requiring extensive coordination and corporate planning capacity on the part of national statistical offices, they are generating some important results.

28 See DFID report on indicators (Barnett et al. 2012).



Box 6. Using Perception Surveys to Track Indicators in FCV Contexts

Perception surveys have long been used in high- and medium-income countries to gauge public mood and to evaluate and communicate the results of reform processes. While some governments are sensitive about the use of such surveys, there is also growing appetite for the application of perception surveys to track key metrics of quality of life, satisfaction, and attitudes in FCV conditions. They can be used to gauge public perception of progress on achieving complex goals.

Perception surveys can be used to track results across a range of FCV-related priority areas. For example, they have been used to track service delivery in Bosnia and Herzegovina, policing in (then) southern Sudan, security in urban Haiti, and governance in Afghanistan. While they offer advantages where there are data limitations, such surveys also have limits. They only fill in part of the picture and need to be supplemented with other approaches to data collection. Triangulation of findings with other data sources is always advisable. Likewise, surveys must be done carefully in settings characterized by instability, lest they give misleading results.

A recent review of perceptions surveys²⁹ detected a number of basic challenges with perception surveys in FCV settings. First, such surveys often face political and security constraints. They may raise sensitive questions and care should be taken that they do no harm in local communities. Second, surveys often are undermined by cultural and linguistic problems, particularly when conducted by outside parties. Third, surveys confront management challenges, including with the use of geo-coding tools. Fourth, surveys may not detect transient influences and sudden changes, much less the gaps between real and perceived risk. Fifth, there are often methodological obstacles, including in relation to sampling.

ment, public service, identity issues, and other variables to establish levels of fragility in specific settings. Likewise, some groups track fragile and failed states by examining governance, economics, security, development, demography, and the environment. The quality of these data can vary in relevance and robustness (Box 7). Several large-scale data collection groups also gather relevant information, some of them featuring extensive country-level coverage over time (see Appendix).

As for **micro-level data**, information that includes population surveys and censuses, there are also many outlets. In collaboration with the International Household Survey Network, for example, the World Bank supports a micro-data

29 Ibid.

Box 7. Using System-Level Data in Planning, Designing, and Monitoring FCV Programs

A large number of datasets have been developed over the past decade to track macro-level trends in FCV settings. These include the Failed State Index, Human Security Index, the Global Peace Index, the Uppsala Conflict Database, and many guides to tracking fragility. These tools generally include data from a combination of sources—including national administrative data on governance, the economy, social institutions, and security. Most of these mechanisms are used in global policy debates and international media. They are rarely used for planning since data may not be considered legitimate by national governments or they may simply lack the granularity necessary for programming purposes.

databank of more than 1,300 household surveys in medium- and low-income settings.³⁰ At present there are comparatively few dedicated surveys covering just FCV-affected countries.³¹ Indeed, there are limited industrial surveys and efforts to build statistical capacity are still work in progress. Good examples of groups seeking to promote more micro-level household survey data in FCV environments include the Micro Level Analysis of Violent Conflict (MICROCON) and Households in Conflict Network (HiCN). The latter features useful partners and is putting data sources online (see Box 8).

Box 8. Assessing Fragility, Conflict, and Violence Using Micro-Level Data

The assessment of fragility, conflict, and violence trends is part art, part science. There is no uniform methodology, with most organizations drawing on a combination of data sources and approaches to analysis. In the 1990s and 2000s, most assessments drew exclusively on macro-level data—drawn from administrative sources—to track change in FCV settings. These data tended to give a rough sketch of national dynamics, but failed to reveal much at the subnational scale. Over the past decade, information collection hubs focused on violence and victimization have grown rapidly, many of them drawing on micro-level data. The best of these use a combination of incident mapping—tracking events through open source material and geo-coding them.

30 Another example is the Demographic and Health Surveys. See, for example, Measure DHS and their 260 health surveys in more than 90 countries at <http://www.measuredhs.com/Data/>. See <http://www.measuredhs.com/Where-We-Work/Country-List.cfm> for a list of countries where surveys are available.

31 For example, the World Bank library includes just 162 surveys. Of these, there are two surveys each for Guinea and West Bank and Gaza and one survey each Iraq, Mali, and Nepal. The database does not have surveys for the other 28 countries and 1 territory on the 2013 fragile situations list.



(cont. box 8)

An excellent example of a platform designed to track violence and victimization is the Armed Conflict Location and Event Dataset (ACLED). The ACLED team collects data on political violence across Africa, in particular, with information on the specific dates and locations of events, the category of incident, the number of fatalities resulting from the event, and the types of groups involved. Each data unit is derived from multiple information sources, including policy and field reports, information generated by humanitarian agencies, and a wide variety of media and research publications. It includes indicators on the movements of armed groups; the extent of violent acts, protests, and riots; as well as on nonviolent events.

Another example of micro-level data tracking network was produced by the Harvard Humanitarian Initiative's Signal Program. The program emerged from wider engagement with crisis mapping and early warning. It draws on leading-edge information management and satellite imagery analysis systems to understand how population groups affected by conflict and disaster experience vulnerability. It gathers and interprets information rapidly, mixing quantitative and qualitative data, geospatial data, and extensive public events records. The HHI places a premium on speed, quickly providing public policymakers with information on violence and victimization.

Meanwhile, numerous national data fusion efforts are also assembling micro-level data, including the National Violence Monitoring System (NVMS) in Indonesia. The system (also known as SNPK) collects information on when, where, how and why violence occurs through digital photographs and local media sources. Raw information is processed by coders who also ensure that photographic evidence is of a high resolution. Metrics include incidents of violent crime, conflict, domestic violence, state abuse, sexual violence, kidnapping, and property violence.

Finally, many other platforms allow users—including the World Bank—to develop their own surveys and geographic imaging capabilities to document a range of themes in FCV settings. Examples include the Kobo Toolbox and Peacebuilding Data tools. This tool is effectively a digital survey that allows information to be collected through mobile devices and even SMS messages. It has been tested in Central African Republic, Liberia, and Uganda. The ELVA platform also digitizes surveys, with community representatives assigned to fill in weekly questionnaires through SMS. It allows for more sophisticated and longitudinal reading of conflict trends and community needs and has been tested in Georgia.

Additional Resources

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- ITAD. 2011. Governance and Conflict Indicators Report. Provides details of DFID governance and conflict indicators as well as provides a useful framework for how to assess the quality of indicators. http://www.dfid.gov.uk/r4d/PDF/Outputs/Mis_SPC/60797_ITAD-Gov-Conflict-Indicator-Rpt-Jan11.pdf.
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