11. Future Generations Under EU Law

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'*Knowledge of the future is a contradiction in terms*'
(Bernard De Jouvenel, *The Art of Conjecture*, 1967)

1. Introduction

'The future, for a long time, was a concept to which philosophers and jurists paid little attention. It was left to chance, to fate, or perhaps divine providence. So, alien to juristic thinking was the idea of caring about future generations.'[1] This was also the case under European Union (EU) law. Until very recently, future generations were barely present under EU law. The main exception was the preamble of the Charter of Fundamental Rights that stated that enjoyment of the rights of the Charter entails responsibilities and duties regarding other persons, the human community and future generations.

Today, this scenario is rapidly evolving. In the framework of the European Green Deal, the Commission sets forth the objective of launching a new growth strategy for the EU that will support the transition to a fair and prosperous society that responds to the challenges posed by climate change and environmental degradation, improving the quality of life of current and future generations.[2] The reference to upcoming generations is not limited to the text of the Green Deal but is also reiterated in some of the actions, strategies and legislative proposals implementing the Green Deal. As an example, in the Communication 'Fit for 55' adopted on 15

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1 Paolo Becchi, 'Our Responsibility Towards Future Generations' in Klaus Mathis (ed), *Efficiency, Sustainability, and Justice to Future Generations* (Springer 2011) 77.

2 Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions, *The European Green Deal*, COM (2019) 640 final, 23–24.

July 2021, the Commission considers that next generations 'will bear the brunt of more frequent – and more intense – storms, wildfires, droughts and floods, as well as the conflicts that they could trigger around the world. Tackling these crises is, therefore, a matter of intergenerational and international solidarity.'[3] A reference to next generations is also provided for in the post-pandemic EU recovery plan that affirms that 'is the time for our European Union to get back to its feet and move forward together to repair damage from the crisis and prepare a better future for the next generation.'[4]

Considering the increasing references to the next/future generations, which legal instruments should be mobilised under EU law to represent their interests? To answer this question, it is first necessary to make a terminological clarification and specify the scope of my research.

First, concerning the terminology, EU law does not provide for a definition of future and next generations, and it does not indicate any criteria that might be considered to extrapolate such a definition. If the notion of next generations seems to suppose – compared to one of the future generations – an element of temporal proximity with regard to the current generations, it is difficult to clearly distinguish them. Moreover, it is doubtful whether the notions of next/future generations refer only to the current young generations or to the unborn children of the future with whom the current generations will, at least partially coexist or, even more widely, all the unborn children of the future. In the absence of any explicit reference, I will refrain for the purpose of this chapter from making a distinction between next and future generations, and I will refer broadly to future generations as also comprising the next ones. From this perspective, future generations include both today's children and the unborn children of the future with no temporal delimitation. Indeed, these populations share the same common

3 Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions, '*Fit for 55*': *delivering the EU's 2030 Climate Target on the way to climate neutrality*, COM (2021) 550 final, 1.

4 Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions, *Europe's moment: Repair and Prepare for the Next Generation*, COM/2020/456 final, 10. For other examples, see also: Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions, *Pathway to a Healthy Planet for All EU Action Plan: 'Towards Zero Pollution for Air, Water and Soil'*, COM (2021) 400 final, 2.

vulnerability of inheriting a planet plagued by climate change, health and environmental crisis.

Second, concerning the object of my research, there are two ways of looking at the relationship between EU law and future generations. On the one hand, one can focus on the current generations and examine their obligation to protect future generations. On the other hand, one can concentrate on future generations and analyse their right to be protected by current generations. Despite the increasing interest expressed by scholars for the possibility of assigning rights to future generations,[5] I will limit my analysis to the obligations undertaken under EU law by the current generations to protect future ones. This choice is explained by the conviction that – even before exploring the interest and feasibility of granting rights to future generations – EU law already provides useful legal tools to enhance both today and in a long-term perspective the obligations of protection borne by the current generations. Of course, this approach is based on the assumption that, in the context of the current climate crisis, it is not enough to share resources and responsibilities between the members of the current generations, but it is also essential to ensure that future generations will be granted the opportunity of living in good health and environmental conditions.

In this framework, the core claim of this chapter is that the protection of future generations under EU law should be ensured through a four-fold strategy based on the following principles: the principle of sustainable development, the precautionary principle, the principle of solidarity between generations, and the principle of non-regression. Although the principles of sustainable development, precaution and solidarity between generations are already provided for under EU law, a claim is made for the introduction of the principle of non-regression. Against this backdrop, by referring to the main legislative, jurisprudential and scholarship contributions, I will examine, for each of these principles, their relevance and the main challenges that should be overcome to ensure the protection of future generations

5 Edith Brown Weiss, *In Fairness to Future Generations: International Law, Common Patrimony and Intergenerational Equity* (OUP 1989); Edith Brown Weiss, 'Our Rights and Obligations to Future Generations for the Environment' (1990) 84(1) AJIL 198; Anthony D'Amato, 'Do We Owe a Duty to Future Generations to Preserve the Global Environment?' (1990) 84(1) AJIL 190; Lothar Gündling, 'Our Responsibility to Future Generations' (1990) 84(1) AJIL 207; Emilie Gaillard, *Générations futures et droit privé : vers un droit des générations futures* (LGDJ 2011); Jan Linehan, *Giving Future Generations a Voice. Normative Frameworks, Institutions and Practice* (Edward Elgar 2021).

under EU law. It is out of the scope of this chapter to engage in a theoretical analysis aimed at examining the legal status of these principles under EU law. While my research is anchored in the analysis of existing EU legal sources, it also adopts a forward-looking approach aimed at nourishing future reflection on the tools that could be mobilised under EU law to better protect future generations.

Concerning the structure, Section 2 focuses on the principle of sustainable development, Section 3 on the precautionary principle, Section 4 on the principle of solidarity between generations, Section 5 on the principle of non-regression. Section 6 concludes.

2. The Principle of Sustainable Development

As this section will highlight, sustainable development is a key tool ensuring the protection of current and future generations against the risks posed by climate change and environmental degradation.

The theoretical foundation of the concept of sustainable development was first clarified in 1987 by the Commission on Environment and Development chaired by G Brundtland.[6] In his report, sustainable development is defined as the development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs. It expresses the idea that living resources should not be so depleted that they cannot be renewed in the medium or long term.[7] While the definition given by the Brundtland report laid the groundwork for the definition of sustainable development, it did not clarify its content precisely. More than thirty years after the adoption of the report, the contours of the concept are still vague, and its meaning ambiguous.[8] Sustainable development remains one of the most debated international political and legal concepts.[9] Despite its vagueness, the concept of sustainable development is generally considered to be three-fold. It brings together three concerns: environmental, social and economic. This is stated in Article 3(3) Treaty on European Union (TEU):

6 Report of the World Commission on Environment and Development: Our Common Future, transmitted to the General Assembly as an Annex to Document A/42/427, Chapter 2. The Commission was set up by the Resolution 38/161 of the UN Assembly.

7 Michel Prieur, *Droit de l'environnement* (Bruylant 2014) 101.

8 Ludvig Krämer, *EU Environmental Law* (8th edn, Sweet & Maxwell 2016) 9.

9 Maria Lee, *EU Environmental Law, Governance and Decision-Making* (Hart Publishing 2014) 57.

> The Union shall work for the sustainable development of Europe based on balanced economic growth and price stability, a highly competitive social market economy, aiming at full employment and social progress, and a high level of protection and improvement of the quality of the environment.

As the European Commission underlines, sustainable development raises 'the question of reconciling economic development, social cohesion and environmental protection'.[10] It calls on public authorities to adopt a proactive and integrated approach that preserves the economic, social and environmental balance of the planet.[11] From this perspective, sustainable development is a key legal tool for the protection of future generations since it 'institutionalises the recognition of future generations' interests to inherit a clean and healthy environment'.[12] In this regard, Article 2 of Regulation n° 2493/2000 specifies that:

> sustainable development means the improvement of the standard of living and welfare of the relevant population within the limits of the capacity of the ecosystems by maintaining natural assets and their biological diversity for the benefit of the present and future generations.[13]

Despite its importance, the principle of sustainable development gives rise only to an obligation of means and not an obligation of results under EU law. This conclusion stems from the interpretation of the EU Treaties. First of all, Article 11 Treaty on the Functioning of the European Union (TFEU) states that environmental protection requirements must be integrated into the definition and implementation of other policies and activities, in particular with a view to *promoting* sustainable development. The term *promote* refers to the idea of advancing, of making progress. Furthermore, Article 3(3) TEU provides that the Union shall *work* for sustainable development. The term *work* aims at indicating that EU institutions and Member States should act in such a way as to move towards the achievement of an object-

10 Communication from the Commission to the Council and the European Parliament, *The 2005 Review of the EU Sustainable Development Strategy 2005: Initial Stocktaking and Future Orientations*, COM/2005/0037 final, 1.

11 ibid.

12 Abate Randall, *Climate Change and the Voiceless, Protecting Future Generations, Wildlife and Natural Environment* (CUP 2019) 55.

13 Regulation (EC) No 2493/2000 of the European Parliament and of the Council of 7 November 2000 on measures to promote the full integration of the environmental dimension in the development process of developing countries, OJ 2000 L 288, 1–5.

ive over time, i.e. sustainable development. Finally, according to Article 3(5) TEU, the Union shall *contribute* to sustainable development, where the word *contribute* refers to the idea of taking part in the achievement of a result. Despite their linguistic differences, the verb *promote, work* and *contribute* convey the message that, according to the Treaties, the EU institutions have an obligation to initiate a process of sustainable development, but they are not obliged to achieve a specific result.[14]

To implement the principle of sustainable development, since 2001 the EU has adopted a sustainable development strategy.[15] However, it was only in 2019, with the enactment by the Commission of the European Green Deal, that the European sustainability strategy was significantly expanded and strengthened[16].

On the one hand, the expansion of the sustainability strategy is linked to the objective of the Green Deal. According to the Commission, the Green Deal is the:

> new growth strategy that aims to transform the EU into a fair and prosperous society, with a modern, resource-efficient and competitive economy where there are no net emissions of greenhouse gases in 2050 and where economic growth is decoupled from resource use. It also aims to protect, conserve and enhance the EU's natural capital, and protect the health and well-being of citizens from environment-related risks and impacts.[17]

To meet these objectives, the Green Deal aims to overcome the existing sectoral approaches to adopt an integrated perspective that will allow incorporating sustainability into all EU policies and actions. This is why starting from 2020, the Commission adopted several texts that make sustainability a

14 Gyula Bàndi, 'Principles of EU Environmental Law Including (the Objective of) Sustainable Development' in Maria Peeters and Mariolina Eliantonio, *Research Handbook on EU Environmental Law* (Elgar 2020) 39.

15 Communication from the Commission, *A Sustainable Europe for a Better World: A European Union Strategy for Sustainable Development*, COM (2001) 264 final amended in 2009 by Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, *Mainstreaming sustainable development into EU policies: 2009 Review of the European Union Strategy for Sustainable* Development, COM (2009) 400 final.

16 Communication from the Commission to the European Parliament, the European Council, the European Economic and Social Committee and the Committee of the Regions, *The European Green Deal* (n 2).

17 ibid., 2.

pivotal element of European law in the fields of, *inter alia,* climate[18], food[19], biodiversity[20], energy[21], pollution[22], and deforestation.[23]

On the other hand, the strengthening of the strategy is linked to the choice of the legal instruments mobilised to meet the objective of sustainable development. In this respect, even if the majority of the actions and plans presented by the Commission still take the form of non-binding legal acts, the new European Climate Law adopted in June 2021 (Regulation (EU) 2021/1119)[24] gives an idea of the different level of ambition displayed by the EU decision-makers concerning the achievement of sustainability. In this regard, the European Climate Law sets out a binding objective of net reduction in greenhouse gas emissions by at least 55 % compared to 1990 levels by 2030 and of climate neutrality in the Union by 2050 (Article 1). To do so, the relevant Union institutions and the Member States shall take the necessary measures at Union and national level, respectively, to enable the collective achievement of these climate objectives, taking into account the importance of promoting both fairness and solidarity among the Member States and cost-effectiveness in achieving this objective (Article 2). By 30 September 2023, and every five years thereafter, the Commission shall assess the collective progress made by all Member States as well as the consistency of Union measures on these climate objectives (Article 6).

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18 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) No 401/2009 and (EU) 2018/1999 ('European Climate Law') OJ 2021 L 243, 1–17.

19 Communication from the Commission to the European Parliament, the European Council, the European Economic and Social Committee and the Committee of the Regions, *A Farm to Table Strategy for a Fair, Healthy and Environmentally Sound Food System*, COM (2020) 381 final.

20 Communication from the Commission to the European Parliament, the European Council, the European Economic and Social Committee and the Committee of the Regions, *EU Biodiversity Strategy 2030: Bringing nature into our lives*, COM (2020) 380 final.

21 European Commission, *Strategy for an integrated energy system*, July 8, 2020.

22 Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions, *Pathway to a Healthy Planet for All EU Action Plan: 'Towards Zero Pollution for Air, Water and Soil'* (n 4).

23 European Commission, Proposal for a regulation of the European parliament and of the Council on the making available on the union market as well as export from the union of certain commodities and products associated with deforestation and forest degradation and repealing Regulation (EU) No 995/2010, COM/2021/706 final.

24 European Climate Law.

If the adoption of the Green Deal represents an important step forward for ensuring the protection of current and future generations against the risks posed by climate change and environmental degradation, a lot still remains to be done.

First, the strategies, actions and legislative proposals of the Commission shall go through the EU legislative procedure and the subsequent negotiation with the other EU institutions and the Member States.

Second, to be effective, the shift towards sustainability will require effective integration between economic, environmental and social laws and policies. This will not be easy since, these disciplines currently have very different scopes and functions. In addition, as underlined by the Commission, the transition shall be just, fair and inclusive. It must:

> put people first, and pay attention to the regions, industries and workers who will face the greatest challenges. Since it will bring substantial change, active public participation and confidence in the transition is paramount if policies are to work and be accepted. A new pact is needed to bring together citizens in all their diversity, with national, regional, local authorities, civil society and industry working closely with the EU's institutions and consultative bodies.[25]

Third, the scale of change needed to achieve the Green Deal's objective will require time to be implemented under EU law. Nevertheless, the time required to complete the transition towards sustainability might not be aligned with the urgency to act resulting from the fast depletion of climate and environmental conditions. According to the latest report by the European Environmental Agency in 2021, despite the efforts of Member States, biodiversity in the EU continues to decline and is facing significant deterioration due to overexploitation of land and unsustainable land management, as well as changes in the water regime, air quality, soil pollution and climate change.[26] Similarly, natural resources (water, oceans, forests) are increasingly threatened by human activities that jeopardise the balance of natural ecosystems. In addition, CO_2 emissions continued to rise in both 2018 and 2019 and only decreased in 2020 because of the restrictive

25 European Green Deal (n 2) 2.

26 European Environmental Agency, 'State of Nature in the EU – 2021' <https://perma.cc/BNC2-DNJH>.

measures adopted by the Member States in the context of the Covid-19 crisis.[27]

3. The Precautionary Principle

Provided for by Article 191 para. 2TFUE, the precautionary principle is a founding principle of the European environmental policy.[28] Moreover, since the *National Farmers' Union and the United Kingdom vs Commission* judgments of 5 May 1998,[29] both the Court of Justice (CJ) and the General Court (GC) have also repeatedly applied the precautionary principle in the field of public health.[30]

Although the precautionary principle directly aims to protect current generations by ensuring that decision-makers will pursue a high level of environmental and public health protection, it also takes into account, at least indirectly, future generations.

Indeed, precaution can be defined as a principle of anticipated action, which – in a context of risk and uncertainty for the environment and public health – requires the competent authorities (EU institutions and the Member States) to anticipate the traditional time for the adoption of a measure to protect the environment and public health.[31] This means that decision-makers shall not wait until the risk is certain, from a scientific point of view, but shall act before, when the risk is still uncertain.

When decision-makers act based on the precautionary principle, they do not know if and when the uncertain risk at stake may materialise. Risks affecting the environment and public health (eg chemicals, pesticides, endocrine disruptors, air pollution etc) do not occur immediately but usually have a long-time horizon and might acquire an intergenerational

27 'Global Carbon Project: Coronavirus Causes 'Record Fall' in Fossil-fuel Emissions in 2020' (Carbon Brief, 11 December 2020) <https://perma.cc/2URD-BMBT>.

28 For a detailed analysis of the precautionary principle under EU law, see Alessandra Donati, *Le principe de précaution en droit de l'Union européenne* (Bruylant 2021).

29 C-157/96, *National Farmers' Union*, CJEU, 5 May 1998, EU:C:1998:191; C-180/96 *United Kingdom/Commission*, CJEU, 5 May 1998, EU:C:1998:192.

30 C-132/03 *Codacons and Federconsumatori*, CJEU, 26 May 2005, EU:C:2005:310; C-504/04 *Agrarproduktion Staebelow*, CJEU, 12 January 2006, EU:C:2006:30; T-177/02 *Malagutti-Vezinhet*, GC 10 March 2004, EU:T:2004:72; T-539/10 *Acino vs Commission*, GC 7 March 2010, EU:T:2013:110.

31 Alessandra Donati, 'The Precautionary Principle under European Union Law' (2021) 49 Hitotsubashi Journal of Law and Politics 44.

dimension.[32] This means that, should they materialise, their negative consequences might be suffered by the ongoing and future generations. The long-term perspective of the uncertain risks explains the long-term dimension of the precautionary principle. Precaution is future-oriented.[33] It is a foresight principle that requests decision-makers to anticipate, as far as is possible, their action to ensure a high level of protection of the environment and public health. Therefore, by preventing the occurrence of major risks for the environment and public health that might jeopardise the objective of a high level of protection, the precautionary principle might be a useful tool to protect, at least indirectly, future generations. Indeed, the latter would be able to enjoy better environmental and health conditions that would not have been undermined by the occurrence of major risks.

However, to be effective towards current and future generations, the precautionary principle should be implemented by the decision-makers when the conditions for its application are met. Nonetheless, the precautionary principle was not applied in several sensitive cases concerning the environment or public health.[34] One example concerning the authorisation of glyphosate will clarify this issue. This example is not exhaustive but is particularly relevant to show the lack of implementation of the precautionary principle and understand the rationale behind this failure.

Glyphosate is an active substance used in the production of a herbicide. The risk of damage associated with the use of pesticides has a long-time horizon and might affect current and future generations. Developed by Monsanto in the 1970s under the brand name Roundup, glyphosate is now produced and sold under many other brand names. It is used in particular

32 Janelle Lamoreaux, 'Passing Down Pollution: (Inter)generational Toxicology and (Epi)genetic Environmental Health' (2021) 35(4) Med Anthropol 529; Jonathan Colmer and John Voorheis, 'The Grandkids Aren't Alright: the Intergenerational Effects of Prenatal Pollution Exposure' (2021) 1733 Discussion Paper – Centre For Economic Performance 1 <https://perma.cc/9WWG-N53D>.

33 Alexandre Kiss, 'L'irréversibilité et le droit des générations futures' (1998) Revue juridique de l'Environnement 49, 51; Anne Guégan, 'L'apport du principe de précaution au droit de la responsabilité civile' (2000) 2 Revue juridique de l'Environnement 147, 167.

34 For an analysis of the cases (including Covid-19, 5G and endocrine disruptors) where the precautionary principle was not applied by EU institutions, see: Alessandra Donati, 'Le principe de précaution : un outil de gestion des crises en droit de l'Union européenne?' (2020) 10 Journal de droit européen 430; Alessandra Donati, 'Droit européen et perturbateurs endocriniens: il est où le principe de précaution' (*blogdroiteuropéen*, 27 November 2018) <https://perma.cc/EL4T-V7EX>.

to fight against weeds. Glyphosate is at the centre of a major scientific controversy over its carcinogenic effect to humans. On the one hand, the International Agency for Research on Cancer (IARC) classified it as a probable human carcinogen in 2015;[35] on the other hand, the European Food Safety Agency (EFSA) and the European Chemicals Agency (ECHA) rejected the IARC's conclusions by downplaying the danger of glyphosate to humans.[36] In addition, the *Monsanto Papers*, internal Monsanto documents declassified by the US courts in 2017, appear to show that, as early as 1999, Monsanto was concerned about the carcinogenic effects of glyphosate and tried to obstruct the work of the IARC and other regulatory agencies in order to hide the scientific data proving the dangerous nature of this product for humans.[37] In Europe, the rules for pesticides are set forth in Regulation n° 1107/2009.[38] Under this regulation, active substances, including glyphosate, are subject to authorisation at the European level. After the expiry of the marketing authorisation for glyphosate and following an intense public debate, in December 2017, the European Commission granted its renewal for 5 years (Implementing Regulation n° 2017/2324).[39] The precautionary principle, which is enshrined in the TFEU and provided for in Regulation n° 1107/2009, is nevertheless ignored by the Implementing Regulation n° 2017/2324 renewing the approval of glyphosate, as the Commission makes no reference to this principle or to the scientific controversies surrounding it. However, all the conditions for its application were met: glyphosate presents a risk to public health that might materialise in

35 International Agency for Research on Cancer (IARC), 'IARC Monographs Volume 112: Evaluation of Five Organophosphate Insecticides and Herbicides' <https://perma.cc/7A99-Z7WV>.

36 European Food Safety Authority (EFSA), 'EFSA Statement regarding the EU Assessment of Glyphosate and the so Called 'Monsanto Papers' <https://perma.cc/ES3A-DKWJ>.

37 Stéphane Horel et Stéphane Foucart, '"Monsanto papers", désinformation organisée autour du glyphosate' *Le Monde* (Paris, 4 October 2017) <https://www.lemonde.fr/planete/article/2017/10/04/monsanto-papers-desinformation-organisee-autour-du-glyphosate_5195771_3244.html> accessed 24 July 2023.

38 Regulation (EC) No 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC, OJ 2009 L 309, 1.

39 Commission Implementing Regulation (EU) No 2017/2324 of 12 December 2017 renewing the approval of the active substance glyphosate in accordance with Regulation (EC) No 1107/2009 of the European Parliament and of the Council concerning the placing of plant protection products on the market and amending the Annex to Commission Implementing Regulation (EU) No 540/2011 OJ 2017 L 333, 10–16.

a short, long or even intergenerational time-period, and this risk is the subject of divergent scientific studies. Thus, in the presence of risk and scientific uncertainty and to ensure a high level of public health protection to the benefit of the ongoing and the current generations, the precautionary principle should have been applied.

Several attempts to have the Commission's decision overturned in the light of the precautionary principle have been made before the CJEU, but so far, they have not had the desired result.[40] Glyphosate remains in circulation under EU law at least until December 2023, when its authorisation expires, and the authorities will again be called upon to decide on the release of this herbicide. It remains to be seen whether the precautionary principle will be applied in a timely manner by policymakers this time.

How can we explain the failure by the EU decision-makers to apply the precautionary principle in the case of glyphosate? Despite the complexity of the case at stake – where legal, political, scientific and ethical considerations are deeply intertwined – and the difficulty to provide a straightforward answer, it is worth considering that when implementing the precautionary principle, decision-makers enjoy a broad discretionary power that is limited by their duty to comply with the obligation to take into account the results of the scientific assessment executed by scientific experts before the adoption of the precautionary measure and the other costs and benefits of the action.[41] Authorities are, therefore, substantially free to decide on the implementation of the precautionary principle, provided that they demonstrate that they have complied with the procedural requirements for its application.[42]

While the existence of such a discretionary power can be explained by the need to modulate the action to be taken on the basis of the very specific and variable characteristics of the risk and uncertainty involved, it could also justify the decision-makers' choice not to adopt a precautionary measure in a given situation. In that case, it will be up to the CJEU to verify whether the decision of the authorities is grounded since they have respected the procedural content of the precautionary principle. However, the intensity of the control exercised by the Court is limited. The CJEU

40 Alessandra Donati, 'The Glyphosate Saga – A Further but not a Final Step – the CJEU Confirms the Validity of the Regulation on Plant Protection Products in Light of the Precautionary Principle' (2020) 11(1) European Journal of Risk Regulation 148.

41 Donati (n 28) 191.

42 ibid.

refuses to substitute its assessment of the facts for that of the institutions and Member States to whom the Treaty has entrusted this task and limits the intensity of its review.[43] The Court considers that it is not required to resolve complex issues, which are a matter for the exercise of discretion by decision-makers.[44] Indeed, any further control could imply a dangerous shift in the boundary between the judge and the administrator.[45] In this sense, if it is up to the decision-makers to assess the scientific basis and the political importance of the risk in question, the judge must limit himself to verifying that the decision-makers have correctly used their discretionary power without carrying out a new assessment of the factual elements of the case. Therefore, the control exercised by the CJEU over the precautionary measures is limited to the verification of the existence of a manifest error of assessment or a misuse of powers by the political decision-makers, but does not aim at substituting the judge's assessment to that of the EU institutions.

To overcome the constraints linked to the application – and often as in the case of glyphosate, the failure to apply the precautionary principle – I propose two avenues of reflection.

First, it is through the extension of the procedural content of the precautionary principle that it could be possible to bind the discretionary power of the authorities by intensifying, at the same time, the standard of control exercised by the CJEU. This has been the trend in the case-law of the CJEU in recent years. A discreet development can be seen in the case-law concerning the precautionary principle.[46] In principle, the Court always states that it limits the standard of its review to the assessment of a manifest error of assessment. However, *de facto,* the Court sometimes carries out a reinforced judicial review. The strengthening of judicial review is reflected in the procedural deepening of the intensity of the review. Thus, by verifying that the authorities have complied with the procedural obligations governing the precautionary principle, the Court can examine whether the factual and legal elements on which the exercise of the discretionary power

43 T-105/96 *Pharos SA vs Commission*, GC, 17 February 1998, EU:T:1998:35, 69.

44 C-341/95, *Safety High Tech*, CJEU, 14 July 1998, EU:C:1998:353, 54.

45 Christine Noiville, 'Du juge guide au juge arbitre? Le rôle du juge face à l'expertise scientifique dans le contentieux de la précaution' in Eve Truilhé-Marengo (ed), *La relation juge-expert dans les contentieux sanitaires et environnementaux* (La Documentation française 2011) 82.

46 Alessandra Donati, 'Vers un renforcement du contrôle juridictionnel à la Cour de justice de l'Union européenne? L'exemple du contentieux du principe de précaution' (2020) 56(2–3) Cahiers de droit européen 629.

depends are present, and thus whether the precautionary principle has been correctly applied. For the Court, compliance with procedural obligations constitutes the primary *raison d'être* of the precautionary principle.[47]

On the basis of this jurisprudential development, it would be important for the European legislator to intervene in order to clarify the procedural content of the precautionary principle. While respecting the margin of appreciation that decision-makers enjoy in exercising their political power of choice in situations of risk and uncertainty, it would be important to better clarify the scope of the procedural obligations that mark the implementation of the precautionary principle. The procedure allows for the collection and organisation of the information needed to manage uncertain risks, and structures the way decisions are made. From this perspective, extended procedural obligations could be seen as a lever to strengthen the coherence, completeness and clarity of decisions based on the precautionary principle. Framed by procedural guidelines, the decision-making process leading to the adoption of a precautionary measure would thus become more legible since it would underpin a more explicit and analytical approach. The decision-making process would also be easier for the judge to review.

Second, the application of the precautionary principle crucially depends on the individual decision taken by the authorities in charge of risk prevention. The risks to be prevented do have an objective component (linked to the mathematical probability of occurrence of a risk) and a subjective component (which depends on the appreciation of the risk in question in each social, geographical, and economic context). The uncertainty that characterises these risks is a consequence of the lack of scientific information as perceived by the experts at the time the decision on the risk is taken. This means that recourse to the precautionary principle *ultimately* depends on the assessment by decision-makers and experts (commissioned by the authorities) of the extent and seriousness of the risk and uncertainty involved, and their balance with the other interests at stake. The tensions that arise during the implementation of the precautionary principle thus reflect what constitutes the major difficulty of anticipation, namely the definition of the acceptable and unacceptable risk. Because acceptability includes, in addition to its objective and rational elements, a strong psycho-

47 T-13/99, *Pfizer Animal Health vs Council*, GC, 11 September 2002, EU:T:2002:209,170–172.

logical content, its mechanical and rational delimitation is impossible[48]. However, the European model of decision-making in a context of risk and uncertainty is structured on the basis of the idea that decision-makers are rational agents who, in each case, make rational decisions that are a function of the level of risk established. For each decision, they, therefore, try to optimise the chosen level of protection by applying the precautionary principle if necessary.

The application of this principle is thus the consequence of a rational process organised around the static (and very theoretical) distinction between scientific risk assessment and political risk management. However, when they act to prevent the realisation of risk, the rational dimension of the decision is offset by the biases to which decision-makers are subject (inertia, optimism, loss aversion, etc), and their relevant trade-off. A more targeted and precise understanding of how these decisions are made could be a useful complement to try to strengthen the effectiveness of the implementation of the precautionary principle. For this, behavioural sciences could prove useful in an attempt to better understand and thus better regulate the adoption of a precautionary measure by the authorities. A large body of empirical research reveals that the assumption of strict rationality – that individuals are rational agents making a rational decision in every circumstance – is incorrect.[49] Individuals have limited cognitive resources and are affected by biases.[50] Therefore, while the rationality assumption can sometimes provide a realistic approximation, a more accurate view of human behaviour is a condition for the effectiveness of the law.[51] Behavioural analysis of law meets this need by providing an intermediate empirical basis between the theoretical abstractions of the rational actor model and the implicit intuitive and unstructured view of human behaviour as proposed by traditional legal research. Therefore, to foster a better application of the precautionary principle, in addition to traditional legal analysis, it would

48 Christine Noiville, 'La lente maturation du principe de précaution' (2007) 22 Recueil Dalloz 1514, 1515.

49 These studies have been popularised in books such as: Daniel Kahnmeman, *Thinking, Fast and Slow* (Farrar, Straus and Giroux 2011); Richard Thaler, *Misbehaving: How Economics Became Behavioral* (Norton 2015); Richard Thaler and Cass Sunstain, *Nudge: Improving Decisions About Health, Wealth, and Happiness* (Yale University Press 2008).

50 Avishalom Tor, 'The Fable of Entry: Bounded Rationality, Market Discipline, and Legal Policy' (2002) 101(2) Michigan Law Review 482.

51 Christine Jolls, Cass Sunstain and Richard Thaler, 'A Behavioral Approach to Law and Economics' (1998) 50 Stanford Law Review 1471, 1474–1475.

be important to learn from the behavioural sciences in order to understand better the logic, biases and limitations of the behaviour of authorities called upon to prevent the occurrence of a risk and to incorporate this knowledge into legal regulation.

4. The Principle of Solidarity Between Generations

In his 2016 speech on the State of the Union, the former president of the European Commission, Jean-Claude Juncker, affirmed that 'solidarity is the glue that keeps our Union together'.[52] Provided for by the EU Treaties in more than fifteen places (ranging from the energy policy to the policies on asylum, immigration and refugees, as well as the humanitarian and civil protection policies)[53], solidarity was identified very early by the CJEU as a general principle of EU law.[54] Moreover, the EU Charter of Fundamental rights which has the same value as the Treaties, considers that solidarity is an indivisible and universal founding value of the EU together with human dignity, freedom and equality.

Despite its multiple references, no specific definition of the principle of solidarity is provided for by the EU legislator or the CJEU.[55] Therefore, solidarity remains a vague and multifaceted principle whose content varies significantly depending on the specific EU policy that implements it. However, the different applications and definitions of the principle of solidarity

52 Jean-Claude Juncker, 'State of the Union 2016' <https://commission.europa.eu/strategy-and-policy/strategic-planning/state-union-addresses/state-union-speeches/state-union-2016_en> accessed 24 July 2023.

53 TEU Articles 2, 3(3), 5, 21, 24(2), 24(3), 31(1), 32. TFEU: Articles 78(1), 78(3), 80, 107(2)(b), 107(3)(a), 107(3)(b), 122(1), 194(1), 222.

54 C-63/90 and C-67/90, *Portuguese Republic and Kingdom of Spain vs Council of the European Communities*, CJEU, 13 October 1992; C-335/90 *Republic of Poland vs European Commission*, CJEU, 26 June 2012. On the principle of solidarity, see: Jenö Czuczai, 'The principle of solidarity in the EU legal order – some practical examples after Lisbon' in Jenö Czuczai and Frederik Naert, *The EU as a global actor – bridging legal theory and practice. Liber Amicorum in honour of Ricardo Gosalbo Bono* (Brill 2017); Peter Hipold, 'Understanding solidarity within the EU: an analysis of the islands of solidarity with particular regard to Monetary Union' (2015) 34 Yearbook of European Law 257; Helle Krunke, Hanne Petersen and Ian Manners, *Transnational Solidarity. Concept, Challenges and Opportunities* (CUP 2020).

55 Pieter Van Cleynenbreugel, 'Typologies of Solidarity in EU Law: a Non-shifting Landscape in the Wake of Economic Crises' in Andrea Biondi, Egle Dagilyte and Esin Küçük, *Solidarity in EU Law. A Legal Principle in the Making* (Elgar 2018) 13.

converge in the idea that solidarity triggers a duty of sharing resources with others in a spirit of mutual support.[56] In this sense, solidarity is anchored in the idea of dividing the advantages and burdens of an action equally and justly among the members of a community.[57]

A specific dimension of the principle of solidarity is the principle of solidarity between generations set forth by Article 3(3) TUE, according to which the Union 'shall combat social exclusion and discrimination, and shall promote social justice and protection, equality between women and men, solidarity between generations and protection of the rights of the child.' Besides its application concerning the relationship between members of the same generation (intra-generational solidarity), the principle of solidarity between generations has an intergenerational dimension. In this regard, it entails obligations of solidarity between the younger and the older generations of those living, including child-parent relationships, social participation of elderly people and children in communities, affordability of pensions and care of the elderly.[58]

Could it be possible to extend the notion of inter-generational solidarity to cover the relationship between the current generations and the future ones, by meaning here those that are not yet born? The question is important because, in the framework of the ongoing climate crisis and according to the objective of sustainability enshrined in the European treaties and in the European Green Deal, the assumption is made that it is not enough to share resources and responsibilities between the young and the older generations, but it is also essential to ensure that future generations will be granted the opportunity of living in good health and environmental conditions. In this view, humanity as a whole should form an intergenerational community in which all members would respect and care for each other, achieving the common goal of the survival of humankind.[59] Even if the answer to this question is still open, some references to the notion

56 Chris Hilson, 'EU Environmental Solidarity and the Ecological Consumer: Towards a Republican Citizenship' in Malcolm Ross and Yuri Borgmann-Prebil (eds), *Promoting Solidarity in the European Union* (OUP 2010) 136.

57 Cleynenbreugel (n 55) 17.

58 Decision No 940/2011/EU of the European Parliament and of the Council of 14 September 2011 on the European Year for Active Aging and Solidarity between Generations (2012), OJ 2011 L 246, 5; European Commission, *Renewed Social Agenda: Opportunities, Access and Solidarity in 21st Century Europe*, COM 412 (2008) 6.

59 United Nations, *General Assembly, Intergenerational solidarity and the needs of future generations. Report of the Secretary-General*, 15 August 2013, A/68/322, 3.

of solidarity towards future generations can already be found under EU law. For example, in the Communication, *Strategic Objectives 2005 – 2009, Europe 2010: A Partnership for European Renewal Prosperity, Solidarity and Security*,[60] the Commission states that 'solidarity needs a concrete expression, both at present and with future generations.' Furthermore, in the framework of the EU Green Deal, in the Communication '*Fit for 55: delivering the EU's 2030 Climate Target on the way to climate neutrality*', the Commission underlines that 'solidarity is a defining principle of the European Green Deal between generations, Member States, regions, rural and urban areas, and different parts of society', and that tackling the climate crisis is 'a matter of intergenerational and international solidarity'.[61]

In addition to these references, the interpretation of Article 222 TFEU might also play in favour of the extension of the principle of solidarity to include solidarity towards future generations. Article 222 TFEU provides that the Union and its Member States shall act jointly in a spirit of solidarity if a Member State is the object of a terrorist attack or the victim of a natural or man-made disaster. In this case, at the request of the Member State facing such an emergency, the other Member States shall assist it. Climate change represents a man-made disaster that might fall within the scope of application of Article 222 TFEU. If this is the case, why should the solidarity be limited to the current generations of the affected Member State? Would it not be possible to broaden it to include also the future generations of such Member State that will suffer the most from the negative consequences of climate change? Two further arguments might support this interpretation.

On the one hand, Article 37 of the EU Charter of Fundamental Rights – included in the chapter 'Solidarity' – states that 'a high level of environmental protection and the improvement of the quality of the environment must be integrated into the policies of the Union and ensured in accordance with the principle of sustainable development'. This means that, under the Charter of Fundamental Rights, the achievement of a high level of environmental protection in all EU policies is considered to be an expression

60 Communication from the Commission, *Strategic Objectives 2005–2009, Europe 2010: A Partnership for European Renewal Prosperity, Solidarity and Security*, COM (2005) 12 final, 8–9.

61 Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions, 'Fit for 55': delivering the EU's 2030 Climate Target on the way to climate neutrality, *prec*, 1.

of solidarity. Yet, the pursuit of a high level of environmental protection should not be limited to the current generation but should also include future generations that are seriously threatened by the absence of a long-term protective approach in the environmental regulations adopted today. From this perspective, one might argue that the extension of the principle of solidarity to future generations would be a way of operationalising the objective of achieving a high level of environmental protection in the long-term.

On the other hand, beyond the scope of Article 222 and even before its adoption with the Treaty of Lisbon in 2007, solidarity was conceived as a crisis-management tool. It is, under situations of crisis, that such a principle evolved to embrace new applications that would respond better to the needs of the case at stake. For example, in the late 1970s and early 1980s, Europe faced a huge production crisis in the coal and steel industries. In this situation, the CJEU pushed forward the existing applications of the principle of solidarity by ruling that when seeking to spread the inevitable sacrifices entailed by the general crisis in the steel industry in an equitable manner among all undertakings in the community, a special system of production quotas could be established.[62] In a similar vein, solidarity was largely invoked in the framework of the financial crisis of 2008, the banking crisis in 2012, the migration crisis in 2015[63], and since 2019, the Covid-19 crisis.[64] In all these cases, the need to overcome the ongoing crisis, pushed the EU legislator and the CJEU to reflect on new applications of the principle of solidarity. In light of these considerations, could the ongoing climate crisis not be the occasion to push the application of the solidarity principle to new horizons by making it a key principle for the protection of future generations?

Although applying the principle of solidarity towards future generations would represent an important step further in the evolution of this principle, it would also present some challenges that would need to be addressed. The main one concerns the source of solidarity. Traditionally, solidarity has been interpreted as being linked, both from the spatial and temporal

62 C-276/80 *Ferriera Padana SpA vs Commission of the European Communities*, CJEU, 6 February 1982, EU:C:1982:57.

63 For an overview of the use of solidarity in the financial, banking and migration crisis see: Biondi, Dagilyte and Esin Küçük (n 55).

64 Kate Shaw and Pavel Repyeuski, 'Council Recommendation for Promoting Cooperation and Solidarity Amongst the Member States: A Far Enough Step?' (2021) 6(1) *European Papers* 189 <https://perma.cc/WG8Q-AQ8R>.

point of view, to the living generations of a nation-state. According to Habermas, solidarity emerged in the context of nation-state building and represented a cooperative effort from a shared political perspective to redeem relationships of justice that have been lost in the process of modern nation state-building.[65] From this perspective, the concept of solidarity expresses a state of mind in which a belief of 'sharedness' is translated into daily governance between the living members of a political community.[66] Against this backdrop, national identification – which entails a feeling of common interests, sameness or altruism between the living members of a community – is considered to be the main source of solidarity. National identification is also very often connected to the idea of reciprocity: we show solidarity in a way that also benefits the contributor.[67] The idea of reciprocity as a tenant of solidarity can be better explained with an example taken from the EU provisions governing the economic, social and territorial cohesion between the Member States. The driving motivation for economically strong Member States to act in solidarity is their conviction that market integration, which does not allow for wide disparities in prosperity levels among the Members States, will generate future returns. Stronger economies support the weaker economies to enable them to integrate into the common market, which in turn benefits the strong economies in many ways.[68]

Should the principle of solidarity be extended to future generations, the source of solidarity could not be national identification between the living members of a specific community, and rely on the idea of reciprocity. On the one hand, it would be necessary to substitute the narrow concept of national identification with a broader one of universal identification. Accordingly, the foundation for solidarity could be defined as a matter of safeguarding our ecosystems by taking care not to leave irreversible environmental damage to future generations.[69] On the other hand, solidarity should be detached from the idea of justice as reciprocity as we can neither expect anything from future generations nor know what their preferences

65 Jürgen Habermas, 'Democracy, Solidarity and the European Crisis (Lecture delivered at KU Leuven on 26 April 2013)' <https://perma.cc/BZ78-6RDN>.

66 ibid., 14.

67 Esin Küçük, 'Solidarity in EU Law: an Elusive Political Statement or a Legal Principle with Substance' in Biondi, Dagilyte and Küçük (n 55) 47.

68 ibid.

69 Marianne Takle, 'Common Concern for the Global Ecological Commons: Solidarity with Future Generations' (2021) 35(3) International Relations 403, 408.

will be[70]. In this regard, as underlined by Habermas, detached from its nation-state commitments, solidarity should reflect a fundamental value in accordance with which the advantages and burdens of any initiative are to be shared equally and justly among the affected members.[71] In this regard, future generations might be considered as members of a universal ecological community that should be taken into consideration while sharing the advantages and burdens of any decision taken today that might jeopardise the right to live on a healthy planet tomorrow.

5. The Principle of Non-regression

Is environmental law like a Penelope tapestry where what is done today is undone the next day?[72] Despite the remarkable development of EU environmental law that, in recent years, has been significantly expanded to achieve a higher level of protection, its accomplishments are not immutable. Therefore, diverging economic interests, a major health crisis like Covid-19, or a different political willingness might call environmental law into question by reducing the already set level of protection.[73] Of course, the regression in environmental protection may also be the result of the interpretation of EU law provided by the CJEU or the application ensured by the EU administration. On the one hand, the Court, by applying the principle of sustainable development, needs to reconcile environmental interests with economic and social ones. In this case, it may arbitrate in favour of non-environmental interests and thus undermine the progress of environmental law. On the other hand, by not applying the existing environmental regulations or not triggering the sanctions set forth by the law, the administration may contribute to the deterioration of the environment and thus to a regression in environmental protection. Whether the regression of environmental law comes from the law, the CJEU or the administration, the question arises as to whether it is inevitable or whether

70 ibid., 414.
71 Cleynenbreugel (n 55) 17.
72 François Ost, *La nature hors la loi – l'écologie à l'épreuve du droit* (Éditions La Découverte 2003) 115.
73 Michel Prieur, 'Le nouveau principe de non régression en droit de l'environnement' in Michel Prieur and Gonzalo Sozzo, *La non régression en droit de l'environnement* (Bruylant 2012) 5.

it may come up against some legal obstacles guaranteeing the non-regression.[74]

The principle of environmental non-regression answers to the need of protecting the acquired level of environmental protection. It translates the idea that the latter should not be reduced by the adoption of a subsequent act and that the highest level of environmental protection shall always be pursued. From this perspective, the principle of non-regression aims to ensure that the successive environmental law shall not undermine the high level of protection provided by the preceding one.[75] The goal of this principle is not to freeze acquired situations. The authority maintains its freedom to amend legislation, but only as long as it remains as protective as the previous one.[76] At first sight, the claim to legislate environmental law in perpetuity might seem pretentious. It also contradicts Thomas Paine's[77] thought that no country or parliament can bind posterity until the end of time and the content of Article 28 of the Declaration of the Rights of Men and Citizens of 24 June 1793 that considers that one generation cannot subject future generations to its own laws. Although these ideas can be explained by the willingness to protect the autonomy and self-determination of future generations, they reach their limits in the framework of the ongoing climate crisis. In this context, it is no longer a question of avoiding for future generations the burden of the regulations adopted by the previous ones, but on the contrary, of taking measures to protect the interest of future generations of inheriting a planet where its environmental conditions would be protected. The regression of environmental law decided today would, indeed, breach the interests of future generations since it would result in imposing a degraded environment on them. In this regard, by crystallising the achieved high level of environmental protection and guaranteeing its preservation over time, the principle of non-regression is a key tool for the protection of future generations.

At the international level, the principle of non-regression is still in the development phase, and it appears indirectly in some legal instruments. For example, the outcome document 'The future we want' adopted in 2012

74 ibid., 6.

75 Nathalie Hervé-Fournerau, 'Le principe de non régression environnementale en droit de l'Union européenne : entre idéalité et réalité normative' in Prieur and Sozzo (n 73) 199.

76 Christophe Krolik, 'Contribution à une méthodologie du principe de non-régression' in Prieur and Sozzo (n 73) 142.

77 Thomas Paine, *The Rights of Men* (London, 1791).

by the Rio+20 United Nations Conference on Sustainable Development, states that: 'it is critical that we *do not backtrack* from our commitment to the outcome of the United Nations Conference on Environment and Development.'[78] Moreover, the 2015 Paris Agreement provides under Article 4, paragraph 3, that each nationally determined contribution setting for national climate obligations will represent a *progression* beyond the Party's current nationally determined contribution and reflect its highest possible ambition.[79] In clearer terms, the project for a Pact for the Protection of Human Rights and the Environment[80] indicates that everyone has the right to a high level of protection of the state of the environment and to the *non-regression* of the levels of protection already achieved (Article 2).

Hardly envisaged in international law, the principle of non-regression is recognized, with some variations, by certain Member States in their national law. For instance, in France, the principle of non-regression was introduced in 2016. According to Article 2 of the law on biodiversity[81], the environmental code is completed with a principle of non-regression, according to which the protection of the environment can only be subject to constant improvement based on the current scientific and technical knowledge. In Belgium, the principle of non-regression is not enshrined in a legislative text and does not have an absolute value, but the Constitutional Court considers that Article 23 of the Constitution – which provides the right to a healthy environment – implies a non-regression obligation that prevents the competent legislator from significantly reducing the level of

78 United Nations, *The Future We Want – Outcome document of the United Nations Conference on Sustainable Development* (United Nations 2012) <https://perma.cc/64X3-AG5M>.

79 Conference of the Parties, *Paris Agreement,* Dec. 12, 2015 U.N. Doc. FCCC/CP/2015/L.9/Rev/1 (Dec. 12, 2015).

80 International Centre of Comparative Environmental Law, *Projet de Pacte international relatif au droit des êtres humains à l'environnement* <https://cidce.org/wp-content/uploads/2017/01/Projet-de-Pacte-international-relatif-au-droit-des-e%CC%82tres-humains-a%CC%80-l%E2%80%99environnement_16.II_.2017_FR.pdf> accessed 8 March 2022.

81 Law of 8 August 2016 for the recovery of biodiversity, nature and landscapes, n° 2016–1087.

protection afforded by the applicable legislation in the absence of general interest.[82]

Under EU law, the principle of environmental non-regression has not received formal consecration. Yet, the idea of non-regression of the general level of protection is already present in European social law. Implicitly, the TFEU recognises it in paragraph 3 of the preamble by referring to the objective of the *constant improvement* of the living and working conditions of Europeans. In addition, the principle of non-regression of the acquired level of protection is expressly recognised in Directive 1999/70/CE concerning the framework agreement on fixed-term work and Directive 2000/78 for equal treatment in employment and occupation.[83] In both cases, the Directives provide that their implementation shall under no circumstances constitute grounds for a reduction in the level of protection afforded at the EU level. In addition, the CJEU has recognised the principle of non-regression of the level of protection in some cases concerning the protection afforded to workers.[84] Eventually, the EU Parliament in its resolution of 29 September 2011 called for 'the recognition of the principle of non-regression in the context of environmental protection as well as fundamental rights.'[85]

The adoption under EU law of the principle of environmental non-regression would not only reflect the advancements made under EU social law but also complete the toolbox at the disposal of the EU institutions to ensure the protection of the environment in addition to the principles of sustainable development, precaution and solidarity. Not only would the EU legislator be able to work for a sustainable future by anticipating the risk at stake and promoting solidarity towards future generations, but it could also guarantee that the high level of protection pursued would not

82 Belgium Constitutional Court, 27 Janvier 2011, n° 8/2011. In this sense, see also Paul-Louis Suetens, 'Le droit à la protection d'un environnement sain (Article 23 de la Constitution belge)' in *Les hommes et l'environnement, en hommage à Alexandre Kiss* (Frison Roche 1998) 496.

83 Council Directive 1999/70/EC of 28 June 1999 concerning the framework agreement on fixed-term work concluded by ETUC, UNICE and CEEP OJ 1999 L 175, 43–48, Article 8(3); Council Directive 2000/78/EC of 27 November 2000 establishing a general framework for equal treatment in employment and occupation OJ 2000 L 303, 16–22, Article 8(2).

84 C-378/07 to C-380/07 *Kiriaki Angelidaki e.a. vs Organismos Nomarchiakis Autodioikisis Rethymnis e.a.*, CJEU, April 2009, EU:C:2009:250.

85 European Parliament, Resolution of 29 September 2011 on developing a common EU position ahead of the United Nations Conference on Sustainable Development (Rio+20), P7- TA(2011)0430, 97.

be jeopardised by the adoption of subsequent regressive legislation. From this perspective, the principle of non-regression would allow stabilising the environmental *acquis* and granting its legacy to future generations.

6. Conclusion

What do the principles of sustainable development, precaution, solidarity between generations and environmental non-regression have in common? Despite the complexity and evolving nature of these principles, I consider that they all have an inter-generational dimension and, if correctly applied in a timely manner, could contribute to the protection of future generations under EU law. First, the principle of sustainable development requests decision-makers to consider the needs of future generations when adopting environmental, social and economic decisions to preserve the possibility of future generations living on a healthy planet and responding to their own needs. Second, the precautionary principle binds decision-makers to anticipate the time of action by preventing the occurrence of scientifically uncertain risks that might jeopardise the environment and public health. Third, the principle of solidarity between generations invites the decision-makers to share resources (namely ecological resources) with future generations in a spirit of mutual support. Fourth, the principle of environmental non-regression aims at protecting the acquired level of environmental protection, and it translates the idea that the latter should not be reduced by the adoption of a subsequent act and that the highest level of environmental protection shall always be pursued.

By creating a connection between current and future generations, the principles of sustainable development, precaution, solidarity between generations and environmental non-regression seem to contribute to the progressive emergence of the principle of inter-generational equity under EU law. Professor Edith Brown Weiss proposed a well-known definition of this principle. According to her, the principle of inter-generational equity is based on the allocation of burdens and benefits across generations, and it entails three planetary obligations for the living generation.[86] First, each generation shall conserve the diversity of the natural and cultural resource base. Second, each generation shall maintain the quality of the planet

86 Weiss, *In Fairness to Future Generations* (n 5).

so that subsequent generations are entitled to a comparable level of that enjoyed by previous generations. This means that the present generation shall pass the planet on to future generations in no worse conditions than that in which it was received. Third, each generation shall provide its members with equitable rights of access to the legacy of past generations and conserve such access for future generations. While many acknowledge that humankind has a responsibility to take account of its actions for the future,[87] the principle of inter-generational equity has found only limited recognition in law. No direct references to this principle exist today under EU law. Yet, the Paris Agreement[88] – which represents the reference agreement for managing the climate crisis and inspires the legislation adopted under EU law – acknowledges in its preamble that climate change is a common concern of humankind and considers that when acting to address climate change, the parties should consider, *inter alia*, inter-generational equity.

Even if it is too early to assess whether the principle of inter-generational equity will effectively find a place under EU law, the principles of sustainable development, precaution, solidarity between generations and environmental non-regression already translate, under EU law, its main tenants by creating a set of protection obligations from the current generations to the future ones.

87 Wilfred Beckerman, 'The Impossibility of a Theory of Intergenerational Justice' in Joerg Chet Tremmel (eds), *Handbook of Intergenerational Justice* (Elgar 2006) 53.

88 Conference of the Parties, *Paris Agreement* (n 79).