



Conservation Units as a development tool(s)

Gabriel Mathias Ferrari

PhD Student, UTFPR, Brazil.
gabferrari@gmail.com

Miguel Angelo Perondi

Professor, UTFPR, Brazil.
perondi@utfpr.edu.br

ABSTRACT

This study attempted to relate the conservation units from to the National System of Conservation Units (Sistema Nacional de Unidade de Conservação, in Brazilian Portuguese – SNUC) with two types of development: sustainable development and ethnodevelopment. This study aimed to characterize the developments and then present the types of conservation units according to their goals in order to relate which of them can be considered an instrument for these types of development. The study also aimed to offer the reader an overview on the current state of our society regarding forms of consumption and the relationship between men and nature. A qualitative, exploratory and descriptive research approach was used to arrive at the results. In the end, it was possible to identify that, of the twelve types of conservation units that exist in the SNUC, seven of them can be used as an instrument to promote development, through sustainable development and ethno-development. These results could lead to the increasing adoption of Conservation Units as tools in development studies.

KEYWORDS: Conservation unit. Sustainable development. Ethnodevelopment.

1 INTRODUCTION

The word "development" on its own needs a complement to convey the specific meaning to what we aim to present. Economic development, intellectual development, sustainable development, ethno-development are some examples of expressions that complement and provide meaning to the term, giving an orientation and meaning to something it expresses. This study has approached two forms of development: sustainable development, which is understood as being the form of production that does not prevent future generations from enjoying existing natural resources; and ethnodevelopment, as the process of economic development of an ethnic group. To this end, it will be presented how the conservation units in the SNUC (Sistema Nacional de Unidade de Conservação, in Brazilian Portuguese) can be an instrument for achieving these developments.

At first, the word development conveys ideas such as progress, consumption and domination, which consequently leads us to think about the extraction of resources to meet these requirements. For this reason, the concepts of sustainable development and ethnodevelopment will be presented in order to understand the possible forms of development in accordance with the environment and society, where economic return is not the only preponderant factor. The aim is to lead the reader to reflect on the current state of our society with regard to forms of consumption and the relationship between man and nature. It is also hoped that the reader will learn about new forms of development and understand how these conservation units can contribute to these types of development.

2 METHODOLOGY

As for the research approach, it is characterized as qualitative research because, according to Creswell (2010), it is based on the nature of the problem and/or the guiding question that will be the focus of the research and the conduct of the researcher. Thus, the study was developed with a qualitative approach, since this type of research is typified by working with data that cannot be measured (CRESWELL, 2010). According to Vergara (2007), this piece of research can be characterized as exploratory and descriptive, since it little has been

published on the subject, to the best of our knowledge. Vergara (2007) says that descriptive research studies a population or phenomenon without the researcher influence. It is therefore hoped to achieve the proposed objective.

3 RESULTS AND DISCUSSION

Historically, the term sustainable development is relatively new, dating back the second half of the 20th century in terms of publishing and dissemination (FERRARI, 2015). Likewise, the concept of sustainable development (consumption of natural resources) itself took a while to be considered problematic, dating back 1960s, with the publication of the article *The Tragedy of the Commons*, by Garret Hardin, published in *Science*, and with the creation of the Club of Rome, in the late 1960s by members of various countries with the aim of inducing discussions on environmental issues (FERRARI, 2015).

According to Ferrari (2015), the most widespread concept of sustainable development worldwide was the result of the work of the World Commission on Environment and Development - WCED - carried out in 1987, which stated that "sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (CMMAD, 1988, p. 9). This concept became popular worldwide years later through the ECO 92 International Conference on Environment and Development, also known as RIO-92, held in the city of Rio de Janeiro in 1992, with the participation of 175 countries (FERRARI, 2015).

For a practical understanding of the subject, Sachs (2004) presents the five pillars of sustainable development: i) social pillar – which is essential due to the social problems existing in nations and the actions of men in the process of achieving and maintaining sustainable development; ii) environmental pillar - important both for its role in providing resources necessary for life and as a place to dispose waste; iii) territorial pillar - in terms of the spatial division of resources (territory), activities and populations; iv) economic pillar - because economic viability is the driving force for carrying out activities in today's world; v) political pillar - democratic governance is also necessary for carrying out actions through organizations. These five pillars must be met in order to achieve sustainable development, as the absence of some of these elements would make such development unsustainable (SACHS, 2004).

Other authors make different contributions to the way sustainable development is achieved. According to Ultramari (2003, p. 10):

Development has a connotation of progress, industrialization, consumption and technical and scientific mastery over nature; sustainable means remaining in balance (...). By updating the expression sustainable development, in addition to living with the paradox, we seem to accept the idea of an eternal quest (...) we accept the paradox of considering the long road to development feasible, and then seeking what may never be achieved. In short, development brings us closer to sustainability, but it can never be achieved.

In this sense, according to Silva (2005), what differentiates sustainability from sustainable development is that the latter is the means to achieve the former (sustainability as a major objective). Sustainability can be understood through dimensions which, when analyzed separately, make it easier to understand and identify with everyday actions. These dimensions are presented as: social, economic, environmental, cultural and spatial. Although they are presented separately, in practice these dimensions interact and relate to each other (SILVA, 2005).

The social dimension refers to individuals' issues and their relationship and interactions as a society in their environment. It involves thinking about people and their demands as human beings and citizens and meeting these demands (SILVA, 2005). In the economic dimension, the focus relies on economic problems: what, for whom and how to produce. It is in meeting these points that the expected result is achieved, in relation to what was consumed for production, the technology applied and the form of distribution carried out (SILVA, 2005). The environmental dimension refers to the way in which human beings relate to natural resources, in relation to their consumption. Given the importance of the interaction and relationship between men and nature, life maintenance is dependant upon maintaining nature (FERRARI, 2015). However, it is necessary to apply legislation and regulations that limit its use and establish its protection to prevent the depletion of resources by men (SILVA, 2005). The cultural dimension deals with the way in which a given society cultivates its knowledge, beliefs and habits. This leads to the creation of principles and values that are reflected in the way society perceives sustainable development, in terms of the use of resources and maintaining them for future generations, the use of technologies in terms of production, the relationship with capital, among others (SILVA, 2005). In the spatial dimension, the focus is on the geographical area where it is being analyzed, taking into account the specific characteristics of each location. Planning sustainable development in a small town has a different practical action from planning sustainable development in a metropolis. It is not a question of listing levels of importance or necessity, but simply of highlighting the specific characteristics of each location with regards to actions aimed at sustainable development (SILVA, 2005).

These dimensions are interrelated at all times and do not act in isolation. The social dimension (individuals and their demands as a society and citizens) is influenced by the cultural dimension (beliefs, habits and values). The cultural dimension, in its turn, might influence the environmental dimension, especially concerning the way society consumes the environment. This environmental dimension is affected by the spatial dimension, depending on the natural resources available in the area, which consecutively may influence the economic dimension, regarding the way in which wealth is produced and generated in a given area. These dimensions interact with each other at all times. By meeting these dimensions, sustainable development enables, society maintenance and production (understanding the environment as part of this production and society) at the present time without depleting it and making it impossible to maintain it in the future.

Ethnodevelopment is the development of ethnic groups within societies to which these groups belong, understanding this development as being both economic development and the development of ethnicity (STAVENHAGEN, 1985; LITTLE, 2002). According to Little (2002), these movements happen in a complementary and constant way, unless economic development is disconnected from ethnicity, jeopardizing it over time, losing its cultural essence. Likewise, in case the development of ethnicity does not go hand in hand with economic development, this might lead to the marginalization and poverty of these ethnic groups (LITTLE, 2002).

This process of developing ethnic groups does not correspond to the threat of any nation-state, since these groups belong to one, without aiming at separating them, but rather at maintaining the cultural factors of these groups. Cultural autonomy is at the heart of this distinction, allowing them the independence to control cultural resources, which aim to

subsidize the basis of ethno-development (LITTLE, 2002). In order to achieve ethnodevelopment, it is necessary to operate on three levels (instead of dimensions, so as not to confuse the reader): the political level, the economic level (STAVENHAGEN, 1985; LITTLE, 2002) and the symbolic level (LITTLE, 2002).

As for the political level, this refers to the state's efforts to enable the development of these groups while respecting their characteristics, without seeing them as an obstacle to "modernization" or as "backward" social groups (STAVENHAGEN, 1985). A set of legal regulations guaranteeing the right to maintain these groups is fundamental to this plan. From an economic perspective, it's about respecting the resources belonging to these groups and guaranteeing them an (economic) return on their production. This respect and return make it possible for these groups to participate (or increase, as the case may be) in local economic production, through their autonomy (LITTLE, 2002). On a symbolic level, it involves the state guaranteeing the group protection and control over scientific and educational knowledge, as well as the group's intellectual property (WHITT, 1998). The protection of scientific knowledge for these groups makes economic gains possible for them. Likewise, the protection of educational knowledge enables cultural gains for these groups, through cultural diffusion (LITTLE, 2002). It also makes environmental conservation possible for some groups, through environmental education and the appropriate use of environmental resources.

Conservation units are territorial spaces, including their environmental resources, which, because they have relevant natural characteristics, are established by the Government for conservation, by means of adequate protection guarantees, in accordance with Law No. 9.985 of July 18, 2000 (BRASIL, 2000). In Brazil, the National Conservation Unit System is a law that was created to regulate all the rules governing conservation units, establishing norms and criteria for the constitution, implementation and administration of these units.

The National System of Conservation Units - SNUC - aims to contribute to the maintenance of biological diversity and genetic resources in the national territory and in jurisdictional waters; to contribute to the preservation and restoration of the diversity of natural ecosystems; to promote sustainable development based on natural resources and the use of nature conservation principles and practices in the development process; to provide means and incentives for scientific research activities, studies and environmental monitoring; to value biological diversity economically and socially; to favor conditions and promote environmental education and interpretation, recreation in contact with nature and ecological tourism; to protect and restore water and edaphic (soil) resources and recover or restore degraded ecosystems; to protect endangered species at regional and national level; to protect natural landscapes and characteristics of a geological, geomorphological, speleological, paleontological and cultural nature; to protect the natural resources necessary for the subsistence of traditional populations, respecting and valuing their knowledge and culture, promoting them socially and economically (BRASIL, 2000).

The National System of Conservation Units classifies conservation units into two groups according to their type of use: i) sustainable use units; ii) integral protection units.

Integral protection units aim to preserve nature, free from human alteration, allowing only indirect use of its natural resources. They are divided into five subcategories: i) Ecological Station; ii) Biological Reserve; iii) National Park; iv) Natural Monument; v) Wildlife Refuge.

Sustainable use units aim to promote nature conservation with the sustainable use of part of its resources. They are divided into seven categories: i) Environmental Protection Area; ii) Area of Relevant Ecological Interest; iii) National Forest; iv) Extractive Reserve; v) Fauna Reserve; vi) Sustainable Development Reserve; vii) Private Natural Heritage Reserve.

Therefore, the categories of conservation units are divided into promoting the adequate protection of natural elements, denying their direct use, and allowing the sustainable use of these resources, planning their management in accordance with legal provisions (FERRARI, 2015).

According to Law No. 9.985 of July 18, 2000 (BRASIL, 2000), these conservation units have the following objectives:

(...)

Art. 9º The purpose of the Ecological Station is to preserve nature and carry out scientific research.

§ 1º The Ecological Station is a public possession and domain, and the private areas included in its boundaries will be expropriated in accordance with the law.

(...)

Art. 10 - The objective of the Biological Reserve is the integral preservation of the biota and other natural attributes existing within its boundaries, without direct human interference or environmental modifications, with the exception of measures to recover its altered ecosystems and the management actions necessary to recover and preserve the natural balance, biological diversity and natural ecological processes.

§ 1º The Biological Reserve is a public possession and domain, and the private areas included in its boundaries will be expropriated in accordance with the law.

(...)

Art. 11: The basic objective of the National Park is to preserve natural ecosystems of great ecological importance and scenic beauty, enabling scientific research and the development of environmental education and interpretation activities, recreation in contact with nature and ecological tourism.

§ 1º The National Park is publicly owned and controlled, and private areas within its boundaries will be expropriated in accordance with the law.

(...)

Art. 12: The basic objective of the Natural Monument is to preserve rare, unique natural sites or sites of great scenic beauty.

§ 1º The Natural Monument can be made up of private areas, provided that it is possible to make the objectives of the unit compatible with the use of the land and natural resources of the site by the owners.

(...)

Art. 13: The purpose of the Wildlife Refuge is to protect natural environments where conditions are ensured for the existence or reproduction of species or communities of local flora and resident or migratory fauna.

§ 1º The Wildlife Refuge can be made up of private areas, as long as it is possible to make the objectives of the unit compatible with the use of the land and natural resources of the site by the owners.

(...)

Art. 15: The Environmental Protection Area is a generally extensive area, with a certain degree of human occupation, endowed with abiotic, biotic, aesthetic or cultural attributes that are especially important for the quality of life and well-being of human populations, and has the basic objectives of protecting biological diversity, disciplining the occupation process and ensuring the sustainability of the use of natural resources.

§ 1º The Environmental Protection Area is made up of public or private land.

(...)

Art. 16 - The Area of Relevant Ecological Interest is an area generally small in size, with little or no human occupation, with extraordinary natural characteristics or which is home to rare specimens of the regional biota and aims to maintain natural ecosystems of regional or local importance and regulate the permissible use of these areas, in order to make it compatible with nature conservation objectives.

§ 1º The Area of Relevant Ecological Interest is made up of public or private land.

(...)

Art. 17: The National Forest is an area with forest cover of predominantly native species and its basic objective is the sustainable multiple use of forest resources and scientific research, with emphasis on methods for the sustainable exploitation of native forests.

§ 1º The National Forest is publicly owned and controlled, and private areas within its boundaries must be expropriated in accordance with the law.

§ Paragraph 2 - In National Forests, the permanence of traditional populations that inhabited the area at the time of its creation is allowed, in accordance with the provisions of regulations and the unit's Management Plan.

(...)

Art. 18: The Extractivist Reserve is an area used by traditional extractivist populations, whose subsistence is based on extractivism and, complementarily, on subsistence agriculture and small animal husbandry, and whose basic objectives are to protect the livelihoods and culture of these populations, and to ensure the sustainable use of the unit's natural resources.

§ 1º The Extractive Reserve is public domain, with use granted to traditional extractive populations in accordance with the provisions of art. 23 of this Law and specific regulations, and the private areas included in its boundaries must be expropriated, in accordance with the provisions of the law.

(...)

Art. 19: A Fauna Reserve is a natural area with animal populations of native species, terrestrial or aquatic, resident or migratory, suitable for technical and scientific studies on the sustainable economic management of wildlife resources.

§ 1º The Fauna Reserve is publicly owned and controlled, and private areas within its boundaries must be expropriated in accordance with the law.

(...)

Art. 20: A Sustainable Development Reserve is a natural area that is home to traditional populations, whose existence is based on sustainable systems for exploiting natural resources, developed over generations and adapted to local ecological conditions, and which play a fundamental role in protecting nature and maintaining biological diversity.

§ 1º The basic objective of the Sustainable Development Reserve is to preserve nature and, at the same time, ensure the conditions and means necessary for the reproduction and improvement of the ways and quality of life and exploitation of natural resources of traditional populations, as well as to value, conserve and improve the knowledge and techniques of environmental management developed by these populations.

(...)

Art. 21: The Private Natural Heritage Reserve is a private area, recorded in perpetuity, with the aim of conserving biological diversity.

§ 1º The encumbrance referred to in this article shall be set out in a term of commitment signed before the environmental agency, which shall verify the existence of public interest, and shall be recorded on the margins of the entry in the Real Estate Public Registry.

(...)

In order to better comprehend the (the law?), a table has been drawn up showing the type of development (sustainable development and ethno-development) and the ownership of the unit.

Table 1 - Summary table identifying conservation units by type of development.

Conservation unit	Sustainable Development	Ethnodevelopment	Property
Ecological Station	No	No	Public domain
Biological Reserve	No	No	Public domain
National Park	Yes	No	Public domain
Natural Monument	No	No	Public domain or private area, with restrictions
Wildlife Refuge	No	No	Public domain or private area, with restrictions
Environmental Protection Area	Yes	No	Public domain or private area, with restrictions
Area of Relevant Ecological Interest	No	No	Public domain or private area, with restrictions
National Forest	Yes	Yes	Public domain
Extractive Reserve	Yes	Yes	Public domain, use granted to traditional populations
Fauna Reserve	Yes	No	Public domain
Sustainable Development Reserve	Yes	Yes	Public domain
Private Natural Heritage Reserve	Yes	No	Private área

Source: Own authorship.

Despite the fact that the Ecological Station contributes to environmental preservation by maintaining natural resources and carrying out research that makes it possible to expand knowledge about the environment, does not meet the requirements for sustainable development, since there is no legal possibility to consider the economic dimension. For ethnodevelopment, this unit does not meet the characteristics, as it does not focus on traditional populations. It is in the public domain.

The Biological Reserve is a unit that also doesn't meet the characteristics of sustainable development because it doesn't consider the economic dimension. However, in terms of environmental preservation, it is a tool that contributes through the maintenance of natural resources and the possibility of carrying out research that allows us to learn more about the species. As far as ethnodevelopment is concerned, it doesn't meet the characteristics either. It is also in the public domain.

The National Park is a conservation unit that meets the characteristics of sustainable development, both from the perspective of maintaining natural resources and the possibility of ecotourism within it. From a social perspective, it enables people from the region to take part in the park's economic activity, helping to maintain the cultural and spatial perspectives. In terms of ethno-development, it does not meet the required characteristics. Its property is in the public domain.

The Natural Monument is a unit that does not serve sustainable development through its economic dimension. However, it is important in terms of the cultural, spatial and environmental dimensions, both in terms of preserving the environment and, above all, in terms

of the cultural preservation it makes possible. The main focus of these units is the maintenance of places that have rare, specific natural characteristics. In relation to ethno-development, it does not meet these aspects. Their character is public domain, but these units are also allowed to enter private areas, as long as the objectives of the private property are compatible with the conservation unit's management plan.

The Wildlife Refuge also does not meet the characteristics of sustainable development, since although it aims to preserve natural resources to ensure the life of wild species of fauna and flora, it does not consider the economic dimension. In this way, however, it contributes to preserving the cultural characteristics of the place. Ethno-development, on the other hand, does not meet these characteristics. It is characterized as being in the public domain, but it also allows these units to enter the private domain, as long as the objectives of the private property are consistent with the management plan for the protection of the unit.

The Environmental Protection Area is a conservation unit that complies with the principles of sustainable development, as it meets all the dimensions through ecotourism. The ethnodevelopment does not however, as it does not focus on traditional populations. Its property is in the public domain, but it also allows these units to enter private territory, as long as the objectives of the private property are in line with the unit's conservation management plan.

The Area of Relevant Ecological Interest does not meet the principles of sustainable development because it does not consider the economic perspective. Although these units are important for ecological preservation, especially because they are less anthropized environments, they still lack the characteristics (economic dimension) to be able to fit in with sustainable development. As for ethno-development, this unit doesn't meet the conceptual principles either. Regardless of its public domain feature, it also allows these units to enter the private sphere, as long as their objectives are in line with the conservation units management plan.

The National Forest is a conservation unit that complies with the principles of sustainable development, as it meets the dimensions of this through sustainable exploitation in the units. It also complies with the precepts of ethno-development because, as the law states, traditional populations are allowed to stay in these units, in accordance with their management plan. It has a public domain character.

The Extractive Reserve is a unit that also meets the principles of sustainable development in its essence, as it covers all the dimensions (social, environmental, economic, cultural and spatial). It also meets the principles of ethno-development, as it aims to protect the livelihoods and culture of these traditional populations through state protection. These units have a public domain character, but with use granted to the traditional populations that live there.

The Fauna Reserve is a unit that, although it focuses on preserving native fauna, meets the characteristics of sustainable development. In these units, even though the focus is on researching and preserving fauna, it is permitted to sell products and by-products from the research carried out at the site. In this way, it meets the principles of sustainable development. Ethnodevelopment, on the other hand, does not meet the precepts, as it does not focus on populations. It is in the public domain.

The Sustainable Development Reserve is another conservation unit that meets the dimensions of sustainable development, in essence, because they are units that house traditional populations (social and cultural), through sustainable systems of resource exploitation (economic, environmental and spatial). In this way, as well as contributing to sustainable development, they also enable ethnodevelopment at its core. It is also in the public domain and is not allowed to enter private areas.

The Private Natural Heritage Reserve is a unit that also meets the dimensions of sustainable development through ecotourism. It also allows research to be carried out inside it, just like the other units. In terms of ethno-development, however, it does not meet the precepts. As far as ownership is concerned, as the name suggests, it is of a private nature, and is recorded in perpetuity on the property it is implemented on.

4 CONCLUSION

The production demands of the last century have led the scientific community and states to understand that natural resources are fundamental to maintaining the production system as it is today. This gave rise to debates that led to the concept of sustainable development at the end of the 20th century, as development that allows current generations to produce and consume without putting future generations at risk in terms of the depletion of natural resources.

During this same period, the "evolutionary" process (in many quotation marks) of society meant that some populations were left out of the so-called "modernization" (also in many quotation marks). These populations were marginalized and, in some situations, were unable to maintain their communities within their cultural standards because of economic growth and often had their resources plundered. Ethnodevelopment is economic growth and the growth of their ethnicity in the face of the suffocation of these populations by others.

One of the alternative tools for promoting sustainable development and ethno-development is the conservation units in the National System of Conservation Units – SNUC, which consist of territorial spaces that have relevant natural characteristics and are legally protected for the conservation of their resources. These units are divided into fully protected areas (with no provision for the productive exploitation of resources) and sustainable use areas (with provision for the sustainable exploitation of existing resources, in accordance with the units' management plans). There are twelve types of conservation units in all, five of which are fully protected and seven of which are sustainable use.

Of the five integral protection units, only one fits the precepts of sustainable development, in other words, only one can be considered a sustainable development tool. The National Park is the only type of full protection conservation unit that includes the economic dimension, through the possibility of ecotourism inside him. With regard to ethnodevelopment, none of the integral protection conservation units can be considered a tool, as none of them focus on traditional populations.

Of the seven sustainable use units, only one does not meet the dimensions of sustainable development. The Area of Relevant Ecological Interest cannot be considered a sustainable development tool because it does not consider the economic dimension within its

objectives. As far as ethno-development is concerned, of the seven units, three can be considered tools for this: National Forests, Extractive Reserves and Sustainable Development Reserves are the types of conservation units that, in addition to contributing as a tool for sustainable development, can also be considered tools for ethno-development, as they focus on serving traditional populations producing in their interior.

Of the twelve units, five can be considered neither an instrument of sustainable development nor of ethnodevelopment: Ecological Station; Biological Reserve; Natural Monument; Wildlife Refuge and Area of Relevant Ecological Interest. Although they have significant value for environmental preservation, they do not fit into the types of development analyzed here.

Four types of unit can only be considered instruments of sustainable development, but not of ethnodevelopment: National Park, Environmental Protection Area, Fauna Reserve and Private Natural Heritage Reserve. These meet the precepts of sustainable development, but not those of ethnodevelopment.

Only three types of conservation units can be considered instruments for both sustainable development and ethnodevelopment: National Forests, Extractive Reserves and Sustainable Development Reserves. These units address the dimensions of sustainable development while focusing on the traditional peoples within them.

This work is not intended to minimize the importance of conservation units in their main objective: environmental preservation. It merely sought to analyze the types of conservation units and, in accordance with the concepts of sustainable development and ethnodevelopment, try to identify possible types of units that can be considered as instruments of both forms of development.

References

ANJOS, J. C. G. dos; SANT'ANA JÚNIOR, H. A. de; BRUSTOLIN, C. Projetos de Desenvolvimento e Populações Locais: Experiências em Cabo Verde e no Brasil. *Revista Pós Ciências Sociais*, [S. l.], v. 13, n. 26, pp. 13–29, jul/dez. 2016.

BRASIL. [Constituição (1988)]. **Constituição da República Federativa do Brasil de 1988**. Brasília, DF: Presidência da República, [2016]. Available in: http://www.planalto.gov.br/ccivil_03/constituicao/constituicao.htm. Access at: 14 apr. 2023.

CRESWELL, J. W. **Projeto de Pesquisa: métodos qualitativo, quantitativo e misto**. 3 ed. Porto Alegre: Artmed, 2010.

CMMAD – COMISSÃO MUNDIAL SOBRE MEIO AMBIENTE E DESENVOLVIMENTO. **Nosso futuro comum**. Rio de Janeiro: Editora da Fundação Getulio Vargas, 1988.

FERRARI, G. M. **O processo de implementação de Reserva Particular do Patrimônio Natural na Serra da Bodoquena em Mato Grosso do Sul**. (Master's thesis in Management). Universidade Federal de Mato Grosso do Sul. Campo Grande, 2015.

HARDIN, G. **The tragedy of the commons**. *Science*, v. 162, pp. 1.243-1.248, 1968.

LITTLE, P. E. Etnodesenvolvimento local: autonomia cultural na era do neoliberalismo global. *Tellus*, Campo Grande, ano 2, n. 3, p. 33-52, out. 2002.

SACHS, I. **Caminhos para o desenvolvimento sustentável**. Rio de Janeiro: Garamond, 2002.

SACHS, I. **Desenvolvimento: includente, sustentável, sustentado**. Rio de Janeiro: Garamond, 2004.

SILVA, C. L. Desenvolvimento sustentável: um conceito multidisciplinar. In: Christian Luiz da Silva; Judas Tadeu Grassi de Mendes. (Org.). **Reflexões sobre o desenvolvimento sustentável**: agentes e interações sob a ótica multidisciplinar. Petrópolis: Vozes, 2005, pp. 11-40.

STAVENHAGEN, R. Etnodesenvolvimento: uma dimensão ignorada no pensamento desenvolvimentista. **Anuário Antropológico**, [S. l.], v. 9, n. 1, p. 11-44, 1985.

ULTRAMARI, C. A respeito do conceito de sustentabilidade. In: **Monografias premiadas no 3º Concurso de Monografia sobre relação universidade/empresa**. Curitiba: IPARDES – IEL/PR, 2003.

VERGARA, S. C. **Projetos e relatórios de pesquisa em Administração**. 9 ed. São Paulo: Atlas, 2007.

WHITT, L. A. Biocolonialism and the commodification of knowledge, **Science as Culture**, v. 7, n. 1, pp. 33-67, 1998.