



Ánfora

ISSN: 0121-6538

ISSN: 2248-6941

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Universidad Autónoma de Manizales

Colombia

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A Possible Future: Development Counter-narratives to
Think on Latin America amid the Covid-19 Pandemic

Ánfora, vol. 29, no. 52, 2022, January-June, pp. 124-156

Universidad Autónoma de Manizales

Manizales, Colombia

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The Possible Future: (Counter)Narratives Regarding Latin America amid the Covid-19 Pandemic*

[English Version]

O Futuro Possível: Contra-narrativas de desenvolvimento em relação à América Latina em meio à pandemia da Covid-19

El futuro posible: (Contra) narrativas de desarrollo para pensar América Latina en el contexto de la pandemia de Covid-19

Received March 1, 2021. Accepted October 22, 2021.

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› To cite this article:

Mourão-Salheb do Amaral, Ana-Júlia; Barboza-Arias, Luis-Miguel (2022). O futuro possível:(contra) narrativas do desenvolvimento para pensar a América latina no contexto da pandemia da Covid-19. *Ánfora*, 29(52), 94-123. <https://doi.org/10.30854/anfv29.n52.2022.804> Universidad Autónoma de Manizales. L-ISSN 0121-6538. E-ISSN 2248-6941. CC BY-NC-SA 4.0

Abstract

Objective: this paper aims to discuss development practices through the presentation of two case studies from Latin-American contexts. This reflection was done during the first months of the COVID-19 pandemic. Post-development perspectives were mobilized to explore new analytical dimensions in the

the result of an academic reflection/discussion raised by the authors, as doctoral students, in the discipline Rural Development I, of the Postgraduate Course in Rural Development (PGDR/UFRGS), which took place between August and December of 2020. The authors declare that there are no conflicts of interest with third parties during the conduct and publication of this work.

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epistemological and socio-political critique of the capitalist mode of appropriation of nature in América Latina and their potential implications amid the Covid-19 pandemic.

Methodology: two study cases from Brazil and Costa Rica were elaborated. The qualitative methodological framework used to identify actors and their complex interactions became a useful tool in reconstructing different socio-political expressions, symbolic narratives, and survival/resistance strategies emerging from local groups. **Results:** social-environmental crisis emerging in the Anthropocene context suggest the need for different points of view and ontological turns to gain a better understanding of social change occurred in the margins of in the Western world. Latin-American societies are multiple and diverse. Both, Brazilian and Costa Rican experiences discussed in this paper, represent situated realities which cannot be generalized, but this is a rather important and critical issue. These case studies help illustrate how the non-critical adoption of hegemonic categories of sociotechnical control and securitization is inadequate to understand and explain the contingency emerging from these situated realities. **Conclusions:** we suggest in the final part of the paper that these reflections contribute to bring a different perspective on how science, political and nature converge in knowledge systems and how these systems are contested for different people, groups, and communities around the world. This reflection is crucial to the study of processes concerned with political legitimacy, democracy, and territorial political identities.

Keywords: Environment; Social sciences; Culture and development; Human activities effects; Pandemics.

Resumen

Objetivo: el objetivo del artículo es generar una discusión sobre dos prácticas de desarrollo realizadas en Brasil y Costa Rica durante los primeros meses de la pandemia del Covid-19. Se acompaña esta reflexión con insumos teóricos procedentes de los abordajes del posdesarrollo, con la finalidad de aportar nuevos elementos de análisis que contribuyan a profundizar la crítica epistemológica y sociopolítica de los procesos de apropiación de la naturaleza impulsados por el modo de producción capitalista en América Latina, y sus implicaciones en los tiempos del Covid-19. **Metodología:** en relación con el diseño metodológico, las prácticas de desarrollo son construidas como estudios de caso, según lo establecido por la investigación cualitativa, que sugiere la importancia de la identificación de los actores involucrados en la expresión de un fenómeno, sus interacciones complejas y el mapeo de narrativas y estrategias de sobrevivencia y resistencia que surgen como formas

de superar el conflicto. **Resultados:** en la discusión de los resultados se propone un giro ontológico en el abordaje reflexivo del desarrollo, que es coincidente con el establecimiento de miradas alternativas para entender las crisis socioambientales asociadas con el Antropoceno. Con el propósito de debatir las posibilidades de análisis que ofrecen estas alternativas epistémicas y onto-políticas, las experiencias empíricas permiten ejemplificar la inadecuación de las categorías tradicionales para atender los escenarios de contingencia, siendo pertinente la incorporación de abordajes no centrados en las medidas de control, securitización y planificación. **Conclusiones:** en las conclusiones, señalamos que el conjunto de estas reflexiones permite una mejor comprensión sobre la forma en que ciencia, política y naturaleza se articulan en las sociedades contemporáneas. Este conocimiento es fundamental en el estudio sobre las prácticas de legitimación democrática, los proyectos alternativos de ciudadanía y el surgimiento de nuevas identidades territoriales.

Palavras-chave: Ambiente; Ciencias sociales; Cultura y desarrollo; Efectos de las actividades humanas; Pandemia.

Resumo

Objetivo: o objetivo deste trabalho é gerar uma discussão sobre duas práticas de desenvolvimento acontecidas no Brasil e na Costa Rica durante os primeiros meses da pandemia da Covid-19. A reflexão é acompanhada de insumos teóricos das abordagens pós-desenvolvimentistas, com a finalidade de aportar novos elementos de análise que contribuam para o aprofundamento da crítica epistemológica e sociopolítica aos processos de apropriação da natureza pelo modo de produção capitalista na América Latina e suas implicações nos tempos da Covid-19. **Metodologia:** quanto ao delineamento metodológico, as práticas de desenvolvimento apresentadas foram construídas como estudos de caso, em função do estipulado pela pesquisa qualitativa, que sugere a importância da identificação dos atores envolvidos na expressão de um fenômeno, suas interações complexas e o mapeamento das narrativas e estratégias de sobrevivência e resistência que emergem como formas de superação dos conflitos. **Resultados:** a análise dos resultados propõe um giro ontológico na abordagem reflexiva do desenvolvimento que é coincidente com a adoção de olhares alternativos para entender as crises socioambientais originadas no Antropoceno. Com o propósito de debater as possibilidades de análise que oferecem os novos olhares epistêmicos e onto-políticos, as duas experiências empíricas permitem exemplificar a inadequação das categorias tradicionais para atender os cenários de contingência, sendo pertinente a incorporação de abordagens não centrados em medidas de controle, securitização

e planejamento. **Conclusões:** as conclusões sugerem que o conjunto destas reflexões permite uma melhor compreensão sobre as formas em que ciência, política e natureza articulam-se nas sociedades contemporâneas. Este conhecimento é fundamental nos estudos sobre as práticas de legitimação da democracia, os projetos alternativos de cidadania e o surgimento de novas identidades territoriais.

Palabras-clave: Ambiente; Ciências sociais; Cultura e desenvolvimento; Efeitos das atividades humanas; Pandemia.

Introduction

The purpose of this paper is to generate a discussion regarding two development practices that took place in Brazil and Costa Rica during the first months of the Covid-19 pandemic. The reflection is accompanied by theoretical inputs from post-developmental approaches, with the purpose of providing new elements of analysis that contribute to the deepening of the epistemological and socio-political critique of the processes of appropriation of nature by the capitalist mode of production in Latin America and their implications in Covid-19 times. The first section discusses the intrusion of Gaia and the emergence of thinking about the techno-scientific underpinnings of modernity. The thesis of "disconnection with nature" suggested by Bruno Latour invites thinking about the need to move toward a new ethic of coexistence among species that favors the reinsertion of man in nature through affective registers and sensorial experiences that favor the vitality of the world.

The paths taken so far by the ideology of progress and limitless economic growth are leading to an unprecedented ecological crisis. The consequences of this instrumental rationality compromise the reproduction of life and the spaces of socio-biodiversity.

In the current scenario, marked by uncertainties and the constant perception of new dangers, ethical and political dilemmas are being redefined, while the socio-environmental vulnerability that the world is experiencing is leading to the emergence of new environmental conflicts, which are an expression of model exhaustion. In this sense, the Anthropocene marks serious discontinuities; what comes after will not be like what came before. This same concept can also draw attention to the decisive refusal of the separation between Nature and Humanity that has paralyzed science and politics since the dawn of modernity. Edgardo Lander (2016) addresses an important issue, explaining the current serious capitalist crisis, is the system's loss of regulatory capacity. Neoliberal globalization has created the conditions for capital to move freely. In the face of this extraordinary combination of threats, not only to democracy, peace, and human dignity, but also to life itself, people are found in movement and resistance.

It is in this sense that the cases presented seek to identify some contextual and situational elements to problematize to what extent the fight against the Covid-19 pandemic and the actions taken by national governments to address the health and economic crisis may lead to reconsideration of normativistic approaches and planned interventions. These compromise adequate knowledge of the existence of other agents (including non-human ones), and at the same

time, jeopardize the environmental balance that is needed for the conservation of communities and their symbolic and material reproduction.

In this way, the case of the Riverine people of Baixo Tocantins, PA (Amazon, Brazil) affects the narrative of the (in) sustainability of planned development in a context of self-organization, autonomy, and resistance. In these, different visions of society-nature relations also converge, which will express themselves in the form of struggle and conflict, and their rearrangements of organization and strategies in the context of the pandemic. However, the case of the digital platforms promoted by the Costa Rican government to stimulate logistics and agricultural marketing activities during the pandemic questions the instrumental character of these initiatives and identifies the need for greater public reflection on the effects and potential of these devices in relation to the diversity of local livelihoods, territorialities, and the influence of the natural landscape.

The structure of this paper is as follows: after this introduction, the second section describes the methodological considerations that preceded the writing of this text. The following section establishes the main theoretical referents that guide the study. After that the empirical experiences are presented, which are subsequently problematized in following sections. The conclusion reviews the discussion of new epistemic horizons and the methodological inversion necessary to analyze and develop the (counter)narratives in question critically.

Methodological Considerations

The present article is part of an academic reflection that emerged in the context of the discussions held during the participation of the authors, as doctoral students, in the Rural Development I discipline of a Postgraduate Course in Rural Development (PGDR/UFRGS), which took place between August and December of 2020. An earlier version of this article was presented during the Third Seminar on Latin America (SIALAT), entitled Democracy, Nature and Epistemologies for Thinking Tomorrow, which took place on February 25, 26, and 27, 2021, in Belém do Pará (Brazil) on-line.

In both instances, the central questions that guided the formulation of the ideas developed are: to what extent does the emergence of the Covid-19 pandemic create conditions for rethinking conventional development paradigms and their application in critical studies concerning capitalism? What are the possibilities of incorporating recent debates on post-development into theoretical elaborations that explore the interconnections between pandemic phenomena and the

environmental question in the context of the Anthropocene? What are the possible impacts of the Covid-19 pandemic for the trajectory and change of institutions associated with development planning? Can a political reconfiguration of social forces as a result of government-driven strategies to address the pandemic be expected?

From these general questions came more specific questions that were the subject of discussion with fellow researchers and the general public during the SIALAT event: Como a pandemia afetou e/ou está afetando a criação de cenários de futurabilidade e à percepção pública sobre o planejamento do desenvolvimento? What are the limits, opportunities, and possible outcomes of leveraging conventional development practices to serve vulnerable populations in times of health emergencies? What kind of innovative new narratives and discursive techniques conflict with the ideas that continue to support the thesis of human exceptionality and technocratic control of the world?

The case studies are based on the authors' previous fieldwork experiences with rural actors in Brazil and Costa Rica during the year before the pandemic broke out. In this sense, both cases are used to mobilize key theoretical placements and think about new categories of analysis, with the Covid-19 pandemic and the new contexts, potentialities and challenges associated with the health crisis as a backdrop.

The selection of these experiences is based on the following criteria:

1. Actors (whether communities, sectors, organizations, or other civil society associations) that have maintained a recognizable interconnection with the State Government either through timely directed actions or through indirect implementation of public policies aimed at boosting "controlled" development in the year prior to the outbreak of the pandemic.
2. The knowledge of a controversy or conflict that concerns the way the Government addresses or deals with some significant issue or problem for these actors, which has been aggravated by the pandemic or as a result of the measures implemented by the State Government to overcome the health emergency.
3. The identification of emergency measures by the Government that are directed toward these actors, with the purpose of reconciling the ongoing institutional actions with an adaptation strategy to the new scenario caused by the pandemic.
4. The authors' experiences with the case studies before and during the Covid-19 pandemic reveal the scenario of changes that occur with these populations and the relevance of problematizing here with this work. Which socioeconomic factors have remained or changed in these new

times full of uncertainties and challenges, and how these populations in the two case studies are dealing with these situations that affect their social, economic, and productive reproduction in a general context additionally are explored.

In the case of the Riverine people of Baixo Tocantins, PA (Brazilian Amazon), in interviews conducted online (web-video), with key informants from the Aricurá watershed, municipality of Cametá, State of Pará, through the study group on Socio-Environmental Diversity in the Amazon, of the Environmental Center of the Federal University of Pará, GEDAF/UFPA. The interview scripts were written prior to the writing of this work, but they fit with the literature presented, and since the research is still in progress, further detailing of the results will not be possible. However, also notes and possible clues to what has already been concluded, as well as another possible discussion to be held at this point is that of the appropriation of natural resources by the capitalist/hegemonic mode of production and its implications in COVID-19 times in the Brazilian context. This will be detailed in a prior section. To make these points and possible clues and/or paths of analysis, the interviews contained several questions about productive issues – what changed in the local productive systems with the pandemic of COVID-19 and how the social isolation affected the local Riverine communities in the socioeconomic context in their way of life and in the disposal of their products/food for local marketing.

Because of the restrictions of mobility and remoteness, a desk review of publications made in print and oral media during the period of January to December 2020 was conducted to develop a comprehensible narrative in the construction of the case studies. The set of secondary information allowed establishing an account that provides a better perspective for critical analysis, depending on the variations in the type of relationship the actors had with the central government before and during the first months of the pandemic.

Theoretical References

Gaia and the Techno-scientific Supports of Modernity

The Gaia hypothesis arose from studies that began in 1960 performed by James Lovelock and Dian Hitchcock at NASA's Jet Propulsion Laboratory, which sought to verify the existence of life on the planets Venus and Mars. The scientists compared the atmospheres of these two planets with the atmosphere

of planet Earth. The unique characteristics of Earth led Lovelock to develop the Gaia hypothesis, in which it is proposed that the biosphere acts as an adaptive control system, keeping the Earth in homeostasis. He also came to regard the Earth as analogous to living things, often qualifying it as a living being, considering planet Earth as a self-contained system. In this system, the biosphere and the environment would be coupled and inseparable: Gaia is a complex entity involving the Earth's atmosphere, biosphere, oceans, and soil. This totality constitutes a feedback control or cybernetic system, which seeks to optimize, physically and chemically, the environment for biota (Lovelock, Margulis, 1974). In this way, Lovelock and Margulis came up with a further definition of Gaia, which would imply the biosphere functioning as an adaptive control system and maintaining homeostasis on planet Earth. The notion of the biosphere as an adaptive control system that maintains the Earth in homeostasis is referred to as the Gaia hypothesis (Lovelock, 1990).

Gaia is a metaphor for "living earth," her name deriving from a Greek goddess. Aline de Fatima Chiaradia Valadão (2008) paraphrasing Lovelock (2006):

It is important to clarify that the metaphor living earth has no relation whatsoever to a sentient form, or even alive as an animal, it is convenient to extend the somewhat sententious and limited definition of life as something that reproduces itself and corrects the errors of reproduction by natural selection among offspring. (p. 3)

With this, the emergence of the Gaia Theory came to show humanity that the problem of balancing the environment is real and that if immediate action is not taken, this unbalanced situation will become irreversible. In this context the Anthropocene has an incisive meaning about the common existence, Krenak (2019) provides ideas for postponing the end of the world by taking care of planet Earth, the natural resources still possessed, and the traditional societies that are true "guardians" of these natural resources and the common good.

In the context of this paper, the intrusion of Gaia and the emergence of thinking about the techno-scientific supports of modernity is discussed. The ideology of progress and limitless economic growth are leading the world down a path to an unprecedented ecological crisis. The consequences of this *rationality compromise the reproduction of life and the spaces of socio-biodiversity*.

Latour has argued that Gaia has been misunderstood by much of the scientific community, especially by those who have tried to fit this potent theory—which presents a new description of a state of affairs—into an old frame (Latour, 2013). Latour also warns against a holistic thinking that disregards

Gaia's multiplicity: if treated it as a totality, it will only recharge the modern ways of thinking, recharge the idea of Nature.

The paths traced so far by the modern perspective have led directly to the ecological crisis in which the world finds itself. Thinking about environmental issues in a non-dualistic way seems, in this sense, essential for both understanding and formulating possible solutions to them. The supposed division of tasks between Science and Politics, established by the modern Brazilian constitution, has only made life more difficult for those who have been assigned the task of solving problems. Scientists are now forced to leave their laboratories to debate unpredictable, ambivalent entities that involve and are evoked by humans. Politicians, who thought they exclusively represented human issues, now need to leave their offices and take into account the rights of non-humans as well (Pimentel, 2003).

In line with Isabelle Stengers (2015), proposing reflections about what she calls "the art of being careful, and of (re)learning that art" becomes possible. From her perspective, when it comes to growth and development, just the opposite occurs. Stengers proposes in her work as a whole, how catastrophe has become globalized. For Stengers, this confidence in growth could bring the world to the end of the line. It motivates one to reflect on the growth and that of the economy, where the principle based on the art of caring loses its value completely because of competing interests.

Stengers (2015) describes how the global development project, is a pejorative project of the destruction of Gaia. Some clear examples from everyday life, as she emphasizes, make one think that the world is not in a crisis process, but rather a catastrophic one. A clear example of this are the numerous treaties, summits, and agreements (international, governmental, and others) on climate change that are appeased by the world's rulers. Stengers, facing the new times, suggests that it becomes important to create a way of life post-economic growth, a life that explores connections with new powers on how to act, feel, imagine, and think.

The Meaning of Disconnection from Nature

In the current context, the Covid-19 pandemic has turned out to be one of the greatest manifestations of the Anthropocene. This new geological era, which, in the words of Paul Crutzen (2006), is characterized by the impact of the actions of a single species, the human being, on the set of conditions necessary for the reproduction of life and biodiversity on the planet with consequences ranging from global warming to changes in the natural landscape.

This concept has seen further development among the social sciences, especially anthropology. While there is still an academic debate around its scientific rigor, the ideas and reflections expressed by Crutzen allow establishing new starting points to rethink alternatives. For purposes of the goal proposed by this article, it is important to highlight what is meant by alternatives in relation to the horizons of possibility that establish the narrative of the Anthropocene, and that makes the exploration of new courses of action and interpretation of the world possible (Barnett et al., 2016).

It is worth identifying this with some examples. First, nowadays there is a greater problematization of the environmental issue, which triggers direct effects in the public and collective sphere, as well as in people's private sphere. The rise of animal rights movements, including the rise of vegetarianism and veganism, which concern people's diets and individual consumption decisions. At the same time, these movements put pressure on the global agri-food industries by demanding changes in production systems and the incorporation of procedures that are environmentally and ecologically sustainable. Thus, environmental performance has become a business discourse that seeks the incorporation of values associated with cleaner production and eco-competitiveness.

The second aspect is related to the State sphere. The environmental issue has also been the object of an innovative set of public policies, directed mainly to the control of climate change. This is mainly oriented to the incorporation of techno-socio-scientific narratives which propose the creation and transfer of green technologies for productive activities. A paradigmatic case, with respect to new policy instruments for climate-smart action, is the adoption of circular economy and bioeconomy strategies, as well as other measures adopted for the decarbonization of the economy, which in recent years have experienced increased interest from Latin American countries.

Third, in the academic sphere, environmental challenges have increased the debate regarding the relationship between society, technoscience, and the environment. The emergence of new approaches and lines of thought, some more critical than others, have in common the problematization of the institutional environments in which formal science is conducted. This is also a reflection of the increasing pressures to establish epistemological and theoretical changes that account for the new crisis scenarios. One of the results of these elaborations is precisely the centrality acquired by the notion of justice within studies on ecology and sustainability (Rauschmayer, Bauler, Schöpke, 2015).

Thus, a recent field of study on sustainable transitions has focused on analyzing the relational, cognitive, and cultural dimensions that contribute to legitimizing particular views of social-technical-ecological systems, and the way in which these systems are articulated in development trajectories that suggest

a change of direction. For Melissa Leach et al. (2018), the main problematic element of this articulation, which can be termed instrumental, is the way in which it informs the political sphere. According to this perspective analyzing the transition trajectories established institutionally through actions planned by central governments is necessary to identify spaces for deliberative interaction between the State and the citizenry, which allow the democratization of the knowledge needed to define inclusive adaptation paths.

Nevertheless, it is also important to take into account that the emphasis on deliberative interaction and the promotion of social participation in the formal spaces of public debate is not an effective solution to solve the real problems of democracy. It being necessary to have adequate mechanisms to favor deliberation with other sets of authors (including non-human ones) and with other forms of knowledge, in particular, ancestral knowledges and worldviews that are inscribed in a different register than that of Western modernity (Virtanen, Siragusa, Guttorm, 2020).

In this sense, beyond the elements of inclusion or visibilization, what is important is to highlight that there is a multiplicity of contexts for transition (Berkhout, Smith, Stirling, 2004), which will identify with other types of discursive and metaphorical languages and representations. At the heart of the debate, then, lies the importance of moving toward new forms of dialogue that recognize the existence of a cognitive plurality that cannot be comprehensively addressed by closed systems from the very first moment.

This brief problematization is intended to point out that the ideology of development associated with the emerging discourses of green economic growth cannot resolve the rhizomatic character of current challenges. In part, because the instrumentalization of the concept of sustainability will appear as being dependent on the continuity of the capitalist modes of production, while an abstraction of the social dimension and of the other complex crises that threaten the planet is produced. The growth of structural inequality and its relation to socio-environmental vulnerability is one such example.

Alternatively, the pandemic revealed the evident inefficiency of the control mechanisms of modern socio-technical regimes. Wisdom Kanda and Paula Kivimaa (2020) argue that many of the responses made by governments during the early stages of the spread of the virus have to do with an approach to the securitization of the nation-state. These alternatives represent partial answers that provide the population with a momentary sense of confidence, but do not resolve long-term expectations.

It must be remembered that the anthropization of natural environments creates conditions for much more frequent encounters between humans and wild species. The effects of human activities on ecosystems increase the risk

that new viruses will pass from one species to another. The loss of forest area caused by deforestation and the increase in urbanization and agricultural land cause changes in landscapes and increase exposure to contagion.

In a recent paper, Leach et al. (2021) wonder how and why Covid-19 requires rethinking development? One of the main ideas brought forward by the authors is the importance of considering the element of uncertainty in dominant science and technology policy narratives. Uncertainty plays a shaping role in the political perception of dangers and threats. Even more important, however, is considering the relationship that this concept has with this imaginary contingency, that is, the existence of phenomena that cannot be of the total understanding and absolute domain of the human being.

At the same time, in these readings a new concern emerges of the importance of making available politics of care, solidarity, and empathy that allow humans to find new ways to inscribe themselves in nature and recover a sense of the sublime (Latour, 2018). In this sense, it is interesting to see how the pandemic can sensitize one to the importance of rethinking an ethics of coexistence between species that puts an end to the systematic wars against life, evoked by the model of limitless growth (Lander, 2016).

How these Elements help Frame the Complex Realities of Latin America

With the purpose of unfolding the possibilities of analysis offered by the new epistemic perspectives, this section mentions two empirical experiences with the intention of problematizing the inadequacy of traditional categories and the need to go beyond the approaches of control, securitization, and planning in contingency scenarios.

The Case of the Riverine People of Baixo Tocantins, PA (Amazon, Brazil), recognizing that environmental problems are real and that in this context social representations are important, attention must be paid to the way these problems are perceived and referred to. Traditional peoples are considered to be peoples of resistance to this context. An understanding must be developed of the environmental issue as a questioning of the representations and forms of social organization and their relations with nature. Effectively, the contradictions present in a society that has commodified man, land, and water (Polanyi, 2000), in which economic rationality expressed in the idea of the "domination" of nature predominates, reveals the *unsustainability* of this hegemonic capitalist

model, which may generate a depletion of global natural resources. Addressing Florit (2000), today the consequences of human intervention in nature are of global character, even if largely unknown. Even "pristine nature" protected areas are human constructs, bounded and governed by humans (Hederich, 1993). Bringing into the debate the question: has man mastered nature, or has man been dominated by the hegemonic capitalist model? This is the basis of financialization and commodification at any cost, at any price, of life itself. Can the value of nature be measured? What is the value of life?

This unsustainability is already generating problems of various spheres such as: environmental conflicts and environmental impacts. According to Andréa Zhouri and Klemens Laschefski (2010), cited by (Fleury, Almeida, Premebida, 2014) "environmental conflicts generally reveal differentiated modes of existence that express the struggle for autonomy of groups that resist the model of modern society" (p. 67). In this context of unsustainability previously discussed, the analysis of environmental conflicts according to the actors leads therefore, to the possibility of recognizing the multiple societal projects that trigger distinct matrices of material and symbolic production and that come up against real asymmetries of power in the social and political dynamics, contributing to the construction of alternatives attentive to the principles of sustainability and environmental justice. According to the same authors, "the questioning of the hegemonic development model often linked to the '[...] struggle of groups not inserted, or only partially inserted, in the urban-industrial-capitalist system against deterritorialization' leads one to reflect on the process of 'coloniality of modern thought'" (Zhouri and Laschefski, 2010, p. 26, cited by Fleury, Almeida, Premebida 2014, p. 67). For Manuela Carneiro da Cunha and Mauro Almeida (2009, p. 300), cited by Fleury, Almeida, Premebida (2014, p. 69) "this analysis is convergent with the contemporary configuration of the environmental issue based on the definition of "traditional populations" as political subjects, willing to negotiate: in exchange for control over the territory, they commit to providing environmental services."

According to Emilio Morán (1990), each society acquires unique criteria that enshrine the way in which resources are to be used and for what purpose. Human beings, like so many other species, generally reproduce and grow to environmental limits, correcting their reproductive behavior and use of environmental resources. These adaptations and interactions include the spatial dimension, territoriality, productive, economic, social and, mainly, adaptability to the environment, expressing dynamics of sustainable use of natural resources (Reis, 2015). Thus, the practices of each territory are founded on the symbolization of its environment, and on the social meaning of resources, which have generated diverse forms of perception and appropriation, rules of use and

access, agroecosystem management practices, and cultural patterns of resource use and consumption (Leff, 2009).

The example of the Riverine people of Baixo Tocantins River (Amazon, Brazil) concerns the identity of a certain region where the crafts and knowledge related to this local productive system appeal to the feelings of belonging of people to that place and to that community, referring to affective and social bonds, to the phenomenon of rootedness of people in a region. The life dynamics, practical knowledge, and sociocultural mechanisms of traditional societies are also included in this identity. Following the example of the riverside communities, it is possible to point out more appropriate ways to use natural resources, based on the sustainable management of the environment. The adaptive strategies of Amazonian societies to the natural environment constitute a wealth to be valued, and may even offer an example of how to balance use and conservation of natural resources in the Amazon (Morán, 1990), from multiple combinations of productive systems, integrating extractivism, fishing, and agriculture, generating balance between available resources and the demand of populations for these resources (Fraxe et al., 2007).

The productive diversity and natural resource management strategies of a given society may be better adapted to the conditions of the physical environment, often possessing sophisticated forms of management derived from long experience with the natural environment that resist changes imposed by external forces (Adams, 2002). Therefore, productive diversity represents the reduction of risks for these populations and the independence from a single way of surviving, giving families the opportunity to adapt and diversify their livelihoods. It becomes an indispensable condition for the survival and sustainability of rural territories to the extent that they guarantee greater autonomy and control over the process of social reproduction (Perondi, 2007; Perondi, Kiyota, Gnoatto, 2009).

In the context of the Covid-19 pandemic, which affects populations differently depending on their territorial conditions, the Riverine people of Baixo Tocantins, PA had to adapt to this "new normality" and thus had to rearrange their social, productive, and economic organization. With this new research protocol in mind, the Socioagro-environmental Diversity in the Amazon Study Group of the Environmental Center of the Federal University of Pará, GEDAF/UFGPA conducted interviews (via web video) with residents of some riverside communities in the territory of the lower Tocantins River. They reported in general that they felt several difficulties regarding the lack of information about the pandemic, about social isolation, and how to prevent themselves from contracting the virus. In relation to the social, productive, and economic reorganization, one cannot yet point to an overall picture, because the

research is still in progress. But certainly the dynamics of life, as well as the way of living it were directly affected, because they had always been in the company of family members, relatives, and neighbors. In the face of social isolation this affective and productive socialization was affected.

Another point highlighted is in relation to the appropriation of natural resources by the capitalist mode of production that these communities are facing. Unfortunately, Brazil is experiencing the dismantling of a whole history of political achievements in favor of the conservation of natural resources in the midst of the Covid-19 pandemic. In this regard "to go passing the herd and changing all the rules and simplifying norms" (Phrase of the Minister of Environment- Ricardo Salles, G1 site, 2020) was the preferable course of action.

The new proposals for modifications in environmental licensing only further reinforce this policy of dismantling natural resources in favor of what can be called this alliance between capital and land – the land here seen not as a means of production, but as a mere physical substrate. As an example of this alliance and appropriation of nature, the deforestation rates of the Amazon presented in the year 2020 a new record, are data from the National Institute for Space Research (INPE, 2021) unit linked to the Ministry of Science, Technology and Innovations (MCTI). The consolidated value of the deforested area, by clear cutting, between the period of August 1, 2019 and July 31, 2020 was 10,851 km². This figure represented a 7.13% increase over the deforestation rate ascertained by PRODES in 2019 which was 10,129 km² for the nine states of the Brazilian Legal Amazon (BLA). This rate is calculated annually based on data generated by the Project for Monitoring Deforestation in the Legal Amazon by Satellite (PRODES). This high rate of deforestation has already had several consequences for the environment and for Brazilian traditional peoples: the loss of biodiversity, the expulsion of traditional peoples who provide environmental services¹ (Amazonian indigenous peoples), and climate change with the increase of greenhouse gas emissions, according to Philip Fearnside (2005).

Another factor of concern and tied to the reproduction of these Riverine communities is the non-payment of emergency aid² for Brazilian family farmers. This aid could at least help the food production of these families, since many fairs and places that used to sell food were closed because of preventions and protocols to avoid contagion from the novel coronavirus. Based on José Graziano

1. The Amazon forest provides at least three classes of ecosystem services: biodiversity maintenance, carbon stock, and water cycling (Fearnside, 2005).

2. Emergency aid is a benefit instituted in Brazil by Law No. 13,982/2020 aimed at informal and low-income workers, individual microentrepreneurs, and individual contributors to the National Institute of Social Security (INSS). The objective of the aid was to mitigate the economic impacts caused by the COVID-19 Pandemic in Brazil.

da Silva (1999), who calls attention to a rural development policy that needs to articulate a broad set of other non-agricultural policies that support socially disadvantaged rural workers, including those in more precarious conditions of poverty. By mentioning the severe poverty in Brazil, while Brazilian agribusiness sets an all-time record in grain production (24.3% growth in its GDP by 2020) Brazil is back on the hunger map. Brazilian families are in the grip of hunger (19 million families face the hunger epidemic in 2020 – representing approximately 9% of the Brazilian population) in the midst of the Covid-19 pandemic (Brazilian Research Network on Food Sovereignty and Security [PENSSAN Network], 2021).

The Case of Digital Platforms and Farmers in Costa Rica

To what extent can a post-developmental reflection on the Anthropocene contribute to solving the adverse effects of Covid-19? To what extent does the incorporation of securitization approaches during the pandemic pose a threat to the construction of socio-ecological spaces inscribed at the margins of Western modernity?

To postulate a satisfactory answer to these questions it is necessary to understand the emergence of the coronavirus in a context of the representational crisis of modernity that has been widely discussed by authors such as Anthony Giddens (1991) and Beck, Giddens, Lash, (1995). On the one hand, this crisis has manifested itself as a new expression of the worsening of an expansive and unsustainable economic system: capitalism at the end of its growth limits. On the other hand, it contributes to a greater legitimization of scientific practices (Stengers, 2015), which are organized by dominant socio-technical regimes to mobilize a set of knowledge, technologies, and institutional arrangements, and have the function of providing a quick and effective response to the loss of confidence and the growing sense of risk.

This deployment therefore represents the main contradiction of current times and could result in a problematic scenario for the common welfare in the long run if certain analytical precautions are not taken into consideration. To exemplify these issues, focus is drawn to Costa Rica's experience in attending the public policy measures adopted by the Ministry of Agriculture and livestock (MAG) during the pandemic.

First of all, it should be noted that the country's agricultural authorities have celebrated the "outstanding performance" of this set of economic activities during the months of the pandemic, based on a two-percentage point

(2%) increase in the level of exports in 2020 compared with the previous year (Umaña, 2021).

At the same time, there is talk of a reinvention of agriculture (O'Neil, 2020) because of the development of a number of technological applications designed to facilitate product marketing processes and logistical issues. E-commerce has become the main strategy of agricultural organizations (public sector, cooperatives, and producer associations) to adapt to the new restrictions of mobility and social isolation. In the country, in the first six months of 2020, more than 3,000 companies from all sectors of the economy started using these technologies (Castro, 2020) and some researchers are already considering online sales in the agricultural sector as potential business models for entrepreneurs.

In the coffee and livestock sector, expert groups from the Coffee Institute (ICAFE) and the Livestock Corporation (CORFOGA), in technical collaboration with MAG, have created COVID-19 protocols based on the use of technology platforms. The application "La Finca Agropecuaria" (The Agricultural Farm) was conceptualized and developed by MAG, the Promotora de Comercio Exterior (PROCOMER) and the Cámara Costarricense de la Industria Alimentaria (CACIA – The Costa Rican Chamber of Commerce), with the purpose of providing a direct virtual meeting point between producers and consumers.

Although these initiatives represent an important innovation in terms of the shortening of value chains and the fairer distribution of utility margins in favor of producers, it is necessary to recognize that the adoption of these devices benefits those who already have installed technological capacity and who make use of the "smart phones," without distinguishing the diversity of types of agriculture, producers, farming, and learning styles, which will determine the appropriation and adaptation of these devices according to each specific context and social group.

Critics of the adoption and operation of these initiatives argue that the country is going through a crisis of institutional discoordination that affects the transfer of technologies at a time when these inputs are vital. In addition, it is suggested that there are major weaknesses in governance schemes, little political will, and lack of leadership on the part of some public government agencies (Hernández-Sánchez, 2020).

In both cases, the proposed alternative is the same: competitive agriculture guided by technical modernization and following the nature-based priority solutions approach (United Nations Development Programme, 2020). Nevertheless, one of the main limitations of these perspectives is the absence of detailed descriptions of the complexity of rural livelihoods and dynamics that go beyond the agro-productive sphere. In this way, establishing a flow of attraction of

agribusiness investments to guarantee the "absence" of rural development in certain regions has even been proposed.

In principle, the practical functionality of the applications promoted by the Costa Rican farming organizations as a way out of the economic contraction caused by the pandemic is favored by the abstraction that these devices make of the producers and their environment. In this scenario, the intermediation of the market facilitates access to the devices without considering the social legitimization of the technologies in the immediate context of their incorporation and their integration in social relations mediated by multiple knowledges and ways of perceiving nature.

Alternatively, the technical modernization of agriculture is not enough to overcome the environmental crisis, let alone the economic consequences of the health emergency in this sector. The boost of technological applications allows seeing the individualization of institutional responses of the assistance type, at a time when the main challenge is the integrality of public policies. At this point, it is worth drawing attention to two dimensions of the problem. The first is related to the resurgence of sustainability narratives anchored in the instrumental treatment of nature. According to this point of view, sustainability is a dimension of highly competitive productive systems. Thus, it is believed that to ensure the continuity of an economic activity, it will only be necessary to change the operating mechanism to adapt it to the new context. The proposed solutions are still focused on controlling the adverse effects and not on revising the original causes of the main problem. These short-term measures weaken the producers' capacity for political organization and collective action, as they distance them from the public debate about the interconnections between the dominant production models, environmental deterioration, and the emergence of the pandemic. The second dimension has to do with the absence of an analytical reflection that makes visible the implications that science, technology, and innovation have on the daily work of the producers, beyond the simple experimentation with the available technical resources. This is precisely the focus of the inclusive development approach. Thus, the promotion of technological devices takes place in the context characterized by the absence of sociodemographic and population profiles that allow technologies to be adapted to the specific needs and demands of each collective or productive sector (Habiyaemye, Kruss, Booyens, 2020). It is relatively easy to assume that all the people producing will have access to cell phones and will have the intellectual capabilities to make proper use of this technology. The reason this assumption continues to hold without apparent resistance is the same one that makes blind trust in the ideology of progress possible: in the interest of contributing to increasing the profitability of the industry in aggregate terms, individual stories are downplayed.

The contingent character of the new measures establishes itself as an emergency narrative for the planned intervention of the geographic spaces that contain agricultural activity, without asking about aspects of territoriality and landscape that are significant for the populations that inhabit these territories and that intervene decisively in their construction of the sense of place and belonging.

New Epistemic Horizons

Post-developmental approaches deepen the epistemological and socio-political critique with analytical elements that allow for a general characterization of the current system's crisis of unsustainability. In this context, the Covid-19 pandemic is inserted in the world as an unprecedented historical record that makes it possible to problematize linear visions of progress and well-being, commonly based on the assumptions of techno-scientific control.

It is therefore appropriate to add some additional considerations to accompany the further discussion of the topic. The first issue that can be pointed out refers to the new conception of uncertainty that the coronavirus offers (Stirling, Scoones, 2020). With the emergence of environmental and health disasters, crisis scenarios are also established in which it is necessary to rethink the role of human beings in relation to their own actions and the actions of non-human actors (Sousa, Pessoa, 2019).

In this sense it is indicated that to recover the feeling of the sublime in the world (Latour, 2018) humans also need to re-signify the particularity of mystery that nature can awaken in them. To "let oneself be surprised" by the expressions of the natural world is to pay attention to the spontaneous nature of the relationships that arise daily between different species, and which have a direct effect on the preservation of ecosystems. The limits of rationality can be expanded through other sensibilities and ways of feeling-thinking with the Earth (Escobar, 2014). The environmental humanities, for example, acquire greater significance in this context.

For some authors, Covid-19 represents an abstract fissure in the civilizational model (Morea, 2021). Nevertheless, the pandemic also offers an opportunity to reinsert the human "as part" of nature. It is in these terms that the conditions must be sought to achieve a paradigm shift that accounts for the current challenges and latent threats.

On the other hand, recognizing that the pandemic is leading to conceive of the future as a vast "territory of possibility" by opening up spaces of discussion

about the complex interactions between science, politics, and ways of life is positive. Prior to Covid-19 this did not exist or was part of closed dialogue spheres. Without a doubt, the measures of confinement and social distancing have supposed a fertile ground for experimentation with new sensorial realities. Studies on affectivities establish themselves as a rich field for research on the Anthropocene in the post-Covid-19 era, since they can help understand the relationship between experiences of landscape and place, and the construction of new materialities that are meaningful to actors on an existential, spiritual, and intersubjective level. Many of these issues remain unseen and are of greater interest to development anthropology.

The Covid-19 pandemic has shown that the apparent normality in which humans live is marked by a sense of immediacy and the validity of the present. Nevertheless, Covid-19 is forcing people to understand that to build tomorrow humans must go beyond blind trust in technocratic regimes as the exclusive route to human-exclusive achievement.

The idea of disconnection with nature, addressed by thinkers like Donna Haraway and Anna Tsing, is part of a loss of human sensory and emotional capacities with their natural surroundings (Tsing, 2010; Greenhalgh-Spencer, 2019). Gradually, the dominance of utilitarian practices in modern capitalism has reduced coexistence among species to mere commodified relations, which are guided almost exclusively by exchange value. Therefore, it is important to privilege reflections that allow imagining extended vital communities, and that do what is possible to put the values of justice, co-habitability, and reciprocity back at the center of a new ethics of coexistence among species, beyond mere normative principles. Another of the lessons needed to be learned from the pandemic is sustainable transformation, which requires adopting a philosophy that recognizes the rights of nature.

However, it is clear that the changes, in order to be significant, require symbolic and material references that allow bringing all these concerns to the spheres of public discussion. This requires that the recursiveness of this critical thinking be crystallized into a political agenda that has clear content. It is not enough just to change the semantics of the conventional language of economic growth. As has been discussed, capitalism has discursive strategies for adopting narratives of sustainability that are functional to its intrinsic logic of reproduction.

Precisely, one of the main challenges today is related to the loss of social legitimacy associated with the institutions that promote these minor changes, which do not problematize structural power relations, nor the differentiated access to rights that are supposed to be universal. This puts democratic stability at risk, as it coincides with the increased socio-environmental vulnerability of

life communities that also struggle with economic inequality, social exclusion, and marginality.

A Point of Methodological Inversion

The provocations made in this article urge thinking about new analytical categories for understanding the phenomena of development and sustainability, beyond the theoretical and epistemological frameworks focused on the socio-political critique of capitalism.

The search for other referential elements implies recognizing that traditional approaches are limited and do not allow problematizing the complexity of the novel with adequate rigor (Kahlau, Santos, Souza-Lima, 2019). In the current world scenario, the Covid-19 pandemic coincides with the escalation of overlapping crises, and this is not a subtle coincidence.

The main challenge is to think the unthought (Deleuze, 2002), through reflexive concepts that are susceptible to be unfolded according to the particularity of the contexts and the specificity of the situated realities.

In this sense, the conception of the new ethics of coexistence among species can be useful to the extent that it proposes a reflection oriented to the study of the relational repertoires that derive from the connections and interdependencies between society and nature from neither a non-linear nor instrumentalized perspective.

At the methodological level, it is fundamental to advance in overcoming structuralist views that privilege the study of socio-bio-affective links between the human being and his environment. On the contrary, the reinsertion of human beings into nature requires the incorporation of constructivist perspectives that value the centrality of actors in the symbolic, material, recursive, and existential construction of the place they inhabit (Porto-Gonçalves, 2017).

The methodologies to be implemented in studies that seek to identify the evolution of these (counter)narratives (territorially located), must consider the situated context as the space of expression of identity practices and the creators of the sense of belonging. Classical anthropological techniques, such as ethnography and participant observation, have proven useful in identifying shared values and worldviews that play a role in shaping cultural communities. Thus, these techniques also hold potential as tools for recording the relationships of closeness, coexistence, and respect that are established by extended life communities that incorporate concerns for the care and protection of other species and non-human actors, such as rivers and mountains, through post-naturalist and

post-humanist (Castree, Hulme, Proctor 2018), relational (Deleuze, Parnet, 1996; Darnhofer et al. 2016), and non-representational (Lorimer, 2008) paradigms, which at the same time establish interdisciplinary dialogues and dialogues between multiple knowledges.

It is worth noting that in recent years art history has contributed a set of techniques and methodologies that, from a creative perspective, seek to revitalize aesthetic interest in life and nature preserving landscapes in the Anthropocene (Thorsen, 2020). In addition to their artistic vocation, many of the works developed in this direction critique the growing socio-environmental vulnerability and use a broad set of stylistic resources to problematize the need for an ecological turn to prevent the destruction of the planet (Guinard et al., 2020).

Nevertheless, the gradual abandonment of normative horizons in the "definition" of the possible future and tomorrow's alternatives is important. In this sense, it is worth noting that the meaning of "futureability" in these emerging methodologies has been emptied of cosmological conceptions of time/space that has come to be used to express the spatiotemporal displacements that dominant Western modernity has propitiated in other civilizational projects.

Conclusions

This article discussed the importance of generating a critical reflection on the complexity of society-nature relations in the Anthropocene. In particular, these authors sought to highlight the validity of the human being's imaginative and creative capacities to offer alternatives to the processes of appropriation of nature by the capitalist production mode.

The case studies presented helped problematize the limits of conventional approaches and their inability to respond to circumstances of uncertainty characterized by contingency and the unprecedented, even more visible in this context of the Covid-19 pandemic. Therefore, it is necessary to deepen informed debates about the effects that socio-technical solutions have on worsening socio-environmental crises. Similarly, the incorporation of control and securitization measures into the institutional planning of governments needs further public discussion. It is necessary to determine the complex ways in which narratives of progress and modernization stress and threaten the vitality of the multiple ways of life that coexist on the margins of capitalism.

This highlights the importance of deepening the discussion regarding the linear and often instrumentalized nature of dominant narratives concerning

development and sustainability. For this, constantly reviewing the way in which concepts such as environment and technology are being mobilized by public policies at the national, regional, and local levels is important. Even more significant for analysis is the way in which these narratives are perceived by actors in specific contexts and the kind of interfaces they help to create: their revelations, affinities, and resistances.

Nor should it be forgotten that these reflections as a whole allow for a better understanding of the ways in which science, politics, and nature are articulated in contemporary societies. This knowledge is fundamental in studies of the legitimization processes of democracy, alternative citizenship projects, and the emergence of new territorial identities.

The development practices identified from the case studies also allowed mobilizing a set of theoretical references to problematize the idea of disconnection from nature. In this way, the reflection on a new ethics of coexistence among species is part of the new epistemic horizons to better understand these concerns. Nevertheless, it needs, for its development, the incorporation of adequate methodologies and techniques. A first suggestion in this sense is to make a methodological inversion that allows changing the structuralist and normative cut views, and in this way move toward the application of constructivist approaches.

These considerations merit further empirical and methodological elaboration, which is an important limitation of this study. It is hoped that the questions posed so far will contribute to establishing a research agenda on the trajectory of these (counter)narratives and their incorporation in processes that seek possible futures through the protection of the commons and communities of life.

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Editora Universidade Federal de Minas Gerais (UFMG).