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The institutionalization of the 2030 Agenda in times of COVID-19: systematic literature review

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Abstract
The aim of the present article is to carry out a systematic literature review about both the 2030 Agenda and the implications of Sustainable Development Goals (SDGs) in times of Sars-CoV-2 virus (COVID-19) pandemic. The adopted methodology followed bibliometric methods, mostly *Methodi Ordinatio and Prisma,* after the selection of 346 articles in the *Web Of Science* database. Time cut comprised publications up to 2020, according to descriptors "2030 Agenda" AND ("*Sustainable Development Goals*" OR "SDGs"). Based on the results, the pandemic brought along setbacks to the Sustainable Development Goals. In conclusion, decision made by governments, materialized in their organizational arrangements and articulated by inter-sectoral and participatory actions, are essential to avoid harming the global sustainable development implementation plan in times of COVID-19. It was pointed out that universities play essential part in SDGs' implementation, and they can help public managers, and their organizational arrangements, to promote sustainability.
Keywords: Regional Sustainable Development. Governance. SDGs' Implementation. COVID-19 Pandemic.

A institucionalização da agenda 2030 em tempos de covid-19: uma revisão sistemática de literatura

Resumo
Este artigo objetivou realizar revisão sistemática de literatura sobre a Agenda 2030 e a implicação dos Objetivos de Desenvolvimento Sustentável (ODS) em tempos de pandemia

do vírus Sars-CoV-2 (COVID-19). A metodologia amparou-se nos métodos Bibliométrico, *Methodi Ordinatio e Prisma*, a partir da triagem de 346 artigos da base de dados *Web of Science*, com recorte temporal até o ano de 2020, através dos descritores "2030 Agenda" AND ("*Sustainable Development Goals*" OR "SDGs"). Os resultados evidenciaram que a pandemia trouxe retrocesso aos Objetivos de Desenvolvimento Sustentável. A conclusão foi de que as decisões dos governos materializadas por seus arranjos organizacionais, articuladas por ações intersetoriais e participativas, são cruciais para evitar efeitos deletérios à efetivação do plano global de desenvolvimento sustentável em tempos de COVID-19. No caso, foi apontado que as universidades desempenham papel fundamental para a implementação dos ODS, podendo auxiliar os gestores públicos e seus arranjos organizacionais na promoção da sustentabilidade.
Palavras-chave: Desenvolvimento Regional Sustentável. Governança. Implementação dos ODS. Pandemia de COVID-19.

La institucionalización de la agenda 2030 en tiempos del Covid-19: una revisión sistemática de literatura

Resumen
Este artículo objetivo realizar una revisión bibliográfica sistemática sobre la Agenda 2030 y la implicación de los Objetivos de Desarrollo Sostenible (ODS) en tiempos de la pandemia del virus Sars-CoV-2 (COVID-19). La metodología se basó en los métodos Bibliométrico, *Methodi Ordinatio* y Prisma, a partir de la selección de 346 artículos de la base de datos *Web of Science*, con un marco de tempo hasta 2020, utilizando lós descritores "Agenda 2030" AND ("*Sustainable Development Goals*" OR "SDGs"). Los resultados pusieron en evidencia que la pandemia trajo retrocesos a los Objetivos de Desarrollo Sostenible (ODS). La conclusión fue que las decisiones de los gobiernos materializadas por sus arreglos organizativos, articulados por acciones intersectoriales y participativas, son cruciales para evitar efectos nocivos a la concreción del plan global de desarrollo sostenible en tiempos del COVID-19. En este caso, se señaló que las universidades juegan un papel fundamental en la implementación de los ODS, pudiendo ayudar a los gestores públicos y sus arreglos organizativos en la promoción de la sostenibilidad.
Palabras clave: Desembolvimiento Regional Sustentable. Gobernancia. Implementación de los ODS. Pandemia de COVID-19.

1 Introduction

Scientific comparisons between the 2008-2009 global financial crisis and the COVID-19 pandemic caused by the Sars-CoV-2 virus have shown that the current effects of the sanitary crisis will be vast, deep and unequal; it will have stronger impact at regional scope (BAILEY et al., 2020; WEITZ, CARLSEN, NILSSON, & SKÅNBERG, 2018). Thus, strategies and decision-making about organizational arrangements articulated by inter-sectoral and participatory actions are essential to avoid setbacks in economic, social and environmental development, in times of COVID-19 (WEITZ et al., 2018).

Accordingly, this article explored a gap often observed in the research conducted by Bailey et al. (2020), which was published in the journal "Regional Studies". This study evidenced the need of developing studies aimed at assessing whether the impact of COVID-19 can reverse the implementation of Sustainable Development Goals (SDGs).

This gap, and the current pandemic scenario, justified the present study, which aimed at assessing the study of art of the 2030 Agenda and its implication in SDGs, in times of COVID-19 pandemic, with emphasis on the regional development perspective.

Thus, questions guiding this study lie on the following enquires:

(a) what is the evolution observed in field studies on the 2030 Agenda?;

(b) what are COVID-19 implications in the implementation of Sustainable Development Goals at local and regional level?;

(c) what are the institutional mechanisms and/or models pointed out in this study to avoid the harming impacts of the current sanitary crisis on SDGs?

Accordingly, the present study was divided into four sections, namely: the current introduction; materials and methods, which describes the methodological path supporting the study; results and discussion, which approches the bibliometric review aimed at introducing the study of art on the herein addressed topic; and final considerations.

2 Materials and methods

The methodological path followed the qualitative and quantitative approach, based on the Biblioimetric (quantitative approach), *Methodi Ordinatio* (qualitative approach) and Prisma (protocol of choice) methods, after the selection of 346 articles published in international journals available at Capes Journals portal, at the Web Of Science database. The following descriptors were used in the search: "2030 Agenda" AND ("*Sustainable Development Goals*" OR "SDGs"); time cut comprised publications made until 2020.

The word 'bibliometry' regards the quantitative study of scientific production. It optimizes the measurement of information processes recorded through mathematical and/or statistical standards whose results provide security and reliability to both scientific predictions and decision-making (MACIAS-CHAPULA, 1998; MOMESSO; NORONHA, 2017; PAGANI; KOVALESKI; RESENDE 2015a; VANTI, 2002; ZUPIC; ČATER, 2015).

As for the present study, a bibliometric review was carried out with articles about the herein addressed topic. The technical procedure applied to documental research was performed in the Bibliometrix package of RStudio software, which allows a broad scientific mapping analysis (ARIA; CUCCURULLO, 2017). This procedure also enables mapping scientific studies and reveals data dynamic structures, as well as highlights the cognitive arrangements of a given research field (COBO *et al.*, 2011). Bibliometric mappings optimize the analysis of the main citations, bibliographic coupling and co-words.

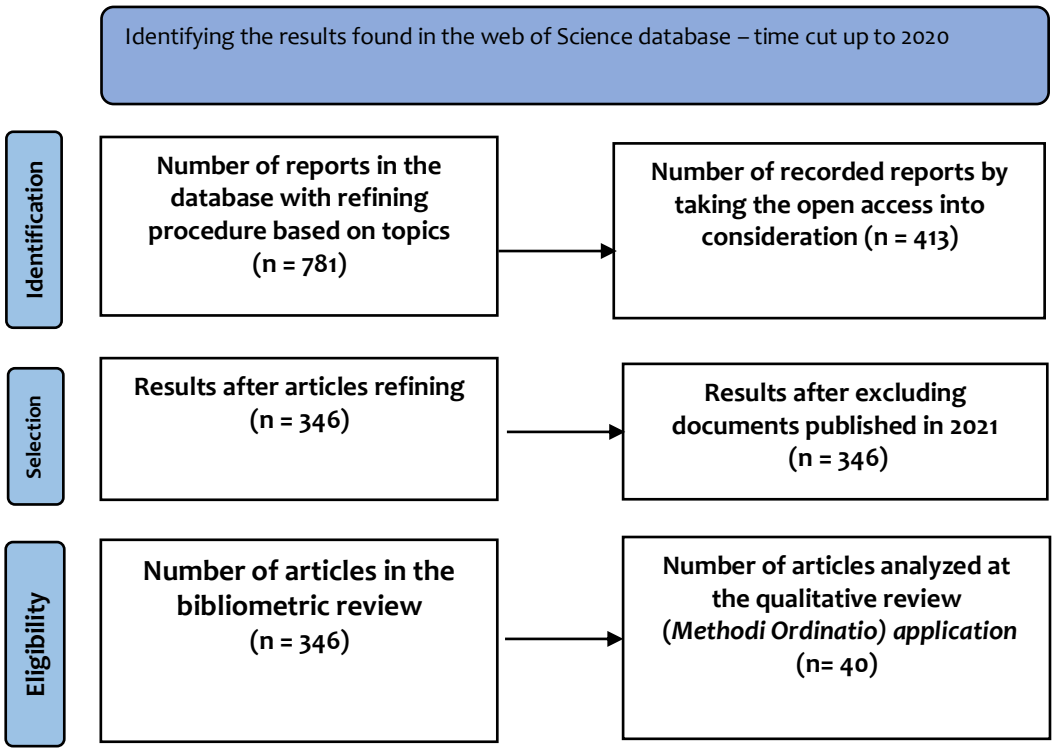
The *Methodi Ordinatio* method, in its turn, takes into account the qualitative analysis approach; it regards a multi-criteria reference for decision-making, which helps selecting the scientific articles to compose the bibliographic portfolio by mapping consistent and safe documents. This process leads to a substantiated and relevant classification of scientific studies. Thus, it is supported by the examination of selected publications according to three important eligibility criteria: number of citations, impact factor and publication year (PAGANI; KOVALESKI; RESENDE 2015a).

Finally, the Prisma method consists in a check list with 27 items that make it

easier to prepare and report a robust protocol for the systematic review (PAGE *et al.*, 2021). According to lessons by Araújo, Villarouco and Albuquerque (2020), Prisma (*Preferred Reporting Items for Systematic Reviews and Meta-Analyses*) consists in a guideline aimed at helping authors to improve the quality of Systematic Review and Meta-Analysis data reports. The application of this method was essential to systematize and guide each thematic axis in the current article.

Therefore, on June 21, 2021, the searches were carried out based on topics, in the Web Of Science database, via CAPES Journals Portal. It was possible selecting 346 articles after the refining process based on open access and choice of the final articles, and the exclusion of publications made in 2021. These articles were exported to the Mendeley and RStudio tools, whose result substantiated the data analyses, as shown in the Prisma flowchart (Fig. 1). Access to Bibliometrix was achieved through RStudio, based on the following commands: install.packages("bibliometrix"), library(bibliometrix) and biblioshiny().

Figura 1 - Método Prisma



Source: Elaborated by the authors (2021), according to Araújo, Villarouco and Albuquerque (2020).

The aim of adopting this methodological process was to achieve more reliable results in the present bibliometric review, whose goal was to assess the study of art of the 2030 Agenda and its implications in SDG's, in times of COVID-19.

3 Results and discussions

This section addresses the bibliometric review results based on samples concerning the annual scientific production, authors and relevant documents, with emphasis on the global collaboration and qualitative data analysis network.

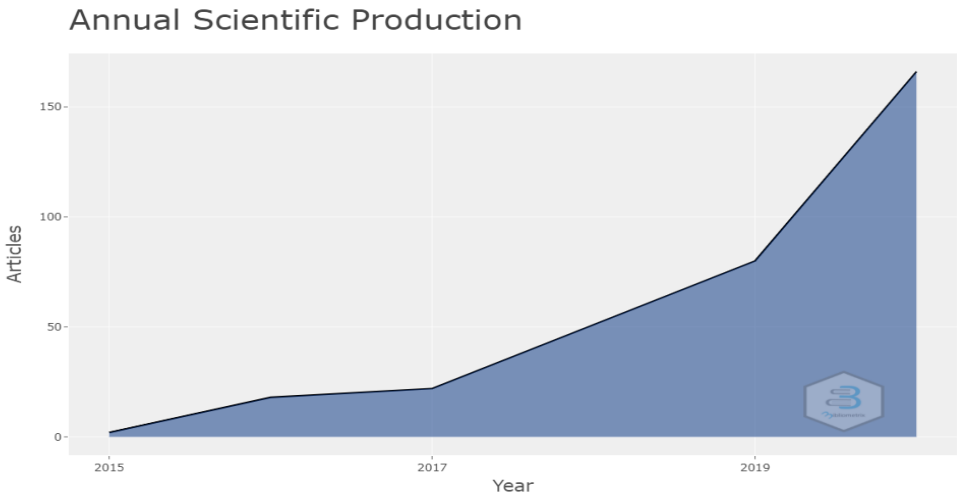
3.1 Bibliometric review about the 2030 Agenda and SDGs

The aim of the bibliometric review was to assess the evolution of the research field linked to the herein addressed topic, according to the analysis of articles published in international journals.

From the aforementioned aspect, publications on the assessed topic (Fig. 2) started to be indexed in 2015. The 2030 Agenda consists in a global action plan by the United Nations (UN); it was approved on September 25, 2015, by 193 world leaders. This plan lists 17 Sustainable Development Goals (SDGs) and 169 targets aimed at ruling out poverty and hunger, as well as at protecting the environment and at promoting universal peace without impairing future generations (NAÇÕES UNIDAS/BRASIL, 2015).

Thus, Figure 2 points out results about the evolution of annual scientific productions about the 2030 Agenda by UN's adoption of the 2015 global plan for sustainability. Findings point out the significant increase in production on this topic from 2019 to 2020, as shown in Table 1.

Figure 2 – Evolution of annual scientific production



Source: *Web Of Science* data run in Bibliometrix (2021).

Similarly, Table 1 highlights the total annual production, which started back in 2015. The number of publications significantly increased in 2019 and 2020, and this period meets the beginning of the COVID-19 pandemic. Such a datum may point towards researchers' bigger interest in getting to know UN's 2030 Agenda interfaces, mainly due to the current sanitary crisis, which brought along harming effects to the world health and setbacks to sustainable policies. Authors have worked out integration concepts, procedures and models of targets in their articles, because they are essential factors for SDGs' progress.

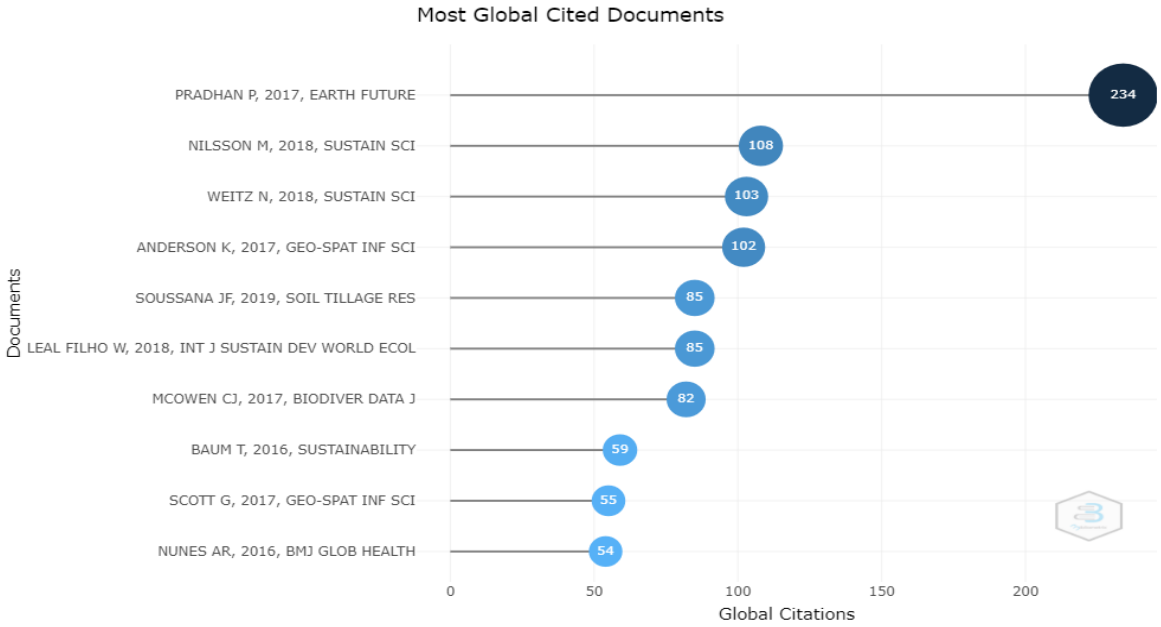
Table 1 – Annual scientific production evolution

Year	Number
2015	2
2016	18
2017	22
2018	51
2019	80
2020	166

Source: Elaborated by the authors, according to Bibliometrix results (2021).

Figure 3 shows the most cited authors and articles. The 5 articles accounting for the largest number of citations were written by Pradhan *et al.* (2017) - 234 citations -, Nilsson *et al.* (2018) – 108 citations -, Weitz *et al.* (2018) – 103 citations -, Anderson *et al.* (2017) – 102 citations - and Soussana *et al.* (2019) – 85 citations.

Figure 3 – Most global cited authors and documents

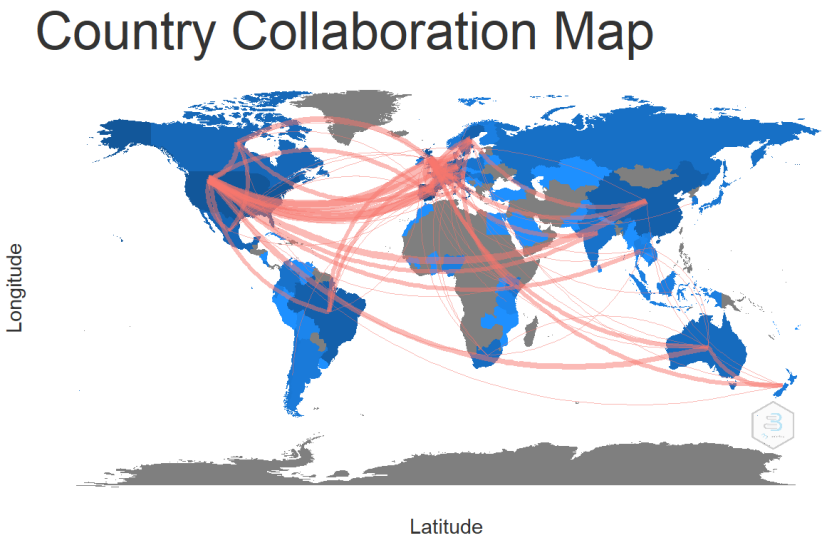


Source: *Web Of Science* data run in Bibliometrix (2021).

With respect to the world collaboration map, Figure 4 depicts the collaboration network of countries that have mostly published about the herein addressed topic. The dark blue color highlights higher frequency of publications. Thus, Brazil was among the countries accounting for the largest number of publications about the 2030 Agenda and SDGs, within the assessed period-of-time.

Brazil achieved score frequency-1 for its collaboration network; just as countries like Australia, Cambodia, Chile, China, Colombia, Ecuador, India, Indonesia, Laos, Malta, Morocco, Netherlands, New Zealand, Poland, Russia, Serbia, Singapore, South Africa, Thailand and Vietnam. Portugal reached score frequency-2.

Figure 4 – Collaboration network on publications of articles about the herein addressed topic



Source: *Web Of Science* data run in Bibliometrix (2021).

Figure 5 shows the keywords defining the portfolio of the 346 selected articles for the present bibliometric review.

Figure 5 – the most used words in international publications

Source: *Web Of Science* data run in Bibliometrix (2021).

Governance and management were the two words most often found in the cluster (Figure 4). They can be a relevant indicator, because governments and their organizational arrangements were pointed out as accountable for implementing SDGs, in summarized references, in the current study (NILSSON *et al.*, 2018; WEITZ *et al.*, 2018).

3.2 Institutionalization of the 2030 Agenda and the effects of the COVID-19 pandemic on SDGs' implementation

The examination of theoretical connections in this topic drafts the formation of the 2030 Agenda by describing the implications of the world sanitary crisis in SDGs and by pointing out the feasible ways to make this global plan effective in times of COVID-19.

Besides the analysis applied to the main theoretical references found in the bibliometric review, the present topic was substantiated by studies by Abramoway (2010), Silva, Correia and Bazzoli (2022), Boff (2015), Capella (2018), Cavalcanti (2010), Dias (2005), Habermas (2014), Harvey (2005), Munck (2013), Munck and Borim-de-Souza (2009), Oliveira *et al*. (2012), Pires and Gomide (2016), Putnam (1996), Santos (2020 - 2021), Sen (2010), Souza (2010) and Xavier *et al*. (2013).

Understanding the study of art on the 2030 Agenda means understanding the concepts of sustainability (1560) and of sustainable development (1968). These terms have emerged from the industrialization process (17th, 18th and 19th centuries), which has intensified aggressive practices against the environment.

Thus, the word "sustainability" was first used in Germany, back in 1560, in the Saxon Province, due to the local concern with the uncontrolled use of local forests. This situation shone light on the need of thinking on actions to encourage the rational use of forests and on their regeneration. Accordingly, in 1713, still in the Saxon Province, Hans Carl von Carlowitz, who was a German tax accountant and mine manager, seen as great precursor of sustainable yield forestry, published the book *Sylvicultura oeconomica*, which pointed out the need of the rational use of wood (BOFF, 2015, p.33). From that time onwards, the term "sustainability" became a strategic concept to wake the awareness of local powers about environmental preservation (BOFF, 2015, p.32-33).

Given the aforementioned scenario, back in 1968, the Italian businessman Aurelio Peccei and the scientist Alexander King, who were concerned with environmental damages, launched the Roma Club. This "organization was formed by intellectuals and scholars whose main goal was to discuss subjects linked to politics, economy, the environment and sustainable development" (OLIVEIRA *et al*., 2012, p.70). These actions ended up in the publication of a report on "limits of growth" (1972), which highlighted the concerns with aggression to nature and with the future of mankind (OLIVEIRA *et al*., 2012).

From 1972 and 1992 onwards, the UN, through a series of international conferences, started the discussion about the nonrenewable profile of natural resources, population growth and poverty, unsustainable consumption worldwide and the need of rethinking strategies to achieve sustainable development. Thus, in 1972, the Stockholm Conference took place in Sweden; it was the United Nations Conference about the Human Environment, which launched a new stage on the environmental debate. Participants set the day of June 5th as the World Day of the Environment during this conference, and approved both the Stockholm Declaration and the United Nations Environmental Program, also known as UNEP, to coordinate international actions focused on protecting the environment and on promoting sustainable development (OLIVEIRA *et al*., 2012; SCOT; RAJABIFARD, 2017).

Subsequently, in 1983, the UN's General Assembly created the World Commission on the Environment and Development, which accounts for formulating the global agenda for environmental change. Thus, in April 1987, the Bruntland Commission, as it is known (because it was coordinated by the Physician Gro Harlem Brundtland, published the report called "Our Common Future", which provided environmental strategies for global awareness of the interdependence between economy and the environment. Accordingly, the term sustainable development was clear in the Brundtland Report (1987); it was understood as the development model to promote the current needs, without compromising the ability of future generation to fulfill their own needs (BOFF, 2015).

Lessons by Munck (2013, p.43), based on Souza (2010, p.35), demand differentiation between terms "sustainability" and "sustainable development", because, while sustainability consists in the ability to keep something running, sustainable development regards integrative processes aiming at the dynamic balance of a complex system in the long-term. According to ideas by Munck and Borim-de-Souza (2009), sustainable development and sustainability seek the same goals, but the first one must take into account the development model that promotes sustainability (MUNCK, 2013).

Therefore, according to Munk (2013, p.1-5), there are strong critiques to the definition of "sustainable development". This author highlights that, "despite all critiques, the Brundtland Report can be introduced as [...] the official document mostly accepted by the scientific community".

In 1992, the UN's Conference on the Environment and Development took place in Rio de Janeiro; it is known as "the Earth Summit", which adopted the Rio Declaration about the Environment and Development and Agenda 21. This was a global action-plan for sustainable development. The declaration was supported by 27 principles that would define the rights and duties of States, whereas Agenda 21 draw a broader global action-plan program guided to planet protection and to its sustainable development (SCOTT; RAJABIFARD, 2017).

In 2000, the Millennium Summit approved the Millennium Declaration, which is based on values, principles and goals for the 21st century. It claimed for the states to set global partnerships aimed at reducing extreme poverty by 2015. Thus, eight Millennium Development Goals were set, namely: ending hunger and misery, providing high-quality basic education to all, promoting equality between sexes and autonomy to women, reducing child mortality, improving the health of pregnant women; fighting AIDS, malaria and other diseases; ensuring quality of life and respect to the environment, and setting partnerships for development. The World Summit on Sustainable Development happened in Johannesburg, in September 2002; it emphasized the relevance of including high-quality information in decision-making processes, based on using satellite remote sensory technology for Earth observation and to gather geographic data about sustainable development (SCOTT; RAJABIFARD, 2017).

In 2015, the UN approved the Global Plan named "Changing Our World: 2030 Agenda for Sustainable Development", aimed at economic, social and environmental sustainability. It comprises 17 Sustainable Development Goals and 169 targets focused on ruling out poverty, on promoting dignifying life for all and on respecting the limits of the planet. This global proposition suggested collaboration

from all communities and governments to make SDGs effective (ANDERSON *et al.*, 2017; NAÇÕES UNIDAS/BRASIL, 2015; PRADHAN *et al.*, 2017).

This global plan deals with Earth observation data collected by satellite monitoring. This process gathers information about natural hazards' level, about the health of ecosystems, human development indices, among other substantial contributions capable of guiding decision-making, results' follow-up, the optimization of local, regional and global statistics, and the efficiency of scientific research aimed at supporting SDGs' implementation for the well-being of mankind and the planet (ANDERSON *et al.*, 2017).

Despite the relevance of this global plan for people and the planet, since it reports the initial enquire that seeks to get to know the implications of the COVID-19 pandemic in the implementation of Sustainable Development Goals, other studies have shown that the global sanitary crisis brought along setbacks to SDGs' effectiveness, mainly at regional level (BAILEY *et al.*, 2020; NILSSON *et al.*, 2018; NILSSON; WEITZ, 2019; WEITZ *et al.*, 2018).

Based on the aforementioned scenario, the impacts of the pandemic work as mirror for the world to assess and seek solutions for deep issues that are moored in modern societies, including insufficient social protection, weak public health systems and inadequate health insurance, structural inequalities, environmental degradation and climatic changes that can compromise the present and future generations (BAILEY *et al.*, 2020; NAÇÕES UNIDAS/BRASIL, 2020, 2021; NILSSON; WEITZ, 2019; NILSSON *et al.*, 2018; WEITZ *et al.*, 2018).

Yet, based on the scenario described above, critiques to the capitalist system are severe, since - by focusing on the rise of the economy and on input aimed at profit for the small world elite -, it "creates a permanent revolutionary force that, non-stopping and constantly, renews the world we live in", and reinforces a continuous endemic crisis (HARVEY, 2005, p. 41). Therefore, the capitalist accumulation process has made strong efforts to appropriate the territory and everything in it (HARVEY, 2005, p. 41-45).

Thus, the new branch of regional development advocates for a more integrative, humanized and participatory economic development model (XAVIER *et al.*, 2013; PUTNAM, 1996; SANTOS, 2020; SEN, 2010). The strategy of this model also includes social and environmental development supported by an ecological (CAVALCANTI, 2010), sustainable (ABRAMOVAY, 2010) and civic (PUTNAM, 1996) economy held by State abilities (PIRES; GOMIDE, 2016) expressed in public policies capable of promoting social well-being (SANTOS, 2020).

Xavier *et al.* (2013, p. 1041) highlight the impossibility of conceiving the idea of regional development without joining "the efforts of local societies to formulate regional policies aimed at discussing matters that take regions as subjects of their own developmental process".

According to Putnam (1996, p. 75), the key to development lies on the civic community. Based on this association type, "citizenship is firstly featured by participation in public businesses. Interest and participation in public claims are the main signs of civic virtue".

The civic community advocated by Putnam is similar to the theory of the public sphere by Habermas (2014), which, from the anthropological perspective, corresponds to the social space of public representativeness where collective

choices derive from a broad discussion "supported by the rational public-character argumentation" (DIAS, 2005, p. 75).

Sen (2010), by defending development based on freedom, lectures that it cannot be only focused on economy, but must walk hand-in-hand with social and environmental progress.

Finally, Pires and Gomide (2016) add that development strategies must involve society and its multiple interests. From this perspective, they advocate that development policies need to respect State abilities, mainly those in the following axes: technical-managerial (focused on institutional abilities and competences aimed at the quality of public services) and political-relational (related to communication with civil society and with political actors).

Therefore, regional development consists in a collaborative, rational, managerial and planning process, according to which, public choices prioritize well-being, equality, social inclusion and sustainability.

Based on the aforementioned fundamentals, the UN has been orienting governments and local, regional and international societies to significantly work out mechanisms to achieve structural changes capable of developing solutions substantiated by SDGs. This process demands the reinforcement of social, economic and environmental protection systems, as well as support for inter-sectoral actions, encouragement to social participation, increased scientific, technical and informational investments, and the transition to sustainable food systems (BASTIDA *et al*., 2020; NAÇÕES UNIDAS/BRASIL, 2021).

The continuous implementation of SDGs requires interconnections between articulated political fields and the existence of regional partnerships. These two requirements must work together. Based on knowledge sharing, decision-makers can judge who and how to make partnerships with (NILSSON *et al*., 2018; WEITZ *et al.,* 2017).

Yet, the aforementioned process requires connections between knowledge fields in an interdisciplinary, multidisciplinary and transdisciplinary way, in order to find design solutions and strategies capable of contributing to the quality of people's well-being and to environmental preservation for present and future generations. SDGs' effectiveness, besides including the understanding of international and trans-national cooperation and research, must be inclusive and count on society's participation. Society must act to define the local priorities heading towards sustainability (LEAL FILHO *et al*., 2018).

Regional and global arrangements in the last few years have been presenting some platforms heading to cooperative work, such as the *Future Earth*, *Initiative for Science and Technology for Sustainability* ISTS, SDG *Academy, International Council for Science* ICSU, *National Research Council - Board on Sustainable Development, Sustainable Development Solutions Network* SDS models (LEAL FILHO *et al*., 2018). However, a challenge has impact on the 2030 Agenda implementation: lack of expert professionals qualified in higher education institutions ready to develop this research field. Because decisions must be made based on good research, it is essential to provide scientists with incentives to follow the sustainability field (LEAL FILHO *et al*., 2018).

According to Schneider *et al.* (2019), knowledge production focused on sustainable development covers the analytical engagement in standards and values

that get entangled due to four tasks:

a) values must become the empirical and theoretical object of research in the sustainability field in order to find out, and critically reason about, the ethical values involved in sustainability;
b) Researchers need to reason about, and define, sustainability values capable of orienting their research, by taking into account likely interdependences, synergies and compensations, in order to make sure that research in sociological systems are related to sustainability values;
c) Scientists must get involved in deliberative learning processes with social actors in order to find common ground on the meaning of sustainability for specific situations, so that this dialogical action can create new contextualized strategies for the quality of political agendas; and
d) Finally, researchers and scientific disciplines must clarify their own ethical and epistemological values, for they define responsibilities and forge the identification of problems, research matters and results.

Accordingly, "education for development" is essential to promote the transition to sustainability. By seeking global sustainability targets, they can only be reached by personal changes and by changes in consciousness at individual level. Education plays key role in this process (GIANGRANDE *et al*., 2019).

Sustainability promotion requires the application of the scientific thinking within multilateral deals. This exercise can boost the journey towards the transition to sustainable survival means for all (BOLUK; CAVALIERE; HIGGINS-DESBIOLLES, 2019).

Moreover, the theoretical references highlight, among other factors, that the progress of economic, social and environmental targets depends on how support to health-policy targets will be set, since these targets are consequently related to drinking water and sanitation (SDG 6), to accessible and clean energy (SDG 7), to actions against global climate change (SDG 13) and to sustainable cities and communities (SDG 11). Thus, in case health targets are not prioritized by governments, they can reinforce the outbreak of infectious diseases, worsen respiratory issues and have implications in targets that are prevailing factors for SDGs' implementation (NILSSON *et al.*, 2018).

The awareness of interdependence between SDGs and their targets must imply in interdisciplinary exercise of mutual collaboration to allow development professionals, mainly public managers, to acknowledge the power and potential of using their knowledge and skills to find appropriate solutions capable of influencing more than one SDG at the time (directly or indirectly). This inter-sectoral mission opens room for additional innovation to project solutions that, rather than just favoring economic development, also lead to updates and improvements in environmental and human conditions (ZHANG *et al*., 2016).

Similarly, Miola and Schiltz (2019) point out that the complexity and richness of nowadays debate about how to measure SDGs' effectiveness in different countries is a process involving technical skills and political actions. From the technical viewpoint, the challenge lies on dealing with targets' plurality, with knowing their interactions with the 17 SDGs and with listing their main indicators. This process might impair consensus on what is the most adequate method to measure SDGs' performance. Thus, with respect to technical skills, the

aforementioned authors highlight evidences pointing out that the relative position of a given country depends on the choice it makes for methods and indicators to be adopted.

From the political viewpoint, the existence of multiple indicators and the likelihood of getting to conflicting results by adding such indicators can create a complex situation. Therefore, it requires cooperative work through inter-sectoral partnerships and social participation to help governments making clear, transparent, democratic and sustainable decisions. From this perspective, the political meaning of choosing indicators and methods to monitor SDGs' performance is a core element in this process (MIOLA; SCHILTZ, 2019). According to Janoušková, Hák and Moldan (2018), results on SDGs' evaluation can be compromised without a structure of procedural, conceptual, well-planned and projected indicators focused on indicators' selection.

Therefore, each State must define its specific targets and most adequate indicators to fulfill its own needs, without forgetting that progress monitoring in one single country, in comparison to other countries, can be done within the context of an annual SDGs' progress report issued by UN's Secretary General. United Nations' reports work as mirror to guide global actions towards sustainable development (MIOLA; SCHILTZ, 2019).

Because the development agenda has inter-sectoral nature, it is essential achieving local, regional and global governance cooperative exercise. Implementing the 2030 Sustainable Development Agenda requires an integrated operational agenda that joints targets and goals. The 17 SDGs are entangled, connected; they are interdependent. Policies that boost inter-sectoral synergic relationships are essential for SDGs' operationalization (NILSSON; GRIGGS; VISBECK, SOUSSANA *et al,* 2016; NUNES; LEE; O'RIORDAN, 2016; PRADAHAN *et al*., 2017).

This operationalization has been mainly put at place through indicators' sorting, but it is extremely necessary to have experts getting consensus about the structure of these indicators and about their use. The global set of individual indicators must be completed with a set of key-indicators (the main ones); therefore, it is important to have the interconnection and follow-up of data provided in annual reports and in broad analysis carried out in 2020, as well as in several data sets and completing indicators, at the time to evaluate regional and national SDGs expected to come up, overtime (JANOUŠKOVÁ; HÁK; MOLDAN, 2018).

Besides, it is important reinforcing that the process to implement SDGs cannot stop to be seen in times of COVID-19 pandemic, because the implementation of the 17 SDGs opens room for providing equal opportunities and for economic empowering focused on people's well-being and on environmental protection. This process can help countries promote sustainable development in their territories and benefit their populations (LEAL FILHO *et al*., 2019).

Accordingly, economic, social and environmental concerns can no longer be dealt with in an isolated and independent way, for, sometimes, a local issue can compromise all, such as the case of the COVID-19 pandemic.

Thus, any position regarding the 2030 Agenda and SDGs' implementation, at some point, needs to be shared. Actually, the implementation of a global plan for sustainable development depends on public powers, mainly on the executive,

legislative and legal powers, on inter-governmental organizations and on civil society (BERGMAN, M; BERGMAN, Z; BERGER, 2017).

The 2030 Agenda for Sustainable Development sets the paths to long-term shared global changes. The global responsibility remains mainly centered on States and on local communities, but it does not put aside the accountability of national governments. With respect to such a global responsibility, the role of researchers is also relevant, since it orients the development ways of SDGs' revision processes, since understanding sustainable development policies helps decision-making about SDGs' effectiveness, mainly in times of COVID-19 (BEXELL; JÖNSSON, 2017).

According to Tejedor *et al*. (2019), universities play fundamental role in SDGs' implementation, if one has in mind their essential mission of making the cross-sectional integration of sustainability values aimed at strategically developing the management and investigation fields to head towards the well-being of all and to Planet Earth's preservation.

From this very perspective, it is essential highlighting the experiences lived through a college extension, the so-called "Popular Advisors Course on SDGs of the Graduate Program in Regional Development of Federal University of Tocantins (PPGDR/UFT)". This Program is managed by the discipline named Interdisciplinary Seminars I and II, whose activities orient Masters' Degree students on how to work as sustainability multipliers. Thus, throughout these activities, and after getting the basic knowledge about the 2030 Agenda, SDGs and their targets, students elaborate and put some social formation practices in place through distance learning courses available at the Eskada platform of the State University of Maranhão and in a YouTube channel, as shown in Chart 1.

Chart 1 – Modules of the Popular Assessors Course in SDG (PPGDR/UFT/2022)

TOPIC	ACCESS LINK
Agenda 2030 and experiences with urban gardens in Palmas – TO	https://www.youtube.com/watch?v=E0dSTrd7D80&list=PLe7u67o-noABs3WlW_fIwAiK2BcB_ifqb
SDGs and social articulations	https://www.youtube.com/watch?v=cmLIa0TJzsM&list=PLe7u67o-noABs3WlW_fIwAiK2BcB_ifqb&index=3
Mobilization and institutionalization of the 2030 Agenda	https://www.youtube.com/watch?v=qw1S6IigeVw&list=PLe7u67o-noABs3WlW_fIwAiK2BcB_ifqb&index=4

Source: Elaborated by the authors.

The extension program offered by the Federal University of Tocantins has been evaluated by students as quite positive to optimize their theoretical and practical knowledge, since it contributes to SDGs' implementation (SILVA, M. V. C.; CORREIA, I. S. and BAZZOLI, J. A., 2022).

Based on knowledge sharing, corporative sustainability is expected to open egalitarian access to public policies to all and to guide economic development to walk alongside social and environmental development. This process must open

room for a more sustainable future for both society and the planet (BERGMAN, M.; BERGMAN, Z.; BERGER, 2017).

The implementation of SDGs during the pandemic has faced severe setbacks (NAÇÕES UNIDAS/BRASIL, 2020, 2021). Therefore, the need of increasing the effectiveness and efficiency of this global action is also growing, given the need of achieving the 17 SDGs conceived as an "indivisible whole". Thus, interactions between targets must be better understood by governments and materialized in their institutional arrangements. Assessing interactions between SDGs and the influence of human behavior on the environment can help public and private agents in future decision-making, and in avoiding the harming impacts of the global sanitary crisis on SDGs (SCHARLEMANN *et al*., 2020).

Therefore, the institutionalization of the 2030 Agenda for local and regional Strategic Planning can be a feasible mechanism for SDGs' implementation.

Sustainability, as core policy for the decision-making agenda, can lead to higher efficiency in other services, since it would help rationalizing budgetary resources.

According to Capella (2018, p.13), the process to form this agenda "is related to a set of topics and issues seen as important at a given moment, since it would be the very result of the political action taken by actors like bureaucrats, social movements, political parties, media, among others". The decision-making agenda, in its turn, corresponds to "a sub-set of the governmental agenda, which encompasses matters that are not yet ready to be subjected to decision-making by policy-makers, i.e., that are about to become public policies" (COBB; ELDER, 1971, p.905 apud CAPELLA, 2018, p.29). Accordingly, if the 2030 Agenda is in compliance with the public Strategic Planning, it may guide decision-making about other public policies, and avoid public resources' waste by optimizing sustained economic, social and environmental development.

In conclusion, the COVID-19 pandemic is one more indicative that economic and political interests must change their course and, instead of development focused on some economy, it must walk towards sustained economic, social and environmental development. However, this process requires the elaboration of an agenda for sustainability.

4 Final considerations

By returning to guiding questions that have set the basis for the present study, current findings about the study of art have shown that the 2030 Agenda consists in a global plan based on the institutionalization of 17 Sustainable Development Goals (SDGs) and on 169 targets aimed at people and the planet. Its goal is to rule out poverty and hunger, to protect the environment and to promote universal peace without impairing future generations.

The bibliometric review, among its several results, has shown that publications on the herein addressed topic started being indexed in 2015. Brazil is among the countries with the largest number of publications on the 2030 Agenda and on SDGs within the assessed period-of-time.

With respect to COVID-19 implications in the implementation of Sustainable Development Goals, scientific comparisons about the 2008-2009 global financial

crisis and the pandemic caused by the Sars-CoV-2 virus (COVID-19) have evidenced that the effects of the current sanitary crisis are vast, deep and unequal; its strongest impacts are felt at regional scope.

Thus, the herein selected publications have emphasized that the impacts of the pandemic must work as mirror for the world to assess and seek solutions for deep problems moored in modern societies, including insufficient social protection, weak public health systems and inadequate health insurance, structural inequalities, environmental degradation and climatic changes that can compromise present and future generations.

Accordingly, in terms of contribution, the assessed publications showed that governments' strategies and their organizational arrangements, which are articulated through inter-sectoral and participatory actions, are essential to avoid setbacks in the process to make sustainability policies in times of COVID-19 effective.

In order to do so, they have clarified the essential role of universities to optimize sustainability given the need of having more experts in this field who mostly graduate in higher education institutions, and focus on research about the 2030 Agenda at local and regional scope. They must have in mind that governmental decisions must be based on good scientific research, and on education for the development of an essential axis for sustainability promotion.

From this perspective, all governmental arrangements at regional development scope for SDGs' implementation must embody the institutionalization of the 2030 Agenda in their strategic planning, so that this creative debate with the public sphere can walk side-by-side with sustainable development goals.

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