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DEVELOPMENT AND NATURE

Modes of appropriation and Latin American extractivisms

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One of the more well-known aspects of Latin American development strategies has been their dependence on natural resources. This condition has a long history that begins with the Spanish and Portuguese colony and persists under the different Republics until today. There have been undeniable efforts by countries to promote their own industrialization, but this dependence has been kept up through successive increases and decreases in the extraction of gold, sodium nitrate, rubber, cocoa, wool, soya, and oil, amongst others. This shows that the different types of development applied in the continent have always been tightly interwoven with Nature.

However, despite the key role that Nature plays, debates on development have found it difficult to approach this relation. The environment has frequently been viewed as a set of resources to be exploited and as a factor of production (generically referred to as “the earth”), or simply reduced to an open system that is external to the economy. These and other positions were brandished by very different theoretical schools and political stances, both conventional and heterodox. It became clear that there was a great divide between the different ways of understanding development and its ecological foundation.

This problematic became even greater at the beginning of the 21st century, due to the developmentalist boost caused by the high prices and increased demand for raw materials. So-called extractivisms – such as the exportation of minerals, hydrocarbons, and agri-food products – were on the rise, turning into key elements of development strategies.

Development studies, including many critical approaches, faced enormous difficulties in analysing this first stage, where the extraction of natural resources takes place. Within the classic theoretical and analytical frameworks, these extractivisms were reduced to simplistic interactions of society with Nature. This failed to address the diversity of social situations involved: from the well-known transnational corporations and the farmers who turned to illegal mining, to the fact that the same extractivist strategies of development were adopted by both conservative and progressive governments. Conventional economic approaches were not appropriate either, for their emphasis on economic valuation led them to ignore other type of values.

In order to overcome these difficulties in the analysis of extractivisms by critical development studies, researchers turned to the new concept of modes of appropriation, inspired by the idea of modes of production but involving a redefinition of both. In this chapter, we define this concept and present a brief example of how it applies to extractivisms. This introduction does not intend

to be an exhaustive account of the issue, but rather a proposal that this idea be used as a tool for better understanding the interactions of development through the lens of ecology.

The idea of modes of production

The idea of modes of production has played a significant role in the analysis of development and capitalism. Originally formulated by Karl Marx, it probably appears for the first time in *The German Ideology* (co-authored with Friedrich Engels) and in other texts, such as *Capital*. Marx does not offer a specific definition, but we can argue that he understands it as the modes of productive and economic organization of a society and as a means for historical analysis.

The concept became very popular in the 1960s and 1970s. It appeared in Marxist discussions (as Althusser and Balibar's *Reading Capital* shows, 1979; also see Resch, 1992), was disseminated through manuals and texts in Latin America, and became relevant in discussions on underdevelopment and dependence, fuelling a significant amount of literature (for example, Fioravanti, 1972; de la Peña, 1978; also see the summaries on its use in development debates in Foster-Carter, 1978; Ruccio and Simon, 1986). Latin American contributions were also made to these discussions; prime examples are the works of Ernesto Laclau, Carlos Sempat Assadourian, Ciro Flammarion Santana Cardoso, and others, published in the influential journal *Cuadernos de Pasado y Presente* under the coordination of Juan Carlos Garavaglia (1973).

As it is conventionally understood, mode of production (MP) is a highly abstract concept that includes, on the one hand, the so-called productive forces such as human labour, resources like land, technologies and so on, and, on the other, the relations of production, referring to those who work and to those who appropriate part of this labour through exploitation, understood as social classes. As tools of historical interpretation, MPs constitute a social whole that has persisted for a long time. Thus, a broad range of MPs were defined throughout history (primitive communism, Asiatic, old, feudal, capitalist, and socialist).

Another approach was the one formulated by Eric Wolf (1982) from the perspective of world systems. He used the term to refer to specific sets of social relations within which the labour of extracting energy from Nature takes place through tools, knowledges, and organization. His perspective is also highly abstract (he describes three modes that are defined as kinship, tributary, and capitalist).

The use of the concept and its leading role in debates on development in general, and on Latin American development more specifically, started to fade away during the 1980s and almost disappeared in the 1990s. Some authors continued to use it within a very broad time frame (for example, Hume, 2007) or as a critique of capitalist development (Richards, 2001). Although it persists in dictionaries on Marxism (Duménil, Löwy, and Renault, 2014), the idea languished as time went by due, amongst other factors, to the fall of really existing socialism, analytical abstraction, emphasis on historiography, and to its focusing mainly on discussions on capital and the state (see Graeber, 2006). It became replaced by other concepts.

Nature, extraction, and production

A first look at the classic Marxist perceptions of MPs reveals elements that are very useful in understanding recent strategies of development in Latin America. This perspective adds a key component to them, as it interprets it as the labour through which humans exploit Nature.

A noteworthy example of this line of thought is the research conducted by Stephen Bunker on extractivism in the Amazon (for example, Bunker, 1984). His scholarly contributions did not receive the attention they deserved at the time of publication, although they were pioneering

in their insistence that a new theoretical framework was needed for the analysis of the appropriation of natural resources. According to him, concepts pertaining to industrialized countries were insufficient or inadequate, while new categories were needed to incorporate environmental aspects such as the appropriation, use, and destruction of matter and energy, which cannot be calculated only in terms of labour or capital, as classic approaches did. This led Bunker to propose the concept of “mode of extraction,” inspired by that of “modes of production” but drawing a clear line between the two.

Bunker’s “mode of extraction” described systemic connections between very different phenomena, from labour organization, systems of ownership, or infrastructure, to ideology and beliefs. He acknowledged that his new concept was parallel to the classic idea of MPs, but presented the latter in a broader sense (understood as the relation between social, legal, political, and commercial aspects). He immediately made it clear that he did not embrace orthodox Marxist opinions that argued that modes of production reproduced themselves and, therefore, capitalism could expand indefinitely. This condition, Bunker claimed, is ecologically impossible. These and other warnings are correct and should be kept in mind.

Latin American extractivisms are very diverse, in terms of the different kinds that exist – such as open-cast mega mining, monocultures, or oil drilling in the Amazon – but these categories are also internally diverse. An orthodox use of MPs would consider them all as part of a capitalist mode and lose sight of all this diversity, which in turn would affect the search for alternatives. Analysis based exclusively on economic factors is also insufficient, for it often overlooks social and political dynamics. Furthermore, classic approaches within social sciences that focused, for example, on social classes failed to grasp the diversity of intervening actors, such as indigenous, Afro-descendant, peasant, displaced, or proletarian populations and so on.

However, the concept of “modes” offers valuable lessons, such as the consideration of the productive forces (natural resources, technology, etc.), and the relations established between them (taking into account factors like the role of capital or the state). The employment of this perspective in great “systems,” such as capitalism, and large time frames partly explains the decline of the concept. However, if applied at a much smaller scale, it becomes more specific and acquires a greater potential for analysis and, therefore, becomes more useful.

Bunker was essentially right in his disagreement with conventional concepts and in the need for a new category to describe the appropriation of natural resources in the Amazon. While the concept of MPs can be of some use, new elements such as the ones already mentioned must be introduced, and especially those relating to the appropriation of Nature.

There are other lessons to be learnt from extractivisms. Strictly speaking, they are neither a “productive” sector nor an “industry,” as their defenders argue. To consider the extraction and exportation of iron, for example, as “production” is a crude distortion, for nothing is being “produced”: it is being extracted (and, therefore, amounts to a net loss of natural heritage). Neither does it make sense to qualify it as an “extractive industry,” for no manufacturing process is involved. It is the export of commodities or raw materials. The characterizations “production” and “industry” undoubtedly aim to legitimize these activities socially and politically in the eyes of the public and to place extractivisms within industrialist imaginaries. The reproduction of these terms by academics reveals, intentions aside, a somewhat simplistic approach to extractivisms and particularly to their ecological and political connotations.

Finally, extractivisms represent a mode that is always shaped by ecological factors. This includes the location of land or deposits, the amount of available resources, whether they are renewable or not, the environmental impact of the removal of the resources and its consequences and so on. This environmental dimension was never fully incorporated in the idea of MPs, as we discussed earlier on.

All this explains the need to posit a separate concept, different from that of MPs, for the analysis of this first phase of interacting with Nature. This is how the idea of Modes of Appropriation (MAs) came into being. It is a category inspired by MPs, but one that must be different because of the particularities of the first step in the appropriation of what we call natural resources, a particular interaction with the environment that should be analyzed in more detail.

Defining the modes of appropriation

Modes of appropriation describe different ways of organizing the appropriation of natural resources (such as matter, energy, or ecological processes) for the satisfaction of human goals in each social and environmental context. Appropriation refers to the direct extraction of resources (through removing minerals, for example) but also to indirect extraction (such as crop harvesting). Their geographic scale is limited to specific locations and regions within countries, and their temporal scale equals more or less a year.

MAs articulate with MPs where the following stages in the transformation of raw materials take place. From a development perspective, the first stages involve the appropriation of raw materials, whereas the second ones involve manufacturing processes and their organizational dynamics, such as in the fabrication and commercialization of goods.

Examples of MAs include hunting and gathering in the Amazon forests, peasant farming in the Andes, open-cast mega-mines in Chile, and GMO monocultures in Argentina, Brazil, or Uruguay. It is not only about the physical act of removing something from the environment; many additional elements come into play, including understandings on what a resource is and is not, how resources are valued (economically, ecologically, aesthetically, spiritually, and so on), the labour and capital that goes into these practices, the institutionalized frameworks sustaining the appropriation (such as laws of access and property), the social relations deployed during the appropriation (the role of workers, the companies, and the state), and the channels of distribution and of accessing the modes of production. Therefore, MAs express different ways of obtaining matter and energy from the environment and also different ways of handling and transforming them in order to feed them into the following steps of other stages of production.

MAs are always anchored to specific locations, as they depend on specific resources existing in each place (such as mineral deposits, oil fields, or agricultural land) and are therefore defined and limited by ecological contexts. MPs focus on transformation, they are not tied to a specific location (for industries can settle in different places) and are, therefore, determined mostly by social factors.

It is important to highlight this particularity of the ecological limitation of MAs, given that they are essentially an interaction with Nature and cannot be socially regulated. MPs, on the contrary, have to deal with processes that occur mainly amongst humans and are, therefore, more flexible. For example, there cannot be a collective decision on creating an oil bed in a specific location, neither can depleted natural resources be recovered through political consensus. This is a fundamental difference between the two modes.

This perspective clearly refers to smaller scales compared to the conventional approach. There is no capitalist mode here, but rather many different modes of appropriation and production. Bunker's idea of extractivist modes would be one specific case amongst the modes of appropriation.

As mentioned previously, conventional approaches tend to embrace rigid schemes (based on social class, ethnicity, etc.) and cannot encompass the enormous diversity of actors and structures organized for the appropriation of natural resources. MAs, on the other hand, force analysts to consider this diversity for they take multiple dimensions into account.

By way of example to orient our thinking, we can say that the main components that characterize these modes are the following: ecological (type of natural resource appropriated, such as an extracted mineral or cultivated plot of land; geographical location; ecological context; environmental impacts of the appropriation, etc.); territorial (geographical spaces affected; social delimitation of the territories; concessions imposed, etc.); technological (use of technologies of appropriation; capacity to lessen or remedy impact; biotechnology, etc.); regimes of access and ownership; social (actors conducting the appropriation, local communities, business agents, etc.); capital (investments, profitability, surplus and related disputes, the role of enterprises, demand in global markets, etc.); normative (legal framework of the appropriations, compliance and audit, etc.); political (role of supporting political groups, discourses of political legitimization, etc.); state-related (performance of local, regional, and national governments, taxation and redistribution tools, etc.).

This list is only an example, but it illustrates how MAs must not be enclosed within purely economic descriptions and must include many other elements, such as social and ecological ones. This approach can be considered as “Marxian,” but it is not limited to conventional approaches – be they Marxist or neoclassical – for it includes a detailed account of environmental factors and holds a place for non-material, symbolic relations (as occurs with conceptions and sensitivities on Nature).

Finally, we should at least mention that Marx also used the concept of appropriation in many texts, albeit in a different sense than the one proposed here. While Marx did not define it with precision, he did discuss it in relation to the modes of production and mostly to property, and then returned to the idea of a mode of capitalist appropriation (see, for example, Dussel, 1985).

The modes of appropriation of extractivisms

Let us go back to extractivisms in South America in order to illustrate the application of MAs. Conventional approaches either described them in broad categories – such as extractivisms performed by transnational or state-owned companies – or defined them all, in one way or another, as capitalist; at the same time, they had enormous difficulties in dealing with the proliferation of other practices and other actors. Through the use of MAs, researchers can acknowledge this diversity and begin to analyze it. Table 33.1 offers a very summarized presentation of the various modes involved in different mining extractivisms.¹

It illustrates how appropriations are organized in different ways, with the intervention of different actors, the involvement of different dynamics of administration of capital and labour, and varying regimes of property and access to resources. Also, many MAs can compete within the same geographical space, as occurs in the disputes between legal and illegal miners, or between miners and farmers.

The concept of MAs as an instrument of analysis allows for the detailed dissection of each one of the types presented in Table 33.1. This can be briefly illustrated with the case of MAs in Bolivia’s mining cooperatives, a case that is difficult to analyze from a conventional perspective because it does not correspond either to large-scale corporate mining nor to illegal, informal mining.

These activities increased notably during the MAS (Movimiento al Socialismo) government, going from 911 in 2006 (the year that Evo Morales assumed the presidency) to 1,630 in 2013 (registered in the National Federation of Mining Cooperatives, FENCOMIN) and employing an estimate of 120,000 miners. They have become the second largest mining conglomerate in Bolivia, with operations spreading across 611,000 hectares; they have outpaced state-owned COMIBOL (that had 329,000 hectares) and are second only to conventional private companies (that operate on properties of slightly over 1 million hectares).²

Table 33.1 Modes of appropriation in mining extractivisms

Traditional or old-school mining. Performed by individuals, families, or small groups of different origins (traditional, rural, indigenous, Afro-descendant, migrant or displaced, etc.). Intensive use of human labour and limited access to technology. Low capital investment and financial dependence on local traders and intermediaries who buy and resell the extracted mineral and can provide materials and machinery. Those involved in traditional or old-school mining are often trapped in conditions of poverty.

Illegal or informal mining. Performed by individuals or groups, also from very different backgrounds and in many cases originating from traditional practices. Limited access to capital, limited coordination in the access to inputs, technology (such as dredges), or political representation. They are involved in illegal networks for materials, machinery, and sales, and are victims of violence in the hands of these networks and also of the security forces. Some types of mineral resources, such as gold, can be obtained using simple technologies. These undertakings can involve thousands of people and cover vast extensions of land, with practices of increasing intensity and under terrible sanitary and environmental conditions. Most live in poverty (examples in Valencia, 2015).

Mining cooperatives. Individuals who are formally organized as cooperatives of different sizes. This allows for better conditions of access to capital and technologies and also provides marketing advantages. They extract more minerals and often operate as conventional companies in that they prioritize profit and outsource the social and environmental impact (the particularities of this are analyzed in more detail within the text).

Domestic private mining companies. More capital availability and access to technology than in the previous cases. They have access to large-scale and medium-scale technology, although they don't always follow up with adequate maintenance (examples in Torres, 2007). Working conditions tend to be poor and there are varying levels of unionization. On many occasions these companies establish partnerships with larger mining companies.

Domestic state-owned or mixed-ownership mining companies. State-owned or mixed-ownership (with the private sector) companies, but that are controlled by the state through ownership or funding. Examples of the former are COMIBOL (Bolivian Mining Corporation) or CODELCO (National Copper Corporation) in Chile; of the latter, Vale mining company in Brazil. They have more access to capital and can make significant investments. They make a more intensive use of technology, have more employees who are unionized to differing degrees, and outsource many of their activities. Their environmental and social performance is questioned and, as a result, they too are in conflict with local communities. They have direct access to global trade networks or employ intermediaries.

Transnational mining corporations. Large corporations with high capital availability and an intensive use of technology. Many display standard labour relations (less so in Chinese companies) and outsource a variety of activities. Large enterprises include schemes of corporate social responsibility, but their environmental and social performance is almost always questionable (see, for example, De Echave, 2011, for the case of Peru). They lobby governments and organize their own trade networks.

They are organized legally as cooperatives. Some are made up of a few partners who work directly, make little use of technology, and depend on intermediaries. Others, however, are medium-sized, have access to machinery, are moderately staffed, and have a greater commercial capacity. Finally, there are large cooperatives with great capital availability and access to equipment, that even have their own processing plants and a high participation of salaried workers, who work according to unequal and hierarchical labour relations. They resemble a corporate MA.

Their social performance is poor, as their employees receive poor salaries and are exposed to inadequate health and safety regimes. Social insurance is very limited (only 16% of cooperative members are enrolled in a pension fund). Their environmental performance is also deficient.

For example, land surveying for the Oruro and Potosi departments showed that 78% of the cooperatives lack environmental documents. There are constant complaints for non-compliance on this issue and various cases of tension and conflict with communities caused by water and soil contamination.

The profile of the cooperative members is varied. Some come from families with a mining tradition and others present themselves as community members previously involved in farming. Despite this fact, cooperatives are often in conflict with local communities or miners from formal companies, be they private or state-owned, and even with the government itself (for a relevant case, see Jiménez and Campanini, 2012).

This cannot be described only through the categories of identity, or of belonging to a community or a specific class. There are ruptures and confrontations between different groups within the same extractivist MAs and against other modes, such as that of farmers. Conflicts revolve around access to mining resources, to the surplus created, and to trade networks, and against other members of the community because of the effects on society and the environment.

This heterodox situation is repeated in the political arena. Federation FENCOMIN presents itself as a “trade union,” even though its members are cooperatives and its practices resemble those of a chamber of commerce. It puts pressure on the government, places its own persons of trust in key (even ministerial) positions, etc., and, in exchange, offers electoral support to the MAS party. FENCOMIN insists it represents a stage in development that goes beyond the extractivisms of foreign companies. It adopts a nationalist approach to natural resources and defines itself as “classist and revolutionary, anti-oligarchic and anti-imperialist.”³ Despite this discourse, FENCOMIN sells a big part of the minerals it extracts to large foreign companies.

A focus on the components and the relations existing within this MA reveals a dynamic whereby the popular sectors, including peasants and indigenous inhabitants, organize themselves in forms that are increasingly entrepreneurial, distancing themselves both from the environmental commitments towards Mother Earth that are discussed in Bolivia and from the solidarity of cooperativism. They present themselves as anti-imperialist, but are integrated in the trade networks of the global markets. It is as if they were “borrowing” histories, symbols, and imaginaries – such as cooperativism, syndicalism, community, progressivism, and so on – to disguise an enterprise that walks in the opposite direction – and focuses on maximizing the extraction of resources and economic profit at the expense of social and environmental sustainability.

Characteristics and dynamics of the extractivist modes of appropriation

This short list can also serve as an example to illustrate the characteristics that extractivist MAs have in common (including contributions such as Bunker's, 1984). We must begin by stressing that they are all anchored to specific locations, as they depend on resources such as minerals, hydrocarbons, or soil fertility and, therefore, cannot be moved. This makes MAs organize themselves as enclaves, both ecological (for they are necessarily located where the resource is) and economic (with a predominance of external ties, rather than local or regional). These modes usually create limited economic ties with their surroundings, including hired staff, outsourcing, food and health provision services, housing, and so on, and therefore do not construct productive regional connections. In fact, some actually destroy other local productive practices.

Enclaves of appropriation follow different dynamics. In the case of mining and oil drilling, for example, they are itinerant: they arrive at an exploitation site, appropriate the resource and abandon the site when it runs dry, in order to “jump” to a different location. In agriculture or forestry, the connection lasts much longer.

In these modes, Nature is conceived as a set of “resources.” Perceptions and sensitivities relating to the environment impose its fragmentation and commercialization; certain elements are qualified as “resources,” identified, separated, and extracted, while other elements are disposed of. In some cases, as occurs with open-cast mega mining, the quantities removed and the land surface involved are huge and can thus be qualified as “ecological amputations.” This is actively downplayed or concealed, and the MA operates within the political sphere and that of experts whose aim is to make the loss of natural heritage and the subsequent impact on the environment (such as soil or water contamination) tolerable.

Appropriation targets “resources,” identified as such on the basis of their economic value, demand, and assignation of property rights. Economic valuation has very significant repercussions, for it not only reinforces utilitarian stances but also overshadows other kind of values (such as ecological, cultural, or religious ones that are defended mostly by local communities). The extractivist MA privileges one type of valuation and, with it, imposes a rationality that pursues profitability, efficiency, and competitiveness in the appropriation of natural resources. In other words, there is a commodification of social life and of the relation to Nature.

Conventional attitudes towards development accept and reproduce a valuation that only acknowledges, for example, the final resources exported (income from exportation) and ignores or excludes the economic cost of the impact on society and the environment. Thus, these MAs follow a rationality that presents itself as essentially economic but conceals the fact that its prism is distorted. Protests by local communities and conflicts that arise because of this impact are concealed or ignored, repressed or criminalized. These modes organize themselves economically and socially in order to outsource their social and environmental effects.

In any case, the economic value of a place usually decreases as the appropriation proceeds. In the example of non-renewable resources, it decreases at the pace of the extraction of the mineral or oil; in the case of renewable resources, a similar process can be unleashed by the loss of fertility. However, from the viewpoint of conventional development, success lies in the reduction of this heritage by extracting, for example, as many minerals or as much oil as possible. This dynamic is almost the complete opposite of what is observed in the industry’s traditional MPs, where the value of a location increases with time. This is what occurs, for example, with industrial parks: one industry attracts others and the arrival of new enterprises lowers the cost of infrastructures as all industries share the same location. On the contrary, extractivist MAs act alone and their lifespan depends on the rate of depletion of natural resources.

Many of the traditional analyses of natural resources by development policies speak of the dichotomy between private and public or state-owned properties. However, a quick glance at the MAs in Table 33.1 reveals a more complex situation involving several ownership regimes (private, mixed, state-owned, cooperatives, and so on). Furthermore, a distinction must be made between owning a resource and having access to it, in the sense formulated by Ribot and Peluso (2003). For example, regardless of the ownership of mineral or oil resources, access almost always ends up in the hands of transnational corporations. It is becoming more and more common to come across strategies where extraction is in the hands of the state or of a mixed enterprise, but the technology and commercialization rights belong to transnational companies. This, in turn, explains many of the disputes taking place within extractivist MAs in relation to access to resources (as occurs in Bolivia).⁴ It is also known that, beyond the ownership of each extractivist enclave, its overall production and insertion in the market is often controlled by transnationalized corporate actors. Be it through ownership or access, MAs impose a reterritorialization; this is the case, for example, with mining concessions or oil blocks that frequently conflict with pre-existing territories (such as rural or indigenous).

The proportion of labour and capital on the value of the appropriated natural resources is low compared to the one recorded in the MPs of the stage of industrialization. Anyhow, in mining or oil-drilling MAs, the most significant investment in labour and capital takes place at the initial stages with the construction of plants, platforms, and so on and, even so, the investment is much less than the profit made during the useful life of the mine site.⁵

There are other significant differences between extractivist MAs and the MPs that use their resources. Although the enclaves can be in very different locations (regarding their social and ecological characteristics) they provide similar resources within one same type (commodities). On the contrary, although manufacturing MPs can be grouped (as in an industrial park) they tend to have different final products. In extractivist MAs, costs are usually inflexible in the sense that any increase in the volume of extracted resources equals an increase in costs and, therefore, a higher demand for capital; unlike many manufacturing MPs, where an increase in production can lead to a reduction of cost per unit.

MAs can lead to significant population shifts, such as a massive influx of workers during the construction phase of a mining enterprise. However, once this initial stage is over, the number of workers plummets; many will move to other locations and others will remain in the area, often living in conditions of poverty. There are also population shifts due to the displacement of local communities when their territory is invaded by extractivisms.

Finally, MAs connect and articulate with MPs. They are not isolated from each other but rather overlap, through flows of matter, energy, and capital. Different industrial MPs, for example, depend on the supply of raw materials provided by mining and farming extractivisms. As a result, MPs turn into factors that determine the structure and dynamic of MAs. Their need for raw materials will determine which modes are considered necessary and profitable, what natural resources should be looked for, and what flows of investment follow. In the case of certain minerals, hydrocarbons, or some types of agri-food, access and commercialization are in the hands of just a few companies, who turn into oligopolies of natural resources.

Analyses and alternatives in development studies

What is commonly understood as interactions between society and Nature (or the environment) has been approached in many different ways. Although this is a problematic that exceeds the scope of the present chapter, we must remember that there is great diversity of opinion. Biological ecology, for example, examines it as a distortion of the ecosystem caused by humans. The efforts of human ecology at the beginning of the 20th century extended ecological dynamics, such as competition, to the social world. At the same time, the inverse also applies, as the social sciences have rendered these interpretations more complex, such as in the idea of Nature as a social construction. Ecological economics or ecological Marxism have, to a greater or lesser extent, used ideas such as metabolism in matter and energy, labour and value (see, for example, Foster, 2004; Burkett, 2014).

Beyond these efforts and others, the prevailing approach in development studies, environmental management, and other disciplines is still limited. Social perspectives still resist the incorporation of environmental concerns, and environmental approaches hardly consider social affairs and often ignore power relations. All this problematic is particularly obvious in the analyses of extractivisms. Furthermore, binary analysis on the basis of the opposition between private and state-owned companies, or development and underdevelopment, is inadequate and incapable of grasping the diversity and complexities of Latin America.

This is even more so in the specific case of extractivisms, for they have been fostered by governments both conservative and progressive, albeit in different ways and under different

legitimizing discourses. There has been a mix of conceptual and ideological confusions, and it seems that a new Left has to be necessarily extractivist as the only way out of what is, once again, considered as underdevelopment. Natural resources are once again being extracted, but with the involvement of different political and social structures, different power relations at stake, and different discourses; however, everything flows into the same channels of global trade.

The concept of MAs presented in this chapter seeks to solve some of the limitations existing in the field of development studies, a necessary task in Latin America where development strategies continue to be highly dependent on natural resources. This creates environmental issues and conflicts with citizens and, furthermore, is not capable of tackling problems such as poverty or subordination to globalization. MAs are also an essential approach if we want to avoid the aforementioned traps and confusions and try out alternatives that adjust better to each one of the contexts observed in the continent.

It is clear that when governments, be they progressive or conservative, assert that extractivism is the only solution, they limit themselves to discussing different forms of organizing this specific type of MA. In view of this, MAs play a decisive role not only in describing these situations, but also in enhancing reflection and proposing alternatives. To claim that options within extractivisms are limited to passing from a private to a state-owned model is utterly insufficient. Analysis through the lens of MAs shows that different options will be needed for each mode, given that solutions for mining cooperatives will be different, for example, from those proposed for poor and excluded miners in the Amazon.

These alternatives coincide in that they look for solutions outside extractivist modes of appropriation. In other words, alternatives to development demand another type of interaction between society and Nature from the outset. This articulation is not only a relation based on flows, let us say of matter or energy; it is also expressed in social relations, symbols, beliefs, and affections. Here, too, this new concept can be of use, for it can incorporate sensibilities. Thus, the idea of modes of appropriation does not only aspire to a better description of the problems of development in Latin America; it also wants to contribute to a radical change in how people relate to each other and to Nature.

Notes

- 1 The definition of extractivisms is based on Gudynas (2018), understood as a specific type of extraction of natural resources characterized by its high volume or intensity, where half or more of the matter extracted is exported to global markets in the form of raw materials. The table is based on information gathered through seminars and workshops, consultations with qualified informants, fieldwork, and relevant literature, especially in Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Peru, and Uruguay.
- 2 Data based on interviews in the city of Cochabamba; other references in Michard, 2008; Espinoza Morales, 2010; Ferrufino et al., 2011; Francescone and Díaz, 2013; Gandarillas, 2013; Poveda, 2014.
- 3 Resolutions of the XI National Congress of FENCOMIN in 2011, cited in Poveda, 2014.
- 4 For example, in Potosi (Bolivia) mining company Manquiri, a subsidiary of US transnational Coeur D'Alene, had signed contracts with seven mining cooperatives for the provision of resources (Gandarillas, 2013).
- 5 During the period of high commodity prices, profitability in the mining sector was estimated at 37.1% per year, largely above, for example, industrial MPs (estimated at 6.5%) (De Echave, 2011).

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