# Chapter 110

## **Results-oriented Strategic Management - Ministry of Planning case**

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#### **Paulo Henrique Fernandes Cavalcante** Prof. : Msc Marco Antônio Lucinda Riberio da Silva

#### ABSTRACT

The objective of this research was to analyze the adherence of existing indicators and their sufficiency and, on this occasion, to evaluate the impacts. A strategic objective of IBGE was selected, among others, from the Strategic Planning of the Ministry of Planning for its analysis. The methodology of Strategic Management Oriented to Results (GEOR) was used and the progress, benefits and impacts were verified. It is concluded that there is effectiveness and efficiency of the indicators and that the citizen can identify the goods and services offered.

**Keywords:** Result-oriented strategy, Strategic Objective.

## **1 INTRODUCTION**

The methodology of Results-Oriented Strategic Management (GEOR) is a tool that evaluates, in the short term, the ability to produce and measure relevant benefits to society. This research brought a document analysis and case study of the Strategic Objective of the Ministry of Planning, Budget and Management (MP).

The GEOR methodology is composed by the definition of the Pluri-annual Plan (PPA), which was approved by the Minister of Planning. The PPA is composed of Thematic Programs and Strategic Objectives, which are composed of Strategic Initiatives. These, in turn, give rise to action plans that were detailed in the form of each project, which in turn detailed the calculation basis, the goals and the indexes. These last ones concretize the Strategic Objectives outlined by the Minister of Planning.

By knowing, analyzing and evaluating academically it was possible for the author to better understand the topic and the Strategic Objectives that were being carried out in the central body of the Federal Government until 2018 and, how society is taking notice.

To better evaluate the Strategic Planning of an institution it is necessary to monitor, manage, and evaluate the indicators, because they are the ones that signal the performance of the developed projects. Using the Balanced Scorecard (BSC) it was possible to evaluate how much progress has been made to achieve the strategic objectives.

Thus, the central objective of this research was to know and criticize one of the strategic objectives selected, in the light of the methodology of Results Oriented Strategic Management, from the Strategic

Planning of the Ministry of Planning, among other strategic objectives, and its results informed to society. To this end, the Strategic Planning 2016-2019, its indicators, disclosure and goals were described.

The Ministry of Planning, Budget and Management (MP) with the structure below was created on May 12, 2016, by Provisional Measure No. 726, and then ratified by Decree No. 8,818, July 21, 2016.

Currently, the MP, an agency of the Federal Direct Administration, is responsible for the following areas: formulating national strategic planning; evaluating the socioeconomic impacts of public policies; carrying out studies and research on the socioeconomic conjuncture; elaborating and evaluating the PPA; enabling new sources of resources; formulating guidelines for external financing of public projects with different agencies; coordinating the management of the federal planning and budget systems; and formulating guidelines and criteria for the corporate governance of federal state companies.

Until 2018, the structure of the Ministry of Planning, Development and Management was defined by Decree No. 9,035, dated April 20, 2017 - amended by Decree No. 9,163, dated September 28, 2017 and Decree No. 232, dated December 7, 2017 - whose organizational chart is presented in Figure 1.1

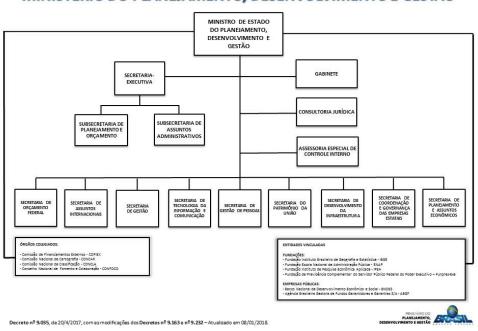


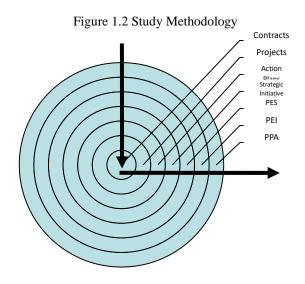
Figure 1.1 Structure of MP

## MINISTÉRIO DO PLANEJAMENTO, DESENVOLVIMENTO E GESTÃO

Source: MP, 2018

For the MP to achieve the Strategic Objectives and fulfill its Institutional Mission, it is necessary that the PPA, approved by the National Congress, contains the strategic orientation and direction and systematically structures the path to be followed. To this end, the Strategic Planning, its indicators, disclosure and goals were described.

Figure 1.2 presents a step-by-step breakdown of an example of the methodology presented in the PPA through to contract preparation. The arrows inform the scope and communication between the items.



Source: Made by the author

Based on the premises presented, the Ministry of Planning prepared its PPA 2016-2019, together with the eleven Secretariats SEST, SEPLAN, SE, SETIC, SPO, SAA, SEGES, SGP, SPO, SOF and SDI, guiding and serving as a subsidy for the six organs IBGE, BNDES, IPEA, ENAP, Funpresp.exe and ABGF to prepare their PPA's, observing their autonomy and institutional differences and providing a participatory and collaborative environment. The seven PPA's together give rise to the Ministry of Planning's PPA. This consolidated PPA is the Strategic Guideline of the Ministry of Planning for all of Brazil.

Figure 1.3 schematically presents the nine strategic objectives of the MP, as shown in the MP's strategic plan.



Figure 1.3 - MP's Strategic Objectives

Methodology focused on the area of interdisciplinarity: Results-oriented Strategic Management - Ministry of Planning case

#### **1.1 PROBLEM FORMULATION**

From this research the author sought to answer whether the existing indicators for the selected Strategic Objective (2 - Provide statistical and geoscientific information and expand the use of administrative records) and verified whether they are sufficient to assess impact.

It is known that a well-functioning national information system is capable of producing reliable, quality information that meets the minimum requirements for the generation of indicators, such as, for example, those to be used in monitoring the sustainable development goals, inserted in the context of the 2030 Agenda, a global action plan to achieve dignity and transformation in the social, economic, and environmental dimensions, whose monitoring is a priority commitment of the countries, as well as to support decision-making processes.

According to Table 1.1, the strategic objective selected presented the following strategic indicators and, according to Table 1.2, it presents the following contribution objectives, described in the strategic planning. We remind you that IBGE is part of the structure of the MP and, therefore, the strategic objective chosen.

#### **1.2 HYPOTHESES**

The survey answered whether the existing indicators were sufficient to evaluate the impact. It is noteworthy that the results analyzed were up to the year 2018, and there may be incomplete actions due to lack of time or lack of resources. The research described the advantages and disadvantages and sought the best understanding of whether the impact of the indicators achieved its purpose, considering the deviations from the sufficiency of the judicious and pragmatic assessment of adherence.

#### **1.3 OBJECTIVES**

The general objective of the research was to analyze and criticize the fulfillment of the selected strategic objective, among others, where it verified if its indicators are sufficient to evaluate the impact.

With regard to specific objectives, we highlight the observations of authors in their articles regarding the impact of highlighted indicators, understanding the indicators, and analyzing their effectiveness.

To achieve this critical analysis it will be necessary to research the concepts, characteristics and methods of indicators, impact, among others.

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	Strategic Indicators							
Title	Calculation Formula	Unit of measurement	Reference Index	Reference Date	Periodicity	Source	Goal	
Rate of expansion of geoscienti fic survey coverage.	((Number of geoscientific surveys in year t1 minus the number of geoscientific surveys in year t0) / number of geoscientific surveys in year t0)*100.	%	16	Apr/2016	Annual	Geosciences Directorate/ Operational Coordination of Censuses/ Research Directorate/ IBGE	70	
National Spatial Data Infrastruct ure (NSDI) adherence rate.	{[0.1*(Number of institutions with completed NSDI adhesion plan/Total of institutions with NSDI adhesion plan)] + [0.4*(Number of institutions with metadata registered/Total of institutions with metadata)] + [0.5*(Number of institutions with geo-service registered/Total of institutions with geo-service]] * 100	%	32	Apr/2016	Annual	Geosciences Directorate/ IBGE	100	

Source: Strategic Planning 2016-2019.

Contribution Cools		1.2 - IBGE's Contribution Goals (created by the autior)
of the Units	Initiatives	Deliveries
<b>Objective 01: IBGE</b>		01: New capital or metropolitan areas incorporated into the National System of
Broaden the coverage		Consumer Price Indexes (SNIPC)
and detail of	01. Expansion	02: New questions for the National Household Sample Survey (PNAD) continue to be
statistical research	and	implemented
and geoscientific	improvement of	03: Model of the reformulated Municipalities modules
surveys	statistical	04: Complete and completed Family Budget Survey (POF)
Descriptions	production	05: Study for structuring the National Agricultural Research System by Sampling of
Description:		Agricultural Establishments (SNPA) concluded
The goal is to broaden the spatial scope and		06: Integrated business survey model defined
the spatial scope and thematic detailing of		01: Project to implement quarterly national accounts by institutional sectors developed
the surveys so that the		
information and		
studies produced meet	<b>02</b> . Expansion	
the needs of the	and	
various sectors of	improvement of	02: Methodologies for calculating the annual non-financial equity account and for
society and integrate	Synthesis	compiling the capital absorption matrix developed
information produced	Systems	
by the various	-	
agencies that make up		
the National System of		
Official Information		
	<b>03</b> . Expansion	01: Global Navigation Satellite System (GNSS) stations of the Brazilian
	and	Continuous Monitoring Network (RBMC) deployed in metropolitan regions
	improvement	02: New geographic clippings implemented
	of the	03: Land use and land cover changes in mapped priority areas
	geoscientific	04: Biomes map at scale 1:250,000 produced
	production	05: Continuous cartographic base at scale 1:100,000 produced
<b>Objective 02:</b>	<b>01</b> .	01: Statistical and geospatial metadata integration procedures defined
IBGE	Implementatio	02: DDI standard for disseminated metadata
Structure and	n of the	
promote the	infrastructure	
National Statistical	and support	
and Geoscientific	standards for	
System	the National	03: SNIO Portal deployed
	Official	
Description:	Information	
Consolidate the	System	
organization of the	(SNIO)	

National System of Official Information (SNIO), which will promote, through inter-institutional agreements and integrated actions, the development, adaptation and adoption of norms and standards in the process of producing official information in the		
country		01: Institutions trained in geospatial data sharing standards for adherence to
<b>Objective 03:</b> <b>IBGE</b> Adopt procedures for receiving and using administrative records		the National Spatial Data Infrastructure (NSDI)         02: Concepts of the variables of the records for standardized statistical settlement         03: IT infrastructure for data reception and storage developed         04: Health and Medical Care Survey Template Redesigned         05: Redesigned National Sanitation Survey Model
Description: The goal is to broaden the spatial scope and thematic detailing of the surveys so that the information and studies produced meet the needs of the various sectors of society and integrate information produced by the various agencies that make up the National System of Official Information	<b>01</b> . Development of standards for interoperabilit y of administrative records	<b>06</b> : Model of the Social Assistance Entities Research reformulated

Source: Strategic Planning 2016-2019.

## **2 THEORETICAL FOUNDATION**

With the GEOR methodology it was possible, for Society and the Ministry of Planning, for managers to know how, where, and with what benefits the Union's resources are being applied in the MP.

The PPA of the Ministry of Planning was systematically monitored, managed and evaluated through indicators that have the role of signaling the performance of the programmed Strategic Institutional Program (PEI). For this to happen, the Balanced Scorecard (BSC) methodology was used to obtain the goal of the advance of each Strategic Objective.

For better understanding it can be stated that with this methodology the author met and observed the intentions and ideas in real result.

Several authors have been identifying methodologies to better manage the established indicators, how to treat deviations, how to diagnose changes, and how to understand if it is sufficient to assess the impact on the strategic objective.

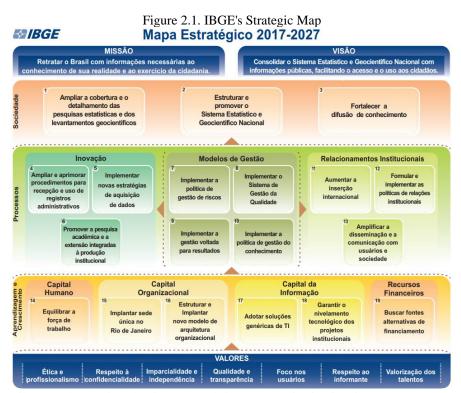
It is common understanding that impact is the last step in the results chain, where the results of a development activity are related to the medium and long term results. At best, it evaluates the effects resulting from the implementation of an intervention for a given referential, which can be social, economic, environmental indicators, among others.

According to Van der Berg, impact "is not defined as a relationship but as a kind of end state or a snapshot of the effects long after the intervention has ended" (Berg, 2011. 11).

Comprising the OECD/DAC Evaluation Network, the United Nations Evaluation Group (UNEG), the Evaluation Cooperation Group (ECG), and the International Organization for Cooperation in Evaluation (IOCE), it defines impact broadly, in this organization's glossary as the "long-term effects, both positive and negative, primary and secondary, produced by a development intervention, whether planned or unplanned."

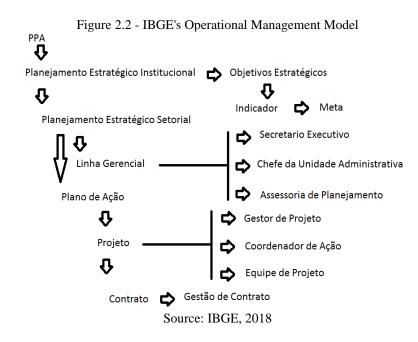
According to the strategic plan 2017-2027 - IBGE, Figure 2.1 presents the role of each of the functions in the institutional context: IBGE makes use of a series of data, obtained from various types of sources, such as: statistical surveys or administrative records.

To communicate the performance of the Strategic Objectives the following Strategic Map was used, as shown in Figure 2.1. This Map is presented in the Strategic Planning 2017-2027 and its function is to present IBGE's values, strategic objectives, mission and vision.



Source: https://www.ibge.gov.br/np\_download/novoportal/documentos\_institucionais/MAPA\_ESTRATEGICO\_2017-2027-12-06.pdf

Methodology focused on the area of interdisciplinarity: *Results-oriented Strategic Management - Ministry of Planning case*  In order for IBGE's strategic planning to be successful, it is necessary to know the operational management model, in addition to the strategic management model. Figure 2.2 schematically presents an example of IBGE's operational management model. It is important to highlight that both the PPA and the strategic planning must present a logical and coherent correlation in order to guarantee the adequate allocation of resources to each managed contract.



The four macro-functions are already in place: content, conferencing, coordination, and communication. Figure 2.3 presents the main roles of each of these functions in the institutional context. IBGE gives a statistical focus and makes use of a range of data, which are obtained from a variety of sources, whether statistical surveys or administrative records. The first function 'Content' can process the data collected to generate IBGE's products, relying on internal engagement and competencies, and on reference models and methodologies. Represented as a funnel, we have the second function 'Conference' which is its primary role of, through stages of monitoring and control, of criticism and validation, ensuring the quality of the data, the production processes and the products released. The third function 'Coordination', which acts in the institutional articulation with all information producers, being able to ensure technical alignment, aiming at structuring the SNIO. Finally, the fourth function 'Communication', acts with the attendance and strengthening of the relationship with users and other stakeholders, organizing information in different formats and languages, for different possible audiences, aiming at the adequacy of the products to the use of all.

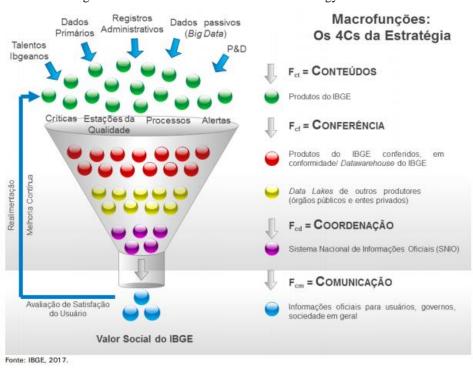


Figure 2.3 - Macrofunctions of the IBGE Strategy 2017-2027

Source: IBGE Strategic Planning, 2017-2027

Figure 2.4 presents a summary of the interaction between these elements that promote strategy, which must consider the institutional environment where IBGE is inserted. The external environment includes the producers, informants, users and each of the deliveries of inputs of considerable importance for the production of various information. One must not forget that besides informing, all the actors also use the information. In order to achieve a vision of the future and the continuous organization of the SNIO, the IBGE has been acting through "Coordination" in order to articulate the necessary institutional arrangements among producers of all information. Improvement is continuous and is part of the mission.

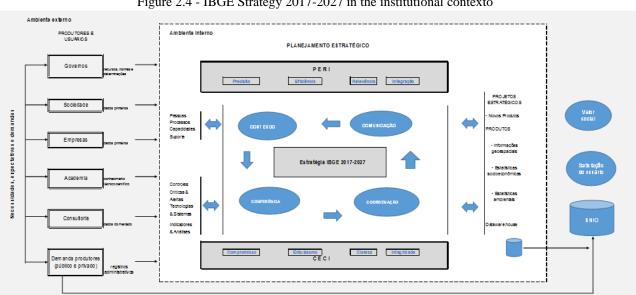


Figure 2.4 - IBGE Strategy 2017-2027 in the institutional contexto

Source: IBGE Strategic Planning, 2017-2027

Methodology focused on the area of interdisciplinarity: Results-oriented Strategic Management - Ministry of Planning case Figure 2.5 summarizes the main steps and products of Phase 1 in a logical sequence.

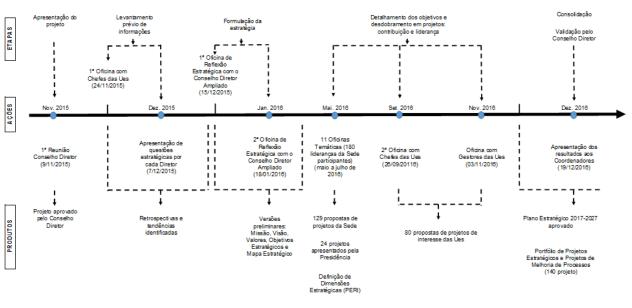


Figure 2.6. Phase 1- Strategic Planning - strategy formulation and deployment (PLAN)

Source: IBGE, 2017

To better clarify Figure 2.6, below are details of the strategic objectives related to the three defined BSC perspectives.

Perspective         Strategic Objectives           Broaden the coverage and detail of statistical research and geoscientific surveys         Broaden the coverage and detail of statistical research and geoscientific surveys           Contributions to society         Expand the contribution and comply with international agreements in the areas of statistics and geosciences           To strengthen the Institution's role as a diffuser of knowledge in its areas of activity.         Expand and improve procedures for receiving and using administrative records.           Invocation         Expand academic research and extension integrated with institutional production.           Implement new data acquisition strategies.         Promote a culture of sustainability in the institutional institutional relations policies.           Processes         Relationship with user groups and other stakeholders         Formulate and implement international and national institutional relations policies.           Processes         Relationship and Operation         Formulate and implement of institutional arrangements with information producers.           Broaden dissemination and communication with users and society.         Subsidize public policies in a structured way.           Quality and Operation         Formulate and implement the risk management policy.           Implement the quality management system.         Integrate systems and databases           Guarantee the techonological leveling of the institutional projects         Integrate systems and databases           Guar		Chart 2.1 S	Strategic Objectives and BSC Perspectives		
Structure and promote the National System of Official Information (SINO)           Contributions to society         Expand the contribution and comply with international agreements in the areas of statistics and geosciences           To strengthen the Institution's role as a diffuser of knowledge in its areas of activity.         Expand and improve procedures for receiving and using administrative records           Structure and promote the National Environmental Information System (SNIA).         Expand academic research and extension integrated with institutional production.           Invocation         Expand academic research and extension integrated with institutional production.           Promote a culture of sustainability in the institution.         Formulate and implement international and national institutional relations policies.           Processes         Relationship with user groups and other stakeholders         Strengthen the management of institutional arrangements with information producers.           Quality and Operation         Broaden dissemination and communication with users and society.           Quality and Operation         Information Capital         Adopt generic Information Technology (IT) solutions           Integrate systems and databases         Guarantee the technological leveling of the institutional projects           Human capital         Implement and implement the knowledge management policy.           Organizational capital         Structure and implement new organizational architecture model           Promote te sults-oriented	Per	spective	Strategic Objectives		
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Learning       and       Information Capital       Adopt generic Information Technology (IT) solutions         Integrate systems and databases       Guarantee the technological leveling of the institutional projects         Human capital       Implement and monitor the knowledge management policy         Formulate and implement the knowledge management policy         Organizational capital       Structure and implement new organizational architecture model         Promote results-oriented budget management       Organize information for the planning and execution and monitoring of institutional plans.	Quality and Operation				
Learning       and       Integrate systems and databases         Guarantee the technological leveling of the institutional projects         Human capital       Implement and monitor the knowledge management policy         Formulate and implement the knowledge management policy         Organizational capital       Structure and implement new organizational architecture model         Promote results-oriented budget management       Organize information for the planning and execution and monitoring of institutional plans.			Implement the quality management system.		
Learning       and       Guarantee the technological leveling of the institutional projects         Human capital       Implement and monitor the knowledge management policy         Formulate and implement the knowledge management policy         Organizational capital       Structure and implement new organizational architecture model         Promote results-oriented budget management       Organize information for the planning and execution and monitoring of institutional plans.		Information Capital	Adopt generic Information Technology (IT) solutions		
Learning       and       Human capital       Implement and monitor the knowledge management policy         Growth       Organizational capital       Structure and implement the knowledge management policy         Organizational capital       Structure and implement new organizational architecture model         Promote results-oriented budget management       Organize information for the planning and execution and monitoring of institutional plans.			Integrate systems and databases		
Learning       and       Formulate and implement the knowledge management policy         Growth       Organizational capital       Structure and implement new organizational architecture model         Promote results-oriented budget management       Organize information for the planning and execution and monitoring of institutional plans.					
Growth Organizational capital Structure and implement new organizational architecture model Promote results-oriented budget management Organize information for the planning and execution and monitoring of institutional plans.		Human capital	Implement and monitor the knowledge management policy		
Organizational capital         Structure and implement new organizational actinecture model           Promote results-oriented budget management         Organize information for the planning and execution and monitoring of institutional plans.			Formulate and implement the knowledge management policy		
Organize information for the planning and execution and monitoring of institutional plans.	Growth	Organizational capital	Structure and implement new organizational architecture model		
institutional plans.					
			Organize information for the planning and execution and monitoring of		
Source: IBGE, 2017			institutional plans.		
			Source: IBGE, 2017		

Chart 2.1 Strategic Objectives and BSC Perspectives

## **3 METHODOLOGY**

## 3.1 TYPE OF RESEARCH

To achieve the research objectives, a case study was carried out by means of exploratory and documentary research. The research objectives were of the descriptive type, since the characteristics were identified, in the sense of describing and then analyzing.

The criterion for classifying the research was the type of methodological procedure used: survey of known characteristics, components of the fact / phenomenon / process. It was done so that the surveys and observations were recorded, analyzed, and the author's considerations presented.

This research had a qualitative approach having the case study as a mode of analysis, besides counting on the support of bibliographic research, seeking to obtain knowledge, document and produce correlations about the theme (Oliveira, 2010).

The researcher went from being just an observer to also interacting, thus being a differential of qualitative research, he immersed himself in the context of the studied situation, maintaining an intimate contact with it. In this way, it was possible not only to observe facts from a distance, but to analyze them, since his observation was a participant one.

It was possible to see that qualitative research was an interactive-constructive, highly critical process that sought a deep understanding of the situation studied, through participant observation.

#### **3.2 COMPREHENSIVENESS**

The object of the study was restricted to the Strategic Planning of the Ministry of Planning, Budget and Management - MP until the year 2018. Based on the BSC methodology, a selection of a Strategic Objective was made and the survey of its main correlated indicators.

Among the Strategic Objectives included in the MP's Strategic Planning, according to Figure 1.3, it was possible to choose for the case study the Strategic Objective - 2 - To provide statistical and geoscientific information and expand the use of administrative records, which referred specifically to the Brazilian Institute of Geography and Statistics (IBGE), which was part of the MP's structure. This choice was made based on a previous analysis of the Strategic Planning and its benefits. Based on this choice, the indicators of this Goal were studied.

#### **3.3 METHOD FOR OBTAINING POLICIES**

Figure 3.2, was created based on Wessler's (2013) Figure 5-2 and, presents the typical workflow in a data-driven organization case, in the case that the process flows between one or more teams of people. The use of open data, such as PPA, contributes to faster integration of information in a more humanized environment in the policy development office.

The following nine steps detail a typical workflow within a data-driven organization, bringing together many concepts.

I. Determine the policy question and the hypotheses that can be investigated.

As can be seen, the questions answered by governments and development organizations are often complex and present many facets, possibilities and scenarios. These processes can be analyzed with Problem Tree Analysis - Ishikawa Diagram and can help teams explore the possible causes and effects of a central problem. In this case it allows policy makers to create specific, limited and demonstrable questions that can be quantified.



Figure 3.1 Workflows of the data-driven policy creation process.

Source: adapted and expanded from Illustration 5-2 in Wessler, M. (2013).

The following are the main questions that are part of the process of developing policy questions and hypotheses:

A. What is the problem that through this research that should be addressed?

The answer to this question should be answered clearly and concisely, in a way that best finds the correlated data and helps solve the policy problem being studied.

B. What is the context in which you need to understand the problem?

What interrelationships might the problem have with other areas?

As a way of exemplifying: One should look at the problem that affects the problems of the economic, environmental and social issues highlighted.

C. What are the expectations of the work and how will the analysis be used?

It starts with specifying what kind of policy can be generated (for example, a pilot program within a particular community, a reallocation of resources to a nationwide program, or others) and what factors of change are desired so that the policy can contribute to those changes.

## II. Create analytical strategy and workflow

To best use existing techniques, note that not all analytical techniques are good for any particular circumstance and consideration should be given to how the data will be examined from the beginning of the research. Prior selection of the most appropriate and important techniques for the case study should initially focus on and seek to avoid misinterpretations or increased risk of making a mistake.

#### III. Survey the possible data sources and classification

Sometimes statistics may be available on open data portals on well-known websites. Other times, it is necessary to source primary data for the analysis. In the latter case, it may be necessary to work with a statistician to identify the relevant populations to be studied, develop appropriate data collection tools, test the collection instrument(s), and create appropriate analysis methods. Note the quality of the data because it can vary considerably from one data source to another and in these cases it is necessary to select and adjust the best way to achieve the specific purpose of the analysis. Always take care to ensure that the data collected is of sufficient value, taking into consideration the quality of the data and the data collection procedures.

#### IV. Collect, align, clean and improve data. V. Include gathering the data

The process of data collection, already initiated by obtaining initial information, through various possible ways: observations, surveys, questionnaires, etc. For each data source it may be necessary to adjust the responses and the individual variables to fit the data set (e.g. ensuring that scientific measures are constant, that currencies are constant, and so on). For specific cases, it may be necessary to validate and improve the data collected to replace, modify, or delete incomplete, incorrect, inaccurate, irrelevant, and other data. Sometimes you can collect all the necessary data, but the resulting data set does not show the approach you are studying. For other times, considerations and adding context (such as an attached variable) are necessary, combining.

#### VI. Analyze the data

There are many ways to do this, but first you must follow the analysis strategy developed earlier, using the analysis technique you selected to examine the data. Tabulate the data in a coherent way that represents a data set.

#### VII. Create a report of the analysis

Summary statistics help to identify the central values of the database and the variability of the data scatter. Tabulated data and test results can be reported from the data analysis or modeling technique selected (for example in Excel: ANOVA or linear regression). Graphical analysis can be created to help observe the distribution of spatial data and identify relationships that need further investigation.

## 3.4 METHOD FOR OBTAINING INDICATORS

IBGE's Strategy was monitored and carried out using the BSC methodology. The methodology uses indicators linked to the strategic objectives so that it is possible to verify, control and monitor the performance of the initiatives that make up the objective.

The nature of the indicators should be as simple as possible and easily measured, in order to avoid any ambiguity in their analysis.

Figure 4.2 presents the pyramid of the relationship of amount of information and possible condensation. The main issue is the exploration of methodologies that can be used to investigate behaviors and goals in the set of data and information gathered and with the primary goal of guiding towards a particular action.



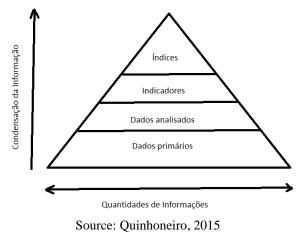
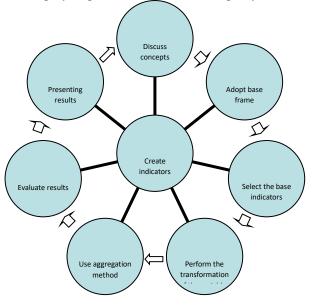


Figure 4.3 presents a methodology of how to obtain a path to create indicators by following a stepby-step approach. This method has already been tested and shows good results. This method understands that it is possible to condense a very large range of indicators by integrating them and one or a few synthetic indicators, from a better understanding of phenomena associated with the various dimensions of sustainability. It begins with a discussion of concepts and follows the time cycle to the presentation of results.

Figure 4.3 - Step-by-step construction of an example synthetic indicator.



Source: Quinhoneiro, 2015

## **4 RESULTS**

Table 4.1 was created with the purpose of presenting in a logical way an example of a matrix used to elaborate a PPA. The values are illustrative and do not bear any relation to reality. The parameters used are: R\$0.01 means that the initiative has no cost for IBGE, as this is a way to register in the accounting system of the institution presented in the budget. The following example is just to illustrate the process.

	Table 4.1 - Mat	rix used to elabor	brate the PPA		
IBG	E'S MULTI-YEAR PLAN 2016-2019				
THE	EMATIC PROGRAM:				
PER	SPECTIVE: Contributions to society				
OBJ	ECTIVE (1): Expand the coverage and detail	il of statistical r	esearch and geos	scientific survey	S
Stra	tegic Initiatives	Investment			
		2016	2017	2018	Overall Total
1	<b>01</b> . Expansion and improvement of statistical production	0,01	900.000,00	90.000,00	1.800.000,01
2	<b>02</b> . Expansion and improvement of Synthesis Systems	600.000,00	0,1	600.000,00	1.200.000,01
	<b>03</b> . Expansion and improvement of the geoscientific production	900.000,00	900.000,00	0,01	1.800.000,01
	Subtotal Strategic Objective 1.500.000,01 1.800.000,01 1.500.000,01 4.800.000,03				

Table 4.1 - Matrix used to elaborate the PPA

**OBJECTIVE** (2): To structure and promote the National Statistical and Geoscientific System

Strategic Initiatives		Investment				
		2016	2017	2018	Overall Total	
1	<b>01</b> . Implementation of the infrastructure and support standards for the National Official Information System (SNIO)	900.000,00	900.000,00	90.000,00	2.700.000,00	
Subt	total Strategic Objective	900.000,00	900.000,00	900.000,00	2.700.000,00	

GOAL (5): Adopt procedures for receiving and using administrative records						
Stra	Strategic Initiatives Investment					
	-	2016	2017	2018	<b>Overall Total</b>	
1	<b>01</b> . Implementation of the infrastructure and support standards for the National Official Information System (SNIO)	900.000,00	900.000,00	90.000,00	2.700.000,00	
Sub	Subtotal Strategic Objective         900.000,00         900.000,00         900.000,00         2.700.000,00					

Source: Adapted by the author - PPA

It can also be detailed by strategic initiative, action plan, or project, within each strategic objective, highlighting the entity responsible for the management of the resource, since the same entity will be responsible for the rendering of accounts.

Table 4.2 represents the strategic planning's compliance matrix, as it was used to check the logical coherence of the strategic planning elements and, highlighting the alignment of initiatives with strategic objectives. Remember that only the three strategic objectives selected by IBGE were studied. The others were not studied due to the large number of entities that were part of the MP.

The strategic objective (1) Expand the coverage and detail of statistical research and geoscientific surveys, considered as relevant to the institutional value, with one of the indicators - rate of expansion of the coverage of geoscientific surveys has a target of 70% for the year 2017 and 2018. It was specified in a strategic initiative - 01. Expansion and improvement of statistical production, having as administrative unit (AU) responsible for implementing, monitoring and accountability the Directorate of Geosciences / Operational Coordination of Censuses / Directorate of Surveys / IBGE. From the guidelines presented, the UA is responsible for creating programs or projects to better compose the efficiency and effectiveness of the indicator. Annex IV- Annual fiscal targets presents the guidelines for the realization of public policies, macro reference scenarios, and the annual financial targets from 2018 to 2020. Annex VI - Monetary, credit and exchange rate policy targets presents the clear objectives, the parameters, the projections for the main aggregates and variables, as well as the inflation targets for the following year. Highlight to the table of risks and mitigating actions for each objective.

One must also pay attention to what the Law of Fiscal Responsibility (Complementary Law no. 101, of 05/04/2000), which establishes criteria for the projection of multiannual expenses, as well as the new Law of Public Spending, provides. Highlight to the table of risks and mitigating actions for each objective.

Table 4.2 - Strategic Planning Conformity Matrix						
BSC	Strategic	Institutiona	Indicators	Goal	Strategic	Responsible
Perspective	Objective	l Value			Initiatives	Administrative Unit
iety	(1): Expand	Relevance	Rate of expansion of geoscientific survey coverage	70	<b>01</b> . Expansion and improvement of statistical production	Geosciences Directorate/ Operational Coordination of Censuses/ Research Directorate/ IBGE
Contributions to Society	the coverage and detail of statistical research and geoscientifi c surveys	Relevance	Rate of expansion of geoscientific survey coverage	70	<b>02</b> . Expansion and improvement of Synthesis Systems	Geosciences Directorate/ Operational Coordination of Censuses/ Research Directorate/ IBGE
Ğ		Relevance	Rate of expansion of geoscientific survey coverage	70	<b>03</b> . Expansion and improvement of the geoscientific production	Geosciences Directorate/ Operational Coordination of Censuses/ Research Directorate/ IBGE
Contributions to Society	(2): Structure and promote the National Statistical and Geoscientifi c System	Relevance	National Spatial Data Infrastructure (NSDI) adherence rate.	100	01. Implementation of the infrastructure and support standards for the National Official Information System (SNIO)	Geosciences Directorate/ IBGE
Processes	(5): Adopt procedures for receiving and using administrati ve records	Integration	National Spatial Data Infrastructure (NSDI) adherence rate.	100	01. Development of standards for interoperability of administrative records	Geosciences Directorate/ IBGE

Source: IBGE, 2017

An indicator is only a point measure, and cannot be considered the only predictive tool or a definitive statistical measure, nor a clear evidence of cause; it is seen as a statement of a situation, a snapshot or a checkpoint. When analyzing possible causes, consequences, or possible predictions, one must observe and consider the observer's abstraction, training, and experience on the subject. In this objective way one can highlight advantages and disadvantages and how to use indicators to measure sustainable development. Table 4.3 summarizes the main advantages and limitations of the indicators studied in the specific case.

	intages of the indicators under study			
Advantages	Limitations			
Ability to synthesize the technical/scientific information	Constant challenge in defining mathematical expressions that			
generated	best translate the parameters studied			
Great ease of information transmission	Possibility of loss in the data collection processes			
Good decision support tool for operational management	Difficulty in defining robust criteria for the selection of a larger			
processes	number of indicators			
Observe for trends	Lack of coverage of all existing areas in geoscientific surveys			
Possibility of establishing comparison with pre-established	Different criteria for index variation limitations of spatial data			
standards and/or targets.	infrastructure			
Maintaining the workforce to collect and analyze the data.	Probable difficulties can be dimensioned, such as the non- availability of an up-to-date technological solution to store and correlate the data.			
The problems can be mitigated by monitoring the expected	Possible bottlenecks can arise, such as a decrease in			
system customization deadline.	prioritization of data collection methods and not using appropriate applications.			

Table 4.3 Advantages and disadvantages of the indicators under study

## **5 CONCLUDING REMARKS**

Through the GEOR Methodology, IBGE defined its performance strategy well, in a way that allowed it to promote an advance in its managerial and operational performance, thus enabling the accomplishment of the objectives established for the organ, and allowing it to direct its actions towards the fulfillment of its Mission and the achievement of its Future Vision.

The GEOR Methodology is transparent and the institution's performance has accentuated the possibilities for growth and transformation of the institutional strategy in the achievement of better results, with less risk and more real. In addition, it has been strengthening the integration between strategies, personnel allocation, resource allocation, project execution management, monitoring, and evaluation.

The success of the IBGE's Strategic Planning, as far as the Operational Management is concerned, only strengthens the Strategic Management. To avoid a piece of planning fiction, it is necessary that the execution and the day-to-day activities of the institution are not adherent to the Strategic Planning, reflecting in results for the public to be benefited, minimizing the risks inherent to the path.

The GEOR methodology may be impaired if a restrictive fiscal policy (R(revenue)=D(expenditure)) adopted by the Government and contingencies added. Thus, it can affect both mandatory and discretionary expenses. But, it is fundamental that continuous investment in strategic planning, using results-oriented strategic management (GEOR), as a possible solution to combat the challenges of economic and social development of a country.

#### **6 SUGGESTED RESEARCH**

In order to continue this line of research I present some suggestions:

• Demonstrate the calculation and present risk analysis, with possible mitigation plans, of the strategic objectives and their indicators;

• Research with the agency (IBGE) on the progress of the indicators and the changes in view of the new management model of merger of the MP by the Ministry of Economy; and

• Comparative analysis between types of indicators and their applications without each Body.

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