

SOCIAL PROGRESS INDEX IN BRAZIL AT SUBNATIONAL LEVEL: LITERATURE REVIEW*



Alysson Dias da Silva¹, Marcelo Ladvocat²

Abstract: this study aimed to identify and analyze scientific publications and works carried out in Brazil where the Social Progress Index (SPI) was applied at a sub-national level. The research lists academic works and also works published by electronic means (portals), which represent meaningful advances in the use of SPI as a more complete and current approach to see regions' position towards Social Progress. It was concluded that, in general, the index that is widely used today in the world is still little used in Brazil, and there is an opportunity for its better use. In Brazil, the inefficiency in the application of public money is considered serious and the problems are currently accentuated by the influence of the COVID-19. This scenario justifies the search for decision-making instruments such as the SPI and makes relevant the adoption of new methods and metrics (such as the SPI, able to measure Social Progress and regional disparities), capable of directing the application of assertive and efficient public policies, aiming at sustainable regional development, combating inequality and making better use of public money. The Social Progress Index, therefore, is an important, comprehensive and revealing tool to show the strengths and weaknesses of regions and municipalities, and can be applied as a deterministic instrument to guide social, public and private actions.

Keywords: Social Progress Index. SPI. Social Progress. Literature review.

ÍNDICE DE PROGRESSO SOCIAL NO BRASIL EM NÍVEL SUBNACIONAL: REVISÃO DA LITERATURA

Resumo: este estudo objetivou identificar e analisar publicações científicas e trabalhos realizados no Brasil onde ocorreu a aplicação do Índice de Progresso Social (IPS) a

* Recebido em: 23.09.2030.

1 Unialfa

2 Unialfa

nível subnacional. A pesquisa relaciona obras acadêmicas e também obras divulgadas por meio eletrônico (portais), as quais representam importantes avanços no uso do IPS como uma abordagem mais completa e atual de enxergar como as regiões estão posicionadas rumo ao Progresso Social. Constatou-se que, em geral, este índice que hoje é amplamente utilizado pelo mundo ainda é pouco aplicado no Brasil, e existe uma grande oportunidade de sua utilização. No Brasil, é tida como grave a ineficiência na aplicação do dinheiro público e os problemas são, atualmente, acentuados pela influência da pandemia de COVID-19. Tal cenário justifica a busca por instrumentos de tomada de decisão como o IPS e torna relevante a pesquisa de novos métodos e métricas (como o IPS, apto a mensurar o Progresso Social e as disparidades regionais), capazes de direcionar a aplicação de políticas públicas assertivas e eficientes, visando desenvolvimento regional sustentável, o combate às desigualdades e o melhor uso do dinheiro público. O Índice de Progresso Social, portanto, é um instrumento importante, abrangente e revelador para mostrar as forças e fraquezas das regiões e municípios, podendo ser aplicado como um instrumento determinístico de orientação das ações sociais, públicas e privadas.

Palavras-chave: Índice de Progresso Social. IPS. Progresso Social. Revisão da literatura.

ÍNDICE DE PROGRESO SOCIAL EN BRASIL A NIVEL SUBNACIONAL: REVISIÓN DE LA LITERATURA

Resumen: este estudio tuvo como objetivo identificar y analizar publicaciones y estudios científicos realizados en Brasil donde se aplicó el Índice de Progreso Social (IPS) a nivel subnacional. La investigación enumera trabajos académicos y también trabajos publicados electrónicamente (portales), que representan avances importantes en el uso de IPS como un enfoque más completo y actual para ver cómo se posicionan las regiones hacia el Progreso Social. Se encontró que, en general, este índice que es ampliamente utilizado hoy en el mundo es todavía poco utilizado en Brasil, y hay una gran oportunidad para su uso. En Brasil, la ineficiencia en la aplicación del dinero público se considera grave y los problemas se acentúan actualmente por la influencia de la pandemia de COVID-19. Este escenario justifica la búsqueda de instrumentos de toma de decisiones como el IPS y hace relevante la búsqueda de nuevos métodos y métricas (como el IPS, capaces de medir el Progreso Social y las disparidades regionales), capaces de orientar la aplicación de políticas públicas asertivas. y eficiente, orientado al desarrollo regional sostenible, la lucha contra las desigualdades y el mejor uso de los fondos públicos. El Índice de Progreso Social, por tanto, es una herramienta importante, integral y reveladora para mostrar las fortalezas y debilidades de las regiones y municipios, y puede ser aplicado como un instrumento determinista para orientar las acciones sociales, públicas y privadas.

Palabras clave: Índice de Progreso Social. IPS. Progreso social. Revision de literatura.

An index reveals the state of a system or phenomenon (SHIELDS; SOLAR; MARTIN, 2002). Some authors argue that an index can be constructed to analyze data by joining a set of elements with established relationships (SICHE, ORTEGA, ROMEIRO, 2007; BASSALO, TORKOMIAN, 2017). Since relevant economic indexes such as GDP (gross domestic product, created in 1937 by economist Simon Kuznets) emerged in the world, man is looking for ways to measure development and social well-being. Due to the changes that continuously occur in society, it is increasingly important to identify new sets of global, national, state, and even local indicators that allow assessing progress from the perspective of sustainable development.

Besides, calculating the indexes is to provide inputs for decision makers, who can provide greater coherence, efficiency, and assertiveness to the choices for investments of public interest (PULICI; MOURA; MOSANER, 2017). To this end, the construction and analysis of indicators (indexes) enable the operationalization of different dimensions

of this reality, providing an instrumental portrait for decision making. This explains how the production of statistics on policies to promote the quality of life in society has been a recurring theme on the work agenda of governments and multilateral organizations for the past 70 years (JANUZZI; BARRETO; SOUSA, 2014).

More than creating benchmarks, assessing social progress is assessing whether public money is being invested responsibly, whether basic human needs are being met, whether we are secure, whether progress is sustainable, and many other points (STERN; EPNER, 2019).

Brazil, in turn, has an economic scenario in which the tax system is considered inefficient, with a strong impact on consumption, burdening the poorest and the working class, thus showing itself to be an instrument for inequality (FELICIO; MARTINEZ, 2018). A study carried out by the Organization for Economic Cooperation and Development - OECD found that the Brazilian tax burden corresponds to approximately double the average of Latin American countries, equivalent to that of developed countries, being marked by taxation on consumption, but with a gradual substitution for direct taxation and the cost of social security (PAES, 2013; FELICIO, MARTINEZ, 2018). Another study carried out by the Brazilian Institute of Planning and Taxation (IBPT) indicated that the Brazilian tax burden compromised 41.8% of Brazilian income in 2016.

In the regional scenario, according to the data from Brazil's statistical agency (IBGE), the south and southeast regions generate around 70% of the country's GDP. In the case of regions with concentrated activities, the gap with other regions less concentrated tends to increase disparities (LADVOCAT; LUCAS, 2019). There are regions that still need to develop in basic areas that guarantee the basic subsistence conditions like infrastructure, aiming to promote regional development. In the following graph, a comparison of the Brazilian tax burden can be seen in comparison to other countries. Since the tax burden in Brazil (still a country with so much social inequality) is proportionally similar to countries like Canada and superior to the United States, the importance of greater efficiency in the application of public policies is raised (do more with less).

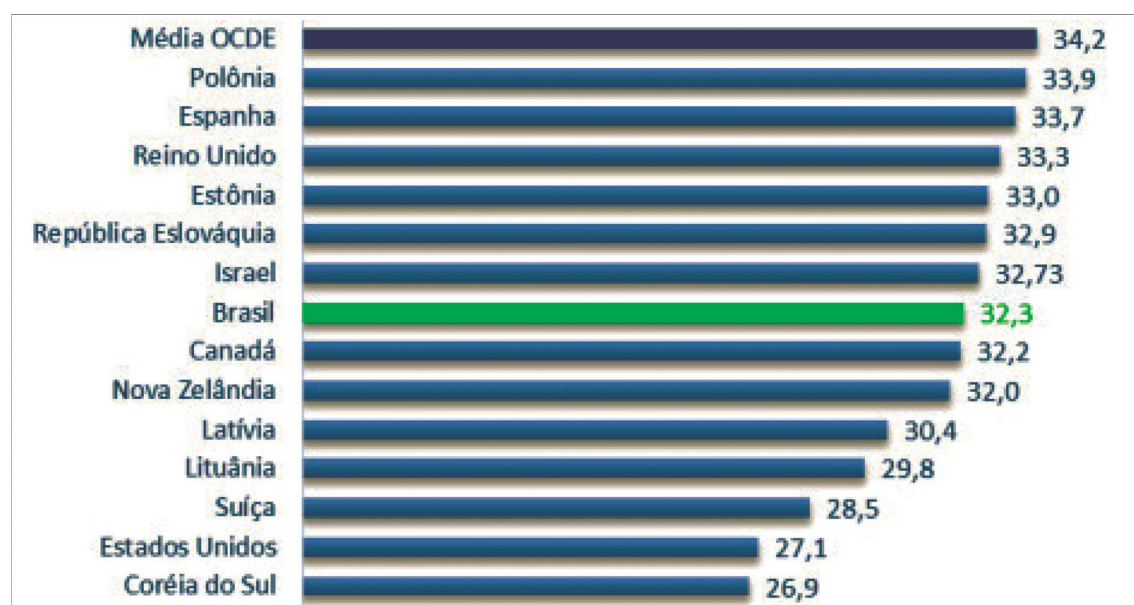


Figure 1: Tax burden in Brazil and OECD countries (% GDP) in 2017
Source: Own elaboration based on OECD data (OECD, 2019).

The term Social Progress is defined as the ability of a society to meet the basic needs for the life of each citizen, so that communities can grow and develop sustainably and creating conditions for each individual to achieve their greater potential (STERN; EPNER, 2019). The progress occurs when there is an improvement in the wellbeing of individuals without compromising future generations, taking into account both economic, as well as environmental, social, and subjective aspects (CAMPETTI, 2015). The extension of the progress, in Brazil, has the challenge of facing a great number of regional disparities. There are regions with concentrated activities (firms and agglomeration) besides the gap with other regions less concentrated (LADVOCAT; LUCAS, 2019). The main goal of sustainable development is to improve the quality of life and ensure wellbeing for present and future generations. This can be achieved by well-balanced societies that are able to effectively use resources and the potential of environmental and social innovation to ensure economic wellbeing, environmental protection and social cohesion (KARMOWSKA, 2017). Social Progress is inherently a multidimensional and complex concept that requires a series of indicators that cover its different dimensions (ESTES, 2016; JITMANEEROJ, 2017).

In 2013, with the collaboration of Professor Michael Porter (Harvard) and Scott Stern (MIT), it emerged as a new concept the Social Progress Index (SPI), developed and disseminated by the non-governmental association Social Progress Imperative (PORTER; STERN; LORIA, 2013), then adopted in several countries and subnational territories of the world (SANTOS *et al.*, 2018).

Unlike other indexes that measure social performance in the region, for example, the Human Development Index (HDI), the SPI is obtained only through social and environmental indicators, not just economic indicators. In addition to the exclusion of economic variables, results measures are used instead of inputs to guarantee results (PULICI *et al.*, 2017). This leads us to translate economic gains into better social and environmental performance. The SPI is a concrete framework for understanding and prioritizing an action agenda, which provides gains in social and economic performance (BASSALO; TORKOMIAN, 2017).

The SPI was developed based on extensive discussions with stakeholders around the world about what is missing when legislators focus on GDP, excluding social performance and environmental issues (STERN; EPNER, 2019). The SPI, unlike GDP, focuses its indicators on factors that affect the quality of population life. That is why the SPI appears as an alternative that complements the economic information focusing on conditions and dimensions that affect life of people (STERN; WARES; EPNER, 2017). As it is an index composed of information of different natures, it can be used to better understand the weaknesses of the municipalities with the incorporation of several aspects, in addition to the economic one. Low rates, in this sense, will serve to point out needs and opportunities for the promotion of sustainable regional development and, consequently, the creation of opportunities for social equity. This makes it possible to assess better the indicators obtained in social progress and then compare them to the others (SANTOS *et al.*, 2018). The SPI is the first global index to measure social progress that is independent of GDP but is complementary to it. It offers a systematic and empirical foundation to guide

strategies for inclusive growth (BASSALO; TORKOMIAN, 2017). Also, the SPI is a robust method capable of integrating a wide range of spatially distributed and comparable social indicators and presenting them in a didactic manner. This allows the efforts of the Government, the private sector, and society, in general, to be directed towards improving social progress (SANTOS *et al.*, 2018).

Composed by three dimensions (Basic Human Needs, Foundations of Wellbeing and Opportunity), the Social Progress Index has a Framework extended to complete itself, each dimension having four components (total of twelve components) that highlights a separate aspect of the overall set of outcomes, building on both academic and policy literature (STERN; EPNER, 2019).



Figure 2: Social Progress Index Framework
Source: Stern e Epner (2019).

This study aimed to review the literature related to the applications of SPI in Brazil, by searching for articles and academic works that, using the methodology of its creators, calculated it at a subnational level.

METHOD

Data collection took place through a literature search in the following indexed databases: Google Scholar, Scientific Electronic Library Online (SciELO), and CAPES Journal Portal to search for articles published in English or Portuguese in the period from 2013 to 2020, that is, since the SPI was created. The combinations of terms used to search for articles were: 'Índice de Progresso Social', 'Progresso Social', 'IPS', 'Social Progress Index', 'Social Progress', 'SPI'. There were found works published in portals too.

In the identified articles, a manual screening was initially carried out, based on the reading of the abstracts, excluding (1) literature review studies, (2) works from regions in other countries, (3) works exclusively addressing the index at a national level.

The previously published works found were analyzed and will be described below. These were read and analyzed in full, representing the pioneering research in Brazil for application of the Social Progress Index at the subnational level.

After presenting the results, follows a brief discussion about similarities and difficulties found among them, and the conclusions.

RESULTS

For a better presentation and visualization of the analyzed bibliographic material, it was decided to present a brief description of the works, considering reference years and territorial coverage (Table 1). A brief interpretation of the results presented and the understanding of social progress in the regions in question will be carried out.

It can be seen clearly that works of this nature in Brazil are still scarce, and there are several opportunities for calculating and applying the SPI for states and municipalities in the national territory. However, it was found that the few types of research found provide methodological bases and inputs for further studies and allow the application of similar models for the levels mentioned (including with a pioneer work to be reported).

Table 1: Analysed Works

| Reference | Index coverage | Creation | Update |
|-----------------------------|---------------------------------------|----------|--------|
| SANTOS <i>et al.</i> , 2014 | Brazilian Amazon - 772 municipalities | 2014 | 2018 |
| PULICI <i>et al.</i> , 2017 | Rio de Janeiro | 2016 | - |
| ROMANELLO, 2019 | Santa Catarina - 288 municipalities | 2019 | - |

As a pioneering work in Brazil, we find the application of SPI in the Brazilian Amazon: SPI Amazônia 2018 by Santos, Mosaner, Celentano, Moura and Veríssimo. Created in 2014 and updated in 2018, covering all 772 municipalities in the Amazon. Perhaps this is currently the most important job of applying this index here, since the work covers all municipalities in the region, in addition to the fact that it has already been updated and has comparative temporal analyzes. It is also necessary to clarify that regional development for the northern region of the country is a major challenge, as it is a region of great territorial extension (The Legal Amazon occupies 59% of the Brazilian territory), in addition to being the first subnational initiative (scale of states and municipalities), carried out in the world (SANTOS *et al.*, 2018). The method used to adapt and calculate the SPI used in this project is serving as a reference for other nations in the European Union, the United States, Central American countries, Asia, and Africa. As it is a region with great environmental concern, it is essential to consider environmental factors when measuring the region's progress, which is why SPI was adopted. Brazilian Amazon's SPI shows that economic indicators are not sufficient to understand regional development measures, since economic growth without social progress also results in environmental degradation, exclusion, and conflicts in a region where there are people of indigenous ethnicity and great disparities between rural communities and urban areas.

Table 2: Composition's structure of the Brazilian Amazon's SPI

| SPI - Brazilian Amazon | | |
|---|--|--|
| Basic Human Needs | Foundations of Wellbeing | Opportunity |
| Nutrition & Basic Medical Care Maternal mortality rate Child mortality rate (up to 5 years old) Deaths from malnutrition Deaths from infectious diseases Undernourishment Water & Sanitation Access to piped water Sewage collection Rural sanitation Shelter Access to electricity Garbage collection Inadequate housing Personal Safety Youth homicide rate Homicide rate Traffic deaths | Access to Basic Knowledge Access to elementary school Access to secondary school Illiteracy Education quality Access to Information and Communications Mobile internet data connection Voice connection Health & Wellness Life expectancy at birth Deaths from chronic diseases Deaths from respiratory diseases Obesity Suicide Environmental Quality Degraded areas Protected areas Waste of water Accumulated deforestation Recent deforestation | Personal Rights Diversity of political parties Urban mobility Threatened people Personal Freedom & Choice Access to culture, sport, and leisure Childhood and adolescent pregnancy Child labor Family vulnerability Tolerance and Inclusion Racial inequality in education Violence against indigenous Violence against women Access to Advanced Education Women's education Frequency of students in tertiary school People with tertiary schooling |

Source: Santos *et al.* (2018).

With an SPI of 56.52 in 2018, the Brazilian Amazon is below the national average (67.18) and still showed a small reduction in the value found in 2014 (57.31). The authors also mention that this reduction seems to have been not only at the regional level, but followed the national trend since Brazil fell from the 46th position occupied in 2014 to the 49th position in 2018 on the scale of the 146 countries analyzed, standing behind of Argentina, Chile, and Uruguay (SPI, 2018).

Extreme regional disparities have characterized Brazil, and the northeast and north regions continue to lag economically behind those other regions, even existing some significant improvement in socioeconomic indicators made by these regions (LADVOCAT; LUCAS, 2019). An important fact revealed by Brazilian Amazon SPI was the low value in the region for the Opportunities dimension (47.75), which revealed the huge disparity between the region and the rest of the country. This SPI result also revealed serious problems in terms of access to higher education, individual rights, individual freedoms and choice, tolerance, and inclusion, showing the great challenges that will be faced for the development of social progress in the region. The authors also cite in their conclusions that the Amazon is experiencing a perverse situation of low social progress, high environmental degradation and significant economic underdevelopment, which leads to the belief that the region richest in natural resources in the country is being victimized by occupation and, unfortunately, it is a region of precarious social situation and little generation of wealth.

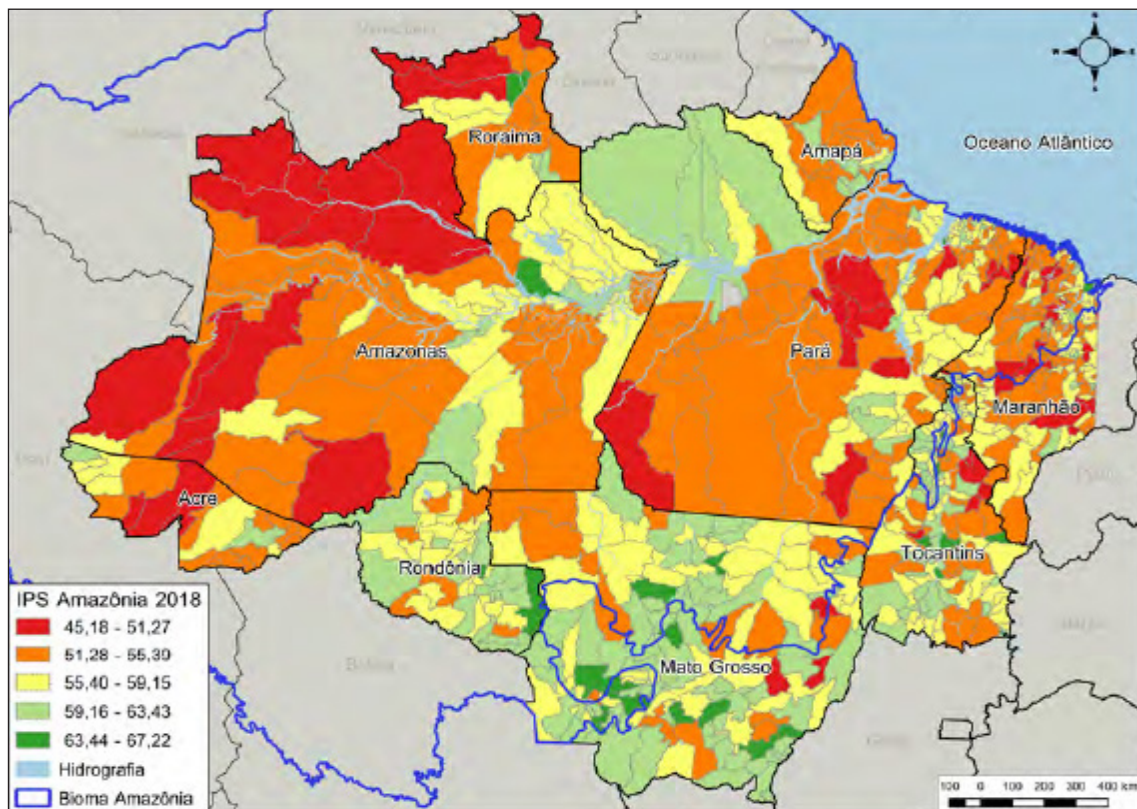


Figure 3: Results in scale of the Brazilian Amazon SPI
 Souce: Santos *et al.* (2018).

The second work to be reported is the Social Progress Index of the city of Rio de Janeiro in 2016, whose methodological report and presentation of results was made by the authors Pulici, Moura and Mosaner, which brings an analysis by administrative region of the city (PULICI; MOURA; MOSANER. 2017). This is a work that already has extensions at also specialized levels, being extended to the calculation of the SPI for several communities that make up the municipality (publication on the website ipsrio.com.br).

Table 3: Composition's structure of SPI Rio

| SPI - Rio de Janeiro | | |
|---|--|---|
| Basic Human Needs | Foundations of Wellbeing | Opportunity |
| Nutrition & Basic Medical Care Child mortality rate Low weight at birth Maternal mortality rate Children's hospitalizations due to acute respiratory crisis Water & Sanitation Access to piped water Sewage collection Access to at least basic sanitation Shelter Non-urbanized housing Access to electricity Excessive Housing Density Personal Safety Homicide rate Street theft rate | Access to Basic Knowledge Adult literacy rate Quality of elementary education, early years Quality of elementary education, final years Secondary school dropout Access to Information and Communications Access to landline or cell phone Access to Internet Health & Wellness Deaths from chronic diseases Dengue cases Deaths from tuberculosis / HIV Environmental Quality Selective waste collection Degradation of green areas | Personal Rights Urban mobility Homicide rate by police intervention Commuting average time Political participation Personal Freedom & Choice Adolescent pregnancy Child labor Access to culture index Tolerance and Inclusion Violence against women Homicide of black youth Family vulnerability Access to Advanced Education People with tertiary schooling Blacks/indigenous people with higher education Frequency of students in tertiary school |

Source: Pulici *et al.* (2017).

Looking at Figure 4, it is notable the regions considered as 'noble' or tourist areas in Rio are much more developed than the others in terms of SPI, which shows the great social inequality. While the Botafogo region has a very high result (86.90) Pavuna has a much lower result (41.43). Another serious social problem revealed, according to the authors, is found in the Housing component of Complexo do Alemão (19.33) and Jacarezinho (21.11), which have extremely low rates and reveal a large portion of the population living in inadequate places or extreme risk. Other problems revealed were the low result in Water and Sanitation for Guaratiba (17.54) and Rocinha (30.76) and in Nutrition and Basic Medical Care the result of Cidade de Deus (32.51) is worrying.

From this work, several other conclusions were drawn, which shows the scope of the SPI in important social issues and their discrepancies. Ilha do Governador, for example, which is in the group of regions with average high or high results elsewhere, it has very low numbers (19.69) in the Ecosystem Sustainability component. Several other values can be highlighted, such as concerning the Tolerance and Inclusion component, by Guaratiba (32.84), which is at the lowest level, a consequence of the rates of violence against women.

In conclusion, on SPI Rio, it was observed how the results of applying SPI at less 'generic' or more specialized levels yield interesting results worthy of evaluation by the Government and society in general, exposing district weaknesses and disparities levels of social progress. As confirmation, we can see the image of a society marked by inequality (on the one hand, slums and non-urbanized dwellings without any type of planning, expressing housing and social problems of different natures, on the other, a rich region with a predominance of infrastructure aimed at the tourism development). Such results emphasize the need to apply the SPI not only at State or National levels, to shed light on what is unknown (PULICI *et al.*, 2017).

Another work found from Romanello, representing a recent survey, dated 2019: The Social Progress Index of the municipalities from the State of Santa Catarina (ROMANELLO, 2019). In this project, the concept of 'Capability' was used to illustrate the freedom of an individual or group to achieve various combinations of functioning (being and doing) in a society. In other words, the author presents a vision of training aimed at social progress and calculates the SPI for the 288 municipalities in Santa Catarina. The work is categorical in mentioning that most of the indicators used to measure quality of life and progress are intrinsically linked to economic values and its approach to assessing wellbeing focuses on the individual, leaving these economic aspects aside. The Author then enters the more literary concept of 'Capability', as a way for the individual to reach his full state of life, that is, to achieve his goals. This state is influenced by several factors, such as individual freedom and opportunities in general. This is the reason why the author adopted, therefore, the SPI as an index capable of evaluating these aspects for the State of Santa Catarina, bringing the information of Basic Human Needs, Fundamentals of Wellbeing, and Opportunities, according to the original methodology of the SPI.

Table 4: Composition's structure of SPI Santa Catarina

| SPI - Santa Catarina | | |
|--|---|---|
| Basic Human Needs | Foundations of Wellbeing | Opportunity |
| Nutrition & Basic Medical Care Maternal mortality rate Low weight at birth Water & Sanitation Access to piped water Sewage collection Access to at least basic sanitation Garbage collection Shelter Access to electricity Excessive Housing Density Washing machine access Refrigerator access Personal Safety Homicide rate Street theft rate Theft rate followed by homicide Intentional injury rate | Access to Basic Knowledge Adult literacy rate Quality of elementary school, early years Quality of elementary school, final years Age-grade distortion Access to Information and Communications Access to landline or cell phone Access to Internet Health & Wellness Dengue cases Leprosy cases Syphilis cases in pregnant Viral hepatitis cases Environmental Quality Recovery rate of recyclable materials Per capita mass of recyclable materials collected Afforestation | Personal Rights Homicide rate by police intervention Commuting time home-work Politically absent voters Personal Freedom & Choice Adolescent pregnancy Child labor Libraries, museums, theaters and cultural centers Tolerance and Inclusion Violence against women Family vulnerability Access to Advanced Education People with tertiary schooling Blacks, browns or indigenous people with higher education Frequency of students in tertiary school |

Source: Romanello (2019a, adapted).

As the author describes, the sources used in this research were mainly of state and national administrative data for the period 2010-2017. The main database used was the Brazilian Institute of Geography and Statistics (2010 Census) and it was not possible to find data for a single year. The most recent data were used for each variable.

In the results presented by Romanello, the author highlights the issue of economic growth versus human development, because many fast-growing developing countries have not achieved a good level of wellbeing for their population. It was clear from SPI how municipalities with a high rate of social progress are more concentrated in some mesoregions than in others. The municipalities with the lowest index are, in general, in the western, mountainous, and part of the northern mesoregions, while those with the best index are located in the eastern part of the state of Santa Catarina, occupying practically the entire coastline. It is also clear, once again, that even the most developed regions regarding SPI have some dimension where there are opportunities for improvement. Another interesting point mentioned by the author was the observation that, according to this research, social progress has a more evident relationship with the Human Development Index (HDI) than with GDP per capita.

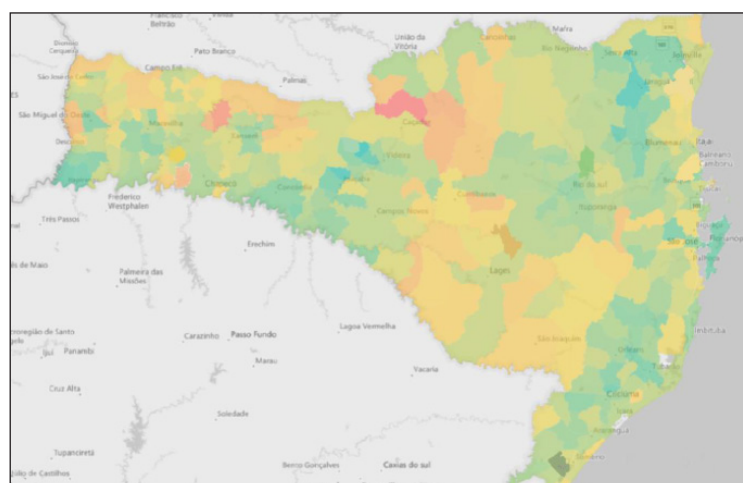


Figure 5: Results of SPI Santa Catarina
Source: Romanello (2019).

DISCUSSION

The authors, in general, showed in a practical way how the SPI, can be applied on a more specialized, subnational scale. All of them show, in results, that the SPI provides a more complex way of analyzing, visualizing, and understanding the strengths and weaknesses of each municipality. After all, to act on deficiencies, it is necessary to expose them first. This new way of measuring Social Progress, comes in line with the statements of several authors such as Campetti (2015) quoted based on the studies of Hall, Giovanni, Morrone and Ranuzzi (2010), Scrivens and Iasiello (2010), Stiglitz *et al.* (2009) and Trewin and Hall (2010) who a decade ago already stated that for progress to occur, it is necessary to achieve improvements in the wellbeing of individuals without compromising future generations, both in economic aspects environmental, social and subjective. The works on applying the SPI at the subnational level mentioned has encountered some difficulties, among them the fact that the last Demographic Census was carried out in 2010 by IBGE and this directly affects some results (in components such as water and sanitation, housing and access to college education). Education, in turn, is vitally important for economic growth, proven to support human capital formation (BARRO, 2013; LADVOCAT, 2020).

Another difficulty mentioned is that for newly created municipalities, it may happen that the necessary data for the calculations cannot be found, which leads researchers to choose to leave them out or even replace some indicators with others of similar relevance (for example, in the place of access to higher education the number of people with a higher education diploma of working age). Challenges were also the missing values in the Access to Basic Education component of places where there are no schools with IDEB (Basic Education Development Index) application (initial or final years) or data on High School Dropout.

The construction of subnational indexes is not only an informational outlet in itself, which can be very useful for social and private-public policies, but also tries to “close the gap” between data producers and decision makers, focusing on involving right partners for action with a sense of ownership, while following social advances (MOSANER, 2016). Another interesting factor that applications of the SPI at the subnational level have been showing is that, through deeper analysis, there is a relationship between the level of social progress, measured by the index, and the per capita income of the municipalities (ROMANELLO, 2019) and in other cases this relationship is more evident with the Human Development Index (HDI). Considering that commonly used indicators, such as GDP, do not provide adequate indications about sustainability (SIENA, 2002).

After all, Brazil is a country with significant territorial extension, with considerable economic disparities between regions (LADVOCAT; LUCAS, 2019). Through research like these presented, a series of actions can be taken to reduce these inequalities and guide initiatives from the Government, private institutions, and also from the whole society. Several works show how heavy and inefficient the Brazilian tax system is, as well as how the inadequate application of public resources is a factor of inequality and social injustice (PAES, 2013; FELICIO, MARTINEZ, 2018). As a result of the sanctions implemented to combat

the Covid-19 pandemic, there was, in Brazil, a closure of non-essential activities and a decrease in aggregate supply and demand. This led to bankruptcies and declines in company revenues, in addition to the increase in formal and informal unemployment (FERREIRA JÚNIOR; SANTA RITA, 2020). Through the effect of confirmed cases' number, as well as the Covid-19 observation period, that the pandemic is already causing negative effects on the Brazilian financial market (JUNIOR; RAMOS; SILVA, 2020). These assessments consequently reveal yet another relevant aggravating factor for social inequalities nowadays.

CONCLUSIONS

In general, it is concluded that in Brazil there are still few applications of SPI at the subnational level and that there are still several opportunities not only for research in the area, but also for applications of its results effectively. The papers presented clearly show how the SPI can be used illustratively to identify the strengths and challenges of each municipality, as well as the social discrepancies in the regions in which they are grouped. The objective, therefore, is to serve as a starting point for decision making and the application of more assertive and efficient public policies, aiming at the real needs and urgencies of social, private and governmental action, to make people's lives less unequal, guaranteeing opportunities for all and preserving the structure of progress achieved for the next generations.

REFERENCES

- BARRO, Robert J. A cross-country study of growth, saving, and government. *National saving and economic performance*. University of Chicago Press, p. 271-304, 1991.
- BASSALO, G. H. M.; TORKOMIAN, A. L. V. *Inovação e Progresso Social na América Latina: Uma Visão Sintética*. ALTEC 2017 – XVII Congresso Latino-Americano de Gestão Tecnológica. 2017.
- CAMPETTI, P. H. M.; ALVES, T. W. Avaliação do progresso das nações: uma aplicação na América do Sul, Costa Rica e México. *Revista Economia Ensaios*, v. 30, n. 1, p. 35-65, 2015.
- ESTES, R. J. Global change and quality of life indicators. In: *A life devoted to quality of life*. Springer, Cham. p. 173-193, 2016.
- FELICIO, R. M.; MARTINEZ, A. L. Sistema tributário brasileiro: análise da percepção dos operadores do direito tributário à luz dos conceitos de eficiência e justiça fiscal. *Revista Ambiente Contábil - Universidade Federal do Rio Grande do Norte - ISSN 2176-9036*, v. 11, n. 1, p. 156-181, 2018
- FERREIRA JÚNIOR, R.R.; SANTA RITA, L.P. Impactos da Covid-19 na Economia: limites, desafios e políticas. *Cadernos de Prospeção*, v. 13, n. 2, p. 459-476, 2020.
- HALL, Jon *et al.* A Framework to Measure The Progress of Societies, *OECD Publishing, OECD Statistics Working Paper Series*, n. 34, 2010.
- IBGE - Instituto Brasileiro de Geografia Estatística - Cidades. 2018. Available in: <https://cidades.ibge.gov.br/>
- JANUZZI, P.; BARRETO, R.; SOUSA, M. Monitoramento e Avaliação do Desenvolvimento Humano: a insensibilidade do Índice de Desenvolvimento Humano às políticas de desenvolvimento social. *Revista Brasileira de Monitoramento e Avaliação*, n. 5, p. 60-79, 2014.

- JITMANEEROJ B. Beyond the equal-weight framework of the Social Progress Index: Identifying causal relationships for policy reforms. *International Journal of Social Economics*, v. 44, n. 12, p. 2336-2350, 2017.
- JUNIOR, L. C. S.; RAMOS, A. C. P.; SILVA, I. L. A. Efeitos da Covid-19 sobre Câmbio, Ibovespa e Índices de Segmentos e Setoriais da Bolsa Brasileira. *Annals of XX USP International aConference in Accounting*. 2020. Retrieved From: <https://congressousp.fipecafi.org/anais/Anais2020/ArtigosDownload/2925.pdf>
- KARMOWSKA, G. Development of the EU societies and social progress. *Ekonomia I Srodowisko-Economics and Environment*, v. 4, n. 63, p. 178-190, 2017.
- LADVOCAT, M.; LUCAS V. Regional Disparities, Public Policies and Economic Growth in Brazil. *Revista Brasileira de Assuntos Regionais e Urbanos*, v. 5, n. 2, p. 264-274, 2019.
- LADVOCAT, M. Government Size and Economic Growth. *Revista Razão Contábil & Finanças*, v. 11, n. 1, 2020.
- MOSANER, M. *Can the Social Progress Index be a tool for Capability Approach operationalization?*. Conferência da Associação de Desenvolvimento Humano e Capacidade, na Universidade de Hitotsubashi de Tóquio, Japão. 2016
- OECD – Organization for Economic Cooperation and Development– OECD International Database. 2019. Available in: <https://stats.oecd.org/>
- PAES, N. L. Uma análise comparada do sistema tributário brasileiro em relação à América Latina. *Acta Scientiarum. Human and Social Sciences*. v. 35, n. 1, p. 85-95, 2013. Posted on: <https://www.redalyc.org/articulo.oa?id=3073/307328855008>
- PORTER, M. E.; STERN, S.; LORIA, R. A. *Social Progress Index 2013*. Washington, DC: Social Progress Imperative, 2013.
- PULICI, A.; MOURA, D. C.; MOSANER, M. S. *Índice de Progresso Social para o Rio de Janeiro. SPI RIO – Resumo Executivo. Rio de Janeiro: 2016*. 2017. From: <https://s3.amazonaws.com/SPIrio/publicacoes/relatorio-metodologico.pdf>
- ROMANELLO, M. *O Índice de Progresso Social dos municípios de Santa Catarina (2010-2017)*. CBE 2019 – XXIII Congresso Brasileiro de Economia. 2019.
- SANTOS, Daniel. *et al. Índice de Progresso Social na Amazônia Brasileira: SPI Amazônia 2018*. Imazon; Social Progress Imperative. 2018. Retrieved from: <https://imazon.org.br/publicacoes/indice-de-progresso-social-na-amazonia-brasileira-SPI-amazonia-2018/>
- SCRIVENS, K.; IASIELLO, B. Indicators of ‘Societal Progress’: lessons from international experiences, OECD Publishing, *OECD Statistics Working Paper Series*, n. 33, 2010.
- SHIELDS, D.; SOLAR, S.; MARTIN, W. The role of values and objectives in communicating indicators of sustainability. *Ecological Indicator*; v. 2, n. 1, p. 149-160, 2002.
- SICHE, R.A.F.; ORTEGA, E.; ROMEIRO, A. Índices versus indicadores: precisões conceituais na discussão da sustentabilidade de países. *Ambiente & sociedade*. v. 10, n. 2, p. 137-148. 2007.
- SIENA, O. *Método para avaliar o Progresso em direção ao Desenvolvimento Sustentável*. Tese (doutorado) — Programa de Pós-Graduação em Engenharia de Produção, Universidade Federal de Santa Catarina, Florianópolis. 2002.
- STERN, S.; WARES, A.; EPNER, T. *Social Progress Index Methodology Report*. Social Progress Imperative. 2017. Posted on: <https://www.socialprogress.org/assets/downloads/resources/2017/2017-Social-Progress-Index-Methodology.pdf>
- STERN, S.; EPNER, T. *Social Progress Index Methodology Report*. Social Progress Imperative. 2019. Retrieved from: <https://www.socialprogress.org/assets/downloads/resources/2019/2019-Social-Progress-Index-Methodology-Report.pdf>
- STIGLITZ, Joseph E. *et al. Report by the commission on the measurement of economic performance and social progress*. 2009.

TREWIN, D.; HALL, J. Developing Societal Progress Indicators: a practical guide, OECD Publishing, *OECD Statistics Working Paper Series*, n. 35, 2010.

ALYSSON DIAS DA SILVA

Mestrando em Desenvolvimento Regional, Centro Universitário Alves Faria (Unialfa).

E-mail: alias.adsilva@gmail.com

MARCELO LADVOCAT

Professor do programa de Mestrado em Desenvolvimento Regional (Unialfa).

E-mail: marceloladvocat@gmail.com