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Sustainable Development and Community Agency Contributions from Ecotechnologies

Erika Carcaño Valencia (Corresponding author)

Professor, University of Guanajuato

Blvd. Milenio 1001, Predio San Carlos, 37670 León de los Aldama, Gto., México

E-mail: erikacarcano@gmail.com

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Abstract

The current crisis forces us to reflect on the great challenges that lie ahead of us. We are facing a scenario that requires alternative proposals that allow us to think about the future of civilisation from a perspective of socio-environmental justice. In this sense, we cannot accept a solution that continues to be oriented solely towards the pursuit of economic growth.

The economic policies applied in Mexico and in other countries, in recent years have exacerbated the vulnerability of broad sectors of the population and have put ecosystems at risk.

This paper proposes a first critical approach to the contributions that sustainable development and community agency, can offer to an ecological reading of human and protective relations of production, pointing out that some economical resources of the planet are in a crucial situation.

Keywords: sustainable development; community agency; ecotechnology

1. Introduction

The current crisis forces us to reflect on the great challenges that lie ahead of us. We are facing a scenario that requires alternative proposals that allow us to think about the future of civilisation from a perspective of socio-environmental justice. In this sense, we cannot accept a solution that continues to be oriented solely towards the pursuit of economic growth.

The economic policies applied in Mexico in recent years have exacerbated the vulnerability of broad sectors of the population and have put ecosystems at risk. The clearest case is that of the extractive megaprojects that have been seen as a panacea for economic growth, but which

in reality have had serious socio-environmental consequences. The role of the State as a facilitator of capital accumulation shows us the fragility of the quality of democracy (Aguilera, 2007).

We are facing a scenario in which the abuse of power and the search for the maximisation of economic benefits has led to the devastation of ecosystems, the plundering of natural resources and the destruction of natural resources (Aguilera, 2007) of indigenous populations from their territories and the increasingly ruthless exploitation of livelihoods (Castel, 1997). These impacts do not go unnoticed by government decision-makers. One of the solutions to this problem has been found in the promotion of sustainable development.

However, this poses great challenges, since on the one hand, it is proposed to generate strategies that promote the well-being of society and a lesser impact on the environment, and on the other hand, it is still insisted that the way to achieve this is through economic growth.

This implies a contradiction, since the accumulation of capital that characterises the dominant economic system implies the devastation of ecosystems. This clearly represents the inherent contradictions between a system subject to physical limits and an economic system focused on unlimited growth. In this sense, nature is seen as a reservoir of resources that can be utilised, transforming it from an ecological entity into an economic entity (Alvater, 2006).

Gudynas (2004), in several of his works, refers to the European heritage of the conception of nature and how it has been transformed throughout history. At first, it was seen as the frontier of wilderness, to be mastered. Later, it was conceived as a basket of unconnected and, at the same time, unlimited resources. These resources can therefore be extracted and used, leading to the conception of nature as capital. This idea has gained more strength and momentum since the 1980's with the implementation of neoliberal measures.

Nature, being seen as an economic entity, will be implicitly oriented towards its monetary valuation. In this way, this "natural capital" will be at the service of the market, leaving aside other types of values that are incommensurable, such as ecological, cultural, spiritual or aesthetic values. The reduction of nature to just another component of the market ends up diluting the particularities of the functioning of ecosystems (Gudynas, 2012). Therefore, thinking about alternatives implies questioning the current production model and the implicit destruction of nature it entails. It also implies questioning an idea of society marked by individual interest and the dichotomy between human beings and nature (Spash, 2020).

The questions we need to ask in these terms are: What should be the principles that govern an environmental justice pact? How can they be materialised in alternative proposals to economic policy? To answer these questions it would be necessary to consider various elements in both the reproductive and productive spheres.

2. Community Agency and Sustainability of Life

From a community agency perspective, we seek to answer the questions posed at the end of the previous section. From the reproductive sphere, we emphasise the importance of caring for and sustaining life. We start from the fact that human life is eco-dependent, that is, it depends on nature and what it provides us with. The life of human beings has two inescapable dependencies: the one that each person has on nature and on other people : "we

have a second dependency that comes from the fact that we live embodied in vulnerable bodies that are finite, and to develop life each person needs to do so inevitably inserted in a society that guarantees that this vulnerable life will be cared for" (Herrero, 2013, p. 281).

An example of this is the health crisis we are experiencing due to COVID-19, in which the logic of care has become more relevant and it has become clear that those jobs related to care are the most neglected. It has also become clear that care-related jobs are the most unprotected and the worst paid.

From a community agency point of view, production should be a category linked to the maintenance of people's lives and well-being, i.e. what is produced should be something that allows human needs to be met in an equitable manner. In this sense, the question of what to produce, how to produce and for whom to produce, implies addressing a process of reorientation of the production model.

Addressing this transition with equity criteria implies undertaking the redistribution and distribution of wealth and also implies what Leff (2004) calls an environmental rationality in the act of appropriation between society and nature. That is, as Toledo mentions, it implies understanding such metabolism as "the process by which the members of any society appropriate and transform ecosystems to satisfy their needs [...] and refers to the concrete, particular and specific moment in which human beings articulate materially with nature through the process of work [...] all metabolism actually has two dimensions: a tangible or 'hard' material one and a symbolic, intangible or soft one" (Toledo & González de Molina, 2011, p. 68). On a finite planet, unlimited economic growth is not possible.

Within instrumental rationality, solutions to the environmental and social crisis are limited to technological innovation. This has ethical implications. For example, in the face of the challenges imposed by climate change, an energy transition is proposed; the problem is that it is not designed to be used as a social good, but rather to feed processes of production and economic accumulation (Urkidi et al., 2016).

Such is the case of industrial agriculture, as reported by Corporate Europe Observatory (2016): "the key arguments of companies is that, according to the Food and Agriculture Organization of the United Nations (FAO), Climate-Smart Agriculture should "sustainably increase agricultural productivity and incomes", "adapt and build resilience to climate change", "reduce the impact of climate change" and "reduce and/or eliminate greenhouse gas emissions", but paradoxically those promoting it are: the Global Alliance for Climate-Smart Agriculture (GACSA), including the FAO (where it is based); the World Bank; the food trade industry (including McDonalds, Unilever and Nestlé); the seed industry (Syngenta, Monsanto); and, mainly, the fertiliser industry, which makes up 60% of the private sector members of the Global Alliance for Climate-Smart Agriculture (GACSA), "twenty-one governments (including France, the United States, Mexico and the Netherlands); some NGOs and farmers' organisations" (Carcaño, 2018).

These types of measures end up promoting false solutions that, far from generating social and environmental benefits, end up damaging the environment. Such is the case of land grabbing

through dispossession, deforestation and loss of biodiversity for intensive agriculture, coupled with the pressure exerted by biotech companies such as Syngenta and Monsanto, which seek to privatise and control the seed market (Shiva, 1995). In the midst of market fundamentalism and false technological solutions, real solutions are delayed.

In the face of this, it is necessary to turn our gaze towards the adoption of an environmentally and socially conscious science that contributes to the generation of emancipatory paths. It is necessary to give greater relevance to the proposal and generation of alternative technological models that take into account the preservation of ecosystems and that are thought of in terms of use value and not exchange value (González, 2010). As Hinkelammert remarks: "Seen as use value, the product decides on life and death. Therefore, use-value analysis looks at the economic process from the angle of life and death [...] it means that no human value can be realised if it does not enter into this symbiosis with use values [...]" (Hinkelammert, 1996, p. 85, cited by González, 2010).

3. Ecotechnologies as Alternatives

Ecotechnologies are a tool that can contribute to the construction of practices with environmental justice. They must meet certain social, environmental and economic criteria: be accessible, be focused on local needs and contexts, be environmentally friendly, promote the efficient use of resources, recycling and reuse of products, promote the use of local resources and their control, generate employment in regional economies, especially in rural areas, be produced preferably on a small scale and in a decentralised manner, and be designed, adapted and disseminated through participatory processes, with dialogue of local and scientific knowledge (CIECO, 2014).

Agroecology is an ecotechnology that has been useful in the construction of food sovereignty; it has also served as a tool for struggle, defence, (re)configuration and trans-formation of disputed lands and territories in peasant territories (Rosset, 2015). It is important to understand that the implementation of an ecotechnology makes sense if and only if it is linked to a common project that has its essence in the non-predatory use of the territory. Hence the relevance of proposing the defence of territory as a first step towards emancipation. This is a scenario where land grabbing for the implementation of mega-projects such as mining and monocultures, among others, is increasingly common.

Women's participation as community agency is highly relevant in agroecological practices. Via Campesina's declaration[1] emphasises the role of peasant women in guaranteeing food sovereignty, not only to confront the food crisis, but also as an ethical principle of food sovereignty.

It is an autonomous movement, without political, economic or other affiliations. At the same time, they make visible and demand the need for a comprehensive agrarian reform that

[1] Via Campesina is made up of 164 local and national organisations in 73 countries in Africa, Asia, Europe and America. It represents some 200 million peasants. It is an autonomous movement, with no political, economic or other affiliation.

redistributes land with full participation and integration in the whole process, guaranteeing not only access to land, but to all instruments and mechanisms under equal conditions, with a fair valuation of productive and re-productive work, where rural space guarantees a dignified and just life (Via Campesina, 2016).

4. Discussion

Faced with the civilisational crisis we are experiencing, it is urgent to look towards other paradigms that allow us to have a different relationship with ecosystems and withhuman beings as cultural, social and subjective beings. Community agency and ecotechnology are analytical proposals that allows us to think alternatives for a change in the social and productive model that respects the material bases that sustain life (Herrero, 2015).

There are many challenges ahead of us: greater pollution, greater exclusion and exploitation. The system of capital accumulation does nothing but reproduce itself, producing devastating and irreversible effects (Forrester, 2000; Sader, 2008 ; Sader & Gentili, 1999).

It is necessary to rethink and question our way of doing science and economic policy. Certainly, we need a scientific development and ethics in economics that is for life, not for capital. In Foucault's terms: one that promotes biopolitics and not thanatopolitics (Foucault, 2004, 1994, 1984).

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