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# Selected Strategies to Improve the Effectiveness of Current Practices in Social Statistics *

by

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# Selected strategies to improve the effectiveness of current practices in social statistics

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## 1. Introduction

Regular monitoring of social development in all its dimensions has always been a challenging task for statisticians. While the monitoring of economic phenomena has reached a good level of development, a regular production of statistics for measuring social development is still not well developed in many countries. So if very often data are available for example for quarterly estimates of GDP, inflation rates, and economic production, statistics on social conditions are produced in a less regular and systematic fashion. This is due to the higher degree of interest that countries have often placed on monitoring economic events but also to the more complex nature of social events that require a more sophisticated monitoring system. Social conditions tend to change more slowly than economic conditions and outcome of goals such as quality of life, distribution of income and distribution of social benefits are more difficult to translate into operational measures. For example, productivity has a clear interpretation in the economic context where traditional economics has developed good measures and analytical tools. The notion of "social productivity" and social outcomes are less developed and more difficult to measure.

In the note presented here we briefly highlight a few issues that address the measurement of social events. One is concerned with the conceptualisation of social outputs: how to define them and how to translate them into relevant indicators. Other issues relate to measuring links between different areas of social statistics and between social and other fields such as economics and environment. The challenge is to define common grounds for the different fields of social statistics and to eliminate the borders that often exist in the organization and classification of data collection and dissemination related to these fields. The paper covers also the aspect of user and producer dialogue emphasizing the need to train users on how to interpret and use social statistics and indicators.

## 2. Measuring social outcomes

Most of the indicators used to measure social events can be classified into process indicators and outcome or performance indicators. Process indicators measure the extent to which there is a predisposing and enabling environment to reach an output, while outcome indicators measure the actual realization of an event. As an illustrative example we could consider the accessibility to health services. Indicators that are related to the characteristics

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[1] They are part of the Human and Sustainable Development Statistics Team of the UNECE.

of the delivery system (availability of health care providers and facilities) are process indicators while indicators related to the utilization and satisfaction of the services are outcome indicators since they describe the realization of the output (access to services)[2].

In general, outcome indicators are more difficult to measure than process indicators because they need to define first the successful outcome and then measure it in all its different components. Very often, frameworks for social indicators have been focused on process indicators rather than on outcome measures.

If again we look at the example of access to health services, we can see that many countries are still using indicators related to the availability of services (percentage of people living at a certain distance from health services, number of beds for 1,000 persons) rather than indicators that are related to utilization and quality of the services. Although increasing for example the number of hospital beds per capita may lead to a better access to the services, this may be a misleading indicator for accessibility if the actual delivery of the services is not measured.

We believe that a debate on social indicators should focus more on how to better **measure social outputs**. In addition to process indicators being misleading at times, social outcomes are often forced under a binary classification (employment/ unemployment, disabled/not disabled, literate/illiterate, among others) when measured. This dichotomy gives an easy interpretation of the data provided at aggregate level. However, it does not reflect the multidimensionality underlying these concepts. The health status of a population for example has many dimensions that relate to intensity, perception, and duration which are better placed in a **continuum** rather than in a dichotomy. Although at national and international level there are forces that try to put issues such as health and development into one single index, we would argue that the efforts should be directed to the opposite direction, taking these concepts apart and developing measures that can be described in larger scales.

An example of indicators that restrict the measurement of outcome is the percentage of people with disabilities. This indicator shows how a complex phenomenon is forced into a static dichotomy (being/not being disabled), which fails to capture the real nature of the disabling process[3]. This process has various domains and degrees of experience in terms of types, intensity, and time. Reducing these different dimensions into a binary classification not only gives it a reductive picture of the phenomenon, but it also misleads users who believe that health outcomes can be reduced into a two dimensional status. The general indicator on percentage of people with disabilities should be replaced by indicators that describe the various domains of disability such as percentage of people who can walk, percentage of people who can read, and percentage of people who can

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[2] *The National Profile of Access to Medical Care: Where Do We Stand?,* L. Aday, R. Andersen, <u>American Journal of Public Health</u> 1984 Vol. 74 No. 12.
[3] *The Dynamics of Disability, Measuring and Monitoring Disability for Social Security Programs*, U.S. National Academy Press, Washington D.C. 2002.

perform daily activities[4]. This is in line with the WHO efforts to measure health outcomes in terms of functioning, activity limitation and participation[5].

In addition to the WHO efforts to measure health outcomes in a broader context, there are other initiatives that follow the same direction and should be further developed. One is the focus that ILO is putting into the new concept of decent work that shifts the attention from the traditional dichotomy of employment/unemployment to the quality of employment, which includes links to other fields such as health (health benefits), and quality of life[6].

Unfortunately current international lists of indicators are still based on restricted dichotomies that often fail to capture the essential elements that need to be measured. Even the indicators used to monitor the Millennium Development Goals (MDG) are very traditional in this respect. For example, the only indicator related to employment, youth unemployment, has very little meaning in developing countries where there is a less developed labour market and where the real concern is the quality and the type of employment rather than the employment itself. The indicator related to literacy is also very crude. It is very hard to force a person under the dichotomy of literate or illiterate both in terms of conceptualisation and measurement. Recent projects are looking at the broader concept of literacy as a concept that is no longer just a question of being able to read, but as a more complex grouping of skills[7] [8]. It is important that these broader approaches are considered when social indicators are reviewed and developed.

## 3. Linking different fields of social statistics

Organization of data collection and dissemination in national statistical offices

The way a statistical office is organized can facilitate the links of different fields of social statistics and the link between social statistics and other domains of statistics such as environment and economics. The organization of the activities of a statistical office should be part of the agenda for discussing future steps in social statistics. How a statistical office organizes the collection and dissemination of data and how cross-cutting programmes (such as gender and sustainable development) are handled within a statistical office have a great impact on the quality and availability of the data.

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[4] This is for example the policy of the U.S. National Center for Health Statistics that does not publish data on the total number of people disabilities, but it only releases data related to different domains of disability.
[5] These domains are well defined in the International Classification of Functioning, Disability and Health (ICF) where the disabling process is described in terms of body (functions of body systems and body structures), activity and participation, and contextual factors (environmental factors and personal factors).
[6] *Measuring Decent Work with Statistical Indicators*, ILO, Working Paper No.2.
[7] For example in the International Adult Literacy Survey (IALS) implemented by OECD literacy is defined as the ability to understand and employ printed information in daily activities, at home, at work and in the community.
[8] The UNESCO Institute for Statistics is launching the Literacy Assessment and Monitoring Programme to conduct a survey to measure a broader spectrum of literacy levels.

Broadly speaking, a statistical office can be structured in two different ways: by subject matter and by function[9]. Both organizational structures have advantages and disadvantages in addressing issues of coordination among different fields of statistics and among users and statisticians. However, the organization of statistical activities according to function or the existence of a mechanism that assures the coordination of different subject areas often facilitates a better integration of different fields in data collection and dissemination. There are statistical activities such as the maintenance of business registers that have been traditionally linked to the activities related to economics and have been almost exclusively used in the field of economic statistics. Looking at business registries not only from an economic prospective but as a vehicle for collecting different types of data has produced very good results in improving the collection of social data and its links with economics[10].

The organization of statistical offices also plays an important role in facilitating the integration of cross-cutting issues into the regular collection and dissemination of social statistics. Programmes related for example to gender statistics have often been confined in units related only to social and demographic statistics. Recognizing that gender is an issue related to all fields of statistics related to people, including for example economic and agricultural statistics, it is important that gender be mainstreamed in all areas of statistics to make sure that data collection and dissemination take proper consideration of gender-related issues.

Although there exist no perfect recipe to organize a statistical office to maximise its productivity and the interrelationships among different fields, we believe this is an important subject to discuss in connection to the development of social statistics given its cross-sectoral nature.

Classifications

Classifications have a crucial role in defining the collection and dissemination of statistical data. Therefore, improving the link between different areas of social statistics must go through a more integrated framework of social and economic classifications. Current classifications such as ISCO, ISCED, ICF and the International Classification of Activities for Time-Use have been developed with little coordination and even if they in part cover common areas, the underlying frameworks are not always consistent.

If many of the "social" classifications are very field-specific (for example the International Standard Classification of education (ISCED), the International Standard Classification of Occupation (ISCO), and the International Classification of Diseases

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[9] *The Handbook of Statistical Organization, Third Edition: The Operation and Organization of a Statistical Agency*, United Nations publication, in press.
[9] There is a work in progress by the European Council that is planning to finalize an Handbook on How to use social indicators.

[10] *Use of business registers in social statistics in Finland*, paper submitted by Kaija Ruotsalainen at the joint UNECE-Eurostat Work Session on Registers and Administrative Records for Social and Demographic Statistics, Geneva, 9-11 December 2002.

(ICD)) and have been developed with little interaction with other fields, there are also classifications that are broader in concept and encompass different social fields. These are for example the ICF and the International Classification of Activities for Time-Use. The use of these classifications are so far limited to specific fields (disability and time-use). However, their structure and broad concepts could be used as a starting point to develop a broader framework that would better classify and link different areas of social statistics.

Integration of social statistics into economic and environmental frameworks

There is a growing demand to address various issues of a society in an integrated way, also reflected through holistic approaches such as sustainable development. In order to help policy-makers to approach these components within a more integrated framework, statisticians should strengthen their efforts to break the barriers that often have separated these three fields in terms of concepts, definitions, data collection and dissemination.

Many efforts have been taken to develop frameworks to integrate economic and environmental measurement systems[11] using monetary and non-monetary frameworks. However, there are still a few examples where these systems have incorporated the social component (in monetary and non-monetary terms)[12]. The challenge here is not to fall into the trap of converting social outcomes into monetary terms in order to accommodate the social component in an already-established economic framework (the System of National Accounts). This kind of exercises may serve the purpose of better planning national economies but they do not serve the purpose of studying the relationships between economic, environmental and social outcomes and the effects of changing a component of one sector over the outcome of another sector.

By nature social outcomes have a value that if it is forced into monetary frameworks it loses its intrinsic meaning. However, if strategies for a more systematic and integrated system of social statistics are discussed, this should not be done in isolation, without any consideration of its linkages to the economy and the environment. On-going efforts such as the formation of the Inter-Secretarial Working Group on Sustainable Development Statistics seem to go in this direction looking at both indicators and accounting frameworks that include the three social, environmental and economic components.

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[11] See for example the efforts of the London Group on Environmental Accounting (http://unstats.un.org/unsd/environment/londongroup.htm ) and the *Integrated Environmental and Economic Accounting 2003*, referred to as the SEEA.
[12] Examples are the Social Accounting Matrix (SAM) and the System of Economic and Social Accounting Matrices and Extensions (SESAME). See *Accounting for Welfare with SESAME*, Household Accounting: Experience in Concepts and Compilation, United Nations publication ST/ESA/STAT/SER.F/75 (Vol. 2)

## 4. Users/producers dialogue

### National level

Among national statisticians there is an increasing awareness about the need to strengthen the collaboration between users and producers of statistics particularly when it comes to defining priorities and developing new methodologies in data collection[13]. However, there is still little consideration on the need to improve users' understanding of **how** to make an optimal use of social statistics [14].

Very often users blindly use statistical data on the basis of their availability without deep appreciation of their accuracy and underlying methodologies. They often do not distinguish between official and non-official statistics, which can create confusion and lack of credibility in the overall statistical system of a country. Some of the indicators produced in the social area have different aspects to consider: they may not measure the concept they intend to address in all components or the data are only estimates and have a large degree of uncertainty[15]. Non-technical users tend to overlook these aspects and consider all data as equally robust.

Even if policy makers increasingly use statistics to support their decisions, there is still a lack of understanding of how best to use statistics to develop new policy programmes. This is particularly relevant in areas where statistics are becoming available only recently such as time-use data. These types of data are more often used for advocacy purposes than for formulating appropriate programmes.

Without undermining the credibility of statistics or their relevance, more focus should be placed on training users on issues related for example to how to evaluate the quality of social statistics and indicators, what social indicators actually measure, how to use statistics to formulate policies and develop and monitor programmes[16]. In this process, special attention should also be given to the way statisticians as producers approach and train users. They need to be more proactive in "selling" their products and show the value of statistics. In doing this, they need to use attractive messages which are simple and not too technical.

### International level

The collaboration of users and producers should also be strengthened at international level. On the one hand, many of the indicator lists that have been developed

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[13] See for example: *Engendering Statistics, a Tool for Change*, B. Hedman, F. Perucci, P. Sundstrom, published by Statistics Sweden ISBN 91-618-0859-8, *The Handbook of Statistical Organization, Third Edition: The Operation and Organization of a Statistical Agency*, United Nations publication, in press.

[14] There is a work in progress by the European Council that is planning to finalize an Handbook on How to use social indicators.

[15] For example in many developing countries indicators on HIV or maternal mortality are often calculated on the basis of modelling techniques which have very large bounds of uncertainty.

[16] For example UNECE has developed a web-site on gender statistics where statistics are linked with policies (http://www.unece.org/stats/gender/web/).

for monitoring progress in social fields[17] have been selected without consultation with statistical bodies (the UN Statistical Commission or other regional Statistical Committees). On the other hand, statistical bodies have approved indicator lists with no consultation with institutional bodies concerned with the substantial fields[18]. There is a need to strengthen the relationship between statistical international bodies[19] and the fora responsible for policy formulation[20]. In particular, statisticians should be involved at early stages of discussions related to monitoring processes, when targets are set and monitoring tools are being developed. This should be done with respect of the role of substantive bodies to set up the priorities and to role of statisticians to translate these priorities into statistical measures.

## 5. Conclusions

The following is a summary of our recommendations:

- There is a need to better measure social outcomes and focus more on outcome indicators rather than process indicators.
- Social indicators related to fields such as health status, literacy, and employment should move away from restricted dichotomies and be measured in larger scales with the purpose of identifying issues related for example to quality and intensity.
- The topic of statistical organization should be discussed in the context of improving the production and dissemination of social statistics. It is important to understand how best a national statistical office should organize the collection and dissemination of data to improve the linkages among different areas of social statistics and assure the mainstreaming of cross-cutting issues such as gender and sustainable development into all its relevant activities
- A discussion on the development of new frameworks for social statistics should not be done in isolation, from on-going initiatives related to the measurement of sustainable development. This would assure that new standards for social statistics would help to measure the links with environment and economics in a consistent way.
- Given the important role of statistical classifications in the collection and dissemination of data, a common framework of social classifications should be developed in order to assure consistency in the reporting of statistics in different social fields.

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[17] See for example lists developed to monitor: the Millennium Development Goals (MDG) (http://unstats.un.org/unsd/mi/mi_goals.asp) and the progress toward sustainable development (http://www.un.org/esa/sustdev/natlinfo/indicators/isd.htm).
[18] For example the UN Statistical Commission approved in 1997 the Minimum National Social Data Set (MNSDS) (http://unstats.un.org/unsd/statcom/sc97.htm) and "welcomed" in 2002 the indicator architecture build by the group of the Friends of the Chair composed by statisticians from national statistical offices and other statistical experts (http://unstats.un.org/unsd/statcom/sc2002.htm).
[19] The UN Statistical Commission and other regional Statistical Committees.
[20] For example the UN Commission on sustainable development, the UN Commission on the Status of Women, specialized events such as the special session of the General Assembly on Children or the Social Summit.

- More efforts should be put in developing guidelines and training users on how to use social statistics in policy formulation and monitoring.