



## **Full Length Research Article**

### **THE CENTRALITY OF BASELINES IN THE CONTROL AND REVIEW OF PROGRAMMES AND PROJECTS IN STATE INSTITUTIONS**

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#### **ABSTRACT**

Many international development agencies and some national governments base future budget planning and policy decisions on a systematic assessment of the projects and programs in which they have already invested. Results are assessed through mid-term reviews (MTRs), implementation completion reports (ICRs), or through more rigorous impact evaluations (IE), all of which require the collection of baseline data before the project or programme begins. The baseline is compared with the MTR, ICR, or the post-test IE measurement to estimate changes in the indicators used to measure performance, outcomes, or impacts (Bamberger, 2010). An indicator is anything that is measurable that can be used to identify a change in trends. The indicator needs to be relevant, that is, it should tell you what you need to know. This objective of this study is to consider the vital roles that baselines play in the control and review of programmes and projects execution in state institutions with particular reference to Ghana. An interpretive study approach was adopted for the design and gathering data for analysis. This approach culminated in the identification, documentation and interpretation of meanings, beliefs, thoughts and general impressions about baselines. The study revealed that the baselines are very important in the measurement of performance, outcomes and impacts of state projects. In Ghana, baselines play a significant role in operations control and reviews in state institutions.

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#### **INTRODUCTION**

A baseline refers to measurements of key conditions (indicators) before a project begins, from which change and progress can be assessed. It is data that measures conditions (appropriate indicators) before project start for later comparison. Baseline data provides a historical point of reference to: 1) inform program planning, such as target setting; and 2) monitor and evaluate change for program implementation and impact assessment (IFRC, 2013). Peersman (2014) defines baseline data as initially collected data which serves as a basis for comparison with data which is acquired at a later stage. For example, data collected before an intervention is implemented for later comparison with data collected after the intervention is implemented. FTF (2014) deems the baseline as the first piece of data that should be collected for a performance indicator. The baseline establishes a specific value or values to serve as comparison point for

future data for performance monitoring. For example, baseline rates of poverty, stunting and underweight should be collected at the beginning of poverty reduction programs and compared with rates of poverty, stunting and underweight at a later point in time to track the progress that the programs have made. The baseline is the current level of performance that the institution aims to improve. The initial step in setting performance targets is to identify the baseline, which in most instances is the level of performance recorded in the year prior to the planning period. So, in the case of annual plans, the baseline will shift each year and the first year's performance will become the following year's baseline. Where a system for managing performance is being set up, initial baseline information is often not available. This should not be an obstacle, one needs to start measuring results in order to establish a baseline (National Treasury, 2007). Performance targets express a specific level of performance that the institution, programme or individual is aiming to achieve within a given time period. It is difficult, if not impossible to establish reasonable performance targets without some idea of the starting point. Using baseline data may actually be more common than one

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may think. For example, you may record your weight prior to a diet to monitor your progress and later determine whether your diet made any difference (FTF, 2014).

### Theoretical framework

Baseline data refer to the initial value against which an indicator is subsequently measured. Baseline data are indispensable if programme indicators are to be meaningful because they put the measures of a programme into their context. It is the instrument to understand the relative importance of an institutional intervention in relation to the existing situation, the needs and national policy instruments. For example, if the aim of a measure is to increase the value of primary products processed in a region, the most appropriate baseline data are the existing value of the primary products processed at the start of the operational programme. Ideally, the baseline is a value or a “benchmark” of the indicator(s) at the beginning of the planning period (FTF, 2014). In addition to establishing a benchmark value, the baseline is important to help capture the underlying historical trend in the performance indicator(s) value over time or, what pattern of change has been evident on the indicator(s) over the past years. Is there a trend: upward or downward, for example, that can be drawn from existing reports, records, or statistics? The importance of having a starting position from which to measure change is one of the most important issues related to M&E. Without a documented baseline, the past or starting point has to be reconstructed, in one way or another, to determine change and impact. Reconstructing the past without a baseline often results in faulty recall of earlier situations and lack of valid and reliable information, as well as an inability to tell our story about the changes that have occurred (FTF, 2014).

Sometimes baseline data is available, other times a baseline study is needed to determine baseline conditions (IFRC, 2013). Baseline study refers to data collection and analysis exercise to determine the baseline conditions (indicators). A baseline study simply put is a study that is done at the beginning of a project to establish the current status of a population before a project is rolled out. The Food and Agricultural Organization defines a baseline study as: “a descriptive cross-sectional survey that mostly provides quantitative information on the current status of a particular situation, on whatever study topic, in a given population. It aims at quantifying the distribution of certain variables in a study population at one point in time (FAO, 2013)”. If resources are invested into a baseline study, it is important to budget and plan for an endline study of the same baseline conditions (indicators) using the same methodology for reliable comparison. There are a variety of different scenarios for and ways to conduct baseline studies. The specific methodology will depend on a variety of project-specific factors, ranging from specific indicators to time and budget. Some baseline data are collected through surveys, others through implementing partner records, among other methods (FTF, 2014). Baseline data are also gathered primarily from official statistics. Sometimes, however, these sources can be problematic. Typical problems include: the non-availability of data at an appropriate geographical level; the non-availability of data that is sufficiently disaggregated by sector; delays in the publication of data; and gaps in official statistics in relation to the requirements of the programme (for

example, the distinction between full-time and part-time workers might not feature in official statistics); In some cases official statistics will need to be supplemented with surveys or, possibly, indirect indicators. Before embarking on a baseline study, it is first important to determine whether one is really required. Also, though most people confuse a baseline study and a pilot study, these two are not synonymous. A pilot study, unlike a baseline study attempts to establish whether it is feasible or worthwhile to undertake a project. In which case, pilot studies are undertaken so as to establish or verify a project idea. A baseline study on the other hand is done after a decision to implement a project has been made. In other words, pilot studies are conducted to identify project ideas, while baseline studies are done to act as a benchmark for measuring project success or failure (FAO, 2013).

Baseline studies should concentrate on *performance indicators* i.e. measuring development results, such as the achievement of the activity’s component-level outcomes and its goal and purpose-level impacts as stated in the logical framework. Indicators must specify the unit of study clearly in order to ensure that the same unit can be applied in baseline and follow-up studies (mid-term and final evaluations) for comparability. The primary unit of study refers to the unit of interest defined in the M&E indicators listed in the project logical framework as measures of whether or not design elements occur as planned e.g. percentage increase in area under new technology or management practice. The unit of measure in this sample indicator is *percentage*, and should be maintained even for subsequent evaluations. However, the data elements for computing this indicator are what will be gathered during the study e.g. total area, area under new technology (ASARECA, 2010). The Baseline Plan should be developed to illustrate what information is needed, and how, where and by whom it can be collected. Who conducts the baseline will depend on the specific project context, but key considerations are reliability and credibility/ownership of the baseline data. Typically the process is managed by the project team, but participatory involvement of local stakeholders can build ownership and motivation for improving the baseline conditions. Sometimes, it may be necessary to use external technical assistance, e.g. such as a consultancy to enumerate a statistical reliable household survey. Another consideration is that those conducting a baseline study are methodologically competent, as well as culturally and linguistically appropriate. Whoever conducts the baseline study, it will be important to identify early in the process who will be leading/managing the overall process (IFRC, 2010). The principles for baseline data collection according to FTF (2014) include: 1) *good planning*: the quality and relevance of baseline work for any institutional initiative will be determined in part by careful, upfront planning that identifies *who* collects *what* data *when*, so that reliable baseline information is collected before or as near as possible to the start of the interventions; 2) *explore a variety of data sources*: baseline information sources include: primary information from surveys, secondary information from documents and records, database information from respected national/international sources, NGO and PVO records, recorded observations, earlier studies; 3) *disaggregate appropriately*: often baseline information is disaggregated by sex, gendered household type, commodity, and other relevant groups essential for tracking progress of activities and

interventions; 4) *quality assurance*: baseline data collection techniques must be monitored to ensure that information is both valid and reliable, that it is easily assessable, that it is correctly stored in appropriate databases, and that it addresses indicators required for tracking progress toward targeted results and expected impact; 5) *host country training opportunities*: baseline information collection provides opportunities for host country capacity strengthening. It is important to include key host country professionals, whenever possible, as part of the planning for data collection, tabulation, summarization, storage, and periodic comparison with indicators; and 6) *feedback and learning*: baseline information collection should be viewed as critical first steps for knowledge management, sharing and learning by carefully documenting how well-planned interventions are meeting identified needs to reduce poverty, hunger and malnutrition.

The objective of performance monitoring baseline data collection is not to start new research, but rather to: establish the starting point for indicators; reveal the nature, magnitude and severity of a situation; ascertain appropriate amounts of intervention that will be required; and determine targets (FTF, 2014). IFRC (2013) affirmed that without baseline data, it can be very difficult to plan, monitor and evaluate future performance. Baseline data help to set achievable and realistic indicator targets for each level of result in a project's design (e.g. logframe), and then determine and adjust progress towards these targets and their respective results. Additional reasons according to IFRC for conducting baseline studies include: 1) *inform project management decision-making*, providing a reference point to determine progress and adjust project implementation to best serve people in need; 2) *assess measurability of the selected indicators* and fine-tune the systems for future measurement; 3) *uphold accountability*, informing impact evaluation to compare and measure what difference the project is making; 4) *promote stakeholder participation*, providing a catalyst for discussion and motivation among community members and project partners on the most appropriate means of action; 5) *shape expectations and communication strategies* by assisting and sharpening communication objectives, as well as focusing content of media materials; 6) *convince and provide justification* to policy-makers and donors for a project intervention; 7) *support resource mobilization for and celebration* of accomplished project results compared to baseline conditions; and if conducted properly, 8) baseline results can be generalized and used to *inform service delivery for communities with similar characteristics*.

Ideally, baseline data should be measured prior or near to program start. Church and Rogers (2006) said this can largely impede measurement of impact and should be avoided as it undermines the very purpose of the baseline study. However this may not be possible for a variety of reasons. For example, access to the target population may not be possible due to natural or man-made circumstance, such a natural disaster or civil conflict. Other reasons may include, "a lack of awareness of the importance of baseline data; a lack of financial resources; or limited technical expertise. Even when management recognizes its importance, administrative procedures (for example, recruiting and training M&E staff, purchasing computers, or commissioning consultants) may create long delays before baseline data can be collected"

(Bamberger, 2010). Bamberger stated when a baseline study is not conducted prior or near to program start, it may be possible to approximate baseline conditions through a variety of methods. Even if a baseline can be conducted just prior to project start, a project may begin to affect baseline conditions prior to the formal project start. Kusek and Rist (2004) cautioned that it is important to recognize that a project may begin to affect baseline conditions prior to the formal project start. For example, once it is known that roads, water supply, or other services are to be provided to certain communities, speculators may begin to buy land and families may start to make improvements to their property. Many of these important changes may not be captured, which can result in a baseline that underestimates the effect of the project.

## DISCUSSION

Baselines are the most often forgotten component within design, monitoring and evaluation, yet they are key to proving that change has truly taken place. A baseline study is not an evaluation, but can be an important part of an evaluation, providing important data to measure change and assess performance (IFRC, 2013). In Ghana, baselines have been central to operations control and reviews in state institutions. Below is some assessment of a few situations. In a study to identify factors associated with elevated risks of pregnancy and sexually transmitted infection among unmarried Ghanaian youth, data was derived from a nationally representative survey of 5,632 youth of 12 to 24 years of age conducted between April and July 1998 to provide baseline information for the design of public-sector adolescent health interventions. A total of 3,739 men and women who reported never having been married (legally or consensually) are included in the analyses (Karim *et al.*, 2003). The study revealed that 41% of female and 36% of male youth reported being sexually experienced. On average, sexually experienced youth had had fewer than two partners; only 4% of these females and 11% of males had had more than one sexual partner in the three months before the survey. The researchers concluded that the findings provide further justification for interventions targeting key contextual factors that influence youth behaviors in addition to providing youth with necessary communication, negotiation and other life skills. Targets are critical to motivate the project team, establish clear expectations, and compare with actual performance to assess and adjust project implementation. A baseline value for an indicator is not a target, but helps to inform realistic target setting (IFRC, 2013). Also, the Navrongo Health Research Center (NHRC) is a field site for a child survival study which attempted developing strategies to accelerate the abandonment of the practice of female genital mutilation (FGM). This project used rigorous scientific analysis to test which strategies work best. A 1999 baseline survey of 3,221 girls collected information about their background, FGM status, attitudes, and beliefs. The girls interviewed were ages 12 to 19 years old, representing those considered most at risk of FGM (Feldman-Jacobs and Ryniak, 2006). This valuable baseline information helped researchers develop a project that is culturally sensitive, sustainable, and specifically tailored to the local context in which FGM occurs. Because the objectives of this project are not only to reduce FGM, but also to measure the impact of the different strategies, Navrongo researchers employed a systematic

approach to documenting project activities and data collection throughout the experiment. Using this methodology NHRC monitored change in the FGM status of individual girls over the duration of the project. These data, along with demographic information gathered during the baseline survey, permitted the use of a statistical method, Cox proportional hazard regression that allowed researchers to gauge the impact of different FGM abandonment strategies. Once the baseline for an indicator is known, explicit targets should then be set for each indicator. Baselines are important for determining the extent to which progress is being made toward the targets and provide information for learning, management, accountability, and benefit-cost analysis (FTF, 2014).

Another situation in which baseline information was central is UNDP's Green Commodities Facility alignment to the Cadbury Cocoa Partnership (CCP) programme and partnership with COCOBOD, government institutions and relevant stakeholders to address environmental interventions in Ghana's cocoa sector. Land tenure in Ghana is a complicated issue as customary tenures rules differ from community to community. Whilst the customary systems of land ownership reflect indigenous norms they are usually plagued with challenges. The baseline assessment on environmental sustainability and policy for cocoa production in Ghana identified land and tree tenure systems as barriers to the formation of sustainable and biodiversity friendly farming systems. It also revealed that issues related to land and tree tenure have unintentionally encouraged the unsustainable expansion of the cocoa sector into forest ecosystems (UNDP, 2015). Tenure issues have also created a disincentive for farmers to retain and plant forest trees within cocoa landscapes. To complicate matters further there are limited institutional mechanisms in place to link conservation outcomes to incentive schemes in a flexible, site-adopted and adaptive manner. The outcome is calls for measures to address policy, strengthening of relevant institutions to support environment best practices and development of necessary monitoring tools for verification purposes. The baseline report indicated that one of the main drivers of deforestation in Ghana was from the establishment of new cocoa farms in forested areas. To ensure this practice is being stopped, environmental reporting can easily show changes against time in new farm establishment in forest areas and the progression of rehabilitated farms. In addition, in 2009 the United Nations Industrial Development Organization (UNIDO) initiated a study on the status of environmentally sound management of wastes and chemicals in Africa. Based on the knowledge available on the continent and the baseline information collected from four countries namely, Ghana, Egypt, Kenya and Zambia, some recommendations were made in regard to the main international commitments for environmentally sound management of waste, as reflected in Agenda 21 and the Johannesburg Plan of Implementation (Mwesigye *et al.*, 2009). The authors recommended among others to the countries involved to prevent, minimize waste and maximize reuse, recycling and use of environmentally sound alternative materials, with the participation of government authorities and all stakeholders. Among others: encouraging production of reusable consumer goods and biodegradable products and developing the infrastructure required. In Ghana these recommendations are carried out by the Metropolitan,

Municipal and District Assemblies (MMDAs) who are responsible for the collection and final disposal of solid waste through their Waste Management Departments (WMDs) and their Environmental Health and Sanitation Departments.

## Conclusion

Ghana is among the countries with the highest rates of violence against children in the world, with close to 90% of children having experienced some form of physical or verbal violence (Education Management Information System (EMIS), 2011). Despite universal, free basic education in Ghana, and a primary net enrolment rate of 84%, more than half a million primary age children are not enrolled (EMIS, 2012/13). A key reason for not attending is lack of funds for school levies, as well as the perceived need for children to work. UNICEF led a transformational programme shift toward a Child Protection systems strengthening approach, with the first step being the development of policies on Child and Family Welfare and Juvenile Justice. Drawing from the baseline research findings, an overarching Communication for Social Change/C4D Strategy and Implementation Plan was under developed, with engagement from a broad range of Government and civil society partners.

The Plan will provide the roadmap for behaviour and social change processes in coming years to address child protection concerns. The Strategy focuses on three settings: homes, schools and institutions. Through thematically planned media messaging, using new and traditional media, UNICEF Ghana succeeded in increasing public attention to equity issues and children's rights. Proactive engagement with local media was effective, with more than 200 media mentions for UNICEF Ghana in 2013. The programme made substantial progress toward strengthening Ghana's Child Protection System, with development of a near final Child and Family Welfare Policy through the multi-sectoral Child Protection Advisory Committee, made up of both Government and civil society organizations. The work of the Child Protection Advisory Committee was informed by the Child Protection baseline research, expected to be finalized, validated and disseminated in the first quarter of 2014. Preliminary findings informed the Policy development process, and validation of qualitative findings was undertaken in all ten regions of Ghana. This process also galvanized support for the overall child protection system reform and the development of the Policy. An Advocacy Plan supporting the development of the Child and Family Welfare Policy was developed and tasks are being implemented by members of the Advisory Committee (UNICEF, 2013).

Baseline data is always critical for performance evaluation, as it is impossible to measure changes without reliable data on the situation before the intervention began. It can therefore be concluded that good quality baseline data that measure the conditions of the target population and the matched comparison group are an essential component of effective monitoring, results-based management, and impact evaluation for state institutions in Ghana. Without this reference information, it is very difficult to control and review how well a project or program has performed and how effectively it has achieved its objectives or results. However, according to

Bamberger (2010), many projects and programs fail to collect all of the required baseline data. While some of the reasons for this can be explained by inadequate funding or technical difficulties in collecting the data (particularly for control groups), Bamberger (2010) said many of the causes could be at least partially corrected by better management and planning. Many reasons relate to administrative delays in releasing funds and recruiting and training staff and contracting consultants. While administrative procedures (such as those relating to personnel and consultants) are often difficult to change, ways could probably be found to reduce some of these delays. Other issues concern the relatively low priority that is often given to M&E (also baselines), particularly when there are so many other urgent priorities during the early stages of a project or program.

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