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ECOLOGICAL MINIMUM AND STATE DUTIES: A GLOBAL VIEW FROM THE PERSPECTIVE OF PORTUGUESE LAW

MÍNIMO ECOLÓGICO E DEVERES DO ESTADO: UMA VISÃO GLOBAL DA PERSPETIVA DO DIREITO PORTUGUÊS

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Summary: 1. Introduction. 2. Framework. 3. Guiding principles. 4. Determination of the concept of ecological minimum. 5. Conclusions.

Abstract: This paper aims to present a contribution to the delimitation of the concept of the ecological minimum, as well as the State's duties arising from it, mainly from the perspective of Portuguese law. To identify the content and shape of this concept, we will analyze the case of Neubauer and Others v. Germany and then develop the notion of a subjective right to the environment. After these considerations, this paper will list the principles of public international law applied to the issue of climate change, and finally move on to a dissertation on the determination of the concept of ecological minimum, listing the actors involved in this process.

Keywords: environmental law, fundamental right to the environment, subjective right to the environment, State duties, principles of international public law, control of minimums, separation of powers.

1. Introduction

The constant public need to respond to violations of fundamental rights linked to environmental degradation, as well as the generalized and progressive awareness of citizens about this phenomenon, has allowed for a development of the contours of the State's duties to protect fundamental rights in environmental matters, especially in case law.

The irreversibility of climate change has also caused both citizens and States, and their decision-making bodies, to consider measures to safeguard the rights of present and future generations. This would guarantee the various constitutionally enshrined rights and duties, as far as possible.

Despite the measures adopted, many of the violations of fundamental rights that have occurred – which are the result of the State's omission from the practice of its constitutional duties – are also irreversible, as are the effects caused by climate change,

It is therefore in a context of uncertainty of events and irreversibility of damage that legal authors and courts have been introducing the concept of the ecological minimum. Nowadays, and due to the immense difficulty of its determination, both courts and legal scholars have anchored themselves, above all, in the scientific consensus, given the fact that climate change is largely a factor of Science.

2. Framework

The Neubauer and Others v. Germany Case

On March 24, 2021, the German Constitutional Court ruled that the German government would have to rewrite its Climate Act by 2022, as it considered its measures (defined until 2030) to be insufficient and calling into question the fundamental rights of future generations[1] (hereinafter, the Decision).

The constitutional dimension of the Decision lies in the plaintiffs' claim that certain provisions of the Federal Climate Protection Act were incompatible with some of their fundamental rights guaranteed by the German Basic Law, and that these provisions were therefore unconstitutional.

The constitutional complaint stemmed specifically from the alleged violation of the State's duties to protect arising from the rights to life, physical integrity and personal liberty, the right to property, and the right to a future compatible with human dignity (*menschenwürdige Zukunft*[2]), as well as the associated right to an ecological minimum standard of living (*ökologisches Existenzminimum*[3]). The Court has understood that the right to an "ecological minimum standard of living" would derive, among others, from the "minimum standard of living compatible with human dignity", which follows from Articles 1(1) [Human dignity is intangible. Respecting and

1. Case decided by the German Constitutional Court on March 24, 2021 (Cases Nos. 2656/18, 78/20, 96/20 and 288/20).
2. See Paragraph 38 of the Decision.
3. See Paragraph 40 of the Decision.

protecting it is the duty of all public authorities] and 20(1) [The Federal Republic of Germany is a federal, democratic and social state] of the German Basic Law, according to which minimum ecological standards are considered a precondition for a minimum standard of living. In the Court's view, physical survival or even the possibilities of cultivating interpersonal relationships and participating in social, cultural, and political life could not be guaranteed by economic safeguards alone if the Environment available for this purpose had been radically altered by climate change and had become toxic by human standards. However, the Court added that other fundamental rights would already assure that the maintenance of minimum ecological standards essential to fundamental rights was mandatory, thus making the protection against environmental degradation "of catastrophic or even apocalyptic proportions" mandatory[4] . However, alongside the duties of protection deriving from the text of Article 2(2) [Everyone has the right to life and physical integrity. The freedom of the person is inviolable. These rights may be restricted only by virtue of law] – with regard to physical and mental well-being – and of that provided by Article 14(1) of the Basic Law [Property and the right of inheritance are guaranteed. Their contents and limits are defined by law], the Court held that a mechanism for safeguarding the ecological minimum standard could indeed acquire its own independent validity if, in an Environment transformed to the point of being toxic, adaptation measures were still able to protect life, physical integrity, and property, but not the other prerequisites for social, cultural, and political life[5].

Despite this, the Court held that it was not possible to establish that the State had breached its duties to avoid existential threats of catastrophic proportions. In this regard, the Court explained that in the Climate Act, the German state had set concrete specifications for the reduction of GHGs. It further added that these reduction targets, which were specified until 2030, do not by themselves lead to climate neutrality, but would be updated in accordance with the long-term goal of achieving greenhouse gas neutrality by 2050. If the necessary efforts are made within this framework, it seems possible – insofar as Germany can contribute to solving the problem – to at least prevent catastrophic conditions from occurring.

For all the above reasons, and despite the criticisms leveled against it, the German Constitutional Court has taken a central role in this discussion about the concept of the justiciable ecological minimum.

Insofar as this paper aims to develop an approach to a problem that is global from the perspective of Portuguese law and doctrine, and given the innovative nature of the decision at hand, we believe that any legal system can benefit from this type of achievement. That said, for this topic to be analyzed from the perspective of any national legal system, it seems useful to understand how other legal systems are dealing with the issue, and then adapt the strategies to each one.

4. See Paragraph 13 of the Decision.
5. See Paragraph 14 of the Decision.

Thus, it is based on this analysis that we will try to contribute to the construction of the concept at hand.

Subjective right to the environment

Assuming as a premise that the Environment is a legal good[6], and recovering the considerations made by the German Constitutional Court about the concept of the ecological minimum, legal authors maintain a fundamental discussion regarding the current topic: *is there a subjective right to the environment?*

Nowadays, we can distinguish five models of constitutional protection that are conferred to the environment as a legal good:

1. Recognition of a fundamental right to the Environment, autonomized; that is, a right to the environment that is not deduced from other rights or considered a necessary condition for the State to guarantee other rights. This is the case of the Portuguese Constitution (see article 66).

2. Recognition by the courts of a right to the Environment, due to the fact that environmental quality is indispensable to exercise other rights. This is the case of Kenya's Constitution (see article 42 (a)) and of the German Constitution (Articles 1(1) and 20(1)).

3. Attribution of procedural environmental rights. This is the case of Brazil's Constitution (see article 225).

4. Attribution of rights to elements of nature. This is the case of the Constitution of Ecuador[7].

6. Today, the characterization of the environment as a legal good is well established. It was in International Law that the Environment and its protection began to be the subject of greater concern. In the doctrine, the "awakening of the ecological era" began in the late 1960s, with Kiss A (1994). However, before this moment, some international diplomas already regulated the subject. In 1968, the Council of Europe issued the Declaration on Combating Air Pollution and approved the European Water Charter. That same year, the African Heads of State and Government signed the African Convention on the Conservation of Nature and Natural Resources. In 1972, the Stockholm Declaration, although not having a definition of Environment, brought together several principles dedicated to solving environmental problems. However, not all instruments in International Law attribute this function to the Environment (as an instrument of the good quality of life). The World Charter for Nature (adopted by the member states of the United Nations on October 28th, 1982), for its part, characterizes the Environment as a good with intrinsic utility and values, regardless of its relation to human life. Still, the predominance is the anthropocentric perspective of Environmental Law.

7. Ecuador's Constitution was approved, with massive participation of the indigenous people, through a referendum on September 28, 2008. Chapter Seven of the Ecuadorian Constitution contains the "Rights of Nature", which states that "*Art. 71.* ***La naturaleza*** *o Pacha Mama, donde se reproduce y realiza la vida,* ***tiene derecho a*** *que se respete integralmente su existencia y el mantenimiento y regeneración de sus ciclos vitales, estructura, funciones y procesos evolutivos. (...) Art. 72****. La naturaleza tiene derecho a*** *la restauración*"; our translation: Art. 71 Nature or Pacha Mama, where life is reproduced and realized, has the right to have its existence and the maintenance and

5. Imposing on the State (public entities or public and private entities) duties of environmental protection. This is the case of the Constitution of India.

In Portugal, although the premise that the Environment is a legal-constitutional good is unquestionable, as undoubtedly results from article 66, no. 2 of the Portuguese Constitution, the acceptance of a subjective right of the environment is not consensual.

On the one hand, some authors claim that insofar as the legal good of the environment is indivisible, as it consubstantiates a composite reality, a right to environmental protection should be recognized; however, the corresponding duties are the State's duties of environmental protection, thus not requiring the recognition of an individual dimension. Therefore, for this line of thought, except in the cases in which the law grants extended procedural and procedural legitimacy, an individual will have to invoke a personal, direct, and specific affectation or claim so that what is at stake is the affectation of another right regarding a legal good that is susceptible of individual appropriation (see Oliveira HD, 2020). This is the understanding according to which the Environment has a defined content through the duties imposed on the State.

On the other hand, some authors admit that the Environment is not an individually appropriable reality and state that it is possible to create an individual sphere of enjoyment of the environment – and this would be the right to the environment that could even be mobilized from a procedural point of view (see Silva VP, 2002; Reis JP, 1987; Miranda J, 1994; Gomes Canotilho J, 2008).

It is also possible to identify authors that totally reject the existence of a subjective right to the environment (see Gomes CA, 2018).

In our view, we agree that the invocation of a subjective right implies the demonstration of a specific and individual position of advantage, protected normatively, in relation to a certain legal good. We do not agree, however, and with all due respect, that the environmental good cannot be considered a unitary legal good.

As already stated, there is no doubt that the right to the environment is a fundamental right, given the unequivocal pronouncement of the constituent legislator in that sense (article 66 of the Portuguese Constitution). From our perspective, following Hesse's understanding as recovered by Vasco Pereira da Silva, fundamental rights present a double nature: on the one hand, they are subjective rights, since they possess a negative dimension as defense rights against aggressions from public and private entities in the constitutionally protected individual sphere; on the other hand, they constitute objective structures of the community in that they comprise a positive dimension, as a set of values and principles that conform the entire legal system (see Hesse J, 1993: 127 ss; Katz A, 1999: 263; Ipsen J, 1997; Silva VP, 2002: 90).

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regeneration of its vital cycles, structure, functions, and evolutionary processes fully respected (...) Art. 72 Nature has the right to restoration".

It is our understanding that these dimensions, positive and negative, are common to all fundamental rights, the variation being only present in the weight that these aspects (positive and negative) assume.

Firstly, the recognition of subjective rights vis-à-vis public authorities, first and foremost, constitutes a requirement of an axiological order, arising from the principle of the dignity of the human person.[8]

Secondly, we don't believe that the circumstance under which fundamental rights represent legal positions that are very diverse among themselves means that it would be impossible to reconcile them to the notion of subjective right. In truth, although this is an inevitable reality, it does not mean that their substantive legal nature is called into question.

Thirdly, we consider that fundamental rights define a status of individuals, susceptible of being expressed in a specific legal relationship, thus rejecting the argument according to which fundamental rights, due to the multiplicity of subjects to which they refer, can hardly be considered subjective rights.

Having said this, it seems to us that by rejecting the distinction commonly used between first, second or third category rights[9], we can characterize fundamental rights in general and the right to the environment, in particular, as subjective rights. Moreover, for all that has been said, the existence of a subjective right to the environment seems unquestionable to us.

3. Guiding principles

Based on the analysis of the classical principles of international law applied to the issue of climate change, it is important to understand what makes up the ecological minimum for the purposes of litigation, that is, the justiciable minimum. To this end, we propose to develop the following principles that conform the concept of the ecological minimum.

a) The principle of sustainable development

The first reference to the principle of sustainable development in international law occurred in 1972, at the Stockholm Conference. This was the first world conference to make the environment its central theme, and the participants adopted a myriad of principles aimed at good environmental management, included in the Stockholm Declaration and the

8. On the link between human dignity and environmental protection see Daly E, May JR (2021).

9. It is our understanding that legal positions of individuals in relation to the Administration are treated in a unitary manner, since "under the terms of the theory of the rule of protection, and accepting its extension in the field of fundamental rights [...], the individual is the holder of a subjective right in relation to the Administration, without a legal rule that is not only aimed at satisfying the public interest, but also at protecting the interests of individuals, resulting in a situation of objective advantage, granted intentionally, or even when it results in the granting of a mere *de facto* benefit arising from a fundamental right" (our translation, Silva VP, 1997: 112); see also Buehler O (1914).

Action Plan for the Human Environment, as well as in several other resolutions.

In essence, the international concern with the environment arose from the awareness of the globalization of environmental risks, i.e., the impossibility for a given State to control the effects caused by its action provoking environmental degradation within its territory. In fact, it was in this regard that the United Nations developed a set of seventeen principles, adopted in 2015, as a universal call for collective (and individual) action by States to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity[10].

It was then in this scenario that the principle of sustainable development emerged. Although there is no unambiguous definition of sustainability, we can define it as the set of processes and actions through which mankind avoids the depletion of natural resources in order to maintain an ecological balance that does not allow the quality of life of modern societies to decline. Therefore, sustainable development means not only that humanity must meet its current needs without compromising the ability of future generations to do the same, but it is also associated with an idea of social progress and increased quality of life from a global perspective.

For all of the above, we can characterize the principle of sustainable development as being based on three fundamental pillars: the economy, society, and the environment. This means that states should promote the satisfaction of their needs and their economic development, without compromising the ability of future generations to do the same, from an environmental and economic point of view.

Naturally, from the perspective of defining the concept of ecological minimum, this principle emerges as an important auxiliary, insofar as the determination of the minimum content must be sufficiently attentive to the needs of future generations, in light of the actions of present generations.

b) The principle of intergenerational solidarity[11]

The principle of intergenerational solidarity or justice states that present generations have the duty to maintain the ecological integrity of the planet for the good life of future generations. Unlike the previous principle, this one focuses, above all, on the needs of the population, moving away from the proposed three-pillar idea that characterizes sustainable development, even though it is impossible to dissociate them. In fact, the origin of this principle

10. The Sustainable Development Goals (SDGs), also known as the Global Goal are as follows: (1) poverty eradication; (2) zero hunger; (3) health and well-being; (4) quality education; (5) gender equality; (6) clean water; (7) clean and affordable energy; (8) decent work and economic growth; (9) industry, innovation and infrastructure; (10) reducing inequality; (11) sustainable cities and communities; (12) responsible consumption and production; (13) climate action; (14) life under water; (15) life on land; (16) peace, justice and strong institutions; (17) partnerships for the goals.

11. Further reading about the principle of intergenerational solidarity can be found on Reis MQ (2021); Weiss EB (2008).

is in Public International Law, and it was conceived as a duty of States in relation to the principle of sustainable development.

This principle has been provided for, implicitly or expressly, in virtually all treaties and political declarations of International Environmental Law since 1972. However, intergenerational solidarity has also been introduced in national legal systems. In the Portuguese case, intergenerational solidarity is provided for in article 66, number 2, paragraph d) of the Portuguese Constitution, regarding limits on the use of resources. At the infra-constitutional level, this principle is foreseen in the LBA (Law no. 19/2014, of April 14) in a prominent place, as a material principle of Environment: article 3, paragraph b), as it requires the "use and enjoyment of natural and human resources in a rational and balanced way, in order to ensure their preservation for the present and future generations" (our translation). We can also find the intergenerational solidarity principle in article 20a of the German Constitution[12].

In this case, the need to consider the principle of intergenerational solidarity seems obvious for the issue at hand: the concept of an ecological minimum must be premised on considerations of intergenerational justice, insofar as this concept cannot be assessed in isolation over time.

c) The principle of proportionality[13]

For the purpose of this paper, the question this principle seeks to answer is as follows: *when and below what threshold can we say that the Portuguese Constitution is violated due to insufficient protection or promotion of a fundamental right (especially, the fundamental right to the environment); moreover, when and how do we identify a violation of the principle of prohibition of the deficit?*

The principle of proportionality, enshrined in article 18, number 2 of the Portuguese Constitution, applies essentially to the guarantee of fundamental rights and their restrictions (see Gomes Canotilho J, Vital Moreira, 2007: 265, 270; Miranda J, 2000: 205, 208; Novais JR, 2022: 161-2), and is divided into three well-known sub-principles: the principle of appropriateness (according to which measures restricting rights, freedoms, and guarantees must prove to be a means for the pursuit of the ends sought, with the safeguarding of other constitutionally protected rights or assets); the principle of necessity (according to which these restrictive measures must be required to achieve the ends in view, due to the fact that the legislator has no other less restrictive means to achieve the same desideratum), and the principle of fair measure or proportionality in the strict sense (according to which no

12. The German Constitution holds to the interpretation of the term "sustainability" as being used in a more limited, ecological context to describe a considerate use of natural resources, leaving them at least partially to future generations. See Schröder M (2011).

13. Further reading about the principle of proportionality can be found on Jackson VC (2015); Llewellyn K (1934); Aleinikoff TA (1989; Alexy R (2010).

excessive measures may be adopted, i. e. disproportionate to achieve the desired ends).

In the specific case of determining the concept of the ecological minimum, the principle of proportionality above all will be of interest to us, insofar as we are trying to answer the following question: *if it is always possible to guarantee more protection for citizens from the point of view of guaranteeing their right to the environment, and to make it more effective (or repress possible aggressions more effectively), often at the cost of restricting the possibilities of other private individuals to act, then from what level of protection do we draw the limit of unconstitutionality?* In other words, the principle of proportionality will interest us from the point of view of the *prohibition of the deficit.*

A large part of the legal doctrine states that when we talk about the principle of the *prohibition of the deficit* we are still moving within the more general scope of proportionality (see Novais JR, 2022: 180). Thus, these authors only intend to apply the same criteria used to control the proportionality of more restrictive state actions to the omissions that are being syndicated. This segment of the doctrine believes, therefore, that the logic behind the principle of the prohibition of the deficit is that it is based on the *double face* of the principle of proportionality. It seems to us, however, that this understanding should not be accepted, especially since the control criteria typically applied to proportionality is structurally unsuitable for controlling omissions.

Even so, the principle of proportionality is, without a doubt, a principle to be considered when elaborating the concept of ecological minimum. We believe that the State's duty to protect in general, and the State's duty to protect and promote a healthy environment in particular, should be optimized. Thus, if its performance has fallen short, then that duty was breached; and if it has, then we are faced with an unconstitutionality. In these terms, the optimal point at which the duty of protection is fulfilled is obtained by means of a weighting operation – and recourse to the principle of proportionality, namely proportionality in the strict sense – procedures that are equally binding on legislators and judges.

When we place ourselves outside the logic of optimization, it is both appropriate and convenient to make a distinction: if in a specific case we are unable to determine, or have difficulty determining the scope that the state's duty of protection as a constitutional imposition should attain, we find it difficult to define who should have the last word in this area: the democratic legislator or the judge (a point we shall return to below).

d) The principle of prohibition of deficit

As already mentioned, the autonomy of the principle of prohibition of the deficit in relation to the principle of proportionality has been questioned. However, as stated above, we adopt the thesis according to which the former should be separated from the latter.

The most common invocation of the fundamental and structuring principles occurs in situations in which the constitutional legitimacy of a certain intervention by public authorities that negatively affects individual interests is challenged, which becomes more problematic in the case of restrictions on fundamental rights. It can also happen, however, that these interests are affected by omissions by the public authorities, rather than acts. In this case, it happens that in a situation where it is assumed that the (Portuguese) Constitution would oblige the government to act or to provide something – in this case, the provision of an ecological minimum, a minimum of environmental protection, conforming a fundamental right to the Environment – the possible constitutional censure, in case of non-compliance, is directed at a *non-facere*.

According to Canaris (2003), the prohibition of the deficit aims at imposing on the State a generic duty of minimum protection of fundamental rights, and the State incurs in legislative omission when it fails to comply with this generic imposition, complementary to the impositions of specific legislation contained in several constitutional precepts. This principle applies only to the *extent possible*, in order to respect the legislator's constitutional freedom. Therefore, and based on what is stated in article 66 of the Portuguese Constitution, a generic duty of minimum protection of the right to the Environment is imposed on the State, and its actions that do not comply with this duty are unconstitutional.

It is important to note that the Portuguese Constitution does not define or distinguish intrinsically between environment and quality of life (concepts that appear in the heading of article 66). The Portuguese Constitution points to a concept of Environment that is simultaneously structural, functional, and unitary. Unitary, because the Portuguese Constitution, in line with international texts, points to the set of ecological, physical, chemical, and biological systems and economic, social, and cultural factors; and structural-functional, because the physical, chemical, and biological systems and economic, social, and cultural factors, besides being interactive with each other, produce effects, directly or indirectly, on living existential units and on the quality of human life. This point is relevant to the present article insofar as in the view of Gomes Canotilho and Vital Moreira (2007), the right to the Environment is, from the outset, a negative right, that is, a right to abstention, on the part of the State and third parties, from environmentally harmful actions. From the view of these authors, in its dimension as a positive right – that is, the right to have the environment guaranteed and defended, the right to the environment – an obligation of the State to provide certain services is implied. The non-fulfillment of this right constitutes, among other things, situations of unconstitutional omission, triggering the mechanism of control of unconstitutionality by omission (283 of the Portuguese Constitution) (Gomes Canotilho J, Vital Moreira, 2007). It can therefore be concluded that the tasks of the State required by the realization of the right to the Environment translate into preventing this right from being offended, by prohibiting actions that promote environmental degradation or by favoring actions that protect the Environment.

The question at hand is especially difficult in that, while it is possible to state that the omission is easily recognizable when the text of the Portuguese

Constitution expressly imposes on the public authorities the duty to perform something through a specific command that has not been fulfilled, in the case at hand there is no specific command in the text of the Constitution from which it is possible to draw a duty for the State to *perform* that is also specific. Even so, even if there is no specific explicit constitutional command, the public authorities do have constitutional obligations to perform which derive generically from the contemporary conception of fundamental rights in a social state under the rule of law, under which it is understood that in relation to any and all fundamental rights, the state has not only the duty to respect them, but also the duty to protect them and the duty to promote individual access to their exercise.

For what interests us here, from a legal-constitutional point of view, the important thing is, above all, to determine the criteria or parameters that allow us to identify the failure to comply with the constitutional obligation to protect the right to the Environment of private individuals, and to strive for the realization of its minimum.

Having arrived at this point, and having identified the problems that beset the determination of the concept in question, it is necessary to ask: in what circumstances or from what point in time can the state be considered to be in breach of its generic duties of positive fulfilment, thus incurring an unconstitutional omission? Of course, if the public authorities do not perform the constitutional obligations that bind them, then there will be an omission. However, the fundamental legal problem is not whether there is an omission, but rather when this omission is unconstitutional.

It seems to us that the answer to this question is extremely difficult, first and foremost because in order to achieve the constitutional objective that is being sought – in the case of, for example, protecting individual access to goods that are guaranteed by law and fundamental rights, as is the case with the environment – there is rarely just one means or one way of achieving the objective, there are usually countless possibilities for achieving it; on the other hand, it is well known that any duty to provide services can always be achieved to a greater or lesser extent, which means that it can always be said that it is possible to do more, i.e. to provide more protection. However, let's not forget the democratic slant that should guide these decisions. To the extent that judicial decisions fail to protect a certain constitutionally enshrined good, the option of intervention by the most democratic instances should always be considered when choosing the means or ways of achieving the objective.

This being so, *from what level is the constitutional obligation to fulfill a duty to guarantee the good environment unmet, which is in itself indeterminate at the constitutional level? At what threshold – the so-called minimum – is the State's duty to guarantee the good environment considered to have been fulfilled? Is anything that is not optimal or optimal protection of the right to the Environment unconstitutional? Is that not living in permanent unconstitutionality?*

The answer to these questions is made even more difficult by the fact that the legislator often moves in a dilemma of *non-univocal resolution*, since he can only guarantee a greater realization of one fundamental right by

restricting another (Novais JR, 2018). Thus, the judgment on the possible unconstitutionality due to the insufficient realization of positive rights – in this case, on the non-realization of the ecological minimum – cannot ignore the fact that the public authority responsible is simultaneously legally limited and politically conditioned by the duty to respect, protect, or promote the fundamental rights of other private individuals, which makes the analysis of constitutionality even more complex.

In truth, failure to act (when required to do so by law) or insufficient action (in such a way that the fundamental right is not adequately and sufficiently protected) with respect to legislative and administrative measures aimed at combating environmental degradation may indicate the State's responsibility, including the responsibility to repair the damage caused to individuals and social groups affected by the negative effects of environmental damage. It is up to the State, therefore, by virtue of its duty to protect fundamental rights, to ensure effective protection of these rights, especially regarding the guarantee of the existential ecological minimum, which, in this context, acts as a kind of guarantee of the essential core of the fundamental right to the environment.

The arguments drawn allow us to conclude that there is a clear need to guide the determination of the concept of the ecological minimum by the considerations required by the principle of the prohibition of the deficit.

e) The principle of the existential minimum[14]

For all that we have discussed about the principle of the prohibition of the deficit, we believe, nevertheless, that the autonomization of the existential minimum principle, which derives from the principle of the dignity of the human person (cfr. article 1 of the Portuguese Constitution), is due.

The creation of a fundamental right to an existential minimum is attributed to the German Constitutional Court. In a first phase, the Court started by identifying the State's obligation to respect and protect the minimum necessary for a decent existence within each person's sphere, without this meaning a fundamental right of (corresponding) private individuals to demand from the State the promotion of this existential minimum. In a second phase, the German Constitutional Court built the idea of an effective existence of a fundamental right of the private individuals to an existential minimum. In fact, the German constitutional jurisprudence created trends in this direction and was followed by other social state jurisprudences. However, it was only in 2010 with the *Hartz IV* decision that any doubts as to the existence of a fundamental (subjective) right to the existential minimum, recognized by the German Constitutional Court, were dispelled.

In Portugal, in the absence of a specific constitutional rule that ensures a minimum of dignified existence (as in Germany, as previously mentioned), it

14. Further development on the principle of the existential minimum regarding environmental rights can be found at Theil S (2021); Silva DM, Cruz SC; general readings on the principle of the existential minimum can be found on Toledo C (2015); Allan TRS (2012).

is not possible to identify a sufficiently precise content that would allow us to conclude on the measure and concrete scope of the provision that the State is legally obliged to make (or what it can effectively demand). Recognizing the doctrinal wrangling around this theme[15], we believe that the minimum content should be delimited through the principle of the prohibition of the protection deficit of the positive dimension of social rights (Novais JR, 2018: 304-310). In the words of Jorge Reis Novais, "the farthest one can go in the abstract and definitive delimitation of a minimum of mandatory fulfillment is the result of the association of this principle with the dignity of the human person, in the latter's dimension according to which there is a violation of the dignity of the human person when, having the conditions to avoid it, the State allows someone to be involuntarily placed or maintained in a situation of material penury that does not allow him the conditions for personal self-determination" (Novais JR, 2018:304-310). In this sense, there will be a violation of the principle of prohibition of the deficit whenever the State does not guarantee the *de facto* and *de jure* conditions of freedom necessary for the self-determined exercise of social rights, at least at a minimum guaranteed level required by human dignity.

For all of the above, we believe that the importance of the consideration of the existential minimum principle for the determination of the ecological minimum is undeniable, insofar as physical survival (or even the possibilities of participating in social, cultural, and political life) cannot, in our view, be guaranteed by economic safeguards alone if the Environment available for this purpose is significantly altered by climate change.

f) The Principle of Separation of Powers[16]

Separation of powers is a doctrine of constitutional law under which the three branches or functions of government (executive, legislative, and judicial) are kept separate and independent, the main goal of this separation being the limitation of the possibility of arbitrary excesses by the government.

The principle of the separation and interdependence of powers was inserted into the Portuguese democratic rule of law with the constitutional revision of 1997. According to article 111, number 1 of the Portuguese Constitution,

15. In Portuguese legal theory, there are essentially two positions on determining the scope of the right to the minimum for a dignified existence (based on the dignity of the human person). On the one hand, Vieira de Andrade (2021) identifies the right with the guarantee of the minimum content of social rights. On the other hand, Jorge Reis Novais (2018) delimits the minimum content from the principle of prohibition of the protection deficit of the positive dimension of social rights. These theories are distinguished by the different legal-constitutional relevance attributed to social rights. However, even in the circumstance that the content of the right is dictated by the demands of the principle of the prohibition of the deficit – which binds the legislator to the realization of a social minimum – it is the idea of the dignity of the human person that allows the delimitation of the minimum of mandatory realization.

16. Further reading about the principle of separation of powers is available at Merrill TW (1991); Lutz DS (2009); Barber NW (2001); Kavanagh A (1967); Carolan E (2009); Raz J (1979). Some development on the principle of separation of powers in climate cases can be found on Eckes C (2021/5/10).

"the sovereign bodies must observe the separation and interdependence established in the Constitution" (our translation). In essence, this principle reflects the "need for each constitutional organ of the state, to which the essential core of a legal-public activity is attributed, to remain within the limits of the powers that are constitutionally entrusted to it" (see Morais CB, 2012).

We can identify two dimensions of the principle of separation of powers: the negative dimension, which imposes that in the exercise of a function of the State, for which they are constitutionally empowered, the organs of political power may not perform acts that may lead to another function of the State; and, on the other hand, the positive dimension, which requires a functionally adequate organic structure of the public apparatus: the functions of the State must be distributed among the most appropriate bodies, according to their nature and that of their services, the form and procedures of their performance and legitimization, making decisions that hold them accountable (see Matos AS, Rebelo de Sousa M, 2006). In this case, we are interested in the negative dimension of the principle of separation of powers, insofar as it is important to understand which actors are qualified to determine the concept of the ecological minimum, a point that we will return to below.

4. Determination of the concept of ecological minimum

Who is responsible for determining the concept of ecological minimum?

a) The scientific consensus

Due to the complexity of ecosystems and partially deficient ecological knowledge, defining a scientifically based content of the ecological minimum is very difficult.

The Intergovernmental Panel on Climate Change (IPCC) is the United Nations body responsible for assessing the science related to climate change; for preparing comprehensive Assessment Reports on the state of scientific, technical, and socio-economic knowledge on climate change, its impacts and future risks; and for defining options to reduce the rate at which climate change is progressing. This body also produces Special Reports on topics agreed upon by its member governments, as well as Methodology Reports that provide guidelines for the preparation of GHG inventories.

Thus, from the IPCC's scientific conclusions we will have (some) basis for establishing the ecological minimum. This is because for the correct and rigorous assessment of the environmental situation and the definition of meaningful objectives for future development, the results of the analysis of the climate change phenomenon must be compared with some benchmark, threshold, baseline, or reference system – the so-called Minimum

Environmental Requirements[17]. This parameter has been used on several occasions in environmental policy, also with technical connotations. In relation to the relationship between agriculture and biodiversity, the European Commission has used the term "Basic Environmental Requirements": "Member States shall take appropriate measures in view of the situation of the agro-cultural areas used or in view of the productions concerned and corresponding to the potential effects of these activities on the environment. This may enable the Member State to link the granting of aid to compliance with basic environmental requirements relating to biodiversity" (see COM, 1999: article 2).

International jurisprudence has also proven the value of scientific consensus for the determination of fundamental concepts in climate change, with interference in the protection of fundamental rights, through the realization of the duties of states.

The Urgenda case[18] from the Supreme Court of the Netherlands dates back to 2019 and is the most popular climate litigation case. In addition, the Friends of the Irish Environment CLG v. Government of Ireland case (Case No. 2018/391 JR) and the aforementioned Neubauer and Others v. Germany[19] follow the trend of making fundamental rights primary actors in climate change litigation.

In the Urgenda case, for example, what was at stake was a request to order the Dutch State to adopt measures to prevent emissions in order to prevent climate change, given the impact on the rights to life and respect for private and family life (guaranteed by the European Convention on Human Rights). The strategy adopted to determine the existence of breached duties in the Urgenda case was to exclusively submit the issue to scientific consensus. Taking into account the fact that the Intergovernmental Panel on Climate Change considers the minimum level of emissions necessary to avoid a level of warming that creates extreme events to be 25% to 40%, and considering the levels of emission reductions already achieved in 2020 – 19% – the Court concluded that the measures adopted would not be sufficient to prevent human rights injuries in the future.

The use of scientific consensus is also a practice commonly adopted in other areas of knowledge[20]; so, given the almost exclusively scientific nature of

17. The Minimum environmental requirements are related to Minimum Safe Standards, which constitute a red line below which the environmental function is compromised at the study area level. The term Minimum Safe Standards (SMS) was introduced by Siegfried von Ciriacy-Wantrup in 1952, according to which "in the class of resources under consideration, a minimum safe standard of conservation is achieved by avoiding the critical zone-that is, those physical conditions, brought about by human action, which would make it harmless to stop and reverse depletion". The "resources" can be plant and animal species, aesthetic landscape attributes, soils or groundwater recharge. As an example, "critical zones" correspond to areas of destruction of a population or its habitat, and soil erosion.

18. *State of the Netherlands v. Urgenda Foundation* case (case 19/00135). See Wewerinke-Singh M, McCoach A (2021: 275-283); Verschuuren J (2019: 94–98).

19. Case decided by the German Constitutional Court on the 24th of march 2021 (Processes no. 2656/18, 78/20, 96/20 and 288/20).

20. The decision rendered in Jane Roe, et al. v. Henry Wade, District Attorney of Dallas County (also known as Roe v. Wade) of the United States Supreme Court in 1973

the phenomenon of climate change, it seems to us that it is essential to conclude that scientific consensus should intervene in the definition of the minimum by providing criteria that allows it to conform and adapt to the unpredictability and constant evolution that characterize this phenomenon.

b) The legislator

At this point, for all that has been said, it is necessary to ask: *does the solution involve simply returning the issue to the legislator to indicate a minimum (the absence of which is unconstitutional by omission, and the insufficiency of which is subject to a judgment of unconstitutionality for violation of this minimum by applying proportionality criteria)?*

It does not seem to us that devolving the issue exclusively to the legislature is the best option, insofar as on the one hand, a concrete and absolute concept will hardly keep up with reality, since the minimum standards that are established at one time will, at another time, certainly be inappropriate or even insufficient. On the other hand, even from the territorial point of view, the definition of the minimum protection required (taking into account the context of climate change) varies. Especially for the purposes of litigation, it would be inadvisable for a State to define a concept (which is not absolute) by legislative means and introduce it into law in a concrete and precise manner. Insofar as the effects of climate change are global and its territorial extent is both uncontrollable and unpredictable, it will not be up to a national legislator (due to practical impossibility and for reasons of respect for the sovereignty of other States) to determine the content of the ecological minimum. Even so, we acknowledge the relevance and contribution of the role of the legislator for the topic at hand, who has shown himself to be proactive, particularly in the drafting of Portugal's Law 98/2021, of December 31 (the Climate Framework Law), when he expounded on the objectives of climate policy and on principles, rights, and duties in climate matters, due to the recognized current climate emergency situation.

Although the importance of the intervention of the legislator's activity in the determination of the concept of ecological minimum is established (and recognized), we reject that it assumes the main role in this definition.

c) The Administration

The topic of the Administration's activity is especially relevant since, if all does *not* go well, the definition of the ecological minimum may mean a restriction to fundamental rights. The Administration, which is directly bound to fundamental rights, may only intervene restrictively in a fundamental right if it has the respective legal authorization to do so. On the other hand, in the context of the so-called collision of fundamental rights, the Administration may exceptionally be forced to intervene restrictively (even in the absence of an enabling law) in of a situation in which, if it did

(amended 2022) was the result of a jurisdictional weighing of the conflicting rights based on the state of the art of the relevant science at the time.

not do so, the fundamental right would be violated due to insufficient protection (see Novais JR, 2022).

However, we believe that the attribution of an implicit authorization of the Administration to restrict the fundamental rights of private individuals whenever necessary in order to comply with the duty to protect other fundamental rights – and given the normality and frequency of the existence of such collisions of fundamental rights – would provide the Administration – with disregard for the principle of legality inherent to a Rule of Law – with a generic and autonomous authorization to restrict fundamental rights, equivalent to that attributed to the legislator.

Due to all of the above, and although we recognize the importance of the Administration's intervention in determining the concept at hand, it does not seem appropriate to us to entrust the definition of the ecological minimum exclusively to the Administration.

d) The Courts

The courts are bodies whose functional position ensures the greatest suitability and legitimacy for the exercise of the jurisdictional function, since they have holders with specialized training, they occupy a position of impartiality and independence, and the reservation of jurisdictional function in favor of the courts is provided for in Article 202, paragraph 1 of the Portuguese Constitution.

Although the distinction between constitutional judge and ordinary judge cannot be made from an organic point of view in countries in which all ordinary judges have direct access to the Constitution, there is a functional difference. In other words, the function of the ordinary judge when deciding a legal conflict is one thing, and the analysis of the questions of conformity with the Constitution raised by the resolution of this particular case is quite another. This means that the control of the prohibition of insufficiency as a parameter for checking the possible unconstitutionality of the common judge's decision continues to be a control of evidence, in the sense that the constitutional judge should not limit himself to simply replicating the work of the common judge and replacing him (see Novais JR, 2022).

It is up to the judge to decide the conflict, not in a logic of guaranteeing minimums, but in of trying to find the best possible solution within the parameters, according to the criteria, practices, rules, principles, and general clauses of the respective branch of law. However, when this decision is reviewed in the context of a constitutionality judgment, either by the judge himself or by another judge in light of the prohibition of insufficiency, what is assessed is only whether this judicial decision did not mean an insufficient protection of the fundamental right in light of the constitutional requirements – and this review should also be done in terms of evidence control.

Regarding the definition of the ecological minimum in concrete terms, the judge can never have a creative role of the Law, but rather an application of the Law. However, as we have seen, we believe that the isolated action of

each of the actors identified is insufficient. Thus, it seems that the judge is the only one who evaluates the question of the ecological minimum in a timely manner. In this sense, our proposal is that the definition of this concept will involve the concerted activity of these four actors, even if they intervene at different times.

For all of the above, we believe that the judicial power – due to the deficiencies of the political process and the insufficiency of representation in the appropriate bodies – is the one that, in the last instance (at the last moment, faced with the concrete case), best guarantees the respect of the precepts of the Constitution in the process of formation of the political will, by the organs of the State (always taking into consideration the risks of judicial activism (See Hellman AD, 2002 and Vieira LV and Rodrigues TAB, 2015) and its respective limits, which we will return to below).

Our proposal

The definition of meaningful and realistic objectives is the key element for the development of environmental measures to improve the current ecological situation. These targets should be based on a system of reference values that consider ecological thresholds and carrying capacity of ecosystems as well as the demands and needs of human society in various global areas. In this way, aided by scientific consensus, it is possible for the Administration and the legislator to foresee the minimum values to be respected, and below which the specific environmental function is compromised, consequently compromising the respect for the fundamental rights of citizens, namely their fundamental (subjective) right to the environment. However, the recourse to scientific consensus is insufficient for the conformation of the concept we propose to densify.

Without prejudice to the above, and based on the conclusions of the previous elaborations, we propose the densification of the normative content of the concept of ecological minimum around two purposes of the control of constitutionality (see Novais JR, 2018): (1) the guarantee of the realization of a minimum and (2) the prohibition of unreasonableness.

The conjugation of these two realities faces several challenges, such as the precise determination of the minimum content (since the idea of the control of minimums seems to us the most adequate to the definition of the concept at hand), as well as the insufficiency of this criterion to fit all the realities that require the intervention of the principle of the prohibition of the deficit.

The densification of the content of the ecological minimum necessarily leads us to return to the considerations made about the principle of the prohibition of the deficit. Since this principle arises, above all, to answer the questions raised by the State's failure to act, it should be clarified that it is very difficult to delimit the omission that effectively violates the State's duties, with the exception of cases of specified constitutional determination, or cases of total (and blatant) omission. In the concrete case, it will be enormously difficult to determine when a violation of the State's duty to guarantee the right to the environment occurs.

The content of the minimum has also interested international law, insofar as the admissibility of grounds on scarcity of resources has been delimited. In particular, the Committee on Economic, Social and Cultural Rights has clarified that – in fulfilling the duties of States with regard to economic, social, and cultural human rights – the obligation to respect and enforce rights means that even if they are aware that it is impossible to respect and enforce all rights in full, States must demonstrate that they adopt the most efficient measures in the context in question. This realization and guarantee of rights naturally implies the use of the maximum level of resources available. Only to the extent that all alternatives and means are explored can it be said that a right can only be exercised, respected, and enforced up to a certain point. However, the provision in the International Covenant on Economic, Social and Political Rights[21] that sets the duties of States at the maximum level of available resources has already been interpreted as referring to the concrete context, i.e. distinguishing between States.

At this point, therefore, the following considerations should be made about the delimitation of the content of the ecological minimum:

1. *It is not possible to define the ecological minimum with a general and abstract character.*

The type of duty in question conditions the content of the respective minimum. Naturally, when it comes to the promotion (by the State) of the right to the Environment, the minimum demandable will be different from that which should be guaranteed in a context of protection against aggression from other private parties (see Novais JR, 2021). We can, however, highlight common points which should be distinguished from the outset, as is the case of the dignity of the human person and the guarantee of the essential content: if the State does not satisfy the requirements of the dignity of the human person or violates the guarantee of the essential content of fundamental rights, the conclusion cannot be other than that these actions are unconstitutional.

It is further stated that the unpredictable and uncontrollable phenomenon of climate change would never allow the conformation of an abstract content of the ecological minimum to be guaranteed (as it should).

2. *It is not possible to determine the conforming criteria of the content of the ecological minimum in an absolute manner.*

The task of defining the criteria that conform the content of the ecological minimum is made even more difficult given the existence of a human right to the environment in the discipline of human rights, and the respective characteristics of inherence, universality, and relativism. We believe that only through case-by-case analysis – faced with the circumstances of the concrete case – is it possible to ascertain the level of provision required.

The phenomenon of climate change, in particular, displays a multiplicity of (variable) factors that prevent the prior, general, and abstract delimitation of a nucleus of criteria that allow the content of the ecological minimum to

21. General comment n. 3: the nature of State Parties' obligations (E/1991/23), 1990.

be conformed. Moreover, it seems impossible to conclude that there is an insufficiency of protection even in the case of a total absence of State provision. The inaction of the State may possibly be associated with a feasible justification for the temporary lack of protection of a fundamental right.

3. *The content of the ecological minimum is always conditioned by a control of evidence.*

There will be a violation of the principle of the prohibition of the deficit when the circumstances of the concrete case allow us to retain the manifest need and possibility of guaranteeing a minimum provision that, without accepted justification, has not been realized. It should be remembered, however, that this is not the only criterion that shapes the existence of the minimum, because if it were, the principle of prohibition of the deficit would only operate in borderline situations. However, this is one more tool that allows us to give effectiveness to the principle *in casu*.

4. *The content of the ecological minimum is always conditioned by the idea of reasonableness.*

The idea of reasonableness intervenes when there is an unconstitutional deficit of protection and the State's omission leaves the affected citizens in an unreasonable personal situation in light of what a social Rule of Law requires. Like the "minimum" criterion, this is an open criterion that needs to be fulfilled.

As we have seen, the openness of these criteria (minimum and reasonableness criteria) needs to be fulfilled through the legitimate intervention of the judicial power.

Without defending the solution of an absolute definition of the concept of the ecological minimum, we believe that in addition to the necessary intervention of various political actors in the shaping of this concept, various aspects can and should be taken into consideration in its determination, namely the indicator values of the state of natural ecosystems that perform the function of interest, the context and previous state of the natural elements (as well as their evolution), and the best judgment of the scientific consensus.

5. Conclusions

In the present paper, we have tried to approach the theme of determining the concept of ecological minimum, especially that of justiciable minimum. The scant bibliography on the justiciable ecological minimum due to the relative novelty of the subject was one of the main difficulties in the elaboration of this paper. However, it is still important to draw some conclusions about the arguments presented.

First of all, the right to the environment in general and the ecological minimum in particular is justiciable. Even if we consider that the political-executive institutions of the State are actors whose intervention is necessary

because they are in a good position to produce a result compatible with the indeterminate, vague, and imprecise nature of the right to the environment, we believe that it is still necessary to establish the boundaries of the intervention of the judicial power and the form that it should take, in order to respect the legislator's reserve of consideration and freedom to conform and the discretion of the Administration without replacing it with its own.

Given the nature of the right to the environment in general and to the ecological minimum in particular, it is natural that the competence to define the content of the latter be attributed in the first instance to the legislator and the Administration, since it is up to them – once reality is observed, and given their discretionary powers – to concretize the constitutional precepts that guarantee these rights. However, it is also urgent to consider, at this point, the intervention of the judiciary, which should have the last word on the concrete aspects of this ecological minimum. Thus, we can only conclude that the goal will be to find the point where these activities are reconciled, thus delimiting the criteria that allow the judicial power to promote constitutional goods, without thereby rendering the functions of the political power useless.

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