




# Legal changes: ecosystem health and the redefinition of sustainability in the Green Deal

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## Abstract

This contribution to the Symposium on *Ecosystem Restoration and EU Law* is concerned with the changing features of sustainability. It argues that the Commission is gradually articulating, next to the consolidated objective of sustainable development, an ecological understanding of sustainability. It discusses the meaning and relevance of such new understanding, by asking how ecological sustainability is formulated as a policy objective and justified in the legislation stemming from the Green Deal. It then reflects on the distinction between ecological sustainability and sustainable development. The contribution finally presents some thoughts on the relevance that the ongoing process of complication of the legal construction of sustainability may have for the Green Deal.

**Keywords:** sustainable development; ecological sustainability; EU ecological law; Green Deal

## 1. Articulating sustainability

Sustainable development is more than ever a fundamental objective of the policies and law of the European Union (EU). In line with the Treaty framework and the dominant approach in the global governance, the Green Deal reasserts the importance of balancing economic, social and environmental concerns, as well as of achieving the 17 Sustainable Development Goals (SDGs), the United Nations' version of sustainable development envisaged in the 2030 Agenda for Sustainable Development. Climate neutrality – the ultimate objective of the European Green Deal – can only be achieved, according to the Commission, by relying on a set of measures based on the overall rationale of sustainable development. This is a somehow repetitive discourse, rooted in a political and legal culture consolidated in the last three decades and still animating and shaping the process of European integration.

What I would like to do here is to argue that a potentially important but still under-explored process of legal change is now taking place, the emergence of a different and less conventional understanding of sustainability in the institutional discourse about the Green Deal and its implementing measures. Next to the mantra of sustainable development, the Commission is gradually articulating, intentionally or not, an ecological understanding of sustainability, presented as a distinct policy objective in a number of important strategies such as those concerning biodiversity, soil and forests.

This short contribution to the Symposium discusses the meaning and relevance of the emergence of ecological sustainability in the framework of the Green Deal. It does so by asking how ecological sustainability is formulated as a policy objective (Section 2) and justified in the legislation stemming from the Green Deal (Section 3). It then reflects on the distinction between

ecological sustainability and sustainable development (Section 4) and presents some thoughts on the relevance that the ongoing process of complication of the legal construction of sustainability may have for the Green Deal, both at the instrumental and the conceptual level (Section 5).

## 2. A demanding policy objective

It is scarcely surprising that the Commission has referred to ecosystem protection when designing the overall strategy of the Green Deal. The macro-objective of climate neutrality, to which all various components of the Green Deal are instrumental, certainly requires enhancement of removals by sinks that include both natural and technological solutions. While the latter are based on carbon capture and storage technologies, the former rely on ecosystems' capability to operate as carbon sinks, storage and substitution: the restoration of ecosystems, in the words of the European Climate Law, is expected to 'assist in maintaining, managing and enhancing natural sinks and promote biodiversity while fighting climate change'.<sup>1</sup> Coherently with such approach, the three main strategies developing the ecological dimension of the Green Deal – namely, the Biodiversity Strategy, the Soil Strategy and the New Forest Strategy –<sup>2</sup> argue that nature is a 'vital ally' in adapting to and fighting against climate change and stress that nature-based solutions are essential for emission reduction and climate adaptation.<sup>3</sup> Ecological sustainability is thus one of the key elements of the European strategy towards climate neutrality.

The way in which the Commission has developed ecological sustainability as a new policy objective deserves some attention. It reflects a rather consistent ecological view. To begin with, ecological sustainability features as part of a wider framework of assumptions of ecosystem ecology, starting with the idea that biological diversity has many different components, ranging from species and genetic diversity to the variety of the energy processes internal to each ecosystem. Moreover, ecological sustainability is deemed to be crucial for human beings' well-being. All three ecological strategies of the Green Deal point to the fact that human beings exist and carry out their individual, social and economic lives within a variety of ecosystems, stressing that the health of such ecosystems is critical both for human health and economic activities. This requires two complementary activities, namely the preservation and restoration of ecosystems: the former tackles a number of key drivers of biodiversity loss, such as changes in land and sea use and overexploitation, while the aim of the latter is to reverse biodiversity loss. In addition to this, and most importantly, ecological sustainability is defined in a clearly functional way: ecosystems are healthy, and therefore sustainable, when they are capable of providing their ecosystem services. A clear illustration of this understanding is provided by the Soil Strategy: ecosystems – in this case, soils, the 'magic carpet' of the planet – are considered to be healthy 'when they are in good chemical, biological and physical condition, and thus able to continuously provide as many ecosystem services as possible', such as, for example, providing food and biomass production, absorbing, storing and filtering water, providing the basis for life and biodiversity, acting as a carbon reservoir and as a source of raw materials.<sup>4</sup> The key concept is that of 'resilience', elaborated in a large and deep scientific debate and used by the Commission in the specific sense of 'resilience of ecosystem functions' or 'functional resilience'.<sup>5</sup>

<sup>1</sup>Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) 401/2009 and (EU) 2018/1999 (European Climate Law), O.J. 2021, L 243/1, Recital 23.

<sup>2</sup>See, respectively, the EU Biodiversity Strategy for 2030, COM (2020) 380; the EU Soil Strategy for 2030, COM (2021) 699; and the New EU Forest Strategy for 2030', COM (2020) 572.

<sup>3</sup>See eg COM (2020) 380 (n 2) at 2.

<sup>4</sup>See eg COM (2021) 699 (n 2) at 4.

<sup>5</sup>In the literature accessible also to the non-initiated, see eg P Capdevila et al., 'Reconciling Resilience Across Ecological Systems, Species and Subdisciplines' 109 (2021) *Journal of Ecology* 3102; and JC Chambers, CR Allen and SA Cushman, 'Operationalizing Ecological Resilience Concepts for Managing Species and Ecosystems at Risk' 7 (2019) *Frontiers in Ecology and Evolution* Article 241.

There is no escaping the overall impression that the Commission's ecological view is not only consistent but also highly demanding. The new objective of ecosystem health, as formulated by the three European strategies, implies a duty to protect and restore the 'integrity' of ecological systems. Integrity is essential to the capability of an ecosystem to provide its basic services and maintain its key properties, such as carbon storage, hydrology and productivity. The objective of protecting and restoring healthy and resilient ecosystems may only be achieved by ensuring their functional integrity. This is strictly connected, in the line of reasoning followed by the Commission, to the search for mechanisms to support ecosystem recovery, including those imposing limitations on economic and social concerns. Seen from this point of view, the ongoing process is somehow paradoxical. On the one hand, the Commission has been certainly led by pragmatism when it has included ecosystem restoration in the Green Deal, as such measures are necessary in any coherent strategy to tackle climate change. On the other hand, the very reference to ecosystem health as a situation of functional integrity has opened the way to a potentially radical understanding of the ecological concerns in the Green Deal.

This might be considered as an example of unintended consequences,<sup>6</sup> going beyond the desired and expected outcomes of the European strategy towards climate neutrality. When moving from policy documents to legislations, in any case, the ecological approach taken by the Commission seems more relaxed and nuanced.

### 3. Relaxed legal applications

Perhaps unsurprisingly, the way in which the policy objective of ecological sustainability has been legally shaped in particular areas suggests that the EU legislator is applying it in a rather flexible way.

Two examples may illustrate this point.

The first is the proposal for a 'Nature Restoration Law'.<sup>7</sup> It is designed to ensure the recovery to biodiverse and resilient nature across the EU territory and it encapsulates a strong understanding of ecological sustainability, in line with the approach taken by the Commission in the three ecological strategies. Indeed, the proposal expressly sets out the 'overarching objective' to contribute to 'the continuous, long-term and sustained recovery of biodiverse and resilient nature across the Union's land and sea areas through the restoration of ecosystems'.<sup>8</sup> Restoring ecosystems to good conditions requires their full functionality, that is their capability to provide a range of essential ecosystem services. This goal is directly associated to climate neutrality, coherently with the overall construction of the Green Deal. In particular, it is stressed that healthy, biodiverse agro-ecosystems, forests and marine ecosystems provide an important contribution both to a number of economic sectors, such as agriculture, forestry and fisheries, and to the long-term objective of mitigating climate change. Crucially, ecosystem health is given priority over economic and social concerns: it is not insulated from such concerns, as it is presented as functional to the social and economic activities of human beings; but it is designed as a pre-condition for human activities, a goal which is important to achieve in order to have a number of socio-economic benefits.<sup>9</sup> As stated in the Explanatory Memorandum, healthy ecosystems 'are essential for our long-term survival, well-being, prosperity and security, as they are the basis for Europe's resilience': social and economic well-being depends on healthy forests, marine and agro-ecosystems.

<sup>6</sup>As theorised and discussed by RK Merton, 'The Unanticipated Consequences of Purposive Social Action' 1 (1936) *American Sociological Review* 894.

<sup>7</sup>Proposal for a Regulation of the European Parliament and of the Council on nature restoration (COM (2022) 304 final).

<sup>8</sup>*Ibid.*, Art 1.

<sup>9</sup>*Ibid.*, in particular Recital 13.

At the heart of the legislative scheme, however, lies an unresolved tension between a clearly formulated ecological objective, implying a strong understanding of ecosystem health, and a set of instruments which leave undefined the appropriate implementing measures. Actually, the proposal sets several binding restoration targets and obligations concerning a broad range of ecosystems, leaving almost entirely to Member States the task to identify the appropriate implementing measures. The key instrument is that of planning, as Member States are asked to prepare ‘national restoration plans’ to identify the restoration measures.<sup>10</sup> Such a regulatory technique is obviously reasonable, given the complexity of the issues at stake and the need to consider the diversity of national situations. It is also, though, highly problematic, as the EU legislator leaves unaddressed the key problem of explaining how exactly the priority of ecosystem health over economic and social concerns should be operationalised.

The new regulation to curb EU-driven deforestation and forest degradation is a second example.<sup>11</sup> The EU legislator clearly assumes that forests’ health, specifically described as the resilience of ecosystems and their services, represents a crucial nature-based opportunity for climate mitigation. Thus, the first recital states that forests provide a broad variety of environmental, economic and social benefits, maintain ecosystem functions, help protect the climate system, provide clean air and play a vital role for the purification of waters and soils as well as for water retention and recharge. Moreover, it is argued that the main drivers of deforestation and forest degradation are the expansion of agricultural land and the increasing demand for agricultural products, especially those of animal origin, which put pressure on forests.

Differently from the Nature Restoration Law, however, the objective of the Regulation is not that of restoring the integrity of forests as functionally healthy ecosystems and to give it priority over economic and social interests. Less radically, the Regulation aims at ‘sustainably using’ forests, that is at restoring forests as ecosystems at the same time healthy and providing subsistence and income to human beings. The functional integrity of forests is certainly part of the wider regulatory framework, but it is not a pre-condition for social and economic well-being. Rather, it is a desired outcome that the Commission aims at achieving by orienting production and consumption patterns. Coherently with such perspective, aimed at the ‘sustainable use’ of forests, the proposal lays down a set of instruments which should both minimise ‘consumption of products coming from supply chains associated with deforestation or forest degradation’ and increase EU demand for deforestation-free commodities and products.<sup>12</sup>

What we see here is an attempt to promote forests’ integrity and health without at the same time prioritising it over economic and social concerns. It is a way to proceed toward forest restoration by introducing ecological integrity in the regulation of the ordinary cycle of production and consumption.

#### 4. A distinct declination of sustainability

The preceding discussion has pointed to the emergence of a new policy objective – ecological sustainability – and its incorporation in the legislation stemming from the Green Deal. Such process raises the question of the relationship between ecological sustainability and the fundamental declination of sustainability under EU law, namely sustainable development.

Admittedly, the Commission seems to maintain a unitary narrative, one in which ecological sustainability and sustainable development are part of the same political and legal discourse. While formulating ecological sustainability as a demanding policy objective, calling for the

<sup>10</sup>*Ibid.*, Art 11.

<sup>11</sup>Regulation (EU) 2023/1115 of the European Parliament and of the Council of 31 May 2023 on the making available on the Union market and the export from the Union of certain commodities and products associated with deforestation and forest degradation and repealing Regulation (EU) No 995/2010, O.J. 2023, L 150/206.

<sup>12</sup>*Ibid.*, 1.

functional integrity of ecosystems and inevitably responding to the logic of ecological primacy, the Commission is not explicitly arguing that ecological sustainability is a goal distinct from sustainable development. The lexicon of sustainability largely remains that of sustainable development, in line with the overall Treaty framework.<sup>13</sup>

This might reflect the view that the objective of ecosystem health falls within the traditional understanding of environmental protection as ‘social regulation’, that is, as a type of regulation specifically aimed at deepening the market in such a way as to ensure certain social interests in the market place.<sup>14</sup> The construction of environmental protection as social regulation may be traced back to the 1980s, when the social theory of ecological modernisation, based on the promise to reconcile the political and economic institutions with the new environmental concerns, proved capable of shaping the EC policy and law of environmental protection.<sup>15</sup> The current development of a new policy objective of ecological sustainability might be seen as a way to modernise and update the traditional understanding of environment, now presented as a multiplicity of ecosystems, without however changing the overall idea that the protection of the environment should be internalised in the market and conceived as a set of legal tools to address a specific type of market failures. According to this view, the new focus on ecological sustainability simply reconceptualises environment as nature and ecosystems, while confirming that environmental concerns should be balanced with economic and social interests and integrated in the definition and implementation of other policies and actions, as required by sustainable development under EU law.<sup>16</sup> The overall rationale, in other terms, remains that of sustainable development, as formalised in the Treaty framework and operationalised through the principle of integration.<sup>17</sup>

Going against this reading, however, we can observe that ecological sustainability redefines the balancing exercise between environmental, social and economic interests, which is at the very heart of sustainable development.

This is a consequence of the ecological construction followed by the Commission when articulating the policy objective of ecosystem health. As previously highlighted,<sup>18</sup> such construction is rooted on the integrity of ecosystems and their capability to provide their

<sup>13</sup>In which sustainability is clearly formulated in the terms of sustainable development: see the Preamble of the Treaty on the European Union (TEU, where Member States reaffirm their determination ‘to promote economic and social progress for their peoples, taking into account the principle of sustainable development’; and Art 2 TEU; see also Art 37 of the Charter of Fundamental Rights, requiring Member States to ‘integrate’ and ‘ensure’ a high level of environmental protection and the improvement of the quality of the environment in the policies of the Union, ‘in accordance with the principle of sustainable development’.

<sup>14</sup>On the concept of social regulation, see in particular C Joerges, ‘Bureaucratic Nightmare, Technocratic Regime and the Dream of Good Transnational Governance’ in C Joerges and E Vos (eds), *EU Committees: Social Regulation, Law and Politics* (Hart 1999) 3–18.

<sup>15</sup>D Chalmers, ‘Inhabitants in the Field of EC Environmental Law’ in P Craig and G De Búrca (eds), *The Evolution of EU Law* (Oxford University Press, 1st edn, 1999) 653–92, at 667–8.

<sup>16</sup>See Case C-371/98 *First Corporate Shipping Ltd*, ECLI:EU:C:2000:600, as well as the Opinion of Advocate General Léger, ECLI:EU:C:2000:108. In particular, Advocate General Léger argues that ‘[t]he concept “sustainable development” does not mean that the interests of the environment must necessarily and systematically prevail over the interests defended in the context of the other policies pursued by the Community in accordance with Art 3 of the EC Treaty [. . .]. On the contrary, it emphasises the necessary *balance* between various interests which sometimes clash, but which must be reconciled’ (§ 54); the reasoning goes on by clarifying that ‘[t]o reconcile these diverse interests in the context of “sustainable development”, the Treaty on European Union introduced the principle of “integration” in Art 130r(2) *in fine*’ (§ 57). For a discussion of the legal meaning of sustainable development in the EU order, which has been conceptualised either as a legal principle or as an objective, see eg G Bándi, ‘Principles of EU Environmental Law Including the (Objective) of Sustainable Development’ in M Peeters and M Eliantonio (eds), *Research Handbook on EU Environmental Law* (Elgar 2020) 36–53; V Barral, ‘The Principle of Sustainable Development’ in L Krämer and E Orlando (eds), *Principles of Environmental Law* (Elgar 2017) 103–14; and J Verschuuren, ‘The Growing Significance of the Principle of Sustainable Development as a Legal Norm’ in D Fisher (ed), *Research Handbook on Fundamental Concepts of Environmental Law* (Elgar 2016) 276–305.

<sup>17</sup>The relevance of the principle of integration is discussed by M Montini, ‘Addressing the Conflicts between Climate-Related Renewable Energy Goals and Environmental Protection Interests under the RED Directive’, in this Symposium, § 4.

<sup>18</sup>Supra, § 2.

essential services, two functional features that are determined by scientific parameters, laid down by ecology as a scientific discipline, and that require approaches for supporting ecological recovery. This essential objective may be declined in more than one way. In its most radical version, the search for ecosystem integrity necessarily implies ‘ecological primacy’: taken seriously, the very idea of ecological integrity, on which the goal to protect and restore healthy and well-functioning ecological systems is based, assumes that ecological limits must have primacy over social and economic regimes, when this is necessary to protect and restore ecosystems in danger or in bad conditions.<sup>19</sup> In this understanding, ecosystem integrity cannot be subject to negotiation or balancing with social and economic interests, but it operates as an autonomous goal. There is, however, at least a further version of ecological sustainability, one connoting the idea that regulation should enable economic and social activities that may positively contribute to ecosystem recovery. Such version of ecological sustainability implies some kind of balancing, as in the sustainable development paradigm, but it stipulates that the balancing exercise should be specifically oriented to the identification of measures attenuating anthropogenic pressures responsible for ecosystem degradation and enabling ecological recovery.

The regulatory measures stemming from the Green Deal suggest that both versions of ecological sustainability are present in EU law. The first approach is exemplified by the Nature Restoration Law. In such legislative proposal, as already pointed out,<sup>20</sup> ecosystem health is given priority over economic and social concerns, in line with the logic of ecological primacy. While ecosystem health is presented as functional to the social and economic activities of human beings, it is also clearly designed as a pre-condition for human activities. A further example is the ‘strict protection’ regime for primary and old-growth forests envisaged in the New EU Forest Strategy. Admittedly, such regime has not yet been made legally binding, but only indirectly reaffirmed by the legislative proposal on a monitoring framework for resilient European forests.<sup>21</sup> What is important, however, is the underlying rationale of the envisaged regime. Primary and old-growth forests are ecosystems of particular importance, given their exceptional biodiversity value and capability to store significant carbon stocks and to provide critical ecosystem services. For this reason, they require a particularly strict protection, leaving the dynamic of the forest cycle to natural processes and limiting human activities. The same applies to other special ecosystems, having a high carbon content, as in the case of peatlands, or a unique biodiversity value. In such situations, the only relevant goal is that of ecosystem health, without any possible balancing with social and economic concerns.

Examples of the second regulatory approach are abundant and range from biodiversity protection in the agrifood sector to mitigation of biodiversity risks in the use of certain sources for bioenergy, and the combination of biodiversity protection and economic and social concerns within the context of smart cities. One is the already mentioned Regulation to curb deforestation and forest degradation, which aims at ensuring ecological restoration through the regulation of production and consumption cycle.<sup>22</sup> Another example is provided by Commission Regulation (EU) 2023/334, prohibiting the use of some pesticides to protect pollinators, including bees.<sup>23</sup>

<sup>19</sup>This is a point made by the legal scholarship articulating a normative vision of a new ‘ecological law’: see eg K Anker, PD Burton, G Garver, M Maloney and C Sbert, *From Environmental Law to Ecological Law* (Routledge 2021); C Sbert, *The Lens of Ecological Law: A Look at Mining* (Elgar 2020); K Bosselmann, ‘The Rule of Law Grounded in the Earth: Ecological Integrity as a Grundnorm’ in L Westra and M Vilela (eds), *The Earth Charter, Ecological Integrity and Social Movements* (Routledge 2014) 3–12; and G Garver, ‘The Rule of Ecological Law: The Legal Complement to Degrowth Economics’ 5 (2013) *Sustainability* 316.

<sup>20</sup>*Supra*, § 3.

<sup>21</sup>COM (2023) 728.

<sup>22</sup>*Supra*, § 3.

<sup>23</sup>Commission Regulation (EU) 2023/334 of 2 February 2023 amending Annexes II and V to Regulation (EC) No 396/2005 of the European Parliament and of the Council as regards maximum residue levels for clothianidin and thiamethoxam in or on certain products, O.J. 2023, L 47/29.



By adopting that Regulation, the Commission has widened the rationale of Regulation (EC) 178/2002 and Regulation (EC) 396/2005, so far essentially based on the protection of human health and consumers' interests, to take into account the health of agro-ecosystems. Moreover, it has adopted a measure which should tackle ecosystem degradation, as agro-ecosystem health depends on the protection of pollinator populations from the risks of active substance.

## 5. Implications

Admittedly, the emergence of ecological sustainability as a new EU objective, distinct and autonomous from sustainable development, is a legal development that we are now observing at its initial stage. Moreover, it is an incremental and gradual process. This may reflect the circumstance that ecological sustainability does not fit nicely into the mainstream political orientation of EU institutions, which remain largely stuck to the traditional idea that sustainable development is the default mode of EU action. It may also be due, however, to functional reasons. For example, the legislative initiative taken by the Commission in the field of forests<sup>24</sup> does not envisage any specific recovery measure, but a set of instrumental actions, preparing the ground for subsequent rule making. Such instrumental actions essentially revolve around the establishment of a monitoring framework for resilient European forests, on the reasonable assumption that EU policy makers can take evidence-based actions only if they may rely on high quality data. Analogously, the 'new deal for pollinators' proposed by the Commission appropriately points to the need to improve knowledge of pollinators decline, enable a science-based response by policy makers and mobilise society, rather than directly identifying mechanisms of ecosystem recovery.<sup>25</sup>

In spite of its preliminary stage and slow gradualism, the emergence of ecological sustainability deserves to be detected, promoted and sustained by the European legal scholarship. In a legal-evolutionary perspective, indeed, its potential implications for the Green Deal are far-reaching.

Ecological sustainability is an essential rationale of any sound strategy against climate change, and in particular of a strategy specifically aimed at climate neutrality: ecosystem health and functionality are as important as technology innovation in achieving a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases, as they allow forests, soils and other fundamental ecosystems to operate as carbon sinks, storage and substitution. In the academic debate surrounding the Green Deal, this is recognised both by those who promote and by those who oppose the EU strategy for climate neutrality. The contending arguments reflect broader disagreements concerning the possibility to reduce absolute emissions of carbon dioxide while attempting to grow economically in the temporal horizon of the Green Deal. In spite of such disagreements, however, most positions converge on the idea that protecting and restoring nature is to be a component of any credible action against climate change, recently reasserted by the European Environment Agency and the Commission.<sup>26</sup>

Of course, ecological sustainability is not and should not be seen as an alternative to sustainable development. Instead, it is called to coexist with it. So far, the internal dynamics of the Green Deal has been largely dominated by the fundamental rationale of sustainable development, that is the idea that balancing between environmental, economic and social interests – or, better, the integration of environmental concerns in the elaboration of EU policies and actions – may animate and sustain the march towards climate neutrality. There is no reason to renounce to sustainable development, provided that balancing is a fundamental and inevitable technique to manage the multidimensional issues at stake. What is necessary, though, is to acknowledge the role that ecological sustainability should play in the strategy for climate neutrality, next to

<sup>24</sup>Supra, § 4.

<sup>25</sup>COM (2023) 35.

<sup>26</sup>See, respectively, EEA, Report 01/2024, presenting the first European Climate Risk Assessment (EUCRA), and COM (2024) 91, § 4.1.

sustainable development. The Green Deal is already and should be further developed as a project having two complementary engines, each encapsulating a specific declination of sustainability, namely ecological sustainability and sustainable development.

The possibility to rely on two different sustainability rationales certainly gives the Commission some flexibility in shaping the Green Deal regulatory measures, as it allows to differentiate goals and instruments in relation to the diversity of situations, within the overall framework of the macro-objective of climate neutrality. The double engine of the Green Deal provides the Commission and the EU legislator with a variety of policy and regulatory options, ranging from strict protection of specific ecosystems to nuanced balances between environmental, economic and social interests. The complication and articulation of the legal construction of sustainability, thus, open new opportunities to the EU legislator. Law is not only the instrument to mediate between a number of inevitably conflicting interests – environmental, economic and social – as supposed by sustainable development, but also a tool to carry out a variety of regulatory options based on different understandings of nature and reflecting diverse policy preferences and objectives.

At the same time, one should acknowledge the great difficulties inherent in such regulatory task. The choice between different versions of sustainability and their operationalisation in coherent legislative schemes raise both policy-making and legal issues.

As for the former, an obvious issue is how to appropriately design ecological legislation: far from being a straightforward task, identifying the appropriate instruments for ecosystem recovery may prove to be highly contentious, given the variety of theoretical approaches, specific goals and possible actions.<sup>27</sup> An equally obvious issue is how to contain the economic and social costs associated to the ecological transition. The prioritisation of ecological concerns may be politically and socially acceptable in certain specific cases, exemplified by the protection and restoration of primary and old-growth forests. In most situations, though, rule-makers are called to prioritise ecosystem integrity while managing the social impact of the planned measures. How complex this task may be is illustrated by the ongoing dispute around the Nature Restoration Law, in which opponents argue that the new Law, by placing a heavy regulatory burden on society, will reduce agricultural production, harm fisheries and lead to unemployment, while other actors reject such arguments as scientifically unjustified. A third highly complex issue, strictly connected to the previous one, is how to develop ecological sustainability in a regulatory framework which is overall committed to growth through economic freedoms. The making of a body of ecological law is likely to imply a rediscovery of the internal logic of sustainable development, which should be revised in such a way to become fully coherent with the timing and requirements of climate – perhaps the most challenging political task of the Green Deal process.

As for the legal issues, the Commission is introducing in the political and legal discourse the new objective of ecological sustainability without providing any clarification about its status and relevance in the EU legal system. What is not clarified is when and under which conditions a regulatory measure aiming at restoring ecosystem health would be justified under the current constitutional framework. Taking a formalistic approach, one might even question the very possibility to consider the policy option of ecological sustainability as an alternative to policy options more in line with traditional sustainable development, provided that only the latter is recognised as an EU objective by the Treaties.

Time will tell whether the EU legislator will be able to exploit the possibilities offered by the redefinition of sustainability. What is important to notice, in any case, is that the issue is not only a regulatory one. The clarification of the legal framework, indeed, should be accompanied by the redefinition of the theoretical foundations of sustainability as a plural legal concept, articulated in different forms of sustainability but capable of providing a general framework for their co-existence and interactions.

<sup>27</sup>See eg AC Newton, *Ecosystem Collapse and Recovery* (Cambridge University Press 2021) at 355 ff.



This would be in line, after all, with the long-term history of the concept. Such history is rich, complex and full of ramifications.<sup>28</sup> Sustainable development is only one of the historical declinations of sustainability, one emerged in the early 1980s in the UN and other international fora and incorporated in the European order a few years later as an objective of the EU. Ecological sustainability is a different dimension of the concept which has been developed through the 20<sup>th</sup> century, in correspondence with the rise of ecology as a scientific discipline pointing to a number of features that ecosystems must have in order to provide their services.<sup>29</sup>

The Green Deal and its legislation, thus, are not developing a new understanding of sustainability, but rather rediscovering the plural features of the concept of sustainability, beyond the reductionist approach taken by the EU since the early 1990s. This gives new impetus to the concept, which may now recover part of its complexity and diversity of meanings. How such complexity may be conceptualised in a new legal construction of sustainability, it is a task for the European scholarship interested in making sense of the dynamism and evolution of EU law.

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<sup>28</sup>There are various important accounts of the development of the concept of sustainability in the modern era: see eg JL Caradonna (ed), *Sustainability: A History* (Oxford University Press, 2nd edn, 2022); JL Caradonna (ed), *Routledge Handbook of the History of Sustainability* (Routledge 2018); and U Grober, *Sustainability: A Cultural History* (Green Books 2012).

<sup>29</sup>See the overall accounts by FN Egerton, *The Branches of Ecology: A 20th Century History* (CRC Press 2023) and A Bramwell, *Ecology in the 20th Century: A History* (Yale University Press 1989).