THE PREMISES OF A "CONSTITUTIONAL ECOLOGY"

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ABSTRACT

This study addresses the relationship between law and the ecosystemic approach from the perspective of the limits of constitutional law in view of the current condition of "ecological deficit" on the planet ("tyranny of small decisions," dysfunctional powers, irresponsibility). These limits are a consequence of the "fossil" aspect of modern law, undeniably disconnected from the human species' natural need for survival. Currently, there are two efforts to overcome these limits on behalf of the "ecological conversion" of lifestyles and "ecological transition" of the production system: the "optional" method, structured by secondary objectives and rules; and the "prescriptive" method, based on primary rules of new duties towards nature.

Keywords: ecosystemic approach; "fossil" law; tyranny of small decisions; ecological conversion; ecological transition.

AS PREMISSAS DE UMA "ECOLOGIA CONSTITUCIONAL"

RESUMO

O artigo discute a relação entre o direito e a abordagem ecossistêmica na perspectiva dos limites do direito constitucional diante da atual condição de "déficit ecológico" do planeta ("tirania das pequenas decisões", poderes disfuncionais, irresponsabilidade). Esses limites são consequência do caráter "fóssil" do direito moderno, definitivamente separado das necessidades naturais de sobrevivência da espécie humana. Atualmente, existem duas tentativas de superar esses limites em nome da "conversão ecológica" dos estilos de vida e da "transição ecológica" do sistema de

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produção: o método "optativo", estruturado por objetivos e regras secundárias; e o método "prescritivo", baseado em regras primárias de novos deveres para com a natureza.

Palavras-chave: abordagem ecossistêmica; lei fóssil; tirania das pequenas decisões; conversão ecológica; transição ecológica.

INTRODUCTION

The term "constitutional ecology" is virtually unknown in the legal vocabulary. At most, the latter knows terms such as "environmental" law, "economic" constitution, or "environmental" or "ecological" rule of law. The idea of an "ecology" of the Constitutions escapes the jurist's semantic and conceptual horizon. However, questioning the relationship between ecology and the Constitution has become inevitable. Certainly, we must clarify to which "ecology" we refer when we question ourselves about its links with constitutional rules (Colaci 2012). However, the following considerations do not provide exhaustive answers to these questions. Instead, they intend to represent the relevant implications of its reflection.

Discussing the fundamentals of a constitutional ecology means, ultimately, to consider which figures were assumed by contemporary constitutional law in defining the relationships between the devices of nature and the constitutive legal rules (i.e., the coexistence grounds, the limitations of powers, and the qualifications of freedom) and which implications are derived from it in the current context of a world whose ecological dynamics have escaped human control. In summary, it means relating the ecosystem approach, typical of environmental sciences, in addition to its declines (ENEA 2009), with the hitherto followed legal approach regarding the qualification of environmental issues and problems.

In this perspective, the comparison may provide a useful framework, particularly regarding public law, or within the scope of the dynamics between public authority and private freedom. Therefore, studying public law in comparison to the ecosystem approach means questioning which rules and legal traditions, due to their characteristics, are more adaptable to ecosystems and the biosphere, in the current unprecedented context of environmental and ecological complexity.

1 THE PLANET'S "ECOLOGICAL DEFICIT" AND THE "TYRANNY" OF ODUM

The matter is unprecedented in history, since today's reality is characterized by an extremely problematic and unprecedented environmental condition. In the last thirty years, the world has been irreversibly marked by a dramatically new fact: the planet's "ecological deficit," i.e., the human consumption of natural goods, resources and services (such as natural products, water, air, light, etc.) is greater than what nature itself is capable of reproducing/renewing; which means that in order to survive as a species, with the same current levels of individual and collective freedom of consumption, all of humanity would need another planet to continue living.

The "ecological deficit" is not a simple environmental issue for specific territories, energy sectors, materials, and behaviors. It is not an environmental "issue" or an environmental "asset"; it marks the reality of the planetary system; a new dimension of existence (CARDUCCI, 2016).

What can the law do in the face of this unprecedented and paradoxical situation? Are there tools capable of meeting this challenge? If so, which ones? Are they effective? Are they equal in content and effects? How to compare them? How to evaluate them? Do the different legal traditions in the world tell us something useful and important to solve the problem of "ecological deficit"?

The ecosystem approach to comparative public law tries to answer these questions, noting precisely how, in the world, we are preparing to avoid the worst and disastrous effects of the "ecological deficit."

Contemporary law, as structured in its organizational and functional components in relation to the previously mentioned unprecedented issues, was defined as "irresponsible" (in the meaning of "*organized irresponsibil-ity*" by Urlich Beck: 2000), precisely because it is unable to provide effective solutions for the "ecological deficit" problems that already exist. There are basically three characteristics for the "organized irresponsibility."

- 1. Contemporary law is mainly in conformity with the Western legal tradition of *Civil Law* and *Common Law*, marked by the territorial status of the rules and, therefore, by the spatial delimitation of their effectiveness (this reality is the result of the colonial expansion of European states, which imposed in every place the form of territorial State as a synonym for the legal order delimited in space).
- 2. Contemporary law is based on the functional separation of powers (tripartition of powers), which determines a plurality of decision-making functions with times and methods to produce different effects and which do not always follow the urgencies of the "risks" generated by human action (we speak of "ecologically dysfunctional" law: decisions do not arrive "on time" with respect to ecological problems: PAUL, 2017).
- 3. The functional separation of powers and the territorial separation of law (mind of the separation between regional and federal law in Italy, based on the Constitution Article No. 117) determine the effect that

the ecologist William E. Odum called "tyranny of small decisions" (ODUM, 1982): decisions, in contemporary law, can only be delimited in content – out of respect for the separation of powers – and in space – by the territorial status of law – such that this need is reflected in its own insufficiency and inefficiency in relation to the ecosystem and biosphere global problems, making the law the author and the victim, at the same time, of its own inability to solve ecological problems.

Sweden, one of the first countries in the world to promote policies that today would be called "ecological transition," offers a very emblematic example. After experiencing World War II as an "energy trauma," due to its dependence on Nazi coal, the Scandinavian country immediately diversified its sources of supply, by not only exploiting its natural resources, but by also resorting to the suppleness of its peculiar "mixed" legal system of civil/common law (BRUNO, 2012), combined with the practices of the "chthonic" legal traditions of the northern Sami communities. At the same time, however, despite these decisions, it was also one of the countries most affected by the effects of the Chernobyl cloud, which considerably burden on the stability of natural ecosystems benefited by internal policies (CRUCIANI, 2016).

However, the "tyranny of small decisions" calls attention to two more questions. The first is of a distinctly legal-constitutional nature: is a democratic decision within a state itself a decision "compatible" with the ecosystem and the biosphere? This question was definitely answered by the President of the United States, Trump, who, due to his democratic mandate, withdrew from the Paris Climate Agreement, unlike China, which authoritatively established itself as a promoter of ambitious climate policy objectives.

The second question is more distinctly philosophical: does the finding that a "small decision" made by a state produces irrelevant, if not absolutely negative, effects on global ecosystems and the biosphere, does not call into question the same "practical reason" for human action? As is well known, Hans Jonas spoke about the definitive entry into the era of "negative practical reason," in which any good decision for something or someone (its territory, its legitimacy, the present generations) is almost certainly not good elsewhere or for the future (JONAS, 1979); with the effect, theorized and advocated in Germany, of having to claim a new principle to direct decisions and legal rules to be emancipated from this "negativity": when in doubt – even the slightest one – about the consequences of a decision

to increase the "ecological deficit," this decision should be waived; *in dubio against projectum* (RADKAU, 2011). However, this principle is not reflected in any regulatory data, just as – currently – there is no Constitution in the world that recognizes the existence of an "ecological deficit" (while many Constitutions, starting with the Italian one, addresses the "financial deficit").

The law continues to operate as if the world's ecosystem has not changed radically. However, the considerations expressed by the previous questions are well known and accepted as real data by the same modern economic theory on the production of goods and services, according to which any economically useful and advantageous activity still produces "negative externalities," that is, effects negative externalities in relation to other matters or the environment.

Therefore, are these paradoxes inevitable? Are they real? Do they represent the result of a historical evolution of social relations and law that has marked human history? Does it apply to all human history or just part of it?

These questions are very important, because their answers depend on whether this scenario is defined as irreversible or not.

In fact, if the current state of the "tyranny of small decisions" paradox is the historical result of an evolution of society and law, it means that this path can be modified, precisely because it is a human process, and as such it can be "corrected" by the man himself.

During the second half of the twentieth century, this definition was the basis for the most drastic responses to environmental problems. Consider at least the two main definitions, assigned to the so-called "wise planning" model. The first one was the commonly named "eco-authoritarianism" or "eco-fascism" (based on the observation that democratic-representative decisions are not always the best at the ecological level), whose current variable would be precisely present in the "deliberative environmental dictatorship," as a reference to China. This approach is criticized for being authoritarian, although it encompasses a problem: it is representative democracy that feeds the "tyranny" paradox, based on the contingency of interests, the calculation of majorities, the short-term descending mediation of parties and their interests, in the limited room for effectiveness.

The second drastic response was the communist utopia (nowadays called "*benecomunismo*" in Italy), based on the idea that nature's vital assets (water, light, air, land, etc.) should not be privately owned, but collectivized or entrusted to public authorities. Even this perspective, however,

is criticized, based on the assumption that any "communist" approach calls into question individual freedom as a natural factor of any person (given that the human being is really an animal, but endowed with reasoning for freedom individual).

Then how to overcome this "impasse"? Furthermore, this "impasse" concerns modern institutions (separation of powers, representative democracy, territorial separation of states, etc.) or is it from human nature itself (does the human being, as an animal endowed with reason for his own freedom, pursue his individual interests and satisfactions before those that are common to the species)?

In the 1980s, Alexander Langer argued that the issue concerned both modern institutions and the nature of human beings, and that both were oriented towards the "ecological conversion" of the institutional and personal action of each of us and the "ecological transition" of the production system. The concepts of ecological "conversion" and "transition" marked the ecosystemic approach of individual and institutional behaviors in the current context, and based on them, consequently, the rules, institutions, and categories of constitutional law should be debated (CIUFFREDA; LANGER 2012).

2 "CONVERSION," "TRANSITION" AND "FOSSIL" LAW

But how to proceed with ecological "conversion" and "transition"? Have there ever been historical experiences of an "ecosystemic approach" in this direction? Are there legal traditions more suitable than others to favor the "ecological conversion" of institutions and people?

The answer is affirmative. There were institutional experiences of an "ecosystem approach": the "Constitution of the Iroquois," from 1090, which suggested analyzing the effects of decisions on future generations; or the "Charter of the Forest" of 1217 (purged from the English Magna Carta of 1215), which removed the use of "Commons" from the representative parliamentary decision-making circuit; but also the "Kurukan Fuga Charter," in southwest Africa, from 1222-1233, which admitted the legal subjectivity of nature; the German and Swiss "*Allmende*" and the Italian "civic uses" dating from the Middle Ages; in addition to the "chthonic" legal tradition that was recovered and constitutionalized (the African *Ubuntu*; the Andean *Sumak Kawsay* etc.).

The common characteristics of these experiences (that are, not by

coincidence, pre-modern, i.e., subtracted from the "fossil" exploitation of nature, as will be shown ahead) are basically three: they subtract the use of natural resources (*e.g.* water, air, fauna and wood) from decisions of monocratic power or political representation (such as a king, an assembly, etc.), asserting free access to them; they recognize that the access to "vital goods," i.e., eating and drinking in order to survive, constitutes a "right of existence," therefore it cannot be waived or balanced with other rights, and it must be guaranteed through supervisory tools and not dependent decisions committed to any other interest; and finally, they identify water, fauna and wood as non-appropriable goods (therefore, not subject to private ownership).

So why did modern and contemporary institutions adopt conformations and operational modes that are incompatible with ecology, that is, with the operational modes of ecosystems and the biosphere? Why did these experiences not continue?

Environmental law historian Bernd Marquardt contributes to answering this question (MARQUARDT, 2006). It distinguishes three epochs of public law in relation to ecosystem goods, resources and services: the era of "neolithic" law, in which humanity, living by collecting and hunting (eating and drinking), follows the natural cycles of goods, resources and ecosystem services, adapting to them (such as the discipline of work and rest, in relation to day and night to hunt, or nomadism) and making the human subject a simple "consumer" of nature for self-subsistence; the era of "biochemical" law, in which humanity, learning technical cultivation (with the plow) and herding animals for a living (eating meat, drinking milk, etc.), begins to reproduce natural resources and goods (such as wheat), which, in turn, are perishable and therefore require preservation, making the human subject a "producer-consumer" of nature, always considering nature for its own subsistence; and the era of "fossil" law, in which humanity discovers new natural resources, underground, that are not used for living, as they cannot be eaten or drunk, but that feed new consumption activities, definitely separated, for the first time in history, from eating and drinking for self-subsistence and independent of any other living subject (tow animals).

With the "fossil" right, humanity is entitled to "explore" nature for "unnatural" purposes (that is, neither eat nor drink), disregarding the biological cycles of any expression of life, "manipulating them," and regardless of the natural need for self-subsistence. The "fossil" law was only recently established, in the middle of the 19th century, with the discovery of coal as a natural resource (originally called "underground forest" in England, due to its vegetal origin), useful not to survive, but to do more, something that is "material," "transformative" and "additional" to vital needs.

At the legal-constitutional scope, the consequences of this discovery were mainly six: the economic value of the land increased due to the presence of coal, despite its natural biodiversity (opening the door to the extractivism of the 20th century); the calculation of this economic value no longer depended on natural human survival assets guaranteed by surface goods (pastures, plantations, forests), but on other factors that are completely unrelated to human survival (the coal acquires more value than a fruit tree or an animal pasture); this strengthened the phenomenon of the so-called "Enclosures," a land fenced with the aim of claiming private ownership of the soil, with the objective of extracting its underground resources, and if necessary separating underground and surface properties (a precursor to the current Land Grabbing); new rights were claimed on the land, no longer linked to human survival (the rights to vital goods for eating and drinking), but exclusively to the economic interest in underground exploration to perform other "non-vital" activities (as in the theme of the legal discipline of "natural monopolies" and the one that first appeared in England and the United States from the first industrialization, from the distinction between property, extraction business, transformation activity, supply activity, regulation activity, and consumer activity); the organization of work changed, as those interested in underground resources no longer needed agricultural workers and their knowledge, but people employed in the extraction of inedible goods (therefore, the concept of work and its value changed); a close relationship between science and politics was established (given that agricultural knowledge was no longer indispensable to the interests of production), with the emergence of the primacy of technique over nature.

With the advent of the "fossil" era, the right to explore nature definitively separates from the right to self-subsistence of the human species, making the exploitation of "fossil" natural resources more important than that of the surface (although the human survival depends only on the latter) (MUSSO, 2017). A foreshadowing of this gap had already appeared at the end of the 18th century, during the debates in the French "Second Convention" (1793), by Robespierre, with his proposal to introduce a "human right to subsistence," to "functionalize" private property for social survival purposes and not just for profit or material utility. The proposal, however, was rejected, precisely to highlight property and extraction rights to promote progress. Thus, a new "political ecology" (in other words, a new political conception of nature) will be born in the exploitation of natural resources, different from the past, and particular different from the one that was already experienced during the Spanish "Conquest" of the American continent.

The extractivism practiced by the Spanish and Portuguese aimed at gold and silver, in order to acquire wealth to trade in Europe, in exchange for manufactured articles and products, mainly from English and Dutch. This "extraction," as Adam Smith observed, was not harmful to human survival or the environment, but only to society, by having caused slave labor. On the contrary, the extraction of fossil resources will be doubly harmful, as it separated the right to self-subsistence from other rights of economic interest (which would prevail); over time, it will be increasingly harmful to the human health and the environment (with the progressive pollution resulting from the massive consumption of fossil resources, despite the increased material well-being of activities guaranteed by fossil exploration, such as rail transport and electricity).

In summary, the new "political ecology" will be based on the increasingly deep separation between the "material well-being" of services (travelling by train, having heating supply, a car, light, etc.), the existential right to self-subsistence (eating and drinking), and health and the environment (respecting nature and its cycles while not jeopardizing human survival). Consequently, human subjectivity will also be progressively decomposed in the era of "fossil" law into three different dimensions, according to its "function" in the external context of exploitation of fossil resources: self-subsistence humanity, in eating and drinking; the humanity of use/ consumption (users/consumers) of services produced on the basis of fossils ("utilities"); and humanity progressively damaged by consumption itself (health, pollution, new diseases, etc.).

Finally, a particular feature of "fossil" resources will quickly become clear: unlike surface biochemicals, characterized by being "perishable" (therefore, losing value over time), these underground fossils will be "exhaustible" (therefore, with exponential appreciation over time, because they are increasingly scarce in view of the growing consumption needs for material welfare utilities. Hence, the division of humanity between producers and consumers and, above all, between "material" consumption needs and utilities, which become increasingly important in comparison with the "natural" demands for survival.

This contradictory scenario (the consumption of material resources for "well-being" is more important than the access to vital self-subsistence goods, in progressive damage to health) is immediately understood by an economist, WS Jevons, with his "paradox" of 1865 (the technological improvement in the use of fossil resources increases its consumption, making it necessary to increase its exploitation to the detriment of nature, health and human needs for self-subsistence), and by a physicist, R. Clausius, in 1885, who first, remaining unpublished throughout Europe, poses the problem of the depletion of energy reserves in nature and the need for their rational and limited use for the good of humanity, by means of rules different from those established in the name of material well-being (a right which legitimizes and favors the consumption of utilities).

The demonstration that the premonitions of Jevons and Clausius were not taken seriously in the advent of the "fossil" era is made by the fact that the same legal rules, from constitutional law, recognized and accepted the new precisely "fossil" dimension of human coexistence. This can be seen by reading the texts of three paradigmatic constitutions of the twentieth century: the Mexican Constitution of 1917, the first "social" Constitution in history, although following a peasant revolution in which the "biochemical" dimension of coexistence still prevailed and in which therefore, the right to self-subsistence (access to land as the primary source of the right to food and well-being) prevailed over material and consumption well-being; the 1919 Weimar German Constitution, an expression of a fossil industrial context (remind the Ruhr valley), in which, for the first time in history, the material "development clauses" of society are constitutionalized, as the primary and predominant objective on the natural needs for self-subsistence (CARDUCCI, 2013); and the Italian Constitution of 1948, whose articles No. 41 to 44 contain specific formulas to differentiate the "biochemical" and "fossil" conditions of nature exploitation (consider the "nationalization" regime of natural monopolies, whose adaptation for the liberalization of services and consumption in the European market is no longer viable today).

3 SOVEREIGNTY OF THE STATE AND "ECOLOGICAL TRANSITION"

In the era of the "fossil" law, natural resources become a factor of quantitative economic growth (increase in the consumption, production, the number of job opportunities in the exploitation of resources and in the provision of services), but not a guarantee of self-sufficiency in humanity in its primary needs for access and use of vital goods (eating, drinking, breathing, sheltering from the cold).

Besides, the concepts of "progress," "economic growth," "development," "consumption levels" are the product of this historical scenario. Nature is definitely functional for the market (nature serves to produce and exchange material goods, even before guaranteeing the life of humanity) and the very concept of the environment, which until then coincided with that of "natural nature" (Wild), are completely "anthropized" (the environment is what man creates, not what exists in nature among living beings, including – but not only – human). Nature can only be "marked oriented" and "consumer-centered."

Over time, it was discovered that fossil resources, in addition to being exhaustible, have another unique feature among natural resources: they are polluting, harmful not only for the health of individuals, but for the entire ecosystem and biosphere itself. It was also found that this harmfulness is not "temporary," just "individual" and spatially "delimitable." It is irreversible, therefore leaving a "footprint" designed to increase over time with the addition of any other "damage." In summary, it determines a permanent "negative externality," incompatible with the environment and immeasurable from an accounting point of view (the "ecological deficit").

These observations, developed between the 1960s and 1970s, gave rise to the contemporary ecological debate and exposed the limits of the "fossil" model of law, based on "material progress" regardless of the needs of survival and vital subsistence of humanity.

The concept of "sustainable development" was born in the 1970s as an attempt to face this challenge, but without eroding the same perspective of functionalization of nature in the market or imagining a "development" of material goods and services that are in fact "sustainable" by nature (and not vice versa).

And then? In a world with an "ecological deficit," what are the possible legal resources for an "ecological transition"? Are they all the same? Are they workable and in fact practiced?

Here, we return to the initial questions. These questions can be answered on three fronts: noting that there are attempts of "ecological transition" not oriented towards the market (made by economists and environmental lawyers), but which are very radical and lead to three parallel lines of state intervention; noting that the current institutional responses, in particular from the European Union (EU) and its Member States, continue to operate in the context of the "fossil" logic of functionalization of nature in the market and in consumption; noting that in other contexts, from the "South of the world," there has been an attempt to experiment with different institutional rules and mechanisms, inspired by the reclaim of a different "ecosystemic approach," defined as the "biomimicry" of law and constitutional organization (GÓMEZ INSURANCE POLICY, 2014).

Let us start with the radical theoretical responses. As already mentioned, there are basically three. The first is the "steady-state." Proposed by Herman Daly, he argues that very rigid public policies must be activated to control consumption and industrial production of "unsustainable externalities," through environmentally inspired fiscal and financial mechanisms and strong and effective sanctions against offenders. This approach, however, presupposes a protagonist and totally sovereign role for the State that seems unrealistic in the current context of globalization, which precisely conditions States and their sovereignty, especially in the financial and fiscal scope (see the EU itself, where the "budget balance" in the Eurozone and the principle of "prohibition of State aid" severely limits the sovereignty margins of States - the Ilva de Taranto case is also emblematic of this paradoxical conditioning). The second thesis is the "happy degrowth," proposed by Serge Latouche and disseminated worldwide. It is similar to the previous one, however it has the objective of "imposing the change" of lifestyles (with the so-called "eight Rs") and economic behavior, always through a leading role of the States. Therefore, the same previous questioning applies to this one in relation to the real role of the State, as well as other uncertainties about the legitimacy of the "decreasing" decision (will there be any representative consensus on the "decreasing"? And through which political commitments?) (CARDUCCI, 2017). The third thesis seems more moderate and is summed up by T. Jakson's formula for "prosperity without growth."

By means of fiscal instruments, a "condominium" economy, which attributes value to goods and services that are not materially consumerist, such as culture, leisure, the organization of public spaces, solidarity, and social relations, should become more convenient and attractive: the so-called "relational goods." These goods not only improve the quality of life, but also allow to produce economic wealth in terms that are not exclusively commercial and foreign exchange, with zero environmental impact and a collective advantage of reducing the "ecological deficit." Even in this case, however, an active role of the State, as an actor in public policies, is indispensable (JACKSON, 2017).

The various summarized proposals, therefore, have common characteristics in relation to the role of the State. This is explained by the consideration that the State is the only external methodological device capable of imposing itself over the human will in order to change its behavior which, otherwise, if left to the free dynamics of the market and its logic of exchange or society, would not necessarily correct itself in relation to the problems of the "ecological deficit." And also, because the "ecological deficit," unlike the financial deficit, is not immediately visible and perceptible by the individual, implying a type of "systemic blindness" (the individual is not able to "see" the systemic connections of nature, severely tested by their own behaviors).

Hence the inevitability of a "correction from above," precisely by the State and its political instruments, legally coercive. However, this discovery raises three questions. CAN the path of the State's active, "corrective" and "coercive" role in the current context of economic and social globalization of exchange (of goods and opinions) be realized? Are the summarized perspectives really sought in any country in the world? Based on what institutional tools is it possible to legitimize the "corrective" policies of States?

The first question has a negative answer. It is not actually possible, at least in supranational contexts such as the European Union, to imagine an active, "corrective" and "coercive" role that is really "sovereign" of the State, in the name of fighting the planet's "ecological deficit"; this is explained because the current world of the globalized market and society (goods and opinions) is characterized by a condition that Dani Rodrik defined as a "trilemma" (RODRIK, 2014): today, combining democracy, economic-social globalization and national decision-making sovereignty is almost impossible.

On the one hand, the world economy is now governed by global financial markets that produce or burn wealth (in an amount well above the financial reserves of individual states) regardless of the material decisions of states, and, above all, much faster than decision times of politics. The market, briefly put, is now "faster" than states, and this temporal dysfunction inexorably not only conditions and "captures" public decision-makers, but also instantly scares public opinion and private decision-makers.

Consequently, to guarantee private consent and public power, democracy must pursue "fast" decisions with immediate effect and with the least possible sacrifice of "private fears." After all, it is society itself, thanks mainly to the global nature of "social media," which seeks expectations for global improvement, which goes beyond the response capacity of each state. Therefore, this "vicious circle" of the "trilemma" not only clarifies the difficulty of contemporary democracies in proposing long-term policies and broad and radical changes in national realities, but, above all, it prioritizes the persistent issue of normative "reforms" due to the economy, given that, in the constant acceleration produced by the global financial market, any "reforming" intervention has repercussions and does not necessarily anticipate economic reality.

From this scenario, the answers to the other two questions may arise. So far, the "radical" proposals have no concrete application, except in some extremely limited contexts and areas, which are ineffective in the fight against "ecological deficit" at the "macro" level (consider the study of local experiences of the government of common goods, by the Nobel Prize winner Elinor Ostrom). As a consequence, the current state of "trilemma" questions the role of democracy: would it be "useful" in the fight against the "ecological deficit"? Or was it an obstacle? Or is the problem just representative democracy? And, in this case, would other forms of democracy be feasible for the ecological governance of the planet?

4 THE TWO CURRENT ENVIRONMENTAL REGULATION LINES

In the current context, given that "radical" responses remain mainly at the theoretical level or exclusively in small local practices (therefore, in the inexorable narrowness of Odum's "tyranny of small decisions") (CARDUCCI, 2018a), there are only two trends in the world to face the planet's "ecological deficit" and to attempt to promote the "ecosystem approach" in law and in institutions: the first is that which can be defined as "optional," because it is based on the importance attributed to a series of "secondary" principles, meta-rules and rules (that is, rules for the attribution of competences) that would mark the objectives to be achieved without imposing drastic measures to limit freedoms and the global market (therefore still "marked oriented"); the second can be defined as "prescriptive," because it is characterized by the provision of a series of "primary" rules (that is, containing prohibitions and behavioral obligations), pressing towards global and innovative freedoms and markets in the attribution of new rights "compatible" with nature and its physiologies (therefore "ecologically oriented"). The first is specific to the Euro-Atlantic world and, especially, to the European Union and its Member States. The second, on the contrary, arose in the countries of the so-called "South of the world," but it is spreading and gaining notoriety and interest also in Europe and now in the United Nations, which, in part and gradually, is making it its own.

The "optional" ecosystem approach is essentially based on the three principles of precaution, prevention and correction at source (AMIRAN-TE, 2006). These are three principles of "compromise" between the needs of the market and the role of technoscience in relation to the autonomy of political decision, safeguarding all individual freedoms equally considered. Its common denominator is in the logic of "minimizing" (not avoiding) the risk of human activities incompatible with the environment (from the extraction of fossil fuels, for example, it is considered the decarbonization with the use of gas) without, however, presenting the direct problem of combating the planet's "ecological deficit" and trying to provide effective solutions to the "Rodrik trilemma."

The proof is provided by the Energy Charter Treaty, of which the Energy Community Treaty is a reproduction at the level of the European Union. Despite the reference to environmental protection (art. 19), with art. 47 the governments of States are in fact subordinate, even in case of termination of the Treaty itself and regardless of the reasons for that termination, to the financial interests of multinational companies: the protection of profits comes before environmental protection, through a cynical mechanism of "capture" of the state known as "Zombie Clause" (CEO-TNI, 2018).

It is not a coincidence that this approach is recognized in the concept of sustainable development in a "comprehensive" sense (sustainability entirely in the name of any right and any interest: MANCINI, 2015). The "optional" logic also includes the 1998 Aarhus Convention, to which the European Union and several Member States, including Italy, adhere, to allow conscious involvement of the "public" (which can be understood as the society with its individuals and groups, in addition to any citizenship status and role) in the decisions of environmental impact. This Convention is based on the so-called "three pillars": the right to be informed about "environmental issues"; the right of access to the judge for "environmental issues" and for reporting damages or risks; the participation in decisions of "environmental impact."

In fact, these three "pillars" are not very effective, because they are still oriented towards the primacy of the globalization of the market and opinions (we inform and participate, but in the freedom of opinions and interests of any person, without any difference between economic and ecological reasons for each one's positions) and because they do not solve the problems of the "Rodrik trilemma" (consider the transboundary environmental problems, in which the Aarhus Convention had to be integrated into the Espoo Convention, totally unapplied).

As a result, information and popular participation in "environmental" decisions are very little and poorly achieved by both the European Union and individual states². Moreover, the "optional" nature of the content of the Aarhus Convention is confirmed by its sanctions in case of a failed or incorrect implementation: the denunciation procedure is devoid of executive effectiveness, it is also "marked oriented," and consequently translates into an inconsistent "signaling" of non-compliance (FEOLA, 2014). Finally, the "optional" approach does not aim to change the reality of "fossil" law, but only to mitigate its harmful effects. It works as a means of preventing or repairing damage, but in the sense of specific and individual injuries to environmental goods (air or water pollution, production of a specific disease, etc.), without assuming the ecosystem dimension of the current condition of "ecological deficit" on the planet. In short, it never departs from Odum's "tyranny of small decisions."

A recent opinion by the European Economic and Social Committee (EESC), dedicated to the issue of "climate justice" (2018/C 081/04) clarified it, but still in an "optative" way (with an opinion, not with a supranational act binding).

Also for this reason, this approach, precisely because it is limited to pursuing objectives without radically affecting the *status quo*, is compatible with any institutional system and legal rules. Consider the "Environmental Impact Assessment" (EIA) and "Strategic Environmental Assessment" (SEA) tools: they can be activated in any context, in addition to their

² Check, in this regard, the data at https://environmentaldemocracyindex.org/.

characteristics of legitimating power and without questioning the political criteria of the decision, as a "politically neutral" technical mechanisms (in this regard, for instance, Italian administrative jurisprudence has qualified these instruments, listing them as unquestionable "acts of senior management" in the consequent result of decision-making).

Only recently, and not by coincidence in the so-called "South of the world," several constitutional reform processes have been launched. They seek to integrate the optional approach and eliminate its limits through mechanisms of rules and institutions with "prescriptive" content, i.e., of command, control, correction, and limitation of the freedoms of society and the market, in the name of the fight against the "ecological deficit." The main examples to bear in mind are the Constitution of Ecuador, 2008, and the Constitution of Bolivia, 2009, the *Opinión Consultiva OC-23-17*, of November 15th, 2017, as well as the *Acuerdo Regional sobre el Acceso a la Información, la Participación Pública y el Acceso a la Justicia en Asuntos Ambientales en América Latina y el Caribe* of 2018 (known as "Acuerdo de Escazú"), whose content integrates the "pillars" of Aarhus with the explicit recognition of humanitarian law to the environment.

The common characteristics of this "prescriptive" approach, precisely because they are based on the primacy of an environmental humanitarian law, can be summarized in the following terms: they allow the reference to the "chthonic" legal tradition as an axiological parameter of the validity of political decisions (consider the constitutionalization of the Andean Sumak Kawsay); they activate prescriptive rules of "favor naturae" and "in dubio pro natura"; they constitutionalize the "rights of nature" (in the sense of assuming ecosystem goods, resources and services as subjects, equal to human beings, acting legally through procedural "substitutes," as in the case of the Andean "acción de protección," and "institutional" like "Defensoria della Madre Tierra," in Bolivia); they affirm the decision preference of the "right to restoration" of altered or damaged environmental conditions (in order to, among other things, avoid the "compensation" logic, typical of "marked oriented" environmental law); they limit and condition the political criterion in the "strategic" decisions of environmental impact, subordinating it to the participation or to the popular codecision on the pro natura options); theu subordinate the "legitimate expectation" of investments and economic interests to the respect for constitutional rules and for the rights of nature and not vice versa, reversing the "capture" of the regulator underlying the mentioned Energy Charter Treaty; they activate the so-called

"demodiversity," which is the introduction of diversified instruments of democratic participation, additional and complementary to those of simple political representation and participation of the stakeholders (CARDUC-CI, 2018b).

The "prescriptive" approach, therefore, seems to be better oriented towards "ecological deficit" issues. However, this observation cannot lead to the conclusion that this would resolve all contradictions in contemporary constitutional law, which, in any case, remains the fruit of the "fossil" dimension mentioned above.

That is the reason why each of the two "approaches" have similar strengths and weaknesses. The "optative" has little effect on individual consumer freedoms and the economic interests of "fossil" profit, but does not vigorously face the fight against the "ecological deficit," with substantial indifference to the "Rodrik trilemma" and the relationship between ecology and democracy. The "prescriptive" leads to a limitation or sacrifice of quotas of freedom, especially consumption of "utilities," and subordinate economic interests to "rights of nature," in the name of the "ecological deficit," while also promoting unprecedented democratic procedures, which, useful as they are in "empowering" people and making them less blind to ecological issues, they trigger constitutional tensions between the democratic legitimacy of political representation, inexorably declined in the paradoxes of the "Rodrik trilemma," and the citizen's ability to participate in the diverse realities of nature conservation areas.

If the "optional" approach appears to be the only one practicable in the "multilevel" complexity of the European Union, the "prescriptive" approach comes from states with sovereignty not conditioned by strong supranational integrations like the EU, but precisely for this reason it presents only internal effects, where local communities mainly practice agricultural activities (given that fossil extraction have already been preyed upon by multinationals), closer to the rules of "biochemical" law, but not emancipated from Odum's "tyranny of small decisions."

CONCLUSIONS

Therefore, a "constitutional ecology," involves reconsidering the structure not only of legal concepts and categories (remodeling them according to ecological "conversion" and "transition"), but also and, above all, of the type of rules ("primary" or "secondary") that supervise

the organization of powers, the separation of powers, the recognition of freedoms, the definition of duties and from which the effects of "irresponsibility," "dysfunctionality" and "tyranny of small decisions" of the current "fossil" law, which can be deduced from the ecosystemic approach to existence.

On the other hand, this perspective seems preferable and more realistic than the many "revolutionary" proposals in the debate about the socalled "political ecology" (DE SIENA, 2019).

For instance, following a suggestion of one of the first defenders of political ecology, the biologist Barry Commoner, one must ask "how long" the utopias of "political ecology" may occur in relation to the cycles of the ecosystem. If this question is not answered, "political ecology" will remain very "political" and little "ecological," as we have – according to the most accredited science and the October 2018 Report of the Intergovernmental Panel on Climate Change (IPCC) – at most 11 years to reverse the catastrophic course of the planet. Can everything really change at the political level within 11 years? Can a world governed by a majority of undemocratic states and governed by international law, including environmental and climate law, indifferent to the guarantee of democracy, be able to turn to socialized practices of ecological sharing from below? Can, in 11 years, the ecological democracy triumph, to the detriment of representative democracy now administered from above? Where, how, with whom? In the minds of "political ecologists"?

A lawless politics does not exist, just as law without politics works poorly, especially "during" a scaling catastrophe that is already underway (Carducci 2019). Therefore, discussing a "political ecology" without addressing a question of "constitutional ecology" becomes useless: an empty exercise of empty proposals for the present and the future, despite the useful, rigorous and effective analysis of the past.

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