Hard Cases

The Right to Clean Air and Directive 2008/50/EC. Civil Liability, Resilient Approach, and Sustainability to Safeguard the Effectiveness of Environmental Protection

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Abstract

The essay explores the ruling of the Court of Justice in case C-573/19, which recognised Italy's 'systematic and continuous' infringement of the annual limit value set for nitrogen dioxide, upholding the complaint brought under Art 258 TFEU by the European Commission. Furthermore, the piece takes on a critical look on the weakness of the Court's argumentative process on Italy's defence: more specifically, this topic should be dealt with from a socioeconomic standpoint, with a focus on resilience and sustainability as well. The essay also discusses the possibility to recognize the subjective right to clean air, which is enforceable before the European Court of Justice, to guarantee the effectiveness of environmental protection.

I. The Judgment of the CJEU: The Umpteenth Infringement of European Parliament and Council Directive 2008/50/EC by the Italian Republic

On 12 May 2022, the Court of Justice of the European Union[1] found a 'systematic and continuous' infringement of the annual limit value set for nitrogen dioxide[2]

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[1] Case C-573/19 *European Commission* v *Italian Republic*, Judgment of 12 May 2022, available at www.eur-lex.europa.eu.

[2] Nitrogen Dioxide (NO_2) is a secondary pollutant formed by the oxidation of nitrogen monoxide in the atmosphere. NO_2plays a fundamental role in the formation of photochemical smog. Nitrogen Dioxide irritates the eyes, throat, and respiratory tract, and it affects lung function (bronchitis, chronic pneumonia, asthma, and pulmonary emphysema). Nitrogen Oxides contribute to the formation of acid rain. Its natural emissions include anaerobic organic decomposition reducing nitrates to nitrites, fires, volcanic emissions, and the action of lightning. Its anthropogenic emissions include high temperature combustion (motor engines); thermal installations; thermal power plants; and production of nitrogen fertilizers. S. Iavicoli, 'La qualità dell'aria in città: problematiche ambientali ed effetti sulla salute', in F. Alcaro et al eds, *Valori della persona e modelli di tutela contro i rischi*

by the Italian Republic, upholding the complaint brought under Art 258 TFUE by the European Commission.

This is the third case concerning the Italian Republic's infringement of the 21 May 2008 Directive 2008/50/EC. The first case[3] occurred in 2012, whereas the second[4] dates back to 2020; both cases concern exceeding limit values for concentrations of particulate matter PM10. In the second case, the violation of the relevant limit was described as *systematic and persistent*.

Also the Court recognised the Italian Republic's failure to fulfil its obligations under the provisions of Art 13, in conjunction with Annex XI of the Directive 2008/ 50/EC, by systematically and persistently exceeding the limit values for No_2 from 2008 and up to 2017. Moreover, by failing to adopt appropriate measures to ensure compliance with the limit values for NO_2 from 11 June 2010, the Italian Republic has failed to meet its obligations under Art 23 of the Directive 2008/ 50/EC, in conjunction with Section A of Annex XV, and in particular the obligations listed in the second subparagraph of Art 23, requiring that 'the air quality plans shall set out appropriate measures, so that the exceedance period can be kept as short as possible'.

The proceedings of 2020 and the recent one are similar, if one looks at the defence arguments and the ruling of the Court. Furthermore, it was the second time that the Court could consider the exceeding limit values for concentrations of NO_2, just after the proceedings involving the French Republic.[5]

The Court has repeatedly pointed out that exceeding the limit values set for pollutants in ambient air is sufficient grounds for violation of the combined provisions of Art 13.1 and Annex XI of the Directive 2008/50/EC. For at least eight years in many areas, exceedance of the daily and annual limit values in Italy has remained systematic and persistent; in this case, the Court has found an infringement, without there being any need to examine in greater detail the content of the air quality plans drawn up by the Italian Republic. Adhering to the limit values for air pollutants is in fact a mandatory result; therefore, it would be difficult for any Member State to provide any justifications. According to the Court, the EU legislature set the limit values in order to protect human health and the environment, taking into consideration that air pollutants are produced by multiple sources and activities and that various policies, both at national and EU level, may affect

ambientali e genotossici. Esperienze a confronto (Firenze: Firenze University Press, 2008), 41.

[3] Case C-68/11 *European Commission* v *Italian* Republic, Judgment of 19 December 2012, available at www.eur-lex.europa.eu. See the comment by E. Maschietto, 'Un'altra condanna dell'Italia in materia ambientale: questa volta per inosservanza dei limiti relative alle concentrazioni di PM10 nell'aria: non è ancora finita' *Rivista giuridica dell'ambiente*, 381–386 (2013).

[4] Case C-644/18 *European Commission* v *Italian Republic*, Judgment of 10 November 2020 (Grand Chamber), available at eur-lex.europa.eu. See V. Tevere, 'La Corte di Giustizia ha accertato l'inadempimento dello Stato italiano per violazione della direttiva 2008/50/CE sulla qualità dell'aria' *Lo Stato civile italiano*, 76–77 (2020).

[5] Case C-636/18 *European Commission* v *French Republic*, Judgment of 24 October 2019, available at eur-lex.europa.eu.

ambient air quality. The Italian Republic argues that the deadlines which it has laid down are wholly appropriate: this, to the extent of the structural changes necessary to put an end to the exceedances of the limit values for No_2 in ambient air. This regards particular difficulties pertaining to the socio-economic and budgetary implications of the investments to be made, and local traditions. The Court recalls that that Member State must establish that the difficulties on which it relies in bringing the exceedances of limit values for No_2 to an end, are such as to rule out the possibility that shorter deadlines could have been set. Moreover, the Italian Republic has not used the two mechanisms stated in the directive, namely the request for extension or derogation.

To better understand the judgment of the Court,[6] it is necessary to provide a brief overview of the right to clean air in European and Italian law,[7] considering the fact that the legislation introduced in Italy is mostly a transposition of EU law acts.

The legal basis for the EU to act on air quality lies in Arts 191 and 192 of the Treaty on the Functioning of the European Union (TFEU). There are two framework directives. First, Council Directive 96/62/EC of 27 September 1996 on ambient air quality assessment and management requires Member States to establish certain monitoring and reporting procedures in respect of 13 substances. The second is Directive 2008/50/EC[8] of the European Parliament and of the Council, which replaces five previous acts adopted from 1996 to 2000[9] for the sake of clarity,

[6] This referral follows separate actions brought against France, Germany, and the United Kingdom in May 2018 for similar failures to respect limit values for NO_2, and for failing to take appropriate measures to keep exceedance periods as short as possible. For an analysis of the case law of the CJEU, see L. Calzolari, 'Il contributo della Corte di Giustizia alla protezione e al miglioramento della qualità dell'aria' *Rivista giuridica dell'ambiente*, 803–875 (2021). Out of 12 infringement cases, the Court found that 10 Member States failed to meet the ambient air quality standards. The nine most recent judgments even found a systematic and persistent infringement of the standards. Air quality standards have also been the subject of disputes before many national courts. C-479/10 *European Commission* v *Kingdom of Sweden*, Judgment of 10 May 2011; C-34/11 *Commission* v *Portugal*, Judgment of 15 November 2012; C-68/11, *Commission* v *Italy*, Judgment of 19 December 2012; C-488/15 *Commission* v *Bulgaria*, Judgment of 5 April 2017; C-336/16 *Commission* v *Poland*, Judgment of 22 February 2018; C-636/18 *Commission* v *France*, Judgment of 24 October 2019; C-638/18 *Commission* v *Romania*, Judgment of 30 April 2020; C-644/18 *Commission* v *Italy*, Judgment of 10 November 2020; C-637/18 *Commission* v *Hungary*, Judgment of 3 February 2021; C-664/18 *Commission* v *United Kingdom*, Judgment of 4 March 2021; C-635/18 *Commission* v *Germany*, Judgment of 3 June 2021; C-286/21 *Commission* v *France*, Judgment of 28 April 2022; (Judments available at eur-lex.europa.eu).

[7] Decreto del Presidente della Repubblica 24 May 1988 no 203 (implementation Council Directive 80/779/EEC of 15July 1980, 82/884/EEC of 3 December 1982, 84/360 e 85/203); decreto legislativo 4 August 1999 no 351; decreto legislativo 21 May 2004 no 171; decreto legislativo 18 February 2005 (attuazione Council Directive 96/61/EC); decreto legislativo 3 June 2006 no 152 (Environmental code)

[8] M. Gasparinetti, 'La direttiva 2008/50/CE sulla qualità dell'aria: applicazione e prospettive di revisione' *Le istituzioni del federalismo*, 105–124 (2015).

[9] Council Directive 96/62/EC of 27 September 1996 on ambient air quality assessment and management, Council Directive 1999/30/EC of 22 April 1999 relating to limit values for sulphur dioxide, nitrogen dioxide, and oxides of nitrogen, particulate matter and lead in ambient air, Directive 2000/69/EC of the European Parliament and of the Council of 16November 2000 relating to

simplification, and administrative efficiency, although it has not introduced any radical reforms but implemented measures where appropriated. Council Directive 2004/107/EC sets target values for air pollutants to reduce their effects on human health and the environment. Hereafter, Council Directives 2008/50/EC and 2004/107/EC are referred to jointly as 'AAQ Directives' (currently known as Ambient Air Quality Directives).

On 26 October 2022, the European Commission adopted a proposal for revised Ambient Air Quality Directives. In light of its better regulation agenda (and REFIT programme), the Commission has proposed to merge Directive 2008/50/EC and Directive 2004/107/EC of the European Parliament and of the Council into one directive regulating all the relevant air pollutants.

The impact assessment also checked consistency with the European regulations on climate, in particular the European Climate Law[10] as measures to achieve clean air will lead to greenhouse gas emission reductions as well. It is also consistent with the European Green Deal,[11] the Zero Pollution Action Plan,[12] the Fit for 55,[13]

limit values for benzene and carbon monoxide in ambient air, Directive 2002/3/EC of the European Parliament and of the Council of 12 February 2002 relating to ozone in ambient air and Council Decision 97/101/EC of 27 January 1997 establishing a reciprocal exchange of information and data from networks and individual stations measuring ambient air pollution within the Member States.

[10] 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).

[11] 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. In that act, the European Commission committed to draw on the lessons learnt from the evaluation of the current air quality legislation; propose to strengthen provisions on monitoring and modelling air quality plans to help local authorities achieve cleaner air; and, notably, propose to revise air quality standards to align them more closely with the World Health Organization recommendations. M. Iannella, 'L'European Green Deal e la tutela costituzionale dell'ambiente' *federalismi.it*, 171–190 (2022); R. De Paolis, 'Constitutional Implications: The European Green Deal in the Light of Political Constitutionalism' *Rivista quadrimestrale di diritto dell'ambiente*, 112–122 (2021), highlights that 'the EGD has a limited legal relevance', as it is a soft-law tool, which embodies a political roadmap on climate change. Critically the author observes that the Green Deal 'does not refer to any of the classical environmental principles' and has not yet established a clear connection with them; however 'it is potentially capable of enriching the ongoing constitutional discourse on the EU policy, in particular in the perspective of "Political Constitutionalism", a prospective aimed at seeking to detect the historical-political rules, principles, practices, and maxims that establish, sustain, and regulate the activity of governing society'.

[12] Communication from the Commission to the European Parliament, 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. Consider notably its 2030 target to reduce by more than 55% the health impacts (premature deaths) of air pollution and the 2050 vision of the Action Plan to reduce air, water, and soil pollution to levels no longer considered harmful to health.

[13] Communication from the Commission to the European Parliament, 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.

the Methane Strategy,[14] the Sustainable and Smart Mobility Strategy,[15] the related 2021 New Urban Mobility Framework,[16] the Biodiversity Strategy,[17] the Farm to Fork Initiative,[18] and the forthcoming Euro 7 proposal (cf PLAN/2020/6308).

In the Italian legal framework, the first definition of air pollution is provided in the decreto del Presidente della Repubblica 24 May 1988 no 203; Art 2 states that air pollution means

> 'any change in the normal composition or physical state of the air, due to the presence in the same of one or more substances in quantities and with characteristics such as to alter the normal environmental conditions and the healthiness of the air; to constitute danger or direct or indirect injury to human health; to impair recreational activities and other legitimate uses of the environment; to alter biological resources and public and private ecosystems and material goods'.

The current definition is taken from Art 168, para 1, lett A of the Decreto Legislativo 3 April 2006, no 152 (hereinafter Environmental Code). It includes any change in atmospheric air, caused by the introduction into the same of one or more substances in quantities and with characteristics liable to harm or constitute a danger to human health or to the quality of the environment or liable to harm material property or to compromise the legitimate uses of the environment.

The recitals of European Parliament and Council Directive 2008/50/EC help to identify the objectives of the Act, which are the same as the Italian Environmental Code: 'the need to protect human health', paying particular attention to 'sensitive populations', better we say the vulnerable one, and 'the environment as a whole', to improve the monitoring and assessment of air quality including the deposition

[14] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, *EU strategy to reduce methane emissions*, COM/2020/663 final.

[15] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, *Sustainable and Smart Mobility Strategy – putting European transport on track for the future*, COM/2020/789 final.

[16] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, *The New EU Urban Mobility Framework*, COM/2021/811 final.

[17] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, *EU Biodiversity Strategy for 2030 Bringing nature back into our lives*, COM/2020/380 final. Forests are hugely important for biodiversity, climate, and water regulation, the provision of food, medicines and materials, carbon sequestration and storage, soil stabilisation, and the purification of air and water.

[18] Indeed, the use of chemical pesticides in agriculture contributes to soil, water, and air pollution, biodiversity loss and can harm nontarget plants, insects, birds, mammals, and amphibians. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, *A Farm to Fork Strategy for a fair, healthy and environmentally friendly food system*, COM/2020/381 final.

of pollutants and to provide information to the public. The Environmental Code explicitly considers also the harm of material property and the jeopardization of the legitimate uses of the environment.

Air pollution is the largest environmental health risk in Europe.[19] For instance, air pollution causes and aggravates respiratory and cardiovascular diseases. In 2020 in Europe 64,000 premature deaths were attributable to exposure to NO_2 concentrations, which went above the WHO guideline level of 10 $\mu g/m^3$.

In 2021, the World Health Organization (WHO) updated its air quality guidelines[20] for the first time since 2006. Air quality guidelines are a series of WHO publications that provide evidence-informed, nonbinding recommendations for protecting public health from the adverse effects of air pollutants by eliminating or reducing exposure to hazardous air pollutants and by guiding national and local authorities in their risk management decisions. Air pollution is recognised as the leading environmental risk factor globally, leading to health-related economic impacts; it is the single largest environmental threat to human health and well-being.[21]

It is worth noting the limited grounds of the judgment about some of the points of the defence arguments. In particular, the Court does not analyse the socio-economic impact, and the responsibility of EU laws to exceeding the NO_2.

Another point that needs to be discussed concerns the possibility to recognize the subjective right to clean air, which is enforceable before the European Court of Justice.

II. Civil Liability as a Tool to Guarantee the Effectiveness of Environmental Protection in a *De Iure Condendo* Perspective

The European Parliament and Council Directive 2008/50/EC is an example of command-and-control environmental policy.[22] The lack of an air quality plan

[19] *Health impacts of air pollution in Europe 2022* is part of the *Air quality in Europe 2022 report*, available at www.eea.europa.eu.

[20] World Health Organization, 'WHO global air quality guidelines: Particulate matter (PM2.5 and PM10), ozone, nitrogen dioxide, sulphur dioxide and carbon monoxide', available at www.who.int, 2021.

[21] ibid 11–12.

[22] See U. Mattei, 'I modelli nella tutela dell'ambiente' *Rivista di diritto civile*, 389 (1985); N. Lugaresi, *Diritto dell'ambiente* (Padova: CEDAM, 2004), 113–140; M. Clarich, 'La tutela dell'ambiente attraverso il mercato' *Diritto pubblico*, 219–239 (2007), distinguishes noneconomic instruments (such as comand and control instruments) and pure economic instruments (environmental taxes, emission reduction subsidies); U. Salanitro, 'L'evoluzione dei modelli di tutela dell'ambiente alla luce dei principi europei: profili sistematici della responsabilità per danno ambientale' *Le nuove leggi civili commentate*, 795-822 (2013). R. Schmalensee and R. N. Stavins, 'Policy Evolution under the Clean Air Act' *Journal of Economic Perspectives*, 27-50 (2019), assess the evolution of air pollution control policy under the US Clean Air Act, passed in 1970, that established the architecture of the US air pollution control system and became a model for subsequent environmental laws in the United States and globally. The authors pay particular

or the exceeding of the limits, even when a plan is actually adopted, is sufficient to establish an infringement procedure against a Member State before the Court of Justice.

Air quality standards in the form of binding limit values have been and probably continue to be a key driver for reducing air pollution concentrations. However, the number of infringements shows clearly that the effectiveness of environmental protection instruments is not yet guaranteed.

One way to enforce environmental protection measures is by imposing penalties with periodic regularity.[23]

According to some authors, this approach of the Court backs the idea that, in the EU legal order, individuals (especially NGOs) may be entitled to specific prerogatives which can be procedural but also substantive, related to a right to clean air.[24] This approach can complement the infringement procedures.

Regrettably, the subjective right to breathe clean air does not appear in any binding instrument at the international level,[25] unlike the right to clean water

attention to the types of policy instruments used, focusing in particular on the increased use of market-based policy instruments, beginning in the 1970s and culminating in the 1990s. The Organization for security and co-operation in Europe, as already in 1989, released a paper named *Instruments économiques pour la protection de l'environment*, where the economic instruments of environmental protection are defined as 'all those measures that affect the choices between different technological or consumer alternatives, through the modification of the conveniences in terms of private costs and benefits'. The Green Paper on market instruments used for environment and related policy purposes, 28 March 2007, COM (2007) 140, stresses that the EU encourages Member States to use market instruments 'to combat pollution and protect resources'. The Green Paper identifies the types of market instruments that are prevalent in the EU: quantitative systems, such as tradable permit schemes, which provide more certainty as regards reaching specific policy objectives, eg emission limits (subject to effective monitoring and compliance) and purely price-based instruments, such as taxes. Price-based instruments, in turn, ensure security regarding the cost or the price of policy objective and tend to be easier to administer. See G. Caso, 'Tutela del clima e mercato delle emissioni inquinanti', in M. Pennasilico ed, *Manuale di diritto civile dell'ambiente* (Napoli: Edizioni Scientifiche Italiane, 2014), 167–174; A. Gratani, 'Inquinamento 'aria' e quote ETS. Gli obiettivi UE e gli ostacoli per raggiungerli', comment on Case 58/17 *INEOS Köln GmbH* v *Bundesrepublik Deutschland*, [2018] ECR; Case 572/16 *INEOS Köln GmbH* v *Bundesrepublik Deutschland*, [2018] ECR; Case 336/16 *European Commission* v *Republic of Poland* [2018], ECR; Case 577/16 *Trinseo Deutschland Anlagengesellschaft mbH* v *Bundesrepublik Deutschland* [2018] ECR; Case 229/17 *Federal Republic of Germany* v *European Commission* [2018] ECR; *Rivista giuridica dell'ambiente*, 325–335 (2018).

[23] The measure has been requested, in environmental matters, by the Commission in the case Court of European Justice, Grand Chamber, 17 April 2018, case C-441/17, *European Commission* v *Republic of Poland*. The Commission supplemented its application for interim measures by requesting that the Court additionally ordered the Republic of Poland to pay a periodic penalty should it fail to comply with the orders made in the proceedings.

[24] L. Calzolari, n 6 above, passim. See also, Client Earth, *Individual right to clean and healthy air in the EU*, available at www.clientEarth.org (2021).

[25] S. Jankovic, 'Conceptual Problems of the Right to Breathe Clean Air' *German Law Journal*, 168–183 (2021), analyses the general ambiguity and lack of precision of the right to breathe clean air: in the view of the author, it is a challenging goal to firmly indicate which foundations (legal or moral) or character (individual or collective) the right to breathe clean air should meet, as well as to determine which category (generations of human rights) it belongs to. Similarly, its temporal

and sanitation.

The right to clean air became the subject of a trial, brought before the Court of Justice, against the State of Bavaria(German Republic). It was taken to court by a citizien, in the well-known *Janecek* case.[26]

The case concerned a reference for a preliminary ruling regarding the interpretation of Art 7, para 3 of the Council Directive 96/62/EC of 27 September 1996 on ambient air quality assessment and management, as amended by Regulation (EC) No 1882/2003 of the European Parliament and of the Council on 29 September 2003. The reference came in the course of proceedings between Mr Janecek and the State of Bavaria concerning an application for an order requiring the state to draw up an air quality action plan in the district, where the applicant lived, including the measures to ensure abrupt compliance with the limit set by the community legislation regarding the particulate matter PM10.

According to the CJEU, Art 7, para 3 of Council Directive 96/62/EC implies that persons directly at risk when the limit values or alert thresholds are exceeded have the right to require competent national authorities to draw up an action plan, even though under national law, those persons may have other courses of action that they could take for requiring authorities to take measures to combat atmospheric pollution.

Regrettably, the Court[27] recently confirmed that the limit values for air quality, as imposed by the European Directives, are not intended to confer individual rights on individuals; nor do they confer on them a right to compensate against a Member State for any damage to health caused by exceeding the limit values. The Court affirmed that the obligations set in the Directive pursue a general objective of protecting human health and the environment as a whole. Thus,

> 'besides the fact that the provisions concerned of European Parliament

determination (present-day or Future) is uncertain, and it is easy to confuse or conflate the substantive right with procedural rights. Moreover, this right has a non autonomous character, and problems arise in connection to the meaning, the indeterminacy of the beneficiaries of the said right, and its absence at the international level. V.K. Aery, 'The Human Right to Clean Air: A Case Study of the Inter-American System' *Seattle Journal of Environmental Law*, 15-38 (2016), examines the procedural barriers to victims of air pollution pursuing legal remedies within the Inter-American human rights system and proposes legal mechanisms to enforce that right. The author notes that in 1986 the African Charter became the first international legal instrument to recognise and enforce environmental rights.

[26] C-237/07 *Dieter Janecek* v *Freistaat Bayern*, Judgment of 25 July 2008 *Rassegna dell'avvocatura dello Stato*, 117–121 (2008), with a critical comment by S. Palermo, 'Qualità dell'aria: diritto di un terzo vittima di danni alla salute alla predisposizione di un piano di azione'. E. Murtula, 'Prima applicazione in Italia della giurisprudenza comunitaria 'Janecek' sull'obbligo (regionale) di adottare i Piani per la qualità dell'aria' (critical comment on Tribunale amministrativo regionale Lombardia – Milano 4 September 2012 no 2220) *Rivista giuridica dell'ambiente*, 111–113 (2013).

[27] Case C-61/21 *Ministre de la Transition écologique* and *Premier ministre*, Judgment of 22 December 2022, available at www.eur-lex.europa.See P. De Pasquale, ' "Francovich ambientale"? Sarà per un'altra volta. Considerazioni a margine della sentenza Ministre de la Transition écologique' *www.aisdue.eu*, 1-9 (2023).

> and Council Directive 2008/50/EC and the directives which preceded it do not contain any express conferral of rights on individuals in that respect, it cannot be inferred from the obligations laid down in those provisions, with the general objective referred to above, that individuals or categories of individuals are, in the present case, implicitly granted, by reason of those obligations, rights the breach of which would be capable of giving rise to a Member State's liability for loss and damage caused to individuals' (§56).

Advocate General Kokott, on the contrary, suggested that the limit values and the obligation to improve ambient air quality under the directives

> 'are intended to confer rights on those who suffer damage to their health as a result of air pollution[28] [...] the principle of State liability for loss or damage caused to individuals as a result of breaches of EU law for which the State can be held responsible is inherent in the system of the treaties on which the European Union is based'.

The entitlement to compensation for adverse effects to health resulting from an established exceedance of the limit values for PM10 or nitrogen dioxide in the ambient air 'requires that the injured party proves a direct link between that adverse effect and his or her stay at a place where the respective applicable limit values were exceeded', without there having been a satisfying and valid air quality improvement plan.

One of the reasons pointed out by the Advocate General is that, looking closer at all the infringement cases, at least ten Member States failed to meet ambient air quality standards, and this means that they failed to prevent or reduce harmful effects on human health. One can assume that the system of civil liability could make environmental policies on air quality more effective.[29] Corte di Cassazione stated

[28] However, in 2019, Advocate General Kokott, in her opinion delivered on 28 February 2019, Case C-723/17, *Lies Craeynest and Others v. Brussels Hoofdstedelijk Gewest and Others*, observed that 'exceedance of the limit values leads to a large number of premature deaths. The rules on ambient air quality therefore put in concrete terms the Union's obligations to provide protection following from the fundamental right to life under Art 2(1) of the Charter and the high level of environmental protection required under Art 3(3) TEU, Art 37 of the Charter and Art 191(2) TFEU' (para 57).

[29] European Parliament, 'Report on the application of Directive 2004/35/EC of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage', 11 October 2017, considers the possibility of extending the field of application of the directive also to air pollution. See C. Crea and L.E. Perriello, 'Salute, ambiente e iniziativa economica: tecniche di bilanciamento ed effettività dei rimedi' *Actualidad Jurídica Iberoamericana*, 748-793 (2021). Moving from the analysis of the symbolic Ilva case, the author contends that 'reflected' environmental damages should be granted compensation through a strict rule of liability. V. Corriero, 'La "responsabilità" del proprietario del sito inquinato' *Responsabilità civile e previdenza*, 2442 (2011), observes that the environment registers a different choice: 'a strange retreat of the rules of responsibility and a functionalization of the property in a restorative key', despite 'the proliferation of cases of tort'. On the usefulness of an interpretation of civil law instruments for environmental protection in line with 'polluter pays' principle see also, Id, 'Diritto di rivalsa e obbligazioni parziarie risarcitorie nel sistema italo-europeo di responsabilità ambientale'

that

> 'in the current legal system, civil liability is not assigned only to the task of restoring the patrimonial sphere of the subject who has suffered the injury, since the function of deterrence and that of sanction are internal to the system'[30].

Punitive damages were considered incompatible with public policy in several European countries.[31] The function of 'deterrence' of civil liability can be effective also in the case of inaction of public authorities, such as that challenged to the Italian State in the present case. This form of protection does not exclude but combines contrast techniques that are expressed outside the process.[32]

Rassegna di diritto civile, 342–369 (2021).

[30] Corte di Cassazione-Sezioni unite 5 July 2017 no 16601, *Responsabilità civile e previdenza*, 1198 (2017), with critical comment of C. Scognamiglio, 'Le Sezioni Unite ed i danni punitivi: tra legge e giudizio' 1109-1122; A. Briguglio, 'Danni punitivi e delibazione di sentenza straniera: turning point «nell'interesse della legge»', 1597-1608; C. Consolo and S. Barone, 'Postilla minima di messa a giorno' *Giurisprudenza italiana*, 1365 (2017); C. Consolo, 'Riconoscimento di sentenze straniere, specie USA e di giurie popolari, aggiudicanti risarcimenti punitivi o comunque sopracompensativi, se in regola con il nostro principio di legalità (che postula tipicità e financo prevedibilità e non coincide pertanto con il, di norma presente, due process of law)' *Corriere giuridico*, 1050-1057 (2017); M. La Torre, 'Un punto fermo sul problema dei "danni punitivi" ' *Danno e responsabilità*, 419-428 (2017); G. Corsi, 'Le sezioni unite: via libera al riconoscimento di sentenze comminatorie di punitive damages' *Danno e responsabilità*, 429-434 (2017); G. Ponzanelli, 'Polifunzionalità tra diritto internazionale privato e diritto privato' *Danno e responsabilità*, 435-436 (2017); P.G. Monateri, 'Le Sezioni Unite e le funzioni della responsabilità civile' *Danno e responsabilità*, 437-440 (2017). F. Bilotta, 'La discriminazione diffusa e i poteri sanzionatori del giudice' *Responsabilità civile e previdenza*, 77 (2018), notes that 'there has been no lack of reflection over time on the issue of punitive damages and the deterrent function of civil liability [...] Indeed, it can be said that the recent judgment of the United Sections is the fruit of the most recent regulatory innovations; much of the reflections of the doctrine'.

[31] A. Montanari, 'Del «risarcimento punitivo» ovvero dell'ossimoro' *Europa e diritto privato*, 448 (2019) observes that the punitive damages could create that overdeterrence of civil liability that even in common law is deprecated. Art 10:101 of the Principles of European Tort Law (PETL) affirms that 'damages are a money payment to *compensate* the victim, that is to say, to restore him, so far as money can, to the position he would have been in if the wrong complained of had not been committed. Damages also serve the aim of *preventing harm'. The European Group on Tort Law* is a group of scholars in the area of tort law established in 1992. The group meets regularly to discuss fundamental issues of tort law liability. T. Kadner Graziano, 'The Purposes of Tort Law: Article 10:101 of the Principles of European Tort Law Reconsidered' *Journal of European Tort Law*, 23-41 (2023) argues that modern tort law pursues a much wider range of objectives. The author identifies a total of eleventh functions which interact and complement each other: attribution of damage; compensation of damage; pronouncing a moral value judgement of the wrongdoer's behaviour; internalising negative external effects and social costs; transferring the costs of damage to the party who can best avoid it; allocating the damage to those who can best pass it on to the community of beneficiaries of that activity; preventing (or deterring harmful behaviour); recognising that the victim's protected interests have been infringed; providing an entrance gate in private law for the protection of constitutional values; providing a forum for the recognition of newly protected rights and interest; shifting illicitly acquired gains from the tortfeasor to the victim; punishing the tortfeasor.

[32] G. Comporti, 'La responsabilità per danno ambientale' *Rivista quadrimestrale di diritto*

The interest in health - Advocate General Kokott observed - 'is highly personal and individual in nature, and thus, it forms the basis of the case-law outlined just above'.

In the Italian context, a recent but isolated ruling by the Corte di Cassazione considered that, in spite of the normative data, the notion of environmental damage should be extended to also include air pollution.[33] The Court affirmed that air pollution, whenever it is 'significant and measurable', falls within the notion of environmental damage pursuant to Art 300 of Environmental Code. Therefore, the Ministry of the Environment can claim for damages.

As is well known, civil law and common law systems adopt different perspectives. It may, then, be useful for the interpreter to look at other regulations to verify the effectiveness of the means of protection provided therein. In the English legal system, for example, anyone affected by harmful emissions can apply for an injunctive relief by enforcing the law of nuisance or the judicial review procedure on administrative acts. The protection of the individual right to the health of the environment is indirectly pursued by the law of nuisance, but legal scholars[34] have stressed the limited impact even in the hypothesis of unhealthy air. The

dell'ambiente, 9 (2011) states that civil liability should not be 'overstated'. 'Civil liability is a necessary response [...] However, this response cannot be exclusive or exhaustive. The compensation for damages is not the most effective way to administer the widespread damage caused by mass disaster'. The author considers decreto legislativo 13 August 2010 no 155 on ambient air quality as an example of positive anti-pollution techniques. The relevant judgments, including the one in the commentary, show, however, that such tools - although appropriate - have not proved their efficacy.

[33] Corte di Cassazione 14 November 2018 no 51475, available at www.dejure.it. M.T. Meli, 'The Environment, Health, and Employment: Ilva's Never-Ending Story' *Italian Law Journal*, 498-499 (2020), found it an "unconvincing opinion [...] because it does not consider that the whole structure of the discipline is now modelled on the European one, which essentially revolves around the idea of restoring the environmental resources which have been attacked. From this point of view, not to indicate the air among the possible resources that are subjected to aggression appears as a very precise choice, as it is not possible to proceed with its restoration with any adequate repair measures'. On the other hand, the author recognises that 'the Supreme Court's ruling was intended to be as an anticipation of this evolutionary trend, by providing for the condemnation of those responsible to actually pay compensation for damages rather than to order restoration measures [...] This, however, gets to the heart of the problem reported by the Court: would such compensation be an adequate instrument of protection, regarding the violation of the rights mentioned by the Court? [...] In other words, in this case are we facing collective damage or an individual and private one?'.

[34] R. Potenzano, 'La tutela della salubrità dell'aria e della persona in civil law e in common law', in S. Lanni ed, *Sostenibilità globale e culture giuridiche comparate. Atti del Convegno SIRD Milano, 22 aprile 2022* (Torino: Giappichelli Editore, 2022), 49-71. The author observes that polluting activities 'can only be the subject of a summary proceeding if they generate [...] 'dust, vapour or odour'; even if the person responsible for them may object to having complied with or attempted to comply with the legislation, even in violation of the latter; to contain these emissions'. She invites, however, to draw inspiration from the English model, valuing the tool of inhibitory protection. For an analysis of remedies in the US system, although with a focus on climate damage, see D. Hunter and J. Salzman, 'Negligence in the air: the duty of care in climate change litigation' *University of Pennsylvania Law Review*, 1741-1794 (2007).

effectiveness of the judicial review[35] is also limited, since the judge's decision is often declaratory and does not have immediate effect restoring the health of the places. The remedies identified by English law recall the Italian legislation on '*immissioni*' that has demonstrated its inadequacy and has led to looking at civil liability as a more effective remedy.[36]

In the European context, the shifting point in this matter could be the approval of the proposal for the new directive on ambient air quality and cleaner air. It introduces a new chapter (VII), 'Access to Justice, Compensation, and Penalties', composed by two articles. Art 27 establishes detailed provisions to ensure access to justice for those who want to challenge the implementation of the directive, such as when an air quality plan has not been established despite exceedances of relevant air quality standards. Art 28 aims to establish an effective right for people to be compensated by the competent authorities where damage to their health has occurred wholly or partially as a result of a violation of rules prescribed on limit values, air quality plans, short-term action plans or in relation to transboundary pollution. People affected have the right to claim and obtain compensation for those damages. This includes the possibility for collective actions.

The proposal also considers the practical difficulties to recognise a damage.

The principles of civil liability require a causal link between the act and the damage in order for environmental liability to come into play. In a claim of violation of the right to clean air, the causation analysis is not easy; pollutants in the atmosphere depend on multiple sources of emission, and some of them have nonlinear reactions when in contact with other substances.

European Parliament and Council Directive 2008/50/EC already considered this possibility in recital 15 and lays down the rules in Art 20.It's a burden of the Member States to relay to the Commission, for a given year, lists of zones and agglomerations where the exceeding of the limit values for a given pollutant is attributable to natural sources. The burden of proving that exceedances are attributable to natural sources shall be borne by the Member State.

A Member State, moreover, can demonstrate that a case of *force majeure*

[35] To activate such a remedy two conditions must be met: a real and immediate risk to the right to life – which is significant and substantial, present and continuing – that can be met where the affected individual is facing, by reason of the industrial activity, the development of a condition which would entail a reduced life expectancy; the state authority should know or ought to know of that risk.

[36] K.N. Hylton, 'When Should We Prefer Tort Law to Environmental Regulation?' *The Boston University School of Law Working Paper Series Index*, 16 (2001) affirms that 'nuisance law protects property rights while at the same time preventing certain intangible invasions of these rights. Its utilitarian structure provides a test for determining when such invasions go too far and when regulations go too far. If a government agency attempts to force a landowner to supply a public good, as opposed to the prevention of a public harm, the nuisance model requires public subsidization of this supply in the form of compensation. Conversely, if because of malfeasance in the legislative or enforcement process government enforcers fail to regulate appropriately, nuisance law provides a ready regulatory backup in the form of damages liability'. On the intersection of environmental law and the tort system, see M. Latham et al, 'The Intersection of Tort and Environmental Law: Where the Twains Should Meet and Depart' *Fordham Law Review*, 737-773 (2011).

justifies noncompliance with the limit values. The State should prove that the unavoidable difficulties preventing it from complying with its obligations under European Union law are only temporary, and exceeding the limit values is limited only for the period necessary to resolve those difficulties.[37]

Another reason for excluding Member State liability could be the transboundary air pollution.[38]

These assumptions were adequately considered in the proposal.

Art 28, para 4, states that the

> 'violation and the occurrence of the damage shall be presumed' when the claim is 'supported by evidence showing that the violation is the most plausible explanation for the occurrence of the damage of that person'.
>
> The respondent public authority shall be able to rebut this presumption.

The proposal requires the Member States to

> 'ensure that national rules and procedures relating to claims for compensation, including as concerns the burden of proof, are designed and applied in such a way that they do not render impossible or excessively difficult the exercise of the right to compensation for damage' (para 5).

Member States also need to ensure that the limitation periods for bringing actions are not less than five years, running after the violation has ceased and the person claiming the compensation knows, or can reasonably be expected to know, that he or she suffered damage from that violation.

Despite the judgement of the Court did not analyse them thoroughly, and the proposal did not mention them, the actual impact of the European policies should be adequately taken into account, in particular with respect to transport and agricultural policies.[39]

[37] For example, see C-68/11 *Commission* v *Italy*, Judgment of 19 December 2012, § 64, 65, available at www.eur-lex.europa.eu.

[38] In fact, in 1979, 32 countries in the pan-European region decided to cooperate to reduce air pollution signing the UNECE Convention on Long-range Transboundary Air Pollution, creating the first international treaty to deal with air pollution on a broad regional basis. The convention entered into force in 1983. Over the years, the number of substances covered by the convention and its protocols has been gradually extended. The Gothenburg Protocol to Abate Acidification, Eutrophication and Ground-level Ozone was adopted in 1999. The Protocol sets national emission ceilings for 2010 up to 2020 for four pollutants: sulphur (SO2), nitrogen oxides (NOx), volatile organic compounds (VOCs) and ammonia (NH3).

[39] About transport policy in particular, the Commission emphasises not only that the standards it has adopted or proposed from 2016 on vehicle type-approval tests do not set emission or toxic concentration limit values, but, above all, that those standards, when applied, produce another type of effects. The Commission recalls that the authorities of the Member States have not complied with the obligation to prohibit the use of illegal measuring instruments. The Commission also observed that the Italian Republic did not reply to that observation: since it is well known that the effects of the use of EURO vehicles on the reduction of pollutant emissions were limited, [it was even more obvious that the Italian authorities should take appropriate measures to bring the NO_2

Since the incidents of NO_2 pollution in many European countries are mainly due to diesel engines, what kinds of taxation policies should be in place at the national level to discourage these violations?[40] Also, what is the role of European policies concerning usage of diesel? Also, the Fitness Check[41] refers to instances where EU funds are used to support projects that may have adverse effects on air quality. The example used relates to biomass investments under the cohesion policy's objective of supporting the shift to a low-carbon economy.

However the Court, imposing hastily the respect of the limit as a performance obligation for the Member States, takes into account that any Member State cannot, in any event, rely on an alleged lack of coordination between different Union policies as a justification for breaching an unambiguous obligation laid down in an existing directive, such as European Parliament and Council Directive 2008/50/EC, and therefore be exempted from that obligation.

III. The Need for a Different Interpretation of the Socio-Economic Factor Claimed by the Italian Government: The Principle of Sustainability and the Principle of Resilience Could Bring Together Environment, Social and Economic Issues

The Italian Republic put forward an argument already used in a previous case in 2020, stating that structural difficulties arising from socio-economic and budgetary implications of large-scale investments required for environmental protection justify delaying the implementation of the necessary measures. However, the Court found these difficulties to be not exceptional and thus did not justify the impossibility of setting shorter deadlines.

The motivation of the Court is rather narrow, but it should have been much broader and more complex, taking into consideration the concepts of sustainability and resilience.

Indeed, the Court could have stated (should have done so, actually) that it is incompatible with EU law to disregard the obligations arising from the principle

concentration values down to the level authorised by Directive 2008/50. In regard to the agricultural policy and the production of emissions from the combustion of woody biomass for domestic heating, an alleged lack of coordination between unidentified initiatives, including some European funding, may not exclude the infringement of an obligation clearly laid down by the legislation in force. Therefore, the alleged lack of coordination between the different European policies cannot be invoked as an argument to exclude the existence of an infringement of an obligation contained in a directive in force at a given time. It follows that such a lack of coordination, if proven, cannot exempt Member States from that obligation.

[40] Thus, M. Gasparinetti, n 8 above, 118. The author observes that the fiscal policies have remained largely a prerogative for Member State governments.

[41] Directorate-General for Environment (European Commission) 'Study to support the impact assessment for a revision of the EU Ambient Air Quality Directives', available at www.op.europa.eu, 28 (2022).

of sustainable development:[42] in fact 'the Italo-European legal system guarantees contracts, debts, responsibilities, cohabitations, companies, ownerships, entities,

[42] On the concept of Sustainable Development, see M. Pennasilico, 'Sostenibilità ambientale e riconcettualizzazione delle categorie giuridiche', in Id ed, n 22 above, 34 - 42. The author notes that according to the consolidated definition, provided in the Report Brundtland, to which the Environmental code conforms (Art 3 *quater*), 'this principle consists in taking account of the development needs of current generations without compromising the quality of life and the possibilities of future generations (intergenerational solidarity). In a more incisive sense, the principle also seeks to address the needs of disadvantaged regions and classes (social cohesion) and less favoured countries on the planet (international solidarity)'. See also Id, 'La transizione verso il diritto dello sviluppo umano ed ecologico', in A. Buonfrate and A. Uricchio eds, *Trattato breve di diritto dello sviluppo sostenibile* (Padova: CEDAM, 2023), 37-224; Id, 'La "sostenibilità ambientale" nella dimensione civil-costituzionale: verso un diritto dello "sviluppo umano ed ecologico" ' *Rivista quadrimestrale di diritto dell'ambiente*, 4–61 (2020); Id, 'Economia circolare e diritto: ripensare la sostenibilità' *Persona e mercato*, 711–729 (2021); G. Perlingieri, '«Sostenibilità», ordinamento giuridico e «retorica dei diritti». A margine di un recente libro' *Foro napoletano* (2020), 101-117; M.A. Ciocia, *La sostenibilità ambientale in epoca pandemica* (Padova: CEDAM, 2020); E. Caterini, *Sostenibilità e ordinamento civile. Per una riproposizione della questione sociale* (Napoli: Edizioni Scientifiche Italiane, 2018); G. Capalbo ed, *Iniziativa economica privata e mercato unico sostenibile* (Roma: Sapienza Università Editrice, 2023); M.A. Ciocia, 'La centralità della persona nella nuova sostenibilità economica. Spunti di riflessione' *www.giustiziacivile.com*, 5 (2022); D.A. Benitez and C. Fava eds, *Sostenibilità: sfida o presupposto?* (Padova: CEDAM, 2019). In the international scholarship, see M. Pieraccini and T. Novitz, eds, *Legal Perspectives on Sustainability* (Bristol: Bristol University Press, 2020); D. Abdulai, O. Knauf and L. O'Riordan, 'Achieving Sustainable Development Goals 2030 in Africa: A Critical Review of the Sustainability of Western Approaches' in S. O. Idowu, R. Schmidpeter and Liangrong Zu eds, *The Future of the UN Sustainable Development Goals* (Cham: Springer, 2020), 3-44; W. Kahl, *Nachhaltigkeitsverfassung* (Tübingen: Mohr Siebeck, 2018); H.C. Bugge and C. Voigt eds, *Sustainable Development in International and National Law* (Zutphen: Europa Law Publishing, 2008); J.W. Kuhlman and J. Farrington, 'What is sustainability?' *Sustainability*, 3436-3448 (2010). They proposed to stick to the original meaning, where sustainability is connected to the well-being of future generations and in particular to irreplaceable natural resources—as opposed to the gratification of present needs which we call well-being; L. Kotzé, 'Sustainable development and the rule of law for nature: A constitutional reading', in C. Voigt ed, *Rule of Law for Nature: New Dimensions and Ideas in Environmental Law* (Cambridge: Cambridge University Press, 2013), 130-145; C. Voigt, 'The principle of sustainable development. Integration and ecological integrity', in Id ed., *Rule of Law for Nature: New Dimensions and Ideas in Environmental Law* (Cambridge: Cambridge University Press, 2013), 146-157. In the economic science, the root can be found in the works of Antonio Genovesi, the first scholar in Europe to hold a Chair in Economics, professor of *Lezioni di economia civile* (Lectures on Civil Economy) in 1765. E. Screpanti and S. Zamagni, *An Outline of the History of Economic Thought* (Oxford: Oxford Academic, 2005), 59 observe that 'here we have more than just a simple outline of the present-day notion of social capital, an essential requisite for any socially acceptable development process'. F. Ferraro, 'L'evoluzione della politica ambientale dell'Unione: effetto Bruxelles, nuovi obiettivi e vecchi limiti' *Rivista giuridica dell'ambiente*, 783 (2021), observes that the Green Deal mentions "sustainability as many as 96 times [...] but seems to be aware of the difficulty of defining a single concept of sustainability when it refers to four different dimensions', identified in the 2020 annual strategy for sustainable growth (COM/ 2019/650 final): " 'environmental, productivity-related, equity-related and macroeconomic stability-related'. About the channel for interaction and integration between labour and environmental sustainability in European social policy and European environmental policy, see P. Tomassetti and A. Bugada, 'From a Siloed Regulation to a Holistic Approach? Labour and Environmental Sustainability under the EU Law' *Italian Law Journal*, 683–713 (2022).

institutions as long as they are sustainable'.[43]

The principle of sustainable development was defined for the first time in the Brundtland report,[44] then it was incorporated into the final declaration of the Rio Conference in 1992 and is, to date, protected by numerous legal provisions.[45]

The centrality of sustainable development marks, for some legal scholars,[46] the transition to the third era of the evolution of environmental law.

EU law expressly states the principle in art 11 TFEU, Art 3 para 3 and Art 21 TEU. Art 37 of the Charter of Fundamental Rights proclaimed in Nice in 2000 stated 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'. Art 3 *quater* Environmental Code regulates and defines it; according to Art 3 *bis* it ranks among the general principles for environmental protection.

For at least twenty years scholars have discussed and measured competitiveness

[43] E. Caterini, 'Sustainability and Civil Law' 4 *The Italian Law Journal* 2, 293 (2018). According to M. Pennasilico, 'La transizione' n 42 above, 72, sustainability 'is a necessary condition of ecological and distributive justice, a moral duty, that comes before legal duties, and have to be met unconditionally'.

[44] The discussion can be traced back to the 1970s. In 1972 the Club of Rome published the report on *The Limits to Growth* (Dennis and Donella Meadows) and the Stockholm Conference gave rise to the United Nations Environment Programme (UNEP). M. Pennasilico, n 42 above, 40, warns that the concept of sustainability is mobile, multi-dimensional (even more so in the Sustainable Development Goals identified in the UN Agenda 2020 of 2015) and it is subject to a plurality of definitions. The term sustainability is, however, much more dated. The birth of the term is attributed to Hans Carl von Carlowitz (1645-1714) who with his work, *Sylvicultura Oeconomica oder Anweisung zur wilden Baum-Zucht*, introduces the concept of Náchhaltigkeit, warning of the consequences of excessive deforestation See K. Bartenstein, 'Les origines du concept de développement durable' *Revue Juridique de l'Environment*, 289-297 (2005).

[45] Lastly, United Nations General Assembly Resolution no 70/1 of 25th September 2015 *Transforming our world: the 2030 Agenda for Sustainable Development*. The declaration's introduction (1.6) state that 'these are universal goals and targets which involve the entire world, developed and developing countries alike. They are integrated and indivisible and balance the three dimensions of sustainable development'.

[46] B. Pozzo, 'La tutela dell'ambiente tra strumenti di diritto privato e strumenti di diritto pubblico: le grandi epoche del diritto dell'ambiente', in G.A. Benacchio and M. Graziadei eds, *Il declino della distinzione tra diritto pubblico e diritto privato. Atti del IV Congresso nazionale SIRD Trento*, 24-26 settembre 2015 (Napoli: Editoriale Scientifica, 2016), 291-334, identifies three stages of environmental law: the age of discovery; the age of faith in administrative law instruments; the age of anxiety. The cultural framework of the third phase is based on several key pillars, including the concept of sustainable development. 'The idea contained in the principle of sustainable development - theoretically - seems simple: leaving to future generations at least as many opportunities as we have had. Instead, it is more difficult to determine - from a practical point of view - what are the regulatory measures and the right mix of legal instruments, public law and private law, to be adopted to achieve this magical balance between today's needs and those of tomorrow' ibid 310. Instead, V. Corriero, 'Sviluppo ecologico e strumenti negoziali di valorizzazione dei "beni culturali, paesaggistici e ambientali" ' *Rivista quadrimestrale di diritto dell'ambiente*, 111 (2020) finds that 'the Green New Deal represents the third frontier of environmental law, after the first characterized by the emergence of the needs of health and environmental protection in the economic development-and the second, often characterized in antinomic terms, of sustainable development'.

in sustainability,[47] affirming the compatibility between economic development and environmental protection. Such studies undermine the basis of the Italian State's defence. If we adopt the ecological vision of sustainable development and, moreover, if we consider the reflections elaborated in Latin America on the concept of *buen vivir*,[48] the reasoning of the Italian Government seems even weaker and out of focus.[49] The seriousness of the damage to the environment is a warning

[47] See the Lisbon European Council, Conclusions of the Presidency, 23 March 2000; confirmed in 2003, 2005, 2009 and the Göteborg European Council Presidency conclusions, 15 and 16 June 2001. M. Prezioso, 'La Dimensione territoriale della Strategia di Lisbona e Goteborg: l'Approccio concettuale e metodologico' *Bollettino della Società Geografica Italiana*, 9 -34 (2006) analyse the results of the transnational research project promoted by the European Spatial Program Observatory Network (ESPON), which aimed at identifying common policies and criteria in order to develop, by 2010, and simultaneously, an economy based on competitive knowledge (Lisbon) and at the same time sustainable (Gothenburg) in all countries and regions of the European Union. M. Coronato and A. D'Orazio, 'Il principio di sostenibilità nelle pratiche di impresa: tipologie e diffusione delle misure di sostenibilità nel quadro italiano', in F. Massa ed, *Sostenibilità. Profili giuridici, economici e manageriali delle PMI italiane* (Torino: Giappichelli, 2020), 3, note that 'the European Union, in its political orientation, acknowledges the need for businesses to adapt as much as possible to the rules promoting sustainability in all its dimensions (environmental, social and economic) [...] but only with the Kok Report (2004), companies really had to confront themselves seriously and decisively with the theme of sustainability and with the competitiveness closely linked to it'. In the American context, see J. Elkington, 'Toward the Sustainable Corporation. Win-Win-Win Business Strategies for Sustainable Development' *California Management Review*, 90-100 (1994).

[48] See S. Baldin and M. Zago eds, *Le sfide della sostenibilità. Il buen vivir andino dalla prospettiva europea* (Bologna: Filodiritto, 2014). They analyse the Andean cosmovision called *buen vivir*, which is recognized in the constitutions of Ecuador (2008) and Bolivia (2009). It does not conceive the separation between human beings and nature typical of the Western societies. It is a systemic approach to the development and sustainability, based on the subjective aspect rather than the objective one, and which differs from the linear models of Western development. The concept of *buen vivir* is opposed to a conception of the dominant development model based on the goal of an indefinite progress of human activity in a world, however, characterized by the limited character of resources. It addresses issues of general relevance by proposing a model of lifestyle based on the balance among man, community and nature and on the affirmation of the role of cultural diversity and biodiversity.

[49] K. Bosselman, *The Principle of Sustainability Transforming law and governance* (London: Routledge, 2017), observes that one can distinguish between the ecologist approach and the environmental approach to sustainable development. The ecologist approach is critical of growth and favours ecological sustainability (*strong sustainability*). The environmental approach assumes the validity of growth and poses equal importance on environmental sustainability, social justice and economic prosperity (*weak sustainability*). The difference between them is not just a matter of degrees, but a fundamental one as becomes clear when we follow the sustainability debate through to the 1980s and 1990s. R.E. Kim and K. Bosselmann, 'Operationalizing Sustainable Development: Ecological Integrity as a *Grundnorm* of International Law' *Review of European Community & International Environmental Law*, 207 (2015), argue that 'The key argument we put forward is that post-2015 SDGs must be organized around a single priority at the apex of the goal-system hierarchy. We define the priority goal as the protection of the bio-physical preconditions that are essential for long-term sustainable development. [...] We insist that all other interests, such as socio-economic development, albeit important, must be subordinated under this ultimate biophysical priority goal. [...] Integrity is a system property maintained by resilience or robustness of the system. [...] For an effective implementation of the SDGs, the priority goal needs to be legally binding. To that end, the goal should be recognized as a *grundnorm*, and instituted through global eco-constitutionalism. Where there is a regulatory gap, this *grundnorm* fills the void. Where

that cannot be concealed by the mere reference to budgetary difficulties.

IV. Prospects of Overcoming Economic Difficulties in The Adoption and Implementation of Plans to Protect the Right of the Vulnerable to Breathe Clean Air

The weakness of the Italian Government's defence and the lack of an in-depth analysis in the Court of Justice's ruling are also clear in the light of the close connection of a society with a sustainable economy and a resilient society. The Court should have highlighted the cogency of the principle of sustainable development and the objective of a resilient society and economy.

Sustainability and resilience can be perceived either as separate concepts or as synonyms. For instance, resilience can be seen as a factor affecting sustainability measures, while sustainability can be considered as a way to promote resilience. Focusing on these two paths of research can be beneficial.

Sustainability could contribute to increase resilience against future crises, overcoming the limitations of traditional and short-term approaches.[50]

Sustainability serves both as a means to enhance organizational resilience and a way to increase the resilience of the vulnerable. In fact, sustainability has three dimensions: environmental, economic and social sustainability.

Legal literature stressed the importance of the spatial-temporal categories of universality on the one hand and resilience and adaptive management on the other.[51] The concept of resilience most of the legal scholars refer to is, however, a 'constraint to the administration to improve and elevate the degree of *ecosystems resilience* involved'[52] (italics are by the author). The ecosystem resilience assessment

there is already a treaty obligation, it reinforces and clarifies treaty obligations in light of the planetary boundaries framework. The *grundnorm* could be implemented through the upgraded UNEP as a trustee and a legal guardian for the global commons and common concerns of humankind. These institutional building blocks would constitute the core of the next generation of international environmental law, which could be called 'Earth system law'.

[50] According to N. Boeger, 'Sustainable Corporate Governance: Trimming or Sowing?', in M. Pieraccini and T. Novitz, eds, *Legal Perspectives on Sustainability* (Bristol: Bristol University Press, 2020) while express linkages between corporate governance and sustainability are a relatively recent phenomenon, a 'sustainable systems' perspective (opposite to a 'sustainable capitalism') shows that the scope and urgency of sustainability challenges today require more fundamental systemic revisions, including of the growth objective itself.

[51] A. Buonfrate, 'Ambiente, economia, società, governance: l'epoca delle grandi trasformazioni', in Id and A. Uricchio eds, *Trattato breve di diritto dello sviluppo sostenibile* (Padova: CEDAM, 2023), 31, states that 'In this renewed vision [the fourth era of environmental law] which sees sustainable development as the main instrument of integration and balancing of the environment system with the other two equally complex systems of economy and social inclusion, the spatial-territorial categories of universality (and in particular universal interdependence) on the one hand, and resilience and adaptive management on the other, take on an ultimate and decisive importance'.

[52] M. Monteduro, 'Le decisioni amministrative nell'era della recessione ecologica' *Rivista AIC*, 69 (2018).

would guide the administrative processes using scientific research, such as planetary boundaries,[53] to identify the tipping points for each ecosystem.

Resilience, however, it isn't only an eco-legal principle (ecological resilience),[54] but also a socio-legal one:[55] in fact concepts such as social ecological resilience,[56] social resilience,[57] development resilience,[58] socioeconomic resilience,[59] and community resilience[60] can be discussed.

One of the limitations in the resilience principle lies in the lack of codification; moreover, the term is often used imprecisely, as it happens with another buzzword.[61]

[53] This theory was developed by the Stockholm Resilience Centre. J. Rockström et al, 'Planetary boundaries: exploring the safe operating space for humanity' *Ecology and Society*, 14: 32 (2009). In September 2023, a team of scientists quantified, for the first time, all nine processes that regulate the stability and resilience of the Earth system. See J. Richardson et al, 'Earth beyond six of nine Planetary Boundaries' *Science Advances*, 9: 37 (2023).

[54] See L.H. Monteiro De Lima, 'The Principle of Resilience' *Pace Environmental Law Review*, 695-810 (2013); N.A. Robinson, 'The Resilience Principle' *IUCN Academy of Environmental Law EJournal*, 20 (2014) states that 'just as courts have begun to recognize the Principle of Non-Regression, the welfare of both humans and nature requires recognition of Resilience'.

[55] A.E. Quinlan et al, 'Measuring And Assessing Resilience: Broadening Understanding through Multiple Disciplinary Perspectives' *Journal of Applied Ecology*, 677-687 (2016), analyse the multiple resilience definitions (engineering resilience, ecological resilience, social-ecological resilience, social resilience, development resilience, socioeconomic resilience, community resilience, psychological resilience) and the multiple approaches to measure and assess resilience that has emerged in a variety of social-ecological contexts.

[56] The social ecological resilience is the amount of disturbance a system can absorb and remain within a domain of attraction, the capacity for learning and adaptation and the degree to which the system is capable of self-organizing. See S. Carpenter et al, 'From metaphore to measurement: resilience of what to what?' *Ecosystem*, 765-781 (2001); A.S. Garmestani and C.R. Allen eds, *Social-Ecological Resilience and Law* (New York: Columbia University Press, 2014); A.S. Garmestani et al, 'Can Law Foster Social-Ecological Resilience?' *Ecology and Society*, 37-42 (2013); J. Ebbesson and E. Hey, 'Introduction: Where in Law Is Social-Ecological Resilience?' *Ecology and Society*, 25-28 (2013).

[57] Ability of groups or communities to cope with external stresses and disturbances because of social, political and environmental change. See W.N. Adger, 'Social and ecological resilience: are they related?' *Progress in Human Geography*, 347–364 (2010).

[58] Capacity of a person, household, or other aggregate unit to avoid poverty in the face of various stressors and in the wake of myriad shocks over time. This definition has an emphasis on vulnerability. See C. Barrett and M. Constas, 'Toward a theory of resilience for international development applications' *Proceedings of the National Academy of Sciences*, 14625–14630 (2014); K. Pasteur, *From Vulnerability to Resilience: A Framework for Analysis and Action to Build Community Resilience* (Warwickshire: Practical Action Publishing, 2011).

[59] Socioeconomic resilience refers to the policy induced ability of an economy to recover from or adjust to the negative impacts of adverse exogenous shocks and to benefit from positive shocks. See A. Mancini et al, 'Conceptualizing and measuring the 'economy' dimension in the evaluation of socio-ecological resilience: a brief commentary' *International Journal of Latest Trends in Finance and Economic Sciences*, 190–196 (2012).

[60] A process linking a set of adaptive abilities to a positive trajectory of functioning and adaptation after a disturbance. See F.H. Norris et al, 'Community resilience as a metaphor, theory, set of capacities, and strategy for disaster readiness' *American Journal of Community Psychology*, 127-150 (2008).

[61] C. Inguglia, 'Resilienza' *Risk elaboration*, 37-52 (2020).

There are few legal documents in which the word 'resilience' is used.[62] On 17 June 2024, the Council adopts *Nature Restoration Law*, which mentions 'resilience' several times but fails to provide a specific definition. In this case, resilience is being considered as an effect of recovery, although these are two distinct concepts. Meanwhile, Art 3 defines 'restoration' as

> 'the process of actively or passively assisting the recovery of an ecosystem in order to improve its structure and functions, with the aim of conserving or enhancing biodiversity and ecosystem resilience, through improving an area of a habitat type to good condition, re-establishing favourable reference area, and improving a habitat of a species to sufficient quality and quantity'.

Resilience, however, is not simply a 'recovery'; instead, it involves adaptation and, to some extent, transformation.

It is worth considering, even though the Court does not mention it, the entire European environmental legislation, especially Regulation (EU) 2021/241 of the European Parliament and of the Council of 12 February 2021, which establishes the Recovery and Resilience Facility. Recital 23 of this regulation states that 'the Facility should support activities that fully respect the climate and environmental standards and priorities of the Union and the principle of 'do no significant harm' (DNSH) within the meaning of Art 17 of Regulation (EU) 2020/852 of the European Parliament and of the Council'.[63] This rule also proves the link between resilience

[62] The most relevant is Hyogo Framework for Action 2005–2015: Building the Resilience of Nations and Communities to Disasters Extract from the final report of the World Conference on Disaster Reduction (A/CONF.206/6). The Conference provided a unique opportunity to promote a strategic and systematic approach to reducing vulnerabilities and risks to hazards. It underscored the need for, and identified ways of, building the resilience of nations and communities to disasters. The framework recalls the notion given in 2004 by the United Nation Interagency Secretariat of International Strategy for Disaster Reduction. Resilience is the capacity of a system, community, or society potentially exposed to hazards to adapt, by resisting or changing in order to reach and maintain an acceptable level of functioning and structure. This is determined by the degree to which the social system can organise itself to increase this capacity for learning from past disasters for better future protection and to improve risk reduction measures. The same notion is recalled in Communication from the Commission to the European Parliament and the Council, *The EU approach to resilience: Learning from food security crises*, COM(2012) 586, 3 October 2012. For a broader reflexion on resilience, see M. Ungar, *Multisystemic Resilience. Adaptation and Transformation in Contexts of Change* (Oxford: Oxford Academic, 2021); J. Rifkin, *L'età della resilienza. Ripensare l'esistenza su una terra che si rinaturalizza* (Milano: Mondadori, 2022). Resilience-based and adaptive solutions have been integrated into the Sustainable Development Goals 2030 Agenda, the Climate Goals of the 2015 Paris Agreement and, most recently, into the European policies of the Green Deal and the Next Generation EU. Resilience in European strategies to achieve the goal of competitive sustainability (Communication from the Commission to the European Parliament and the Council 2020 Strategic Foresight Report Strategic Foresight – Charting The Course Towards A More Resilient Europe, 2020, 493final), is defined as 'the ability not only to withstand and cope with challenges but also to transform in a sustainable, fair, and democratic manner'. See A. Buonfrate, n 51 above, 5-6.

[63] Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment and amending

and sustainability. The DNSH principle is based on the provisions of the Taxonomy for Sustainable Finance, adopted to promote private sector investments in green and sustainable projects, and help achieve the goals of the Green Deal. The regulation identifies six criteria for assessing how each economic activity contributes in practice to protecting the ecosystem without compromising environmental objectives. The fifth criterion focuses on the prevention and reduction of air, water, and soil pollution.

Complying with the applicable EU and national environmental law is a separate obligation and does not waive the need for a DNSH assessment. However, it strongly indicates that the measure does not entail environmental harm. In fact, some objectives covered by Art 17[64] are not yet fully incorporated in the existing EU Environmental Legislation.

On 25 July 2024, the Directive on corporate sustainability due diligence (Directive 2024/1760) entered into force.[65] The directive aims to ensure that companies active in the internal market contribute to sustainable development and facilitate the transition towards more sustainable economies and societies. This goal can be achieved through the identification, prevention, mitigation, and minimisation of potential or actual adverse impacts on human rights and the environment caused by a company's own operations, subsidiaries, and value chains.

Sustainability and resilience are not just principles to be complied with in accordance with the European legislation. Organizations increasingly seize emerging opportunities arising from a supply chain management sustainable

Regulation (EU) 2019/2088. To assist national authorities in the preparation of the Recovery and Resilience Plans under the Recovery and Resilience Facility Regulation, the European Commission has enacted the technical guidance on the application of 'do no significant harm' under the Recovery and Resilience Facility Regulation (2021/C58/01). C. De Vincenti, 'Il principio DNSH: due possibili declinazioni' *www.astrid-on-line* (2022); R. Rota, 'Riflessioni sul principio "do not significant harm" per le valutazioni di ecosostenibilità: prolegomeni per un nuovo diritto climatico-ambientale' *www.astrid-on-line*, (2021).

[64] Regulation (EU) 2020/852 of the European Parliament and of the Council of June 18, 2020, *On the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088*, *Taxonomy Regulation*.

[65] See V.G. Corvese, 'La proposta di direttiva sulla Corporate Sustainability Due Diligence e i suoi (presumibili) effetti sul diritto societario italiano' *www.orizzontideldirittocommerciale.it*, (2023); E. Barcellona, 'La sustainable corporate governance nelle proposte di riforma del diritto europeo: a proposito dei limiti strutturali del c.d. stakeholderism' *Rivista delle società*, 1–52 (2022); S. Bruno, 'Il ruolo della s.p.a. per un'economia giusta e sostenibile: la Proposta di Direttiva UE su "Corporate Sustainability Due Diligence". Nasce la stakeholder company?' *Rivista di diritti comparati*, 303–338 (2022); V.G. Corvese, 'La sostenibilità ambientale e sociale delle società nella proposta di Corporate Sustainabilty Due Diligence Directive (dalla «insostenibile leggerezza» dello scopo sociale alla «obbligatoria sostenibilità» della due diligence' *Banca impresa società*, 391–432 (2022); G.D. Mosco and R. Felicetti, 'Prime riflessioni sulla proposta di direttiva UE in materia di Corporate Sustainability Due Diligence' *Analisi giuridica dell'economia*, 185–211 (2022); G. Racugno and A. D. Scano, 'Il dovere di diligenza delle imprese ai fini della sostenibilità: verso un Green Deal europeo' *Rivista delle società*, 726–744 (2022); U. Tombari, 'Riflessioni sullo "statuto organizzativo" dell'"impresa sostenibile" tra diritto italiano e diritto europeo' *Analisi giuridica dell'economia*, 135–144 (2022).

and resilient approach.[66] Supply chain resilience (SCRes) is a relatively recent phenomenon, popularised in 2003, that focuses on the adaptive capability to prepare, react to an unforeseen disruption, restore regular activities, or to move towards a different and more desiderable state.[67]

In the case at hand referred to the ECJ, the Italian Government considered socio-economic difficulties, but only with the aim of justifying the infringement, despite being a topic with two aspects take into account, even if we look at the necessary protection of the vulnerable.

As recognized by influential economists 'the basic idea of expanding "human capability" or of "human development" [...] involves the assertion of the unacceptability of [such] bias and discrimination'. The demand for sustainability is a reflection of the universality of rights. 'That universalism also requires that in our anxiety to protect the future generations, we must not overlook the pressing claims of the less privileged today'.[68] It is also useful to look to the studies that explores alternative economic concepts that focus both on sustainability and distributive justice[69] to better understand the possible developments in the legal scholars's teories and case-law of the European Court. Sustainable development could be seen in terms of social-ecological resilience to overcome the nature-culture-dualism.[70]

In fact, in May 2022, Advocate General Kokott, in the *Commision* v *French Republic* case, addressed the false problem of a large number of claims for compensation due to infringements of air quality standards. Advocate General Kokott pointed out that the burden of exceeding these limit values falls on certain groups who live or work in particularly polluted areas, not affecting everyone equally. These groups often consist of people with low socio-economic status, who heavily rely on judicial protection. In other words, they are the vulnerable ones mostly affected by environmental issues.

[66] M. Negri et al, 'Integrating sustainability and resilience in the supply chain: A systematic literature review and a research agenda' *Business Strategy and the Environment*, 2859 (2021).

[67] B. Fahimnia and A. Jabbarzadeh, 'Marrying supply chain sustainability and resilience: A match made in heaven' 91 *Logistics and Transportation Review,* 306-324 (2016), underline that the relationship between the two concepts, namely resilience and sustainability, is still ambiguous. M.V. Carissimi et al, 'Crossing the chasm: Investigating the relationship between sustainability and resilience in supply chain management' *Cleaner Logistics and Supply Chain*, 5 (2023), observe that resilience is either interpreted as the new state of equilibrium generated by the adoption of sustainable strategies, or described as a component of sustainability.

[68] S. Anand and A. Sen, 'Human Development and Economic Sustainability' *World development*, 2029-2030 (2000). They analyse the linkage between the claims of the present and those of the future generations, in term of the broad notion of sustainability, integrating the concerns of the present and the future.

[69] J. Peeters, *Sustainability and new economic approaches. An exploration for social work research. SPSW Working Paper No. CeSo/SPSW/2022-01* (Leuven: Centre for Sociological Research, 2022).

[70] J. Peeters, 'Sociaal-ecologische praktijk: een oriënterend kader', in Id ed, *Veerkracht en burgerschap. Sociaal werk in transitie* (Berchem: EPO 2015), 123-141.

The concept of 'vulnerability' has gained a significant importance in the legal field[71] and also within the jurisprudence of the CJEU.[72]

One of the interpretations of this notion can be traced back from disaster studies,[73] which introduced a 'different, systemic concept of vulnerability with resilience as its counterpart based on nonlinear systemic dynamics leading to adaptation or maladaptation'.[74]

V. The Need to Connect the Limits Imposed On The Member State With Issues Of Environmental Justice and Health Protection

The Court could have connected the limits imposed on the Member State with issues of environmental justice and health protection. The European Environment Agency affirms that communities with lower income and education levels are often more impacted by air pollution.[75]

[71] In legal literature, see T.H. Casadei, *Diritti umani e soggetti vulnerabili. Violazioni, trasformazioni, aporie* (Torino: Giappichelli, 2012); S. Zullo, 'Lo spazio sociale della vulnerabilità tra pretese di giustizia e pretese di diritti. Alcune considerazioni critiche' *Politica del diritto*, 475-507 (2016); F. Rossi, 'Forme della vulnerabilità e attuazione del programma costituzionale' *Rivista AIC*, 1–61 (2017); O. Giolo and B. Pastore eds, *Vulnerabilità. Analisi multidisciplinare di un concetto* (Roma: Carocci, 2018); A. Gentili, 'La vulnerabilità sociale. Un modello teorico per il trattamento legale' *Rivista critica di diritto privato*, 41-64 (2019); B. Pastore, *Semantica della vulnerabilità, soggetto, cultura giuridica* (Torino: Giappichelli, 2021); P. Corrias, 'Il mercato come risorsa della persona vulnerabile' *Rivista di diritto civile*, 968-990 (2022); E. Battelli, 'Vulnerabilità della persona e debolezza del contraente' *Rivista di diritto civile*, 941-967 (2022).

[72] A. De Giuli, 'Sul concetto di vulnerabilità secondo la Corte di Giustizia UE' *Diritto penale e uomo*, 1–19 (2020). Most of the judgments that use that notion deal with environmental law, especially Directive 91/676/CEE, concerning the protection of waters against pollution caused by nitrate from agricultural sources. The scheme of protection that involves precise management measures which the Member States must impose on farmers and which considers the more or less vulnerable nature of the environment receiving the effluent. See Case C-121/03*Commission of the European Communities* v *Kingdom of Spain*, Judgment of 8 September 2005, §4, available at www.eur-lex.europa.eu.

[73] The disaster studies were heralded by the work of Gilbert White, in the 1950s; towards the 1980s, anthropologists, sociologists and geographers increasingly began to challenge the technocratic, hazard-centred approach to disaster. This culminated in the 1983 landmark publication of 'Interpretations of Calamity from the Viewpoint of Human Ecology' by Kenneth Hewitt. He postulated that especially in developing countries, structural factors such as increasing poverty and related social processes accounted for people and societies' vulnerability to disaster. Increased attention on environmental processes and human-induced climate change has marked the advent of another disaster studies paradigm in the 1990s. This paradigm emphasises the mutuality of hazard and vulnerability to disaster due to complex interactions between nature and society. D. Hilhorst, 'Unlocking disaster paradigms: An actor-oriented focus on disaster response' *www.ippv.ch*, (2019).

[74] G. Frerks et al, 'The politics of vulnerability and resilience' *Ambiente & Sociedade*, 106 (2011).

[75] EEA Report No 22/2018, *Unequal exposure and unequal impacts: Social vulnerability to air pollution, noise, and extreme temperatures in Europe*. In the Italian context, see L. Bauleo et al, 'SENTIERI Project: Air pollution and health impact of population living in industrial areas in Italy' *Epidemiologia e prevenzione*, 338-353 (2023). The results of the study are suggestive of an impact on health from PM exposure in the industrial areas included in the Sentieri, with a

There are evident connections between the stratification of inequalities and the exposure to environmental risk and damage. This relationship is apparent when examining left-behind places or areas of sacrifice. Some authors suggest including the environmental dimension in the notion of left-behind places, recognizing exposure to toxic pollution as a structural socio-economic driver of degradation that requires consideration.[76]

These physical places are shaped by two mechanisms. The first is the notion of the spatiality of power: for instance, the choice to place the polluting plant in a given territory is based on choices of profitability and advantage (eg, placing it in an area that already has a high level of deprivation). The second is the stratification of inequalities: these are the territories where they experience both the disadvantages of globalization and deindustrialization. Highly toxic pollution tends to be concentrated across these areas, further aggravating socio-economic degradation (including unemployment and reduced employment opportunities). In this respect, environmental and social inequality become more stratified.[77]

The most interesting results of the application of the principle of sustainability are obtained, in fact, when the judgment moves from the level of principles to that of the tools to protect fundamental rights.[78] On 8 October 2021, the United Nations Human Rights Council (UNHRC) adopted Resolution 48/13, which recognised, for the first time, that access to a healthy and sustainable environment is a universal right. The premise of resolution acknowledges that although the consequences of environmental damage affect all individuals and communities around the world, they are most felt by members of the population who are already vulnerable, such as indigenous peoples, elderly people,[79] people with

greater impact in the vicinity of the plants, recommending the implementation of urgent impact reduction actions. The Sentieri project provides for the periodic epidemiological surveillance of populations resident in the municipalities that fall within the site of national interest for environmental remediation(SIN).

[76] V. Bez and M.E. Virgillito, 'Toxic pollution and labour markets: Uncovering Europe's left-behind places' *LEM Papers Series*, 5 (2022).

[77] ibid 2.

[78] C.M. Masieri, 'Il principio di sostenibilità nella *Climate Change Litigation*', in S. Lanni ed, *Sostenibilità globale e culture giuridiche comparate. Atti del Convegno SIRD Milano, 22 aprile 2022* (Torino: Giappichelli Editore, 2022), 28. P. Gailhofer et al, eds, *Corporate Liability for Transboundary Environmental Harm. An International and Transnational Perspective* (Cham: Springer, 2022), 122-123 state that 'a closer look at the substantial links between human rights and environmental protection has shown that there is considerable potential to improve the prospects of a (human) rights-based approach to environmental protection'.

[79] Eur. Court H.R., Grand Chamber, *Verein Klimaseniorinnen Schweiz and others* v *Switzerland*, Judgment of 9 April 2024, available at www.hudoc.echr.coe.it. The applicants, an association of senior women and four elderly women, took the Swiss government to the Court. They complain of health problems which worsen during heatwaves and which impact their living and health conditions. The Court found a violation of the right to respect for private and family life (Art 8) and access to court (Art 6, § 1).

disabilities, women, young women[80] and children in general.[81] This means to adopt an intersectional approach. The concept of intersectionality[82] describes the ways in which systems of inequality based on gender, race, ethnicity, sexual orientation, gender identity, disability, class and other forms of discrimination 'intersect' to create unique dynamics and effects. Indeed, when incidental shocks impact structural vulnerabilities, both normal and extreme events turn into disaster. As explained by the metaphor of nutcracker, the vulnerable are simply crushed[83] in such situations. The European Parliament, in its resolution on the EU biodiversity strategy for 2030,[84] considers that the right to a healthy environment should be recognised in the EU Charter and that the EU should take the lead on the international recognition of such a right. The majority of the Member States of the United Nations, including most EU countries, legally recognise the right to a safe, clean, healthy, and sustainable environment.[85]

Recent climate change litigations[86] demonstrate the increasingly strong link

[80] The link between gender (and gender discrimination) and climate change has become a constant feature of recent international documents. COP20, in 2014, had already formed the programme work on gender. Decision 3/C 25, § 11 'encourages Parties to appoint and provide support for a national gender and climate change focal point for climate negotiations, implementation and monitoring'.

[81] In March 2023, European Environmental Agency published a report entitled *Air pollution and children's health*. Children are particularly vulnerable to air pollution. Over 1,200 deaths in people under 18 years of age are estimated to be caused by air pollution every year in EEA member and collaborating countries.

[82] K. Crenshaw, 'Demarginalizing the Intersection of Race and Sex: A Black Feminist Critique of Antidiscrimination Doctrine, Feminist Theory and Antiracist Politics' *University of Chicago Legal Forum*, 139-167 (1989). For a framing of the origins of the notion of intersectionality and its application, also in supranational and national anti-discrimination protection, see B. G. Bello, *Intersezionalità. Teorie e pratiche tra diritto e società* (Milano: Franco Angeli, 2020). A review of international, European and national case law is contained in INtersecting GRounds of Discrimination (INGRID), 'L'intersezionalità come approccio giuridico: una prospettiva multilivello tra diritto internazionale, diritto europeo, diritto italiano e prospettive di comparazione', available at www.projectingrid.eu (2022). M. Barbera and A. Guariso eds, *La tutela antidiscriminatoria. Fonti, strumenti, interpreti*, (Torino: Giappichelli, 2019), 57 observe that 'although multiple and intersectional discrimination are the norm rather than the exception, up to now, in cases where multiple discrimination was recognised, the Court of Justice appears unwilling to use the cognitive and normative value of the notion'.

[83] G. Frerks and J. Warner, n 75 above, 108.

[84] European Parliament, resolution of 9 June 2021, *the EU Biodiversity Strategy for 2030: Bringing nature back into our lives* (2020/2273(INI)).

[85] Human Rights Council, *Right to a healthy environment: Good practices. Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment*, A/HRC/43/53, March 2020.

[86] For a comparative law perspective on climate change litigation, as developed in US and in the EU, see B. Pozzo, 'La climate change litigation in prospettiva comparatistica' *Rivista giuridica dell'ambiente*, 299–318 (2021). See also, A. Giordano, 'Climate change e strumenti di tutela. Verso la public interest litigation?' *Rivista italiana di diritto pubblico comunitario*, 763–790 (2020). F. Garelli, 'The report on the promotion and protection of human rights in the contest of climate change. A pragmatic analysis' *federalismi.it*, 207-233 (2023); E. Fiorini Beckhauser, 'A metamorfose do Direito frente à mudança climática e a contribuição da dimensão ecológica dos direitos humanos' *Rivista quadrimestrale di diritto dell'ambiente*, 462–488 (2021); V. Zampaglione, 'L'accesso

between environmental law and human rights.

Climate change has been the object of a complex international regulatory process, starting with the United Nations Framework Convention on Climate Change (UNFCCC) in 1992 via the Kyoto Protocol of 2005 to the Paris Agreement of 2015.

In general climate litigation, the vast majority of cases have been brought against states and public authorities by individuals, NGOs, or both acting together, and by corporations. Private corporation, emitters of greenhouse gases, are potential respondents too.[87]

The applicants in rights-based climate cases typically consist in individuals and groups or a combination of individuals and groups, and the majority of cases have been brought against states. Applicants in rights-based cases can also seek compensation for harms associated with the impact of climate change, but there are no examples of serious monetary compensation.[88]

In the European scenario, the leading case, as well known, is *Netherlands* v *Urgenda Foundation*: although the Supreme Court recognized that climate change is a consequence of collective human activities that cannot be solved by one state on its own, it held that the Netherlands is individually responsible for failing to do its part to counter the danger of climate change, which, as the Court affirmed, inhibits enjoyment of ECHR rights (Arts 2 and 8). It's remarkable that the Dutch Supreme Court 'has gone a long way towards anchoring climate change issues to human rights'.[89]

alle informazioni ambientali e le prime azioni per danno da cambiamento climatico. Esperienze a confronto' *AmbienteDiritto.it*, 1–30 (2022); L. Moramarco, 'La disapplicazione eccentrica del diritto nazionale per contrasto con la convenzione di Aahrus', comment on Case C-873/19 *Deutsche Umwelthilfe eV* v *Bundesrepublik Deutschland*, Judgment of 8 November 2022 *Responsabilità civile e previdenza*, 458–472 (2023).

[87] See G. Wagner and A. Arntz, 'Liability for Climate Damage under the German Law of Torts' *SSRN*, 34 (2021). The authors analyse the climate change litigation between a private plaintiff and the RWE, a major German public utility, has been sued in damages for harm allegedly caused by its carbon emissions (Essen Regional Court, *Lluiya* v *RWE Ag*, case no 2 O 285/15). They conclude that 'the emission rights trading scheme, agreed in Kyoto, and transposed into German law is the adequate response. Tort law is not'. The claimant is a citizen of a Peruvian city and he demands that RWE contributes to the costs of safety measures to be taken at Laguna Palcacocha in proportion to RWE's purported share (0.47%) in anthropogenic emissions of greenhouse gases since the beginning of the industrialization. In the common law scenario, M. Spitzer and B. Burtscher, 'Liability for climate change: cases, challenges and concepts' *Journal of European Tort Law*, 148 (2017), observe that 'if we look at climate change litigation against private entities, we must say that it died where it was born [...] we doubt that climate change is a good case for tort law".

[88] A. Savaresi and J. Setzer, 'Rights-based litigation in the climate emergency: mapping the landscape and new knowledge frontiers' *Journal of Human Rights and the Environment*, 15 (2022). In *Notre Affaire à Tous et al* v *France*, the plaintiffs requested symbolic monetary compensation (1 euro) for the moral and ecological damages they allegedly suffered. See M. Poto, 'Salvare la nostra casa comune è l'affaire du siècle', critical comment to Tribunal Administratif de Paris, 3 February 2021 *Responsabilità civile e previdenza*, 1047–1059 (2021); R. Mazza, 'La legittimazione ad agire delle associazioni ambientaliste a partire dall' "affaire du siècle" francese' *Il diritto dell'agricoltura*, 121–140 (2021).

[89] M.F. Cavalcanti and M.J. Terstegge, 'The Urgenda case: the dutch path towards a new

In 2021 the German Federal Constitutional Court found that Germany's climate protection law violates the fundamental rights of young people and future generations, and it must therefore be amended and improved.[90]The plaintiffs argued that the climate law violated their constitutional rights to human dignity, life and physical integrity, freedom of occupation, and property.[91]

In the Italian climate change litigation, called *Giudizio Universale*,[92] the plaintiffs claim the non-contractual liability of the Italian State (Art 2043 Civil Code), underlining the link between climate change and human rights. The responsibility of the State is also additionally based on Art 2051 Civil Code. On 26 February 2024 the Civil Tribunal held the case inadmissible due to the lack of jurisdiction.[93]

The Court of Justice examined its first case related to climate change with the so-called *Carvalho case*.[94] The Court, in both instances, did not address the substance of the case (ie, the obligation of the European institutions to adopt stricter requirements for greenhouse gas emissions). Instead, the Court ruled on the inadmissibility of the action due to the lack of *locus standi*.[95]

In general, the success of climate change litigation depends on national tort law, which can vary considerably from state to state but in the case-law one can identify 'three bedrock requirements for a successful claim': a damage, which is inflicted by misconduct or breach to a duty of care,[96] and a causal link between

climate constitutionalism' *DPCE Online* (2020).

[90] On climate litigation in Germany, see M. Poto and A. Porrone, 'The steady ascent of environmental and climate justice: Constituent elements and future scenarios' *Responsabilità civile e previdenza*, 1783–1797 (2021); G. Puleio, 'Rimedi civilistici e cambiamento climatico antropogenico'*Persona e Mercato*, 486-489 (2021).

[91] R. Montaldo, 'La neutralità climatica e la libertà di futuro (BVerfG, 24 marzo 2021)' *Diritticomparati.it*, 1-5 (2021). The author observes that the decision of the Bundesverfassungsgericht 'is innovative if compared to previous European climate litigation cases: the Court goes further than meeting the climate neutrality objectives imposed by international law, taking them into account for the interpretation of the Fundamental Law in general, and in particular the obligations under art. 20th GG'.

[92] About italian climate litigation, see L. Saltalamacchia et al, ' "Giudizio Universale". Quaderno di sintesi dell'azione legale', available at www.giudiziouniversale.eu (2021).

[93] L. Moramarco, 'Inammissibile la climate litigation davanti al giudice civile', available at dirittoantidiscriminatorio.it (2024).

[94] Case T-330/18 *Armando Carvalho et al* v *European Parliament, Council of the European Union* (Court of First Instance, 8 May 2019); Case C-565/19/P *Carvalho et al* v *European Parliament, Council of the European Union*, Judgment of 25 March 2021, available at www.eur-lex.europa.eu. Another less well-known case is Case T-141/19 *Peter Sabo et al* v *European Parliament, Council of the European Union* (Court of First Instance, 6 May 2020); Case C-297/20 P *Peter Sabo et al* v *European Parliament, Council of the European Union*, Judgment of 14 January 2021, available at www.eur-lex.europa.eu.

[95] See M. Messina, 'Il locus standi delle persone fisiche e giuridiche e il problema dell'accesso alla giustizia climatica dinanzi al giudice dell'UE dopo la sentenza Carvalho: necessità di riforma della formula "Plaumann"?' *Rivista giuridica dell'ambiente*, 121–148 (2022); F. Gallarati, 'Caso Carvalho: la Corte di Giustizia rimanda l'appuntamento con la giustizia climatica' *DPCE on line*, 2603–2613 (2021).

[96] M. Spitzer, B. Burtscher, n 86 above, 147, observe that 'in US the cases' - when the

them.[97] Because of the difficulty to make a case for misconduct, strict liability is often claimed by the plaintiffs.[98] This option appears to be more consistent with the polluter pay principle[99] and with the current legal regime on environmental damage.[100] However, case law has not afforded any definitive answer to that basic question yet.

The problem of proving a causal connection arises across the spectrum of climate change litigation, both in common law and in civil law systems. The multi-factorial nature of climate change damage requires the adaptation of the system of liability. A legal scholar proposes the model of market share liability for companies and state.[101] Another issue is that applicants normally act to protect a collective interest. According to some legal scholars[102]their rights could qualify as trans-subjective rights - subjective civil situations whose object transcends the holder - and, therefore, one should imagine a joint destination of the compensation for the damage, for example by setting aside the sums for future generations.[103]

respondents are the State – 'were not lost on their merits, but on particular doctrines of separation of powers. However, such US particularities do not necessarily have to stand in the way of European claims'. Moreover, the standard of behaviour of the private corporations can be influenced by the public authorisation regime.

[97] ibid 155.

[98] ibid 165 observe that 'since it will be hard to make a case for misconduct, strict liability could come into play'.

[99] The polluter pay principle was implemented by Directive 2004/35/EC on environmental liability with regard to the prevention and remedying of environmental damage. See K.C. Tan, 'Climate reparations: Why the polluter pays principle is neither unfair nor unreasonable' *Wiley Interdisciplinary Reviews: Climate Change*, 827-832 (2023); A. Mauro, 'Il principio 'chi inquina paga' nelle sfide della environmental justice' *Giustiziacivile.com*, 1-23 (2022); U. Salanitro, 'Il principio 'chi inquina paga': responsibility e liability' *Giornale di diritto amministrativo*, 33-38 (2020); F. Giampietro, *La responsabilità per danno all'ambiente. L'attuazione della direttiva 2004/35/CE* (Milano: Giuffrè, 2006); B. Pozzo, *La responsabilità ambientale. La nuova Direttiva sulla responsabilità ambientale in materia di prevenzione e di riparazione del danno ambientale* (Milano: Giuffrè, 2005).

[100] V. Corriero, 'The Social-Environmental Function of Property and the EU Polluter Pays Principle: The Compatability between Italian and European Law' *The Italian Law Journal*, 495 (2016), underlines that 'the current legal regime on environmental damage has finally – despite persistent contradictions – brought the Italian system into line with EU legislation, allowing for the application of strict liability to dangerous activities listed in Annex V (as well as to energy industry, refineries, coke ovens, chemical activity, mining, production and processing of metals and waste'.

[101] M. Zarro, *Danno da cambiamento climatico e funzione sociale della responsabilità civile* (Napoli: Edizioni scientifiche italiane, 2022), 211.

[102] V. Conte, 'Per una teoria civilistica del danno climatico. Interessi non appropriativi, tecniche processuali per diritti trans-soggettivi, dimensione intergenerazionale dei diritti fondamentali' *DPCE on line*, 66–82 (2023). She refers to the theory of trans-subjective rights developed by P. Femia, 'Transsubjektive (Gegen) Rechte, oder die Notwendigkeit die Wolken in einen Sack zu fangen', in A. Fischer-Lescano et al eds, *Gegenrechte. Recht jenseits des Subjekts* (Tübingen: Mohr, 2018), 343-355. P.L. Portaluri, 'Lupus lupo non homo. Diritto umano per l'ethos degli "animali"?' *Il diritto dell'economia*, 658–774 (2018), delving into the extension of legal subjectivity to non-human creatures, analyses the recent theories on trans-subjective rights, situations disengaged from the positivist dogma of the subjective definition of the legal claim.

[103] M. Zarro, n 99 above, 239.

Climate damage cannot be equated to environmental damage,[104] but civil liability could be used as remedy in both cases and the results of the theoretical reflections on the role and function of civil liability should certainly be considered.

VI. Conclusion

The analysis conducted in the Court of Justice's ruling shows the ineffectiveness of the mere imposition of obligations on Member States to protect the right to breathe clean air. The systematic infringement of the limits set by the European directive by the Italian State leads the interpreter to question the need to use more effective remedies, in line with the proposal for a revised Ambient Air Quality Directives. One should also point out the conflict of the action of the Italian State with two principles binding in European and national legislation: the principle of sustainable development and the emerging principle of resilience. With the Italian reform of Arts 9 and 41 of the Constitution,[105] approved in February

[104] V. Conte, n 100 above, identifies three specific characteristics of climate damage: the global nature, the 'intertemporal' dimension and the inner collective nature of the damage. Therefore the author assumes that the environmental discipline does not apply to the climate damage. Similarly, G. Puleio, 'Rimedi civilistici e cambiamento climatico antropogenico' *Persona e Mercato*, 479–480 (2021). M. Zarro, n 99 above, underlines the private law's role in climate change litigation. The remedy of civil liability is required because of the inadequacy of public law; private individuals have an important role in the implementation of environmental and social justice. In the context of environmental and climate protection, we should consider the deterrent and sanctioning function of civil liability instead of considering merely the preventive and reparative function. See also J. Rossi and J.B. Ruhl, 'Adapting Private Law for Climate Change Adaptation' *Vanderbilt Law Review*, 827-898 (2023). They observe that 'for the vast majority of climate adaptation claims, courts could reinforce the objectives of private law through traditional remedies, such as facilitating compensation, rather than ordering injunctive relief or engaging in judicial selection of adaptation responses'.

[105] M. Cecchetti, 'Virtù e limiti della modifica degli articoli 9 e 41 della Costituzione' *Corti supreme e salute*, 127–154 (2022); Id, 'La revisione degli articoli 9 e 41 della Costituzione e il valore costituzionale dell'ambiente: tra rischi scongiurati, qualche virtuosità (anche) innovativa e molte lacune' *Forum di Quaderni costituzionali*, 287-314 (2021); Y. Guerra and R. Mazza, 'La proposta di modifica degli artt. 9 e 41 Cost.: una prima lettura' *Forum di Quaderni costituzionali*, 109–144 (2021); G. Santini, 'Costituzione e ambiente: la riforma degli artt. 9 e 41 Cost.' *Forum di Quaderni costituzionali*, 460-481 (2021); G. Arconzo, 'La tutela dei beni ambientali nella prospettiva intergenerazionale: il rilievo costituzionale dello sviluppo sostenibile alla luce della riforma degli articoli 9 e 41 della Costituzione' *Il diritto dell'economia*, 157-185 (2021); A. Lauro, 'Dalla tutela ambientale in Costituzione alla responsabilità politica (anche) verso le future generazioni? Detti e non-detti di un principio di origine giurisprudenziale' *BioLaw Journal - Rivista di BioDiritto*, 115–134 (2022); L. Bartolucci, 'Le generazioni future (con la tutela dell'ambiente) entrano "espressamente" in Costituzione' *Forum di Quaderni costituzionali*, 20–39 (2022); R. Montaldo, 'La tutela costituzionale dell'ambiente nella modifica degli artt. 9 e 41 Cost.: una riforma opportuna e necessaria?' *Federalismi.it*, 187–212 (2022); V. Sartoretti, 'La riforma costituzionale "dell'ambiente": un profilo storico' *Rivista giuridica dell'edilizia*, 119–138 (2022); F. Fracchia, 'L'ambiente nell'art. 9 della Costituzione: un approccio in "negativo" ' *Il diritto dell'economia*, 15–30 (2022); E. Guarna Assanti, 'La nuova Costituzione 'ambientale': note critiche sulla riforma costituzionale' *Il diritto dell'agricoltura*, 309–334 (2022); M. Delsignore et al, 'La riforma costituzionale e il nuovo volto del legislatore nella tutela dell'ambiente' *Rivista giuridica dell'ambiente*, 1–38 (2022); M. Pierri, 'Il limite antropocentrico dello sviluppo sostenibile nella prospettiva del personalismo costituzionale. Riflessioni a margine

2022, the environment is now included in the Constitution as one of the fundamental principles, and the environment represents a limit to the economic activities. This reform can act as a catalyst for policies oriented towards a multi-systemic resilience approach.

Adopting a resilient approach means to 'adopt a system view when regulating natural resources'[106] and a vision that considers all the possible interactions and intersections concerning vulnerability and discrimination. To balance flexibility with certainty and accountability, there are three possible solutions. First, to incorporate substantive standards into laws that frame adaptive management and governance, linked to prohibitions against exceeding particular ecological limits (ie the limit for NO_2). Second, to use default rules that must apply if a particular ecological threshold is reached. Last, recognizing that 'litigation can serve as a healthy source of destabilization that could shift a social-ecological system along the adaptive cycle'.[107]

della riforma degli articoli 9 e 41 della Costituzione italiana' *Rivista quadrimestrale di diritto dell'ambiente*, 234–297 (2022); G. Marcatajo, 'La riforma degli articoli 9 e 41 della Costituzione e la valorizzazione dell'ambiente' *Rivista giuridicaAmbienteDiritto.it*, 1–15 (2022); M. Pennasilico, 'La riforma degli articoli 9 e 41 della Costituzione: "svolta ecologica" o "greenwashing costituzionale"?' *Rivista quadrimestrale di diritto dell'ambiente* (forthcoming).

[106] T.-L. Humby, 'Law and resilience. Mapping the literature' *Seattle Journal of Environmental Law*, 116 (2014).

[107] ibid 124. C. Arnold and L. Gunderson, 'Adaptive Law and Resilience' *Environmental Law Reporter News and Analysis*, 10442 (2013), observe that 'adaptive law principles require linkages between legal processes and nonlegal processes and forces, because law is not sufficient by itself to achieve environmental preservation. Legal reforms, including reforms aimed at making law and legal institutions more adaptive, must consider not only the many effects that they will have on nature and society, but also the those that nature and society, because of their complex, interdependent, dynamic interconnections (ie, panarchy), have on law and legal reform'. M. Cafagno, *Principi e strumenti di tutela dell'ambiente* (Torino: Giappichelli, 2007) 336. See also J.B. Ruhl, 'General Design Principles for Resilience and Adaptive Capacity in Legal Systems - With Applications to Climate Change Adaptation' *North Carolina Law Review*, 1374-1403 (2011).