

## The activation of socio-technical networks in the Estrutural city/ DF Brazil: building a healthy and sustainable territory

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**Abstract** *Based on Brazil's commitment to the fulfillment of the Agenda 2030 and its 17 Sustainable Development goals (ODS), the State Secretariat for health of the Federal District, sought partnerships to address the ODS 3-Health and welfare "securing healthy and promote welfare for all, at all ages". Because it is an ODS that permeates all others, governmental actions directed to health and well-being are of extreme relevance to the success in the implementation of Agenda 2030. In this article we present the initiatives for the activation of social networks in the locality called the Estrutural city, in the Federal District, as a strategy for measuring health determinants, the implementation of a monitoring approach and cooperative evaluation of risk situations and social and environmental vulnerability of the territory, having the prospect of making it healthy and sustainable from the reference of the new local production process and the Agenda 2030 of the development goals sustainable.*

**Key words** *Agenda 2030, Sustainable development goals, Health information and communication*

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## Introduction

In September 2015, world leaders met at the UN building in New York to decide on a plan of action to eradicate poverty, protect the planet and guarantee peace and prosperity. The outcome was the 2030 Agenda for Sustainable Development, containing a set of 17 Sustainable Development Goals (SDGs)<sup>1</sup>. The 2030 Agenda and the SDGs set out a path to a sustainable world, and daring measures are urgently needed to take to bring about the required changes.

The increasing value ascribed to territories or to the “localisation of development” turns attentions to certain theoretical considerations from different perspectives that are renewing the foundations of development promotion by means of public policies. These include the revaluation of the spatial dimension of the economy<sup>2</sup> and the assertion of “territorial governance” as a means for local actors to become agents of public policy making and implementation processes<sup>3</sup>.

The territorial approach is thus decisive for collective health actions. One good example is the 2030 Agenda, understood as an action plan for sustainable global development strategies for a 15-year period, and the 17 SDGs, which depend on improved interaction between State and Society in order to be successful.

Local policies should thus dialogue with the 2030 Agenda’s action strategy and see it as an opportunity to address historical inequalities. In that connection, local governments have a key role to play in suiting the goals and indicators to local realities, with actions whose planning and budgets contemplate the SDG targets and include civil society participation and engagement<sup>3</sup>.

There is mounting demand on public authorities for policymaking to advance the interaction between schools and socio-technical networks<sup>4</sup>, in order, interacting with local relations, to guarantee capacity-building and professional development actions for the professionals involved<sup>5</sup>.

Construction and application of the concept of healthy, sustainable territories recommends an examination of the actions of science and technology and research and teaching institutions, social movements and non-governmental and governmental organisations. It also calls for thinking about how the multiple actors operating in the territories can become involved<sup>6</sup>.

Health is historically one of the issues of greatest concern to populations. Most of Brazil’s population (an estimated 80%) is dependent on the national public health service, the SUS. With Bra-

zil in economic crisis and unemployment in excess of 11% of the economically active population, private health services are increasingly beyond the reach of the great majority of Brazilians and public health services are used by an ever larger portion of the population. That is the situation nationwide and the Federal District is no exception.

In 2016, in order to ally the Federal District government’s concern to implement the 2030 Agenda and monitor achievement of the SDGs with the need to improve health service access and quality, the Fiocruz and the government signed a Protocol of Intentions to implement projects and programmes designed to make the Federal District a Healthy, Sustainable Territory. In that way, the Federal District Health Department (SES/DF) and the Fiocruz Brasília Office embarked on initiatives that would put into practice the intentions of the protocol signed by managers of the Fiocruz and the Federal District government.

One of the initiatives taken by the SES/DF in 2017, in all the planning instruments it used (Multiyear Plan, District Health Plan, Annual Health Programme, Regional Management Agreement and Outcomes Agreement with the Governor), was to specify targets, actions and indicators relating to SDG 3 (Figure 1).

Another initiative was to draw up a project in December 2017, in partnership with the Fiocruz Brasília Office, Universidade de Brasília (UnB) and the Instituto Federal de Brasília (IFB), to act cooperatively in the depressed area of the Federal District known as Cidade Estrutural.

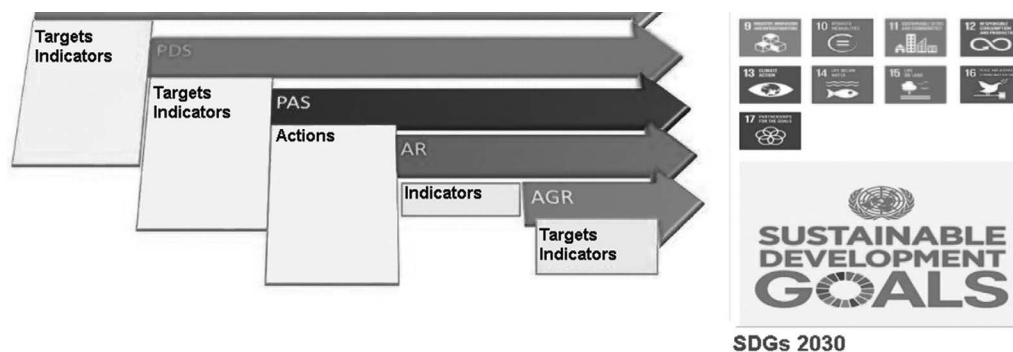
### Motivation for conducting the project in the Cidade Estrutural area

Cidade Estrutural, which originated from an irregular occupation, today has a population of more than 40,000. Until 2017 the region housed an enormous refuse disposal site known as the “Estrutural Dump”, where some 4,000 people worked scavenging waste<sup>7</sup>.

Since the closure of the dump, the area has seen changes in conditions of life and now displays characteristics that permit an analysis of the impact of public policies on the local community.

The factors that determined the choice were:

- i. the challenge of promoting health in a territory with a highly socially vulnerable population;
- ii. the possibility of carrying out actions and monitoring indicators for at least six SDGs in addition to SDG 3, as shown in Chart 1;



**Figure 1.** Identification of goals and indicators related to ODS 3 in the planning instruments of the State Department of Health of the Federal District.

iii. the combined interests in integrated action by the partners, primarily the Fiocruz and the UNB, later joined in the partnership by the IFB, to leverage activities across the whole territory.

Implementation of a cooperative approach to monitoring and evaluation of situations of risk and social and environmental vulnerability in the territory is intended to orient public policies towards building a Healthy Sustainable Territory. It was also felt that the 2030 Agenda of SDGs is a tool that can galvanise that construction. As health is the basis for a life of quality, it calls for a new public policy management ethic<sup>8</sup>.

The project is designed to produce social empowerment for governance and management of a healthy, sustainable territory. For that purpose, it applies a device, on the Cooperative Intelligence model, to monitoring and evaluation<sup>9</sup> of social vulnerabilities connected with SDGs of the 2030 Agenda.

Specifically, what is intended is:

i) to activate socio-technical networks in order to implement a cooperative approach to monitoring and evaluation of situations of social and environmental risk and vulnerability in the territory, with a view to making it healthy and sustainable by building on the new process of local production and the Sustainable Development Goals of the 2030 Agenda;

ii) to introduce methods of grassroots surveillance using technologies, parameters and in-

dicators to diagnose and map local situations of social and environmental risk and vulnerability;

iii) to outline an interactive system of analysis, monitoring and evaluation of the territories with the participation of local citizens;

iv) to activate socio-technical networks of local actors in order to measure determinants of health in relation to the SDGs; and

v) to agree on methodologies for capacitating local actors (grassroots researchers) to use cooperative intelligence in interactive governance of the territories.

Project execution began in the first half of 2018 with meetings, first to align methodologies with technical personnel of the SES-DE, FIOCRUZ and UNB and then to discuss the proposal with the state deputy department heads of health surveillance and comprehensive health care, the superintendent of the Centro-Sul Health Region and the IFB.

In April 2018 the “Healthy and Sustainable Estrutural Project” seminar and the 1<sup>st</sup> Prospective Dialogues Workshop were held to discuss the proposal with all the institutions and local leaders involved. The challenge was to build a model that favours knowledge production on the basis of shared information, so as to break with the traditional model in place (where information production is directed only to academic papers, the public administration produces information for internal assessment of its government policies and programmes and there is no feedback to the

local community), so as to build knowledge common to all these actors.

In the context of an emerging information society, the knowledge available in local communities is seen as a fundamental input to management, and the new information and communication technologies are used as increasingly important tools for mediation.

The proposal is thus to promote a model of interactive governance<sup>10</sup> in which information is available and socialised to all the actors involved.

### The Situation Room as a strategic information tool for the project

On this new model of collective knowledge formation about Cidade Estrutural, the Situation Room, which forms part of the agreement, contributes to systematising information on the territory as a whole, including Cidade Estrutural, and to making it available (Figure 2).

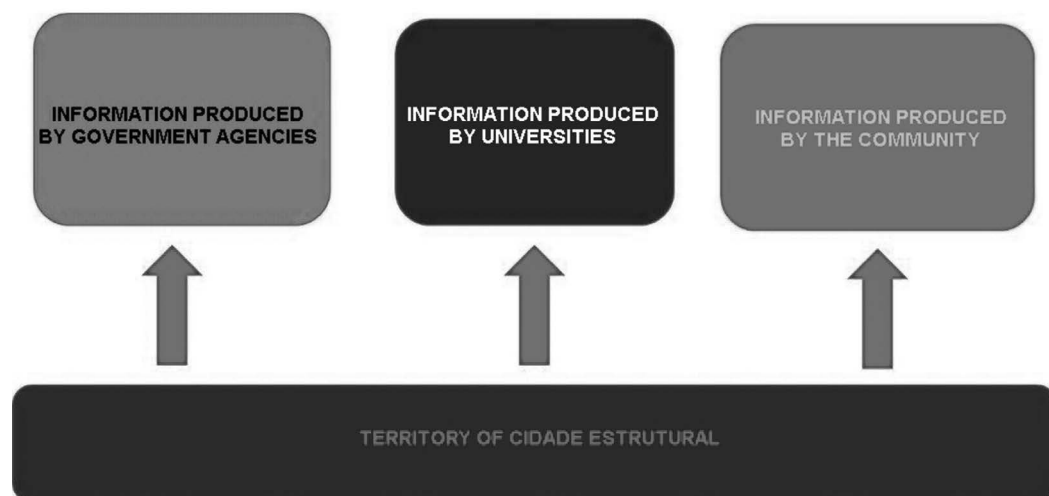
The SES/DF Situation Room has been in use since 3 July 2018, to make information and data available and thus foster knowledge about the health situation, provide input to decision making and increase the SES/DF's active transparency. Its electronic address is <http://salasit.saude.df.gov.br>. It deploys freeware information and communication technology tools with a view to promoting knowledge sharing among public institutions, extending its use wherever possible, in keeping with Brazil's National Open Data Infrastructure (INDA) and National Space Data Infrastructure (INDE) guidelines and the international Open Government Partnership strategy.

The Situation Room offers information in a variety of formats, including tables, graphs, maps, technical documents and strategic reports, which is posted on intuitive panels. Each of the Situation Room panels has a link to the SciELO electronic library, which comprises a collection of Brazilian scientific journals on the topic ad-

**Chart 1.** Seven Sustainable Development Goals for monitoring in Cidade Estrutural.

SDG	Description
SDG 1	Poverty eradication
SDG 2	Zero hunger and sustainable agriculture
SDG 3	Health and well-being
SDG 6	Drinking water and sanitation
SDG 8	Decent work and economic growth
SDG 11	Sustainable cities and communities
SDG 17	Partnerships and means of implementation

Source: prepared by the authors.



**Figure 2.** Production of information by government agencies, universities and community in the traditional model.

dressed, thus facilitating access to scientific evidence. In addition, it offers a “Find out more” function, offering clarifications on the subject, information sources, and the acronyms and abbreviations used. Wherever possible, the information is georeferenced.

The Situation Room is working to strengthen the cooperative intelligence essential to integrating and evaluating data and information intended for research, for improving public policy management and governance and increasing public transparency. It has gained recognition from a number of Federal District and federal government institutions, including universities.

A specific panel has been developed containing health-related data on Cidade Estrutural and a social vulnerabilities map of the territory, in preparation, addresses the factors connected with the 2030 agenda goals that dialogue with the social determinants of health.

Recently, Decree No. 39.435, of 8 November 2018, published in the Federal District’s official gazette No. 214, on 9 November 2018<sup>11</sup>, stipulates that the Situation Room managed by the SES/DF is responsible for publishing the indicators provided for in Law No. 6.219, of 3 September 2018<sup>12</sup>, as well as the other information intended to bring transparency or open data to the SES/DF.

### **The challenge of developing the Social Cooperation Room**

The project proposal also provides for a Social Cooperation Room to be installed in the territory as an instrument for use by the local population for analysing and discussing the directions of local policies.

On 15 September 2018, the 2<sup>nd</sup> Prospective Dialogues Workshop: a Healthy and Sustainable Estrutural was held to identify local issues and future trends in the territory’s behaviour, its underlying frame of reference being the global targets of the SDGs of the UN 2030 Agenda. The workshop was attended by some 50 people, including community leaders, government and NGO public policy specialists, students and researchers. On a theoretical and practical approach developed by Fiocruz Brasília, which prompts communicative action<sup>13</sup> and systemic thinking, it applied Social Cartography and Future Intelligence<sup>14</sup> in participatory and constructivist manners, so as to begin to develop a system for monitoring conditions of life from which to inform public policymaking for the territory. As a result of this workshop the researchers, community leaders and SES-DF

health team identified and georeferenced the territory’s social vulnerabilities, which will make it possible to relate them to the SDG indicators and thus prioritise actions in the territory.

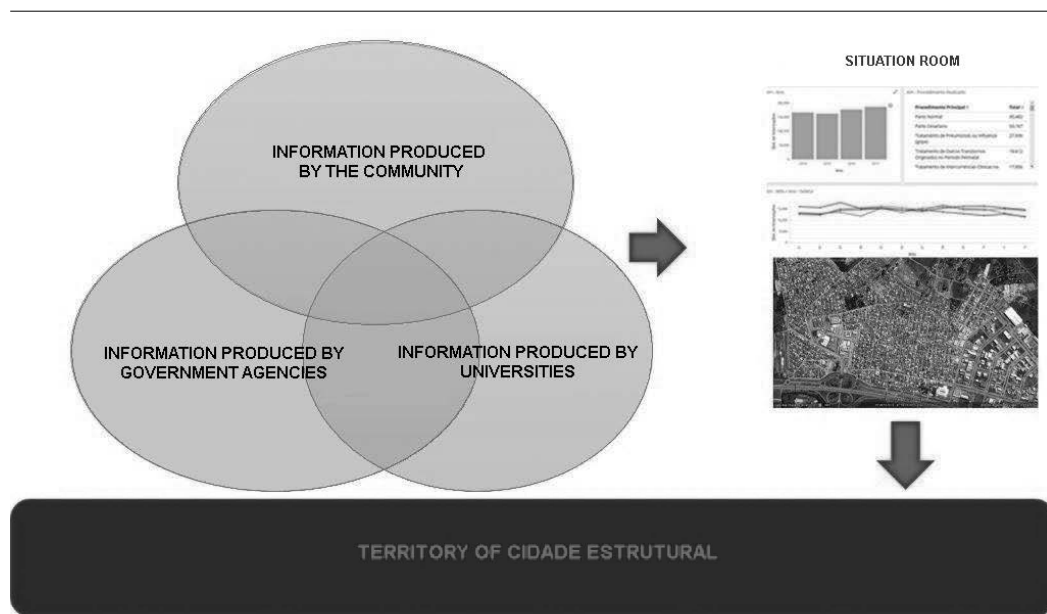
The course “Healthy and Sustainable Cidade Estrutural: social empowerment for territorial governance and management focused on the UN 2030 Agenda SDGs” offers capacity-building for grassroots researchers, as an integral part of the project, so that they can influence Territorial Governance. It will be given by the Escola Fiocruz de Governo and the Instituto Federal de Brasília. Capacitation of grassroots researchers will be based on approaches including knowledge ecology, which have the subject-to-subject relationship at their core, so that research is pursued in integration with teaching and application<sup>15</sup> and, accordingly, is conducted by representatives of the local populations, who experience the situation of risk in the territory in their daily lives and can act in policy governance.

Policymakers’ systematic monitoring of the situation as regards conditions of life and production of services, combined with grassroots surveillance of the risks and vulnerabilities, will leverage the capacity to direct the policy focus appropriately. This process calls for instruments to systematise data and disseminate information. These data are both those already structured in the various different epidemiological and service production information systems that the SES has at its disposal, and those as yet unstructured that may be collected by the local population in the territory and which can be brought together in a social cooperation room, as well as the situation rooms of government and teaching and research institutions, but in an integrated manner (Figure 3).

### **Final remarks**

The institutional policymakers’ intentions stated in the protocol and expressed as political will – combined with the technical capacity of their end-purpose units to promote coordinated action among institutions and individuals and engage them with an idea that can rapidly be put into practice by means of technical competences of excellence – is the key to attaining results that will make it possible to achieve the SDGs.

The project aims to strengthen the means of implementing and revitalising partnerships for sustainable development. Accordingly, this project in the Federal District’s Cidade Estrutural can serve as an example of how the activation of



**Figure 3.** Integrated information production.

sociotechnical networks and their engagement in implementing the 2030 Agenda constitutes a strategy for achieving the SDGs and also for associating the Agenda with the social determinants of health, thus promoting a social endeavour towards a healthy sustainable territory.

The Federal District will be able to stand as a model for a national “Radar of Healthy and Sustainable Territories”, that is, a system for monitoring SDGs and the implementation of the 2030

Agenda, which will consolidate the conditions of life index associated with the SDGs.

Cooperation between the SES/DF and Fiocruz, through the latter’s Data and Knowledge Integration Centre (CIDACS), will leverage the capabilities of these two information devices (the SES/DF Situation Room and the Social Cooperation Room) for monitoring and aligning actions relating to implementation of the Healthy and Sustainable Territory.

### Collaborations

PEG Sellera, MFSA Moro, RH Albuquerque, LI Braga, MS Souza, ASG Lima and WJ Martins contributed to producing this article and all are involved in the Healthy and Sustainable Estrutural project.

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Article submitted 26/12/2018

Approved 06/02/2019

Final version submitted 26/03/2019

