

# Costing Household Surveys for Monitoring Progress Toward Ending Extreme Poverty and Boosting Shared Prosperity

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## Abstract

On October 15, 2015, World Bank Group President Jim Yong Kim announced the World Bank Group's commitment to support the 78 poorest countries to implement a multi-topic household survey every three years between 2016 and 2030, for monitoring progress toward ending extreme poverty and boosting shared prosperity. This paper estimates the resource requirements to achieve the objectives of implementing 390 surveys across 78 International Development Association countries from 2016 to 2030, and providing direct technical assistance to the national statistical offices on all facets of survey design, implementation, and dissemination toward timely production of

quality household survey data. The approach to the costing exercise is unique, as it makes use of detailed data on actual survey implementation and technical assistance costs from a group of countries, unlike previous attempts at costing household survey data gaps. The required total budget, in accordance with the survey design features recommended by the World Bank Household Survey Strategy, is estimated at US\$945 million for the period of 2016-2030. Of this, US\$692 million is projected to cover the survey implementation costs across 78 countries, and US\$253 million is projected to cover the costs of direct technical assistance to be provided to the national statistical offices.

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Toward Ending Extreme Poverty and Boosting Shared Prosperity**

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## I. Introduction

The 2030 Agenda for Sustainable Development, as articulated through the Sustainable Development Goals (SDGs), has raised important questions regarding the readiness of countries and the broader international development community to monitor progress. Tracking the SDG targets and the associated indicators places even more pressure on national statistical systems than the Millennium Development Goals (MDGs). For example, many SDG indicators rely heavily on household survey data.<sup>2</sup> However, the investments for enhancing country capacity to design, implement, analyze and disseminate household surveys have often lagged behind the demands for more and better data. Monitoring progress and development as part of Agenda 2030 will require a concerted effort on the part of both countries and their international development partners to improve the availability, quality, timeliness and relevance of the data needed to track the SDGs.

The influential United Nations Report titled *A World That Counts* discusses how nothing short of a “data revolution” is one of the preconditions for achieving sustainable development (IEAG, 2014). Several studies have estimated the cost of monitoring the post-2015 development agenda, arriving at divergent figures. Jerven (2014) estimates the *total* cost of monitoring the 17 SDG goals and the associated 169 targets at US \$254 billion. Demombynes and Sandefur (2014), on the other hand, project the *additional* costs of monitoring the SDGs to be a more modest, at US \$300 million per year, given the existing international survey programs. Finally, Global Partnership for Sustainable Development Data (GPSDD) (2016) projects the estimated *total* cost of an expanded program of surveys and censuses, and improvements in administrative data in 77 IDA-eligible countries over the period of 2016-2030 to amount to USD 17.0 to 17.7 billion.<sup>3</sup> Within this agenda, the report asserts the need for six additional surveys, at the scale of a Demographic and Health Survey or a Multiple Indicator Cluster Survey, per IDA-eligible country from 2016 to 2030 in support of SDG monitoring. Each survey is priced at USD 1.3 million, and the total budget is estimated at USD 600 million for 77 IDA-eligible countries.<sup>4</sup> While these estimates have led to public debate on the role and cost of data for development, there is widespread recognition that the countries and the international development partners, including international organizations, civil society, and academia, must be committed to an agenda to strengthen country statistical capacity and to produce the required data based on international best practices, including emerging, validated, innovative and cost-effective data collection solutions.

Linked closely to the 2030 Agenda for Sustainable Development, in 2013, the World Bank Group (WBG) adopted the *Twin Goals* of ending global extreme poverty by 2030 and promoting shared

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<sup>2</sup> United Nations Economic and Social Council (2016) provides the final list of SDG indicators in the Annex IV of their report.

<sup>3</sup> The GPSDD (2016) estimate is an update of the original United Nations Sustainable Development Solutions Network (2015) estimate of USD 14.2 billion.

<sup>4</sup> It is not clear whether the cost of USD 600 million captures both survey implementation and technical assistance expenditures.

prosperity (defined as a sustainable increase in the income and well-being of the bottom 40 percent of the population) in every country. Household surveys are key to monitoring the progress towards the Twin Goals, and obtaining socioeconomic, behavioral, multi-sectoral information to deepen the understanding of income poverty and inequality (Deaton, 1997, 2016). As aptly put by Deaton (2016:1222), “[t]he documentation of how people live, how much they spend, and on what, has long been used as a political tool, to make visible the living conditions of the poor to those in power, to shock, and to agitate for reform... Today’s household surveys typically collect information on household incomes and/or (often detailed) expenditures, as well as demographic, geographical, and other characteristics of household members. Their official purpose is often to collect weights for consumer price indexes, but they are also used to calculate national and global estimates of poverty and inequality.” International poverty estimates computed by the World Bank rely on household surveys from more than 130 developing countries (World Bank, 2016). Frequent, inter-temporally comparable household surveys are critical for measuring and monitoring shared prosperity (Narayan, et al. 2013; World Bank, 2015a; Atamanov et al. 2016).

Improvements over the past two decades notwithstanding, challenges in household survey data availability for monitoring poverty and shared prosperity remain substantial. During the 10 year period between 2002 and 2011, Serajuddin et al. (2015) document that 57 countries have zero or only one poverty estimate. This implies that in over a third of the world’s developing or middle income countries, there is no meaningful way of monitoring poverty or shared prosperity for that period. Out of 35 countries that have two poverty estimates over the ten-year period, the poverty estimates were more than five years apart for 20 countries, resulting in poverty monitoring efforts being dated. Thus, among the 155 countries for which the World Bank monitors poverty data, a total of 77 countries faced challenges in producing timely or any poverty estimates during the period of 2002-2011. Serajuddin et al. (2015) refer to such lack of poverty data as “data deprivation.”

On October 15, 2015, WBG President Jim Yong Kim announced the WBG’s commitment to address this form of data deprivation by supporting the 78 poorest countries<sup>5</sup> to collect the household survey data needed to estimate poverty and shared prosperity every three years between 2016 and 2030:

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<sup>5</sup> The 78 poorest countries are those with IDA or Blend (i.e. IDA/IBRD) lending status that are eligible for World Bank grants and concessional financing, inclusive of India. The list is available at: <http://ida.worldbank.org/about/borrowing-countries>. Although India graduated from IDA in Fiscal Year (FY) 2014, the country will receive transitional support on an exceptional basis through the IDA17 period (FY2015 through FY2017). While the number of countries identified as data deprived by Serajuddin et al. (2015) is coincidentally close to the number of countries in which the World Bank committed to support data production, their compositions are somewhat different. The former identifies countries without sufficient number of data points to effectively monitor poverty, regardless of income status, and it includes some upper middle income countries. See Section 2 for more details.

“We will not be able to reach our goal unless we have data to show whether or not people are actually lifting themselves out of poverty [...] Collecting good data is one of the most powerful tools to end extreme poverty. We pledge, working alongside our partners in countries and international organizations, to do something that makes common sense and is long overdue: to conduct surveys in all countries that will assess whether people’s lives are improving.”<sup>6</sup>

Alleviating data deprivation and collecting household survey data for the robust measurement of living standards every three years in each of the 78 IDA countries imply that a total of 390 surveys will need to be carried out over the period of 2016-2030. To achieve this, the WBG would need to commit to working with the national statistical offices (NSOs) on existing household survey operations that are already integrated into the national statistical systems (NSSs). The NSOs would be supported in line with the recommendations of the “World Bank Shared Strategy for Household Surveys: Tracking the Twin Goals and Informing Investment and Policy Decisions” (henceforth referred to as the World Bank Household Survey Strategy).

Achieving this ambitious objective will require a significant infusion of financial and human capital into the household survey agenda. The objective of this paper is to estimate the resource requirements to implement 390 household surveys across 78 IDA countries from 2016 to 2030 for monitoring and understanding the progress towards the Twin Goals and the SDGs, and to provide direct technical assistance to national statistical offices (NSOs) on all facets of survey design, implementation, and dissemination towards timely production of quality household survey data. Our approach to costing household survey data production is unique, as it makes use of detailed data on actual survey implementation and technical assistance costs from a group of countries around the world, unlike previous attempts at costing household survey data gaps.<sup>7</sup> The budget envelope for achieving the objective laid out by WBG President Jim Yong Kim across the 2016-2030 period is estimated at USD 945 million, of which USD 692 million is projected to cover the costs of household survey implementation across 78 countries, and USD 253 million is projected to cover the costs of direct technical assistance to be provided to the NSOs.<sup>8</sup> These estimates imply

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<sup>6</sup> The press release is available at: <http://www.worldbank.org/en/news/press-release/2015/10/15/world-bank-new-end-poverty-tool-surveys-in-poorest-countries>.

<sup>7</sup> This paper is also different in scope from existing studies such as Jerven (2014) and Demombynes and Sandefur (2014) in that it focuses on the resource requirements for implementing multi-topic household surveys (that collect information to construct a comprehensive welfare aggregate for monitoring poverty and shared prosperity), and does not focus on other data sources.

<sup>8</sup> Previously, United Nations Sustainable Development Solutions Network (UNSDSN) (2015) have provided resource needs for several lines of survey data production, including multi-topic household surveys. The differences in resource need estimates between UNSDSN (2015) and our study can be traced back to assumptions regarding sample size per survey, the scope of technical assistance, local survey implementation cost parameters, and increases in implementation unit costs. In communication with Geoffrey Greenwell of Paris21, based on the work of UNSDSN (2015) and following minor adjustments to their estimates to take into account local overhead costs, our total cost estimate of 945 million for 390 surveys compares well with their estimate of 1,006 million for the same target. The following may be traced as the main sources for the remaining discrepancy. The authors assume a sample size of 5,000 per survey while we assume 7,000. While, the total technical assistance estimate is 36 percent higher in our study

an annual allocation of 46.1 million for survey implementation and 16.9 million for technical assistance.

The paper is organized as follows. Section II discusses data gaps that need to be filled for effective monitoring of poverty and shared prosperity. Section III details the nature of the surveys to be implemented for filling the data gaps as well as the assumptions that underlie our costing exercise. Section IV provides the estimates of costs based on several scenarios and Section V concludes.

## **II. Defining data gaps: Why focus on surveys in IDA countries, every three years?**

The starting point for monitoring progress in poverty reduction and enhancing shared prosperity is to have household consumption survey data that are not only available at reasonably frequent intervals, but that are also comparable over time. Alongside household consumption survey data, complementary data are needed for tracking poverty, especially when comparing poverty across countries in a given year (World Bank, 2015a). This includes data from population censuses, cost of living adjustments across countries or Purchasing Power Parities (PPPs), inflation, and economic growth. However, the main bottleneck for monitoring poverty and shared prosperity is typically lack of household surveys (Serajuddin et al., 2015).

To assess a country's ability to monitor poverty and shared prosperity, the frequency of poverty data matters; however, setting a standard on the ideal interval is not straightforward. Though valuable for decision making, surveys typically impose significant demands on financial and human resources. The General Data Dissemination System (GDDS), developed as an attempt to improve the quality of statistics, recommends that poverty statistics be updated in at least 3 to 5 year intervals.<sup>9</sup> This can serve as a useful benchmark of household survey periodicity. For the 2002-2011 time period, Serajuddin et al. (2015) note that 63 of 155 countries had three or more data points during those ten years, and another 15 countries met the GDDS minimum requirement for data needs with two data points with 5 year intervals (Figure 1). Over time, the number of countries with three or more data points in 10 years clearly increased, while countries with no data points declined (e.g., from 50 in 1990-1999 to 29 in 2002-2011). Nonetheless, challenges remain, in that approximately half of the countries (77 of 155) do not meet the GDDS minimum requirement, and in 57 countries, it is not possible to monitor poverty or shared prosperity at all.

Additionally, two data points with 5 year intervals may not be sufficient for poverty monitoring purposes, as poverty can be volatile. For instance, according to PovcalNet (as of October 2014), the poverty headcount rate declined in India by 10 percentage points in rural areas and by 7

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likely due to the provisions for a resident advisor, our total survey implementation cost estimate is also 23 percent lower.

<sup>9</sup> The Enhanced General Data Dissemination System is available at <http://dsbb.imf.org/pages/GDDS/TableB.aspx>.

percentage points in urban areas between 2009/10 and 2011/12. Conversely, in the middle of Argentina's debt crisis, the poverty headcount rate rose by nearly 10 percentage points in urban areas within a single year. Therefore, in line with the GDDS upper bound for survey periodicity, the World Bank Household Survey Strategy recommends that data on poverty and inequality be produced every 3 years at a minimum. Given the requirement of reporting poverty and shared prosperity statistics on an annual basis as part of global monitoring, increasing the frequency and availability of household survey data in IDA countries becomes even more critical to improving the reliability and precision of SDG monitoring by reducing reliance on projections.<sup>10</sup>

Furthermore, the IDA status of a given country is important to understanding the underpinnings of the WBG's commitment to alleviate data deprivation over the period of 2016-2030. Sixty-eight percent of the countries that are classified as data deprived by Serajuddin et al. (2015) have a lending status of either IDA (40 countries) or Blend (i.e. 12 IDA/IBRD countries). If a minimum of 3 poverty data points in a 10 year window is considered a necessary condition for avoiding data deprivation, we observe 82 percent of IDA-funding eligible countries to be data deprived. The remaining countries with IDA or Blend lending status could easily fall into deprivation if any funding problems were to arise. India, a special case which graduated from Blend to IBRD lending status in FY14 but which can also borrow under IDA terms through FY17, would also be classified as data deprived under the broadened definition of the concept.<sup>11</sup> Since prior funding is no guarantee of future funding, all 77 countries with either IDA (59 countries) or Blend (18 countries) lending status as well as India constitute the focus of the WBG's commitment to alleviate data deprivation over the period of 2016-2030.<sup>12</sup>

### **III. Approach to survey implementation and technical assistance cost projections**

#### **a. Survey implementation unit cost compilation**

The first step in our cost projections was to compile a comprehensive, cross-country database of actual survey implementation unit costs (i.e. costs per sampled household). In compiling this database, we focused on surveys that 1) have a multi-topic focus while collecting information towards the construction of a comprehensive, often consumption-based, welfare aggregate and 2) are implemented by NSOs and integrated into NSSs. This decision was informed by the World Bank Shared Strategy for Household Surveys and its specific recommendations that Bank-

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<sup>10</sup> Since household consumption surveys for countries do not always coincide with the reference year for which global poverty is estimated, the World Bank fills data gaps based on projections, which are far less reliable than poverty and inequality statistics directly estimated from household survey data.

<sup>11</sup> The broadened definition would necessitate multi-topic survey data production every 3 years.

<sup>12</sup> Regarding the non-IDA countries that are considered data deprived under the broadened definition of the concept, we assume that their data deprivation is not a result of a lack of funding but is instead due to other prohibitive factors such as a lack of prioritization of data collection, and limitations to data access.

supported household surveys should 1) allow for the creation of a comprehensive welfare aggregate to track poverty and shared prosperity, and 2) be multi-topic, building on the World Bank's intellectual leadership in setting standards in multi-topic household survey design and implementation through the Living Standards Measurement Study (LSMS) program.<sup>13</sup> These surveys are non-uniform across countries in terms of questionnaire design, sampling design, fieldwork organization, and approaches to data entry and processing. Understanding the local context, the institutional capacity for survey design, implementation and analysis, and the incentive structures for headquarters- and field-based survey staff are therefore crucial for formulating survey implementation budgets and understanding cross-country variation.

The first input into our database implementation unit cost estimates is a database of implementation unit costs that was compiled by the LSMS team on the basis of the detailed survey implementation budgets tied to selected surveys that are supported by the Living Standards Measurement Study – Integrated Surveys on Agriculture (LSMS-ISA) initiative in sub-Saharan Africa.<sup>14</sup> The detailed survey implementation budgets are sourced from 6 countries and are associated with the Ethiopia Socioeconomic Survey (ESS) 2011/12, Malawi Third Integrated Household Survey (IHS3) 2010/11, Niger Enquete Nationale sur les Conditions de Vie des Menages et l'Agriculture 2011, Nigeria General Household Survey (GHS) – Panel 2010/11, Tanzania National Panel Survey 2008/09, and Uganda National Panel Survey 2009/10.

Although these surveys are not used to estimate official poverty statistics, with the exception of Malawi IHS3 2010/11, they match the multi-topic household survey design criterion recommended by the World Bank Household Survey Strategy, and are integrated into the respective country NSSs. The specific LSMS-ISA supported survey waves that inform our analysis are the baseline for the respective panel survey programs; thus, their unit costs are applicable in the context of the cross-sectional household surveys that will be supported by the World Bank over

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<sup>13</sup> As recommended by the World Bank Household Survey Strategy, the questionnaire should cover relevant Classification of Individual Consumption According to Purpose (COICOP) categories with sufficient specificity and should elicit information on quantities of food items that are consumed (in addition to expenditures). In doing so, the surveys will continue to fulfill their traditional roles of providing vital inputs into constructing national accounts and the consumer price indexes. Beyond the collection of consumption/income data, the multi-topic questionnaire should also cover an integrated range of topics including demographics; education; health; housing; wage, non-farm self-, and on-farm self-employment activities and income; non-labor income; asset ownership; food security; shocks and coping strategies; social protection; and child anthropometry (World Bank 2015b). For instance, in line with the data priorities articulated in the World Bank Gender Strategy, the recommendation is to gradually expand the scope of individual-level data collection and to collect data not only on education, health and employment, but also on ownership of and rights to physical and financial assets (World Bank 2015d). To the extent possible, the core modules for the collection of key indicators for the SDGs are recommended to be harmonized across countries, taking into account countries' different starting points and capacity.

<sup>14</sup> The LSMS-ISA is a household survey program that was established with a grant from the Bill and Melinda Gates Foundation to provide financial and technical support to governments in sub-Saharan Africa in the design and implementation of multi-topic, national, panel household surveys with a strong focus on agriculture. The program is implemented by the Living Standards Measurement Study (LSMS) housed in the Survey Unit of the World Bank Development Data Group ([www.worldbank.org/lms](http://www.worldbank.org/lms)).

the period of 2016-2030. The granular cost breakdowns of the LSMS-ISA database suggest that there is considerable variation in terms of aggregate costs for specific budget categories, inclusion/exclusion of line items in a given category, and unit costs for comparable line items. The factors underlying the cross-country variations include:

- 1) whether a given cost category/line item is absorbed through technical assistance outside the implementation budget (such as data analysis and dissemination, training and capacity building activities, and specialized equipment procurement outside the country),
- 2) survey duration, sample size and spatial distribution,
- 3) interview length and approach to respondent selection,
- 4) survey mode (computer-assisted personal interviewing (CAPI) versus pen-and-paper interviewing (PAPI) with field-based data entry and processing versus PAPI with centralized data entry and processing),
- 5) required field staff and their organization (mobile teams versus resident enumerators, need for specialized staff),
- 6) in-country salary and per diem structure for field-based and supervisory staff, and
- 7) costs for vehicle purchase versus rental, maintenance and repairs.

The second step in our analysis was to expand the country coverage and the regional representation of the survey implementation unit cost estimates, including as much as possible surveys that are used for estimating official poverty and inequality statistics. While the advantage of this database is that it includes actual implementation costs of household surveys that have been used for estimating official poverty statistics, its disadvantage is that the design and quality of surveys differ quite significantly across countries. To conduct a comparative review of the survey implementation budgets tied to the LSMS-ISA activities, we first created templates for aggregate and detailed implementation cost reporting for multi-topic household surveys to ensure to the extent possible cross-country consistency in accounting, both within and across budget categories. The templates, which are provided in the Appendix Tables A1 and A2, were in turn circulated among World Bank staff to facilitate their intelligence gathering from their NSO counterparts. The information that was received from the regional poverty economists was based on Appendix Table A1, with Table A2 serving as a reference point for the types of expenditures that could be included under the aggregate implementation cost categories in Table A1.

The final database of country-specific implementation costs per household (in USD 2014 prices) is presented in Table 1, based on the inputs received as of June 2016, spanning 18 countries from all six regions. Of the 18 countries, three are from South Asia, six from sub-Saharan Africa, two from Middle East and North Africa, five from Latin America and the Caribbean and one country each from Europe and Central Asia, and East Asia and Pacific. While nine out of 18 countries are

low income, there are five lower middle and four upper middle income countries in the mix as well. Finally, four countries are classified as fragile and conflict-affected situations.<sup>15</sup>

There is significant cross-country variation in unit costs. While the average unit cost is about USD 170, the unit costs range from USD 36 to nearly USD 360. Some of the cost patterns are instructive: for example, surveys in sub-Saharan Africa tend to be more expensive, while in three of the four fragile countries unit costs are lower than the average. Since we do not have actual survey implementation costs per household for all 78 countries of interest, to estimate the total costs of implementing 390 surveys over the period of 2016-2030, we would need to compute average costs from our sample of 18 surveys. The divergent costs across surveys suggest that the method for calculating the average (by region, income group or fragility) will have a stated impact on the total cost estimates. Furthermore, the large disparity in unit costs suggests the importance of gathering detailed information from more countries. Currently, there is no representation from small island countries, and Europe and Central Asia and East Asia and Pacific are represented by only one country. If we restrict our focus to the estimation of survey implementation costs for IDA and IDA/IBRD blend countries, this is less problematic. However, once we expand this costing exercise to all countries facing data gaps, the lack of data on unit costs from small island countries could cause a potential bias in our estimates.

#### **b. Sample size formulation for implementation cost projections**

The sample size of household surveys is another important determinant of survey implementation costs. According to our database, the sample size of the household surveys varies largely from slightly under 3,000 (Uganda 2009/10) to around 27,000 (Peru 2014). The average survey size is about 11,000 households and the median is 9,000. While the required sample size can differ significantly across countries, for the current exercise, we use a normative sample of 7,000 households. The sample size of 7,000 households within a two-stage cluster sampling framework is envisioned to yield poverty and inequality statistics at national- and five to ten sub-national- (regional) levels. The sample size is multiplied by the unit cost associated for each of the 78 countries and the number of surveys to be conducted by each country over the 15-year period (i.e. 5 surveys) while defining the total implementation budget envelope. Since the reliability of the estimates depends on the variability of consumption or income data in each country, the robustness of the survey implementation cost estimates is also assessed under alternative sample sizes of 5,000, 9,000 and 11,000.<sup>16</sup>

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<sup>15</sup> The list of “fragile situations” is available at: <http://siteresources.worldbank.org/EXTLICUS/Resources/511777-1269623894864/FY15FragileSituationList.pdf>. We refer to fragile and conflict-affected situations as “fragile states” or “fragile countries.”

<sup>16</sup> The World Bank Household Survey Strategy notes that larger countries would consider larger sample size to produce statistics at the sub-state level. For small area statistics, the use of model-based estimates could be promoted as an alternative to increased sample sizes.

### c. Technical assistance cost estimation<sup>17</sup>

The key bottleneck of survey implementation in data-scarce environments is not solely lack of funding but also lack of technical capacity. Indeed, while many countries receive technical assistance from international development partners in conducting household surveys, detailed data on technical assistance expenditures are seldom available. Table 2 provides a breakdown of technical assistance expenditures across major expenditure categories (i.e. staff time, consultant expenditures, and travel and miscellaneous costs) for selected countries and their baseline (national multi-topic household surveys that were supported by the LSMS-ISA program and that are among the surveys in Table 1).

The figures are based on disaggregated expenditure records obtained from the LSMS-ISA trust fund in support of the types of technical assistance activities detailed here. For each survey, the activities spanned a 24-month period, cutting across two to three fiscal years depending on the survey period of implementation. The cross-country average for technical assistance cost per survey is USD 613,956, based on expenditures of USD 525,904 for Ethiopia ESS 2011/12, Malawi IHS3 2010/11 and Nigeria GHS-Panel 2010/11.

For defining the budget envelope for technical assistance over the period of 2016-2030, our analysis assumes an average cost of USD 540,000 (in 2014 prices) per survey to provide direct technical assistance for survey design and implementation and for the dissemination of the resulting unit-record data in an anonymized fashion (preferably within 6 months of completion of fieldwork). This is closer to the lower bound in Table 2 and is anchored primarily in the LSMS experience with providing hands-on technical assistance in 8 data-deprived settings in Africa as part of the LSMS-ISA initiative since 2008.

Assuming 12 months of fieldwork, the budget would be allocated across a 24-month period that includes a 6-month design phase, a 12-month implementation phase and a 6-month data processing, editing, analysis and dissemination phase. Table 3 provides a template for a budget of approximately USD 540,000 to finance technical assistance activities for a multi-topic household survey with field-based data entry and a resident advisor stationed in the country. The budget covers staff time, consultant expenditures, and travel and miscellaneous costs spread across a 24-month period and the three distinct phases of implementation as described above.

As suggested by the World Bank Household Survey Strategy, in low-capacity, data deprived settings, the chief part of the technical assistance budget of the budget would be allocated towards

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<sup>17</sup> This section details the types of activities that could be financed as part of the technical assistance provided to the NSOs in data-deprived in support of the design, implementation and analysis of the household surveys of interest. The choice of the elements of the technical assistance package is anchored in the recommendations of the World Bank Household Survey Strategy. The financing arrangement for the technical assistance provision is one factor that would mediate the way in which these services are provided to the countries.

the recruitment of a Resident Advisor to be stationed in-country for an extended period of time who will support survey preparation, implementation and processing. Despite being an arrangement that is envisioned to be rolled out gradually over the period of 2016-2030, we consider this form of intensive engagement to be necessary to ensure that the surveys are implemented in the expected timeframe, as well as to provide long-term capacity building which would ultimately allow the countries to assume more of the technical responsibilities over time.

The Resident Advisor would work closely with the NSO survey management team to 1) aid in questionnaire design, survey documentation and field staff manuals, 2) provide field staff training, 3) conduct supplementary fieldwork supervision, 4) support data entry, processing and quality control operations, 5) carry out capacity building exercises for the NSO survey management team, and 6) represent the World Bank in in-country meetings as necessary. The primary deliverable tied to the Resident Advisor's work program would be the cleaned, anonymized unit-record household survey data, ready for public dissemination and with the accompanying survey basic information document, finalized questionnaires, and field staff manuals.

Complementing the Resident Advisor, World Bank staff members (whether placed in the country, region or Washington, D.C.) are envisioned to work on the survey work program on a part-time basis, fulfilling a supervisory role and providing remote support as well as hands-on technical assistance through extended missions on all facets of survey preparation and implementation, including donor coordination, survey design, questionnaire design, fieldwork organization, piloting, household listing, field staff training, establishment of a data quality control system, fieldwork supervision, and data analysis. Following the completion of the fieldwork, this staff member would also provide analytical support to the NSO team working on the survey report and be responsible for quality assurance over the product.

Two specific aspects of a work program that typically need support in a data-deprived setting are sampling design and development of a data entry and processing platform. On sampling, an experienced sampler can be hired in-country, internationally, or from within the World Bank. On the architecture, development, testing and maintenance/troubleshooting of a data entry and processing platform, similar experts would be needed. Depending on the data entry platform for a CAPI or a PAPI operation, Bank staff (especially if using the World Bank's *Survey Solutions* CAPI platform) or outside consultant costs may need to be covered.

Furthermore, the technical assistance budget would finance extended missions before, during and following the fieldwork in each round of data collection to work closely with the NSO and field teams and ensure 1) timely commencement of field activities, 2) systematic training and supervision of field staff, 3) appropriate implementation of data entry, processing and quality control protocols, and 4) adequate support towards a NSO analytical work program based on the incoming data for facilitating faster dissemination of the survey report. A portion of the technical

assistance budget could also be utilized for selected NSO staff to attend training workshops and other international conferences/workshops relevant for the country-specific household survey work program.

It is clear that the budgeted and accrued technical assistance expenditures may vary across countries depending on 1) budget constraints, 2) overall survey design and complexity; 3) NSO capacity for questionnaire and sampling design, prevailing approach to fieldwork management and data quality control, capacity for data curation and analysis, and track record for data dissemination; and 4) donor aspirations for long-term capacity building. The variation may depend also on the fieldwork duration, which is assumed to be 12 months in Table 3, as well as whether the resident advisor will be specific to a given country or could be assigned regionally in circumstances when economies of scale could be achieved by implementing a regional household survey initiative. The latter, for instance, is likely a more sensible approach to technical assistance provision in the context of small island countries.

#### **d. Projected growth in survey implementation and technical assistance costs**

Will the costs of survey implementation and technical assistance increase in *real* terms over the course of the 15-year period (2016-2030)?<sup>18</sup> This is an empirical question for which there is little data that can offer an answer.<sup>19</sup> On the one hand, improvements in data capture, processing, and dissemination can increase the cost-effectiveness of data production. Also, technological improvements and improving training for enumerators might soften scarcity of qualified enumerators, especially in Africa where the survey implementation cost per household is significantly higher than in other regions. If technological improvements and improving training enable average labor to conduct data collection, the survey implementation cost in Africa should decline. On the other hand, survey costs could increase in real terms due to (i) increased complexity of questionnaire instruments and fieldwork protocols to meet demands for more and higher quality data collected at the individual-level on priority topics<sup>20</sup> and at the parcel- and crop-levels for minimum core agricultural data per the questionnaire design recommended in World Bank (2015b); (ii) local currencies appreciating against the US dollar (increasing the costs expressed in US dollars); and/or (iii) labor costs (e.g., costs of hiring enumerators, supervisors and trainers)

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<sup>18</sup> We assume away inflation as all cost estimates are presented in 2014 prices in US dollars.

<sup>19</sup> Of the 18 countries for which survey implementation cost is available, only one country has cost estimates from more than one survey.

<sup>20</sup> Take, for instance, the demand for reducing the use of proxy respondents to collect in individual-level data on new priority areas that are highlighted by World Bank (2015d) and that include employment, entrepreneurship and asset ownership. Kilic and Moylan (2016) demonstrate that following the recommended practice of conducting private interviews with the adults of the same household for collecting information on personal ownership of and rights to physical and financial assets implies an increase of 31 percent in per household interview cost compared to the status quo that allows for the use of proxy respondents.

increasing over time as more sophisticated survey instruments may require hiring a better educated labor force.

This study assumes a constant annual increase of 2.5 percent in costs of survey implementation and technical assistance. It is worth noting that even if the annual growth rate of costs is constant, total survey costs may differ depending on the timing of survey implementation. For example, the total cost of implementing five surveys within a country is much smaller if all surveys are conducted in the first five years of the 15-year period between 2016 and 2030 than in the last five years. Even if the five surveys were to be conducted every three years, costs would vary depending on when the first survey starts.

In our analysis, we assume that all the 78 countries carry out surveys every three years, with the implementation of the first surveys uniformly distributed between 2016 and 2018. Under this assumption, 28 household surveys will be implemented every year. This assumption appears to be strong; however, the global World Development Indicators database of poverty estimates shows that the total number of household surveys conducted each year remained more or less the same in the last 10 years. Under these assumptions, the total survey cost over the 15-year period is estimated to be 20 percent higher than the total cost if there is no increase in costs of the survey implementation and technical assistance.

To appreciate the impact of the assumption of 2.5 percent annual growth in costs, we further estimate the increases in the total survey costs by assuming different growth rates such as 2 and 3 percent. The analysis suggests that a 1 percentage point increase in the growth rate increases the total cost estimate by approximately USD 70 million, which accounts for about 7.5 percent of the total costs if there is no growth in the survey cost.

#### **IV. Total survey implementation and technical assistance costs**

Building on our discussion in the previous section, a baseline total survey implementation cost estimate is calculated assuming that 1) each country implements a multi-topic household survey every three years, allowing for the estimation of official poverty and inequality statistics; 2) a sample of 7,000 households is interviewed per survey; 3) each country's estimated survey implementation cost per household is identical to the regional average derived for that country from our database of survey implementation costs; and 4) the survey implementation costs per household grow at an annual rate of 2.5 percent. We will refer to these as our *preferred implementation cost assumptions*. Under these assumptions, an estimated **USD 692 million** in 2014 prices would be needed for conducting multi-topic household surveys every three years in the 78 countries of interest over the 15-year period between 2016 and 2030.

Table 4 provides a summary of the funding needs under these assumptions by regions and lending categories. Sub-Saharan Africa and IDA countries explain the vast majority of the total estimated cost, 76 percent and 82 percent, respectively, which supports the World Bank's commitment to supporting data production in the poorest countries. The total cost of technical assistance provision in all countries in support of a total of 390 surveys across the 15-year period of interest will be approximately **USD 253 million**, assuming a uniform technical assistance provision cost of USD 540,000 per survey that grows at the same rate as the survey implementation cost. **The total survey implementation and technical assistance costs amount to USD 945 million**, of which survey operation costs explain 73 percent.

A main challenge of this estimation exercise is that for most of the 78 countries, actual unit cost estimates are not available and costs need to be imputed from our cost database of 18 countries. There are at least three approaches that could be used for the imputation of the unit costs. For our baseline estimates of USD 690 million for the cost of survey operations, we assumed that the unit cost of a country is the same as the regional average unit cost. A clear concern here is that East Asia and Pacific and Europe and Central Asia each have one actual unit cost estimate. Average unit costs can be calculated by country income classification as well. Finally, the average of all 18 countries could be chosen as the unit cost for all of the 78 countries.

Table 5 includes total survey implementation and technical assistance cost estimates based on 1) whether the region-specific, the income class-specific, and the global average unit cost is assigned to each of the 78 countries of interest; and 2) different assumptions on sample size (5,000; 7,000; 9,000; 11,000) and annual growth rate of unit costs (0 percent; 2 percent; 2.5 percent; 3 percent). Depending on the assumptions, the estimated total cost of survey operations varies from USD 371 million to over USD 1.1 billion. The median total cost of all the options presented in Table 5 is USD 695 million, coincidentally very close to the paper's preferred estimate of USD 692 million. Using the income class-specific average unit costs or the global average unit cost that grow at an annual rate of 2.5 percent and interviewing 7,000 households per survey, the total survey implementation cost estimates decrease slightly to USD 651 million and USD 623 million, respectively. These changes are mainly driven by the fact that the average unit cost in sub-Saharan Africa is higher, and the region accounts for 39 of the 78 countries of interest.

Needless to say, these estimates based on different notions of average unit cost mask important details. For example, while assigning regional average unit costs to countries, we assume the same unit cost for Low Income (e.g., the Democratic Republic of Congo) and Lower Middle Income (e.g., the Republic of Congo) countries in the same region. On the other hand, assigning income class-specific average unit costs to countries implies that the unit cost in the Democratic Republic of Congo is the same as in Tajikistan and Haiti, as they are also Low Income countries. Mindful of these considerations, we still rely on regional averages for our baseline estimates to impute unit costs. This is a simple and transparent measure that captures regional heterogeneity in survey costs.

Finally, Table 6 shows the same set of total survey implementation and technical assistance cost scenarios depicted in Table 5 but for 102, as opposed to 78, countries, which includes all 78 countries of interest plus 24 countries that are either data deprived or vulnerable to data deprivation according to Serajuddin et al. (2015). Raising the number of target countries by 30 percent, using our preferred implementation cost assignments, and assuming a uniform technical assistance provision cost of USD 540,000 per survey with an annual growth rate of 2.5 percent, the total survey implementation and technical assistance costs rise to USD 890 million and USD 334 million, respectively. These estimates are 29 percent higher than the preferred total survey implementation cost estimate of USD 692 million, and 32 percent higher than the preferred total technical assistance cost estimate of USD 253 million.

## V. Conclusion

While the evidence base for monitoring poverty and shared prosperity has been improving over time, challenges remain. To address these challenges, the World Bank is committed to support 78 IDA and IDA/IBRD countries as well as India to collect the multi-topic household survey data needed to estimate poverty and shared prosperity every three years between 2016 and 2030. This translates to conducting 390 surveys over a 15-year period. This paper estimates the cost of filling these gaps in household survey data to monitor the World Bank's poverty and shared prosperity goals. Once collected based on international best practices, the resulting multi-topic data would capture not only the progress towards the Twin Goals but also the profiles of the poor, the multi-dimensionality of household and individual welfare, linkages between poverty and other socioeconomic outcomes and policies, and a host of SDG indicators.

Our analysis 1) uses unique country-level information on actual survey implementation and technical assistance costs, 2) is anchored in the recommendations of the World Bank Household Survey Strategy for Household Surveys regarding optimal questionnaire and sampling design, and 3) is anchored in the World Bank's experience in supporting the NSOs in the production of multi-topic household survey data through the Living Standards Measurement Study program and the Poverty and Equity Global Practice. The budget envelope for delivering on the ambitious agenda laid out by WBG President Jim Yong Kim is estimated at **USD 945 million**, of which USD 692 million is projected to cover the costs of household survey implementation across 78 countries, and USD 253 million is projected to cover the costs of direct technical assistance provided to NSOs. These estimates imply an annual allocation of 46.1 million for survey implementation and 16.9 million for technical assistance.

This is an estimate for overall resource requirements and is not indicative of costs for each specific survey since the cost environment for surveys can differ significantly across countries. Moreover, as mentioned earlier, these cost estimates may be subject to change as the database of countries

which underlie this paper's estimates of unit costs of implementing surveys is expanded. Moreover, costs will vary depending on the level of detail of a given survey.<sup>21</sup> In order to improve our understanding about the price of household survey data, it is important to systematically collect both ex-ante cost estimates during the survey design phase as well as ex-post actual costs for survey implementation and technical assistance.

Related to this, it is important to undertake further analyses to understand why the survey implementation cost in Africa is so high. Our current database suggests that household survey implementation in Africa costs at least USD 300 per household, which is easily five times more than the comparable figure in other regions, such as Europe and Central Asia (ECA) and Latin America and Caribbean (LAC), with more developed countries. One reason may be that the selected surveys in Africa are more complex than those implemented in ECA and LAC. If this is the case, an important question is what level of complexity we should aim to maintain. Increasing the complexity of a survey may raise survey implementation costs and exert potentially adverse effects on data quality if increased complexity is not met with commensurate resources for technical assistance. Another reason may be that hiring of qualified and well-educated enumerators in Africa may be costlier than in other regions.<sup>22</sup> While the average enumerator compensation in Africa may be lower, finding well-educated and highly qualified enumerators might be more difficult. The scarcity of qualified enumerators might in turn increase labor costs and thus survey implementation costs in Africa. If this is the case, improving training quality for enumerators and simplifying data collection via new technologies will be critical for reducing survey costs and increasing country's ability to self-finance survey implementation.

Support to data production alone will not be sufficient to alleviate weaknesses in survey methods underlying sustainable development data. The World Bank Household Survey Strategy notes that if poor quality and limited comparability of the available survey data are considered, the cross-country outlook of data deprivation would worsen. There are stark cross-country differences in the methods for measuring household consumption expenditures, income, and a multitude of

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<sup>21</sup> The cost estimates include neither the resources that are required to strengthen the internal expertise at the World Bank nor the resources required from the countries and the international development partners at large for financing the expertise and ancillary data for statistical and economic analyses that need to be conducted with the data. Also beyond the scope of this study is a discussion of funding mechanisms, which must include an over-time increasing share of survey implementation costs covered by the countries, complemented by IDA funds, IBRD loans, trust funds and other bilateral financing arrangements between the countries and the broader donor community. The required funding could come from considering a soft commitment of 1% of each IDA replenishment towards data production, as suggested by the World Bank Household Survey Strategy. The regional IDA loan to support the harmonization of household surveys in West African Economic Monetary Union countries is a good example of securing funding on a multi-annual basis to support the production of household surveys in a number of countries in a harmonized and cost-effective fashion.

<sup>22</sup> In private communication, Geoffrey Greenwell of Paris21 indicated that in the study undertaken by UNSDSN (2015), the transportation and personnel costs were highest in Africa, and were, respectively, 3 times and 2.4 times above the average.

development outcomes (World Bank, 2015a), and these differences limit richer analyses that could establish linkages across domains of household and individual welfare.

The quality, reliability, relevance and cost-effectiveness of household survey data depend on the availability of well-documented, validated data collection tools and methods, which must be continuously adapted to account for new data needs and to take advantage of new technologies and linkages between data sources. Moreover, emphasis should be placed on promoting greater harmonization in content and methodology used in cross-country household survey operations. Establishing best practices and international standards for cross-country data collection requires methodological research, which is an international public good that must be supported in a systematic fashion by countries and their international development partners. The costing of the direct and in-kind contributions of client countries, the World Bank and development partners towards a global methodological research agenda coordinated by the Intersecretariat Working Group on Household Surveys (IWGHS)<sup>23</sup> are outside the scope of the current study. However, the multi-topic, multi-purpose nature of the recommended questionnaire instrument and the need for greater harmonization make it imperative to invest in methodological research, further develop data production and analysis standards, as well as to work across sectors and institutions in order to marshal the greatest expertise towards better harmonization of methodologies.

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<sup>23</sup> United Nations Economic and Social Council (2015) provides the terms of reference for the IWGHS.

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## FIGURES AND TABLES

**Figure 1: Availability of Poverty Data**



**Note:** For the details on the terminology associated with the legends, please see Serajuddin et al. (2015).

**Table 1: Country-Specific Implementation Unit (Per Household) Costs**

Country	Region	Fragility Status†	Income Class†	Survey	Survey Year	Sample Size	Real Unit Cost‡	Regional Average Real Unit Cost‡
Afghanistan	SA	Fragile	LI	LCS	2014	21,000	109.25	126.38
Bangladesh	SA	Not Fragile	LI	HIES	2010	12,240	64.00	126.38
Colombia	LAC	Not Fragile	UMI	IHS	2014	22,000	88.03	105.54
Costa Rica	LAC	Not Fragile	UMI	LSS (Average of 7)	2006-2012	11,871	121.27	105.54
Ethiopia	AFR	Not Fragile	LI	ESS	2011/12	3,969	331.24	322.99
Guatemala	LAC	Not Fragile	LMI	ENCV	2014	11,554	134.71	105.54
Iraq	MENA	Fragile	UMI	HSS	2012	26,000	149.23	223.82
Kyrgyz Republic	ECA	Not Fragile	LMI	IHS	2003	5,016	48.58	48.58
Malawi	AFR	Not Fragile	LI	IHS	2010/11	12,271	199.48	322.99
Myanmar	EAP	Not Fragile	LI	IHS	2015	3,600	82.27	82.27
Nepal	SA	Not Fragile	LI	LSS	2010	5,988	205.89	126.38
Nicaragua	LAC	Not Fragile	LMI	EMNV	2014	7,897	97.84	105.54
Niger	AFR	Not Fragile	LI	ENCVA	2011	4,000	296.74	322.99
Nigeria	AFR	Not Fragile	LMI	GHS-Panel	2010/11	4,916	406.03	322.99
Peru	LAC	Not Fragile	UMI	NHS	2014	26,456	85.86	105.54
Tanzania	AFR	Not Fragile	LI	NPS	2008/09	3,265	308.57	322.99
Uganda	AFR	Not Fragile	LI	NPS	2009/10	2,975	395.90	322.99
Yemen	MENA	Fragile	LMI	HBS	2014	14,400	298.42	223.82

**Notes:** † World Bank FY2015 classification. ‡ Real unit cost is in USD 2014 prices. **Abbreviations for Regions:** **AFR** - Africa. **EAP** - East Asia and Pacific. **ECA** - Europe and Central Asia. **LAC** - Latin America and Caribbean. **MENA** - Middle East and North Africa. **SA** - South Asia. **Abbreviations for Income Class:** **LI** – Low Income. **LMI** – Low Middle Income. **UMI** – Upper Middle Income. **Abbreviations for Surveys:** **LCS** - Living Conditions Survey. **HIES** - Household Income and Expenditure Survey. **IHS** - Integrated Household Survey. **LSS** - Living Standards Survey. **ESS** - Ethiopia Socioeconomic Survey. **ENCV** - Encuesta Nacional de Condiciones de Vida. **HSS** - Household Socioeconomic Survey. **EMNV** - Encuesta de Mecicion de Nivel de Vida. **ENCVA** - Enquete Nationale sur les Conditions de Vie des Menages et l’Agriculture. **GHS** - General Household Survey. **NHS** - National Household Survey. **NPS** - National Panel Survey. **HBS** - Household Budget Survey.

**Table 2: Breakdown of Technical Assistance Expenditures for Selected Surveys**

<b>Category</b>	<b>Ethiopia ESS 2011/12*</b>	<b>Malawi IHS3 2010/11†</b>	<b>Nigeria GHS-Panel 2010/11‡</b>	<b>Average</b>
Staff Time	178,583	323,409	351,065	284,352
Consultants	170,057	157,418	263,089	196,854
Travel, Miscellaneous	177,264	109,859	111,125	132,749
<b>TOTAL</b>	<b>525,904</b>	<b>590,686</b>	<b>725,278</b>	<b>613,956</b>

**Notes:** \* Ethiopia Socioeconomic Survey 2011/12. † Malawi Third Integrated Household Survey 2010/11. ‡ Nigeria General Household Survey - Panel 2010/11. The figures are based on the analysis of the disaggregated expenditures recorded in the Living Standards Measurement Study - Integrated Surveys on Agriculture trust fund database.

**Table 3: Technical Assistance Budget Template for a Multi-Topic Household Survey with Field-Based Data Entry - Total Budget of USD 540,225**

Personnel*	Pre-Field Work (6 Month Period)				Fieldwork (12 Month Period)				Post-Fieldwork (6 Month Period)			
	Unit	Number	Unit Cost	Total (USD)	Unit	Number	Unit Cost	Total (USD)	Unit	Number	Unit Cost	Total (USD)
Survey Specialist (Resident)	Month	3	10,000	30,000	Month	12	10,000	120,000	Month	3	10,500	31,500
Survey Specialist (Remote)	Month	2	10,000	20,000	Month	4	10,000	40,000	Month	2	10,500	21,000
Senior Economist (Remote)	Month	1	14,000	14,000	Month	2	14,000	28,000	Month	1	14,700	14,700
Sampling Expert (Remote)†	Day	20	650	13,000								
CSPPro/Survey Solutions Programmer (App Design & Piloting & Revision)	Month	3	10,000	30,000								
CSPPro/Survey Solutions Programmer (Maintenance & Troubleshooting)					Month	2	10,000	20,000	Month	1	10,500	10,500
Short Term Consultant (Quality Control & Analytical Support)					Day	30	300	9,000	Day	30	310	9,300
<b>Travel &amp; Accommodation Costs</b>												
<i>Survey Specialist (Resident)</i>												
Round Trip (US-Country) Airfare	Trip	1	5,000	5,000					Trip	1	5,250	5,250
Monthly Allowance	Month	3	1,500	4,500	Month	12	1,500	18,000	Month	3	1,500	4,500
<i>Survey Specialist (Remote)</i>												
Extended Missions‡	Trip	2	6,500	13,000	Trip	4	6,500	26,000	Trip	2	6,825	13,650
<i>Senior Economist (Remote)</i>												
Extended Missions‡	Trip	1	6,500	6,500	Trip	2	6,500	13,000	Trip	1	6,825	6,825
<i>CSPPro/Survey Solutions Programmer</i>												
Extended Missions‡	Trip	1	6,500	6,500	Trip	1	6,500	6,500				
<b>TOTAL</b>				<b>142,500</b>				<b>280,500</b>				<b>117,225</b>

**Notes:** \* Personnel costs are inclusive of benefits and indirect costs.† Sampling expertise can be provided by an available staff member or a consultant. ‡ Projected extended mission costs are meant to be inclusive of round-trip airfare, accommodation costs, per diem and other eligible expenditures.

**Table 4: Total Simulated Survey Implementation Costs for the Period of 2016-2030 in 78 Countries by Region and Lending Status (USD Millions, in 2014 Prices)**

Region	Lending Status			TOTAL
	IDA	Blend	IBRD*	
East Asia & Pacific	38	14		52
Europe & Central Asia	6	4		10
Latin America & Caribbean	18	22		40
Middle East & North Africa	19			19
South Asia	27	11	5	42
Sub-Saharan Africa	461	68		529
<b>TOTAL</b>	<b>568</b>	<b>119</b>	<b>5</b>	<b>692</b>

**Note:** \*The only IBRD country included in the calculation is India, for its provisional status to continue to receive transitional support through the IDA17 period (FY15-17).

**Table 5: Total Simulated Survey Implementation & Technical Assistance Costs under Different Scenarios for the Period of 2016-2030 in 78 Countries with IDA or Blend Lending Status, Inclusive of India (USD Millions, in 2014 Prices)**

Annual Growth Rate in Unit Cost (%)	Sample Size	Survey Implementation Costs			Technical Assistance Costs*
		Country-Assigned Unit Cost = Average Unit Cost Computed for...			
		Region	Income Classification	All Available Countries	
0	5000	412	387	371	211
	7000	577	542	519	
	9000	742	697	668	
	11000	907	852	816	
2	5000	474	445	426	242
	7000	663	624	597	
	9000	853	802	768	
	11000	1,042	980	938	
2.5	5000	494	465	445	253
	7000	692	651	623	
	9000	890	837	801	
	11000	1,088	1,022	979	
3	5000	511	480	460	261
	7000	715	672	644	
	9000	920	864	828	
	11000	1,124	1,056	1,012	
			<b>Median Cost</b>	695	
			<b>Mean Cost</b>	716	

**Notes:** \*\* Assumed at USD 540,000 per survey, irrespective of sample size. Income Classification is according to Fiscal Year 2015 definitions.

**Table 6: Total Simulated Survey Implementation & Technical Assistance Costs Under Different Scenarios for the Period of 2016-2030 in 102 Countries with IDA Lending or Blend Lending or Data Deprived\* Status, Inclusive of India (USD Millions, in 2014 Prices)**

Annual Growth Rate in Unit Cost (%)	Sample Size	Survey Implementation Costs			Technical Assistance Costs**
		Country-Assigned Unit Cost = Average Unit Cost Computed for...			
		Region	Income Classification	All Available Countries	
0	5000	529	474	490	278
	7000	741	663	686	
	9000	953	853	881	
	11000	1,165	1,042	1,077	
2	5000	609	545	563	320
	7000	852	763	788	
	9000	1,096	980	1,014	
	11000	1,340	1,198	1,239	
2.5	5000	635	568	588	334
	7000	890	796	823	
	9000	1,144	1,023	1,058	
	11000	1,398	1,250	1,293	
3	5000	657	587	607	345
	7000	919	822	850	
	9000	1,182	1,057	1,093	
	11000	1,444	1,292	1,336	
<b>Median Implementation Cost</b>				886	
<b>Mean Implementation Cost</b>				914	

**Notes:** \* Data deprived status is according to Serajuddin et al. (2015). \*\* Assumed at USD 540,000 per survey, irrespective of sample size. Income Classification is according to Fiscal Year 2015 definitions.

## APPENDIX

**Table A1: Template for Reporting Aggregate Implementation Cost Breakdown**

Implementation Cost Category	Amount
<i>Training &amp; Piloting</i>	
<i>Fieldwork</i>	
Fieldwork - Field Staff Per Diems	
Fieldwork - Field Staff Salaries	
Fieldwork - NSO Manager Per Diems	
Fieldwork - Fuel, Transportation, Other	
<i>Data Processing, Analysis &amp; Dissemination</i>	
<i>Equipment</i>	
<i>Expendables</i>	
<i>Administrative Costs</i>	
<b>TOTAL</b>	
SURVEY COUNTRY	
SURVEY NAME	
PERIOD OF IMPLEMENTATION	
Start Month & Year	
End Month & Year	
NUMBER OF HOUSEHOLDS	
NUMBER OF INTERVIEWS PER HOUSEHOLD	

**Notes.** If the cost breakdown is unknown, the aggregate implementation could be reported, bearing in mind Table A2's mapping of the budget line items to implementation cost categories. If there were vehicle purchases, the expenses should not be included in the "Fieldwork - Fuel, Transportation, Other" category. Instead, the estimated cost of renting the vehicle fleet used by the survey teams should be incorporated.

**Table A2: Template for Detailed Implementation Cost Breakdown & Assignment to Aggregate Budget Categories in Table A1**

<b>Item No.</b>	<b>Item Description</b>	<b>Aggregate Cost Category</b>	<b>Unit</b>	<b>Number</b>	<b>Cost/Unit</b>	<b>Days</b>	<b>Amount (Local Currency)</b>	<b>Amount (US\$)</b>
<b>1 Development of Survey Instruments &amp; Advocacy</b>								
	Stakeholder meetings per diems - TWC quarterly Meetings (1 day X 4times)	<b>Administrative</b>	Persons					
	Stakeholder meetings per diems - TWC quarterly Meetings (1 day X 4times)	<b>Administrative</b>	Persons					
	Fuel	<b>Administrative</b>						
	Advocacy materials	<b>Administrative</b>	Materials					
	Advocacy meetings per diems - participants	<b>Administrative</b>	Persons					
	Advocacy meetings per diems - drivers	<b>Administrative</b>	Persons					
	Fuel	<b>Administrative</b>	Unit					
	Refreshments	<b>Administrative</b>	Unit					
	Hire of Hall	<b>Administrative</b>	Unit					
<b>Total Development of Survey Instruments &amp; Advocacy</b>								
<b>2 Piloting</b>								
	Training per diem - Enumerators	<b>Training &amp; Piloting</b>	Persons					
	Training per diem - Data Entry Operator	<b>Training &amp; Piloting</b>	Persons					
	Training per diem - Team Leaders	<b>Training &amp; Piloting</b>	Persons					
	Training per diem - NSO Supervisors (Full-Time)	<b>Training &amp; Piloting</b>	Persons					
	Training per diem - NSO Managers	<b>Training &amp; Piloting</b>	Persons					
	Training - Hall	<b>Training &amp; Piloting</b>	Unit					
	Training - Fuel	<b>Training &amp; Piloting</b>	Unit					
	Piloting per diem - Enumerators	<b>Training &amp; Piloting</b>	Persons					
	Piloting per diem - Data Entry Operator	<b>Training &amp; Piloting</b>	Persons					
	Piloting per diem - Team Leaders	<b>Training &amp; Piloting</b>	Persons					
	Piloting per diem - Drivers	<b>Training &amp; Piloting</b>	Persons					
	Piloting supervision - NSO Supervisors (Full-Time)	<b>Training &amp; Piloting</b>	Persons					
	Piloting supervision - NSO Managers	<b>Training &amp; Piloting</b>	Persons					
	Piloting supervision - Drivers - NSO Supervisors	<b>Training &amp; Piloting</b>	Persons					
	Piloting supervision - Drivers - NSO Managers	<b>Training &amp; Piloting</b>	Persons					
	Piloting - Fuel	<b>Training &amp; Piloting</b>	Unit					
	Piloting supervision - Fuel - NSO Supervisors	<b>Training &amp; Piloting</b>	Unit					
	Piloting supervision - Fuel - NSO Managers	<b>Training &amp; Piloting</b>	Unit					
<b>Total Piloting</b>								

Table A2 (Cont'd)

Item No.	Item Description	Aggregate Cost Category	Unit	Number	Cost/Unit	Days	Amount (Local Currency)	Amount (US\$)
<b>3 Household Listing</b>								
	Per diems - Team members	Fieldwork - Field Staff Per Diems	Persons					
	Per diems - Team leaders	Fieldwork - Field Staff Per Diems	Persons					
	Per diems - Drivers	Fieldwork - Field Staff Per Diems	Persons					
	Per diems - Supervision - NSO Supervisors (Full-Time)	Fieldwork - NSO Manager Per Diems	Persons					
	Per diems - Supervision - NSO Managers	Fieldwork - NSO Manager Per Diems	Persons					
	Per diems - Supervision - Drivers - NSO Supervisors	Fieldwork - Field Staff Per Diems	Persons					
	Per diems - Supervision - Drivers - NSO Managers	Fieldwork - Field Staff Per Diems	Persons					
	MV Hire - Daily charge	Fieldwork - Fuel, Transportation, Other	Vehicles					
	MV Hire - Mileage/day charge	Fieldwork - Fuel, Transportation, Other	Vehicles					
	MV Hire - Insurance charge	Fieldwork - Fuel, Transportation, Other	Vehicles					
	Fuel - Listing	Fieldwork - Fuel, Transportation, Other	Unit					
	Fuel - To&from NSO	Fieldwork - Fuel, Transportation, Other	Unit					
	<b>Total Household Listing</b>							
<b>4 Recruitment of Staff</b>								
	Per diems - HR Officers	Administrative	Persons					
	Fuel	Administrative	Unit					
	Communication costs	Administrative	Cards					
	<b>Total Recruitment of Staff</b>							
<b>5 Training &amp; Field Practice</b>								
	Per diems - Enumerators	Training & Piloting	Persons					
	Per diems - Data Entry Operators	Training & Piloting	Persons					
	Per diems - Data Editor	Training & Piloting	Persons					
	Per diems - Field Supervisors	Training & Piloting	Persons					
	Per diems - Zone Supervisors	Training & Piloting	Persons					
	Fuel	Training & Piloting	Unit					
	Hall	Training & Piloting	Unit					
	Refreshments	Training & Piloting	Persons					
	Per diems - NSO Supervisors (Full-Time; Includes Data Entry Supervisor)	Training & Piloting	Persons					
	Per diems - NSO Managers	Training & Piloting	Persons					
	Per diems - Drivers - NSO Supervisors	Training & Piloting	Persons					
	Per diems - Drivers - NSO Managers	Training & Piloting	Persons					
	Per diems - Administrative support - Accounts	Training & Piloting	Persons					
	Per diems - Administrative support - Logistics	Training & Piloting	Persons					
	<b>Total Training &amp; Field Practice</b>							

Table A2 (Cont'd)

Item No.	Item Description	Aggregate Cost Category	Unit	Number	Cost/Unit	Days	Amount (Local Currency)	Amount (US\$)
<b>6 Field Work</b>								
	Monthly salary - Enumerators	<b>Fieldwork - Field Staff Salaries</b>	Persons					
	Monthly salary - Field Supervisors	<b>Fieldwork - Field Staff Salaries</b>	Persons					
	Monthly salary - Data Entry Operators (In the Field)	<b>Data Processing, Analysis, Dissemination</b>	Persons					
	Monthly salary - Data Entry Operators (At the NSO)	<b>Data Processing, Analysis, Dissemination</b>	Persons					
	Monthly salary - Teams Drivers	<b>Fieldwork - Field Staff Salaries</b>	Persons					
	Per diem - Enumerators	<b>Fieldwork - Field Staff Per Diems</b>	Persons					
	Per diem - Field Supervisors	<b>Fieldwork - Field Staff Per Diems</b>	Persons					
	Per diem - Data Entry Operators	<b>Data Processing, Analysis, Dissemination</b>	Persons					
	Per diem - Teams Drivers	<b>Fieldwork - Field Staff Per Diems</b>	Persons					
	Per diem - Zone Supervisors	<b>Fieldwork - NSO Manager Per Diems</b>	Persons					
	Monthly supervision per diem - NSO Supervisors (Full-Time)	<b>Fieldwork - NSO Manager Per Diems</b>	Persons					
	Monthly supervision per diem - NSO Data Entry Supervisor	<b>Fieldwork - NSO Manager Per Diems</b>	Persons					
	Monthly supervision per diem - NSO Managers	<b>Fieldwork - NSO Manager Per Diems</b>	Persons					
	Monthly supervision per diem - Drivers - NSO Supervisors	<b>Fieldwork - Field Staff Per Diems</b>	Persons					
	Monthly supervision per diem - Drivers - NSO Managers	<b>Fieldwork - Field Staff Per Diems</b>	Persons					
	Montly per diem - Accounts - Payment of salaries	<b>Fieldwork - NSO Manager Per Diems</b>	Persons					
	Fuel - @7km/litre	<b>Fieldwork - Fuel, Transportation, Other</b>	Unit					
	Fuel - @7km/litre - To & from NSO	<b>Fieldwork - Fuel, Transportation, Other</b>	Unit					
	Monthly salary - Fuel - Accounts	<b>Fieldwork - Fuel, Transportation, Other</b>	Unit					
	Fuel - NSO Supervisors	<b>Fieldwork - Fuel, Transportation, Other</b>	Unit					
	Fuel - NSO Managers	<b>Fieldwork - Fuel, Transportation, Other</b>	Unit					
	Field Vehicle - Maintenance	<b>Fieldwork - Fuel, Transportation, Other</b>	Vehicle					
	Field Vehicles - Purchase of Tires	<b>Fieldwork - Fuel, Transportation, Other</b>	Number					
	Supervision Vehicles - Maintenance	<b>Fieldwork - Fuel, Transportation, Other</b>	Vehicles					
	Supervision Vehicles - Purchase of Tires	<b>Fieldwork - Fuel, Transportation, Other</b>	Number					
<b>Total Field Work</b>								

Table A2 (Cont'd)

Item No.	Item Description	Aggregate Cost Category	Unit	Number	Cost/Unit	Days	Amount (Local Currency)	Amount (US\$)
<b>7 Purchase of Equipment</b>								
	Computers	Equipment	Units					
	Uninterrupted power supplies	Equipment	Units					
	Laptops	Equipment	Units					
	Extra laptop batteries	Equipment	Units					
	USB Drivers	Equipment	Units					
	Printers	Equipment	Units					
	GPS Units	Equipment	Units					
	Anthropometric measuring board	Equipment	Units					
	Sorter Scales	Equipment	Units					
<b>Total Purchase of Equipment</b>								
<b>8 Printing &amp; Stationery Costs</b>								
	Manuals printing paper	Expendables	Rims					
	Manuals printing ink	Expendables	Bottles					
	Manuals printing costs	Expendables	Persons					
	Questionnaire printing costs	Expendables	Units					
	Tonner cartridge sets	Expendables	Units					
	Amonium map paper	Expendables	Rolls					
	Map A3 paper	Expendables	Rolls					
	Map tonner cartridge sets	Expendables	Units					
	Map printing costs	Expendables	Persons					
	Map printer head sets	Expendables	Units					
	Map printing cleaner sets	Expendables	Units					
	Communication costs - Field Supervisors	Expendables	Cards					
	Communication costs - Zone Supervisors	Expendables	Cards					
	Communication costs - NSO Supervisors (Full-Time)	Expendables	Cards					
	Communication costs - NSO Managers	Expendables	Cards					
	Communication costs - Data Entry Supervisor	Expendables	Cards					
	Clip boards	Expendables	Units					
	Note pads	Expendables	Units					
	Flip charts	Expendables	Rolls					
	Listing Stickers	Expendables	Boxes					
	Listing Markers	Expendables	Boxes					
	Chalk	Expendables	Boxes					

Table A2 (Cont'd)

Item No.	Item Description	Aggregate Cost Category	Unit	Number	Cost/Unit	Days	Amount (Local Currency)	Amount (US\$)
<b>8 Printing &amp; Stationery Costs (Cont'd)</b>								
	Pens	Expendables	Boxes					
	Labels & strings	Expendables	Boxes					
	Envelopes	Expendables	Boxes					
	Rubber bands	Expendables	Boxes					
	Staples wires & stapling machine	Expendables	Units					
	Bags	Expendables	Units					
	T-Shirts	Expendables	Shirts					
	Rain coats	Expendables	Coats					
	Gum boots	Expendables	Boots					
	Mosquito nets	Expendables	Nets					
	Identity cards	Expendables	Cards					
	Bibs	Expendables	Units					
	<b>Total Printing &amp; Stationery Costs</b>							
<b>9 Administrative Costs</b>								
	Fuel	Administrative						
	Advertisement costs	Administrative	Number					
	Per deims	Administrative	Persons					
	<b>Total Administrative Costs</b>							
<b>10 TOTAL</b>								
<b>11 Contingency (If Applicable)</b>								
<b>GRAND TOTAL</b>								