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Report of the World Bank on improving household surveys in the post-2015 development era: issues and recommendations for a shared agenda

Note by the Secretary-General

The present report was prepared by the World Bank in consultation with multiple organizations, pursuant to Statistical Commission decision 45/103, in which the Commission suggested that the Friends of the Chair group on broader measures of progress include, in its future work programme, the issue of household surveys and their critical role in providing data for the post-2015 development agenda. The report provides an overview of such issues as the availability, quality, relevance and sustainability of household survey data and focuses on low- and middle-income countries. It also contains recommendations for addressing those issues.

The Commission is invited to express its views on the issues described in the report; on the necessity to include in its agenda a discussion of the progress made regarding the design, implementation, funding and coordination of household surveys; and on the desirability of establishing a technical standing group to foster coordination and harmonization of household survey activities across agencies and member countries. The Commission is also invited to endorse the interim role of the management group of the International Household Survey Network in establishing a proposed standing group; to endorse the piloting of a code of practice for surveys by the Network; and to recommend the production of a report on priorities for cross-cutting research in survey methods to be submitted for consideration by the Commission at its forty-seventh session.

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Report of the World Bank on improving household surveys in the post-2015 development era: issues and recommendations for a shared agenda

I. Introduction

1. Household surveys are a vital component of every national statistical system. They are a source of information for the compilation of national accounts, consumer price indices and multiple socioeconomic indicators crucial for managing, measuring and monitoring country performance towards national and global development targets. They are also widely used for research on development issues and, particularly when combined with other data sources, they are the backbone of much policy analysis around the world. The rigorous collection of representative information from households and individuals can also serve as a powerful tool for "ground-truthing" and validating other sources of data.

2. In recent years, the demand for socioeconomic data at the household and individual levels has continued to grow, particularly in developing countries, where administrative systems and other data sources are the weakest and information gaps remain the largest. The increasing demand has been driven by societies requiring greater accountability and more evidence of policy effectiveness from their leaders and by the need for information to monitor and assess programmes addressing poverty reduction and the improvement of well-being. Household surveys are often the only source of data for the measurement of socioeconomic indicators, including information on attitudes, perceptions and behaviour. They are a major source of data for 27 of the Millennium Development Goals indicators and will remain a critical source of data for monitoring the post-2015 sustainable development goals.

3. As a result of that demand, the global availability of data has significantly improved in both scope and geographic coverage, and methodological advances have been substantial. In lower-income countries with limited resources, advances have been made possible primarily through external technical and financial assistance from global, regional and bilateral initiatives. International programmes, such as the National Household Survey Capability Programme, the Demographic and Health Survey, the Living Standards Measurement Study , and the Multiple Indicator Cluster Survey, have been instrumental in responding to the capacity gaps. The following global initiatives have also contributed to the production of data and to the strengthening of national capacity to conduct household surveys: the International Household Survey Network; support provided to labour force surveys by regional and international organizations; and regional programmes such as the Programme for the Improvement of Surveys and the Measurement of Living Conditions in Latin America and the Caribbean (MECOVI).

4. However, despite decades of technical and financial assistance, large disparities remain both across countries and surveys, with many countries still unable to sustain a long-term programme of quality surveys that are comparable over time and compliant with international standards. International databases of key socioeconomic indicators derived from household surveys demonstrate persistent and significant gaps and weaknesses. This is attributable to many causes, including (a) lack of commitment of national political leadership; (b) poor coordination of international support; (c) unpredictable funding of a short-lived and ad hoc nature;

(d) low capacity of local institutions; (e) lack of globally accepted methodological standards and methods for the measurement of key socioeconomic indicators; and (f) poor documentation and unwarranted restrictions in data access.

5. Discussions on the monitoring of the post-2015 sustainable development goals have rejuvenated the data agenda, prompting the Statistical Commission to revisit the effectiveness of household surveys for monitoring broad measures of progress in the context of the post-2015 development agenda. In decision 45/103 (see E/2014/24), adopted at its forty-fifth session, held in 2014, the Commission suggested that the Friends of the Chair group on broader measures of progress include in its future work programme the issue of household surveys and their critical role in providing data for the post-2015 development agenda, and acknowledged the offer by the World Bank to take the lead in a consultative process to prepare a report for the consideration of the Commission in 2015. That suggestion reiterates a series of calls dating back to the late 1970s and 1980s, when household surveys were regularly featured in the global data agenda and the National Household Survey Capability Programme, Living Standards Measurement Study and the Demographic and Health Survey initiatives were launched.

6. Changes and improvements are needed in the timing, content, quality, funding and coordination of the existing surveys. Further development of capacity-building programmes and increased advocacy for political engagement are also required. Additionally, strengthening the monitoring system for the sustainable development goals calls for the innovative use of household survey data in conjunction with administrative, spatial and big data sources, as part of a broader data system that maximizes the advantages of each type of data, with a view to identifying economically viable alternatives for monitoring broad measures of progress and informing public policy. The report released in November 2014 by the Independent Expert Advisory Group on a Data Revolution for Sustainable Development, entitled "A world that counts: mobilizing the data revolution for sustainable development", makes a vibrant case for taking full advantage of new technologies and data sources to transform the way development processes are measured and monitored. Household surveys need to respond to that new and changing data landscape, by improving synergies with other data sources and adopting the latest technological developments.

7. The present report sets the stage for and provides recommendations on a multi-year programme of support for improving the availability, quality, relevance and sustainability of household surveys in the context of the post-2015 development agenda. It describes key issues confronting household surveys and identifies priority actions for enhancing the design and implementation of national and international survey programmes. The issues described are both technical and strategic, involving national and international stakeholders. Solving them will require coordinated action at multiple levels (global, regional and national) by multiple partners (statistical agencies, funding agencies, international organizations, civil society and the private sector) and over different time horizons. On the basis of those issues, the report contains a proposal for a menu of actions needed to advance the household survey agenda in the post-2015 environment, including: (a) creating an institutional framework to oversee coordination of efforts and harmonization of standards among development partners and across countries; (b) piloting, endorsing and implementing an international code of practice on household surveys; (c) developing and implementing a coordinated programme of methodological research for the development and adoption of improved standards, methods and

practices in household surveys; (d) investing in technical assistance and capacity-building for household surveys; and (e) identifying and securing adequate funding to support a functioning, long-term household survey programme as part of the broader data revolution for sustainable development agenda and beyond. The report concludes with practical recommendations that are in line with the broader data revolution for sustainable development and are provided for consideration by the Statistical Commission and for further action by the international community.

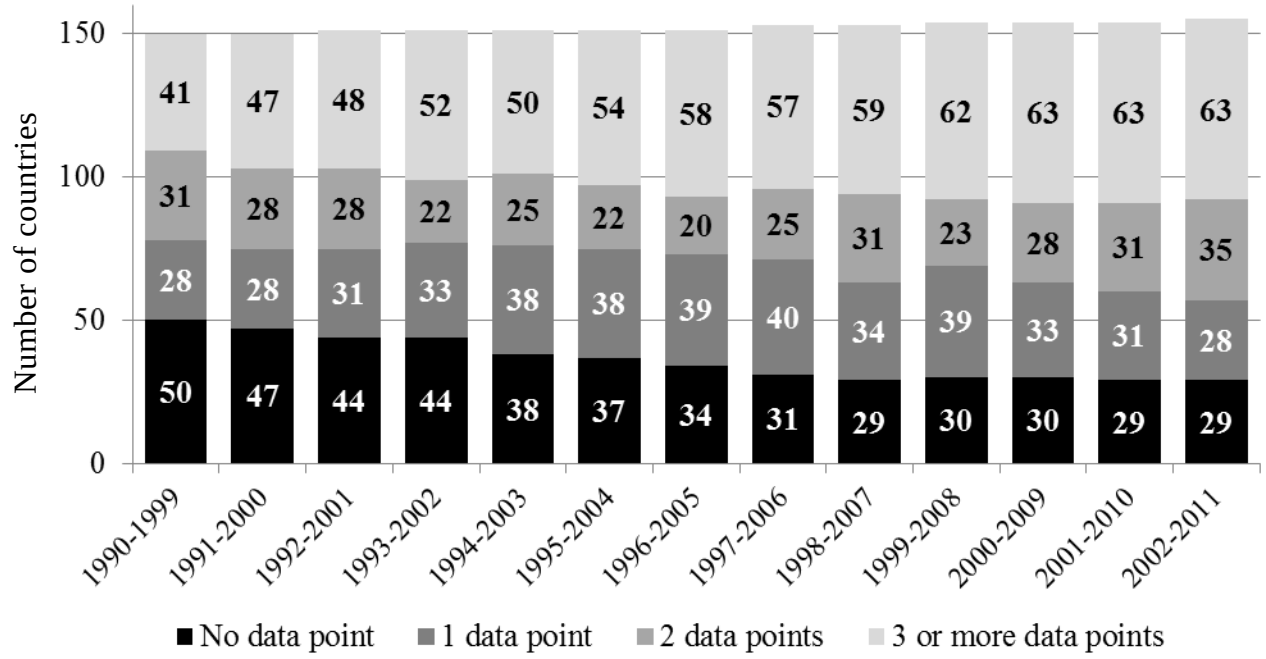
II. Key issues in household surveys

A. Availability and frequency

8. Improving the availability of household survey data is a pivotal area in the broader effort, which will require action on several fronts, including a renewed impetus to conduct more frequent household surveys in a larger number of countries, to support greater data integration within and across data sources and to further develop and scale up the application of fully transparent methodologies in statistical imputation and modelling. The combination of those actions on a large scale will ensure that more data are made available to monitor the sustainable development goals in a timely fashion.

9. A key element of addressing the problem of data availability involves reducing the existing inequalities observed across countries. The availability of poverty estimates obtained from household income or expenditure surveys is a telling example of such inequalities. The figure below provides information on the availability of poverty estimates in developing countries for successive 10-year periods. For example, in 2000, 50 countries had no poverty estimate available for any of the previous 10 years (namely, for the period 1990-1999); 72 only had the two or more estimates needed to report on changes in poverty levels over the period. In 2012 (namely, for the period 2002-2011), the number of countries having no poverty estimate for the previous 10 years had been reduced to 29, and 98 had two or more estimates. While progress has been made and some countries are faring well, many are still lagging behind. It must be noted that gaps in the availability of indicators do not always imply an absence of survey data. In some countries where recent poverty estimates are unavailable, surveys have been conducted but are not usable owing to poor quality or restricted access. Such situations imply that the targeting of resources will be required to close the divide between data-rich and data-poor countries, as well as to make more information available for segments of the population, such as minorities, women and children, that are grossly undercounted but are of crucial importance to development outcomes.

Availability of household survey data for measuring poverty in low- and middle-income countries: number of countries by number of data points available over 10-year periods (1990-1999 to 2002-2011)



Source: World Bank estimates.

10. Ever-shifting priorities, new geographical realities resulting from changing administrative boundaries and other emerging issues, such as climate change and environmental degradation, also limit the capacity of existing household survey systems to meet evolving data needs, particularly when the increasing data demands from both international and domestic users add to the workload of already overstretched and underfunded statistical offices. With the discussion of a post-2015 monitoring framework and a call for more and frequent data, the clear danger is that the field of stakeholders will become even more crowded, potentially jeopardizing much-needed support for building cohesive governance structures in the countries that most need rationalized approaches. A common past pattern to be avoided at all costs involves countries without resources being forced to accept donor-driven programmes, often at the neglect of implementing national strategies for developing a national statistical system. In order to avoid some of those pitfalls, support for household survey programmes in the post-2015 environment should include the development of better information-sharing and coordination mechanisms to improve the timing, sequencing and frequency of household surveys. While countries should take the lead in identifying data priorities, past experience has shown that global coordination is needed to rationalize investments in household surveys as part of a broader data agenda.

11. However, increasing the number of household surveys is not the only implied solution. Making better use of existing data and instruments can be more economical and sustainable and can be pursued in a number of ways. Ideally, consensus should be reached on a limited set of common indicators to be collected

in a harmonized way in a larger number of diverse surveys. Towards that end, as part of the process of rationalization and harmonization, countries should carefully assess the pros and cons of pursuing integration within a single multitopic household survey instrument relative to integration across diverse, specialized surveys.

12. In respect of supporting integration across surveys, solutions like survey-to-survey imputation and small area estimation techniques, for example, can be used to link different sets of data to generate new information, and in doing so, increase the overall availability of data. Such techniques rely on improved sampling design and thematic overlap across surveys and censuses for increasing the frequency of reporting or enhancing the spatial resolution of certain indicators. For instance, in countries where a household expenditure survey is carried out every three to five years and a labour force survey is conducted annually, it may be possible to use the labour force survey data to predict poverty on an annual basis, based on a set of predictors common to both datasets. Thus, for some socioeconomic indicators, data may be available in international databases for countries where no surveys have been conducted, as estimates may have been obtained through modelling and imputation. Such activities may not always fall, however, within the domain of national statistical offices and may require analytical skills not available in every country. The establishment of regional data hubs may be a more cost-effective way to take advantage of economies of scale and deliver on results.

13. Finally, big data from a multitude of sources such as phone records and remote sensing, and its potential synergies with traditional data sources like household surveys and censuses, should be exploited in order to improve data availability. The use of mobile phones and other smart devices has proved useful for gathering limited sets of information at the household, individual and community levels in almost real-time and, particularly when used with more exhaustive baseline data, can be an invaluable tool to track socioeconomic and environmental indicators on a frequent basis. In order to maximize such opportunities for data integration, limited adjustments to survey design may be necessary, with common or compatible standards and methods applied across data collection activities.[1]

B. Relevance and timeliness

14. Lack of relevant and timely data limits our ability to monitor development progress. This is particularly true in lower-income countries. As made clear by the Independent Expert Advisory Group on a Data Revolution for Sustainable Development in its recent report , the situation calls for a far-reaching data revolution that must transform the way data for monitoring and understanding broad measures of progress is collected and analysed in the post-2015 development agenda.

15. Users and stakeholders have diverse and specific needs. Requirements differ in terms of topics, concepts and methods, geographic coverage and survey data representativeness. Maximizing the relevance of surveys requires balancing those competing and evolving needs. Countries conducting surveys infrequently are

[1] See, for example, Hai-Anh H. Dang, Peter F. Lanjouw and Umar Serajuddin, “Updating poverty estimates at frequent intervals in the absence of consumption data: methods and illustration with reference to a middle-income country”, World Bank Policy Research Working Paper, No. 7043 (September 2014). For information and examples of poverty mapping applications, see http://go.worldbank.org/9CYUFEUQ30.

therefore tempted to collect data on a large set of topics from a single survey, potentially resulting in respondent fatigue and data of lower quality.

16. In situations where data are collected without a clear need, the frequent result is that more information is collected than can be exploited, increasing the cost and burden on respondents, reducing the quality of the data and weakening sustainability. Decisions on what data need to be collected, how and when, should be based on clearly formulated and publicized policy priorities. The provision of information for the monitoring of national, social and economic policies should be the main priority; international priorities should not be given precedence over national priorities. The needs of other local stakeholders, including the private sector, the research community and non-governmental organizations, should also be taken into consideration. It is important to establish a well-functioning national consultative mechanism with the authority and competence to reconcile and prioritize data demands. More programmatic investments and longer-term planning horizons by international and domestic stakeholders would help to prioritize and properly sequence those data needs.

17. A single dataset may contain information that is relevant for a multitude of different needs. To maximize the value of the data collected, a low-cost approach having a potentially high return is to "repurpose" existing instruments to address new demands: minor adaptations of survey questionnaires may significantly increase the relevance of data. For example, food consumption data collected through household budget surveys, while primarily used for consumer price index and national accounts purposes, can also be used for food security analysis or nutritional studies or for informing the design of food fortification programmes.[2] Adherence to standards for concepts and definitions, broad scope and coverage, and ensuring access to data and related metadata by secondary users all increase the potential for data to be repurposed and used in a more efficient manner.

18. Decisions on the scope and coverage of household surveys should be made holistically. Datasets produced as a result of isolated surveys are often less relevant than multitopic datasets. Agronomic data, for example, could benefit from an integrated approach and become more relevant for policy application if collected in conjunction with socioeconomic and demographic information. That approach is advocated in the Global Strategy to Improve Agricultural and Rural Statistics (a multi-agency initiative endorsed by the Statistical Commission), and is the central tenet of multitopic household surveys such as the Living Standards Measurement Study.

19. Georeferencing household survey data also increases their relevance. Spatial information, such as the distance of the household dwelling to roads, markets, health and education facilities, as well as other services and facilities, are important factors influencing behaviour and outcomes. Such spatial parameters, as well as environmental variables such as soil type and climate, can be linked to the household data and thus increase their analytical value. However, since georeferencing can facilitate the identification of respondents, ethical and legal considerations regarding respondent confidentiality need to be taken into account

[2] See, for example, John L. Fiedler, "Strengthening household income and expenditure surveys as a tool for designing and assessing food fortification programs", International Household Survey Network (IHSN) Working Paper No. 1 (2009). Available from http://www.ihsn.org/home/sites/default/files/resources/IHSN-WP001.pdf.

when distributing household-level data. Various methods can mitigate the risk of disclosure. Such technical procedures should be considered and carefully applied.

20. Delays to the release of household survey data are a significant problem, particularly for complex surveys, where results are often released with a delay of one to two years after the completion of data collection. For certain policy purposes, the relevance of data decreases quickly over time. Techniques such as computer-assisted field data entry and computer-assisted personal interviewing can considerably decrease the time required for data processing. Such technological solutions must be complemented by formal data dissemination policies and protocols for the timely and efficient release of survey data. Statistical agencies could commit to releasing an anonymized version of the survey microdata immediately after the publication of the first survey results, or within a given time period after the completion of data collection (12 months is a commonly used standard, but shorter lags should be considered).

C. Reliability and accuracy

21. In many low-income countries, low quality survey data is an endemic problem. Errors are introduced at all stages of survey implementation, including errors resulting from poor sampling and questionnaire design to weak data editing and analysis. Assessing survey data quality is not straightforward and requires process controls that are seldom applied in a systematic manner, particularly in less-developed countries. The lack of capacity to monitor and assess quality, combined with the lack of protocols and standards for data quality assurance in developing countries, needs to be addressed.

22. Data quality, and associated concepts such as accuracy and reliability, can be understood in terms of sampling and non-sampling error. Measuring sampling error is often rendered challenging by a lack of documentation and metadata on survey design and implementation. Quantifying non-sampling error is far more difficult and often requires a qualitative assessment of survey processes. Consequently, assessing the "total" error of survey estimates has both quantitative and qualitative aspects. Some methods of addressing data quality issues include targeted training in survey quality assurance, applying specialized assessment frameworks,[3] and introducing user-friendly packages for data editing.[4]

23. Establishing a process of assessment and certification of household survey data quality by accredited institutions with a proper mandate is an option worthy of consideration. The adoption of stricter data quality standards would ultimately contribute to strengthening and consolidating the credibility of data producers and increasing the reliability and accuracy of the data. In addition, fostering a system of peer review of the data by making microdata accessible to the broader community

[3] For example, the International Household Survey Network has commissioned two assessments of survey design, assessing how (well) education and food consumption are measured in household surveys. A similar exercise is being conducted on household non-food expenditure. The assessments make use of assessment frameworks that focus on the questionnaire design. See http://www.ihsn.org/home/projects/survey-methods.

[4] Solutions for the measurement of sampling errors are available in common statistical software. More specialized packages should be developed or disseminated, for example, for the detection and treatment of outliers, for sample calibration and for correction of non-response rates.

of users would go a long way towards improving the quality of household surveys. This would require the implementation of proper disclosure control mechanisms to guarantee confidentiality and of adequate mechanisms to collect and process feedback from data users.

D. Comparability and coherence

24. Survey data become more valuable when they allow comparisons to be made over time and across countries. Coherence of data has four dimensions which, at times, are difficult to reconcile: within a dataset, across datasets, over time and across countries.[5] Comparability at the national level, over time and across sources, is particularly important for monitoring trends and for building a richer knowledge base by data integration.[6] At the international level, comparability is critical for reporting in a consistent manner on global development targets. Many examples exist of narrow interests outweighing the benefits of maintaining broad comparability over time vis-à-vis across countries. Although attempts to harmonize data ex-post can be undertaken, those techniques are costly and time-consuming and produce suboptimal results.

25. The preferred solution is to invest in ex-ante harmonization through greater coordination and the development of better data collection standards and methods. A notable example of international standard setting in statistics driven by countries is the International Conference of Labour Statisticians, hosted by the International Labour Organization (ILO). Those types of mechanisms should be followed in order to avoid confusion and promote comparison. However, missing enforcement and a lack of regular assessments make full-fledged compliance an elusive goal.

26. Ex-ante harmonization does not mean imposing across-the-board standardization of survey methods and instruments. It should allow for necessary periodic adaptation and improvement as well as for existing differences between countries. While it is important to recognize the potential friction between a backward- and a forward-looking design, or between national priorities and international interests, three elements should be consistently promoted: (a) a thorough consultative process weighing the pros and cons of a given change; (b) the provision of detailed documentation on the rationale for the change and its perceived advantages; and (c) a study to empirically test the effects of introducing the change, allowing in some cases the reconciliation of data that are not strictly comparable.[7] The role of metadata in explaining changes in concepts or methodologies over time and across countries is indispensable. Unexplained inconsistencies across datasets reduce the interpretability and credibility of statistics and ultimately limit their value.

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[5] Organization for Economic Cooperation and Development (OECD), 2011. *Quality Framework and Guidelines for OECD Statistical Activities: Version 2011/1*.

[6] For more information and a discussion on the potential of data integration, see, for example G. Priest, “The struggle for integration and harmonization of social statistics in a statistical agency: a case study of statistics Canada”, IHSN Working Paper No. 4. Available from http://www.ihsn.org/home/sites/default/files/resources/IHSN-WP004.pdf.

[7] See, for example, the description of the effect of changing the survey method — more specifically the length of the reporting period for household expenditures — on poverty estimates in India: Angus Deaton, and Valerie Kozel, “Data and dogma: the great Indian poverty debate”. *The World Bank Research Observer*, vol. 20, No. 2 (September 2005).

E. Adequate funding and cost-effectiveness

27. The cost of household survey operations is increasing, particularly in some regions of the world, leading critics to question the viability and sustainability of complex household survey programmes in developing countries. The cost of conducting surveys should be assessed in relation to the benefit of having data; unfortunately, it is easier to quantify the costs than the benefits. However, high survey costs can be justified when the data needs for a country are so compelling that even a relatively costly survey offers a strong value proposition. The financial grounding of surveys should be assessed based on measures of cost-effectiveness, efficiency and value.

28. In recent years, quick and relatively inexpensive surveys, including mobile phone surveys, have become popular. Such surveys are more useful when they complement in-depth surveys. Some countries have also re-engineered their survey design to make them more cost-effective and responsive to information needs. In Vanuatu, for example, the national statistics office supported by the Secretariat of the Pacific Community has successfully implemented the Pacific Living Standards Survey, a highly modular survey that provides the core data previously collected through the Demographic and Health Survey and the Household Income and Expenditure Survey. The Secretariat of the Pacific Community estimated that the new approach, which will be adopted by other countries in the region, reduces the cost of conducting surveys by 45 per cent, while providing higher-frequency quality data.[8] Similar design options, such as the implementation of continuous surveys based on rotating schemes (as in Peru or South Africa), could be considered by some countries. It is thus critical to maintain sufficient flexibility in the design of survey programmes in order to balance users' needs in relation to capacities and financial constraints. Positive experiences should be documented, studied and scaled up through the promotion of regional and South-South cooperation.

29. Significant cost-savings can also be achieved through enhanced coordination among donors and development partners. Duplicate and conflicting data collection activities abound, resulting in wasted funds and placing a heavy burden on national statistics offices and respondents. In the past few years, significant progress has been made to identify synergies among different survey programmes, such as the ongoing collaboration between the Demographic and Health Survey and the Multiple Indicator Cluster Survey programmes. Such collaboration includes the development of common questionnaire modules and the implementation of joint data collection activities and harmonized survey programmes. However, there is still room for more cooperation and greater cost-effectiveness.

30. Historically, donor support has often been provided for specific, ad hoc survey activities. There has been a lack of support for the development of holistic and integrated survey programmes that respond to national priorities and promote capacity-building, with donors' concerns and global interests often dominating national priorities. A more rational implementation of multi-year national survey programmes is often lacking, and the absence of regular global needs assessments and prioritization mechanisms have resulted in insufficient and arbitrary support to some countries and competing support in others. Going forward, donors should

[8] An additional benefit of such a system of more regular data collection is that it allows statistical agencies to retain trained staff.

provide multi-year funding to support a more systemic approach, with a clear strategy that replaces external funding incrementally with national funding. Eventual autonomy will vary from country to country, with poorer and post-conflict countries in need of more protracted support. The mechanisms providing such long-term funding and technical support for qualifying countries are not currently in place and must be established.

F. Accessibility and usability

31. There is strong evidence that disseminating microdata freely and publicly results in diverse, high-quality analysis at virtually no cost to the producer or survey sponsor.[9] This can be achieved through effective data management and dissemination practices; however, such practices are not currently universally adopted. Despite the high demand for microdata, many datasets remain underexploited as a result of weak metadata/documentation, problems with data quality, limited relevance, lack of analytical capacity at the national level and lack of capacity among users.

32. Another key problem is the imposition of severe restrictions on access to the microdata by many statistical agencies, often due to legitimate concerns over privacy and confidentiality. When access is restricted, important secondary users are excluded, including members of civil society, academic researchers or educators. Confidentiality concerns can be mitigated by implementing statistical disclosure control techniques, which would facilitate the release of microdata in compliance with legal and ethical regulations.

33. Access problems go beyond the release of anonymized microdata and extend to the usability of the datasets. Maximum usability implies that data are disseminated in formats that meet the needs and analytical capacities of different users. Detailed survey documentation or metadata, including codebooks, syntax files, and other relevant documents should be made publicly available since they are required for interpretation and enhanced usability of the data. Without proper description of the survey design and methods used during data collection and processing, the risk is high that users will misunderstand and thus misuse the data. Metadata must be generated at all stages of the survey life cycle, from the initial consultation with users to the final assessment of the survey.[10]

34. Data access also extends to the visibility of the data. Good metadata, when made available in online searchable catalogues, are the most effective way for users to find the data in which they are interested. Cataloguing and resource location systems containing clear and informative metadata — whether manual or digital — greatly contribute to increasing the accessibility of data.

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[9] The International Household Survey Network has undertaken an inventory of citations related to surveys listed in its online catalogue. The higher quantity and diversity of the citations related to freely accessible and well-documented datasets demonstrates the high return of investments in microdata documentation and dissemination.

[10] The Generic Statistical Business Process Model provides a detailed decomposition of the steps. See http://www1.unece.org/stat/platform/display/GSBPM/Generic+Statistical+Business+Process+Model.

35. Significant progress has been made over the past 10 years, with many statistical agencies having adopted international standards[11] and best practices for microdata documentation and dissemination. Specialized free and open-source software, guidelines, and technical support have been made broadly available, with guidelines and tools disseminated through the International Household Survey Network. However, the process of data "liberation" in many ways has only just begun. Much more remains to be done, and survey producers and sponsors have a joint responsibility to pursue this endeavour. Support for microdata documentation and cataloguing will need to be continued and scaled up, and support for microdata anonymization and the formulation of microdata dissemination policies and protocols will need to be extended. The possibility of pursuing such activities at the regional or subregional level to exploit potential economies of scale should be explored.

III. Moving the household survey agenda forward

36. A sound statistical system must be recognized in itself as an outcome of development. The successes and failures of monitoring the Millennium Development Goals during the past 15 years provide useful lessons and contribute to informing the data needs of the post-2015 development agenda. Survey data, in conjunction with other data sources, will continue to be needed for the monitoring of national and international goals. In order to succeed, the international community, jointly with partner countries, should commit to a number of actions. The issues highlighted in paragraph 7 above suggest the following potential priority actions:

(a) Create an institutional framework to oversee coordination of efforts and harmonization of standards among development partners and across countries;

(b) Establish, pilot and subsequently endorse and implement a common international code of practice on household surveys;

(c) Develop and implement a coordinated programme of methodological research for the development and adoption of improved standards, methods and practices in household surveys;

(d) Invest in technical assistance and capacity-building for household surveys;

(e) Identify and secure adequate funding to support a functioning, long-term household survey programme as part of the broader data revolution for sustainable development agenda and beyond.

A. Institutional framework

37. The fragmentation of efforts, self-interest and poor coordination and harmonization of standards across stakeholders is symptomatic of the absence of a proper institutional framework to support a renewed household survey agenda. In the past, initiatives like the National Household Survey Capability Programme and international household survey programmes like the Demographic and Health

[11] More specifically the Data Documentation Initiative metadata specification by the Data Documentation Alliance. See www.ddialliance.org.

Survey, the Multiple Indicator Cluster Survey and Living Standards Measurement Study all contributed to building capacity and improving the knowledge base. However, those efforts and initiatives have been highly fragmented and insufficiently coordinated, often creating frictions and inefficiencies in the system. For future data investments, better coordination and methodological harmonization are needed.

38. The strategy to improve household surveys in the post-2015 development agenda calls for strong actions in the area of methodological innovation, technical assistance and capacity-building, funding mobilization and the definition and enforcement of quality standards and practices. In order to exploit the potential for economies of scale and scope in the implementation of those functions, while also maximizing the comparative advantages of different players, it will be important to engage national, regional and global institutions in delivering on a multifaceted programme towards the strengthening of household survey systems and the preparation of specific outputs.

39. From the consultations leading to the preparation of the present report, consensus emerged on the need for a formalized institutional arrangement with clear definitions of roles and responsibilities across stakeholders, facilitated by a new entity with a strong mandate to promote and coordinate the development, adoption and enforcement of standards and best practices in household surveys. Towards that goal, there is a call in the report for the establishment of a technical standing group comprising key international stakeholders and country representatives. The criteria underlying the formation and housing of the group should include impartiality and credibility among peers; technical expertise in cross-cutting issues in the area of household surveys; and broad geographic and intersectoral representation.

40. Supported by other ad hoc, time-bound technical groups and various specialized agencies, the standing group would provide strategic vision and coordination among the different players towards the establishment of a multi-year programme involving methodological and technological innovation, capacity-building and advocacy for household surveys by engaging different stakeholders in a coherent, coordinated fashion. As many of the stakeholder institutions are already part of the broader push for a data revolution for sustainable development, a formal institutional framework, possibly under the aegis of the United Nations, will provide an opportunity to mainstream household surveys within the larger data effort and foster integration with other data sources. The Inter-Secretariat Working Group on National Account could serve as a useful model for reference.

41. There is an urgent need for a functioning institutional framework to steer the household survey agenda and the Commission is urged to support the creation of the technical standing group. It is suggested that the management group of the International Household Survey Network facilitate the operationalization of the technical standing group by preparing the terms of reference and developing a provisional multi-year work programme (in consultation with countries and other stakeholders) for adoption and oversight by the standing group once it has been formed.

B. International code of practice for household surveys

42. Coordination of survey programmes should be driven by a commonly accepted set of rules with an associated enforcement mechanism through which accountability can be ensured. The Fundamental Principles of Official Statistics provides a set of principles that are necessary but not sufficient. Observance of a common code of practice by all national and international survey stakeholders involved in the implementation of survey programmes would foster more coherent and effective programmes. A code of practice is not a guarantee of data quality and availability, but adherence would contribute to making systems more efficient and cost effective. Issues such as the underfunding of survey programmes, the provision of contradictory technical advice and low technical capacity, among others, would be more effectively resolved within an institutional framework defined by a key set of principles and agreed practices, with an associated enforcement mechanism.

43. In the context of developing countries, an international code of practice for surveys could serve both as a self-regulatory instrument for data producers and a regulatory instrument for the sponsors of surveys. National agencies (as well as regional or international agencies that manage international survey programmes) could use the code to guide their practice, while sponsors could establish compliance with the code as a formal condition for their support. Compliance would be evaluated by an independent, qualified, and possibly certifying, body. Credibility of the evaluators is important and there should be sufficient professional separation between the staff responsible for the survey implementation and the evaluators in order to avoid conflicts of interest. Evaluations should be presented in a standard format, made publicly available and should include key recommendations to guide future survey efforts.[12]

44. The European Statistics Code of Practice and the Statistics Authority Code of Practice of the United Kingdom of Great Britain and Northern Ireland[13] serve as useful models. Both articulate a set of key principles and define a list of associated practices (or "indicators of compliance") related to each principle that are instrumental to assess compliance. The European and United Kingdom codes of practice are not specific to the topic of household surveys; it is thus proposed to identify the key principles that are most relevant to address survey-specific issues and to develop and agree on an associated list of survey practices. A tentative list of eight key principles is set out below, on the basis of the above-mentioned codes of practice. It is proposed that over the next year, the International Household Survey Network develop a list of practices associated with those principles and conduct pilot work assessing the compliance of a sample of recently completed household surveys with those practices. This would provide helpful information on the value of the proposed approach and on the specification of the proposed principles and practices. A report by the Network on the findings of that work would be submitted to the Statistical Commission at its forty-seventh session, in 2016, following which a consultative process would be established for the finalization and ratification of the code of practice.

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[12] See http://statisticsauthority.gov.uk/assessment/code-of-practice/. See also a collection of related assessments reports available from http://www.statisticsauthority.gov.uk/assessment/assessment/assessment-reports/index.html.

[13] See http://epp.eurostat.ec.europa.eu/portal/page/portal/quality/code_of_practice and http://www.statisticsauthority.gov.uk/assessment/code-of-practice/.

45. The key principles for household surveys include the following:

- **Principle 1: Coordination and cooperation.** The statistics-producing entities coordinate and cooperate with each other within the national statistical system and collaborate with the international statistical system. Implementation of survey activities is planned in a participatory manner. Stakeholders work jointly to improve the availability, frequency, comparability and quality of survey data.
- **Principle 2: Relevance and timeliness.** The production, management and dissemination of survey data is based on clearly formulated and publicized policy priorities of the Government, public services, businesses, researchers and the public. Statistics are released in a timely and punctual manner in order to effectively address policy priorities.
- **Principle 3: Reliability and accuracy.** Statistics provide an accurate and reliable portrait of economic and social phenomena. Mechanisms are in place to assess, monitor and assure the quality of survey output, taking into account internationally agreed practices. Strengths and weaknesses are identified in order to continuously improve the quality of household survey data. The quality of survey data is regularly reported.
- **Principle 4: Sound methods and appropriate procedures.** Appropriate statistical procedures, implemented from data collection to data validation, underpin quality statistics. Survey methods are consistent with scientific principles and internationally recognized best practices, and are fully documented. Information related to these methods and procedures that may be needed to understand, evaluate, replicate and build upon prior work are made publicly available.
- **Principle 5: Coherence and comparability.** Statistics are consistent internally and have spatial and temporal comparability, where appropriate. It is possible to combine and make joint use of related data from different sources.
- **Principle 6: Adequacy of resources and cost-effectiveness.** The resources made available for survey activities are sufficient to meet the requirements of these key principles and are used efficiently and effectively. The burden on respondents is not excessive and is assessed relative to the benefits arising from the use of the statistics. Data and metadata collection are conducted using the most efficient instruments, taking into account the available technologies and human resources.
- **Principle 7: Confidentiality.** The privacy of respondents, the confidentiality of the information they provide, and exclusive use of the information for statistical and research purposes, is guaranteed.
- **Principle 8: Accessibility and usability.** Survey data are made available and accessible on an impartial basis, with supporting metadata. Survey reports are released in a manner that promotes public confidence and gives equal access to all, subject to relevant legislation. Survey results are presented in a clear and understandable form and released in a manner suitable and convenient for the end user. To facilitate a correct interpretation of the data, information on the survey methods and procedures is presented according to scientific standard.

C. Methodological research for the development and adoption of improved standards

46. As the international community prepares to monitor the sustainable development goals, it must concede that large deficiencies exist not only in terms of data availability but also in the methods for measuring key indicators. Widespread consensus exists on the need for methodological standards in the form of rigorously validated survey instruments, modules and questions, as well as best practices in survey design and fieldwork implementation. It is ultimately by creating and promoting the adoption of those standards that greater ex-ante harmonization and better rationalization of investments in data can be achieved, towards enhancing both the quality and international comparability of household surveys. However, experiences to date have not been encouraging. Too few rigorous methodological studies have been conducted in the past two decades in developing and middle-income countries to test the data quality implications of using competing data collection approaches. Furthermore, when well-established practices exist, they are routinely misused or disregarded as a result of misaligned interests or poor advocacy.

47. In order to address such concerns, an internationally coordinated effort is required to fill methodological knowledge gaps through survey method validation efforts that translate directly into the development of internationally agreed standards for survey design. A systematic, long-term programme of methodological research should be initiated to produce guidelines in a number of areas, including data collection, data capture, data editing, statistical disclosure control and data quality assessment. Under that research programme, emerging technologies should also be tested, assessed, and further developed, with a view to improving the frequency, timeliness, quality, and cost-effectiveness of surveys. Research is also needed in developing and promoting tools and methods for linking household surveys to other data sources and for micromodelling. Finally, as new data sources such as big data emerge as useful tools for analysts and policymakers, research is needed to assess the potential and limitations of these new data sources in relation to traditional data sources such as household surveys.

48. In order to better identify the priorities and key responsibilities of multiple actors in the methodological agenda, it is suggested that cross-cutting issues be distinguished from sectoral priorities. Examples of cross-cutting issues include devising better imputation methods for the treatment of outliers, techniques to promote integration of data sources or statistical disclosure control methods. An example of a sectoral priority would be improvements in the measurement of household consumption or expenditures. A recent review of survey data revealed an unjustifiably high level of heterogeneity in the methods for collecting food consumption data in household surveys.[14] The review highlights numerous shortcomings that would be relatively easy to resolve by establishing a set of core standards (for example, on recall periods, the comprehensiveness of the products and services list and the use of standard and local quantity units in measuring quantities). Other food consumption measurement issues result from a lack of satisfactory guidelines and standards (for example, on the measurement of food

[14] See http://www.ihsn.org/home/food. Another example, related to the measurement of education indicators is available from http://www.ihsn.org/home/education_assessment.

taken away from home), pointing to the need for an urgent methodological research programme. Other examples of sectoral methodological research include ongoing efforts to validate the new definition of employment as proposed at the previous International Conference of Labour Statisticians, or ongoing work on harmonization of survey instruments for the monitoring of the universal health coverage initiative.

49. In general, many sectors require further methodological research into best practices for measurement and data capture; while certain survey topics are well established and validated, others are more experimental. For instance, household surveys are being increasingly used to address issues of violence, crime victimization, access to justice, abuse of drugs and corruption, to name a few. In order to increase the accuracy and comparability of data, strong methodological guidance is needed in those fields. Guidance should be provided under the joint leadership of relevant international agencies and with the participation of interested national offices in order to fully take into account existing practices and expertise.

50. The planning, design and implementation of a global research programme, including both cross-cutting as well as sector-specific issues, requires formal coordination in order to avoid duplication and unproductive competition. For example, the above-mentioned research on food consumption measurement is currently being coordinated by a new international technical working group created under the aegis of the Inter-Agency and Expert Group on Agricultural and Rural Statistics. The Group is developing a work programme for drafting evidence-based guidelines for endorsement by the Statistical Commission, while promoting further methodological work to address jointly identified priority research areas, drawing both on existing data and on data to be collected for that purpose. Similar initiatives should be promoted in other priority areas where the household survey design, quality and comparability issues are evident and urgent. With the support of other ad hoc, time-bound technical groups, the standing group on household surveys proposed above should play a key role in defining and coordinating the research agenda on cross-cutting themes, while also playing a consultative and advocacy role for sector-specific methodological work carried out by specialized agencies and other relevant actors.

D. Technical assistance and capacity-building

51. Support for household surveys should not only address data and quality gaps but also ensure that recipient organizations will gain the capacity to sustain their survey programmes or to substitute surveys with data from administrative or other sources as appropriate. With a few notable exceptions, capacity-building has been an elusive objective of external technical assistance to household surveys in developing countries to date, most likely as a result of a lack of long-term vision.

52. Following the demise of the National Household Survey Capability Programme more than two decades ago, no institution has played a commensurate role in the global provision of capacity-building and standard-setting for household surveys. International survey programmes like the Demographic and Health Survey, the Living Standards Measurement Study, the Multiple Indicator Cluster Survey and other initiatives like the International Household Survey Network, ILO support to labour force surveys, or the MECOVI programme have contributed to providing technical advice at a relatively large scale. However, most of the efforts have been

neither global nor sufficiently integrated into national strategies for the development of statistics. Establishing sustainable capacity, especially in low-income countries, will require an effort of a magnitude and continuity far greater than in the past. The MECOVI programme, for instance, could serve as a useful model, whose success can be attributed to a number of features: a long-term horizon of technical support, well-coordinated multi-donor support and the inclusion of both national and regional components of capacity-building to foster South-South cooperation. International survey programmes should also develop new approaches to capacity-building that leverage the power of the Internet and new learning media; using e-learning and other remotely administered training tools can lower costs and provide standard curricula.

53. Supporting the creation or strengthening of regional or subregional hubs in survey methods would contribute to producing a critical mass of qualified survey statisticians and practitioners by taking advantage of economies of scale in training and the provision of technical assistance. In addition, the above-mentioned proposals to create an institutional framework, to establish a code of practice and to develop and publicize improved methodological standards and methods, would all contribute to delivering more coherent and cost-effective technical assistance and capacity-building.

E. Financing

54. The international community is elaborating a new framework for 2015 and beyond to promote sustainable development for all. The scope and magnitude of that agenda implies enormous financing needs. Funding for development data, and more specifically household surveys, will be part of the sustainable development goals financing challenge. Recognizing the value of household surveys to the data revolution, resources should be sought and earmarked to support a full-fledged programme for improving the availability, quality and relevance of household surveys.

55. A successful and sustainable financing model for household surveys should recognize the need for countries to contribute their own financial resources to the design and implementation of household survey efforts, as ultimately statistical systems are intended to respond to national policy and development priorities. However, any sustainable financing model must also recognize that in order to promote data equality between richer and poorer countries, external resources will be needed to support lower-income countries in meeting their data objectives.

56. A financing framework for household surveys should abide by the following principles: (a) maximize value from the data produced; (b) support continuous improvement in the underlying production process, recognizing the accelerating pace of technological change; and (c) ensure the sustainability of the systems once external funding diminishes. Specifically, in addition to supporting the production of data in selected countries, funding should go towards: (a) the identification and compilation of current methods and best practices; (b) support to technological innovation and methodological validation of promising practices; (c) production of methodological guidelines and training materials to steer countries and international agency towards the application of common standards and the collection of common

indicators; and (d) scaling up and harmonizing technical assistance and capacity-building activities based on the new guidelines and recommendations.

57. Aid should be designed in such a way as to avoid crowding out or distorting domestic financing. In order to ensure efficient deployment, aid should reflect a country's ability to self-finance the necessary public investments in statistics, its commitment to pursue evidence-based decisions and its capacity to absorb funding efficiently. The preferred way to coordinate financing is through the pooling of resources across development partners. Country-led programmes with national ownership and collective funding would help align the aid and country agendas. The MECOVI programme again offers lessons: its initial three sponsoring agencies were the Inter-American Development Bank, the World Bank and the Economic Commission for Latin America and the Caribbean. The list was later expanded to include seven bilateral donors, the United Nations Development Programme and the Soros Foundation. By clearly defining its programme objectives, decision-making structure, supporting organization and generation of results, the MECOVI programme was able to ensure funding that was pooled, well targeted and long term.

58. Finally, particularly in less-developed countries, funding will be required to facilitate the adoption and diffusion of technological innovations in household surveys, while also promoting ways to exploit big data and other data sources. Household surveys need to adapt to the changing data environment, and adequate funding will be needed to foster those adaptation efforts, in full alignment with the goals and accomplishments of the data revolution for sustainable development.

IV. Recommendations

59. The Statistical Commission may wish to:

(a) Express its views on the identification and description of key issues in household surveys, as described in the present report, and on the importance of addressing them rapidly in the context of the post-2015 agenda;

(b) Express its views on the necessity to include in the Commission's agenda for discussion the progress related to the design, implementation, funding and coordination of household surveys, with a focus on achievements in developing countries;

(c) Express its views on the desirability of formalizing a new global institutional arrangement in the form of a technical standing group, possibly under the aegis of the United Nations, to foster the coordination of household survey activities across agencies and member countries, define and promote minimum standards and best practices and advocate for household surveys within the broader post-2015 data agenda;

(d) Endorse the interim role of the management group of the International Household Survey Network in respect of establishing a technical standing group and contributing to delivering on the recommendations set out in subparagraphs (e) and (f) below until such a group becomes fully operational;

(e) Endorse the piloting of an international code of practice for surveys by the International Household Survey Network, the findings of which would be

compiled into a report to be submitted for information to the Statistical Commission at its forty-seventh session, in 2016;

(f) Recommend the production of a report on priorities for cross-cutting research work in survey methods, to be provided as an input to a multi-annual programme of work (including funding requirements) to be submitted for information to the Statistical Commission at its forty-seventh session.