

International Journal of Advanced Engineering Research and Science (IJAERS)

Peer-Reviewed Journal ISSN: 2349-6495(P) | 2456-1908(O)

Vol-9, Issue-10; Oct, 2022

Journal Home Page Available: https://dx.doi.org/10.22161/ijaers.910.45



Reflections on Territorial Development from the Perspective of Interdisciplinarity

Reflexões sobre o Desenvolvimento Territorial na Perspectiva da Interdisciplinaridade

Reflexiones sobre el Desarrollo Territorial desde la Perspectiva de la Interdisciplinariedad

Luciana Souza de Oliveira, Lucia Marisy Souza Ribeiro de Oliveira, René Geraldo Cordeiro Silva Júnior, Gustavo Jardim Ferraz Goyanna, Moyses Avelino de Souza Filho, Henrique Pereira de Aquino

Received: 20 Sep 2022,

Received in revised form: 11 Oct 2022,

Accepted: 16 Oct 2022,

Available online: 28 Oct 2022

©2022 The Author(s). Published by AI Publication. This is an open access article

under the CC BY license

(https://creativecommons.org/licenses/by/4.0/).

Keywords— Interdisciplinarity; Sustainable development; Environment; Higher education institutions; Cultural diversity.

Palavras – Chave— Interdisciplinaridade; Desenvolvimento Sustentável; Meio Ambiente; Instituições de Ensino Superior; Diversidade Cultural.

Palabras llave— Interdisciplinariedad; Desenvolvimiento sustentable; Medio ambiente; Instituciones de educación superior; Diversidad cultural. Abstract— The purpose of this article is to relate the connection between territorial development and interdisciplinarity with the objective of building reflections on the elements inherent to the themes, from a reality of crisis that has a part in the environmental sphere and that is imbricated in development and environmental issues. sustainability. It also brings the discussion of interdisciplinarity into the academy in undergraduate and graduate courses, highlighting the importance of continuing education for teachers and students, with a view to building new approaches that recognize the importance of cultural diversity and exchanges between scientific and popular knowledge for the realization of development in the territories, where the population involved is the protagonist of the decisions and actions implemented.

Resumo— Este artigo tem por propósito, relacionar a conexão sobre desenvolvimento territorial e interdisciplinaridade com o objetivo de construir reflexões sobre os elementos inerentes às temáticas, a partir de uma realidade de crise que tem uma parcela na esfera ambiental e que está imbricada nas questões de desenvolvimento e sustentabilidade. Traz ainda a discussão da interdisciplinaridade para dentro da academia nos cursos superiores de graduação e de pós-graduação, destacando a importância da formação continuada para os docentes e discentes, na perspectiva da construção de novas abordagens que reconheçam a importância da diversidade cultural e das trocas entre os saberes científicos e populares para a concretização do desenvolvimento nos territórios, onde a própria população envolvida seja protagonista das decisões e das ações implementadas.

Resumen— El propósito de este artículo es relacionar la conexión entre el desarrollo territorial y la interdisciplinariedad con el objetivo de construir reflexiones sobre los elementos inherentes a los temas, a partir de una

realidad de crisis que tiene parte en el ámbito ambiental y que está imbricada en el desarrollo y el medio ambiente. temas sostenibilidad. También trae la discusión de la interdisciplinariedad a la academia en los cursos de pregrado y posgrado, destacando la importancia de la formación continua de profesores y estudiantes, con miras a construir nuevos enfoques que reconozcan la importancia de la diversidad cultural y los intercambios entre saberes científicos y populares para la realización del desarrollo en los territorios, donde la población involucrada es protagonista de las decisiones y acciones implementadas.

I. INTRODUCTION

THE ENVIRONMENT IN THE CONTEXT OF TERRITORIAL DEVELOPMENT – the formulation of a concept

Explaining sustainable territorial development is not a task for a single area of knowledge, since its understanding transcends the disciplinary view, requiring different perspectives on the different dynamics that compose it, with emphasis on the environment, on which human existence depends.

The theme of development began to gain space among scholars from the 18th century onwards, in the period of transition from the feudal mode of production to the capitalist mode of production, contributing to the globalization of European trade, where colonialism was strengthened in the Americas, but, until then in Europe, development was synonymous with growth, expansion, power, without taking into account the well-being of people. The colonized population was most often expelled from their lands and, when they remained on them, they were subjected to the culture of the invaders, with the discourse of the civilizing mission (AZEVEDO; SERIACOPI, 2005).

Since the deepening of globalization and neoliberal policies with the fragility of the State, the of development has been concept undergoing transformations to adapt to the needs that arise in society, where it is evident that there is no ready and finished concept, capable of carrying the historical-regional issues, specificities, culture, traditions, desires and expectations of a people, where a single discipline can handle such comprehensiveness. Given this view, it is clear that development is a cross-cutting theme that is related to different knowledge and cannot be explained from a single point of view or from a single scientific area.

Despite the diversity, the important thing is that, in addition to the various definitions that can be brought up for discussion, the idea of development needs to contemplate economic, social, political, cultural, educational, environmental issues, labor relations, power,

systems of government, democracy, popular participation in decisions of collective interest and transformations that promote the improvement of the population's quality of life.

The need to seek new forms of development in view of the failure of neoliberal globalization, which has not eliminated inequalities between countries and peoples; concentrated wealth in the hands of a few; it increased the exclusion of traditional populations less educated by formal education systems and spread poverty among less technified peoples, made leaders of countless countries come together to reflect on the subject of natural resources in the environment.

After the Second World War, the resulting catastrophes made the subject of nature fall into public opinion and in 1968, UNESCO - United Nations Educational, Scientific and Cultural Organization, organized the Conference on the Biosphere in Paris, bringing up the loss of quality of the environment, such as air, seas and oceans, space, oil pollution and waste, demonstrating that this topic could be debated not only in the scientific sphere, but also in the economic and political spheres. From this Conference, the Club of Rome emerged, a collective of renowned specialists who began to study the subject, publishing the book "The Limits of Growth", where they demonstrated through mathematical formulas, the inability of planet Earth to withstand the effects of human action in the situation in which they performed.

The repercussion of the book was fundamental for the holding in 1972 of the World Conference on Man and the Environment, known as the Stockholm Conference, where 113 heads of state met to discuss atmospheric pollution; water and soil pollution from industrialization; the pressure of population growth on natural resources and the urgency of finding a balance between economic development and reducing the wear and tear of nature, giving rise to the term ecodevelopment. For Le Prestre (2005:174), all this was only possible due to the intensification of scientific cooperation in the 1960s, which resulted in numerous concerns such as climate

change and visible environmental problems, with changes in landscapes.

The outcome of this conference was the creation of UNEP - United Nations Environment Program, an important international organization whose objective is to provide leadership and encourage partnerships in protecting the environment, inspiring, informing and enabling people to improve their quality of life without compromising future generations and the elaboration of the Stockholm Declaration, with 26 principles (ARAÚJO; BRIDI; MOTIM, 2013).

In Item 1, the Stockholm Declaration proclaims:

Man is both the work and builder of the environment that surrounds him, which gives him material sustenance and offers him the opportunity to develop intellectually, morally, socially and spiritually. In the long and tortuous evolution of the human race on this planet, a stage has been reached when, thanks to the rapid acceleration of science and technology, man has acquired the power to transform, in countless ways and on unprecedented scale, everything that fence. Both aspects of the human environment, the natural and the artificial, are essential for human wellbeing and for the enjoyment of fundamental human rights, including the right to life itself.

In items 2 to 7 of that declaration, there is a concern with the protection of the environment, the eradication of extreme poverty in the underdevelopment in African countries and the responsibility of each and everyone with the containment of environmental problems. With regard to the principles contained in the declaration, all 26 of them extol the fundamental right to freedom, equality and the enjoyment of adequate conditions of life in an environment of a quality that permits a life of dignity and well-being, being, having the solemn obligation to protect and improve the environment for present and future generations, alerting the world to the harm that ecosystem deterioration can cause to humanity as a whole (JONES; LACERDA; SILVA, 2005:103).

Even without having had a universal character, since not even the Soviet Union together with the countries of Eastern Europe participated in the Stockholm Conference, under the allegation of exclusion in the event of East Germany for not being part of the UN, the

conference was a landmark in the way different from thinking about the environment, despite the controversies observed, which we will now explain. NGOs - Non-Governmental Organizations, could not participate in the official event, being obliged to hold their own event separately. The recommendations contained in the principles triggered strong clashes between the so-called developmental countries of the South who claimed to be undergoing their industrialization and developing, and that the slowdown in their growth would be something unfair, as it would entail more costs for growth aimed at environmental protection. . The northern countries, based on the "Limits to Growth" report, claimed that pollution had to stop at all costs, which required the event's secretary general, Maurice Strong, to be very skilled at reaching consensus (RIBEIRO, 2010).

This environmental which concern. discouraged industrialization, contradicted throughout Latin America the guidelines of ECLAC - Economic Commission for Latin America and the Caribbean, which in industrialization the way to overcome underdevelopment and dependence in North America. Brazil was experiencing the so-called "Brazilian miracle" and was growing at average rates of 12% per year, playing a leading role contrary to the Stockholm recommendations (ANDRADE, 2012). However, despite all the problems, the Stockholm Conference represented an advance in the new way of world thinking based on environmental preservation and sustainable development together with economic development. Principle 26 of the Declaration states: "Man and his environment must be freed from the effects of nuclear weapons and all other means of mass destruction (STOCKHOLM DECLARATION, 1987).

In 1983, the World Commission on Environment and Development was created by the UN - United Nations under the presidency of Gro Harlem Brundlent, with the following objectives:

- Re-examine critical environmental issues and reformulate realistic proposals to address them.
- Propose new forms of international cooperation in this field in order to guide policies and actions towards making the necessary changes, and to give individuals, voluntary organizations, companies, institutes and governments a greater understanding of existing problems, helping and encouraging them. them to a firmer performance.

An important action of this commission was the recommendation of a new Universal Declaration on environmental protection and sustainable development in 1987, resulting in the Brundland Report, entitled "Our Common Future", where for the first time the term sustainable was used for the process. of development. To

this end, the recommendation is that the signatory countries of the proposal, adopt the following measures:

- Limit population growth.
- Ensure long-term nutrition.
- Preserve biodiversity and ecosystems.
- Reduce energy consumption and promote the development of alternative renewable energy technologies.
- Increase industrial production in non-industrialized countries based on ecologically adapted technologies.
- Control urbanization and integrate countryside and smaller cities (BRUNDLENT REPORT, 1987).

However, it was at Rio 92, at the United Nations Conference on the Environment and Development (UNCTAD), that bringing together 179 countries, the term Sustainable Development gained contours and was disseminated in general, becoming defined "as the process of transformation in which the exploitation of environmental resources, the direction of investments, the orientation of technological development and institutional change are harmonized in order to meet present and future human needs and aspirations" (SOBRAL, 2011: 832).

In this perspective, more than a concept, the expression means the population's access to education, health, housing, preserved environment, healthy food in adequate quantity and quality to the needs of each stage of growth, respect for customs and traditions and the legitimacy of institutions, all interconnected between the local, regional, territorial, national and international.

At the event, the participants "agreed and signed the planning instrument for the construction of sustainable societies, in different geographical bases, which reconciles methods of environmental protection, social justice and economic efficiency" (BRASÍLIA, 2016).

More than thirty-five years later, the recommendations were not adopted by most countries and the world is now experiencing the impacts of climate change due to the emission of greenhouse gases resulting from causes already known at that time, which makes us believe that documents signed by country representatives are mere formalities of protocol, with no real intention of fulfilling the commitments assumed. The Federal Constitution of Brazil of 1988, in its Article 225, criticizes this issue by saying that the concept "is an act of faith or a philosophical desire for preservation that requires better specification from a practical point of view, as there is a good dose of subjectivity in defining what future needs are and, in addition, the question of the degree of development of the region or country in question" (BRAGA, 2005:216).

For the author, the terms environment and sustainable development need a deeper analysis and cannot be analyzed separately from local social, political and economic issues, that is, it requires an interdisciplinary practice, with contributions from sociology, anthropology, Social and Political Sciences, Biology, Agronomy, Economics, Geography, Ecology and many other disciplines, which by bringing their specificities, generate new information with greater wealth of details.

THE CHALLENGES OF DISCUSSING TERRITORIAL DEVELOPMENT FROM THE INTERDISCIPLINARY VIEW

As explained earlier in this text, being interdisciplinary does not mean giving up disciplinary knowledge. As well informed by Ivani Fazenda, Varella and Almeida (2013:852), as an attitude, interdisciplinarity is difficult, challenging, but it contributes and enriches the formation of subjects insofar as it cultivates humility in learning without giving up rigor in scientific practice., in addition to highlighting the importance of education in this process, as a way of understanding and changing the world, through broad investigation in its various aspects.

The difficulty of teachers trained in quality courses, but with curricula organized in a disciplinary way, where the subjects do not dialogue with each other, is evident in most courses at all levels in operation, where inter and transdisciplinary teaching is still something distant from their realities and understanding, despite not being a new theory.

Revisiting history, we found that, since the Middle Ages, it was already possible to infer the presence of this methodology in school, considering that the subjects were divided into trivium - corresponding to the arts of language (grammar, rhetoric and dialectics) - and quadrivium - corresponding to the mathematical arts (geometry, arithmetic, music and astronomy), according to Vilela & Mendes (2003:51) and Aiub (2006:24). At that time, what scholars wanted was to establish some kind of relationship that would bring them together and, for that, they exchanged ideas about their discoveries, shared their knowledge and their inventions, facilitating the advancement of studies.

This attitude lasted until the mid-twentieth century, when, due to the development of science and the consequent demands of society for answers to social, economic, cultural, health, food production, housing, curing diseases and other problems, the academy understood that it was necessary to discipline knowledge for the greater depth of each area by scholars, favoring the requirements of the population. More recently, in France

and Italy in the mid-1960s and in Brazil, at the end of the 20th century, interdisciplinarity emerged in the way we conceive it today, in a period marked by student movements that, among other things, demanded a higher education. more attuned to the great social, political and economic issues of the time.

From a normative point of view, since the Law of Directives and Bases 5.692/71-LDB, interdisciplinarity was already present in official recommendations and later, in LDB No. 9.394/96 and in the National Curricular Parameters-PCN, there is a strong influence of teaching interdisciplinary in the suggested curricular proposals. Despite this, it is easy to observe in the institutions UNIVASF - Universidade Federal do Vale do São Francisco and IF Sertão Pernambucano, interdisciplinarity is still little known and experienced, which is why it is proposed by the authors of this article to discuss the main conceptions and controversies around of this theme and its impact on the understanding of sustainable territorial development.

However, before entering the discussion on interdisciplinarity itself, it is necessary to distinguish it from other terms that are often confused with it, as if they were the same thing with different names. When we talk about interdisciplinarity, we are referring to an interaction between disciplines or areas of knowledge. However, this interaction can happen at different levels of complexity, involving multidisciplinarity, pluridisciplinarity, transdisciplinarity. interdisciplinarity and The classification presented below is the most common and was originally proposed by Eric Jantsch, having been adapted by Hilton Japiassú (1976), one of the pioneers of interdisciplinarity in Brazil.

Multidisciplinary represents the first level of integration between disciplinary knowledge and is characterized by the simultaneous action of a range of disciplines around a common theme. It is a fragmented action that does not explore the relationship between the disciplines and where there is no cooperation between them (JAPIASSÚ, 1976:66).

Making a parallel with territorial development, in this phase, when we take the Sertão do São Francisco Bahia territory as an example, each municipality that integrates it will be presented; its population; the economic vocation of each one; their cultural and religious traditions, without, however, establishing any connection between them in terms of similarities and differences; without analyzing the importance of irrigated agriculture for the territory's GDP; without considering goat and sheep farming in the municipalities of Casa Nova and Uauá, for the generation of employment and income within the territory or without

relating artisanal fishing in the municipalities of Remanso and Pilão Arcado to the local economies.

In pluridisciplinarity, some type of interaction between knowledge is already observed, although they are located at the same hierarchical level. Here, when approaching territorial development, it is possible to point out what is common in the municipalities both in agricultural crops and in small livestock; in cultural and religious traditions, without even making more rigorous analyzes of economics, politics, social pattern of development, participation of the population in collective decisions and governance.

Finally, interdisciplinarity represents the third level of interaction between disciplines and, according to Japiassú (1976:49), "it is characterized by the presence of an axiomatic common to a group of related disciplines and defined at the hierarchical level immediately above, which introduces the notion of purpose". In interdisciplinarity there is cooperation and dialogue between the disciplines of knowledge, but in this case it is a coordinated action. In PCNs, interdisciplinarity presupposes an integrating axis, which can be the object of knowledge, a research project, an intervention plan, which must start from the need to solve a problem and must attract more than one look. From this point of view, interdisciplinarity is only worthwhile if it is an effective way of achieving goals previously established and shared by the members of a collective, whether in the educational field or not.

In the discussion on territorial development at this level, the item generation of work and income can be taken as an integrating axis and, from there, it is possible to analyze, in each municipality in the territory, the economic activities and which of them contribute most effectively to this item, establishing standards, variables and valid, quantitative and qualitative indicators that can be observed and recorded, the same occurring with other items, such as health, education, housing, food, schooling and others.

Transdisciplinarity represents a level of disciplinary integration beyond interdisciplinarity. This is a relatively recent proposal in the epistemological field. Japiassú (1976:79), defines it "as a kind of coordination of all the disciplines and interdisciplines of the innovative education system, on the basis of a general axiomatics". It is a type of interaction where there is a kind of integration of various interdisciplinary systems in a broader and more general context, generating a more holistic interpretation of facts and phenomena.

Transposing this information to territorial development, one must take the various theories that supported the understanding of interdisciplinarity from the

various perspectives of multiple knowledge and knowledge and elaborate a new theory that contemplates the contributions received and that are more complete and richer. than those presented in interdisciplinarity. For example, if territorial development at the interdisciplinary level contemplated the economic, political, social dynamics, in the transdisciplinary phase, it can add other elements such as social justice, happiness, quality of life.

Having made these considerations, we are now going to work on some concepts of interdisciplinarity and development, especially looking for classic authors, who can contribute to a better understanding of the topic, making it clear that the two concepts are polysemic, with numerous variations. In the case of interdisciplinarity, there is a classification of its types, according to Japiassú (1976), which are:

- 1. Heterogeneous Interdisciplinarity Information coming from several disciplines, but not contributing to each other.
- 2. Pseudo interdisciplinarity Occurs when the nexus of union is established around a theoretical model or a conceptual framework, applied to work in very different disciplines. For example, in the Middle Ages, Theology was considered the global science to which all other knowledge was subordinated. In the sixteenth to seventeenth centuries philosophy takes precedence and becomes the model of true knowledge. In the 18th and 19th centuries, Physics began to reign supreme among the sciences as the perfect model of scientific activity. All other sciences, in order to be considered scientific, were obliged to follow the model of Physics. In the 20th century, the model shifted to Biology. For Japiassú (1976), the use of these common instruments is not enough to lead to an interdisciplinary enterprise.
- 3. Auxiliary interdisciplinarity It consists, essentially, in the fact that a discipline borrows its method or procedures from another, such as, for example, pedagogy resorts to psychology to explain its phenomena.
- 4. Composite interdisciplinarity Occurs when several specialties come together to find solutions to problems presented in society, such as hunger, war, delinquency, pollution, among others.
- 5. Unifying interdisciplinarity For Japiassú (1976), this is the legitimate form of interdisciplinarity, for establishing a close coherence between the domains of the disciplines and an integration in their corresponding theoretical levels. For example, certain elements and certain perspectives of Biology gained the domain of Physics to form Biophysics. From an educational perspective, interdisciplinarity is not intended to create new disciplines or knowledge, but to use knowledge from various disciplines to solve concrete problems or understand a phenomenon from different

points of view. In short, interdisciplinarity has an instrumental function, always resorting to useful and usable knowledge to respond to contemporary social issues and problems (BRASIL, 2002:34-36).

As can be seen, interdisciplinarity does not generate the de-characterization of disciplines, the loss of autonomy on the part of teachers, nor does it break with disciplinarity. Its purpose is to expand the disciplinary work, promoting the approximation and articulation of activities in a coordinated and oriented action towards well-defined objectives. As Ivani Fazenda points out:

Its practice at school or in the territory creates, above all, the possibility of "meeting", "sharing", cooperation and dialogue, and an attitude towards alternatives to know more and better: waiting attitude; an attitude of reciprocity that encourages exchange; that encourages dialogue; attitude of humility in the face of the limitation of one's own knowledge; perplexed attitude towards the possibility of unveiling new knowledge; defiant attitude towards the new; challenge in resizing the old; attitude of involvement and commitment to the projects and the people involved in them; attitude, therefore, of commitment to always build in the best possible way, an attitude of responsibility, but, above all, of joy, of revelation, of encounter, of life (FAZENDA, 1994:82).

According to the author, in an interdisciplinary classroom, authority is conquered, while in a conventional classroom it is simply granted. In an interdisciplinary classroom, obligation alternates with satisfaction; arrogance, through humility; solitude, through cooperation; specialization, in general; the homogeneous group, for the heterogeneous; reproduction, through the production of knowledge. She says:

[...] In an interdisciplinary classroom, everyone perceives each other and gradually becomes **partners** and, in it, interdisciplinarity can be learned and taught, which presupposes an act of perceiving oneself interdisciplinary (FAZENDA, 1994:82).

Likewise, Severino (1998:33) informs that there are no ready-made recipes capable of acting in an interdisciplinary way, so much so that in his reflections he emphasizes the anthropological approach of

interdisciplinarity to the detriment of the epistemological one. For him, the paths in the search for interdisciplinarity must be followed by the entire team of each school unit, or by the leaders of the territory, always having as a starting point the search for the solution of problems in each social space where they present themselves.

It was this understanding that led the report of the Gulbenkian Commission to recommend the dismantling of artificial frontiers of knowledge through interdisciplinary and transdisciplinary work on the pressing issues of our time, something still little considered by universities (WALLERSTEIN ET AL, 1996:46). In the view of Câmara (1999:15):

Interdisciplinarity must be thought of as between sciences, on the one hand, considering the territory of each of them and, at the same time, identifying possible areas that may intersect, seeking possible connections. And this search is carried out through a dialogic process that allows new interpretations, a change of vision, a critical assessment of assumptions, a bond with the other, a new reorganization of thinking and doing.

For Santomé (1998:44), one of the classic theorists on the subject, betting on interdisciplinarity means defending a new type of person, more open, more flexible, solidary and democratic. Leff (2000:44), on the other hand, states that interdisciplinarity must be understood as a strategy capable of reintegrating knowledge to apprehend a complex reality. Finally, interdisciplinarity can be defined as a point of intersection between disciplinary and interdisciplinary activities with different logics. It has to do with finding a balance between fragmented analysis and simplifying synthesis (JANTSCH & BIANCHETTI, 2002: 77).

Paulo Freire (2006:28), agreeing with these authors, says that it could not be different, since man is a being of praxis, action, reflection and in his relationship with the world he meets himself. Likewise, Moraes (2008:19) assures that working in an interdisciplinary way means overcoming the fragmentation of contents and dealing with phenomena as a whole.

For Ribeiro (2011:68), more than identifying a concept for interdisciplinarity, the important thing is to find its epistemological and pedagogical meaning about the process of knowing. Interdisciplinary, according to the author, is characterized by the intensity of exchanges between specialists and the degree of real integration of the disciplines within the same project. Floriane (2011:354),

on the other hand, reveals that in the socio-environmental field the theoretical foundations of knowledge production and development are associated with alternative methodologies, that is, they seek to go beyond disciplinary approaches, establishing a cooperative dialogue between the sciences. From this perspective, it is evident that interdisciplinarity is a need that emerges both from advances in science and technology and from the transformation of contemporary society, since, according to Philippi Jr. and Neto (2011:99), the disciplinary paradigm of knowledge production is not enough to answer complex problems.

As Morin (2013:15) says, it is living knowledge that leads to the great adventure of discovering the universe, life, and man. Therefore, the scientific community, interested in interdisciplinary practice aimed at development, needs to face the challenge of its recognition to legitimize this pedagogical practice at the university, with the certainty that there is no ideal situation for interdisciplinarity, as mentioned by the authors Philipp Jr. . and Neto (2011: 101), since the different experiences developed so far in this domain are different from one another, and are always under construction.

Therefore, interdisciplinarity, in short, can be defined as a point of intersection between disciplinary and interdisciplinary activities with different logics. It has to do with the search for a balance between fragmented analysis and simplifying synthesis (JANTSCH & BIANCHETTI, 2002).

From all that has been reflected here, it is necessary to think about the role of the university in the training of students. Is it preparing young people to be able to engage socially and politically in the problems faced by their territory and the country, taking responsibility for the transformations of society and for the improvement of the population's quality of life, with respect for the environment? Is there flexibility in the curricula that allows for adaptations when impasses arise more immediately? Is there a participatory planning practice, where professors who approach common themes discuss the interfaces between their disciplines, seeking effective collaborations for a better understanding on the part of the students about these themes? Is there an openness on the part of teachers to give and receive contributions in their teaching?

Based on the experiences lived in our institutions, that is, UNIVASF and IF Sertão Pernambucano, we affirm that such attitudes are not widespread. When it occurs, it is always very punctual and isolated, in the interest of one or another teacher who believes in the viability of interdisciplinarity to improve

the quality of teaching. The conclusion reached by the authors of this text is that interdisciplinarity is still seen in HEIs only as a trend, which may or may not be adopted, and not as a pedagogical process capable of making teaching contextualized and effective.

With regard to territorial development seen from the perspective of interdisciplinarity, it is concluded that its sustainability aggregates aspects that, in order to be incorporated into the condition of human existence, lack a set of knowledge involving all knowledge and behaviors experienced. by populations, it is worth remembering here that development has not always been the main focus of societies. In the Ancient and Middle Ages, for example, concerns were different and were aimed at solving the doubts of men and women about the universe and community life itself (COTRIM; FERNANDES, 2013).

The concern with the theme of development began to exist in the Modern Age, when it was initially understood as a cultural process, associated with the ways which people understood society (AZEVEDO; SERIACOPI, 2005). In the contemporary age, the focus shifts to scientific and technological development, to meet the social and political needs of the world and, in this perspective, the idea of development needs to consider several dynamics, which, in the diversity brought by the theorists, increasingly aggregates elements, as we will see below, however, as a starting point, we will consider that a development that does not provide access to drinking water for everyone; to a balanced diet; the means to quality education; culture and other elements necessary for a healthy life; that does not ensure democracy and that exerts a strong pressure of production on natural resources, to the point of their depletion, is not development (JOHNSON, 1997:58; ALIER, 1998:167).

In this context, the territorial approach to development guides actions and social constructions based on cultural, economic, sociological, anthropological, physical/natural factors, as follows: i) the realization that the rural cannot be understood only from the agricultural perspective; ii) the enhancement of decentralization at the local level to achieve better results in public policies; iii) recognition of the territory as the most adequate unit for the development of actions that seek development (DELGADO E LEITE, 2013:74).

This way of thinking about development based on the territory is not recent. In the late 1990s, this possibility was already being discussed, based on the need to value family farming and rural territories, with the implementation of public policies involving actors from different spheres of power, whose materialization took place through the creation of the National Program for

Strengthening Family Agriculture - Pronaf in 1995; the institution of the Ministry of Agrarian Development - MDA in 2000; the strengthening of the Technical Assistance and Rural Extension Policy in the early 2000s; and the implementation of instances of social participation, such as the National Council for Sustainable Rural Development - CNDRS.

This dynamics focused on the countryside, brought significant changes to family farming, no longer being characterized only as an economic activity, a form of income guarantee, becoming understood also as a non-agricultural activity due to its multifunctionality, such as, the service sector; rural tourism; agribusiness; commerce and others.

According to Sabourin (2018), from ECO 92 onwards, the multifunctionality of family farming started to be recognized by society as a public good, due to non-productive social, environmental, economic and cultural functions, but associated with agricultural activity, contributing to the preservation environment and for the promotion of healthy foods, free from chemical contaminants. And the relevance of this approach to territorial development is the use of the existing potential in each social space, with real possibilities of reducing poverty, investing in social and human capital and valuing ethnic and cultural identities.

In this current rurality, in addition to land tenure and agricultural activities, there are other ways of using natural resources, resulting mainly from the advancement of technology and established social networks, which have brought rural and urban closer together, impacting on modes of living. life of the population, even favoring the permanence of the rural population in the countryside, due to the favorable conditions created in this process.

The concept of territory can provide important subsidies for thinking not only about state intervention at its different levels, especially for the municipality, but also for the action of actors who seek spaces for action and representation for collective and public interests, because, as reported Tizon (1995:88), a classic scholar on the subject, territory is "a space of life, action, and thought of a community, associated with processes of identity construction". In the same way, Pecqueur (2000:15), conceives the territory as "the meeting of social actors in a given geographic space, which seeks to identify and solve common problems." To emphasize the importance of the territory, Milton Santos in the 1990s, considered it a source of life, capable of refuting the alienation and loss of meaning of individual and collective existence.

In agreement with the aforementioned authors, ABRAMOVAY (1998) presents the idea that "a territory

represents a web of relationships with historical roots, political configurations and identities that play a role still little known in economic development itself".

For Pires et al (2011:33), the process of territorial development involves the mobilization of actors, public institutions, collective organizations, to leverage activities of all kinds and provide social and cultural wellbeing to the community.

With this same vision, Saquet (2011:49), defines the territory "as a product of the society – nature relationship, constituting a field of forces that involve social relations permeated by the economic, political and cultural dimension through the exercise of power".

In this sense, the territory is constructed as a space for social relations, with strong bonds of solidarity and belonging among the actors (BRUNET, 1990:77). This sense of solidarity is defined by SCHEREN WARREN (1998:12) as "the principle of individual and collective responsibility for the social and the common good, whose practical implications are the search for cooperation and complementarity in collective action and, therefore, for working in partnership."

In Brazil, this idea only began to be outlined after the Federal Constitution of 1988, when the country began important structural changes, causing a decentralization of the union's functions to states and municipalities. In your Art. 30, it is evident that planning for development, previously dictated traditionally by the central government, started to observe competences and attributions bequeathed to municipalities and regions (BRASIL, 2013).

This new scenario and the demands for a more effective organization have induced new ways of promoting development, especially from the perspective of territorial sustainability, which seeks to introduce new technological standards that mitigate the negative effects on the environment caused by productive actions, without promoting changes in the capitalist logic of accumulation.

In this approach, in order to build a process of sustainable territorial development, it is necessary to consider the human potential of the territories, as well as the confrontation of conflicts between the different groups of actors affected by local actions, considering that it is the will of people and groups that they produce the transformations in a process of solidarity and collective cooperation.

II. METHODOLOGY

For the elaboration of this article, a bibliographic review was carried out on the themes of

interdisciplinarity, sustainable territorial development, environmental sustainability, in the databases of the Brazilian scientific field: Google Scholar; Spell - Electronic Library of Scientific Journals; Scielo - Scientific Electronic Library Online in order to establish connections between territory, development and interdisciplinarity.

The research was carried out between the 1st and the 30th of September 2022, using words related to the researched topics. A publication period was not defined for analysis, therefore, a high number of articles was found with the themes of interdisciplinarity, territory, territorial development and environment.

After a detailed analysis of the four databases, selections of articles were made that would help in the expected objective. For this, an excel spreadsheet was created with the main data of the articles such as: year of publication, keywords and qualis of the journals, with the information contained therein guiding the studies for the preparation of this text.

III. SOME CONSIDERATIONS

The reflections made in this article present the territory from the point of view of various sciences, taking an interdisciplinary approach as a pedagogical and methodological practice, in recognition that the life of men and women in a society grouped in spaces, whether rural or urban, has historically promoted, new relationships and social conditions among populations. This new thinking about the occupation of spaces has been demanding from the State and from collective organizations, initiatives in order to organize development, whether urban or rural, to solve the resulting problems, implying a participatory planning of territories in order to meet the needs of the population.

From the point of view of the mentioned authors, the interdisciplinary approach, both in the school environment and in territorial activities, is very challenging, but at the same time, enriching, as it promotes articulations between the various types of knowledge; commitment to collective causes; valuing the products and culture of the populations of the territory and the attitude of solidarity when opening up to cooperation in the construction of new proposals for the well-being of all. Although it is not a new idea, as a collective practice, interdisciplinarity in higher education institutions is almost non-existent, which is regrettable, given that it would greatly contribute to the consolidation of the inseparability between teaching, research and extension.

The environmental issue was also an object of observation in the discussion on territorial development, due to the global concern with the sustainable use of natural resources and with pollution.

REFERENCES

- ABRAMOVAY, R. Bases para a formulação da política brasileira de desenvolvimento rural: agricultura familiar e desenvolvimento territorial. Brasília: IPEA, 1998. 25p.
- [2] AIUB, M. Interdisciplinaridade: da origem à atualidade. O mundo da Saúde, v. 30, n. 1, p.107-116. 2006.
- [3] ALIER, Joan Martinez. O ecologismo dos pobres: conflitos ambietais e linguagem de valoração. São Paulo: Contexto, 2007.
- [4] ARAÚJO, Silvia Maria de; BRIDI, Maria Aparecida; MOTIM Benilde Lenzi. Sociologia. São Paulo: Scipione, 2013.
- [5] AZEVEDO, G. C; SERIACOPI, R. Sistema de Ensino SER. 1ª E.M. 5 v. São Paulo: Ática, 2007.
- [6] BRAGA, Benedito et al. Introdução a Engenharia Ambiental. 2ª ed. São Paulo: SP, Pearson Prentice Hall, 2005.
- [7] BRASIL. Ministério da Educação. Secretaria de Educação Média e Tecnológica. Parâmetros Curriculares Nacionais: Ensino Médio. Brasília: Ministério da Educação, 2002.
- [8] BRASIL. Diretrizes Curriculares Nacionais Gerais da Educação Básica. Ministério da Educação e Cultura: Brasília. 2013.
- [9] BRASIL. LDB 9394/96: Lei de diretrizes e bases da educação nacional. 2. ed. Brasília: Senado Federal, Coordenação de Edições Técnicas, 2018.
- [10] BRASIL. Constituição (1988). Constituição da República Federativa do Brasil. Brasília, DF: Senado Federal: Centro Gráfico, 1988.
- [11] BRUNET, R. **Territoire dans lês turbulences**. Paris: Reclus, 224 p. 1990.
- [12] BRUNDTLAND, G. H. (Coord.), 1991. Nosso futuro comum. 2ª ed. Rio de Janeiro: FGV. 1991. 430p.
- [13] CMMAD Comissão Mundial sobre Meio Ambiente e Desenvolvimento. Nosso futuro comum. 2a ed. Tradução de Our common future. 1a ed. 1988. Rio de Janeiro : Editora da Fundação Getúlio Vargas, 1987.
- [14] COTRIM, Gilberto; FERNANDES, Mirna. Fundamentos de Filosofia. São Paulo: Saraiva, 2013.
- [15] DELGADO, N.G.; LEITE, S.P. Gestão social e novas institucionalidades no âmbito da política de desenvolvimento territorial. In: DELGADO, N.G; LEITE, S.P (orgs). Políticas públicas, atores sociais e desenvolvimento territorial no Brasil. Brasília, IICA. (Série Desenvolvimento Rural Sustentável, vol. 14), 2013, p.89-130.
- [16] FAZENDA, Ivani Catarina Arantes; VARELLA, Ana Maria Ramos Sanchez; ALMEIDA, Telma Teixeira de Oliveira. Interdisciplinaridade: Tempos, Espaços, Proposições. Revista e-Curriculum, vol. 11, n. 3, septiembre-diciembre, 2013, pp. 847-862.

- [17] FAZENDA, Ivani Catarina. Interdisciplinaridade: um projeto em parceria. São Paulo: Loyola, 1993.
- [18] FLORIANI, Nicolas; FLORIANI, Dimas. Saber Ambiental Complexo: aportes cognitivos ao pensamento agroecológico. Revista Brasileira de Agroecologia. Porto Alegre, 2011, v.5, n.1, p. 3-23.
- [19] FREIRE, Paulo. Pedagogia do Oprimido. 45ª edição São Paulo, ed. Paz e Terra – 2007.
- [20] JANTSCH, A. P. & BIANCHETTI, L. (Orgs.) Interdisciplinaridade: para além da filosofia do sujeito. Petrópolis: Vozes, 2002.
- [21] JAPIASSU, H. Interdisciplinaridade e patologia do saber. Rio de Janeiro: Imago, 1976.
- [22] JONES JR, J.; LACERDA, P.S.B.; SILVA, F.M. Desenvolvimento sustentável e química verde. Quim Nova, v. 28, n° 1, 103.110, 2005
- [23] JONHSON, Allan G. Dicionário de Sociologia: guia prático da linguagem sociológica. Tradução, Ruy Jungman; consultoria Renata Lessa. Rio de Janeiro: Jorge Zahar, 1997.
- [24] LEFF, E. Complexidade, interdisciplinaridade e saber ambiental. In: PHILIPPI JR., A. **Interdisciplinaridade em Ciências Ambientais**. São Paulo: Signus, 2000.
- [25] LE PRESTRE, Philippe. Ecopolítica Internacional. Tradução Jacob Gorender. 2. ed. São Paulo: SENAC, 2005.
- [26] MORAES, R. Desafio da transdisciplinaridade e da complexidade. In : Inovação e interdisciplinaridade na universidade. Jorge Luis Nicolas Audy e Marília Costa Morosini (Orgs.). Porto Alegre: EDIPUCRS, 2008.
- [27] MORIN, Edgar. Os sete saberes necessários à educação do futuro. Tradução de Catarina Eleonora F. da Silva e Jeanne Sawaya. São Paulo: Cortez; Brasília, DF, UNESCO, 2013.
- [28] PECQUEUR, B. Le développment local. Paris: Syros, 2000. 132p
- [29] PHILLIP, Jr. Arlindo; NETO, Antonio J. Silva. Interdisciplinaridade em Ciência, tecnologia e inovação. Barueri, SP: Manole 2011.
- [30] PIRES, R.; VAZ, A. Participação social como método de governo? Um mapeamento das "interfaces socioestatais" nos programas federais. Rio de Janeiro: Ipea, 2011. (Texto para Discussão, n. 1.707).
- [31] RIBEIRO, W.C. Geografia política e gestão internacional dos recursos naturais. Estudos avançados, 24 (68), 2010.
- [32] SABOURAIN, Eric. Governança multi-nível no desenvolvimento rural: intermunicipalidade e territórios. Revista de Pesquisa em Políticas Públicas, no 02, Vol. 11, 2018.
- [33] SANTOMÉ, J. T. **Globalização e interdisciplinaridade**: o currículo integrado. Porto Alegre: Artmed, 1998.
- [34] SAQUET, Marcos A. Abordagens e concepções sobre território. São Paulo: Expressão Popular, 2011.
- [35] SCHEREN-WARREN, I. Ações coletivas na sociedade contemporânea e o paradigma das redes. In: Sociedade e Estado. Volume XIII, número I: EDUNB, pp. 55-70. 1998
- [36] SEN, Amartya. Desenvolvimento como liberdade; tradução Laura Teixeira Motta; revisão técnica Ricardo Doninelli Mendes. São Paulo: Companhia das Letras, 2010.

- [37] SEVERINO, Antônio Joaquim. O conhecimento pedagógico e a interdisciplinaridade: o saber como intencionalização da prática. In: Fazenda, Ivani C. Arantes (org.). Didática e interdisciplinaridade. Campinas – SP: Papirus, 1998. p. 31-44
- [38] TIZON, P. Le territoire au quotidien. In: DI MEO, G. Les territoires du quotidien. Paris: L'harmattan, 1995. p. 17-34.
- [39] UNEP Organização das Nações Unidas para o Meio Ambiente. **Declaração de Estocolmo**. 1987.
- [40] VILELA, E. M.; MENDES, I. L. M. **Interdisciplinaridade e saúde**: estudo bibliográfico. Revista Latino-Americana de Enfermagem. 11 (4): 525-31, 2003.
- [41] WALLERSTEIN, I. ET AL . Para Abrir as Ciências Sociais. São Paulo, Cortez, 1996.