

# Big Data: a tool to achieve Sustainable Development

Currently, governments, academia and the private sector, as well as other actors involved in the design of public policies, have adapted to a new change in the traditional data management model, which has gone from being a consultation platform for the processes of sectoral and territorial planning, to become an emerging data ecosystem, faster and increasingly complex; and with greater relevance and transversality for the processes of formulation and decision-making, accountability, and development challenges resolution in the different scales of governance.



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Nowadays, we are facing the global need of having accurate methodologies that guarantee a more efficient analysis of large volumes of data and complex variables, and which in turn can facilitate strategic planning for Sustainable Development. The **Big Data** approach emerges as an evolutionary concept that describes the transformation in the management of large data sets (structured, semi-structured and unstructured), generated according to the dynamics of societies; Hereby, Big Data is a potential input for the analysis of correlations between key variables that allow explaining the causes of an event, anticipating trends or results and inferring powerful solutions at the global, national and subnational levels.

Therefore, **the importance of Big Data as a strategic tool for Sustainable Development**, implies new technical and institutional capacities in all government instances, which consolidate effective alternatives to the current limitations in

terms of access, use of the information and generation of knowledge among the different social, environmental, political and cultural dynamics that are configured within the framework of the governance and sovereignty of each country. In this regard, one of the most important challenge is to eliminate legal restrictions on the access to data, a topic on which different institutions have begun to develop initiatives to manage their data and make them available to the public, as well as designing protocols for the exchange and updating of information.

The **biggest contribution of Big Data to achieving the Sustainable Development Goals** is the impact it has on the decision-making process. Supporting the design of policy formulation with evidenced based information ensures success, as well as a positive impact on the communities, territories and sectors where policies are applied.



# Big Data in Latin America Progress and Challenges

The interest in Big Data has produced a great demand of data scientists and statistical specialists, who understand, analyze and interpret large data sets. However, as data scientists are scarce in developing economies, much of the research in Big Data for Development comes from northern institutions. This dynamic has implied that the issues considered important for the debate tend to be driven by the North, and to a lesser extent by the Global South, where countries are still in the design phase of strategies to strengthen Big Data capabilities.

With the aim of generating a more inclusive approach so that three regions of the Global South -Latin America, Asia and Africa- actively participate in a broader policy agenda on Big Data, adapting it exclusively to the needs of the governments of their countries, five southern organizations have joined to implement the [Big Data for Development Network in the Global South \(BD4B\)](#). Its objective is to carry out relevant research on policies and analysis in Big Data for development, conceptualized and implemented by Southern organizations. The network develops capacities among researchers from the South, focusing

on activities related to the Sustainable Development Goals (SDGs).

Over a period of two years, the BD4D network will work on applied Big Data for development innovations based on local contexts and priorities. The work covers both big data analysis and capacity development, while innovating in private sector companies and policy makers partnerships.

The interest in accessing and analyzing large data sets for public purposes -Big Data for Development- is relatively new, but it is accelerating with the post-2015 development agenda which calls for a 'data revolution' to take advantage of existing sources and new information in order to monitor progress towards the **17 Sustainable Development Goals (SDGs)** that were ratified by the UN in September 2015.

One of the main elements involved in the positioning of **Big Data for Development** has been the regional commitments adopted by the **Open Government Partnership (OGP)**, which mainly promotes transparency in government decisions, as well as greater citizen participation in the debate and in the decision of public affairs.

The main interests that the governments of Latin America and the Caribbean have had with regard to their information, has been opening their data; With the objective of rebuilding the trust of national citizens in their governments, and to integrate a growing number of actors in the decision-making processes, especially in those aspects that are directly related to the quality of life and economic development.

The message of Big Data for Development and the OGP, is the promotion of a reciprocal open data policy, in all local, regional and national institutions, that can really generate solutions aligned to the realities observed in each territory. However, one of the main difficulties of some Latin America countries in the implementation of the open data policy, is the limitation in terms of communication and articulation between their different data producing institutions, given that in some particular cases the organizational structure for the production and management of official data is not clear.

LAC governments must invest much more in the development of technical and institutional capacities to consolidate and implement the protocols for the generation, management, reporting and interpretation of data.



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# Big Data in Colombia

In Colombia there is still a great lack of knowledge about the rights of citizens and the duty of public institutions in matters of information management; For this reason, the main challenge for the government is the promotion of a data policy approach, through the positioning of technological and innovative platforms that guarantee the adequate dissemination and updating of data.

For this reason, the **Centro de Pensamiento Estratégico Internacional (Cepei)** has been developing a strategy to guarantee the adequate use of data platforms, as well as the inclusion of different key actors that have a direct influence on the use, reporting and updating of data. We are aware that the mere availability of data does not

guarantee the success in its use, given that the lack of tools (visual and descriptive) for scrutiny and analysis prevents from taking advantage of the relevance and impact of data in public policy formulation processes; Cepei, aware of this, also drives its efforts towards the operability of Big Data information systems that optimize search engines, which in turn produce results that are easy to interpret.

Finally, the contribution of Cepei to the open data policy approach, is the creation of a protocol for the reporting, updating and exchange of data related to development, which can be replicated in all scales of governance to help in the generation of immediate solutions to the main issues that hinder the fulfillment of the SDGs.



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