

## Working Paper Series

# Policy-Data Integration: key to achieving the SDGs for all

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## Abstract

The implementation of the 2030 development agenda for all requires policies that are committed to address the needs of all and official statistics that are responsive to the policy demands. This paper conceptualizes a space within which policy and data can interact consistently within a framework defined by agreed principles. The concept creates foundation for integrating policy making and data production and use processes while both remain responsive to the need of ultimate beneficiaries. Inspired by the existing policy content assessment tools, the paper also proposes characteristics and necessary components of a tool that facilitates such integration.

*Key words: Sustainable Development Goals (SDGs), policy integration, integrated statistics, disaggregated statistics, indicator framework.*

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## I. Aura's Case

Aura is an 85-year-old woman living in South Intopia, the most polluted part of the country where the economy is dominated by the mining industry. She suffers from acute asthma and earns an equivalent of 2 USD per day from her husband's pension plan. In recent years, Aura has struggled with her medical expenses and finally decided to sign up for a programme that distributes cash to poor families. The Ministry of Housing and Poverty has identified Aura ineligible for the programme as she earns above the minimum daily income of 1.90 USD. She explained her exceptional condition to the officer and was told that she is "**economically**" not poor so her problem had to be taken to the Ministry of Health where she was told last year that her disease was not on the list of the subsidized medical coverage plan. She was also advised by her doctor to move out of the polluted area. Aura had sought support from the Ministry of "**Social**" Welfare to relocate her house but her justification was "**environmental**" which falls outside the mandate of this ministry and furthermore she was not defined as poor! So, Aura should take her issue back to the Ministry of Housing and Poverty, which means that she would repeat a futile cycle.

The president of Intopia has endorsed the Sustainable Development Goals (SDGs)<sup>1</sup> this year and committed to "leave no Intopian behind". Ten working groups are involved in aligning national and sectoral plans with the SDGs and the statistical office of Intopia is mandated to coordinate data support to the implementation of these plans. All look perfect on paper. However, Aura cannot find any place in the policy priorities. Her information is recorded in several administrative sources. Statistics show that Aura earns above minimum income, owns a house and is covered by basic health insurance package. She is definitely not "left behind" according to data and not prioritized by any of the policy programmes. But, Aura "feels neglected" and "helpless". Can Intopia achieve its ambition without addressing Aura's needs? How many Auras live in Intopia? Why do the data not show her as a vulnerable member of the society? Why has no policy identified her as target/vulnerable citizen? and finally, who should fix the problem, data producer or policy maker?

## II. Learning about "Unknown Unknowns"

Aura is not identified vulnerable by existing policies and programmes of the various ministries because she is not deprived by any "single" dimension. Data did not tag her as vulnerable because different characteristics are measured separately and published one at a time in isolation. On the other hand, Aura is vulnerable when several characteristics of age, sex, health, wealth, and location are put together

simultaneously. Intopia is serious in achieving inclusive growth but its policy-data landscape is incapable of capturing real vulnerable citizens. This is because its sectoral policies were applied in isolation and interlinkages between the SDG targets were not established. A silo-approach to policy formulation, as in the case of Intopia, results in fragmented data collection and disintegrated statistics that easily neglect multi-

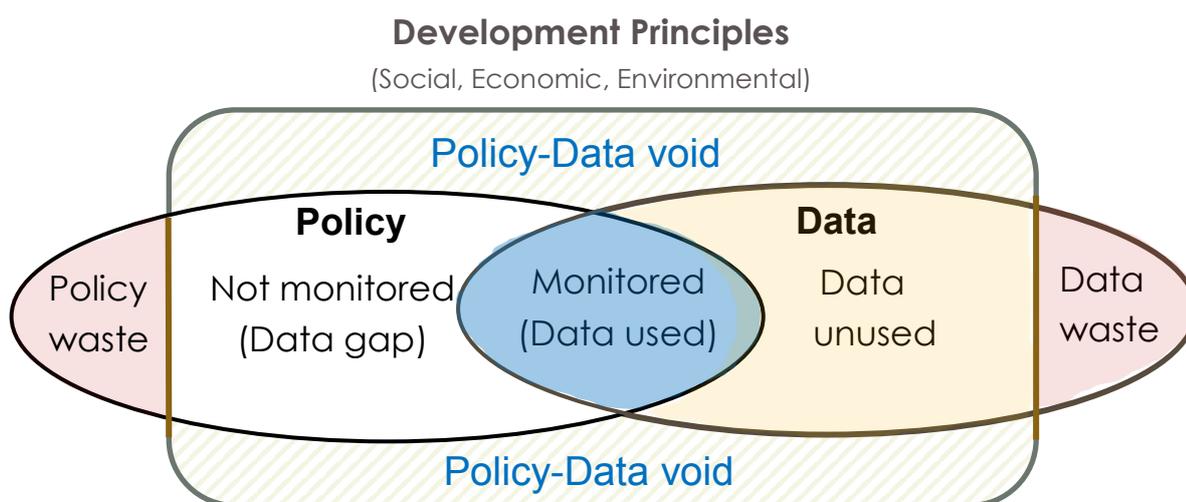
<sup>1</sup><https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf>

dimensionally deprived population groups. On the contrary, integrated policies (at sectoral and geographical levels) create demand for integrated data collection, dissemination and analysis that inform and monitor inclusive development.

In the real world, evidence shows that the gap between poor and rich is widening in some parts, including Asia-Pacific (World Inequality Report 2018<sup>2</sup>) and this is not restricted to less developed economies. The most prosperous economies, with long histories of evidence-based policy making and strong planning institutions are home to some of the least fortunate citizens.<sup>3</sup> There is no reason to believe that business-as-usual will be sufficient in achieving the “leave-no-one-behind” ambition of the SDGs. Neglecting national and international principles in policy formulation, lack of policy integration across sectors and development domains, and missing policy-data linkage are among the major hurdles that policy makers and data producers need to overcome in order to assure SDG implementation for all. A paradigm shift in evidence-based policy making is required. I argue hereafter that a principle-based policy-data integration approach will facilitate this shift.

Integrating policy making processes or statistical business processes are not new topics. Integration of policy and data has also acquired some attention in the form of advocating for user-producer dialogue and evidence-based decision making (Heine K & Oltmanns E, 2016; Vardon M et al, 2016). However, the efforts, especially on the latter, are focused on making use of data that is available but currently not being used or improving quality of data that is already being used (*known knowns*), and data gap based on unmet demand by policy makers (*known unknowns*). On the other hand, there has been very little or no effort in identifying issues or target groups neglected by the policy that, in principle, must be addressed/targeted (Heine K & Mause K, 2004), data currently being produced that are neither demanded nor useful for any policy formulation/monitoring (Jules M, 2017), and policies currently in place that are either redundant or not in compliance with agreed principles embedded in international conventions ratified by the UN Member States or in conflict with other policies (policy-data void, data and policy waste in figure 1).

**Figure1- Policy-Data space diagram**



<sup>2</sup> <http://wir2018.wid.world/files/download/wir2018-full-report-english.pdf>

<sup>3</sup> <http://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=22533&LangID=E>

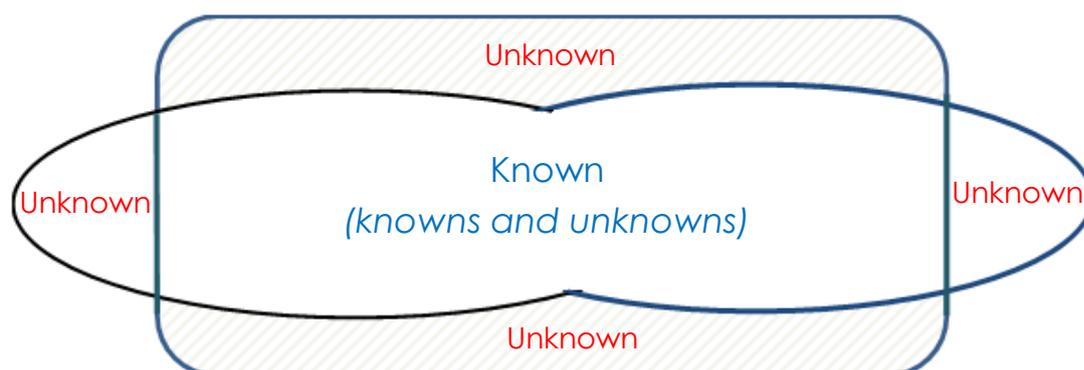
Figure 1 depicts the space within which policy and data interact. The assumption is that policies are formulated based on a set of agreed (nationally or internationally) principles. An example of such principles is Universal Declaration of Human Rights<sup>4</sup> which provides fundamental principles that are relevant to everyone and everywhere. Yet, social policies endorsed at the national level may not necessarily be in full compliance with the Declaration. Under such circumstances, the most comprehensive assessment of policy for data requirements can only meet the needs of policy and not the vulnerable groups who are neglected by the policy. Similar arguments can be made for other domains for which international agreements are available. The reason why national policies in general have not been able to acknowledge, understand, and address needs of the most vulnerable is the absence of collaborative, comprehensive and inclusive policy-data integration that is driven by “agreed principles” rather than “endorsed policies”.

Policies are not formulated in a vacuum. Fortunately, in all three dimensions of development (Social, Economic, and Environmental), there are agreed principles embedded in international conventions ratified by the UN Member States. Those principles are bedrocks of national policies that are reflected in the international conventions. National statistical systems are the eyes of such policies and naturally should be guided by the same principles underlying national policies. When policy-data (or user-producer) dialogues are taking place on the

basis of endorsed policies (rather than agreed principles), it is likely that dialogues focus only on “data used” and “data gap” in figure 1. In a less undesirable situation, such dialogue may also focus on “data unused”. In all three cases, the focus of dialogue is on what we “know” about “knowns and unknowns”. While there are obvious cases of lack of policy that is consistent with agreed guiding principles; such as policies that explicitly assure equal opportunities for members of society (non-discrimination) as recommended by Universal Declaration of Human Rights; or policies that are accounting for the impact of economic activities on ecosystem and people’s healthy lives as recommended by Rio Declaration on Environment and Development.<sup>5</sup> It is often seen that policy-data dialogue is taking place around what is IN the policy and hardly discuss what is NOT IN the policy. Ironically, most of the vulnerable groups, and their social, economic and environmental issues are not acknowledged by the policy documents and therefore are left out of both policy and data (policy-data void in figure 1). Millions of dollars are annually spent on collecting data that are never being used for various reasons; mainly for lack of demand, lack of relevance, or poor quality in general (data waste in figure 1). On the other hand, there are policies that society may be better off without: discriminative policies, economic activities that inflict more harm on the environment and people’s well-being than their benefits, tax reforms that empower the rich and incapacitate the poor, and overlapping or conflicting policies are all examples of policy waste (figure 1).

<sup>4</sup> <http://www.un.org/en/universal-declaration-human-rights/index.html>

<sup>5</sup> <http://www.un.org/documents/ga/conf151/aconf15126-1annex1.htm>

**Figure2- Knowledge space diagram**

In short, the policy-data dialogue is happening in the space known to us (figure 2), be it knowledge about what we know (data used) or about what we don't know (data unused and data gap). Things that are unknown to us will remain unknown unless the dialogue is conducted in a wider space that is created by social, economic and environmental development principles that are commonly agreed upon at the national level. In the case of Intopia, the Ministry of Housing and Poverty uses measures of income poverty to monitor its policies (data used). However, information on housing conditions and asset

ownership - available from population and housing censuses - are not utilized by either of the relevant sectors to identify the population who can be considered poor on multiple dimensions (data unused). Other policy-data issues in Intopia include government policies to subsidise energy consumption by mining industry (policy waste), lack of environmental policies for regulating harmful economic activities (policy void). This leads to a subsequent lack of data on the environmental impact of the mining industry, as well as its health impact on the local population (data void).

### III. Integrate: Cut the Waste, Close the Gap, Fill the Void

It would be perhaps ingenuous to omit the role of political factors such as lobbying and political consensus in the decision making process. Nevertheless, every national policy is inspired by a series of agreed guiding principles that are largely reflected in the international conventions. The objective of policy-data integration is not to eliminate political factors from the process, but to maximize the conformity of the policies with such principles. For policy and data to converge within a space defined by the agreed principles, we need to expand our knowledge about both. Specifically, we need to learn about the data gaps and data unused, areas in which there is lack of policy and data and areas in which policy and data are

produced without benefits for identified beneficiaries. In other words, reducing the unknowns and expanding the knowns in figure 2. This involves a collaborative exercise involving all stakeholders and aiming to:

- improve the quality and use of existing data, and produce new data needed for policy monitoring (this will shift policy ellipse in figure 1 to the right and increases the "monitored" (known knowns in figure 2) area in the diagram).
- benchmark policy and data against agreed principles and identify the waste and the void parts of each in figure 1. The two go

hand in hand as identifying and cutting policy and data waste, can potentially release resources that may be invested in filling the identified policy-data void.

Therefore, policy-data integration may be defined as *“the process of maximizing effective interaction between data and policy within the boundaries defined by agreed principles”*. The main objective of integration should be to expand, to the extent possible, our knowledge of knowns; *through maximizing coverage of agreed principles by monitored policies*.

The key question is how such process can be implemented and where to start? It was already discussed that among three major components (principles, policy, and data), the benchmark should be a set of agreed principles used for assessment of policy and data and identification of waste, gap and void. Therefore, the first step should be to agree, at the national level, on a set of principles (including international principles) that cover all three aspects of development: social, economic, environmental. The second step is assessment; benchmarking policy/data against agreed principles. Keeping in mind that ultimate objective of the exercise is to maximize effective policy-data interaction, this step can be inspired by the estimation theory in statistical production.

The estimation process in statistics is making a scientific guess about an unknown parameter. The process starts by understanding the parameter, then identifying statistical units that carry characteristics of the parameter and then estimating the parameter based on the observed characteristics of the statistical units. Official statistics playing the same role in policy monitoring as estimates play in gauging the parameters. To be relevant to the policy, statistics have to measure the right characteristics from the right statistical units. Therefore, the objective of benchmarking must be to identify parameters and statistical units from policies on the issues that are specified by principles. Those statistical units and

parameters in the policy context are beneficiaries (target groups) of policies and their characteristics and issues respectively. The beneficiaries (target groups) are groups of entities that are expected to be influenced by implementation of the policy. Those entities are typically social (eg. women, children, unemployed, poor, families, households, etc), economic (eg. enterprise, establishment, sector, interaction, product/service etc), or environmental (eg. oceans, mountains, freshwater, cities, forests, species, etc). Understanding of such beneficiaries should naturally define statistical units for measurement and assessment.

It is of utmost importance to keep in mind that the classification of the three types of entities does not mean that they belong to three conventional policy sectors. In contrast, the reason for such classification is to highlight the fact that each policy sector (broadly defined as social, economic or environmental) may have all three beneficiaries (as in the case of Intopia) and each entity may be a beneficiary of all three sectors (as in the case of Aura). Therefore, it is important that every policy is benchmarked against all principles and all three types of beneficiaries are identified (unless irrelevant). This approach represents the cornerstone of integration and ensures inclusiveness of both data and policies.

In summary, the process of policy-data integration would benefit from:

- a. agreeing on a set of social, economic and environmental principles; and
- b. benchmarking every policy against all sets of principles and identifying all target groups/beneficiaries and issues. The characteristics of the target groups and identified issues should be used to define variables and statistical units and then indicators, levels of disaggregation, measurement methods and data sources.

Ideally, the output of this initial stage can be mapped to depict the share of wastes, gaps, voids and data used in existing policy-data space (figure 1) for a given national policy making process. The policy-data integration will take place when such outputs are used for policy monitoring, policy formulation and revision of the national strategy for the development of statistics.

Establishing such a systematic framework for collaborative and principle-based policy-data integration (through user-producer dialogue), as part of national planning and budgeting processes, will expand our knowledge space,

create common ground for dialogue, and facilitate the integration of all three development dimensions in every policy. Such integrated policies will create demand for integrated statistics and bring about inclusive development by capturing all target groups and issues in the picture. The main reasons for communication failures in user-producer dialogues have been identified as lack of trust and lack of understanding of policy (from producer side) and data (from user side) by counterparts.<sup>6</sup> A principle-based dialogue will establish power balance, create a common language, and finally enable us to see the unseen and talk about the unspoken.

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## IV. Disaggregation as part of integration

A primary ambition of the SDGs is that no one is left behind; all goals and targets must be achieved for all. The 2030 development agenda has emphasized the role of disaggregated statistics in achieving this ambition. The proposed global indicator framework<sup>7</sup> has identified a minimum set of variables for which indicators have to be disaggregated when relevant. However, disaggregation is not a separate element from integration. It is often said that we need disaggregated statistics to monitor inclusive policies. Nevertheless, the relationship between inclusive statistical production (which is necessary for producing disaggregated, and appropriately aggregated statistics<sup>8</sup>) and inclusive policies is reciprocal, and both should inform each other in a systematic and iterative process. Disaggregation

requirements must be identified in the process of policy-data integration. Only through such a process do both users and producers of statistics remain committed to explicitly define ultimate beneficiaries; a process in which neither policy nor data defines the rules of the assessment, but the real beneficiaries through commonly agreed principles. An integration process that is based on the identification of target groups (including vulnerable groups and all other groups that are likely to be left behind) facilitates understanding of the need for disaggregated statistics. The benefit of this approach is that the need for disaggregation can be addressed at the design level and minimize the cost and error of post-estimate disaggregation by producing appropriately aggregated estimates/statistics.

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<sup>6</sup> [http://www.unescap.org/sites/default/files/E.ESCAP\\_CST%285%29.1.Rev\\_.1.Collective\\_Vision.English.pdf](http://www.unescap.org/sites/default/files/E.ESCAP_CST%285%29.1.Rev_.1.Collective_Vision.English.pdf)

<sup>7</sup> <https://unstats.un.org/sdgs/indicators/indicators-list/>

<sup>8</sup> Leaving no one behind: right disaggregation and appropriate disaggregation (ESCAP SDG baseline report 2016: <http://www.unescap.org/publications/statistical-yearbook-asia-and-pacific-2016>)

## V. Need for a tool

Implementation of the policy-data integration is not straightforward. It is a multi-stakeholder exercise that involves scrutinizing every single policy document (including sectoral and local policies, programme and strategies) through three different lenses (social, economic and environmental principles). The exercise should be facilitated by a tool that provides step-by-step guidelines to the stakeholders, helps the selection of policy documents, explains the principles, defines identification processes and guides the extraction of the outputs in each phase. To date, there is no such tool available to producers of statistics to understand the need by policy makers. However, some policy content assessment tools have taken a similar approach to analyse inclusiveness of policy documents by benchmarking against international principles. EQUIFRAME is one of the available tools that was developed to assess public health policies against core concepts of human rights and identify vulnerable groups that, in principle, must be targeted by public health policies (Amin M et al, 2011). Another tool is EquiPP which is developed to assess the extent of equity and social inclusion in policy processes (Huss T et al, 2016; Huss T. & MacLachlan M, 2017). These tools are developed based on fundamental principles of human rights and used in several countries to assess health and social policies (Ivanova O et al, 2015; Hussey M M, & Mannan H, 2016; Mannan H et al, 2012; Mannan H et al, 2013; Schneider M et al, 2013). A similar tool may be developed for environmental and economic policies separately. Two major characteristics of such tools are that they involve only policy makers (often users of statistics) in the assessment process and their ultimate outcome is

identification of vulnerable groups as identified by single-domain principles. However, as explained in the case of Intopia and Aura, no policy can ensure addressing the issues of vulnerable groups only through a single lens. Every inclusive policy, must take into account social, economic and environmental aspects of vulnerability. In addition, it is critical to make sure that all stakeholders, including data producers and budgeting and planning entities, are involved in the process. In other words, the tool should provide a comprehensive principle-based framework that facilitate cooperative and inclusive dialogue among all stakeholders. It has to ensure that vulnerable groups and their issues are not only identified within the policy documents, but also addressed by monitoring framework and budgeting processes.

In 2017, United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) assisted the Regional Steering Group (RSG) on population and social statistics<sup>9</sup> to pilot EQUIFRAME on three different areas; disaster risk management, women economic empowerment and poverty eradication. The primary objective was to explore the possibility of expanding the tool to facilitate understanding the needs for disaggregated statistics. The results of the assessment<sup>10</sup> showed that the tool can be expanded in terms of domains and components to serve not only a data needs assessment, but also to facilitate the policy-data integration process through development of a national indicator framework (including understanding the need for disaggregated statistics). The proposed architecture for the tool (figure 3) consist of three

<sup>9</sup> <http://www.unescap.org/events/first-meeting-regional-steering-group-population-and-social-statistics-and-expert-meeting>

<sup>10</sup> <http://www.unescap.org/events/regional-workshop-%E2%80%98understanding-data-needs-inclusive-development%E2%80%99>

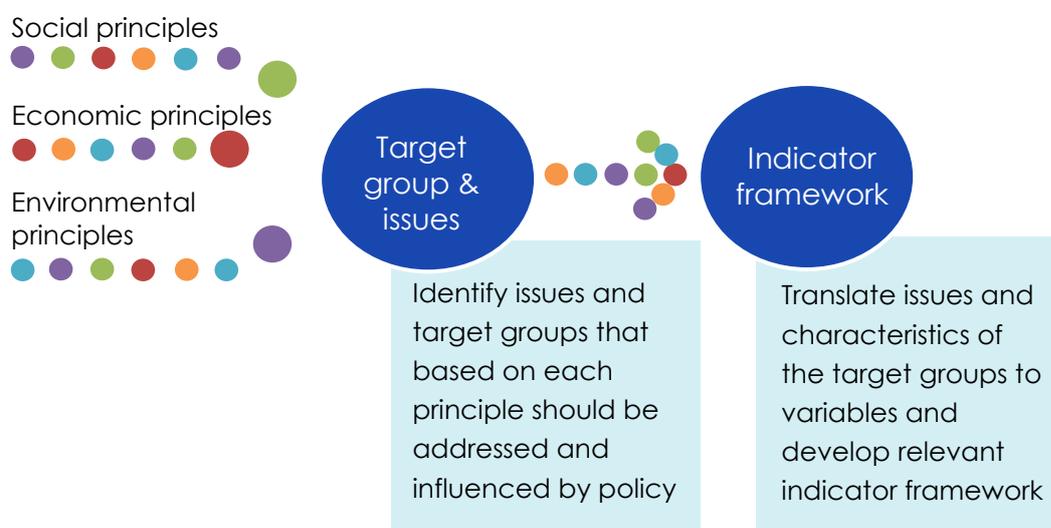
major components corresponding to three phases:

1. *Setting agreed principles*: This phase consists of adopting three sets of principles for three broad domains of development (social, economic, environmental). The tool can provide a list of internationally agreed principles for each domain with description of core concepts and issues to be discussed, further revised and agreed upon by all stakeholders.
2. *Identifying target groups and issues*: At this stage, the tool provides stakeholders with a set of specific questions for each principle/core concept to identify beneficiaries of the selected policy document. Each policy document, regardless of its respective sector, should be assessed

against all three sets of principles. All three types of entities (target groups) may be identified for each part of every policy document separately. The target group may or may not be explicitly mentioned in the policy document. This phase, must identify beneficiaries according to the principles, not the policy document.

3. *Developing the indicator framework*: In this phase, stakeholders will discuss characteristics of the beneficiaries identified in the previous phase, understand issues that need to be addressed by the policy, and translate issues and characteristics into “measurable” variables. The variables are two types, some directly contribute to the indicator development and some listed as disaggregation variables.

**Figure 3- Architecture for policy-data integration tool**



The primary output of the three-phase process serves two purposes. First, development of a national indicator framework that includes a set of indicators, disaggregation requirements, data sources, measurement considerations and roles and responsibilities of stakeholders in production

and use of the indicators. The second, is identifying gaps, wastes and void in both policy and data. Therefore, both users and producers will benefit from the practice. In simple language, the tool combines what policy content assessment tools and data need assessment tools would do separately.

Producing these outputs, however, is only the first and necessary step in policy-data integration. The national statistical systems need to ensure that this process is mainstreamed in planning and budgeting process. It is also necessary to put a mechanism in place through which indicators are

systematically used for monitoring and formulation of the national, local and sectoral policies. Finally, indicator frameworks should inform reformulation of national strategies for development of statistics (NSDS).<sup>11</sup>

## VI. Conclusion

The 2030 Development Agenda is multi-dimensional and interlinked, and its implementation would benefit from an integrated planning and budgeting process. The follow-up and review of the implementation of the SDGs require quality, reliable and relevant statistics produced at the most desirable level of aggregation. The relevance of such statistics can only be guaranteed if monitoring framework (including indicator set) is designed and developed as an integrated part of the planning and budgeting process.

On the other hand, achieving the leave-no-one-behind objective of the SDGs requires that all target groups that are likely to be left behind be identified and acknowledged by the policy and included in the data production and reporting process (monitoring framework). Moreover, vulnerability is multifaceted, and policy and data need to see through various lenses (social, economic, and environmental) at the same time to identify target vulnerable groups.

Therefore, successful implementation of the SDGs for all requires that both policy and data consistently remain responsive to the needs of all beneficiaries. This would benefit from a space within which policy makers (users) and data producers pursue a common goal and use a

common language to develop a monitoring framework that specifies ultimate beneficiaries and their issues based on principles agreed by all stakeholders.

Such space can be formed by identifying policy monitoring gaps, improving data use, cutting the unnecessary spending (waste) on data and policy and identifying areas in which there is lack of policy and data (void). Only a principle-based framework can facilitate such comprehensive assessment.

Commonly agreed social, economic and environmental principles can provide the necessary lenses through which target groups may be identified. The characteristics of identified groups will then be used to define data needs, relevant indicators and monitoring framework. Systematic application of this approach in planning and budgeting process ensures necessary political and financial support to statistical development by increasing users' ownership. Furthermore, it will enhance efficiency and relevance of official statistics to policy formulation and implementation. At the same time, it improves policy programmes by making them more inclusive, more specific about target groups and issues and committed to making the use of evidence base.

<sup>11</sup> <http://www.paris21.org/news-center/news/national-strategies-development-statistics>

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