

## Environment

### Strategic plan to achieve the SDGs in South Brazil: evidence from the Regional Development Council articulated with the 2030 Agenda

Plano estratégico para alcançar os ODS no sul do Brasil:  
Evidências do Conselho de Desenvolvimento Regional articuladas com  
a Agenda 2030

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## ABSTRACT

The Regional Development Councils (Coredes), created in 1994, have become spaces for discussion of public policies, promotion of governance, and citizen participation in the multiple areas in which the public power operates. In this task, the Councils assume the work of elaborating the strategic plans of regional development. The 28 Coredes of the state of Rio Grande do Sul, Brazil, promote this work responsibility and periodically carry out its evaluation and eventual correction every 10 years, financed by the state government. The last review process, which ended in July 2017, was a process carefully handled by a team of technicians from a university. Universities contribute as articulators to achieve Sustainable Development Goals. This study aims to analyze the methodologies used in this participatory process, the strategies defined, and the proposed projects linked to the 2030 Agenda by the United Nations. From the diagnosis, it was possible to identify the potentialities and challenges for Strategic Development Planning in the region. The following are themes of the Sustainable Development Goals: health, education, infrastructure, and production, among others.

**Keywords:** Strategic development plan; Regional council; South Brazil; Sustainable development; Sustainability; Regional development

## RESUMO

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Os Conselhos Regionais de Desenvolvimento (Coredes), criados em 1994, tornaram-se espaços de discussão de políticas públicas, promoção da governança e participação cidadã nas múltiplas áreas de atuação do poder público. Nessa tarefa, os Conselhos assumem o trabalho de elaboração dos planos estratégicos de desenvolvimento regional. Os 28 Coredes do estado do Rio Grande do Sul, Brasil, promovem essa responsabilidade de trabalho e realizam periodicamente sua avaliação e eventual correção a cada 10 anos, financiada pelo governo estadual. O último processo de revisão, que terminou em julho de 2017, foi um processo cuidadosamente conduzido por uma equipe de técnicos de uma universidade. As universidades contribuem como articuladoras para alcançar os Objetivos de Desenvolvimento Sustentável. Este estudo tem como objetivo analisar as metodologias utilizadas nesse processo participativo, as estratégias definidas e os projetos propostos vinculados à Agenda 2030 pelas Nações Unidas. A partir do diagnóstico, foi possível identificar as potencialidades e desafios para o Planejamento Estratégico de Desenvolvimento na região. São temas dos Objetivos de Desenvolvimento Sustentável: saúde, educação, infraestrutura, produção, entre outros.

**Palavras-chave:** Plano estratégico de desenvolvimento; Conselho regional; Sul do Brasil; Desenvolvimento sustentável; Sustentabilidade; Desenvolvimento regional

## 1 INTRODUCTION

Considering the importance of sustainable development for society and the implementation of regional strategies that diagnose the situations in which municipalities meet, the most efficient management should focus on the various macrosocial factors linked to the use of environmental potential with sustainability in a participatory manner. This concern is related to the goal of substantially improving the rights and conditions of the entire population.

In this sense, a Regional Council establishes the mapping with a significant reference for the constitution of regional development actions at the municipal level; such actions are based on multidimensional diagnoses that seek to identify the deficiencies and potentialities in the economic, social, and environmental dimensions and consider the effectiveness of results that could assure the sustainable development process. As the Council recognizes that SDGs are catalysts for change, it presents the resources and methods needed to deal with local problems, indicates actions, and institutes a successive and resilient improvement system (ONU, 2015).

Considering the social, economic, political, and environmental challenges caused by the current consumption model and production on a global scale, the research approach involves the composition of strategies and actions through the commitment of the Corede Produção, state of Rio Grande do Sul, Brazil, as well as the process of updating its Strategic Development Plan for sustainable regional growth. Therefore, the objectives are to analyze the methodologies used in the participatory process, the defined strategies, and the project proposals linked to the 2030 Agenda and to assess the contributions that result from achieving it. In this context, the discussion about the role of universities is addressed.

## **2 LITERATURE REVIEW**

### **2.1 Regional Development**

Since the 1980s, public policies for regional development have developed constructivist arguments through the social, economic, and environmental dimensions established in the 2030 Agenda for Sustainable Development (ONU, 2015).

Regional development is determined by exogenous factors that influence the potential of regional development; such factors include human and social capital, accessibility, infrastructure, the growth process through constant scale gains, competition, and the mobility of production factors (e.g., labor, capital); the growth achieved in the long term under the free market conditions determines the achievements of per capita land rent, which are based on the combination of geographic and economic variables (ANTONESCU, 2015).

In the state of Rio Grande do Sul, Brazil, the Regional Development Council was created in 1994 to produce the positive effects of sustainability for all and to seek alternatives to enhance the development of the region collectively; the Council was meant to recognize weaknesses and indicate medium- and long-term policies

and to generate continuous advances in the governance process. There are 28 Coredes (SECRETARY OF COORDINATION AND PLANNING DEPARTMENT OF REGIONAL AND URBAN DEVELOPMENT OF RIO GRANDE DO SUL, 1994). Coredes are regions where the promotion of policies and actions aimed at regional development are discussed.

To make these efforts viable and to ensure the articulation and cooperation of the municipalities that make up Coredes, the Council created strategic plans for regional development in the coming years with the 2030 Agenda in mind. The plans are based on the demographic variables of the region's municipalities, measured by the main growth indicators. Each municipal profile summarizes the diagnostic advances, strategies, and propositions from studies and research carried out in recent decades, which forms a starting point for the elaboration of the strategic plan.

This plan seeks to strengthen programs in the production and distribution sectors of each region, including agriculture, health, education, transportation, energy, and labor, as well as strengthening sustainable development in an integrated way (HAMMES *et al.*, 2017). In addition, it aggregates a broad regional diagnosis and situational analysis using an indicative matrix of strengths, weaknesses, opportunities, and threats known as SWOT (LEE; KOTLER, 2019). The projects elaborated present objectives, justifications, scope, goals, intervening agencies, timetables, and resource estimates necessary for their executions, as well as the indicators of potentialities and weaknesses of each region (LEARNING SECRETARIAT, GOVERNANCE AND MANAGEMENT OF RIO GRANDE DO SUL, 2017).

## **2.2 Regional Development Councils**

In the state of Rio Grande do Sul, Brazil, regional inequalities were one of the main elements that determined the performance of the Coredes. Coredes that allows government decentralization and reduces the factors that cause growth

heterogeneity among regions through participatory society policies, enabling a reformulation of tools for the constitution of a budget assertion that covers the different state's regions, implanting them in the development process (BUGS, 2017).

State Policy for Regional Development is known as one of the most comprehensive formal tools in reducing regional differences instituted by the Rio Grande do Sul state. A proposal of multi-scale influence deliberates the operating cuts according to the notes of each problem region, with the central aim of achieving more proportional development among the regions (CARGNIN, 2011).

The experiences and trajectories of the Coredes have demonstrated efficiency in their performances; they serve the political and public interests emerging in social and economic development based on the identification of deficiencies and potentialities for the formulation and implementation of the region's integrated development policies (BÜTTENBENDER *et al.*, 2011).

Rezende and Sinay (2016) state that sustainability is formed through a set of actions that can influence the agents' environment; the actions achieve results with the individual, society, region, and state as long as they are systematized and aimed at the common good. In addition, as mentioned by Anjos (2016), a combination of different actors is crucial to reconcile the actions of public and private entities around regional development, establishing what they consider to be multilevel governance. Looking for a process that fosters innovation, modifies social customs, establishes strategic partnerships, and stabilizes long-term territorial pacts, especially those that mitigate socio-spatial inequalities.

The debate concerns long-term measures that require structural changes in governance and the understanding that the political economy of development in Rio Grande do Sul has its own characteristics and forms a fundamental part of the state's growth potential. The debate also considers dynamics established among sectors of state public power and sectors of the civil society, whose capacity must mobilize the resources to compensate for imbalances intrinsic to the process of regional development (FIORI, 2017).

The consequences of regional integration accentuated distances and revealed the diversity of the regional development process. The restoration of the southern region of the state, where rice, livestock, and sheep farming prevail, intensified the low commercial dynamics of its products (FIORI, 2017). As for the municipalities of Corede Produção, agriculture marked by diversified production is characterized by crops of wheat and soy, boosting the export; in the northeast, the industrial sectors with the largest populations were intensified, turning agriculture into a subsistence sector (FIORI, 2017).

The process of covering the regions of Rio Grande do Sul occurred mainly through the Coredes, which allowed for continuous participation in the decision-making actions for the society, integrating the relationship between planning and social actions for human development with greater regional coverage. In this context, the realization of a more extensive base of legitimacy allows the Coredes a series of ventures for regional development (FIORI, 2017).

The aforementioned work systematization seeks to lay the foundations for an interactive pattern to project actions in the short, medium, and long term, constituting a network of detailed measures relevant for promoting development and improving the population's quality of life. The consolidation of this integration is guided by the connection of all sectors that constitute society, as well as the support of technological centers, universities, government, and civil society. Like other Brazilian states, Rio Grande do Sul presents political and institutional difficulties due to budgetary constraints; thus, regional planning does not achieve satisfactory results in terms of overcoming territorial disparities (FIORI, 2017).

In general, optimized actions align with planning and sustainable development. The concepts of regional growth are related, including the project implementation, mobilization, and participation of the actors, who are trained and responsible for the preparation of regional development plans that are in line with Agenda 2030 (CARGNIN, 2011). In the field of regional policies, Coredes play essential roles in bringing society and the state closer together. This highlights the

performance of municipalities through the adoption of more effective policies to resolve the weak regional growth (CARGNIN, 2011).

In the regional context of Rio Grande do Sul, the construction of these councils represents the inclusion of a new actor that results in new possibilities for the construction of a more asymmetrical territorial space. Its legitimacy lies in the hegemonic constitution that leads Rio Grande do Sul and in the attributions granted to the state to reproduce the themes related to the regional question (CARGNIN, 2011).

Rio Grande do Sul presents, in general, more adequate socioeconomic conditions than the average for Brazilian states, especially related to its geographical position, educational network, health poles, and integration with other regions of the country. In the formulation of public policies, the actors have prioritized addressing regional weaknesses by monitoring and evaluating development indicators, establishing defined goals and deadlines, and strengthening the potential of environmental sustainability and regional growth (CARGNIN, 2014).

The Coredes' contributions to governmental planning have greatly diversified the productive sectors, instituted debates, and supported planning, as in the case of the elaboration of the Strategic Development Plans, which must be presented in a multiannual periodicity. In this way, regional planning is determined with strategic bases, playing an essential role in the search for alternatives that may provide better expectations for addressing the causes of regional inequalities; regional planning represents the implementation of actions for the establishment of a regionalization model that can accommodate the objectives of both the administrative and collective fields (BUGS, 2017).

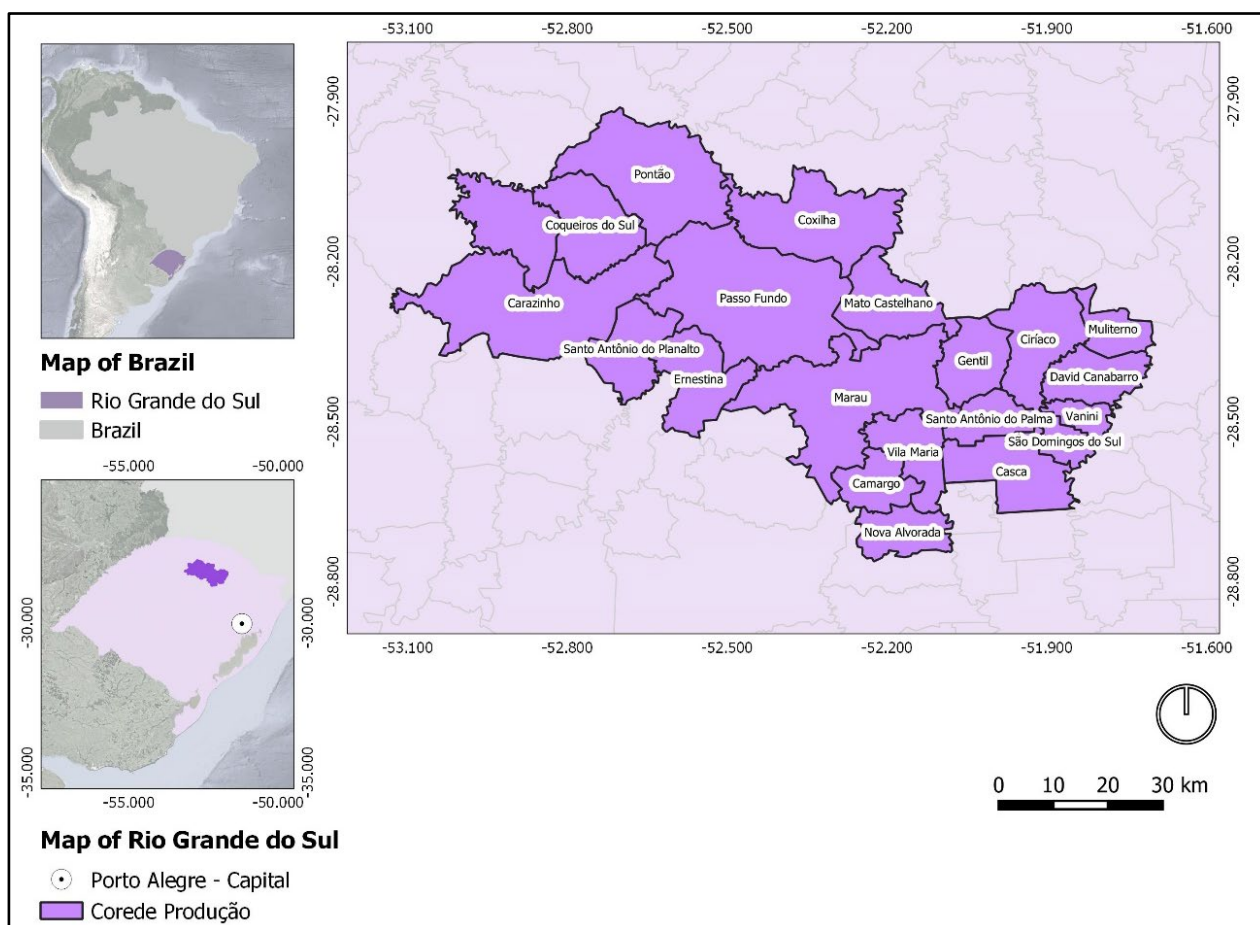
Coredes contribute to regional development, generating greater success viability due to their composition and structure, which make them capable of providing active support to regionalization actions. Such support is made possible mainly due to Coredes' ability to reveal diagnoses that determine the problem of

development disparities between regions, resulting in the encouragement of civil society and socially formed institutions. It has provided new forms of public policies coordination (BUGS, 2017).

### 3 EMPIRICAL STRATEGY

The methodology was based on the study of the document that updates the Development Plan of the Corede Produção, analyzing the themes inserted as part of the 2030 Agenda (ONU, 2015). The Corede Produção is a region located in the north of the state of Rio Grande do Sul, Brazil (Figure 1), created in 1994 with 21 municipalities and aimed at presenting diagnoses that support planning decisions for regional development (BÜTTENBENDER *et al.*, 2011).

Figure 1 – Corede Produção, state of Rio Grande do Sul, Brazil



Source: Authors (2021)



The region has a population of 358,923 inhabitants in an area of 6,002.7 km<sup>2</sup> (FEE, 2016). A profile of all the municipalities that compose the region includes the main indicators that result in the satisfaction of the health and education sectors, excluding the performance of elementary education for some cities. All of the modalities are present, and greater use may occur in the cargo and passenger transportation sectors, which indicates the importance of improving rail and air, on roads, access roads, and pavements. Some municipalities still face difficulties in achieving this. The sanitation quality is lower than other state averages, requiring effective actions for the sector (AWAD *et al.*, 2017).

The analysis involved the study of the Development Plan for the region of Corede Produção and its 2017 updates, which inserted 17 themes that are part of the UN 2030 Agenda. As sources of evidence, secondary data were used (Regional Strategic Planning). These data were essential for investigating the current scenario and corroborating future actions and decision-making.

## **4 RESULTS AND DISCUSSION**

### **4.1 Coredes Regional Development Strategic Plans**

There are investment requirements that benefit cities and regions, which, through planning, are strengthened and diversified; the region is improved in terms of economy and appreciation of natural and cultural heritage. The weaknesses, strengths, and potentialities investigation of a certain territorial space points out elements that represent the needs of the regional communities through investments in health, education, natural resources management, agriculture, tourism, and social and cultural development, demonstrating the breadth of activity that improves the productivity, life capacity, and sustainability of the region (LODDON MALLEE REGIONAL STRATEGIC PLAN 2015-18, 2015).

The characteristics of each Corede's functional region allowed for the recommendation of the main actions in order of priority, indicating their importance according to their needs, weaknesses, and potentialities to benefit regional development. The diagnosis enables the planning of actions to systematize the works to be developed and the prioritization of public resources.

The main factors are deficiencies in socioeconomic inequalities, the contribution of housing problems, low schooling rates in the major centers, unemployment, basic sanitation, health, energy, transport infrastructure, accessibility, loss of competitiveness in agricultural sectors, public safety, the necessary infrastructure for the development and promotion of tourism, unemployment and lack of professional qualification, productive diversity, and incentive for family agriculture (SECRETARY OF PLANNING, GOVERNANCE, AND MANAGEMENT OF RIO GRANDE DO SUL, 2017).

In addition, regions are affected by deficiencies such as low dynamics in the food industry, low integration of the production chain, lack of support for entrepreneurship and technological innovation, school dropout rates, more effective environmental conservation units, hospital unit expansions, cultural and historical rescue, structuring and implementation of industrial areas, solid waste recollection, and treatment, lack of technological information, strong environmental restrictions, accelerated urban growth, crime, greater attention to the population in social vulnerability situations, and water quality monitoring (SECRETARY OF PLANNING, GOVERNANCE, AND MANAGEMENT OF RIO GRANDE DO SUL, 2017)

Concerning the Corede's potential, the chemical sectors as well as the mechanical and vehicle industries have expansion situations; consequently, the job supply, including technology-intensive jobs and construction positions, is increasing. In the agricultural sector, there is an increase in the production of seeds; the energy sector is also developing. Some municipalities stand out in terms of education and health services (SECRETARY OF PLANNING, GOVERNANCE, AND

MANAGEMENT OF RIO GRANDE DO SUL, 2017). However, according to the survey carried out by the Coredes of Rio Grande do Sul, there are largely deficient representations in all sectors of society.

In this context, several thematic areas form the sustainability pillars for regional development. These themes include the market and the possibility of generating work, as well as administrative behavior and especially the functional relations of all sectors. There is a recognize need for an integrated management approach, particularly in terms of environmental management and urban management. The regional system is estimated as the spatial level, which overlaps above the municipality level and represents good options for an integrated approach (MARZELLI, 2011)

The planning should encompass a set of actions, constituting an important tool for data measurement and allowing an integrated view of different issues related to the development of a population in a certain region. The planning accounts for the environmental aspects that come with greater expression in the municipality. Once the effects of the situation have been diagnosed, an environmental plan is drawn up, compiling the greatest possible amount of information. The plan's goal is promoting the successive improvement of the environmental quality and the life of the municipality's community (GODECKE; MAURÍCIO, 2015).

Based on the strategic plan, effective public policies should reflect the direction and priorities of regional development, the long-term practical implementation, objectives, decisions, influences, actions, and results with the participation of all social actors. In this regard, Gavriilidis and Metaxas (2017) consider this process as helping policymakers to facilitate the process of recognizing the main weaknesses and to carry out actions that seek to minimize negative impacts on a certain population.

## 4.2 Corede Produção

Corede Produção of Passo Fundo municipality is the regional hub, with a population of 197,206 inhabitants, characterizing itself as a medium-sized municipality; the others are small. The municipality has the eighth highest population growth rate among the Coredes (0.77% per year), with a lower proportion of children and young people (FEE, 2016 AWAD *et al.*, 2017).

To comply with the 2030 Agenda, the Production Development Regional Council updated its functions and expanded the planning for the regional growth of Corede Produção. The Council defines strategies for the future, diagnosing emergencies in order of priority and identifying the region's potential. In addition, the Production Development Regional Council sought to: (1) recognize the expansion of social capital and regional identity; (2) consider participation in social planning, infrastructure, and budget; (3) contribute to the improvement of public policies to short-, medium-, and long-term projects; (4) generate indicators to measure the quality of life of society, and; (5) diffuse the obtained results (AWAD *et al.*, 2017).

In relation to social rights, the Council is faced with issues of education and health – fundamental rights to social development. Health is a primordial right for the state structure with positive development, since a society with no minimum conditions of life is a society with no structural basis for the realization of life projects with a foundation of growth. A country aspiring to reach desired levels of citizenship and social well-being must address priority areas such as health, sanitation, housing, and security, among other naturally enshrined social rights (Brazil, 1988). Demographic variations have direct representation in the field, either due to the rural exodus or land abandonment, where they are listed as obstacles to agricultural production (AWAD *et al.*, 2017). In this context, the inability to ensure men to work the land or agriculture's production discourages producers from producing, especially subsistence food, which leads to the rural exodus (AVENTURA *et al.*, 2012).

Regarding the population age, the municipalities and public policies aimed at elder individuals are insufficient to meet their needs (AWAD *et al.*, 2017). On the subject, this process is characterized by the constant increase of life expectancy and by the decrease in fecundity; these factors together result in a large number of elderly people and a significant reduction in children and young people (WORLD HEALTH ORGANIZATION, 2015). The elderly account for 23.5 million Brazilians since life expectancy has grown, especially due to the decrease in the number of young people and the consequent decrease in fecundity (BRAZIL, 2017).

The region of Corede Produção has an important hydrographical basin, but there is no management for its protection. The disorderly use of this resource by riverside communities and entrepreneurs are elements that may strongly lead to degradation (AWAD *et al.*, 2017). Water is a limited resource; the presence of crops in successive planting times, the lack of basic sanitation, and the absence of local and integrated waste treatment in the basin's municipalities compromise the quality and quantity of the water available (AWAD *et al.*, 2017).

Inefficiency is one of the greatest obstacles to societies' security. Determinations to minimize occurrences of inefficiency are based on statistics, which will consequently generate the allocation of budgetary resources (AWAD *et al.*, 2017). In Article 144, the Federal Constitution makes it clear that public safety is the duty of the state (Brazil, 1988). Lima, Sinhoretto, Bueno (2015) mention that structural changes must be made to the Brazilian public security model since criminalization is an indication of the reproduction of inequalities and the insufficiency of the system.

The sector that generated the most jobs for the region was the civil construction and manufacturing industry, with base years for 2013 and 2014 and a decrease in the public utilities and extractive industries sectors (AWAD *et al.*, 2017). Meanwhile, the state of Rio Grande do Sul has the second-lowest percentage of unemployment in the country at 8.4% (IBGE, 2017). Awad *et al.* (2017) cite that, although there is significant female participation in the meetings that built the

diagnosis matrices, women are not reflected in the office for elective functions. In Corede lies the disparity between the sexes, which must be addressed. Article 5 of the Federal Constitution of 1988 establishes that "all are equal before the law, without distinction of any kind" (Awad *et al.*, 2017), and its Subsection I provides for equality in the rights and obligations of men and women. In the same way, Article 7 concerns social rights; we can find provisions that take care of the promotion of the right to equality (BRASIL, 1988). The woman herself must emancipate herself from her representation in society.

Another fact pointed out by Corede Produção refers to the infrastructural and public management dimensions. While the road system features poor traffic conditions, there is an awareness that roads are not conserved and much less paved, with a need to duplicate roads in certain stretches, a situation that directly affects regional development. The inadequacy of the road transport modality increases the cost of production and weakens the competitiveness of companies. In addition, the railroad could be an effective form of transport, but there is no system of flow extensions (AWAD *et al.*, 2017).

In this sense, Gonçalves, Braatz, Moraes (2016) cite that the infrastructure's indispensable conditions in a region are a developmental identifier. Within this context, promoting infrastructure in a planned way for a territory becomes indispensable for the improvement of social and economic indicators. The low performance of the Brazilian economy in recent years is a product of the deficiency of economic and social infrastructure since the country still faces basic problems, especially those related to the application of capital in the areas like telecommunications, sanitation, oil, transport, and energy.

Electricity consumption in Corede Produção shows an increase well above the state average, which can demonstrate the region's development. However, there is a concern about the lack of investments into the generation of renewable energy sources (AWAD *et al.*, 2017). Thus, the federal government must seek commitment and invest in a process of transformation of the national electricity

matrix in the short term; on the contrary, this transformation will represent the precariousness of the Brazilian electric potential (REMUSSEI *et al.*, 2015). Similarly, fuel consumption has also increased, demonstrating the people's linkage to road transport and freight transport. Another condition is related to the lack of collective transportation and the great dependence on road traffic (AWAD *et al.*, 2017).

Regarding basic sanitation in the municipalities of Corede Produção, such as the collection and treatment of sewage effluents, there are flaws. This gap is a serious problem that damages public health and affects drinking water sources (AWAD *et al.*, 2017). One of the mechanisms for health promotion is the implementation of basic sanitation in an effective way, using it as an instrument to eliminate contamination outbreaks and consequently reduce the costs for drinking water treatment, among other benefits for the population.

Concerning the economic dimension of the municipalities of Corede Produção, the agricultural sector presents higher production of soybeans with medium yield; corn and wheat are already present with decreasing production. As a result, greater attention is paid to crops for food, as the production of quantities necessary for human consumption is of the utmost importance. In the poultry, cattle, and pig production sector, there was low growth; in the effectiveness of sheep and equines, the indices were conserved. The honeybee cultivation in the region has demonstrated the reduction of family farming and the decrease of bees, which are essential for the pollination process; such decreases also lower pine nut production and create an imbalance of fauna and flora (AWAD *et al.*, 2017).

The question of food availability for people refers to the guarantee of production, harvesting, and distribution channels. In this theme, the various sectors of the economy must be connected, which is referred to as the production flow; agricultural models and incentives as well as the recognition of sustainable production are fundamental indicators of the development of a region. The industrial sector in Corede Produção shows investment in the larger centers, but the sector is stagnant, probably due to its relation to agriculture. On the other hand,

the service sector is making progress in the regional economy (AWAD *et al.*, 2017). The spatial agglomerations of companies result in economic inequalities between the municipalities. However, industries first investigate the local economic situation to support their implantation, skilled workers, advantages as suppliers of inputs, capital goods, and services, as well as supporting institutions and productive flexibility (COSTA; FEIX, 2014).

The performance of public finances does not have significant variations. In general, collections have low urbanization conditions and municipal infrastructure, but there is strong real estate growth (AWAD *et al.*, 2017). One of the parameters that measures the economic growth of a region is the real estate sector, by the application of investments in construction and the purchase of real estate (ROLNIK; KLINK, 2011).

Among the potentialities are climate and hydrography (AWAD *et al.*, 2017). The climate in the Rio Grande do Sul is subtropical, with humid temperatures and no dry season; the state has cold temperatures between -3° C and 18° C, with hot or mild summers according to the Köppen classification (SCOTTÁ, 2013). Water availability is an essential factor in the development of the Corede Produção region. Regarding economic activities, the soil is used intensively for grain production, and the strong presence of the crops in successive moments (i.e., planting, vegetative development of the crops, and harvests) marks the regional scenario. Except for the municipality of Passo Fundo, which has a profile and conditions to attract large industries, the basin does not have significant industrial activities (FEPAM, 2017).

Among the main threats to hydrography in the region is the lack of protection of water resources and deficiencies in environmental management (AWAD *et al.*, 2017). The issues that interfere with the sustainability of a watershed are related to the region's social, economic, and environmental aspects; the watershed must be treated dynamically and meet the needs of the various uses of water (MAYNARD; CRUZ; GOMES, 2017). Table 1 shows the SDGs and their respective themes in the Corede Produção region's Strategic Planning update.



Table 1 – SDGs approaches in the regional strategic plan

SDG	Themes focused in the Corede Produção Strategic Development Plan	Diagnosis synthesis
4	Education	Great universities
3	Health	Regional hospitals
16	Security	Lack of elements
7	Energy	Absence of renewable energy production
6	Water distribution and sanitation	Poor sanitation (although satisfactory drinking water availability)
9	Infrastructure	Needs paving improvement
1,2,12	Food production	Predominantly corn and soybean planting
8	Employment	Directed toward construction and industry
5	Gender equality	There is female participation but in much smaller numbers.

Source: Authors (2022)

To achieve the goals proposed by the 2030 Agenda, the update of the Strategic Planning of the Corede Produção addressed various themes and actions that foster sustainable regional development. Local development policies are aimed at conserving the environment by harmonizing the economic and social sectors with the broad participation of the population and representative associations, as well as through cooperation between governments, private enterprise, and the various sectors that constitute society; such policies have objectives to develop the city's social functions and the rural environment (SILVA; AGUIAR-FILHO, 2013).

In this regard, Oliveira *et al.* (2017) point out that an organized society has strength, as well as the capacity for action and decision-making. Thus, based on the diagnoses raised by each Corede, it is possible to determine sustainability actions integrating the interfaces of natural resource management.

The various instruments and institutions contribute to public policies being prepared to promote and to infrastructure plan investments in a prudent and organized way. Environmental management, based on actions to raise awareness

of uncontrolled consumption, is extremely relevant for changing habits for protection and sustainability. Sustainable consumption involves the preference for products that use fewer natural resources in their productions, ensuring decent work for those who produce them and those who will be reusing or recycling them (GOES; LEMOS; MORALES, 2015).

This presupposes the contribution of the different actors to the economic development reconfiguration, social equity, and biodiversity conservation. The Coredes evaluate the weaknesses and potentialities of a region through indicators that serve to measure and expose the reality of a given location. Thus, it is possible to recognize the environmental problems, their probable causes, and their implications, which generally refer to aspects related to sewage treatment, water management, burning, agriculture, consumption, and production, among other differences found amongst municipalities (DIAS; MELO; MARQUES, 2015).

The main actions related to agriculture and livestock, as pointed out by Corede Produção, refer to (1) the diversification of small property; (2) the expansion of family agribusiness and tourism; (3) management and integrated rural work; (4) increased production and pasture; (5) reduced rural exodus, and (6) the promotion of improved nutrition and sustainable agriculture. For the energy sector, actions aim to ensure sustainable access to energy, to protect and restore the sustainable use of terrestrial ecosystems, to encourage the construction of municipal plans for sustainable development and the alignment of the Municipal Master Plans, and to standardize the environmental management process (AWAD *et al.*, 2017). In addition, there is an identified need for qualified professionals and continued training in the technical field of environmental management, as well as the qualification of basic care in health care, infrastructure for education, monitored safety, and increased staffing by streamlining service to foster environmentally sustainable attitudes (AWAD *et al.*, 2017).

Corede Produção's planning of actions for the region demonstrates essential subsidies for the regional community, indicating deficiencies in infrastructure,

safety, health, and education; the need for a set of professional capacities that, together with low investments of the public power, generate the main obstacles to local development (AWAD *et al.*, 2017).

Universities play an important role as contributors to regional development with the function of forming human capital that is capable of collaborating with the generation and socioeconomic development of their surroundings. The active role of these institutions in the region is to assist in the growth of other enterprises, generating employment, income, and a better quality of life for the population, whether in the sector of commerce, services, or agriculture; thus, the institutions result in the effective growth and development of the regions (CHIARELLO, 2015).

The population may not suffer as much if there is effective participation of the state and the union and their action in the sense of a formal order includes a set of organs, legal entities, and public agents, entrusted in the accomplishment of government and state activities; such activities reflect the government's intention to provide public services needed by society and to satisfy the collective needs (DI PIETRO, 2003).

In its responsibilities, the government aims to provide society with the maximum quality of well-being, with the basic goals of correctly allocating resources, distributing funds and wealth, and economic solidification. Thus, in the amplitude of this concept, not only the public agencies, but also private entities collaborate side by side with the state in the performance and provision of public services or public utility in the interest of society (RIANI, 2011); in this context, Ashley and Luz (2015) affirm that the decentralization of state power to achieve the Sustainable Development Goals requires multi-sectoral cooperation for the constitution of competencies that seek growth with social, environmental, and economic at local, regional, national, and global scales. For this, the organization, dissemination, and dialogue of professional, collective, student, and political knowledge is necessary, seeking the conformity of objectives and goals in favor of the community; this is among the purposes of the Coredees.

In the sphere of public action, one of the challenges is related to the acceptance of shared commitment, linking all spheres to subsidize and sustain public policies for sustainable development, since a large number of states do not have sufficient resources to extend effective tools to government planning and, above all, environmental policies (ASHLEY; LUZ, 2015). The regional sustainability actions are in line with the realization of the fundamental right of man to a healthy environment, and, to man, the population quality of life depends on the resources made available by nature, management, maintenance, and especially on the education of the population regarding the preservation of a healthy environment aimed at finding a sustainable way for future generations, which is ensured by the Federal Constitution itself.

## **5 CONCLUSIONS**

The objective of the present study was to analyze the methodologies used in the Strategic Planning of the Produção Corede for achieving the Sustainable Development Goals (SDG) in a participatory manner, as well as to study the strategies defined and the proposed projects linked and/or related to the Agenda 2030, analyzing and assessing the contributions toward achieving it. Based on an economically feasible action plan with clearly defined priorities and instruments for various actions (i.e., monitoring, control, dissemination, and mitigation actions) as well as training and awareness based on environmental diagnostics (scenarios) that are themselves based on studies and directed research into solutions for any detected problems.

The process of updating the Strategic Development Plan of the Regional Council for the development of production assumes a position to defend the environment and the continuity of generations, believing it is necessary to develop in harmony, taking into account the ecological limitations of the planet without destroying the environment; doing so will ensure that future generations have the

chance to exist and live well and according to their needs through improving quality of life and survival conditions. Sustainable development requires a determination of the new priorities defined by society based on a new ethic of human behavior and a recovery of social and collective interests. Such new behavior encompasses a set of key changes in the structure of production and consumption, reversing the framework of environmental degradation and social misery from its causes.

The model of regional planning is solidifying due to its importance in the political, environmental, social, and administrative scenarios and due to the participation of the different actors, representing a theoretical model of information representative of the reality of the region. Such a model is capable of identifying the operational deficiencies for regional development. In this respect, the practices and instruments employed by Corede Produção, based on the proposed model, have verified that future actions subsidize the problems identified for the region; the structured model refers to the solution mechanisms, articulating in compliance with the SDGs that help in the achievement of goals and objectives related to the activities developed.

In the context of the discussion on the renewal of the Regional Strategic Development Plan, the proposals highlighted strengthen the commitment of the Regional Council to remove several difficulties that have not yet been resolved, among them the lack of incentives in rural areas, human development, work, and social inequalities, maintenance and preservation of water resources, infrastructure, and security. Despite the Council's limits, the goals created help to point a direction for the public policies in favor of the commitment to the society and region.

As for the study's limitations, not all SDGs were covered in this update of the Corede Produção region's Strategic Planning, which was basically because there was a grade of priorities. In addition, some goals from the objectives also do not apply to the region or there is not available data (e.g., the ability to take immediate measures to end modern slavery and human trafficking by 2025). Meanwhile,

Corede Produção was dedicated to addressing the maximum possible amount of the themes corresponding to the 17 ODS and to contributing to the achievement of the Agenda 2030.

The municipalities make up a scenario of multiple transformations, and the search for quality space and life for its population allows for the elaboration of a set of public policies and precepts guiding actions that are aimed at building urban and rural space; such is achieved through the use of planning strategies as guidelines for environmental management, starting with the representatives of the executives, citizens, and institutions participating in the evaluation and decision-making priority on regional development issues.

Considering the wide range of themes of the SDGs made it possible to verify that the Regional Council for Production Development considers the different regional realities. The Council seeks to express commitments of practical effect in the perspective of equity and overcoming the structural problems of municipalities by pursuing sustainable development, articulating goals and objectives that are in line with the SDGs, and by understanding the effective measures that constitute a fundamental condition for sustainable development.

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