Towards an EU Charter of the Fundamental Rights of Nature

STUDY

European Economic
and Social Committee

Towards an EU Charter of the Fundamental Rights of Nature

Study

General information

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Abstract

This Study aims to set a framework for the legal recognition of the Rights of Nature in the EU legal order, as a prerequisite for a different and improved relationship between human beings and Nature. This aim should be possibly accomplished through the development of a EU Charter on Fundamental Rights of Nature.

Initially, the Study shows the role of Rights of Nature with respect to environmental protection goals and addresses the reasons why current EU Environmental Law is failing to deliver the required level of nature protection (*Section 2*).

Subsequently, the Study assesses how the "Rights of Nature" may help to overcome the failures of environmental law. To this end, four paradigmatic cases are proposed and analysed (*Section 3*). Based on the findings of this analysis, the strategic milestones required to achieve genuine ecosystem protection are identified and presented (*Section 4*). Finally, the possibility of introducing a Charter of the Rights of Nature in the EU legal system, with its basic principles, recommendable features and proposed pathway is discussed (*Sections 5, 6 and 7*).

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List of abbreviations

AoR	Assessment of Resilience
ASVIS	Italian Alliance for Sustainable Development
BVerfG	German Federal Constitutional Court
CBD	Convention on Biological Diversity
CEPAL	Comisión Económica para América latina y el Caribe
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
ECA	European Court of Auditors
ECHR	European Convention of Human Rights
ECJ	European Court of Justice
EEA	The European Environment Agency
EESC	European Economic and Social Committee
EFSA	European Food Safety Authority
EIA	Environmental Impact Assessment
EIONET	European Environment Information and Observation Network
FAO	Food and Agriculture Organization
FCC	French Constitutional Council
FRA	Fundamental Rights Agency
GG	Grundgesetz - German Constitution
GHGs	Greenhouse Gases
IA	Impact Analysis
IBA	International Bar Association
IEEP	Institute for European Environmental Policy
IPBES	Intergovernmental Science Policy Platform on Biodiversity and Ecosystem Services
IRP	International Resource Panel
IPCC	International Panel on Climate Change
IUCN	International Union for Conservation of Nature
OAS	Organization of American States
OECD	Organization for Economic Co-operation and Development
OSCE	Organization for Security and Co-operation in Europe
REFIT	European Commission's regulatory fitness and performance programme
RS	Resilience Study
SDGs	UN Sustainable Development Goals
SEA	Strategic Environmental Assessment
SOER	State of the Environment Report
TEU	Treaty on European Union
TFEU	Treaty on Functioning of the European Union
UN	United Nations
UNCCD	United Nations Convention to Combat Desertification
UNECE	United Nations Economic Commission for Europe
UN-DESA	Department of Economic and Social Affairs of the United Nations Secretariat
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
WHO	World Health Organization

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Executive Summary

Introduction

«*The present moment offers the potential, born of crisis, to transform the way humans inhabit Earth*».

We are Nature - part of the interdependent web of life. When Nature thrives, we thrive. When Nature dies, we die. Humanity is facing an **existential emergency of our own making** - unprecedented environmental and climate emergency.

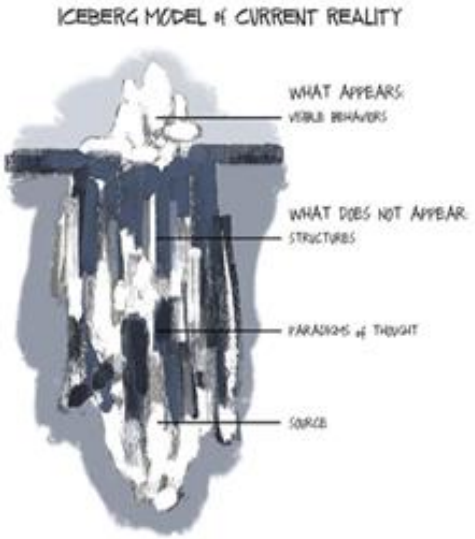
We have little time.

Never before has it been clearer that if we are to survive and have future generations that thrive that we need a new way forward - not based on separation and greed - but instead on a regenerative cycle founded on mutual respect and an understanding of our connectedness and interdependence with all of life.

In the face of the Covid 19 pandemic where the only long term solution for humanity is a strong immune system, we can see that human health and the health of the biosphere are not separate - they are interdependent.

This study proposes that this fundamental understanding is encoded in law. This will drive unified, co-ordinated action - before it is too late.

The Big Picture: An Opportunity for Deep Transformative Change



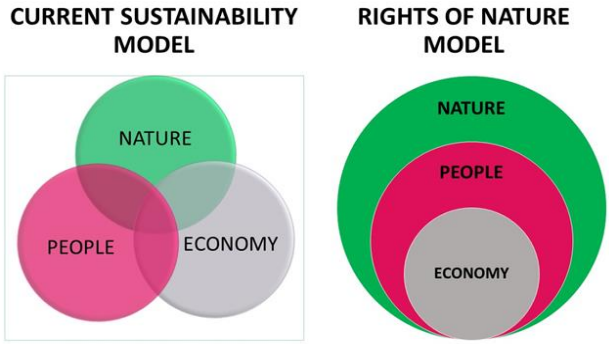
At the heart of our multiple interconnected emergencies is an **old paradigm encoded in law** that drives our societal systems on autopilot in a degenerative cycle of destruction that ultimately leads to extinction**.** Law drives the way our systems operate - if we encode a new paradigm in law we start to turn the wheel the other way, programming our societal systems for regeneration. The regenerative cycle is the foundation of an "ecological conversion" which will require a **new paradigm and new sets of behaviours** that align human activity with the ecological systems that govern and sustain all life, **producing** more desirable outcomes for society and the rest of Nature.

The EU has committed to the European Green Deal - a climate neutral Europe by 2050. According to the SOER 2020 we have made little progress towards this end so far and we are unlikely to do so without **massive systemic change**. Yet, most of our societal solutions act only at the level of tackling visible effects - which is short lived. In order to generate different outcomes, we need to transform the system.

To achieve this we need to tackle the paradigm and structures of law that stand behind the societal systems that have caused the problem in the first place.

At present **law only manages the externalities and consequences of a dysfunctional system** and is perpetuating the problem by supporting an unsustainable economic paradigm based on infinite growth. **A new societal blueprint encoded in law** that is able to keep our societal systems - including the economic system - **aligned with regeneration** will ensure the success of European Green Deal. It can be a stepping stone to recalibrating society to thrive in harmony with Nature in the long term, ensuring the rights of future generations.

An EU Fundamental Charter for the Rights of Nature ("Charter") can be the instrument to establish this new blueprint at the highest level of law, ensuring that the European Union leads the way on the world stage in modelling best practice. However, for the Charter to succeed it will also have to outline **a unifying and harmonizing** whole systems approach to its implementation due to the many inconsistencies in trying to implement Rights of Nature in the existing paradigm.



The current model for sustainability is inaccurate as it assumes that each circle of activity can operate independently of each other. The **3 concentric circles model on the right is more accurate** - a nested natural hierarchy of dependence from which can follow a **natural and synergistic hierarchy of rights**.

This is what we refer to as the Rights of Nature - it encompasses both human and economic rights in "right relationship". We need to change the mainstream model of sustainability to a model of nested hierarchies that follow the natural orders of life, with each level being dependent on the one above for its existence. We also need to reframe rights from adversarial to synergistic, moving us **from "rights" to "right relationship"**, a "right relationship" being one that supports the wellbeing of the whole. If we map the UN SDGs and Planetary Boundaries onto these 3 concentric circles, we end up with a practical workable model for implementation of the Rights of Nature.

If the European Green Deal is about making the EU's economy sustainable, this unifying, harmonising and integrating legal shift will ensure that economic activity operates in a way that fosters regeneration **of human society and the rest of Nature simultaneously**. The EU energy transition needs the Rights of Nature. Indeed, the Rights of Nature are the only "ecological" rights that include climate stability, biodiversity protection and human "benefits".

Recognising the Rights of Nature in law is therefore crucial in making legal systems proactive **in tackling our emergency challenges**. Environmental law in its current reactive form can slow the rate of degeneration but it can never be regenerative because it stems from the same paradigm that causes the degenerative cycle in the first place. This is why there is major implementation failure. At the root of the implementation challenge is the fundamental mismatch between a fragmented, mechanistic,

reductionist, top down, fixed, quantitative and out-dated system of law - with the holistic, dynamic, multidimensional and unpredictable nature of complex adaptive systems such as Nature and human societies (which are a sub-system of Nature).

If law is to be part of the solution, a radically different whole-systems approach is needed, which is what a Charter can start creating at the highest level of EU law.

The Detail: What the Study Covers

Purpose

a) to **create a** framework for the legal recognition of the Rights of Nature within the EU legal order as a prerequisite for a different and improved relationship between human beings and the rest of Nature;

b) to clarify how the Rights of Nature can enhance EU Environmental Law effectiveness; overcome current enforcement, legislative and social barriers and improve the achievement of EU sustainability goals**.**

Contents

Section 1 introduces the study parameters and its methodology.

Section 2 looks at the Rights of Nature worldwide and why environmental law is currently failing to deliver.

Section 3 looks at how the Rights of Nature can overcome the current failings of environmental law; how the lack of an effective mechanism for nature protection negatively impacts the different sectors of society illustrated through 4 European case studies.

Section 4 recommends strategic milestones that are required to achieve genuine ecosystem protection through the legal recognition of the Rights of Nature.

Section 5 identifies the legal, social and economic effects of recognising the Rights of Nature in law and makes a case for a Charter setting a new legal and moral blueprint for society.

Section 6 looks at the pros and cons of a Charter and practical obstacles and advantages.

Section 7 makes a proposal for the structure and contents of the Charter and sets out a pathway for its adoption within the EU.

Findings

The study found **an overwhelming** need to shift towards a more systemic and integrated approach **in the decision and law-making process** - ie. a whole-systems framework of law. In the analysis on the failings of Environmental Law it was found that «since law represents the necessary framework for the implementation of environmental policies, the failure of EU environmental policy can be first and foremost detected in the structure of the law used to this end rather than in implementation and enforcement weaknesses».

The study shows in detail how the current legal system is **based on fragmentation** ie. a mechanistic view rather than a whole-systems view. As a result, it is **out of sync with both the science of complex systems and with the reality of the unprecedented challenges that we are facing globally**. The study concludes that it is possible to conceive and draft EU policy and legislation to give Nature, ecosystems and public health protection a more central role vis-a-vis economic considerations. Key to this approach **is** integration of environmental concerns across all policy areas and integration of the Rights of Nature across all societal sectors and the legislation driving them. This necessary step will involve the **legal recognition of the Rights of Nature on all levels** and a shift from a purely anthropocentric worldview to a more ecocentric worldview that sees humanity as **one species within a radically interconnected**

web of life, where the wellbeing of each part is dependent on the wellbeing of the Earth system as a whole.

The study analyses 4 European cases from Germany, Italy, France and the EU that illustrate the barriers that society faces under the current regime to environmental justice and presents clear factual evidence for an "ecological conversion". It goes on to set out the holistic and integrated principles of Earth Jurisprudence that have been endorsed by the UN through their "Harmony with Nature" Programme, transforming them into a **legal "ecological mandate"**, as the backbone of the Charter. It identifies how the Rights of Nature can provide added value in aligning law with the systemic changes proposed by the SOER 2020. It also sets out milestones to achieving proper ecosystem protection in the EU through the adoption of the Rights of Nature.

The Study considers in more detail the need to **rethink the relationship between economy and Nature**, but **also the one between law and Nature**. In this context, three different dimensions of emergency are urgently addressed: eco-system, climate, economic/energy dimensions (**"eco-legal" breaking points**).

The Charter will offer the EU a great opportunity **to take leadership in shaping the long-term systemic changes needed to transform our world and endorse a "whole systems" approach**. I Moreover, as there is currently no regulation of the Rights of Nature at the supranational level, their **introduction in Europe would be unprecedented**.

The Charter shall be based on the core elements of "ecological mandate" as well as on five fundamental rules acting as necessary pillars to ensure that the whole systemic, holistic, dynamic approach is implemented.

The **3 elements of the ecological mandate** are:

1) the introduction of the substantive rights of nature;
2) the identification of new rules and methods of interpretation and application of the Law;
3) the introduction of the obligation to take into consideration the Rights of Nature in all EU policies, and not only in the decisions of the courts.

The **5 rules/pillars** are:

1) Rule of non-regression;
2) Rule of resilience;
3) Rule of "*in dubio pro natura et clima*";
4) Rule of sustainable democratic methods;
5) Rule of five responsibilities towards Nature, with reversal of the burden of proof.

This will produce the following **benefits**:

1) **Constant improvement** in nature protection in EU as well as Member States
2) **Prevent national practices circumventing EU law** eg. "Salami Slicing"
3) **Guide interpretations** in national courts according to EU law
4) **Promote harmonization** of Member State legislation
5) **Prevent interpretive conflicts** between Member State and EU judges and between Rights of Nature and other recognised rights

6) **Promote dialogue with ECHR** on environmental issues in accordance with Art 6 TEU
7) **Strengthen and consolidate** environmental rights already protected at domestic and ECHR level

The study recommends **two possible legal pathways** for the adoption of the Charter - each with its pros and cons:

1) **Incorporation into the EU treaties**, following art. 48 (2) TEU; or
2) Adoption as an **inter-institutional non-legislative** act by the Council, the Parliament and the Commission.

It also identifies the existing legal grounds in the EU and national legal systems for its adoption:

1) Specific references, both in the treaties and in the EU Charter of Fundamental Rights, to the obligations that the EU has towards the protection of the environment, sustainable development, and protection of human dignity; and
2) Many international instruments committing the EU to a high level of engagement to counteract climate change, protect the environment and biodiversity.

The Charter would also serve as a guiding instrument to an **ecological interpretation of the existing laws**. This would require **no legislative process of revision, adaptation and reception**. In a case by case approach, the **harmonization of the whole legal system to the new ecological framework can be generated** through legal precedents and administrative practices.

The Charter would also guide the adoption of future legislation, working as a switch towards the "ecological conversion of the law" **generating both political and social impact** and ultimately a shift towards an **ecological civilisation** based on mutual respect and recognition of interdependence and the intrinsic value of all of life. The study also **proposes inclusive ways of uniting all stakeholders** in a generative discussion through the use of the **3 horizons model** as applied to transformative systems change - as the **evolution of systems are a natural phenomenon independent of personal agendas**.

Conclusion

There are **universal laws** that govern all of life. When we align with them **we create a cycle of peace, harmony and prosperity for all of life**. When we are out of alignment we create a spiral of destruction as we can see in the world today. **All societies that ignore this truth have perished**.

We have a choice. Let's choose life.

Study

1. Introduction

The present study aims at setting the framework for the legal recognition of Rights of Nature, as a prerequisite for a different and improved relationship between human beings and Nature. This aim could be accomplished through the development of a EU Charter of Fundamental Rights of Nature.

The study will be inspired and driven by the following main questions:

- What are the Rights of Nature?
- What is their legal content?
- Are they relevant to develop and improve the EU environmental regulatory framework?
- What is their role within the EU Environmental Law decision making process?
- Do they facilitate the achievement of the EU environmental objectives?
- Do they help to overcome current EU Environmental Law effectiveness and enforcement weaknesses?
- Which legal, behavioural and social changes would they produce if properly addressed by decision makers through sectoral and cross sectoral policies and measures?

Some terminological clarifications are needed in order to answer these questions.

The formula of "Rights of Nature" does not underline the mere protection of the rights of natural "subjects" different from human beings, such as animals and plants (there is already a regulation of some of these rights, for example the UNESCO "*Universal Declaration of animal rights*" of 1978[1], the animal welfare legislation[2] or the EU Plant Health Law[3]).

The formula of the "Rights of Nature" means the radical transformation of current law through a new paradigm of relations between human beings and the rest of Nature, therefore between human laws and the laws of Nature.

This change is well expressed by the following wordings: "Earth Jurisprudence"[4] and "Ecological Mandate"[5]:

- the first concerns the theoretical framework for changing the relationship between Law and Nature;
- the second identifies the new legal rules that favour change based on scientific knowledge about the Earth system (Earth System Science[6]) and the rules of Nature[7].

[1] http://www.esdaw.eu/unesco.html

[2] https://www.globalanimallaw.org/database/europe.html. See also C-1/96.

[3] https://ec.europa.eu/food/plant/plant_health_biosecurity/legislation/new_eu_rules_en

[4] http://thomasberry.org/publications-and-media/earth-jurisprudence-private-property-and-the-environment

[5] GUDYNAS E. *El mandato ecológico*, Quito, 2009.

[6] REID W.V. et al., *Earth System Science for Global Sustainability: Grand Challenges*, 330 *Science*, 2010, 916-917.

[7] JORLING T.H. *Incorporating Ecological Principles into Public Policy*, 2 ,*Envtl Policy and L.*, 3, 1976, 140-146.

Thus, the Rights of Nature are a series of principles and rules that adapt the right to the structures, processes, functions and services of natural systems. In other words, it is a legal set of "Nature based solutions"[8].

Ecuador's 2008 Constitution was the turning point of construction of this legal set: in fact, it was the first Constitution in the world to regulate the "ecological mandate".

From that moment on, the debate on the Rights of Nature and on "Nature based solutions" has greatly increased [see *Annexes 1, 2, 3 and 12*] and it has influenced the contents of the UN SDGs 2030.

The environment-related goals (SDGs 6 "Clean water and sanitation", 13 "Climate action", 14 "Life below water" and 15 "Life on land") in particular have a direct link to the components of structures, processes, functions and services of natural systems: the "ecosystem Capital" (linked to ecological system) is composed of ecosystem assets and services.

This study does not investigate "ecosystem services" and "assets": however, their international recognition[9] has favoured critical analysis relating to the failure of current law and policies and has brought out **two crucial elements** for a sustainable future.

- First, Law must consider natural capital as "irreplaceable", because it is composed of a set of structures, processes, functions and services, which are essential for life on Earth[10]. Also, resources that are currently being exploited at an unprecedented rate are finite and there is an urgent need to bring balance to restore the planet, away from its current "Tipping Point", from which there may be no return if the current paradigm continues, which will have a devastating effect on all life on Earth.

- Secondly, the legal rules cannot ignore the operating rules of ecosystem services: the Law of human beings depends on the rules of Nature (functions of the ecosystem, climate stability etc.). Without respecting these rules, there is no chance of survival. Therefore, the Law must not "protect" Nature; must "respect" Nature.

For this reason, Law and policies must acquire a **systemic and integrated approach**.

This need is also underlined by the International Resource Panel, in the "*Assessing Global Resource Use*" Report (2017): «*Focusing on single resources, single economic sectors or single environmental and health impacts will not achieve the collective vision of the Sustainable Development Goals and may instead cause harm if the interactions between each of the goals are not considered. Analysis linking the way natural resources are used in the economy to their impacts on the environment (pollution,*

[8] POTSCHIN M. at al. *Nature-based solutions*, in *OpenNESS Ecosystem Services Reference Book*, eds. Potschin M. et al., 2016 (www.openness-project.eu/library/reference-book). See also https://ec.europa.eu/research/environment/index.cfm?pg=nbs

[9] See LA NOTTE A. et al. *Ecosystem Services Classification: A Systems Ecology Perspective of the Cascade Framework*, 74 *Ecological Indicators*, 2017, 392-402. See also: www.millenniumassessment.org; www.teebweb.org; www.ipbes.net; www.naturalcapitalproject.org; https://naturalcapitalcoalition.org; https://www.wavespartnership.org/

[10] ELMQVIST T. et al. *Managing Trade-offs in Ecosystem Services*, Division of Environmental Policy Implementation, Paper no. 4, 2011, The United Nations Environment Programme, 15.

deforestation, biodiversity loss and water depletion) and people (health, well-being, wealth and so on) across time requires the adoption of a systems approach»[11].

The adoption of a systems approach imposes a change of perspective in the relationship between human activity and the rest of Nature [see *Annex 3*]. The Rights of Nature are based on this change of perspective and this study aims to highlight this new perspective.

The method used is the constitutional comparison, based on two pillars:

- the study of legal formants (legislative, case law and doctrinal formants[12]), constitutional cultures[13] and legal traditions[14] in the European and extra-European context;
- the evaluation of the current EU Environmental Law and empirical analyses of the impacts on EU stakeholders.

The aim is to explain the determining role that the Rights of Nature can play, in order to;

- Introduce a systematic approach and integration into EU law;
- Enhance EU Environmental Law effectiveness;
- Overcome current enforcement, legislative and social barriers;
- Promote the achievement of the SDGs on the basis of the ecological foundations for sustainability.

As it has been properly observed, the representation of Nature as an "object" is totally misleading[15]. Law based on a conception of Nature as an "object" for human exploitation has contributed to an increasing trend towards ownership of natural resources and environmental degradation[16].

Scientists have been warning us for years about **the need for an "ecological conversion"** to tackle the current dramatic scenario of global eco-system[17], climate[18], and fossil (methane[19]) emergency. It is a global and local emergency, irreversible and scientifically certain, which contributes to the aggravation and acceleration of the mechanisms of "Feedback Loop" of the climate system. The catastrophic effects announced in 2000-2005[20] and classified by the 5th IPCC Report (AR5 2013-14) as the **"Tipping point" of the Earth system are** inevitable and imminent. We are reaching critical thresholds of the environmental systems, giving rise to **rapid, significant and irreversible effects** of disruption of the

[11] INTERNATIONAL RESOURCE PANEL *Assessing Global Resource Use. A Systems Approach to Resource Efficiency and Pollution Reduction. Summary for Policymamkers*, Paris, 2017, 10 (https://www.resourcepanel.org/reports/assessing-global-resource-use).

[12] About the concept of legal formant, see SACCO R. *Legal Formants: a Dynamics Approach to Comparative Law* (I & II), 39 *Am. J. Comp. L.*, 1-2, 1991, 1-34, 343-401.

[13] See PEGORARO L., RINELLA A. *Sistemas constitucionales, voll. A-B*, Buenos Aires, 2018.

[14] See GLENN H.P. *Legal Traditions of the World*, Oxford, 2010.

[15] See Editorial *Include the True Value of Nature when Rebuilding Economies after Coronavirus*, 581 *Nature* 2020, 119; DINERSTEIN E. et al. *A Global Deal For Nature: Guiding Principles, Milestones, and Targets*, 5 *Science Advances*, 4, 2019, 1-17; FRIEL S., *Climate Change and the People's Health: the Need to Exit the Consumptagenic System*, 395 *The Lancet*, 2020, 666-668.

[16] See PAQUEROT S. *Le statut des ressources vitales en droit international*, Bruxelles, 2002.

[17] *World Scientists' Warning to Humanity: A Second Notice* (67 *BioScience*, Issue 12, December 2017, 1026-1028), signed by more than 20.000 scientists all over the world, and CARDOSO P. et al. *Scientists' Warning to Humanity on Insect Extinction*, 242 *Biol. Conserv.* 104896, 2020, 1-12.

[18] *World Scientists' Warning of a Climate Emergency* (70 *BioScience*, Issue 1, January 2020, 8-12), signed by more than 12.000 scientists all over the world.

[19] Methane Emergency: https://www.scientistswarning.org/wiki/methane-emergency/

[20] MILLENIUM ECOSYSTEM ASSESMENT: https://www.millenniumassessment.org/en/index.html.

chain of actions, feedbacks and interactions between ecosystem changes, acceleration in natural GHGs emissions, consequent increase of the terrestrial temperature and self-heating effects[21].

The interdependent nature of these ecological emergencies should force legislators to tackle them with interdependent legal solutions. They are not singular temporary events, but critical planetary processes, ultimate and degenerative transformations of the reality that cannot be compensated nor balanced.

After all, this is a **systemic** and non-sectorial **emergency,** because it does not concern only a specific area or specific persons, but it highlights **the vulnerability of all forms of life**. An ecosystem and climate emergency not only affects vulnerable "persons" or "groups", but also puts life of all living beings in an unprecedented "situation" of vulnerability.

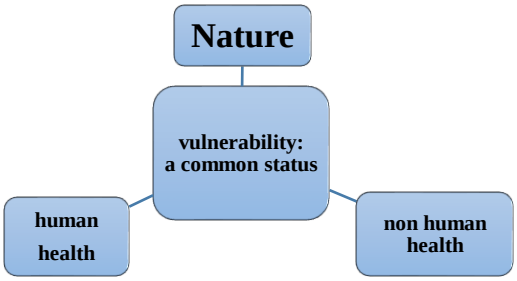
Indeed, global warming, environmental pollution and natural disasters (such as earthquakes and floods) dramatically increase the vulnerability of:

1) Nature (i.e.: loss of biodiversity, water pollution, lower air quality, sea level rise etc.)[22];

2) Animal species[23]; and

3) People (i.e.: inhabitants from islands and coastal areas that could disappear due to rising sea levels, farmers affected by deteriorating agricultural conditions, but also populations living near large industrial plants, etc.).

Figure 1: Common status of vulnerability



In such a context, the European "ecosystem" as a whole can be considered "vulnerable"[24]. In greater detail, according to IPCC findings, European areas particularly vulnerable to climate change include: mountain areas (due to the increase in the melting of snow and ice); coastal areas, deltas and flood plains (due to the increase in sea level, and the increase in heavy rainfall, floods and storms); the Mediterranean basin and Southern Europe (due to the increase in heat waves and droughts); Arctic and Northern Europe (due to rising temperatures and melting ice)[25].

[21] LENTON T.M. et al. *Climate Tipping Points: too risky to bet against*, 757 *Nat.*, 2019, 592-595.

[22] See DINERSTEIN E. et al. *A Global Deal For Nature*, cit.

[23] See EUROPEAN COMMISSION, *European Red List of Birds*, Luxembourg, 2015, in which the European Commission identifies 39 animal species as "vulnerable". https://ec.europa.eu/environment/nature/conservation/species/redlist/downloads/European_birds.pdf.

[24] EEA SOER 2020, *The European Environment-State and Outlook 2020: knowledge for transition to a sustainable Europe* (https://www.eea.europa.eu/soer-2020/).

[25] IPCC, *Fifth Assessment Report* AR5, 2014 (https://www.ipcc.ch/assessment-report/ar5/).

The key question to be addressed is: **Why the EU is currently failing to ensure a satisfactory level of environmental protection?**

While EU institutions usually identify lack or insufficient implementation of EU environmental legislation by Member States as the main failure[26], this study would rather point out that current policies and legislation are framed around an **unsatisfactory and out-dated environmental paradigm**, that fails to take into account neither Rights of Nature, nor a scientific ecosystem approach to the relationship between humans and Nature.

Based on this assumption, the Study will briefly point out the role of the Rights of Nature with respect to environmental protection goals. Then, it will address the reasons **why** the current structure of environmental law is failing to deliver the required level of nature protection and **how** the current lack of a proper mechanism of ecosystem protection negatively impacts the different sectors of society (*Section 2*).

Subsequently, the Study will assess **how the Rights of Nature may help to overcome the failures of environmental law**. To this end, four paradigmatic cases, which show the contradictions and limitations of EU Environmental Law will be proposed and analysed (*Section 3*).

Based on the findings of the analysis performed, the strategic milestones required to achieve **genuine ecosystem protection** will be identified and presented (*Section 4*).

Finally, the possibility of introducing a **"Charter of the Rights of Nature" of EU** and its basic principles, recommendable features and proposed pathway will be discussed (*Sections 5, 6 and 7*).

[26] Both the EU Commission and the EESC had supported this conclusion in different Documents and Opinions. As for the EU Commission see, among others: Communication "*EU actions to improve environmental compliance and governance*", 18.1.2018 COM(2018) 10 final; "*2015 State of Nature in the EU report*" (COM(2015) 219). As for the EESC see: Opinion on *Climate Justice*, NAT/712-EESC-2017-01144; Opinion on the "*Communication from the Commission to the European Parliament, the Council, the European economic and social Committee and the Committee of the Regions on EU actions to improve environmental compliance and governance*", NAT/730-EESC-2018-00505, OJ C 283, 10.8.2018, at 83; Opinion NAT/759 "*A more constructive role for civil society in implementing environmental law*", EESC-2019-00097, OJ C 47, 11.2.2020, at 50; Opinion on "*Implementation of EU environmental legislation: air quality, water and waste*", NAT/744-EESC-2018-02510, OJ C 110, 22.3.2019, at 33.

2. Rights of Nature and failure of Environmental Law

2.1 From legal definitions to legal practices

Approaching the Rights of Nature requires two questions to be answered: 1) how is Nature defined by Law? 2) How does Law define the "Rights of Nature"?

Constitutional comparative law is the most suitable instrument to answer these questions[27]. In fact, the comparison shows that:

- there are no shared legal definitions regarding Nature as a "matter" of legal rules [see *Annex 5*];
- there are different legal, theoretical and practical, definitions of the "Rights of Nature" [see *Annex 6*].

Despite these differences, the comparison highlights a convergence on the purposes and practical utility of the Rights of Nature: they can play a meaningful role in boosting environmental and human health protection. Their recognition by law and suitable regulation and protection is therefore of utmost importance.

In a global perspective, **Rights of Nature have been recognized** in three ways[28]:

1. **through courts' decisions** (especially in Common Law systems with pluralism of legal traditions, such as, for example, India, Canada);
2. **through the introduction of the legal identity of Nature** in Constitutions or Acts (particularly in Civil Law systems with pluralistic legal traditions, starting from the Constitutions of Ecuador and Bolivia);
3. **by using new pro Natura argumentative methods** (both in the contexts of Common Law and Civil Law, such as in New Zealand, Mexico or Colombia, through the use of the hermeneutic criterion "*in dubio pro natura*" and through the affirmation of the hierarchical prevalence of the protection of Nature over economic interests).

These three options produce three different effects:

Option no. 1 allows the protection or supervision of certain natural areas (for example a river, a mountain, a forest), in a perspective similar to the standards of EU Environmental Law.

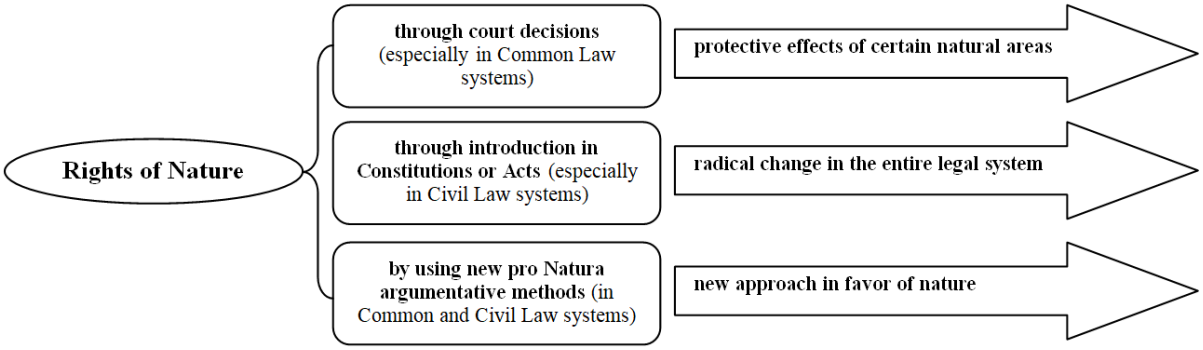
Option no. 2 determines a radical change in the entire legal system, by guaranteeing Nature's primacy over economic interests (Nature is a subject that cannot be subordinated to the exclusively economic interests of human beings).

Option no. 3 allows the implementation of new methods of interpretation of the law regarding the relationship between Nature and human interests. In this way, Nature protection can be addressed in a way that is not exclusively anthropocentric.

[27] See *Section 8 Complete bibliographical references (cited and for future research)* no. 1 *Debate on the Rights of Nature.*

[28] Prof. Craig M. Kauffman has elaborated the first mapping of pending cases and legal provisions on Rights of Nature in the world: KAUFFMAN C.M. *Mapping Transnational Rights of Nature Networks & Laws: New Global Governance Structures for More Sustainable Development*, Prepared for the International Studies Association Annual Conference Toronto, March 29, 2020.

Figure 2: Rights of Nature legal acknowledgement options and related effects/approaches

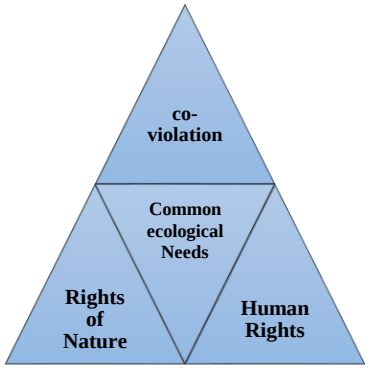


In all three perspectives, it is important to stress that the Rights of Nature are not new rights that are opposed to human rights. On the contrary, they can be defined as "**anthropo-genic**"[29], because they promote new methods of interpretation and application of Law and the recognition of "new subjects" in the interconnections of life within the Earth system.

In the perspective of **options *2)* and *3)***, the "*Ratio*" of Rights of Nature is to integrate the essential contents of fundamental (human) rights to implement new legal methods "in harmony with nature": the aim is the survival of all life cycles, therefore also of human life.

For this reason, the study "*Fighting for Our Shared Future: Protecting Both Human Rights and Nature's Rights*"[30] shows that Rights of Nature are protected, in many cases, in situations of "**co-violation**" with human rights[31]. Co-violation demonstrates the "eco-dependence" between human rights and ecosystem conditions[32].

Figure 3: Co-violation of common ecological needs in Human Rights and Rights of Nature



Options *2)* and *3)* are perfectly consistent with each other. In this regard, the term **"ecological mandate"[33]** is used, featuring three elements:
a) the introduction of the **substantive rights** of nature (such as the right to life, etc.);
b) the identification of **new methods of interpretation and application of the Law** (as for example the criterion "*in dubio pro natura*" and the principles of non-regression and resilience).

[29] About the difference between "anthropo-centric" and "anthropo-genic", see DEGRAZIA D. *Animal Rights*, Oxford, 2002, 6-8. See also DESCOLA Ph. *Diversité des Natures diversité des Cultures*, Paris, 2010.

[30] https://www.earthlawcenter.org/co-violations-of-rights.

[31] See also: UNEP *Environmental Rule of Law* (2019), 57 ss.

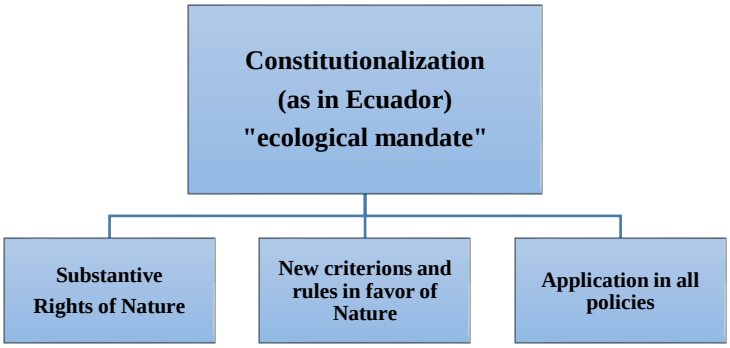
[32] See THATCHER A. et al. (eds.) *Human Factors for Sustainability. Theoretical Perspectives and Global Applications*, Boca Raton, 2020.

[33] GUDYNAS E. *El mandato ecológico*, cit.

c) the introduction of the **obligation** to take into consideration the Rights of Nature in all policies, and not only in the decisions of the courts.

The first "ecological mandate" is contained in the Constitution of Ecuador (articles 71 and following and articles 395 and following).

Figure 4: "Ecological mandate"



Therefore, the Rights of Nature contribute to transforming the relationship between human action and rest of Nature and to improve the protection of the environment. To this end, it is however necessary that they are **formally endorsed by a legal document** providing not only substantive rights of Nature, but also new methods of interpretation and application of the Law to support Nature and impose deliberative duties in respect of Nature.

Without this "necessary condition" (i.e.: a legal act stating the three constituent elements of the "ecological mandate"), the Rights of Nature would only have a symbolic value (such as "paper rules") or express general principles and not specific rules[34]. Consequently, they would have a scarce potential on the better implementation and effectiveness of EU law[35].

Taking into consideration these preliminary findings of analysis, we can already point out that relevant shortcomings emerge as the rules of EU law do not comply with these requirements.

In fact, they are inspired by a rather "conservative" approach. They do not provide a legal endorsement of the Rights of Nature and they do not recognize joint violations of the Rights of Nature and Human Rights.

Indeed, in EU law, environmental protection is mainly focusing on human and economic interests[36]. Moreover, recent studies[37] show that EU law protects Nature only through sectorial approaches and without innovative methods of interpretation and application of Law (even when formal references to the Rights of Nature seem to emerge).

In *Section 6* of this study we will further verify how the conditions expressed by the "ecological mandate" formula can be fulfilled in EU law and put forward a proposal on how a legal document such

[34] CRESPO PLAZA R. *Derechos de la naturaleza: ¿Símbolo o realidad juridica?*, 8 *Juris Dictio*, 2011, 31-37.

[35] VILLAVICENCIO CALZADILLA P., KOTZÉ L.J. *Environmental Constitutionalism and the Ecocentric Rights Paradigm*, in UNEP, *New Frontiers in Environmental Constitutionalism*, Nairobi, 2017, 183-184. See *Section 8 Complete bibliographical references (cited and for future research) no. 2 Critique on the Rights of Nature.*

[36] See, for example, paragraph 6.3.1 of the Communication from the Commission on the precautionary principle (COM/2000/0001 final).

[37] SCHOUKENS H. *Rights of Nature in the EU (Part I)*, 15. *J. Eur. Envtl & Planning L.*, 2018, 273-331, and *Rights of Nature in the EU (Part II)*, 16. *J. Eur. Envtl & Planning L.*, 2019, 35-90.

as the "Charter of Fundamental Rights of Nature" could provide a new "ecological mandate" to the EU institutions.

2.1.1 The Rights of Nature beyond the State

At supranational or international level, there are no legal documents for the recognition of Rights of Nature mainly because the recognition of Nature as a rights holder has always been hindered by the principle of "State sovereignty over natural resources".

However, we can identify some preliminary attempts to reverse this approach.

A first example, at International law level, is the proposal for a "*Universal Covenant Affirming a Human Right to Commons and Rights-based Governance of Earth's Natural Wealth and Resources*"[38].

Another viable option might be the development of a dedicated treaty on sustainability and Rights of Nature, although the former UN Special Rapporteur on Human Rights and the Environment, John Knox, has argued that «*some issues might better be resolved organically through their continued consideration by a variety of human rights bodies, rather than be addressed in an intergovernmental negotiation*»[39].

There are also theoretical hypotheses on the possibility of supranational recognition of Rights of Nature, both in Latin America[40] and in Europe[41]. In EU context, Sweden may be the first country to introduce the Rights of Nature into the Constitution[42]. However, so far none of these on-going debates has given any significant contribution to the growth of an *opinio iuris* on the relationship between the formal recognition of Rights of Nature and a positive impact on both the Constitutions of States, as well as International and supranational law.

Nevertheless, there are currently some interesting ideas from the Inter-American Court of Human Rights[43] and the Council of Europe[44] aimed at recognizing a **common supranational protection** between human rights and a healthy environment, which goes beyond the sectoral discipline of environmental law and qualifies the environment as a common space of humans-nature interaction. In particular, the Council of Europe debate is inevitably influencing the EU context, due to the link represented by art. 6 TFEU.

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[38] WESTON B., BOLLIER D. *Regenerating the Human Right to a Clean and Healthy Environment in the Commons Renaissance*, 2011 (http://www.commonslawproject.org/).

[39] UN HUMAN RIGHTS COUNCIL, *Report of the Special Rapporteur on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment*, § 15 (A/HRC/31/53, 28 December 2015).

[40] For example. with regard to the experience of UNASUR (see FERNANDES DE AQUINO S.R., *A reconstrução das utopias concretas sul-americanas: reflexões a partir do contrato natural*, 9 *Rev. Dir. Amb. Soc.*, 3, 2019, 279-304) or with the proposal to introduce the category of "Constitutional biome" (see PUTTINI MENDES P., CONSTANTINO DE OLIVEIRA M.A. *Pantanal: bioma constitucional*, 9 *Rev. Dir. Amb. Soc.*, 2, 2019, 171-195).

[41] See *Section 8 Complete bibliographical references (cited and for future research) no. 3 Debate on the Rights of Nature in the EU context.*

[42] http://www.naturensrattigheter.se/2019/05/15/amendment-for-the-rights-of-nature-in-the-constitution-of-sweden/.

[43] CIDH OC 23/17, §§ 56-68.

[44] LAMBERT E. *The Environment and Human Rights. Introductory Report to the High-Level Conference Environmental Protection and Human Rights*, Strasbourg, 27 February 2020.

In the context of international law, two documents must be considered:

a) the UN "*World Charter for Nature*" of 1982[45];

b) the "*Universal Declaration of the Rights of Mother Earth*" of 2010[46].

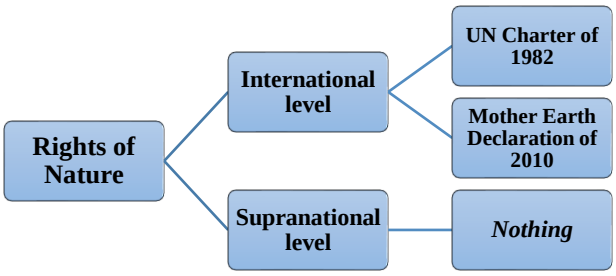
The comparison between these two documents also expresses a difference between "Western legal tradition" and "other legal traditions".

In particular, the "***Declaration of the Rights of Mother Earth***" presents a bio-centric vision[47]. However, this document ends up being merely "evocative" and it does not provide a definition of methods for defining the relationships between legal sources and the Rights of Nature. Nonetheless, it inspired the UN "Harmony with Nature" program[48] and this program promotes the dissemination of the *opinio iuris* on the Rights of Nature[49].

The "***UN Charter***" **of 1982** is very significant. It is the only document to have interesting references to Nature in the context of the UN Declarations. In fact, it deals with the relationship between humans-nature and non humans-environment as well as affirming a set of anti-utilitarian principles such as: prohibition of alteration of Nature; ban on changing the genetic viability of the Earth; maintenance of every living species; involvement of all areas of the Earth. These are principles perfectly in tune with a recognition of the Rights of Nature.

However, there are no supranational or international legal provisions that encompass the three elements of the "ecological mandate" on the Rights of Nature seen above. The only legal initiative concerns a proposal of the EU "Directive" on the Rights of Nature, promoted by Nature's Rights[50]. There is also an Italian hypothesis of "*European Charter of duties towards Nature and climate*" (see *Annex 14*).

Figure 5: International or supranational legal provisions on "ecological mandate"



In any case, the absence of a supranational experience is not an obstacle to comparison with the EU on the theme of the "ecological mandate".

[45] See https://digitallibrary.un.org/record/84366. This document should not be confused with the Earth Charter (see https://earthcharter.org/read-the-earth-charter/).

[46] But see also UN ECONOMIC AND SOCIAL COUNCIL, *Study on the Need to Recognize and Respect the Rights of Mother Earth*, Permanent Forum on Indigenous Issues, New York, 2010.

[47] KOTZÉ L. *A Global Environmental Constitution for the Anthropocene?*, 8 *Transn'l Envtl L.*, 1, 2019, 11-33.

[48] See http://www.harmonywithnatureun.org/ (with collection of documents and legal experience).

[49] See https://www.rightsofmotherearth.com/.

[50] https://natures-rights.org/.

Table 1: Summary of key finding and need of action

1)	Recognize the relationship between human action and Nature to improve the protection of the environment
2)	Adopt a transformative and innovative approach (make legal systems proactive to emergency challenges)
3)	Provide legal endorsement to Rights of Nature (through ecological-based approach; "ecological mandate"; legal recognition of Rights of Nature)
4)	Integrate rights of nature into all policies and measures
5)	Analyze the possibilities of the "ecological mandate" at supranational level

2.2 The failure to address the progressive deterioration of the environmental quality

EU Environmental Law provides a well-developed and well-structured legal system of environmental protection and is recognised at a global level as one of the most advanced legal regimes for the protection of the environment.

However, so far it has failed to halt the progressive deterioration of the environmental quality in the European territory over the last few decades (or at least not succeeded in limiting such progressive deterioration).

This is also pointed out in some technical and scientific reports such as: the EEA SOER 2020 Report[51], the European Commission's Environmental Implementation Review (EIR)[52], the IPCC Special Report on *Global Warming 1.5 °C* (2018), the UN Environment Sixth Global Environment Outlook (GEO 6 Report) (2019), the IPBES Global Assessment Report on Biodiversity and Ecosystem Services (2019), and the IRP Global Resources Outlook (2019)[53].

As highlighted in SOER 2020, by looking at trends and outlooks of the European environmental situation and Europe's long-term vision, «*it is clear that Europe is not making enough progress in addressing environmental challenges*». In particular, as sharply stated in SOER 2020, «*policies have been more effective in reducing environmental pressures than in protecting biodiversity and ecosystems, and human health and well-being. Despite the successes of European environmental governance, persistent problems remain and the outlook for Europe's environment in the coming decades is discouraging*»[54]. As a consequence, on the basis of the findings of the analysis conducted, SOER 2020 concludes that: «*Achieving the EU's 2050 sustainability vision is still possible, but it will require a shift in the character and ambition of actions. That means both strengthening established policy tools and building on them with innovative new approaches to governance*»[55].

Indeed, EU Environmental Law faces severe implementation challenges.

[51] EEA SOER 2020, cit.

[52] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, *The EU Environmental Implementation Review: Common challenges and how to combine efforts to deliver better results*, COM(2017) 63 final, 3.2.2017.

[53] IPCC, Special Report *Global Warming of 1.5 °C* (2018), UNEP, *Sixth Global Environment Outlook* (GEO 6 Report) (2019), IPBES, *Global Assessment Report on Biodiversity and Ecosystem Services* (2019), IRP, *Global Resources Outlook* (2019).

[54] EEA SOER 2020, *Executive Summary*, 6.

[55] EEA SOER 2020, *Executive Summary*, 9.

For many years, environmental issues have given rise to the largest number of infringement proceedings[56]. The EU Parliament's mid-term review of the 7th Environmental Action Programme states that: «*The Environmental Implementation Review (EIR) provides detailed country reports and identifies implementation problems common to many or all Member States. It also describes the root causes of common problems, including ineffective coordination between authorities in Member States, a lack of administrative capacity and financing, and policy incoherence*»[57].

This is certainly a correct statement. In fact, it is well known and certainly true that in several fields related to environmental protection EU legislation is poorly implemented and enforced, as confirmed by the findings of the EU EIR national reports.[58] Moreover, this is confirmed by the findings of academic literature, recognizing the causal link between the lack of proper implementation and enforcement of EU law and the failure to achieve satisfactory environmental protection [59].

At the same time, this study suggests that the current poor level of proper implementation and enforcement cannot explain all the failings of the EU Environmental Law regime.

In fact, other "structural" reasons, related to the way EU environmental policies and laws are conceived and designed, may play a relevant role and negatively affect the achievement of the desired goals.

Let's consider for example the case of Nature protection in the European territory. According to the SOER 2020: «*It is clear that natural capital is not yet being protected, conserved and enhanced in accordance with the ambitions of the 7th EAP. Small proportions of protected species (23 %) and habitats (16 %) are in favourable conservation status and Europe is not on track to meet its overall target of halting biodiversity loss by 2020*»[60]. If this is the case, is it sure that all the problems related to Nature and biodiversity protection are related to poor implementation and enforcement of relevant EU law? How can it be affirmed with certainty that Nature protection law in the EU, which is represented by the Habitats and Wild Birds Directives, is completely fit for purpose in order to halt the projected biodiversity loss at EU level?

A similar relevant example concerns the field of air pollution. To this respect, the SOER states that: «*although emissions of air pollutants have declined, almost 20 % of the EU's urban population live in areas with concentrations of air pollutants above at least one EU air quality standard. Exposure to fine particulate matter is responsible for around 400.000 premature deaths in Europe every year, and central and eastern European countries are disproportionately affected*»[61]. If this is the case, the questions which arise are similar to those emerged in the previous situation presented. Is the poor quality of air in many European cities only or mostly a consequence of lack of proper implementation and enforcement of EU Environmental Law?

[56] Report from the Commission. *Monitoring the Application of European Union Law*. 2016 Annual Report. COM(2017) 370 final; Report from the Commission. *Monitoring the Application of European Union Law*. 2017 Annual Report. COM(2018) final; Report from the Commission. *Monitoring the Application of European Union Law*. 2018 Annual Report. COM(2019) final.

[57] European Parliament. *Report on the Implementation of the 7th Environment Action Programme* (2017/2030(INI).

[58] Communication from the Commission. *The EU Environmental Implementation Review: Common challenges and how to combine efforts to deliver better results*, COM(2017) 63 final, 3.2.2017.

[59] KRÄMER L. (ed.) *Enforcement of Environmental Law*, Cheltenham, 2016.

[60] EEA SOER 2020, *Executive Summary*, 8.

[61] EEA SOER 2020, *Executive Summary*, 8.

A further example may be given to support our view. Let's consider a situation in which we are pretty sure that there is no problem of compliance with EU Environmental Law, but nonetheless the effect of the application of such a legislation is not so ambitious as it could (and maybe should) be. A good example in this sense is represented by the implementation of the EU ETS legislation in the climate change field. The record shows that the EU ETS legislation, which imposes a cap and trade system to many industrial installations in Europe, has a very high degree of compliance. This means that almost all installations subject to the scheme have been able to so far to deliver annually the expected number of credits assigned to each of them.

This success, however, is paired with a major shortcoming. Some studies have shown that despite the high level of compliance, the application of the EU ETS scheme has not induced eco-innovation[62]. This means that for most installations it has been so far relatively easy and cheap to comply with the regime and no real incentive exists to make investments in order to progressively reduce emissions and improve compliance with the assigned targets. This is a major failing of the EU ETS legislation, if one considers that the promotion of ecological innovation processes was one of the main objectives that a cap and trade regime should bring about, in order to give a meaningful contribution to the overall reduction of GHG emissions at EU level. Therefore, this example shows that compliance with environmental law cannot always be equated to success. Sometimes, a broader view must be taken, which considers the ultimate objective of the law, which in this case should consist in an ambitious emission reduction goal in line with the NDCs developed by the EU to comply with the 2015 Paris Agreement.

On the basis of the examples just given above, a **key question** emerges:

Can EU policy and legislation be conceived and drafted with the aim to give Nature, ecosystems and public health protection a more relevant role vis-à-vis economic considerations?

2.2.1 The regulatory and the deregulatory trends

The failings related to the design, rather than to the implementation and enforcement of EU Environmental Law, can be grouped in two categories, corresponding to two different trends: the **regulatory trend** and the **deregulatory trend**[63]. Over the last forty years in the EU, environmental law has evolved through these two parallel (and sometimes) opposing trends.

The regulatory trend has tried to protect Nature through legislation aimed at managing negative environmental externalities of economic activities. This has resulted in an emergency response approach, lack of medium-long- term vision, and continued support of the unsustainable mainstream economic model (based on the paradigm of promoting infinite growth on a finite planet).

The deregulatory trend has tried to revise existing environmental legislation in order to streamline, simplify and reduce it, without questioning the means of managing the negative externalities of "business as usual". However, by doing so, it has not managed to address the underlying root causes of environmental degradation. This has led to a tendency towards a further decrease in the level of environmental protection and a continued application of an out-dated legal paradigm developed in the

[62] See BORGHESI S. MONTINI M., BARRECA A. *The European Emission Trading System and Its followers: Comparative Analysis and Linking Perspectives*, Rotterdam, 2016, 78-80.

[63] See MONTINI M. *The Double Failure of Environmental Regulation and Deregulation and the Need for Ecological Law*, XXVI (2016) *Italian Yearbook of International Law*, 2017, 265-285; ITO M., MONTINI M. *Nature's Rights and Earth Jurisprudence*, cit., 221-233.

16th-18th centuries which is obviously not apt to solve the 21st century economic, social and environmental problems[64].

The regulatory trend has been characterised by the attempt to protect the environment through the adoption of a huge amount of environmental legislation, based on the **command and control approach**, whereby public authorities prescribe or prohibit certain conducts with the aim of addressing environmental pollution and the use and management of natural resources. In this context, environmental regulation has generally aimed to address and manage the negative externalities damaging the environment as a result of the unrestrained growth promoted by the dominant economic model. This trend, despite producing a broad *corpus* of legislation, has shown many deficiencies, mainly related to the excessive bureaucratisation of environmental procedures and the lack of effective environmental protection.

The shortcomings of the regulatory trend have paved the way for the second phase, which corresponds to the "deregulatory trend". This trend has attempted to tackle the failures of the environmental legislation adopted in the framework of the regulatory trend by promoting a shift towards a progressive revision of the existing legislation, with the purpose of simplifying and streamlining it. Such a shift has been characterised by the adoption of alternative instruments which couple with and sometimes replace traditional command and control tools. A paramount role in the framework of the deregulatory has been played by the so-called economic (or market-based) instruments, which may include taxes, charges, as well as cap and trade tools.

These instruments, despite being characterised by a common deregulatory approach, are still firmly embedded within a traditional regulatory scenario, whereby public authorities maintain substantive overall control as well as the final word on decision-making. The deregulatory trend has supplemented the traditional command and control regulatory approaches in the last few decades, with a strong support by the business sector and no apparent opposition by policy-makers or the civil society at large.

Unfortunately, both the regulatory and the deregulatory trends have resulted in several failings. In fact, despite the legislation adopted, implemented and enforced through the regulatory and deregulatory trends, the quality of the environment, both at the global as well as at the local scale, has shown a progressive deterioration, both at a global level as well as in the EU. This is exacerbated by incoherence between EU Environmental Law and policy and other initiatives in different fields, such as, the continuation of subsidies in the agricultural, meat/dairy and fossil fuel industries, as well as the inconsistency between EU's Sustainable Development Agenda and the 2020 Agenda for Growth and Jobs. This incoherence includes economic objectives and economic concerns as legitimate derogations from fulfilling obligations under the EU's environmental Directives (e.g. Habitats, Birds and Water Framework Directives). The foregoing aligns with the growing recognition worldwide that environmental laws premised on regulating the use of Nature are, and have been so far, unable to protect it sufficiently, because they arise out of the same paradigm that created the problem in the first place[65].

[64] CAPRA F. MATTEI U. *The Ecology of Law. Toward a Legal System in Tune with Nature and Community*, Oakland, 2015.

[65] ITO M., *Nature's Rights. Why the European Union needs a paradigm shift in Law to achieve its 2050 vision*, in *Sustainability and the Rights of Nature in Practice*, eds. La Follette C., Maser C., London-New York, 2020 311-320.

2.2.2 The question of the effectiveness of EU Environmental Law

In order to better understand where the problem lies with some of the failings of EU Environmental Law which are not related to a lack of implementation and enforcement, but rather to the way the relevant legislation is conceived and designed, the analysis should focus on the effectiveness of EU Environmental Law.

The question of the effectiveness has a two-fold nature. It relates on the one hand to the meaning of the term effectiveness, and on the other hand to its objective. The issue of the meaning of the term effectiveness should be addressed on the basis of a conceptual framework which considers **three key meanings of the term effectiveness**[66], i.e.: **legal effectiveness, behavioural effectiveness and problem-solving effectiveness**[67].

The first meaning of the term effectiveness refers to the formal compliance with a certain provision and aims at verifying whether the addressees of a given prescription conform with it or not. In other terms, it looks at the formal compliance with a certain norm in objective terms. The second meaning of the term effectiveness looks, in subjective terms, at the capacity of a certain provision to cause changes in the behaviour of the subjects, with a view to achieving the norm's specific objective. The behavioural change of the subjects may consist in terminating a previous behaviour or in acting differently than they would have done in the absence of the given prescription. The third meaning of the term effectiveness focuses on the substantial implementation of a given norm. It tries to determine whether a certain prescription effectively manages to achieve its ultimate objective. In other words, it looks at whether a given provision contributes to address and solve the problem it purports to deal with.

Table 2: Summary of Effectiveness meanings

LEGAL EFFECTIVENESS	BEHAVIOURAL EFFECTIVENESS	PROBLEM-SOLVING EFFECTIVENESS
Formal compliance with legal norms	Capacity to cause changes into behaviour of addressees	Substantial implementation and suitability of legal norms to achieve its ultimate objectives

The problem with the meaning of term effectiveness in relation to environmental law relates to the fact that environmental law has usually been focusing on the first meaning of the term, namely placing attention to the formal compliance with a norm, and sometimes on the second meaning, looking at whether a certain provision is able to induce positive change in the behaviour of the addressees. The third meaning of the term, namely the capacity of a given prescriptions to effectively address and solve the problem at stake has almost never been taken into account. This explains why in many circumstances it has proven quite difficult to assess the true effectiveness of a given environmental law norm.

A reason for this lies in the fact that so far, environmental law-making (and its enforcement) has been focusing traditionally on the objective of managing the negative externalities caused by economic activities. In other words, environmental problems have been tackled by the relevant legislation with the aim to reduce the negative effects on the environment. However, this has been promoted without

[66] See BODANSKY D. *The Art and Craft of International Environmental Law*, Cambridge, 2010, 252-258; YOUNG O. *International Governance: Protecting the Environment in a Stateless Society*, Ithaca, 1994, 140-160.

[67] See MONTINI M. *The Double Failure of Environmental Regulation and Deregulation and the Need for Ecological Law*, cit.

questioning the continued validity of the neo-classical economic model, based on economic growth as a priority objective. This tendency has continued over the years, despite growing evidence that the environment is rapidly and continuously deteriorating, due to human over-exploitation of natural resources and several man-made forms of pollution. The continued reference to the wrong objective of managing negative externalities without addressing the structural deficiencies of the neo-classical economic model explains why environmental law sometimes tends to inherently lack effectiveness, irrespective of the formal compliance with its provisions.

2.3 Systemic Problems with Environmental Law

In the present paragraph, a summary of some of the most notable systemic problems currently affecting environmental law are provided. All of them may be described as structural problems which are hindering the effectiveness of EU Environmental Law.

They are all related to the design of the law (D), whilst the last four problems listed in this paragraph also relate to the implementation of the law (D & I). The systemic problems identified and described here are the following:

- ***D a)*** Many environmental **problems are "invisible"**. By the time they become visible it may be too late to stop the damage. This is a major challenge for the current reductionist approach, as we can see clearly from the failure of the endangered species listing system to prevent the mass extinctions we are witnessing today. Moreover, the current system ignores the fact that ecosystems are an integrated whole, where the loss of an unlisted species (e.g. bees) may have huge ramifications for the entire system;
- ***D b)*** Many environmental **problems are complex** and marked by uncertainties and controversies on cause and effect relationships. This is exacerbated by a great lack of knowledge about how various organisms, including human beings, react in the short and long term to cumulative ecological stress. Environmental policy and law must often address uncertainties and moving targets, which is difficult to do with a reductionist approach that insists on quantitative rather than qualitative measures;
- ***D c)*** Many environmental **problems are long term**, and future generations and other species – who do not have a defined legal status - will be the victims. Again, climate change and loss of biodiversity are clear examples. The role of law - as it is today - is to regulate current conflicts between persons (including legal persons) and the interests of today. Law and legal institutions are not designed or equipped to regulate intergenerational conflicts and secure intergenerational justice. This poses a relevant challenge for environmental policy and law in its present form;
- ***D d)*** Many environmental problems are the **cumulative effect of many actions and decisions** that, by themselves, look harmless. Currently most decisions (especially planning decisions) are made on a case by case basis with no overarching requirement to look at cumulative or systemic implications for the whole, due to the too limited impact of the legal requirements to conduct a Strategic Environmental Assessment (SEA) foreseen by EU Environmental Law;
- ***D e)*** Many environmental **problems are cross-sectoral** both in their causes and their effects. The combination of activities in many different sectors create effects, which may then affect different parts of society. At the same time, institutional structures and legislation are mainly developed along the lines of economic sectors, and are therefore too fragmented and specialised to deal consistently with the problem. Climate change and reduction of biological diversity are clear examples of this, as they need a systemic approach;

- ***D f)*** The most serious environmental **problems cross administrative borders**: boundaries between local communities, counties and regions, and also between Member States. The environmental effects of an activity may appear far away from its source. Completely different constituents may, on the one hand, get the benefits and on the other hand, incur the costs of environmental degradation. Environmental issues cannot, therefore, just be dealt with at the local, regional or Member State level. There needs to be a more integrated and holistic approach with greater institutional collaboration;
- ***D g)*** **Environmental law is fragmented both vertically and horizontally**. Firstly, it is defined narrowly as the body of law that has environmental protection as its main objective, ignoring the fact that most of the main sectors of economic and social activity have environmental impacts. These sectors are regulated by their own laws and policies that operate *in silos*, isolated from one other. Within each sector decision-making authority is distributed among State, regional and local authorities. Due to this fragmentation, different acts may be aimed at the protection of different elements of the ecosystem, such as the water and the species; or they aim to regulate different activities within that ecosystem, such as shipping, building, aquaculture, and fishing; or they may have an unintended effect on the ecosystem, such as the adverse effects from industry, trade and transport. This is perhaps complicated by the fact that these different legal acts are implemented under different administrative sectors with different interests, tools and traditions, and by the fact that the legal acts contain a certain degree of discretion or flexibility to aid in administrative decision-making;
- ***D h)*** The legislation and policies offer the authorities **broad discretionary power** to balance environmental concerns and other (often conflicting) social goals and considerations, such as the objectives of economic growth, employment, increased production of food, energy and goods, improved transport, and against such principles as cost-effectiveness and local self-rule. This is not just political, but is also a result of how environmental law is construed. Inconsistency and lack of coherence in environmental law (when looking at all laws that affect an ecosystem rather than just laws that have environmental protection as their main objective) allows for diverging value judgments by administrative bodies on different aspects of the same ecosystem. As the legislation and policies are generally formed in an open style, this leaves the executive a too broad discretionary power in how the provisions are applied. Broad discretionary power coupled with vertical and horizontal fragmentation makes it very difficult to take a holistic ecosystem approach;
- ***D i)*** Despite the EU having adopted well-formulated policy objectives, **integration of environmental law** (in its broadest sense) **has not yet happened**, because it requires changes in the paradigm, objective and priorities of important sectors and authorities at different levels. Often, environmental issues are perceived as a "problem" that works against the success criteria of a sector authority. However, sector authorities usually know little about environmental objectives and problems, and see them as irrelevant to their primary mission. This narrow, symptomatic thinking and application of law works against achieving systemic solutions;
- ***D j)*** Environmental legislation establishes institutions, systems, and procedural rules, and it lays down certain general objectives and principles to be observed. However, when it comes to the actual protection of the environment, **the legal core is neither very precise nor very "hard"**. This is not just in the EU; the soft, discretionary character of many international environmental treaties is well known. A more precise indication of the specific core and main objectives of each given environmental law would probably help to increase its effectiveness.

- ***D & I k)*** Developments in international environmental law have been influenced by several **principles,** such as "sustainable development" and the "Precautionary Principle" which could counteract some problems of fragmentation and broad discretionary power, if **understood and applied consistently** by the authorities. Unfortunately, this has not yet happened. Whilst the principle of sustainable development has been incorporated in EU policy, there is no definition of sustainable development or guidance on implementation in EU law. Quite often, the inclusion of sustainable development or "sustainability" as an objective, in reality does not mean anything very different from "business as usual". Similarly, the precautionary principle has been enshrined in art. 191 (2) TFEU. However, in practice the principle has been observed to be highly malleable and performs many functions. Accordingly, application of the principle to create systemic change in major policy areas is difficult to identify;
- ***D & I l)*** Furthermore, **access to justice** on environmental issues at the EU level **is quite poor**. At present, all decisions affecting the environment and applicable in the Member States are made at an EU level, which means the focus of any challenge is also at an EU level, since national Courts cannot declare the acts of EU institutions invalid. A litigant who wishes to challenge the validity of an EU act must either bring a challenge in the European Court of Justice of the EU under art. 263 TFEU, or persuade a national Court to refer the matter to the European Court of Justice under art. 267 TFEU[68]. In fact, legal standing is one of the biggest unresolved issues in EU Environmental Law. This procedural dimension is often not given sufficient attention, though it leads to the failure of the entire justice system. Standing for judicial review in the EU has for years remained severely restricted. EU Courts continue to interpret access to justice criteria so rigidly that it precludes challenges, particularly by non-governmental organizations, against the decisions of EU institutions, agencies and bodies. Courts rule that standing is only available to individuals who are directly and individually affected by a situation, over and above the way that situation may affect anyone else. From an anthropocentric perspective, an injury to Nature is an injury to everyone as it does not individually concern any one person, but many people. The concept of individual and direct concern is not only incompatible with the nature of ecological damage but also contradictory to the Aarhus Convention rights and obligations. This problem arises because Nature is merely conceived as an object of the law - property or fair game - and as such incapable of sustaining any harm itself. If ecosystems and species were subjects of the law with legal personality and rights, this problem of Nature's standing would vanish.
- ***D & I m)*** Another big barrier is the type of access to justice on environmental issues. In the current regime environmental cases are usually dealt with by the planning and administrative Courts through the procedure of judicial review. This means that the merits of a case sometimes cannot be heard before the Court - instead the Court is asked to find whether the decision-maker acted within its powers in making the decision, which is a box ticking exercise. Therefore, what is needed to make access to justice on environmental issues more effective is to make sure that cases are dealt with by Courts which are able and willing to **deal with the merits of the case**.
- ***D & I n)*** Finally, a last barrier lies in the fact that sometimes there is a **lack of proper understanding** by the judiciary on how to interpret and implement environmental laws. This is sometimes related to the design of the law, insofar, as argued above, it is sometimes not apparent what is the essence of the key principles of a given environmental law. However, in other circumstances this is due to the insufficient knowledge of the judiciary about complex

[68] ITO M. *Nature's Rights*, cit.

environmental problems and their interactions with other conflicting interests. A more systemic and holistic approach by the judiciary would be necessary.

Table 3: Summary of Environmental law systemic problems

ENVIRONMENTAL LAW-SYSTEMIC PROBLEMS: SUMMARY OF DESIGN & IMPLEMENTATION ISSUES	
DESIGN ISSUES	***IMPLEMENTATION ISSUES***
Lack of timely reaction for "invisible" problems	Lack of clear definitions and legal application regarding important environmental principles such as "sustainable development" or "precautionary principle"
Lack of knowledge on complex and uncertain environmental problems + quantitative rather qualitative approach	Unsatisfactory level of judicial review and access to justice (e.g. procedural issues regarding legal standing for individuals and NGOs)
Long term intergenerational conflicts and justice not addressed	Type of access to justice (mostly limited to planning and administrative Courts for judicial review)
Lack of comprehensive, holistic approach, scarce or inefficient use of SEA	Challenges in interpretation and knowledge of environmental law at judiciary level
Lack of coordination at cross-border sector and at different administrative levels	
Vertical and horizontal fragmentation: lack of coordination at different levels of decision making level and inter-sectoral integration	
Risks that Authorities deploy too broad discretionary power to balance different/conflicting interests at stake belonging to separate policy sectors	
Poor integration of environmental concerns into other policies	
Soft approach of some environmental provisions with regard to targets and objectives	

In conclusion, the analysis of the existing systemic problems with EU Environmental Law shows that in order to promote an effective environmental protection at EU level, fundamental structural changes should be made to the current legal system in order to make it suitable to address the 21st century challenges.

This can be effectively achieved through the legal recognition of Rights of Nature.

Table 4: Summary of Key Findings and Needs of Action

1)	develop (conceive and draft) EU policy and legislation with the aim to give nature, ecosystems and public health protection a more relevant role vis-à-vis economic considerations
2)	address effectiveness issues (ensure legal, behavioural and problem-solving effectiveness of EU Environmental Law)
3)	address systemic design and implementation issues to ensure better regulation
4)	provide legal recognition to rights of nature (adopt a legislative act endorsing rights of nature)

3. How the Rights of Nature may help to overcome the failures of Environmental Law

3.1 Preamble

In *Section 2* we have shown that the objectives of EU environment policy (i.e.: protect, conserve and enhance the EU's natural capital; turn the EU into a resource-efficient, green, and competitive low-carbon economy; safeguard EU citizens from environment-related pressures and risks to health and wellbeing[69]) have not been fully accomplished, due to an environmental legal framework that does not take into consideration neither the Right of Nature, nor the main principles governing natural ecosystems. The negative impact on our lives, if we remain with the current system of policies and law, has been calculated in numbers and costs by the EU Commission in order to justify its proposal of the "European Green Deal"[70].

Yet the "*Environmental Performance Index*" ("*EPI*") places EU States in a good position in the world ranking of environmental protection[71]. The assessment of Natura 2000 is considered positive[72]; and the evaluation of the relationship between environmental rule of law and green growth also seems positive[73].

So, is it only a problem of "concern" for European public opinion, as it would seem to emerge from Special Eurobarometer "*Attitudes of European citizens towards the environment*"[74]?

A possible answer to this matter may come from the analysis presented in *Section 2*, focusing on the "Earth Jurisprudence" and the "ecological mandate" of the Rights of Nature features and the failures of the current environmental law in the context of the ecosystem, climate and fossil (methane) emergency.

The analysis performed lead to the following relevant conclusions with particular regard to the role of the stakeholders:

1) The EU's **approach to the protection of Nature** is, and always has been, **piecemeal and reactive** (as opposed to holistic and strategic as happens for "Earth Jurisprudence" and the "ecological mandate");

2) This approach is **fragmented and reductionist** (i.e. it does not reflect the rules of interconnection and interdependence indicated by the "ecological mandate")[75];

3) **EU policies** are developed «*according to their own strategies and priorities and do not seriously consider presenting integrated draft proposals to the Commission which also include legitimate environmental concerns*» (**without an integrated and systemic evaluation of human action on the Earth system**)[76].

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[69] Quotation from the EU website: https://europa.eu/european-union/topics/environment_en.

[70] "*What if we do not act*", https://ec.europa.eu/commission/presscorner/detail/en/fs_19_6715. See also the data given by the Commission in a recent communication on "*EU Biodiversity Strategy for 2030. Bringing nature back into our lives*", COM(2020) 380 final, 20.5.2020.

[71] https://epi.yale.edu/.

[72] https://www.ecologic.eu/16575.

[73] GGKP WORKING GROUP ON GREEN GROWTH AND THE LAW-UNEP. *Environmental Rule of Law: An Analysis of Data Availability*, Working Paper 1/2019.

[74] https://ec.europa.eu/environment/eurobarometers_en.htm.

[75] See HOVDEN K. *The Best Is Not Good Enough*, cit.

[76] KRÄMER L. *Environmental Governance in the EU*', in *Environmental Protection in Multi-Layered Systems*, eds. Alberton M., Palermo F., Leiden, 2012, 9-30.

4) The **protection of Nature is separated from fundamental rights and has no access to justice,** as stated in the Opinion of Advocate General Juliane Kokott in case C-127/02 § 143 («*the protection of common natural heritage is of particular interest but not a right established for the benefit of individuals*»), despite its definition as "essential" requirement (cases C-240/83 § 13, and C-302/86 § 8).

5) Consequently, even **the relationship with the stakeholders** becomes **fragmented, reductive, sectoral, without an integrated strategic vision** between civil society and EU institutions, **without access to justice**.

6) The provisions of **art. 3 (3) and (5), and art. 11 TEU, about the promotion of sustainable development and participatory rights become meaningless.**

Current environmental law has been called "dysfunctional"[77] and even "ecologically illiterate"[78]. In a context of "shared competences", this "dysfunctionality" or "ecological illiteracy" is reproduced within the Member States.

In this framework, we must consider the role of stakeholders.

They are never "protagonists" of integrated sustainable development strategies[79], but "sectoral actors" of "sectoral development policies".

They undergo an approach that William E. Odum called "tyranny of small decisions"[80]. "Small decisions" hardly favour common visions among all[81].

In particular, they hinder:

a) shared definitions of common strategic interests in relation to the ecosystem, climate and fossil (methane) emergency;

b) dialogues on common bases of knowledge of ecological problems[82].

In the absence of a holistic EU strategic approach, stakeholders are never or, at the most, poorly involved in strategic discussions related to articles 3 and 11 TEU.

Neither the environment, nor Nature are considered stakeholders in EU decision-making processes[83].

Consequently, the same environmental information towards the stakeholders is managed in a fragmented and reductive way, as evidenced by the recent Report "*Alliance for Corporate Transparency*"[84].

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[77] PAUL W. *El poder constitucional de los hechos. El efecto Fukushima*, 20 *Rev. Lat.-Am. Est. Const.*, 2017, 241-254.

[78] The formula is from HOVDEN K. *The Best Is Not Good Enough*, cit

[79] The EESC has reached the same conclusions in different documents: see Opinion NAT/759 "*A more constructive role for civil society in implementing environmental law*", EESC-2019-00097, OJ C 47, 11.2.2020, at 50; Position paper – July 2018 "*Making civil society a driving force in the implementation of the UN 2030 Agenda for Sustainable Development*".

[80] ODUM W.E. *Environmental Degradation and the Tyranny of Small Decisions*, 32 *BioScience*, 1, 1982, 728-729.

[81] See WICKS A.C. et al. *Connecting Stakeholder Theory to the Law and Public Policy*, in *The Cambridge Handbook of Stakeholder Theory*, eds. Harrison J.S. et al., Cambridge, 2019, 97-116.

[82] See SHAPIN S., SCHAFFER S. *Leviathan and the Air-Pump: Hobbes, Boyle, and the Experimental Life*, Princeton, 2011; IOANNIDIS J.P.A. *All Science should inform Policy and Regulation*, 5 *PLOS Medicine*, 2018.

[83] *Is the Environment a Stakeholder?* (https://www.stakeholdermap.com/is-environment-a-stakeholder.html); *Nature is the Most Important Stakeholder of the Coming Decade* (https://www.weforum.org/agenda/2020/01/why-nature-will-be-the-most-important-stakeholder-in-the-coming-decade/).

[84] https://www.allianceforcorporatetransparency.org/news/companies-failing.html.

For this reason too, **environmental policies produce conflicts**. In the face of eco-systemic challenges, the "reductive" content of policies prevents a complete confrontation on ecological problems[85].

Negotiations with stakeholders all become **"win-lose" in three directions, pitting needs against each other, rather than seeing them as interconnected and interdependent:**

Direction 1: what is important is the result on the single decision (**win**), even if the eco-systemic strategic perspective is missing (**lose**);

Direction 2: "reductive" negotiation favours immediate economic interests instead of ecological interests that are always inter-temporal, so economic interests "**win**" while ecological interests "**lose**"[86].

Direction 3: balancing is used by decision makers exclusively to satisfy human interests which "**win**" through compromise[87]; Nature is not considered a subject of balancing and therefore its interests tend to "**lose**".

In the "win-lose" logic, the environmental compatibility of human actions is identified in the **equilibrium between negative externalities and positive externalities** of the same human actions.

It is interesting to note that the "win-lose" logic produces negative consequences in the trust of public opinion towards constitutional rules and democracy itself [see *Annex 10*][88].

Social environmental movements and litigation strategies represent a reaction to this "dysfunctional" situation.

The "Earth Jurisprudence" and the rules of the "ecological mandate" are placed in a different dimension.

Their approach with stakeholders is systemic and holistic (as opposed to reductionist), based on ecological sciences, grounded on the centrality of Nature as a "subject" and therefore as a "stakeholder" of all policies (precisely according to the rules of the "ecological mandate")[89].

The goal is not the compromise "win-lose", but the higher level of environmental and Nature protection for safeguarding the Earth system, exactly as it should be in accordance with articles 3 and 11 TEU.

[85] http://cdca.it/en/perche-i-conflitti-ambientali.

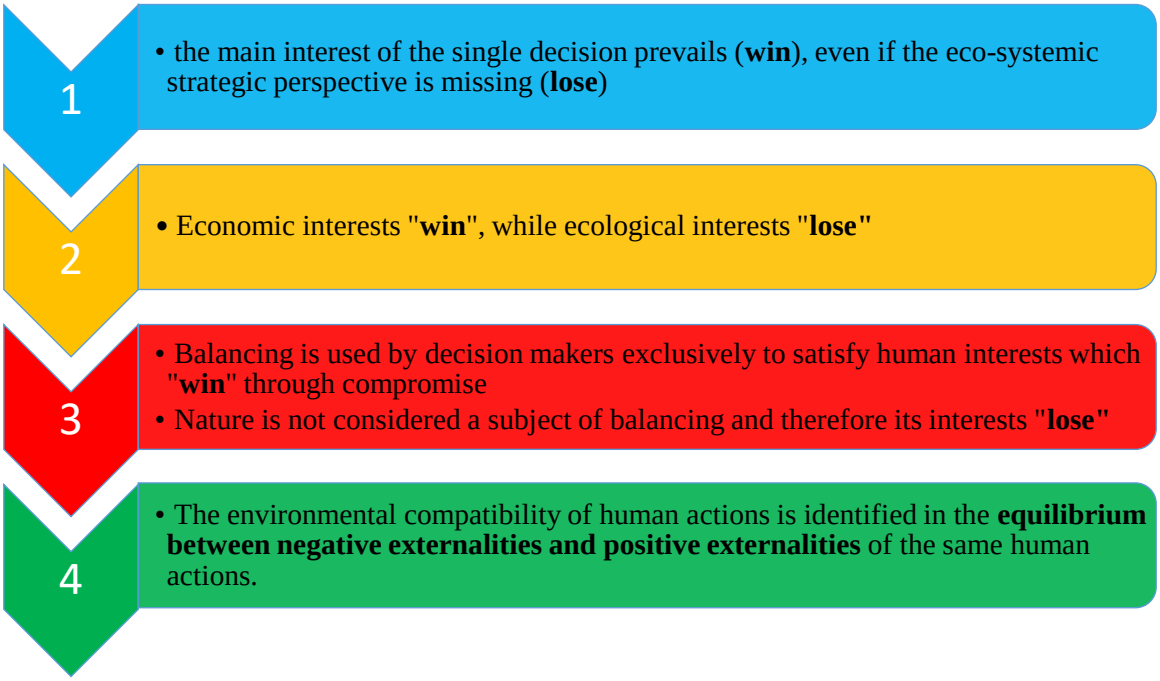
[86] See NILSSON M., ECKERBERG K. (eds.) *Environmental Policy Integration in Practice: Shaping Institutions for Learning*, New York, 2009.

[87] See REID M. *Balancing Human Rights, Environmental Protection and International Trade, Lessons from the EU Experience*, Oxford and Portland, 2015.

[88] See, from a perspective of economic analysis of constitutional law: COOTER R.D. *The Strategic Constitution*, Princeton, 2000.

[89] CORMAC C. *Do Humans Have Standing to Deny Trees Rights*, 11 *Barry L. Rev.* 2008, 11-15.

Figure 6: Win-Lose logic scheme



In *Sections 5* and *6* of this study, we will analyse the usefulness of the "ecological mandate" rules to overcome the limits and contradictions of the "win-lose" logic of current environmental law.

Now we have to consider the impacts on stakeholders in the current EU context.

3.2 Lack of a proper mechanism of ecosystem protection and impact in the society

To illustrate how the lack of an adequate holistic strategic approach to ecosystem protection has impacted different sectors of society, we present four legal case studies on environmental matters decided by national or EU courts.

More in detail, the facts that have instigated the lawsuits and the arguments used by the parties in the trials are the direct sources of information about the impact of human actions on the environment and the effects of decisions and policies on their lives or activities, *notwithstanding* the existence of a system of EU environmental policies and legislations.

The cases examined are the following ones:

1) Case study on **Germany**: the evolution of the "Kalkar doctrine" on precautionary principle and scientific knowledge (starting from the decision *BVerfGE* 49, 89), the related public debate on the so-called "negative practical reason" (i.e. the difficulty of distinguishing risk and danger in the era of ecological decline) and on the "rights optimization mandate" (on the need for a hierarchy of rights in front of the insufficiency of balancing interests), in relation to art. 20a *Grundgesetz* (GG), in a context where the first debate on the Rights of Nature in EU has matured;

2) Case study on **Italy** (the "Ilva case"): an example of a "tragedy of time", between planning times of industrial investments and sustainability times of the ecosystem in the context of the climate emergency, in the absence of any discussion with stakeholders on the relationship between

industrial production, sustainable development, national strategies in constraints Europeans, environment, nature rights and restoration of the region's ecosystems, without any experimentation of sustainable democracy;

3) Case study on **France** (UIPP, *Décision no. 2019-823 QPC du 31 janvier 2020*): the first French decision to subordinate economic interest to the priority of environmental protection, but in a non-transformative perspective of the relationship between economy and nature;

4) Case study on the **EU** ("People's Climate case"): an example of the difficulty of accessing justice between the legal standing provisions of the TFEU, the provisions of the Aarhus Convention and the effectiveness of human rights "in harmony" with Nature for the present and the future generations (according to the UNFCCC and the Biodiversity Convention).

In all the cases, the parties' damages and claims do not depend exclusively on a lack of national implementation of existing laws. **What is at stake is the capacity of the whole environmental law system to give a concrete response to their problems** and, as a consequence, the non-correspondence between the legal means adopted and the stated EU environment objectives.

As the methodology of analysis for the cases, we will divide the social categories following the composition of the EESC: **employers (enterprises); workers; other civil society organizations** (farmers' organisations, small businesses, the crafts sector, professionals, cooperatives, foundations and non-profit associations, consumer organisations, environmental organisations, associations representing the family, women's and gender equality issues, youth, minority and underprivileged groups, persons with disabilities, the voluntary sector and the medical, legal, scientific and academic communities, etc.), adding a fourth general category **"Citizens", intended as individuals and not as organized groups**.

The list of impacts that follows has been extracted by the parties' arguments and the factual description of each case, mentioned in brackets to ease internal reference to the corresponding paragraph of this *Section*.

Employers (Enterprises):

a) Uncertainty about the applicable law: the environment is a shared competence between the EU and the Member States. Notwithstanding the many pieces of legislation that the EU has adopted for the protection of the environment, the subject-matter is not completely harmonized, and there is no "common constitutional tradition" in this field. This means that even in cases where the environment has been recognized as a constitutional value (Estonia, France, Italy, Lithuania, Luxembourg, Poland, Sweden) or is explicitly mentioned in the Constitution as a right (Belgium, Croatia, Czech Republic, Finland, Greece, Hungary, Latvia, Germany, the Netherlands, Portugal, Romania, Slovakia, Slovenia, Spain), its level of protection remains subordinated to the balancing of constitutional interests or to the proportionality criterion on admissible limits to other competing rights. This means that environmental conflicts are solved by applying vague and discretionary principles, such as the precautionary one, in a case by case approach (Kalkar; UIPP).

b) As a consequence of *a)*, high expenses on litigation, due to the necessity of clarifying the applicable law (Kalkar; UIPP; Ilva).

c) As a consequence of *a)*, investments in Research and Innovation (R&I) in economic sectors could no longer be strategic, due to uncertain development policies (Kalkar; UIPP; Ilva).

d) As a consequence of *c)*, high costs for converting the production (Kalkar; UIPP; Ilva).

e) As a consequence of *a)*, different level of competitiveness among economic operators within the EU, due to the different level of environmental protection commitment by Member States and consequently different rules of implementation of EU legislation (UIPP).

f) Economic losses (measured as: personal income; enterprise annual volume of transactions; reduction in national GDP per economic sector) in specific sectors as tourism (due to the destruction of natural environments that attract travellers, seasons' changes, difficulty in providing facilities with drinking water, extreme climate events, etc.); agriculture, fishery, livestock farming and related food production chains (due to seasons' changes; extreme droughts; new pests; decline of soil productivity); forestry management (due to high water demands; risks of fires) (People Climate).

Workers:

a) Loss of jobs, due to the extreme of climate and environmental phenomena (UIPP; People Climate).

b) Conflict between work, public health and economic interests in strategic industrial development decisions (Kalkar; Ilva).

c) Negative effects on workers' health, due to extremely dangerous working conditions (Ilva).

d) Loss of traditional businesses or forms of works, due to the impossibility of sustaining traditional practices that cannot be implemented in equivalent environments, created as compensation for the destruction of the original ones (People Climate).

e) People's displacement and abandonment of farmlands in search of jobs' opportunities in the cities (UIPP; Ilva; People Climate).

Civil Society Organizations:

a) Denial of the right to participation and access to justice due to the impossibility of being heard in national decision-making processes or being recognized the right of standing in legal processes, in order to defend the collective interests of their members (Ilva; People Climate).

b) Loss of cultural identity of local communities (cultural genocide), in particular those whose existence is directly linked and depend on the state of health of specific ecosystems (People Climate)

c) Loss of traditional businesses or forms of works, due to the impossibility of sustaining practices that cannot be implemented in equivalent environments, created as compensations for the destruction of the original ones (People Climate).

d) Ecocide, that is mass species extinctions due to anthropogenic causes.

Citizens:

a) Violation of different constitutional rights: to life, to own cultural identity, to private family life, to health, to work (all cases).

b) Violation of rights of future generations, that will not be able to enjoy the earth ecosystems in the same current environmental conditions (all cases).

c) Impossibility of self-sustaining the livelihood of her/his own family, due to the loss of productivity of the land or the depletion of local natural resources or to the impossibility to satisfy basic needs such as drinking water or healthy air (Ilva; UIPP; People climate).

d) Increase in the risk of extreme natural disasters and diseases, due to the loss of ecosystem services previously guaranteed by Nature (Ilva; People climate).

e) As a consequence of d), increase of the costs related to individual risk insurances and per capita tax increase, due to the necessity of recovering the costs for compensation, restoration and adaptation to environmental and climate risks (all cases).

f) Forced displacement due to the necessity of leaving unhealthy environments or unproductive lands, where it would be dangerous or impossible to survive (People climate).

g) Economic losses due to the devaluation of properties in endangered or degraded ecosystems (Kalkar; Ilva).

The analysis of the impacts on employers and workers show common consequences from opposite perspectives: loss of jobs, in case of prohibition of certain economic activities based on fossil fuels and over –exploitation of natural resources; economic losses in the sectors that would be limited by stricter rules in defence of Rights of Nature.

The double-facet of the impacts analysis depends on the fact that the above classification of stakeholders has two main methodological shortcomings.

First, from a market-oriented economic point of view, these broad labels mask the competitiveness that exists within different economic sectors, assuming the point of view of the most powerful economic subjects inside each category as the only one representative of the entire group. For instance, in agriculture, the interests of intensive single-crop farming do not evidently correspond to those of agro-economy or organic food producers, even if they both can be included in the employers/enterprises category.

This is also in open contradiction with the composition of the EU business sector, that is mainly composed by small companies[90]. Moreover, a single individual can be at the same time considered as belonging to many stakeholders' category, depending on the different role s/he can play (e.g. a young woman, affected by chronic asthma, activist in an environmental movement, employed in a big plant protection enterprise).

This first critique leads directly to the second shortcoming. The main methodological problem in environmental matters is how to define the general and vague category of "Stakeholders"[91]. As mentioned, from a Rights of Nature perspective (but also applying the One Health approach[92]), Nature must be included in the list of relevant stakeholders. And even more so if all the scientific assumptions that we have enlisted in *Section 1* are correct, **we are all equally vulnerable in the face of the ecosystem, climate and fossil emergencies** the world is facing (see *Section 5.1*).

We can conclude that this condition of vulnerability, shared by humans, non-humans and nature, should justify the prevalence of the **common interest of survival and maintaining the Earth's living conditions** above all the different economic and non-economic interests within and among the various "stakeholders" categories.

[90] See the EESC Opinion on the "*European Charter for Small Companies*", OJ C 204, 18.7.2000, at 57.

[91] LYONA C. et al. *Five Pillars for Stakeholder Analyses in Sustainability Transformations: The Global Case of Phosphorus*, 107 *Envtl Sc. & Policy*, 2020, 80-89.

[92] «*One Health is a collaborative, multisectoral, and transdisciplinary approach — working at the local, regional, national, and global levels — with the goal of achieving optimal health outcomes recognizing the interconnection between people, animals, plants, and their shared environment*»: Centers for Disease Control and Prevention, US Department for Health and Human Service, https://www.cdc.gov/onehealth/index.html. See also the Manhattan Principles on "*One World, One Health*" at http://www.oneworldonehealth.org.

3.3 Examples of barriers from the distinct civil society groups

The impacts listed in § 3.2, when transformed in legal claims, are able to highlight the many barriers that the distinct civil society groups face, when defending their own environmental rights or interests within the current EU and national legal framework. Moreover, counter-arguments, both by parties, prosecutors or judges, also show the cultural and economic barriers, often used as dogmas, that allegedly stand against a change of paradigm towards Rights of Nature. A contextual explanation of each assumption in relation to each case study will be given in the following paragraphs.

Here follows an overall description of each barrier.

Legal barriers:

- **No or limited access to justice**: "People Climate case" shows individuals are still far from having their right to stand in EU courts against EU acts that they consider in violation of their (environmental) rights, despite the EU being part of the Aarhus convention. Following art. 263 TFEU and the EU Court of Justice case law (see *Annex 9*), the conditions for an individual to have access to the EUCJ to review the legality of EU acts are of very strict interpretation. As an alternative, individuals can challenge EU acts through both art. 277 and art. 267 TFEU mechanisms. However, on one hand, the legal grounds for appealing to art. 277 TFEU are very limited; on the other hand, the preliminary reference procedure requires individuals to begin a lawsuit in their own country. This makes higher the times and costs of the procedure and it does not provide any guarantee to reach the objective.
- **No or limited participation to the decision-making process** on environmental issues, that also impact on other individual fundamental rights: "Ilva case" is a clear example of the guilty misrepresentation of the States' commitment to implement the Aarhus Convention in administrative processes. It shows a common approach by all Member States and the EU institutions to a procedural interpretation of the participatory principle, that allows the phenomenon of salami slicing to be considered legitimate, although parties have repeatedly demonstrated in courts that in big transnational development or infrastructural projects this interpretation leads to the corruption of the EIA/SEA results and their meaningfulness. In fact, the environment protection objective is frustrated by the fragmentation of the procedure.
- **Separation of Powers**: courts may use this argument to avoid taking into consideration people's claims, on the basis of a supposed violation of legislative or administrative competences. In particular, this happens when they are called to judge on legislative omissions; or to apply the precautionary principle on new technologies or infrastructure. All these parameters are very vague and give courts a broad discretion upon acting or not (Kalkar; Ilva).

Cultural barriers:

- **The "all or none" argument**: one of the main arguments used against the shift to a Rights of Nature paradigm is that it would be able to produce concrete effects to counteract climate change and environment degradation only if all the Nations of the world would accept to be bound by it ("UIPP case"). This same argument has been used in different climate justice cases around the world, and some national courts have rejected it, considering that the international commitments assumed by the national States to reach specific objectives of GHGs emissions' limitation (UN Agenda 2030; Paris Agreement 2015; EU objectives of climate neutrality; etc.)

are to be considered compelling even if each action alone would not solve the entire problem. In particular, in the "Urgenda case", where plaintiffs (a NGO representing a large group of Dutch citizens) asked for the Government to take more actions against climate change, the Supreme Court affirmed that «*the Netherlands is obliged to do 'its part' in order to prevent dangerous climate change, even if it is a global problem*»[93]. In particular, it affirmed that the State has a partial responsibility in climate change reduction, deriving from international obligations, such as the UNFCCC ("UIPP case").

- **Fake news and mass media hyper-simplification of problems** contribute to raise anti-scientific bias and ignorance[94] about the interdependence between humans, animals and the environment (as recognized also by the above mentioned One Health approach). Moreover, they reinforce populist communication strategies[95] based on the unacceptable and false choice option between two evils, that from both sides always implies giving up a fundamental right (Ilva).

Economic barriers:

- **The defence of the current relations of power within the global market**. Governments and enterprises very often use this argument, asserting that recognizing Rights of Nature and supporting an eco-systemic shift in environmental law would produce an economic catastrophe. They propose a scenario where the whole economic system would fall under the constraints imposed by new restrictions on economic growth and development: the failure and closure of enterprises; as a consequence, loss of jobs; economic cuts in Research & Innovation. Enterprises often see environmental issues as an attempt to their material means of profit, generating a conflict of irreconcilable interests. This same position is often shared by public institutions, divided between international obligations to environment protection objectives and internal responsibilities towards the national productive sector, in order to guarantee to national enterprises a favourable position in the market (Ilva, UIPP). As we have said in the impact analysis in § 3.1, this is only a one-facet picture. First, plaintiffs in the "People Climate case" have demonstrated that higher measures of GHGs emissions limitations are absolutely feasible in the current EU economic system. And even if the EU has not yet revised and determined its new 2030 climate target, the objective of climate neutrality within 2050 has already been fixed. Second, there is a whole range of possibilities of different economic models based on a sustainable relationship between man and nature, that are never taken into consideration because they imply a change in the current relations of power (Ilva; UIPP, People Climate).
- **Incapacity of national policy-makers to implement long-term strategies**[96], due to the electoral costs of their implementation and to the close interdependence between the transnational economic system, the international financial system and States' political institutions (Ilva).

[93] https://www.urgenda.nl/en/themas/climate-case/.

[94] The EESC has already recognized that lack of knowledge of ecological processes in society was a main problem to face in the Opinion "*Biodiversity beyond 2010*", NAT/471 CESE 1178/2010, JO C 48, 15.2.2011.

[95] VINEIS P. *Salute senza confine. Le epidemie al tempo della globalizzazione*, Torino, 2014, 28.

[96] The EESC had already recognized this barrier (the fact that «*the world of politics places short-term economic interests above the long-term effects of ecosystem services*») in its Opinion "*Biodiversity beyond 2010*", NAT/471 CESE 1178/2010, JO C 48, 15.2.2011.

3.4 Fragmentation of parameters and discretionary powers

Another situation that limits the condition of all stakeholders in the EU is the **absence of homogeneous and uniform legal parameters in the exercise of discretionary powers by decision-makers and judges**. The use of discretionary powers is uneven in individual contexts (EU, State, local levels) and the protection of the environment is conditioned by these differences.

This is mainly due to four reasons:

- the **absence of "common constitutional traditions"** of the Member States regarding environmental protection;
- the prevalence of the **"constitutional identity"** of States in the organization of their system of sources and mechanisms of argumentation and interpretation of law (identity now explicitly recognized by art. 4 (2) TEU)[97];
- the qualification of the **environment as "shared competence"** by the TFEU;
- the EU environmental principles (precaution, prevention etc.) featured by a very general content and therefore more likely to **discretionary interpretations** by decision makers.

The existence of "shared competences" and environmental principles is not a problem in a national legal system. It becomes so in a multilevel structure like the EU, with specific regard to the environment. This is because Member States claim different "identities" and because it is impossible to impose a "common constitutional tradition" of environmental protection at the supranational level.

In this perspective, a EU legal parameter on the Rights of Nature, based not only on principles but above all on the rules of prevalence of Nature for a supranational ecological interest, would favour a convergence of new methods and approaches. It would not affect the "identity" of Member States, but would rather guide the discretionary powers of their decision makers.

If we observe the situation existing in the States involved in the four case studies, we immediately notice the fragmentation of sources that feeds fragmentation of methods and approaches to environmental problems [see *Annex 7*].

This difference of "constitutional identity" is also resembled in the provisions on the stakeholders access to environmental justice [see *Annex 8*].

The fragmentation of the parameters of use of discretionary power, together with asymmetries in access to justice, hinder the evolution in the EU of a leading role of stakeholders in environmental strategies.

On the same token, bringing out a common vision of ecological interests among the stakeholders and their projection on a supranational level seems quite difficult.

[97] See CALLIESS Ch. et al. (eds.) *Constitutional Identity in a Europe of Multilevel Constitutionalism*, Cambridge, 2019.

The cases analysed provide therefore examples of failure of environmental law with regard to stakeholders' protection and participation, due to a different legal protection of the relationship between human life and the environment.

3.5 Overview of the main critical issues

In summary, the main weaknesses emerging from the case law analysed so far are as follows:

1) In Germany, after the BVerfG "Kalkar" decision, a discussion among stakeholders began on the existence of a general rule "*in dubio pro natura*". However, it will only be used in reference to the human dimension of life and its interests ("*in dubio pro securitate*"). Nature, even after the introduction of art. 20a in the German Constitution, remains marginalized in the debate on the interpretation of law. Stakeholders maintain a marginal role.

2) The complex "Ilva case" in Italy demonstrates not only the total absence of a EU rule of non-regression in environmental decisions, but even the possibility of deciding for the "further degradation" of already degraded environmental contexts, in the name of strategic interests of State.

3) The French case highlights the problem of the balance between economic interests and environmental protection interests, in situations where economic interests have international relevance (interests in "globalized" trade), while environmental protection is local ("sectoral" protection of the environment) and can become an "obstacle" to trade.

4) The problem of access to justice emerges in the EU case, with regard to previous cases, such as the cases Plaumann, Pequeños Agricultores, Danielsson, Inuit, Microban[98], which seem to contradict the principle of effective judicial protection of rights.

In all these cases the different national "constitutional identities" emerged, but also the wide discretion of decision-makers in implementing the legal parameters of environmental protection.

Specifically, discretionary power has conditioned the use of:

1) the Aahrus Convention in administrative proceedings and in the assessment of their legitimacy by the courts (totally absent in Italy, in the "Ilva case");

2) some EU environmental principles, including the "precaution" principle, the "polluter pays" principle, and some parameters such as the "high protection" of the environment (highly discretionary and changeable in Italy, Germany and France);

3) some international sources of environmental protection, such as the Convention on Biological Diversity, to argue for the existence of supranational ecological interests (totally absent in all cases);

4) reference to the jurisprudence of the EU Court of Justice and the European Court of Human Rights (completely marginal in Italy in the "Ilva case");

[98] Case 25/62 (Plaumann & Co v. Commission, 15 July 1963); case T-219/95 R (M.-T. Danielsson and others v. Commission, 22 December 1995); case C-50/00 P (Unión de Pequeños Agricultores v Council of the European Union, 25 July 2002); case T-262/10 (Microban International Ltd and Microban (Europe) Ltd v. European Commission, 25 October 2011); case C-583/11 P (Inuit Tapiriit Kanatami and Others v European Parliament and Council of the European Union, 3 October 2013).

5) reference to elements of the common European legal traditions, such as the "*neminem laedere*" principle (totally absent in all cases);

6) legal concepts and definitions of the environment and Nature (highly discretionary in all cases, where environment becomes synonymous with "good", "value", "general interest", "public health", "ecosystem" etc.);

7) relationship between stakeholders and technical-scientific experts in public discussions or decision on environment (partially absent in France, totally in Italy).

3.6 Germany: "*in dubio pro*"?

The analysis of the German context starts from the "Kalkar Urteil" of the *BVerfG* (BVerfGE 49, 89, 137 ss), which expressed the precautionary principle through the formula "*in dubio pro securitate*". In this decision, the issue of scientific doubt related to health, the environment and technologies is discussed through the so-called "three-step theory" (*Dreistufen Theorie*). It defines three levels of uncertainty regarding the existence of a danger for human beings. The decision is important because it explains two constituent elements, namely human life, on the one hand, and the risk arising from human action, on the other.

This "binary relationship" is based on three levels of "risk" for the human being: "upcoming risk", "possible risk" and "residual risk". Three different scenarios are linked to the three risk hypotheses:

1) in the first case, there is the rejection of a risky project due to the absolute prevalence of the protection of human health and the environment (as for the prevention principle and the "*in dubio pro natura*" principle);

2) in the second case, the highest levels of guarantee for both health and the environment are imposed through risk-sharing methods (in terms of information and public participation in the discussions on the decision and transparency in the cost-benefit analysis etc.);

3) In the third case, a discretionary and unilateral decision of the political decision-maker is adopted.

The Kalkar decision is part of a previous German debate dating back to the 1970s and is characterized by the following elements:

a) the definition of fundamental rights as part of a "constitutional optimization mandate" (there must be the highest possible standard with regard to the protection of rights);

b) the discussion on the conflict between collective health and human freedom in cases of "involuntary exposure" to pollution and anthropogenic transformations of the environment "for the benefit of human freedoms" (*in dubio pro securitate* or *in dubio pro libertate*?);

c) the progressive recognition of a "public duty of protection"[99] of the environment by the State in the context of ecological degradation, with the discussion on the constitutional basis of the principle *in dubio contra projectum* (with reference to the negative externalities caused by the infrastructures);

[99] MURSWIEK D. *Die staatliche Verantwortung für die Risiken der Technik*, Berlin, 1985.

d) the definition of the environment as a "value" or as a "method" of resolving conflicts between fundamental rights; the relevance of the issue of Rights of Nature.

The German context was characterized by several elements:

a) specific constitutional provisions on rights, energy and the environment (articles 2 GG, 74 (1) GG, and then 20a GG);
b) existence of the first law in Europe on the precautionary principle (so-called *AtomGesetz* of December 23, 1959);
c) existence of the first debate in Europe on the Rights of Nature[100];
d) existence of public discussions, also through institutional tools such as the "citizens' reports" (*Bürgergutachten*), on environmental protection and the use of technologies.

After the "three steps" of the "Kalkar case", two levels of environmental protection have been identified, based on the distinction between "risk" and "danger".

This distinction was to favour the achievement of two objectives:

1) To protect the environment in general, according to the level of scientific knowledge on "risk";

2) To qualify the concept of "danger" not only on the basis of scientific uncertainties, but above all on the basis of the importance of protected "goods" (human life).

In this way, faced with uncertainties about the "risks" of human action in the environment, a double balance would have been ensured:

- between human freedom (*in dubio pro libertate*), environmental protection by public authorities without the sacrifice of human freedom (*in dubio pro securitate*), absolute limitation of human freedom in the name of the "danger" of life in the ecosystem (*in dubio pro natura*);
- between discretion in environmental policies (in the presence of "risks") and right of the stakeholders to access justice (in the presence of "danger" for the life).

However, this separation between "risk" and "danger" did not work. It appears to be an abstract concept. For example, it is omitted with reference to Art. 20a GG precisely for ecosystem protection. Stakeholders have not implemented their role in environmental policies and access to justice.

The approach to Nature's problems has remained fragmented and without an integrated vision between fundamental rights and Nature. Moreover, the separation between "risk" and "danger" has always concerned the human being, not the ecosystem. The "*in dubio pro natura*" rule never actually emerged.

3.7 Italy: law making in regression?

The "Ilva case" is very complex[101] and highlights the following questions:

a) the problem of regression in environmental protection;

b) the exclusion of stakeholders from environmental decisions;

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[100] BOSSELMANN K. *Die Natur im Umweltrecht. Plädoyer für ein ökologisches Umweltrecht*, *NuR*, 1987, 1-6; HOFMANN H. *Natur und Naturschutz im Spiegel des Verfassungsrechts*, *JZ*, 1988, 265-278; LEIMBACHER J. *Die Rechte der Natur*, Basel, 1988; HEINZ K. *Eigenrechte der Natur*, *Der Staat*, 1990, 415-439; WEBER J. *Rechtsstaat und Rechte der Natur*, 2 *IUR*, 2, 1991, 81-86.

[101] See FIDH *The Environmental Disaster and Human Rights Violations of the ILVA Steel Plant in Italy*, Paris, 2018; LAI A. et al. *The Governmentality of Corporate (un)Sustainability: the Case of the ILVA Steel Plant in Taranto (Italy)*, 23 *J. Management & Governance*, 1, 2019, 67-109; https://efface.eu/case-study-ilva; https://www.ecologic.eu/12327.

c) the use of "axiological" arguments to legitimize a wider discretion of public decision-makers.

The Ilva industrial plant was established in Italy a long time ago, when no environmental legislation existed. Its environmental impacts have never been systematically analysed. No stakeholder participation has been implemented within its strategies. For decades, the Italian State has not drawn up any environmental compatibility plans for this industrial installation. Environmental problems have increased over time. But over time, the interests of the stakeholders have also increased, connected to this activity (employment of workers, local economic development, strategic interests on steel etc.). Only since 2006, with the Italian implementation of the EU environmental regulation[102], the State and stakeholders have started to discuss Ilva's pressure on the territory. Dramatic data of environmental unsustainability and of public health protection have emerged[103]. This has fuelled several conflicts between stakeholders (Ilva workers, citizens, environmental associations) and between stakeholders and the State.

In this situation, the Italian State has not promoted dialogue or participation with the stakeholders. In the name of "national strategic interests", it has preferred to use its discretionary power. In this way, the State:

- has adopted a special regulation in favour of Ilva (so-called "Salva Ilva" regulation), despite environmental and public health problems;
- has derogated from the general rules of environmental protection and access to justice in Italy.

All this has caused a constant environmental regression both on a legislative and jurisprudential level. In Italy the legislative level was subject to several European infringement proceedings that will not be dealt with here. Here, it is important to observe in particular the jurisprudential regression. Already in 1979, the Italian Supreme Court of Cassation (Judgment no. 5172 of 6 October 1979) recognized the "the right to a healthy environment" in a "mixed" perspective: partly anthropocentric and partly focused on nature.

It established that:

- the right to an healthy environment is separated from all other rights;
- there is a need to preserve the minimum conditions for the environment to remain "healthy" over the years, in order to protect people;
- this protection must be guaranteed everywhere.

In this decision, the environment was defined as an essential condition for the balance of human health. The Italian Constitutional Court confirms this approach and makes some important statements regarding:

a) the definition of the environment in ecosystem terms;

b) the affirmation of the "*neminem laedere*" principle as a criterion of joint protection of the environment and human health, for the benefit of present and future generations.

There are two basic relevant judgments of the Constitutional Court: Judgment no. 210/1987 in which it was stated that the environment must always include "all natural resources" as well as Judgment no.

[102] Italian Legislative Decree no. 152/2006 ("*Norme in materia ambientale*").

[103] MANGIA C. et al. *Effectiveness of an Air Quality Intervention: an Accountability Study in a Highly Polluted Industrial Town*. 13 *Air Quality, Atmosphere & Health*, 2020, 289-296.

641/1987 in which was stated that the "*neminem laedere*" principle preserves the environment for present and future generations.

This approach is confirmed until 2007: in fact, in Judgment no. 378/2007 referred to the environment as: a "biosphere, system of interactions of complex life cycles, circulation of vital elements". All these terms are used similarly in court cases concerning Rights of Nature.

On these grounds, a new problem for the State emerges: the divergence between constitutional contents of environmental rights and "special" and "derogating" political strategies in favour of Ilva. Some cases were brought to the Italian Constitutional Court. In this context, two critical issues arise:

- stakeholders cannot stand before the Constitutional Court;
- between 2004 (Judgment no. 196/2004) and 2010 (e.g. Judgment no. 105/2008; Judgment no. 30/2009; Judgment no. 1/2010), the Italian Constitutional Court modified its approach by addressing the environment no longer as an "ecosystem and biospheric dimension of reality", but as a "value".

This change of paradigm generates a paradoxical effect: the definition of the environment as a "value" allows to legitimize the "regression" of environmental protection on a constitutional level.
Indeed, the Court affirms three new "rules of environmental law":
- the environment is a "value" that "coexists" with other "values" (including economic, political and cultural values);
- the environment is a "primary" value, but not an "absolute" value;
- as a "not absolute" value, the environment is "balanced" with other interests (so-called italian "unequal balancing" between growing negative environmental externalities and positive exclusively economic externalities[104]).

This paradigm shift, based on the environment as a "value", is used in the decisions of the Constitutional Court regarding the "Ilva case" (Judgments no. 85/2013 and no. 58/2018).

The pillars of the judgment of the Constitutional Court on Ilva are the following ones:
- the State has discretion over Ilva in the name of its "national strategic interests";
- this power determines a "presumption" of compliance of environmental assessments with Ilva's actual sustainability;
- in this scenario all rights must be balanced and "no value" can prevail, not even the environmental one.
- the balance between negative externalities (public health and the environment) and positive externalities (employment, strategic development of the steel sector, local economic growth) comply with the constitutional "values" dimension.

Nothing is discussed about the role of the stakeholders, on the Aarhus Convention, on the scientific complaints about the unsustainability of the environmental context of Ilva. Obviously nothing is argued about Ilva's environmental and climate sustainability in the current ecosystem, climate and fossil emergency (Ilva is the largest Italian industrial installation in terms of CO_2 emissions).

[104] GIURICKOVIC DATO A. *Il bilanciamento tra principi costituzionali e la nuova dialettica tra interessi alla luce della riforma Madia. Riflessioni in margine al 'caso Ilva'*, 12 www.federalismi.it, 2019, 1-28.

The Italian Constitutional Court did not take into consideration the concrete situation of the stakeholders and issues of sustainability.

This approach is currently prevailing in Italy: Ie. the environment is not a constraint on discretionary power, but rather an "object" of its discretionary power; this "object" is qualified as a "value"; but this "value" cannot prevail over other "values" such as the political ones of the "strategic interests" of the State. As such, despite having been raised as a "value", the environment is balanced with other "strategic interests".

In this way two legal dimensions of the environment have been sacrificed:
- the objective dimension of the environment as a biosphere and ecosystem;
- the environment as tool for protection and conservation of nature.

In summary, we may say that Judgment no. 196/2004 is a good example of this perspective: it states that the "primary value" of the environment "does not legitimize an absolute primacy". The axiological reference to "value" has turned into a "hermeneutic trap"[105].

The "Ilva case" provides dramatic evidence of this trap: the protection of the environment and human health must be "balanced" with "other interests" (such as economic interests, interests of strategic investment, etc...) and not only with other "rights". Italian judges have ignored the non-regression principle and their approach evades the application of the "polluter pays" principle.

Not surprisingly, Italy was condemned by the European Court of Human Rights (case "Cordella et al. v Italy", 2019) as a result. The comparison between the judgments of the Italian Constitutional Court and that of the European Court of Human Rights is emblematic:
- the stakeholders had access to the European Court of Human Rights but not in Italy;
- the European Court of Human Rights has analysed the scientific studies on the environmental context of Ilva, while the Italian Constitutional Court has not;
- the European Court of Human Rights considered the environment not a "value", but a concrete situation of risks and dangers, which limits the discretion of State power, unlike the Italian Constitutional Court;
- the European Court of Human Rights affirmed the primacy of the right to health and the environment over the "strategic interests" of the State, while the Italian judges said otherwise.

This contradiction further fuelled more social and environmental conflict over the "Ilva case".

3.8 France: "one small step" for the environment?

When analysing the 2020 UIPP French constitutional case in the light of the "ecological conversion of the law", the decision can be considered as a small step forward towards achieving that goal; from the point of view of the national constitutional identity, it can be said to be "a giant leap" for French environmental law.

The case was about the validity of a rule that prevented French companies producing, stocking and exporting plant protection products that contain prohibited active substances on the basis of EU

[105] About the hermeneutic traps in Judge making law, see WILLIAMS M. *Secrets and Laws*, London, 2005, 85-87.

Regulation no. 1107/2009. The contested national legislation had been adopted in implementation of the aforementioned EU Regulation. However, the plant protection and seeds producers' unions contested the constitutional legitimacy of the rule, by invoking the freedom of enterprise, because the EU Regulation only prohibited the circulation of products inside the EU market, whereas the extension of the scope of provision to export had been introduced by the French legislator.

The FCC upheld the rule, by declaring the protection of the environment an "objective of constitutional value". This represents an overruling of previous constitutional decisions and a significant upgrade of the legal status of the environment that the FCC had been considering until then "an objective of general interest"[106]. So, even without recognizing the protection of the environment as a constitutional right, the new status legitimizes the legislator to limit other constitutional rights and freedom, in order to protect the constitutional objective of the environment, within the limits of reasonable and not excessive measures.

It is noteworthy that the FCC was not at all obliged to follow this innovative path of argumentation. At least two different precedents could have been used to solve the case: the 2015 decision on the production, import-export and circulation of packaging, container or utensil containing bisphenol A for food[107]; and the 2016 decision on the use of plant protection products with neonicotinoids[108].

In the first one, the parameter used by the FCC was the constitutional objective of the protection of public health. The FCC stated that the export prohibition for French enterprises would have not guaranteed the constitutional objective, due to the fact that non-French companies could still export the same dangerous products in foreign countries (the "all or none" barrier: see above, § 3.2).

In the second one, the general interest of the environment had also been invoked, and the FCC upheld the restrictions as reasonable and proportionate, because they were applied only inside the internal EU market[109]. In the "UIPP case", the FCC has decided to ignore both precedents, and to stay the constitutional objective of the protection of the environment.

From the "ecological conversion" perspective, the decision is relevant not only because of the recognition of the environment (common heritage of mankind, as stated in the preamble of the Charter) as a constitutional objective, but mainly because of the cross-border nature recognized the "environmental protection" goal. In fact, that FCC has stated that a violation occurs even when dangerous activities realized in France may affect the environment abroad (FCC decision, § 6). The **environment is** recognized as **a universal heritage**, in the Rights of Nature perspective and One World-One Health approach. The concept embraces at least all human subjects, and so it is a step forward towards the Rights of Nature eco-systemic approach[110].

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[106] PIFTEAU C. *Charte de l'environnement : "la protection de l'environnement, patrimoine commun des êtres humains, constitue un objectif de valeur constitutionnelle"* (Conseil constitutionnel, 31 janvier 2020, QPC) 03 février 2020, http://www.arnaudgossement.com/archive/2020/01/31/charte-de-l-environnement-la-protection-de-l-environnement-patrimoine-commu.html; CHAMPEIL-DESPLATS V. *La protection de l'environnement, objectif de valeur constitutionnelle: vers une invocabilité asymétrique de certaines norms constitutionnelles? Remarques sur la décision n° 2019-823 QPC du 31 janvier 2020, Union des industries de la protection des plantes, La Revue des droits de l'homme, Actualités Droits-Libertés*, February 2020, https://journals.openedition.org/revdh/8629.

[107] Décision n° 2015-480 QPC du 17 septembre 2015.

[108] Décision n° 2016-737 DC du 4 août 2016.

[109] Conseil Constitutionnel, Commentaire. Décision n° 2019-823 QPC du 31 janvier 2020, https://www.conseil-constitutionnel.fr/sites/default/files/as/root/bank_mm/decisions/2019823qpc/2019823qpc_ccc.pdf.

[110] ROUDIER K. *La protection de l'environnement, patrimoine commun des êtres humains, nouvel OVC*, 10 February 2020, https://actu.dalloz-etudiant.fr/le-billet/article/la-protection-de-lenvironnement-patrimoine-commun-des-etres-humains-nouvel-ovc/h/cf3295cecd09942049550250daa77514.html.

Beside its legal implications, the decision could have an impact also on the future implementation of French environmental policies. In fact, the decision upholds an Act that is not based on the principles of the acceptance of risks and of compensation of the future environmental damages and losses, but instead of ***ex ante*** **protection of the state of the environment**, on the basis of the scientific evidence currently known.

If we contextualize the decision, some elements can be considered in order to explain its somewhat pioneering conclusion. First of all, the personal trajectory of the FCC Chief Justice Laurent Fabius, former President of the COP21. Second, the increasing general public mobilization in France with respect of environmental and climate issues, evidenced, for instance, by the great success of the 2018 online petition about the "Affaire du siècle", in support of a legal climate action against the State, that collected more than 2 million signatures in ten days[111].

However, the ambition of the decision with respect of the "ecological conversion" goal must not be overestimated. Many favourable conditions have played a role simultaneously in the case, so raising doubts on the effective impact of the decision for the future.

Firstly, the FCC had been called to decide on an Act that already included high standards of environmental protections. Laurent Fabius has stressed this fact during a public conference in the Faculty of Law at the University of Lyon 3, after a regional session of the FCC. He has said that in cases where the problem denounced would have been an omission by the Legislator, for instance guaranteeing levels of GHGs emissions reductions judged too low by the plaintiffs, the FCC would have not been able to react properly. He has declared that such a situation would require a change in the French legal system of protection of rights[112].

Secondly, the decision' rationale is grounded both in the protection of the environment and the protection of health. Both interests are recognized as human interests. In fact, the environment is a common heritage of mankind, so humans' interests are at the centre of the FCC concerns.

Thirdly, in line with previous case law, the FCC has considered the restriction to the freedom of enterprise "not disproportionate", also because the Act provided for a significant 3 years delay in the enforcement of the provision, in order to allow sufficient time to the incumbent companies to reconvert their production.

[111] https://www.europe1.fr/societe/laffaire-du-siecle-avec-plus-de-18-million-de-signatures-la-petition-pour-le-climat-peut-elle-aboutir-3829112.

[112] The video of the conference can be seen here: https://facdedroit.univ-lyon3.fr/retour-sur-conference-du-president-du-conseil-constitutionnel-laurent-fabius; see also the comments by Le Billet *Un nouvel objectif de valeur constitutionnelle: la protection de l'environnement, patrimoine commun des êtres humains. Obs. ss. Décision n° 2019-823 QPC du 31 janvier 2020, Union des industries de la protection des plantes* (https://actu.dalloz-etudiant.fr/le-billet/article/).

3.9 EU: what to do together for the future?

The "People's Climate Case" highlights one of the main failures of EU Environmental Law, already stressed in *Section 2* of this study: the limit of legal standing for EU citizens for challenging EU legislative acts.

The case is a climate action proposed before the European General Court against the European Parliament and the Council of the EU, by 36 individuals from ten families from Portugal, Germany, France, Italy, Romania, Kenya, Fiji and the Swedish Sami Youth Association Sáminuorra. In particular, applicants referred to a set of rules called "GHG Emissions Acts", whereby the EU seeks to comply with the Paris Agreement obligations: Directive 2018/410, Regulation no. 842/2018 and Regulation no. 841/2018, covering different categories of GHG emissions sources (power generation, heavy industry and aviation - ETS; sources outside the ETS scope; land use and forestry). They complained that the actions taken by the EU institutions were absolutely inadequate with respect to the real need to prevent dangerous climate change and not enough to protect their fundamental rights of life, health, occupation and property. They asked the Court for an injunction to the EU institution to reduce between 50 and 60% the GHG emissions by 2030.

The Second Chamber of the EU General Court issued an order on the 8th of May 2019, declaring the application inadmissible. Applicants proposed appeal to the Court of Justice on the 23rd of July 2019 (*Carvalho and Others v Parliament and Council*, case C-565/19 P). At the moment of writing, the appeal is still pending.

The **lack of standing** upon which the EU General Court has dismissed the application derives from a consolidated interpretation given by the EU Court of Justice to art. 263 TFEU, that allows any natural or legal person to institute proceedings against an act addressed to that person or which is of "direct and individual concern" to them, and against a regulatory act which is of direct concern to them and does not entail implementing measures. As already mentioned in § 2.2.2, the EU Courts case law is sufficiently firm about the interpretation of the expression "direct and individual concern", which is based on the so-called "Plaumann formula", according to which: «*Persons other than those to whom a decision is addressed may only claim to be individually concerned if that decision affects them by reason of certain attributes which are peculiar to them or by reason of circumstances in which they are differentiated from all other persons and by virtue of these factors distinguishes them individually just as in the case of the person addressed*» (*case C-25/62 Plaumann & Co v. Commission, 15 July 1963*).

Following the applicants' argument, the condition of an "individual concern" should be deemed satisfied when there is a "serious" violation of a fundamental right or the act "interfere with the essence" of that right. This interpretation would be in line with art. 9 (2) of the Aarhus Convention, that demands for "a sufficient interest and impairment of a right", to challenge the substantial and procedural legality of any decision, act or omission subject to the public participation on decision-making in environmental matters. It would also be in line with national case law on constitutional judicial complaint for the protection of fundamental rights, even if we have shown that it is impossible to deduce a "common constitutional tradition" of the Member States both on the right to a healthy environment and on the judicial remedies guaranteed to citizens against normative violations of environmental standards of protection.

On the contrary, the EU General Court states that claiming a violation of a fundamental right is not a sufficient argument to consider the condition satisfied. In § 50 of the case, the EU General Court recognizes that a similar interpretation would allow every individual affected to take action against a legislative act, so frustrating the *ratio* of the provision, that is to limit access to court. With this reasoning, the Court explicitly admits that the goal of the provision is limiting access to justice against certain type of acts. Some legal scholars have argued that «*the arguments used by the Court of Justice in the case of standing for individual persons or environmental organizations are ideological rather than being based on sound legal grounds*»[113]. The position taken by the EU General Court is not quite understandable, considering the increasing political weight that the protection of the environment has been taking inside the EU legal framework in the last decades and the alleged **infringement of the fundamental right of access to environmental justice**. In fact, the denial of standing in the case at hands appears in contradiction with the Aarhus Convention[114].

The EU General Court's decision in the "People's Climate Case" fails to address substantial environmental issues. The claimed fundamental rights have not been discussed, even if there are some hints from the EU General Court's arguments that could be interpreted as the recognition of such violations (for instance, when the EU General Court admits that «*It is true that every individual is likely to be affected one way or another by climate change, that issue being recognised by the EU and the Member States who have, as a result, committed to reducing emissions*»).

It is quite self-evident that if the EU legal framework had recognized the Rights of Nature, the "People's Climate Case" would have had a different outcome and higher chances to obtain the injunction on GHGs emissions reduction required by the plaintiffs. The recognition of Nature as a legal entity implies also conceding standing to individuals and/or associations on behalf of Nature.

The "People's Climate Case" is also helpful to understand how an ecological approach to climate justice corresponds to a win-win matrix, where all the stakeholders, including Nature, obtain advantages in the medium-long term.

As far as the economic interests are concerned, all scientific, economic and engineering evidences confirm that a reduction of 50-60% of GHG emissions is technically and economically feasible for the EU, considering all the interests involved. These evidences have been implicitly confirmed by the European Green Deal Communication (COM(2019) 640 final, 11.12.2019), designated as one of the six priorities for the 2019-24 Commission. Even if the amended target for the GHG reductions in 2030 has not yet been agreed, the EU decarbonization by 2050 is a major objective and the "EU Climate Law" proposal, establishing the framework for achieving climate neutrality, that has already been submitted for consultation (COM/2020/80 final, 4.3.2020). So, this objective is considered feasible by the Commission.

On the merits, the "People's Climate case" shows that a stronger compromise in tackling climate change can be taken without a "unilateral" sacrifice of economic development, even if some sectors will eventually suffer more than others and for this reason must be supported in their ecological conversion

[113] KRÄMER L. *The EU Courts and Access to Environmental Justice*, in *Environmental Law Dimensions of Human Rights*, eds. Boer B., Oxford, 2015, 120.

[114] PIRKER B. *Access to Justice in Environmental Matters and the Aarhus Convention's Effects in the EU Legal Order: No Room for Nuanced Self-executing Effect?*, 25 *Rev. Eur. Comp. & Int'l. Envtl L.*, 1, 2016, 81-91.

to new sustainable activities. In fact, almost all plaintiffs claim a violation of their right to work and their freedom of enterprise, because their businesses have been negatively affected by climate change. This stresses the broad occupational opportunities that a truly sustainable and holistic economic model in harmony with nature could offer in the future.

Considering other human interests, the plaintiffs' reasoning was still based on anthropocentric premises, as they based their claim on their human rights to life, health, liberty, property, etc. Nevertheless, the reasoning reaches a broader scope, as far as it underlines the close interdependence between human rights and the Rights of Nature. The case demonstrates that Nature's interests are not opposed to human ones. Instead, they are complementary and interdependent, as we are all part of the same ecosystem.

3.10 The EU, Rights of Nature and SDG 16

The overview of cases demonstrates the contradictions, asymmetries and pitfalls of a segmented, reactive environmental law without an ecological strategy.

This situation does not comply with the sustainability objectives that the EU wants to pursue with the UN "Agenda 2030"[115]. In particular, it does not appear consistent with the Sustainable Development Goal (SDG) no. 16[116] and specifically with Target 16.3 («*equal access to justice for all*»)[117].

Access to justice remains the main obstacle for stakeholders in the EU[118]. In the perspective of the SDGs, access to justice is a constitutive element of sustainability. Exactly as it is in the perspective of the "ecological mandate" of the Rights of Nature. This means that the Rights of Nature are an opportunity to implement SDGs too.

Moreover, the relationship between effective access to justice and environmental protection is also a pillar of the UN Draft "*Global Pact for the Environment*"[119], also supported by the EU Commission[120]. Art. 11 of the Draft "*Global Pact*" is dedicated to access to justice. However, its wording is no different from what is already provided for in the Aarhus Convention. It establishes the "duty" of States to guarantee access to justice, just like art. 9 (3) of the Aarhus Convention.

Access to justice is not considered a right. Therefore, the perspective of the "*Global Pact*" is nothing new compared to current environmental law. The explanation is easy: the "*Global Pact*" continues to consider the environment as an "object" in relations between the State and individuals with their own rights. Its logic remains as mentioned above, in the quotation from Advocate General Kokott's Opinion.

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[115] The issue of EU "communication" of the SDGs is analyzed in ECA *Rapid case review. Reporting on sustainability: A stocktake of EU Institutions and Agencies* (2019).

[116] https://ec.europa.eu/eurostat/statistics-explained/index.php/SDG_16_-_Peace,_justice_and_strong_institutions#Access_to_justice.

[117] https://indicators.report/targets/16-3/.

[118] See FRA *Access to Justice in Europe: an Overview of Challenges and Opportunities*, Luxembourg, 2011; https://www.impel.eu/now-online-commission-report-on-eu-implementation-of-the-aarhus-convention-in-the-area-of-access-to-justice-in-environmental-matters/; and https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12165-Access-to-Justice-in-Environmental-matters.

[119] https://www.unenvironment.org/events/conference/towards-global-pact-environment.

[120] https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/1597-Global-Pact-for-the-Environment.

The perspective of the Rights of Nature prevents this misunderstanding. Nature as a "subject" becomes a constitutive element of access to justice and strengthens its effectiveness.

As we will see in the following *Sections*, the rules of the "ecological mandate" are strictly connected to the access to justice of all human subjects, without distinction of interests, because all human subjects have the right to live "in harmony with Nature". This "unconditional" right allows Nature to become "part" of access to justice.

In this perspective, access to justice in the name of the Rights of Nature complies with three important international sources:

- the UN "*Declaration on the Right and Responsibility of Individuals, Groups and Organs of Society to Promote and Protect Universally Recognized Human Rights and Fundamental Freedoms*" (A/53/625/Add.2-1999);
- the OSCE "*Guidelines on the Protection of Human Rights Defenders*" (2014):
- the UNEP "*Environmental Defenders Policy*" (2018).

Table 5: Summary of key findings and actions needed

1)	A selection of relevant national and EU case law shows that the lack of an adequate holistic strategic approach to ecosystem protection has negatively impacted the different sectors of society
2)	The analysis of the selected case law reveals the absence of homogeneous and uniform legal parameters in the exercise of discretionary powers by decision-makers and judges
3)	Stakeholders face several legal, cultural and economic barriers to defend their own environmental rights or interests within the current EU and national legal framework
4)	The rules of the "ecological mandate" are strictly connected to the access to justice of all human subjects, without distinction of interests, because all human subjects have the right to live "in harmony with nature". This "unconditional" right allows nature to become "part" of access to justice: if all human beings can have access to justice, this means that all life experiences "with" nature - not human interests "on" nature only - may enter the judicial proceedings.

4. Rights of Nature and strategic milestones for genuine ecosystem protection

4.1 Promoting an ecologically-based approach to law

The critical analysis of the current system of environmental law shows the need to shift towards a more systemic and integrated approach in the decision and law-making process. This would ensure the overcoming of the current structural flaws of EU Environmental Law and lead to a more effective system where humans and Nature are interdependent and in synergy.

Indeed, a legal system based on fragmentation that takes a mechanistic view rather than a ***whole system*** view is out of sync with both modern science and also the reality of the unprecedented challenges that we are now facing globally. Law is the tool for the implementation of policy. So far whilst strides towards taking a whole systems approach have started to enter the policy arena, without this being mirrored in law by innovative governance structures the policy has no mechanism for implementation. If we are to achieve the radical transformation outlined in the SOER 2020 we need to go beyond structures of law that simply manage the externalities of a dysfunctional system.

Instead we **need to realign our human laws with the rest of Nature** ensuring that all our systems operate in harmony to produce the desired result of a healthy Earth system that supports all life, including human life. This involves a paradigm shift from a purely anthropocentric world view to a world view that sees the human as one species in a radically interconnected web of life, where the wellbeing of each part is dependent on the wellbeing of the Earth system as a whole. As stated more than once in this study, the Rights of Nature can play a crucial role to this respect.

The Rights of Nature can shift the paradigm by reversing the structure of law that treats Nature as an object separate to us - which is at the root of the problem - by recognising Nature as a rights-bearing subject of the law equal to humans and corporations. This is the game-changing step that brings Nature into our governance system as a main "stakeholder" and facilitates the transition into a ***whole-systems*** framework of law, endorsing a **natural contract between earth and humanity.**

On a practical level, the **recognition of the Rights of Nature** would bring about the following **positive changes to our legal system:**

1) **Overcoming the current fragmented approach,** by providing an overarching context for our existence as part of the Earth as a whole.

2) **Recognising that the economy is a subsystem of human society which is a subsystem of the Earth**. In order to achieve this, we need to reframe the very notion of rights, establishing a hierarchy of rights that follows the natural hierarchy of systems.

3) **Empowering people** to pro-actively reject governmental actions which permit unwanted and damaging development, by enabling people to assert the rights of those ecosystems that would otherwise be destroyed.

4) **Changing the economic system** by enhancing Nature intrinsically. Property rights would be no longer absolute[121], they would be qualified by the rights of the ecosystems and species living therein.

5) **Establishing the human duty of care** towards Nature, including the obligation to restore the damage caused.

6) **Creating a suitable** legal tool for addressing power imbalances (e.g. indigenous people, women, children), through the legal recognition of Rights of Nature. Currently there is an imbalance between corporations, financial institutions and everyone else. The recognition Rights of Nature in the EU legal system might be an effective counterbalance in the face of policies that tend to concentrate corporate power, as in trade agreements that have been concluded in recent years, such as CETA (Comprehensive Economic and Trade Agreement), as well towards the commercialisation of Nature.

7) **Boost coordination between Rights of Nature and human rights protection** as well as a stable basis for the human right to life, because without the protection of Nature and the integrity of ecosystems humans cannot exist and flourish.

Figure 7: Ecological-based approach benefits

4.2 Paving the way to a different approach to law

The legal recognition of Rights of Nature requires a holistic and ecologically-based approach to law that is underpinned by the following **key principles** of **Earth Jurisprudence**:

1) **Wholeness**: The Earth is a living being, a single Earth Community webbed together through interdependent relationships. All life is sacred with inherent value and the Earth has her thresholds and

[121] The Constitutions set limits on property rights. However, they are currently seen as absolute with respect to Nature. But see case C-416/10, § 113: «*However, the right to property is not an absolute right and must be viewed in relation to its social function. Consequently, its exercise may be restricted, provided that those restrictions in fact correspond to objectives of general interest and do not constitute, in relation to the aim pursued, disproportionate and intolerable interference, impairing the very substance of the right guaranteed (Joined Cases C-402/05 P and C-415/05 P Kadi and Al Barakaat International Foundation v Council and Commission [2008] ECR I-6351, paragraph 355, and Joined Cases C-379/08 and C-380/08 ERG and Others [2010] ECR I-2007, paragraph 80)*»; § 114: «*As regards the objectives of general interest referred to above, established case-law shows that protection of the environment is one of those objectives and is therefore capable of justifying a restriction on the use of the right to property (see Case 240/83 ADBHU [1985] ECR 531, paragraph 13; Case 302/86 Commission v Denmark [1988] ECR 4607, paragraph 8; case C-213/96 Outokumpu [1998] ECR I-1777, paragraph 32; and ERG and Others, paragraph 81)*».

limits. The well-being of each member of the Earth Community is dependent on the well-being of the Earth as a whole.

2) **Lawfulness:** The Earth is part of a complex System, which is ordered and operates according to its own laws - which govern all life - including human beings. We need to understand Nature's laws and comply with them for our own wellbeing and for the wellbeing of the whole.

3) **Duty of Care, Prevention and Protection**: Earth Jurisprudence is a living law; a way of life, guided by moral responsibilities. We have a duty of care to all present and future members of the Earth Community to contribute to its integrity and well-being. If we create imbalance then we cause disorder in the Earth's dynamic equilibrium which we have a duty to restore.

4) **Rights of Nature**: The Earth and all of the Earth Community have three inherent rights: the right to exist, the right to habitat, and the right to fulfil their role in the ever-renewing processes of life.

5) **Mutual Enhancement**: Relationships within the Earth Community are reciprocal, a cycle of giving and receiving. Our role is to participate and contribute to the health and resilience of the Earth Community. What does not enhance the whole will ultimately not enhance us either.

6) **Resilience:** All healthy living systems have the ability to grow, evolve and adapt to change and disruption, without losing inner coherence. By complying with the laws that maintain life's health and vitality we strengthen Earth Community resilience as well as our own. In order to learn from Nature and understand its rules, we must become eco-literate and engage other ways of knowing: feeling, sensing and intuition[122].

Practicing this approach to law requires that we make decisions that prioritise the long-term ecological interests of the whole and of future generations, over short-term gain.

4.3 The added value of Rights of Nature in addressing ecosystem protection

In this paragraph, we will provide a scheme-box pointing out how **Rights of Nature, if properly endorsed in the legal system,** can **add value to** addressing **ecosystem protection**, by using as a **benchmark the milestones for ecosystem protection outlined in the SOER 2020**.

Box 1: Rights of Nature beneficial effects on ecosystem protection

1. Strengthening policy implementation, integration and coherence.

- In order to fully implement existing (and future) EU policies we need to:
  - ***a)*** develop innovative structures of law that can deliver systemic rather than fragmented results;
  - ***b)*** devise structures of law that can impact the key systems that need to evolve in order for the EU to meet its 2050 goals;
  - ***c)*** endorse Nature as a right, subject of law within a ***whole systems*** framework delivering more robust outcomes.

[122] ITO M., MONTINI M. *Nature's Rights and Earth Jurisprudence*, cit., 221-233; ITO M. *Nature's Rights*, cit.; BERRY T. *The Great Work: Our Way into the Future*, New York, Tower, 1999; CULLINAN C. *Wild Law. A Manifesto for Earth Justice*, Totnes, 2003.

2. Developing more systemic, long-term policy frameworks and binding targets.

- **The coverage of long-term policy frameworks needs to be extended to other important systems and issues, starting with the food system, chemicals and land use.** In order to develop a more systemic and long-term policy framework to protect ecosystems we need to:
  - ***a)*** Overcome the barriers posed by the current fragmented and short term approach to environmental concerns;
  - ***b)*** Develop a renewed long term legal framework, based on a Charter on the Rights of Nature, promoting a whole new legal framework, driven by an ecological approach, that would directly promote the re-orientation of the economic system and chains of production and consumption.

3. Leading international action towards sustainability.

- **The EU has significant diplomatic and economic influence in the global arena, which can be used to promote the adoption of ambitious agreements in areas such as biodiversity and natural resources use. To reach this target we need to:**
  - ***a)*** Work together on a global scale for ecosystem restoration;
  - ***b)*** Adopt an EU Rights of Nature based framework to establish the EU leading role in shaping best practices in this field;
  - ***c)*** Establish a new world order based on a whole systems approach as a necessary step to meet the challenges of our time.

4. Fostering innovation throughout society.

- **Changing trajectory will depend on the different forms of innovation that can trigger new ways of thinking and living.**
  The EU Charter for the Rights of Nature would help to foster this change. We need to:
  - ***a)*** provide clear direction to innovation needs;
  - ***b)*** state by law that business as usual is no longer an option due to the infringement of the rights of ecosystems and species;
  - ***c)*** push on behavioural changes at (civil) society and production (enterprises) level.

5. Scaling up investments and reorienting finance.

- **Although achieving sustainability transitions will require major investments, huge benefits may come in terms of preventing harm to nature and society, and the economic and social opportunities that can be created. We need to:**
  - ***a)*** help with funding innovation and business that operates in harmony with Nature;
  - ***b)*** provide incentives to foster greater creativity and change the way our financial and monetary systems currently operate.

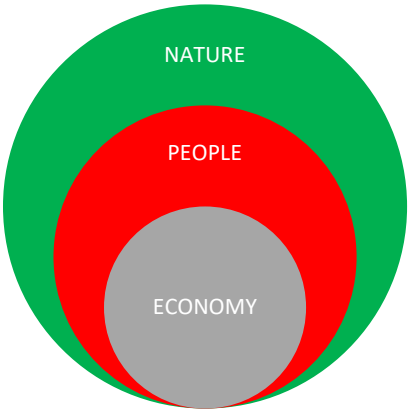
6. Linking knowledge with action.

- **Achieving sustainability transitions will require new knowledge, drawing on multiple disciplines and types of knowledge production. We need to:**
  - ***a)*** **Include evidence about the systems driving environmental pressures, pathways to sustainability, promising initiatives and barriers to change;**

b) **Adopt** an EU Charter for the Rights of Nature ensuring new knowledge and incentivising people to put their energies in this direction.

7. Managing risks and ensuring a socially fair transition.

- **Successful governance of sustainability transitions will require that societies acknowledge potential risks, opportunities and trade-offs, and devise ways to navigate them.**
  Since policies have an essential role in achieving 'just transitions' we need to:
  a) Include a different model for sustainability in the Rights of Nature Charter - based on nested concentric circles that follow the natural hierarchies in Nature (i.e. the earth system as primary, human society as a subsystem of the earth system and economy as a subsystem of human society);
  b) Promote a natural hierarchy of rights **ensuring coordination and harmony** between the three following different yet integrated sectors.



4.4 Milestones for Ecosystem Protection

On the basis of the outcomes of the previous paragraphs, it is possible now to highlight **the recommended minimal and essential milestones for ecosystem protection** necessary for an effective **breakthrough in EU law:**

Box 2: Recommended milestones for Ecosystem protection

- ✓ **Milestone 1: adopt an EU Fundamental Charter for the Rights of Nature establishing: (minimum standard contents)**
- principles and rules at the highest level of law in the EU;
- a single framework for law interpretation and effective implementation;
- a benchmark for all the Member States as opportunity to clarify any conflicting provisions or inconsistencies in any of the other EU Treaties and Charters;
- a link to the Charter of Fundamental Rights of the EU, not only in relation to art. 37 but above all to articles 51-54;
- a link to articles 11 and 191 TFEU;
- a reference to international treaties and international declarations concerning biodiversity and Nature (e.g. UN "*World Charter for Nature*"). As a consequence, through its principles, rules and composition, the Charter will be binding on: ***a)*** the EU Court of Justice; ***b)*** the

national Courts of the Member States. Based on the binding nature of the Charter, it will be possible for the EU institutions to adopt Regulations and Directives on Rights of Nature.

✓ **Milestone 2: adopt an EU Regulation on the Rights of Nature enabling to**: **(minimum standard contents)**

- setting out the rights immediately applicable in all Member States;
- identifying principles and objectives for Rights of nature protection;
- ensuring methods for protecting Rights of Nature.

✓ **Milestone 3: adopt an EU Framework Directive on the Rights of Nature providing: (minimum standard contents)**:

- solid basis for action, implementation and monitoring of Rights of Nature;
- legal measures to integration of the principles into the laws governing the primary societal sectors - the key systems that need to change in order to meet the EU 2050 targets: e.g. food and agriculture; energy; mobility; infrastructure; procurement; consumers; etc.

✓ **Milestone 4: amend EU Aarhus Regulation no. 1367/2006,** following the 2017 Aarhus Convention Compliance Committee conclusions in order to ensure:

- members of the public standing to challenge acts and omissions of EU institutions that are not addressed directly to them but affect Nature Rights protection;
- NGOs recognition of a broader right to access to the Courts on environmental issues.

✓ **Milestone 5: acknowledge Rights of Nature through on-going Court cases ensuring**:

- EU, national and regional Member States Courts use Rights of Nature principles, measures and provisions as a tool to develop jurisprudence in line with the new eco(logic)-centric perspective;
- Courts cases challenge actors in society whose behaviour is inconsistent with the Rights of Nature perspective;
- Overcoming current barrier to access to justice on environmental issues;
- Train the judiciary and lawyers on the new Rights of Nature systemic perspective.

✓ **Milestone 6: involve the Ombudsman into Rights of nature implementation, through**:

- Enhanced citizens access to Ombudsman justice on Rights of Nature matters;
- Ombudsman empowerment to promptly investigate any serious environmentally related Rights of nature infringements brought to its attention;
- Ombudsman recognition of "*Amicus Naturae*" of the EU.

5. Making a case for a Charter of Rights of Nature: legal and moral use of the instrument

5.1 The "eco-legal" breaking points

We have already said that we are facing a dramatic scenario of global eco-system, climate, and fossil emergency. This scenario calls into question not only the **relationship between economy and nature**, but also the one **between law and nature**.

In the following boxes 3, 4 and 5 we identify several breaking points in the relationship between human legal instruments and climate/ecosystems, which cover three different dimensions of emergency to be urgently addressed (eco-system, climate, economic/energy). Each dimension has a multi-fold projection into the legal system, so that we can refer to them as **"eco-legal" breaking points**.

Box 3: Ecosystem emergencies

1) The "ecological deficit" of the entire planet (and of the EU territory[123]), that is the constant and increasing consumption of goods, resources and ecosystem services, due to fossil emissions, globally and locally higher than the regeneration capacities of the biosphere[124]. The human species is highly resource-consuming: since its appearance on Earth, it has caused the loss of 83% of all wild mammals, 50% of plants[125] and has unilaterally contributed to soil degradation[126].

2) The so-called "Anthropocene equation", the mathematical formula that has made it possible to verify how much human beings influence climate change[127].

3) The overcoming of three of the nine "Planetary Boundaries" (namely: climate change; reduction of biodiversity; disruption of the nitrogen cycle), scientifically identified as the security conditions for the stability of the entire biosphere[128].

4) The achievement of nine among the eleven global "Tipping Points" identified by the IPCC, against which the only precautionary measure possible is the global temperature reduction within 1.5°C before pre-industrial levels[129].

5) The loss of biodiversity[130] and the urgency to promote its recovery and not only its preservation. The Open-Ended Working Group on the Post-2020 Global Biodiversity Framework (WG2020) and many scientific studies have demonstrated that we have to protect at least 30% of all the planet, of which 10% must be declared totally indispensable[131].

[123] https://www.eea.europa.eu/data-and-maps/indicators/ecological-footprint-of-european-countries-2/assessment.

[124] See https://unfccc.int/news/fossil-fuels-are-biggest-part-of-global-ecological-footprint.

[125] BAR-ON Y.M. et al. *The Biomass Distribution on Earth*, 115 *PNAS*, 2018, 6506-6511.

[126] WILLEMEN L. et al. *How to halt the Global Decline of Lands*, 3 *Nature Sustainability*, 2020, 164-166.

[127] GAFFNEY O., STEFFEN W. *The Anthropocene Equation*, 4 *The Anthropocene Rev.*, 1, 2017, 53-61.

[128] ROCKSTRÖM J. et al. *A Safe Operating Space for Humanity*, 461 *Nature*, 2009, 472–475.

[129] LENTON T.M. et al. *Climate Tipping Points: too risky to bet against*, cit.

[130] WWF, *Global Futures Report*, 2020 (*https://wwf.panda.org/?359334*).

[131] DINERSTEIN et al. *A Global Deal for Nature*, cit.

6) The so-called "sixth mass extinction", presumed in the 1990s[132] and definitely assessed in 2011, with the probability that one third of all species could disappear within 50 years, due to climate change[133].

Box 4: Climate emergencies

1) The excess of 350 ppm (parts per million) of CO_2 in the atmosphere, that is the "safety threshold" to avoid irreversible risks for mankind. Overcoming the threshold increases the uncertainty of human security on earth[134].

2) The recent definitive demonstration of the existence of irreversibility thresholds of the Earth system in its climate stability[135].

3) The imminent depletion of the global "Carbon Budget" still available as CO_2 equivalent emissions, that has shortened the timescale for achieving CO_2 levels potentially catastrophic for the environment and for humanity[136].

4) The "Carbon Sink" crisis, that is the discovery that tropical forests are significantly reducing their ability to absorb CO_2 from the atmosphere, with the inevitable acceleration of the global warming process[137].

5) The threat of catastrophic events due to global warming, in case of the temperature would increase above 1.5°C[138], with dangerous, catastrophic or, even worst, unknown risks for human life.

Box 5: Economic/energy/fossil (methane) emergencies

1) "Climate Breakdown", or "socio-economic" feedback[139], that is the incidence of extreme weather phenomena (from droughts to floods) on the stability of economic, social and political systems, with disaggregating effects[140] on the relations between society and the environment in forecasting economic and human costs and damages.

2) The "Production Gap" highlighted by UNEP, which shows that without diminishing the growth rates, the emission reduction commitments taken by States with the Paris Agreement are not sufficient to achieve its objectives[141].

[132] LEAKEY R. et al. *The Sixth Extinction: Patterns of Life and the Future of Humankind*, New York, 1995.

[133] BARNOSKY A.D. et al. *Has the Earth's Sixth Mass Extinction Already Arrived?*, 471 *Nature*, 2011, 51-57; ROMÁN-PALACIOS C.et al., *Recent Responses to Climate Change reveal the Drivers of Species Extinction and Survival*, 117 *PNAS* 2020, 4211-4217; WWF, *Global Futures Report*, 2020 (https://wwf.panda.org/?359334).

[134] https://www.co2.earth/daily-co2.

[135] STEFFEN W. et al. *Trajectories of the Earth System in the Anthropocene*, 115 *PNAS*, 2018, 8252-8259.

[136] ROGELJ J. *Differences between Carbon Budget estimates unravelled*, 6 *Nat. Clim. Change*, 6, 2016, 245-252.

[137] Issue 7797, *Saturation Point*, 579 *Nature*, 2020.

[138] XU Y. et al. *Well below 2°C: Mitigation Strategies for Avoiding Dangerous to Catastrophic Climate Changes*, 114 *PNAS*, 2017, 10315-10323.

[139] HOWARD P., LIVERMOLE M.A. *Sociopolitical Feedbacks and Climate Change*, 43 *Harvard Envtl L. Rev.*, 2019, 119-174.

[140] https://sites.google.com/site/williamdnordhaus/dice-rice.

[141] https://www.unenvironment.org/resources/report/production-gap-report-2019.

3) The "Circularity Gap", that is the situation where the circularity rate of the world economy is still too low[142].

4) The "Win-Lose" effect of environmental law, assessing separately the environmental impact on pollution-control and climate change[143]. The two variables are intertwined, so in order to generate a Win-Win effect, legislation must consider both aspects as a unique issue. Impact "assessment" should be replaced by an impact "reduction".

5) The inadequacy of the existing "Carbon Tax" measures in order to discourage polluting and GHGs emissions, due to the fact that the highest percentage of CO_2 emissions (85%) come from "no-carbon tax" sectors[144].

6) The persistence of the so-called "fossil subsidies" (or "environmentally harmful"), denounced even by the International Monetary Fund[145].

7) The impossibility to calculate all the economic and financial risks (such as the "Green Swan") connected with the emergencies, underlined both by the BIS[146] and by J.P. Morgan[147] in recent reports.

8) The difficulty in disentangling GDP growth and, on one hand, GHGs emissions' increase[148]; on the other, waste and resources overexploitation[149].

9) The "fossil methane emergency", related to the necessary clean energy transition, due to the fact that methane emissions in the atmosphere from fossil fuels is higher than ever[150]. Moreover, scientific evidences of methane's climate utility are faltering, because its mitigation properties have not still been demonstrated[151].Therefore, methane appears as a false promise[152].

10) Impacts of the "from fossil through fossil" energy transition (accepted by SDG13) have been largely underestimated, so that the solution is now becoming a new problem[153].

11) Higher "Global Potential Warming", due to the permafrost melting.

The unprecedented situation of the convergence of so many problems requires unprecedented answers. As it is written in the aforementioned BIS study[154], an "epistemological break" is needed to

[142] https://www.circularity-gap.world/2020.

[143] WILLIAMS M. *Tackling Climate Change: what is the Impact on Air Pollution?*, in 3 *J. Carbon Manag.*, 5, 2012, 511-519.

[144] OECD *Taxing Energy Use 2019. Using Taxes for Climate Action*, Paris, 2019.

[145] COADY D. et al. *Global Fossil Fuel Subsidies Remain Large*, IMF WP/19/89.

[146] BOLTON P. et al. *The Green Swan. Central Banking and Financial Stability in the Age of Climate Change*, Basel, 2020.

[147] J.P.MORGAN *Special Report: Risky Business: the Climate and the Macroeconomy*, Economic Research January 14, 2020.

[148] PARRIQUE T. et al. *Il mito della crescita verde*, Roma, 2019.

[149] UNEP. *Decoupling Natural Resource Use and Environmental Impacts from Economic Growth*, Paris, 2011.

[150] HMIEL B. et al. *Preindustrial CH Indicates greater Anthropogenic Fossil CH Emissions*, 578 *Nat.*, 2020, 409-412.

[151] KLEMUN M.M. et al. *Timelines for Mitigating the Methane Impacts of Using Natural Gas for Carbon Dioxide Abatement*, 14 *Envntl. Res. Lett.*, 2019 1-14.

[152] LANDRIGAN P.J. et al. *The False Promise of Natural Gas*, 382 *N. Engl. J. Med.*, 2020, 104-107.

[153] ELDER C.D. et al. *Airborne Mapping Reveals Emergent Power Law of Arctic Methane Emissions*, 47 *Geophysical Research Letters*, 3, 2020.

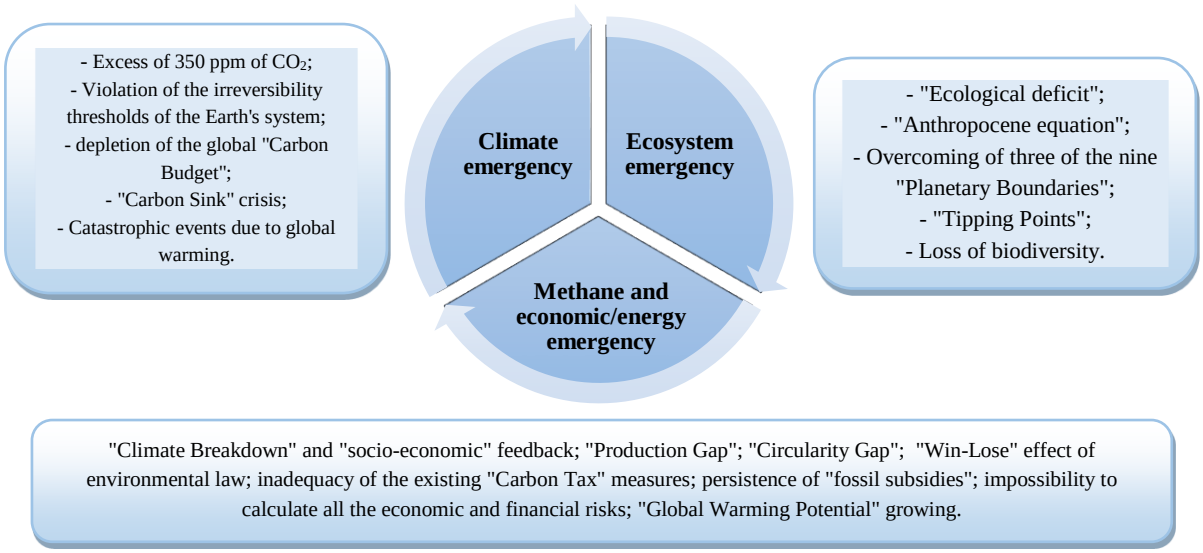
[154] See BOLTON P. et al. *The Green Swan*, cit.

build the resilience of complex adaptive systems that will be impacted in one way or another by climate change. And resilience requires a different reconstruction of the relationship with Nature. In this challenge there is also the Law and its relationship with Nature[155].

Indeed, all these eco-legal emergencies have the same root cause: a collective consciousness kept in place by an old paradigm, structures and systems that separate human beings from the rest of the interconnected web of life. We are at an important point in our history and the actions that we take now will determine our destiny. This challenge affects everyone and requires great cooperation between natural sciences and law: this cooperation must recognize legal rules as part of natural system[156].

But the time available is short. We are therefore experiencing a "tragedy on the horizon"[157], never experienced before.

Figure 8a: Unprecedented convergence of climate, ecological, energy and economic problems, which require unprecedented legal answers in the "tragedy of horizon"



Why this convergence between ecosystem and climate emergencies causes "eco-legal" breaking points? Why the Rights of Nature could be the best way of responding to these emergencies?

The following four considerations can answer these questions:

1) These emergencies compromise the ecological equilibrium of all forms of Life on Earth

2) Consequently, the survival needs of all living species (not just humans) are in crisis;

3) This crisis condition is common to humans and other elements of Nature;

4) Current law does not regulate this situation of common emergency and crisis and considers environment as a fixed and unchanging entity.

[155] Starting from the conception expressed by Grotius onwards. See KOSKENNIEMI M. *Imagining the Rule of Law: Rereading the Grotian "Tradition"*, 30 *Eur. J. Int'l L.*, 1, 2019, 17–52.

[156] PERSSON J. et al. *Toward an Alternative Dialogue between the Social and Natural sciences*, 23 *Ecol. and Soc.*, 4, 2018, 1-11.

[157] CARNEY M. *Breaking the Tragedy of the Horizon. Climate Change and Financial Stability*, Speech at Lloyd's of London, 2015.

Some recent studies[158] highlight the “common destiny” of living species, for example with regard to two phenomena produced by the ecosystem and climate emergency:

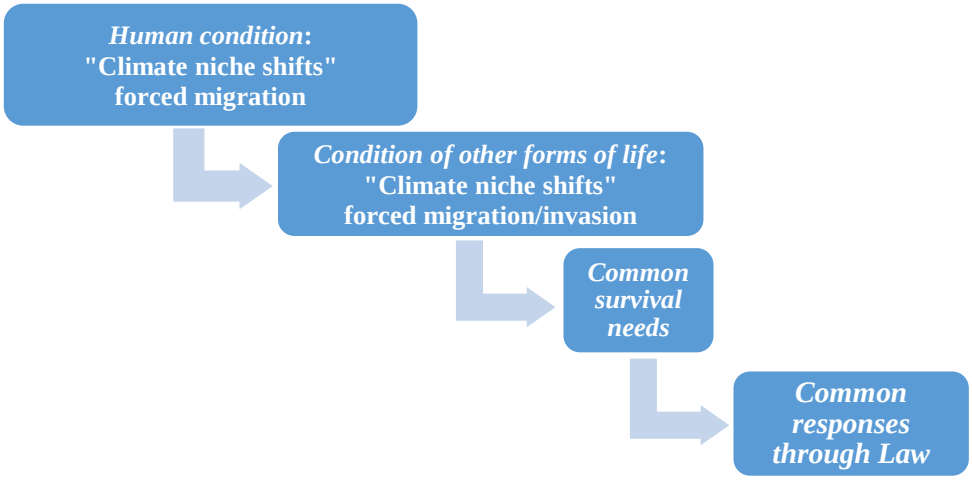
- "Climate niche shifts" (that is the gradual abandonment of areas with bioclimate conditions conducive for survival which are drastically altered by climate change and ecosystem transformations);
- Forced migration/invasion to survive.

Therefore:

- The need to control the stability of climate system and stop biodiversity loss serves the "common need" of all forms of life;
- Human survival is strictly linked to the other elements of Nature;
- An organic response to this "common need" depends only on the human will;

Law cannot continue to consider human condition distinct from natural condition: a common survival need imposes a "common" and "systemic" response.

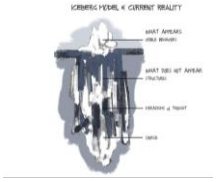
Figure 8b: An example of "eco-legal" breaking points and common needs of “systemic” response



5.2 The opportunity to change

Every emergency is also an opportunity: a Charter on the Rights of Nature can offer the EU a great opportunity to take leadership in shaping the long term systemic changes needed to transform our world. This challenging yet recommendable action starts with adopting a new paradigm in law.

Figure 9: The "Iceberg Model"



[158] See for example: XU C. et al. *Future of the Human Climate Niche*, 117 *PNAS* 21, 2020, 11350-11355; LENOIR J. et al. *Species better track Climate Warming in the Oceans than on Land*, *Nature Ecology & Evol.*, 2020, 1-31; SHABANI F. et al. *Invasive weed Species' Threats to Global Biodiversity: Future Scenarios of Changes in the Number of Invasive Species in a Changing Climate*, 116 *Ecological Indicators*, 2020.

The diagram above is the well-known "iceberg model" which shows the layers of depth of our issues. The crises and effects that we see are simply the tip of the iceberg - yet this is the level at which most of society tries to implement solutions - with little effect. Instead of bringing lasting transformative change we need to tackle what underpins and generates these effects i.e. the structures and paradigms of thought from which they arise.

In the distant past, people across the planet believed that we are part of one larger interconnected, constantly evolving, living whole and that the whole is reflected in each of the parts. Until the industrial revolution, human life developed in adaptation with nature[159].

This is also seen in science today e.g. the DNA containing the code for the unfolding of the whole organism - and forms the basis of systems thinking, quantum physics and complexity science. The enlightenment era in the 17th century ended that with the introduction of the mechanistic worldview that separated human beings from Nature and saw Nature as operating in accordance with linear mechanical rules[160]. Since then, science has moved on to recognise a fluid and radically interconnected world of complex dynamic systems - but our dominant paradigm and the systems and institutions that hold them in place are still based on this 17th century consciousness.

The mechanistic worldview underpins how all our main societal systems operate, giving rise to the multiple crises that humanity faces. Most governments and organisations try to deal with the effects - only to find their efforts short lived. Many are aware that we need to change the system in order to effectively deal with the effects - but they are unaware that the glue that holds these structures and systems in place is the law, and that without a shift in the way the mechanistic paradigm is encoded in law, attempts to change the system are also short lived.

So, what stands behind the paradigm itself? Human consciousness.

Law is the vehicle that encodes that human consciousness in our societies by laying down the rules that govern how our lives are conducted - what is permissible in our systems, what is not, what the consequences are and what our societal goals are. The mechanistic paradigm became encoded into law through the legal construction of Nature being an "object" of the law separate to humans - resources, property and now capital - rather than a legal "subject" with rights like human beings and later, corporations. Making Nature an object of the law means there is no relationship in law between humans and the rest of Nature and so no obligations towards the rest of the community of life that makes up our world. Property rights became the most important legal concept in society - leading to the conversion of then plentiful commons into property and then capital.

This legal construction legalised the exploitation of Nature and extractivism. We are now seeing a situation where this relentless extraction and consequent concentration of wealth and power is not only unravelling the web of life itself (climate change, 6th mass extinction, pandemics etc.), but also bringing large scale unrest in human society as we become more and more disconnected from Nature and consequently the source of life itself.

[159] SCHUBERT H. *Environmental Adaptation and Eco-cultural Habitats*, Abingdon-New York, 2016.

[160] PHELAN S. *Intimate Distance: The Dislocation of Nature in Modernity*, 45 *West. Pol. Quart.*, 2, 1992, 385-402; HAILA J. *Genealogy of Nature Conservation*, 1 *Nature Conservation*, 2012, 27-52.

One could say that this single construction of Nature as object of the law is a key enabler of a degenerative cycle in society. However, law can be an enabler of a regenerative cycle in society too and in doing this we can start to turn the cycle of our societal systems the other way to initiate processes that lead to positive outcomes for human beings and the rest of Nature in synergy. In the regenerative cycle human flourishing will go hand in hand with the flourishing of the biosphere and our innovation will be driven by whole systems thinking that enhances all of life.[161]

On a more technical level, by changing the legal status of Nature from an object of law to a subject of law with legal personality and rights, we can change the root legal structure that encodes the mechanistic paradigm based on separation into our societal DNA. This brings Nature into our legal, political, social and economic decision-making as a "stakeholder" in its own right whose rights must be respected and integrated into all our actions. People would also be empowered to bring cases to defend the Rights of Nature where the actual merits of the case can be heard, rather than being silenced through the procedural limitations of judicial review without recourse to higher avenues of appeal under narrow interpretations of the Aarhus Convention, as it is currently the case.

However, this on its own will not be enough to take us from degeneration to regeneration.

Simply inserting legal personality and rights for ecosystems and species puts a Trojan horse into the system but, for it to truly deliver systemic results and be true to the spirit of Earth Jurisprudence to the methods of the "ecological mandate"[162], it must come with a whole systems framework for implementation that integrates the rights across all sectors of society and translates them into actionable targets that sit not only in policy but actually have the weight of law behind them. Taking a whole systems approach would enable us to work through the issues of fragmentation by changing the starting point and objective of the quest. By looking for whole of society outcomes rather than fragmented outcomes, it forces all of the societal sectors to engage in deeper processes of collaboration. Through collaboration and greater involvement of stakeholders, law can evolve to take a problem solving role rather than an adversarial one.

This will lead to a very different outcome in terms of effects, e.g. industries that infringe Rights of Nature would have to be phased out and replaced by new industries that operate to affirm those rights leading to renewal and regeneration. It would no longer be legal to have an economic system based on infinite growth, an agricultural system that poisons the earth or an energy system that depletes Nature faster than she can replenish. Our societal structures would have to change because the law that underpins them has changed. Our moral and social compass will have to reset at a higher level which will ultimately benefit Society as a whole.

An important dimension of this work in shifting towards an "ecological conversion" where the needs of all human and non-human, present and future, are adequately met is re-examining the role of law in our society. Law governs relationships. At present it only governs relationships between people and entities created by people (e.g. corporations or governments). This has meant that our most fundamental relationship is left out of the equation (and our corresponding duties in maintaining that relationship in a healthy way). This has left the law vulnerable to manipulation in order to serve vested interests at the

[161] See MANG P. et al. *Regenerative Development and Design*, Hoboken, 2016.

[162] See RÜHS N., JONES A. *The Implementation of Earth Jurisprudence through Substantive Constitutional Rights of Nature*, 8 *Sustainability*, 174, 2016, 1-19

expense of everything else. Law also has no moral code – acting in the best interests of the client has become equivalent to ruthlessly acting in their financial best interests only.

Instead of lawyers being healers of conflict, adversarial law has led to a justice system that is a perpetrator of wounding as it tears relationships apart and entrenches a fear based blame and retribution culture which is the enemy of collaboration and generation of synergy. For law to be truly aligned with truth and justice, we also need to address the way law is held in our society - so that we move towards a justice system where law fosters greater collaboration, problem solving and healthy relationships with all of life.

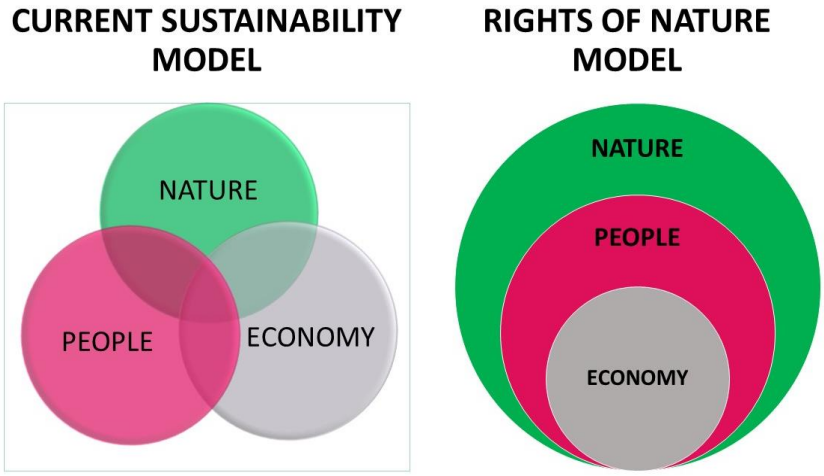
5.3 Towards a whole systems approach

Just as alternative models of economics are being proposed that are more holistic, it is imperative that law evolves to meet the challenges of our time and becomes part of the solution. We have already looked at how the structure of law in the EU contributes to the problem. It is not so much any individual provision of law, but rather the structural basis upon which these laws are founded, that gave rise to the problem. To move us into a sustainable future, a few key pieces of legislation that start to shift the structural frame - such as a Fundamental Charter for the Rights of Nature - are needed.

Slavery ended as a mainstream model when slaves gained legal personality and rights. Similarly, in order to put an end to the systemic root cause of climate change and the sixth mass extinction, we need the Rights of Nature within an ecological framework of law. The first step in the journey towards a whole systems approach is for the law to include the interests of all living beings as subjects of the law rather than objects or property. It is therefore imperative to redress the imbalance, and ensure that Nature is represented in the EU system of law as a "stakeholder" in its own right, given legal personality and rights at constitutional level along with an implementing framework set out in key legislation.

This will act as a powerful counterbalance against corporate and property rights, and start transforming some of the now plentiful capital generated in society back into commons available to Nature itself and people as part of Nature, without having to destroy Nature first (which is the ethos of bringing Nature into the system of "capital" through "financialisation).

Figure 10: Sustainability models (Diagram by Mumta Ito)



Another vitally important step is to change the mainstream model of sustainability to a more systemic view – and an EU Fundamental Charter for the Rights of Nature can be the instrument to set this in motion at a high level. The current sustainability model in the diagram, which is the dominant model for sustainability in the EU and elsewhere, represents a mechanistic worldview where the assumption is that each circle can operate independently of the others. In reality the only circle that can operate independently is Nature, as the others are dependent on Nature for their existence. The Rights of Nature hypothesis (three concentric circles) is therefore more accurate, as it represents a nested natural hierarchy of systems dependence - Nature, Human Society and Economy as there is no human society without Nature and no economy without human society.

EU law does not expressly recognise a human right to a healthy environment[163]. This would a first important step. However, the human right to a healthy environment is not enough, because there are no binding regulatory parameters, based on the ecology, to define when and how an environment is "healthy". The role of discretionary power in environmental law is a constant fact[164]. Aligning law with the systems perspective of modern science and ecology would involve a reframing of the notion of rights to reflect the whole system, and the interrelationships between the parts. For this, we need to include the overarching context of our existence on this planet - the fundamental basis from which all other rights on Earth emanate: the rights of Nature, because without Nature humans cannot exist.

This is in stark contrast to the situation that we see in the world today (shown on the left in the Hierarchy of Rights diagram) which has led to the domination and concentration of wealth and power in the hands of the few[165]. Interlinked multinational banks and corporations determine economic activity throughout the EU market. Their vast lobbying power has an overwhelming influence on the EU Commission and Council that remains unregulated by law. Currently, human rights are in the realm of public law aimed at the relationship between governments and individuals; property and corporate rights are exercised in the realm of private law between individuals.

There is no horizontal enforcement of human rights in private law, making corporations effectively immune to human rights abuses, although this is increasingly questioned by legal scholars[166]. By contrast corporations, as legal persons, enjoy the protection of human rights in addition to property and corporate rights, leading to the current state of affairs in which corporations are shielded from the consequences of their destructive extractive activities worldwide.

A natural hierarchy of rights that derives from the natural hierarchy of systems - Rights of Nature, Human rights and Economic rights – is shown in the Hierarchy of Rights diagram. In this model, the rights operate in synergy with each other, as competing rights would undermine the wellbeing and integrity of the whole.

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[163] LASSALLE D. et al. *DATE. Mapping Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment*, Universite de Geneve Global Studies Institute (Individual Report on the European Convention on Human Rights and the European Union. Report No. 14. Prepared for the Independent Expert on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy, and Sustainable Environment).

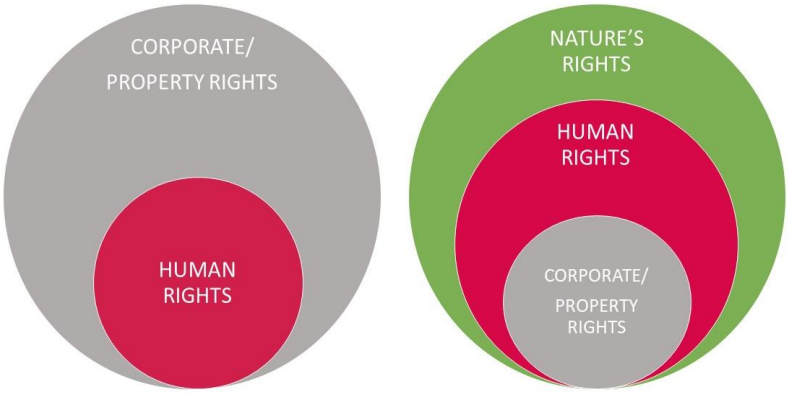
[164] See ZHANG J. et al. *The Discretionary Power of the Environmental Assessment Practitioner*, 72 *Envtl Impact Ass. Rev.*, 2018, 25-32, and LAGUNA DE LA PAZ J.C. *Discretion and Judicial Review in European Environmental Law*, in *Protecting the Environment for Future Generations. Principles and Actors in International Environmental Law*, eds. Hebeler T. et al., Berlin, 2017, 27-60.

[165] LASSALLE D. et al. *Mapping Human Rights*, cit., 62

[166] FRIEDMANN D., BARAK-EREZ D. *Human Rights in Private Law*, Oxford, 2002.

This model of nested rights brings a unifying overarching framework to the balancing of interests and weighing of divergent objectives, overcoming the existing fragmentation and imbalance. Economic rights that currently undermine human rights and Rights of Nature destabilise the whole system, and would no longer be considered to be in the public interest when viewed through this lens.

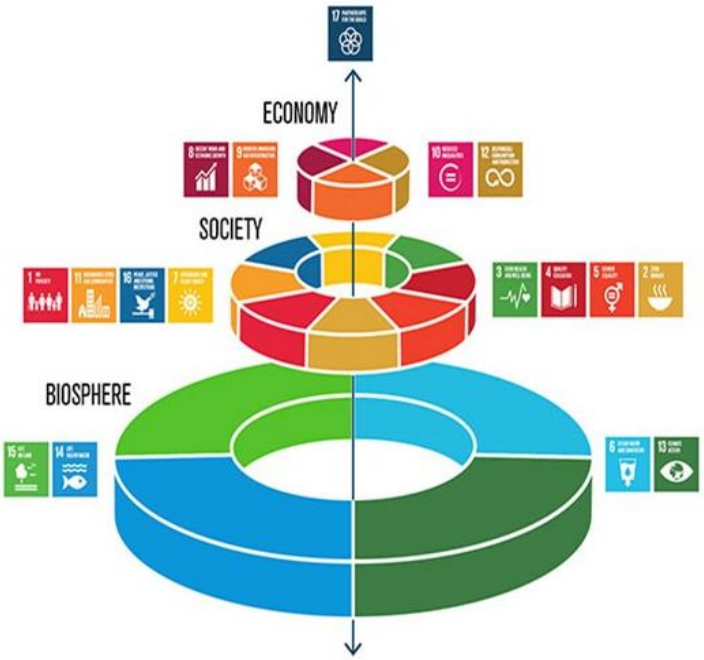
Figure 11: Hierarchy of Rights (Diagram by Mumta Ito)



To develop this idea further into a workable model, the planetary boundaries and United Nations Sustainable Development Goals (which the EU has committed to implementing via adoption of the 2030 Agenda for Sustainable Development[167]) can then be mapped onto the 3 concentric circles, identifying a clear and safe operating space for humanity that takes all three layers of rights into account.

This is partially depicted in the diagram below, which shows how the biosphere forms the fundamental basis for all of the UN Sustainable Development Goals.

Figure 12: Biosphere Model (Diagram by Azote Images, for Stockholm Resilience Centre



[167] https://ec.europa.eu/environment/sustainable-development/SDGs/index_en.htm.

This establishes the basis for policies integrating Rights of Nature, Human rights and Economic rights (corporate and property rights) into a coherent and unified whole within a legal framework that supports that integration. Operationalizing the planetary boundaries and Sustainable Development Goals at Member State levels, and identifying gaps, would form the basis of the implementation of the Rights of Nature framework.

However, this has to be done within a holistic and ecological legal framework, based on the contents of "Earth Jurisprudence" and on the methods of "ecological mandate"[168], which has been endorsed by the United Nations "Harmony with Nature Programme"[169] as a way of achieving the Sustainable Development Goals.

Practicing this approach to law requires us to make decisions that prioritise the long-term ecological interests of the whole and of future generations, over short-term gain. These principles and ideas will form the underlying basis of an EU Fundamental Charter for the Rights of Nature. If this kind of thinking were applied to all our societal activities, it would be a great unifying and harmonising force for greater innovation and collaboration towards our common global best interests. If the SDGs are incorporated in the model as well as planetary boundaries, we would ensure that human society develops in ways that ensure the integral functioning of the biosphere as well as making sure that nobody gets left behind. This kind of unified thinking around shared needs unites us around our common humanity and vulnerability engendering a non-competitive collaborative global society that puts the common needs of all living beings above the scarcity mentality quest for greater accumulation, hoarding resources and exploiting others for selfish gain.

The Covid-19 pandemic has shown us how global concerted action and behavioural change can happen overnight if the majority of governments and people agree. The limitation of economic activities during the lockdown has also led to evidence of perceivable gains for Nature, which shows that our actions can make a significant difference in assisting biodiversity to replenish and the climate system to re-stabilise.

5.4 Bringing all stakeholders on board: the 3 Horizons

The challenge involves all stakeholders, called to promote transformative innovation for the survival of the whole Earth system.

The Charter of Rights of Nature is an extraordinary opportunity to carry out this transformative **innovation**. If the EU adopts a Rights of Nature legal framework within an ecological legal context, it will herald the start of a new era, bringing law up to date with modern science, healing the societal disconnect from the rest of nature and each other. The ramifications will be profound and establish the EU as a world leader in boldly meeting the greatest challenge of our times, inspiring other countries globally to follow its lead and using its political influence to achieve prosperity, in harmony with Nature, for all.

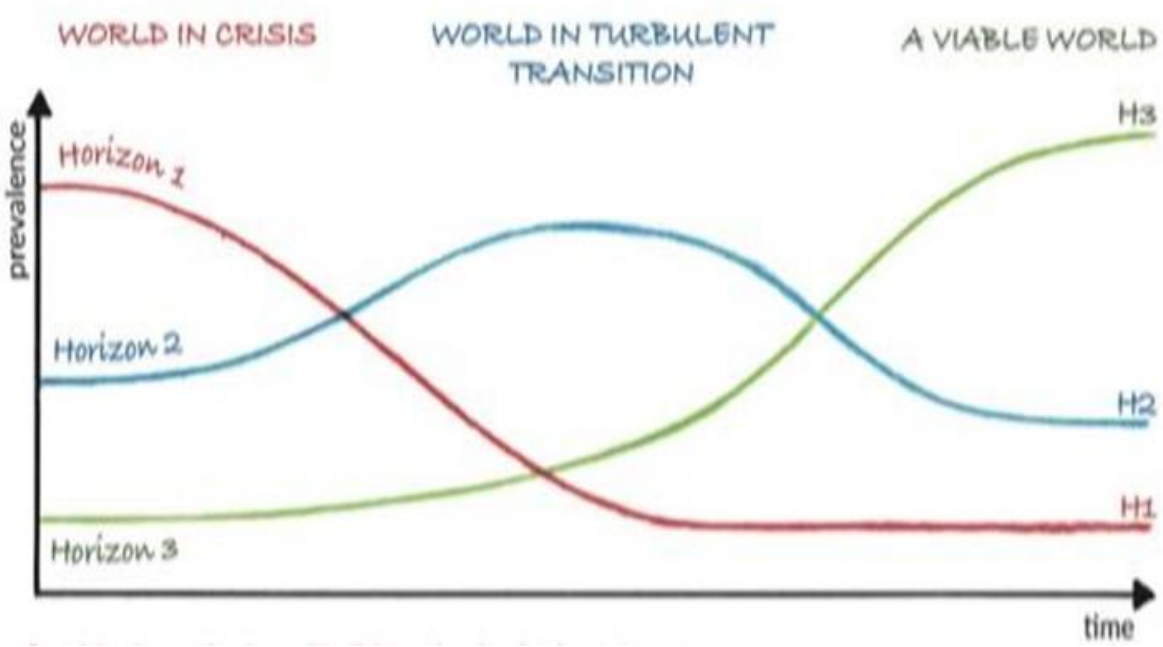
[168] RÜHS N. JONES A. *The Implementation of Earth Jurisprudence*, cit., 1-19.

[169] http://www.harmonywithnatureun.org/

One thing is certain: **if Europe is to achieve the 2050 vision set out in the 7th Environmental Action Programme, the law must make a dramatic shift into the 21st century, so that humanity can flourish in harmony with the rest of Nature for generations to come.**

Therefore, one of the perceived challenges is in bringing all stakeholders on board and encouraging stakeholders to think systemically. This is why we find the **3 Horizons model**[170] useful for mainstreaming the notion of transformative innovation in a systemic context for the benefit of society as a whole.

Figure 13: Three Horizons Framework applied to the transition towards a regenerative culture



Three horizons is a simple and intuitive framework for thinking about the future. At its simplest we can see it as describing three patterns of activity and how their interactions play out over time. The framework maps a shift from the established patterns of the first horizon to the emergence of new patterns in the third, via the transition activity of the second.

The horizons all exist simultaneously in that in our present behaviour is the seeds of our future. The outcome of the Three Horizons work is a map of transformational potential which enables us to act with more skill, freedom and creativity in the present, both individually and together.

The first horizon – H1 – is the dominant system at present. It represents **"business as usual"**. We rely on these systems being stable and reliable. But as the world changes, so aspects of business as usual begin to feel out of place or no longer fit for purpose. Eventually "business as usual" will always be superseded by new patterns of activity.

The second horizon – H2 - is a pattern of **transition activities and innovations**, people trying things out in response to the ways in which the landscape is changing. Some of these innovations will be absorbed into the H1 systems to improve them and to prolong their life (we call them "H2 minus") while

[170] https://www.internationalfuturesforum.com/three-horizons

some will pave the way for the emergence of the radically different H3 systems (these we call "H2 plus").

The third horizon – H3 - emerges as the **long term successor to "business as usual**". It grows from fringe activity in the present that introduces **completely new ways** of doing things but which turn out to be much better suited to the world that is emerging than the dominant H1 systems.

As the framework with its three lines suggests, all three horizons are always present. Aspects of H1 will persist in any new "business as usual". Aspects of H3 are always evident, if not obvious, in current debate and argument and in all kinds of activity on the fringes of the dominant system. And H2, like a moving border between past and future, is all around us in examples of innovative alternative practice.

But the first horizon's commitment is to survival. The dominant system can maintain its dominance even in a changing world either by crushing second and third horizon innovation, or by co-opting it to support the old system. These behaviours lead to variants on the smooth transition depicted above, notably the common "capture and extension" scenario in which innovations in H2 are "mainstreamed" in order to prolong the life of the existing system against the grain of a changing world.

The model offers a simple way into a conversation about:

- **the dominant system** and the challenges to its sustainability into the future, i.e. the case for change (**horizon 1**);
- **the desirable future state**, the ideal system we desire and of which we can identify elements in the present that give us encouragement and inspiration (**horizon 3**);
- the nature of the tensions and dilemmas between H3 vision and H1 reality, and the subtle processes of change, new ways of working, new capacities, new structures even, required to navigate the transition between them;

Developing a mature perspective that accepts the need both to address the challenges to the first horizon and nurture the seeds of the third. This is not an either/or, good/bad discussion. We need both to "keep the lights on" today, and to find a way of keeping them on in the future in very different circumstances.

The first is to see things as patterns: to think systemically. The framework draws our attention towards systemic patterns rather than individual events or global trends. These patterns result from the activity and behaviour of those who are maintaining or creating them in the present. Each horizon in effect is developing a different quality already existing in the present, and which might come to become more prominent depending on how people choose to act - to maintain the familiar or pioneer the new. In times of crisis as we are in now, we have little choice but to embrace the new, so the transition time between horizons will be a lot more dramatic and much shorter.

This model reminds us that we are also actors and can choose which patterns we want to maintain and which we want to shift. The third horizon in the present is a pattern of activity pursued by people living their values, doing something that they believe in. We can stand for, and embody, a new pattern in the present, and/or align with the patterns emerging around us.

In this way, we can move away from adversarial debates amongst stakeholders and instead effectively convene the future by becoming aware of all of these perspectives and working with them to shift the conversation in a generative direction.

5.5 What practical changes does a EU Charter of Fundamental Rights of Nature bring?

Environmental Law in its current form can slow the rate of degeneration but it can never be regenerative because it comes from the same paradigm that causes the degenerative cycle in the first place. This is why there is major implementation failure.[171] At the root of the implementation challenge is the fundamental mismatch between a fragmented, mechanistic, reductionist, top down, fixed, quantitative and out-dated system of law - with the holistic, dynamic, multidimensional and unpredictable nature of complex adaptive systems such as Nature and human societies (which are a sub-system of Nature). If law is to be part of the solution, **a radically different whole-systems approach is needed which is what a Charter can start creating at the highest level of EU law**.

1) First and foremost, the Charter of Fundamental Rights of Nature will **grant legal personality to Nature**. Autonomous rights (e.g. not dependent on human rights) will be conferred to Nature. Therefore, the protection of Nature, ecosystems and more generally the environment will be considered an obligation at the EU "constitutional" level.

2) The recognition of Rights of Nature will signal a paradigm **shift from the current neo-classical economic model to a new holistic model,** according to which Nature is a subject of rights and is protected and respected for its intrinsic (non-economic) value as synonymous with the source of life, as all life on Earth derives from Nature.

3) If the Charter of Fundamental Rights of Nature is given the same **legal status** as the Charter of Fundamental Rights of the EU, it will, as a consequence, have the same legal status as the EU Treaties. Consequently, all the EU acts will have to be consistent with it, and EU institutions will have a duty to act accordingly.

4) The Charter of Fundamental Rights of Nature would constitute a **legal source for the Court of Justice** and will provide rights and obligations. This might solve the current serious problem of legal standing before EU courts and grant proper access to justice and judicial review in environmental matters, thereby promoting an improved implementation of the third pillar of the Aarhus Convention within the EU jurisdiction. Moreover, the Charter would provide an effective source of EU law on which applicants can base their claims before EU courts.

5) The contents of the Charter must establish the concept of a **natural nested hierarchy of rights** that follows the order of hierarchies in natural systems that operate to sustain life leading to a reframing of the notion of "rights" from adversarial to "right relationship" i.e.: synergistic and complementary.

6) The Charter must **promote** the objectives of the **SDGs** and planetary boundaries in law.

[171] MANG P. et al. *Regenerative Development and Design*, cit.

We've been talking about sustainability for decades, but this lurks in policy and international treaties. Policy's instrument of implementation is the law, so trying to implement policies using a flawed structure of law will only give flawed results (hence the proliferation of environmental laws and treaties over the past 40 years and corresponding escalation of the problem).

International treaties rely on countries naming and shaming each other and are only enforceable upon governments - whose power is much eroded and undermined in our times due to the concentration of multinational corporate power. What we are proposing is a legal framework for true sustainability (i.e. a legal framework for achieving the SDGs) based on an integrated whole-systems approach - under which all actors who violate the law will be liable and be held responsible to take regenerative action. Underpinning this new framework will be a reframing of the notion of rights to equate with "right relationship" which means corresponding responsibility.

Legal personality and rights may lead to right relationship in the following ways:

1. By acknowledging that a relationship and a duty of care, prevention and protection exists in Law;
2. By setting out the principles and rules outlining the nature of that relationship and the responsibilities we have in maintaining it harmoniously;
3. By reframing the notion of rights from adversarial equal competing interests to synergistic interests following a natural hierarchy of life;
4. By establishing a holistic ecological framework of law with which all other laws and policies must align (as opposed to current environmental law which operates in a silo);
5. By making practices that violate Rights of Nature illegal, giving governments a legal imperative to phase out subsidies to industries that infringe Rights of Nature and to create subsidies to scale up solutions that respect Rights of Nature and corresponding responsibilities.

5.6 The five pillars of the "Rights of Nature"

But what **necessary content** must the **Charter of the Rights of Nature** have to make this happen? Again, we can answer this question through constitutional comparative law.

The comparison between the EU and extra-European context reveal a useful consideration. Mere declarations of principle on Rights of Nature are not enough to change the legal system.

In *Section 2* it emerged that the "ecological mandate", as a realization of the Earth Jurisprudence, is characterized by three elements:

a) the introduction of the substantive rights of nature;

b) the identification of new rules and methods of interpretation and application of the Law;

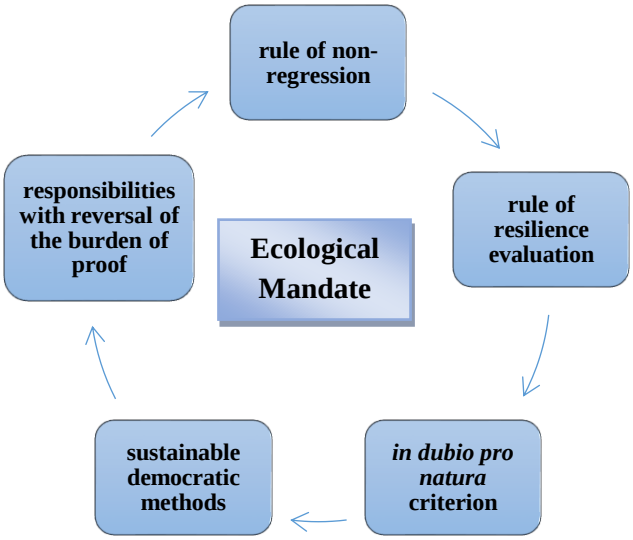
c) the introduction of the obligation to take into consideration the Rights of Nature in all policies, and not only in the decisions of the courts.

These three elements are governed by innovative **rules of decision and interpretation**. It is important to analyse these rules to verify whether they **are compatible (or even ready to be introduced) in the EU legal system**.

There are **five rules** which correspond to the **five pillars of the "Rights of Nature"**:
- the rule of non-regression;
- the rule of resilience evaluation;
- *"in dubio pro natura*" (and now *pro clima*) criterion;
- the rule of "sustainable" democratic methods;
- the rule of five responsibilities towards Nature, with reversal of the burden of proof.

These rules not only receive a consensus in the international *opinio iuris*, but are also required by natural sciences and ecology, as mentioned in *Section 2* of this study.

Figure 14: Rights of Nature pillars and "ecological mandate" elements



These are the pillars which give concrete effectiveness to the Rights of Nature. Currently, the only normative and binding document that contains these rules (except for resilience) is the Constitution of Ecuador.

There are other documents which contain some of these rules, but which are not legally binding. For example:
- the "*UN World Charter for Nature*" del 1982[172] prohibits altering Nature;
- the "*European Charter on Environment and Health"* (1989)[173] refers only to a general criterion of strict liability;
- the "*Study on the need to recognize and respect the rights of Mother Earth* of the *UN Economic and Social Council*" (2010)[174] deals with the participation of local communities (especially indigenous ones) in the cause of the rights of Mother Earth;
- the "*Universal Declaration of Humankind Rights*" (2015)[175] speaks about a generic responsibility;

[172] See https://digitallibrary.un.org/record/84366.
[173] http://www.euro.who.int/en/publications/policy-documents/european-charter-on-environment-and-health,-1989.
[174] https://digitallibrary.un.org/record/676394.
[175] http://droitshumanite.fr/?lang=en.

- the "*Global Pact for Environment project*" (2017)[176] contains generic references to the rules of resilience, non-regression, responsibility and participation.

One last interesting document is the "*IUCN World Declaration on the Environmental Rule of Law*" (2016) which will be analysed later.

5.6.1 Non-regression

The rule of non-regression has several meanings and its fundamental elements are the following ones[177]:

a) **no subsequent act can reduce the protection of Nature established by a previous act**;

b) all forms of **environmental protection** (both procedural and substantial) when they are introduced **cannot be repealed by subsequent laws**[178];

c) the **damage to environmental** interests must always be **minimal**;

d) the **highest level** of environmental protection must always be **guaranteed**.

The importance of this rule is internationally recognized[179]: it was also used by the EU Parliament in the Resolution of 29 September 2011 (point 97): «*The European Parliament (...) calls for the recognition of the principle of non-regression in the context of environmental protection as well as fundamental rights*».

"Non-regression" statements are present in the following documents: art. 12 "*the Council of Europe's Convention on the Conservation of European Wildlife and Natural Habitats"* (1979); art. XII-3 "*Convention on the Conservation of Migratory Species of Wild Animals*" (1979); articles 208, 209, 210 "*UN Convention on the Law of the Sea*" (1982); art. 11 "*Basel Convention on the Control of Transboundary Movements of Hazardous Wastes"* (1989); art. 2 (9) *"Espoo Convention on Environmental Impact Assessment in a Transboundary Context*" (1991)*;* articles 2-8 "*the ECE Convention on the Transboundary Effects of Industrial Accidents*" (1992); articles 2 and 14 (1) "*Cartagena Protocol on Biosafety*" (2000); *art. 12 "European Landscape Convention of the Council of Europe*" (2000).

Finally, this rule is implicit in the Paris Agreement, in relation to the expressions "progression" and "highest possible ambition" as defining actions to protect humanity against climate change (articles 4, 6, 7).

Therefore, there are no obstacles to its explicit introduction in EU law.
Furthermore, the rule can be understood as a translation (to the realm ofthe Rights of Nature) of two interpretative practices already operating in EU law:

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[176] https://globalpactenvironment.org/en/. See AGUILA Y., VIÑUALES J.E. (eds.) *A Global Pact for the Environment. Legal Foundations*, Cambridge, 2019.

[177] PRIEUR M., SOZZO G. (eds.), *La non régression en droit de l'environnement*, Bruxelles, 2012.

[178] See Belgium, Cour d'Arbitrage, Arrêts nn. 135/2006 and 137/2006; Cour Constitutionnelle, Arrêts nn. 8/2011 and 107/2014: «*L'article 23 de la Constitution implique une obligation de stand-still qui fait obstacle à ce que le législateur compétent réduise de manière sensible le niveau de protection qu'offre la législation applicable sans qu'existent pour ce faire des motifs liés à l'intérêt général*».

[179] COLLINS L.M., BOYD D.R. *Non-Regression and the Charter Right to a Healthy Environment*, in 29 *J. Envtl L. & Practice*, 2016, 285-298.

- the "standstill" used for the protection of human rights[180].
- the "high level of protection" of the environment contained in art. 191 TFEU, which must be guaranteed in its irreversibility and in its progressive increase.

In this regard, the Opinion of Advocate General Kokott in case C-444/15[181] is interesting. It proposes a unitary interpretation of art. 191 TFEU and art. 37 of the Charter of Fundamental Rights but points out that the "level of protection" should not be "the highest". In fact, in § 28 is written: «*With regard to the objective of ensuring a high level of protection that is pursued by the European Union's policy on the environment as defined in art. 191 (2) TFEU, the Court has also rightly held that the high level of protection that must be ensured does not necessarily have to be the highest that is technically possible. This follows not only from the wording of the provision itself (only a high level of protection) but also from the fact that art. 193 TFEU permits the Member States to maintain or introduce more stringent protective measures*».

This argument would not be plausible with non-regression since it is a rule, not a principle. Therefore, it affects both the discretionary power of the decision maker and the interpreter. For this reason, it is more effective than the objective of ensuring the "high level of protection".

Moreover, it is necessary to specify that the effectiveness of the rule depends on an important strategic factor: non-regression, like the criterion "*in dubio pro natura*", must be applied in all areas of EU law. If its use is allowed only in the field of environmental law, it is easily "neutralized" by legislation in other sectors (such as agriculture or energy), with negative effects for the effective protection of the Nature and for the planet safety.

Instead, the rule of non-regression always aims to ensure the "highest level of environmental protection" for the survival of the whole earth system. This type of objective is impracticable with "sectoral" rules, even with environmental protection rules. For example, the Habitats Directive was interpreted on the basis of "non-degradation" and protection of "natural heritage" criteria, with effects limited to individual areas and without compromising human interests, including economic ones.

Non-regression, on the contrary, can be considered as "Nature and Climate First" rather than "Development First". Its goal is overcoming the primacy of development "at any price"[182].

However, the opposition "Nature and Climate First" vs. "Development First" is contrived: in fact, all types of sustainability are losers without fighting climate change and without safeguarding nature[183].

To date, the real planetary urgency is the "threat" of climate change and its "feedback loop" that affects the whole environment and human health[184]. All balancing criteria do not guarantee the future of the Planet and human health. Non-regression, in contrast, allows promoting a better decision-making system for the current situation.

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[180] See Spain Tribunal Supremo Sent. 30-09-2011-Casación 1294/2008: «*como "intangibilidad de derechos fundamentales" o "de derechos adquiridos legislativos", o, incluso como principio de "carácter irreversible de derechos humanos". También, este principio de no regresión, ha sido considerado como una "cláusula de statu quo" o "de no regresión", con la finalidad, siempre, de proteger los avances de protección alcanzados en el contenido de las normas medioambientales, con base en razones vinculadas al carácter finalista del citado derecho medioambiental*».

[181] See *Opinion of Advocate General J. Kokott*: case C-444/15§§ 24-34.

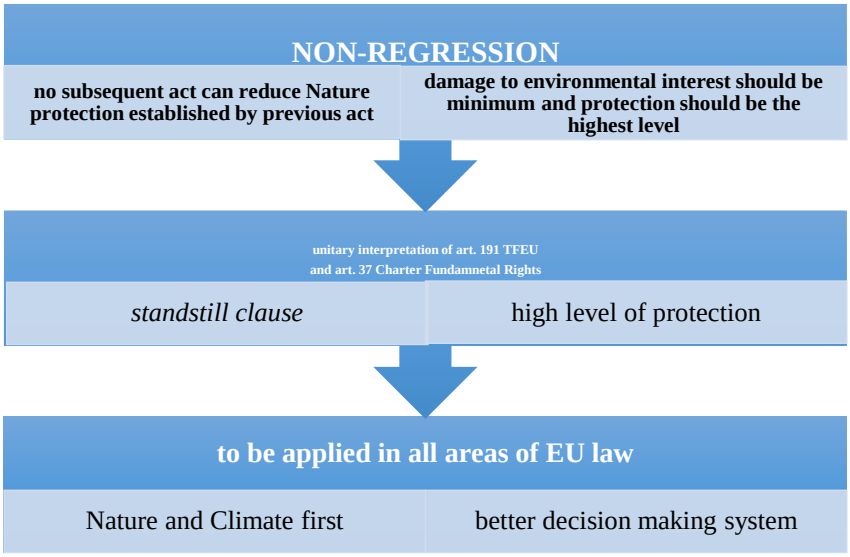
[182] https://sustainabledevelopment.un.org.

[183] VOGT M. et al, *Current Challenges to the Concept of Sustainability*, 2 *Global Sustainability*, 2019, 1-6.

[184] RANDERS J. et al. *Achieving the 17 Sustainable Development Goals within 9 Planetary Boundaries*, 2 *Global Sustainability*, 2019, 1-11.

In this perspective, "non-regression" would concretize the ecological principle of "integrity"[185], because it would preserve not only protected areas but all ecosystems into the future, without external interference[186].

Figure 15: Non-regression Pillar



5.6.2 Resilience

Resilience is one of the fundamental rules for the protection of Rights of Nature. However, there are no research contributions and practical cases about the concrete definition of the rule and its application in the field of comparative law. From an ecological point of view, **resilience is the ability of an ecosystem to return to the condition of equilibrium preceding an external disturbance**. In this regard, in legal terms, the expression "restoration" of a territory is used[187]. But it is not clear whether "restoration" and "resilience" express the same concept from a legal point of view. Finally, there is a lack of analysis about the relationship between the use of the rule of resilience and the protection of Rights of Nature in environmental assessment procedures. Without these specifications, resilience risks being a purely rhetorical reference, at the mercy of the interpretation of the political decision maker or judge.

However, the concept of **resilience is increasingly used in legal language** and it is also taken into account in some EU environmental (and social) policies[188], in order to guide the systemic observation of problems[189].

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[185] See SOMSEN H. *The End of European Union Environmental Law: An Environmental Programme for the Anthropocene*, in *Environmental Law and Governance for the Antropocene*, ed. Kotzé L., Oxford-Portland, 2017, 365.

[186] About the concept of "ecological integrity", see CARRIGAN V., VILLARD M.A. *Seeking Indicator Species to Monitor Ecological Integrity: A Review*, 78 *Envtl Monitoring & Assessment*, 2002, 45–61.

[187] TREVENEN E. et al. *Restoration and Resilience*, in *Routledge Handbook of Ecological and Environmental Restoration*, eds. Allison S.K. et al., Abingdon 2017.

[188] *A Strategic Approach to Resilience in the EU's External Action*: JOIN(2017) 21 final (https://eur-lex.europa.eu/legal-content/en/TXT/?uri=celex:52017JC0021).

[189] According to the concept of "*Resilience Thinking*": FOLKE C. et al. *Resilience Thinking: Integrating Resilience, Adaptability and Transformability*, 15 *Ecol. and Soc.*, 4, 2010, 1-9.

In the Communication of the EU Commission, COM (2014) 216 of April 2014[190] on the implementation of the UN Hyogo Framework for Action, resilience has a fundamental meaning, that is to increase the EU's ability to anticipate, prepare and respond to risks, especially cross-border ones. The "*Rome Declaration*" of 25 March 2017, in the fourth paragraph, also concludes: «*We will make the European Union stronger and more resilient, through even greater unity and solidarity among us and the respect of common rules*»[191].

Art. 16 of the "*Global Pact for Environment project*" defines resilience as follows: «*The Parties shall take necessary measures to maintain and restore the diversity and capacity of ecosystems and human communities to withstand environmental disruptions and degradation and to recover and adapt*».

Three interesting references emerge in the international debate[192]:

1) The provision of the rule of resilience allows total legal protection of biodiversity, since ecological resilience decreases if the diversity of the species in an ecosystem also decreases.

2) This would help to overcome the current "segmented" approach of biodiversity protection in limited "protected areas". The rule of resilience would impose enhanced protection of biodiversity even outside parks and reserves, extending it to all areas affected by human action. This approach is expressed by IUCN Principle 4 "*World Declaration on the Environmental Rule of Law*", entitled "*Ecological Sustainability and Resilience*": «*legal and other measures shall be taken to protect and restore ecosystem integrity and to sustain and enhance the resilience of social-ecological systems*».

3) Finally, resilience should integrate the contents of the environmental assessment and be applied in all contexts of biodiversity.

For this reason, the introduction of an **"ecosystem resilience assessment"**[193] would be very appropriate. Some proposals for the introduction of resilience analysis in environmental assessments have recently been made[194].

It is possible to combine Rights of Nature with the rule of resilience within the legislation on environmental impacts, deepening an appropriate method of implementation. To this end, it is necessary to consider the shortcomings of the current environmental assessments with respect to the application of the resilience rule. The current approach is limited to estimating the individual impact effects on environmental resources and matrices according to schemes that do not include all ecosystem interactions.

Therefore, it does not consider resilience processes in the sense of adaptation to the disturbance produced by anthropic action and in relation to climate change. Paradoxically, the compensation measures also consider the expected disturbance and damage as separate "parts", "areas" and "times".

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[190] See http://ec.europa.eu/transparency/regdoc/rep/1/2014/IT/1-2014-216-IT-F1-1.Pdf.

[191] http://www.governo.it/sites/governo.it/files/documenti/documenti/Approfondimenti/EU60/RomaDichiarazione_it17.pdf.

[192] MONTEIRO DE LIMA DEMANGE L.H. *The Principle of Resilience*, 30 *Pace Envtl L. Rev.*, 2, 2013, 695-810.

[193] FLOURNOY A.C., *The Case for the National Environmental Legacy Act*, in *Beyond Environmental Law: Policy Proposals for a Better Environmental Future*, eds. A.C. Flournoy A.C., Driesen D.M., Cambridge, 2010, 3-10.

[194] MAHMOUDI H. et al. *Integrating Resilience Assessment in Environmental Impact Assessment*, 14 *Integrated Envron Asses. & Manag.*, 5, 2018, 567-570; ANGELER D.G. et al. *Resilience in Environmental Risk and Impact Assessment*, 101 *Bull. Environ. Contamination & Toxicol.*, 2, 2018, 543-546.

There is also no connection between health impact assessments and consideration of the evolution of the human component following ecosystem and climate changes, with regard to the loss of ecosystem services. On the contrary, the regulation of a "resilience study" (RS) and an "assessment of resilience" (AoR) could become an important link between Rights of Nature, fundamental human rights and environmental assessments.

The advantages of this can be summarized as follows.

a) First, RS and AoR should be charged to both the proposing entity and the Evaluation Authority. This would allow for a "dialogue" between actors and stakeholders about Rights of Nature and fundamental rights in assessment procedures.

b) Secondly, the current limits of the evaluation procedures could be overcome by allowing a complete evaluation of the effects of an anthropic action on the environment, both at local and global ecosystem level, in the temporal evolution, starting from the beginning of an enterprise.

c) Furthermore, the space-time evolution of climate change[195] would be taken into account, both in terms of mitigation and adaptation.

d) Resilience would also allow to consider the phenomenon of soil consumption and, more generally, of territorial transformations, in relation to the loss of ecosystem services for the present and the future.

e) Finally, the complete evaluation of the ecosystem evolution due to anthropic action would allow to combine human action with Rights of Nature on two levels:

- the discussion on "Planetary Boundaries", in particular climate change and loss of biodiversity, and not only on the local impact;
- the concrete possibility of realizing the so-called "zero option", which was formally incorporated by the Aarhus Convention, but not implemented in order to safeguard Nature, for the sake of future generations.

Moreover, EU Regulation no. 347/2013 on "*guidelines for trans-European energy infrastructure*" provides the assessment of resilience of infrastructures. However, this approach was not actually implemented in all national contexts to fight climate change and the loss of ecosystem services. It is probable that the Rights of Nature could have facilitated public participation in these proceedings regarding the resilience and benefit of the enterprise for the "Planetary Boundaries" and for the rights of future generations.

Moreover, the environmental assessments show the importance of the resilience rule. EU Regulation no. 347/2013 is a paradoxical example because it contains the rule of resilience for energy infrastructures without establishing how it should be applied. Consequently, in the evaluation of these infrastructures the so-called "Salami Slicing" method[196] is used.

This method is developed in eight steps:

1) the division of a single national or transnational infrastructure into several local works;

2) the environmental assessment carried out on individual local works;

3) the analysis of "cumulative impacts" only between two local "adjoining" works;

4) public participation only for the single local work;

[195] TIMPANE-PADGHAM B.L. et al. *A Systematic Review of Ecological Attributes that Confer Resilience to Climate Change in Environmental Restoration*, 12 *PLoS ONE*, 3, 2017, 1-23.

[196] Report from the Commission to the European Parliament and the Council: *On the Application and Effectiveness of the EIA Directive* (Directive 85/337/EEC as amended by Directive 97/11/EC). *How successful are the Member States in implementing the EIA Directive* (https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52003DC0334&from=en).

5) the impossibility of promoting discussions between the public sector, governments and stakeholders on the ecosystem vision of the territory as a whole and not only with regard to single hamlets;
6) the "segmented" and uncoordinated implementation of the Aarhus Convention and the Espoo Convention (in the case of cross-border works);
7) the absence of a general ecosystem vision for all interested stakeholders and for public authorities;
8) the absence of resilience assessments.

EU Regulation no. 347/2013 requires not only the implementation of the Aarhus and Espoo Convention[197] but also to test "improvement practices" in the environmental impact assessments of infrastructure. It also requires: an ecosystem approach; a cost-benefit analysis for infrastructure as a whole; the assessment of the strategic utility of the infrastructure for EU climate objectives; the assessment of the resilience of the infrastructure. Through the "Salami Slicing" approach, these analyses and evaluations are "segmented" or even impossible (as happens for the assessment of the climate impact).

Furthermore, the effect of the "Salami Slicing" also produces information asymmetries, social costs and transaction costs between the stakeholders. In fact, it favours the companies that build the infrastructures and that assume a "dominant position" over the other stakeholders. It is not a "market" dominant position but an "out of market" dominant position: it concerns the discussion of environmental issues in an integrated ecosystem perspective with all the stakeholders involved in the infrastructure.

The mechanism that produces this "dominant position" is accomplished with 14 steps:

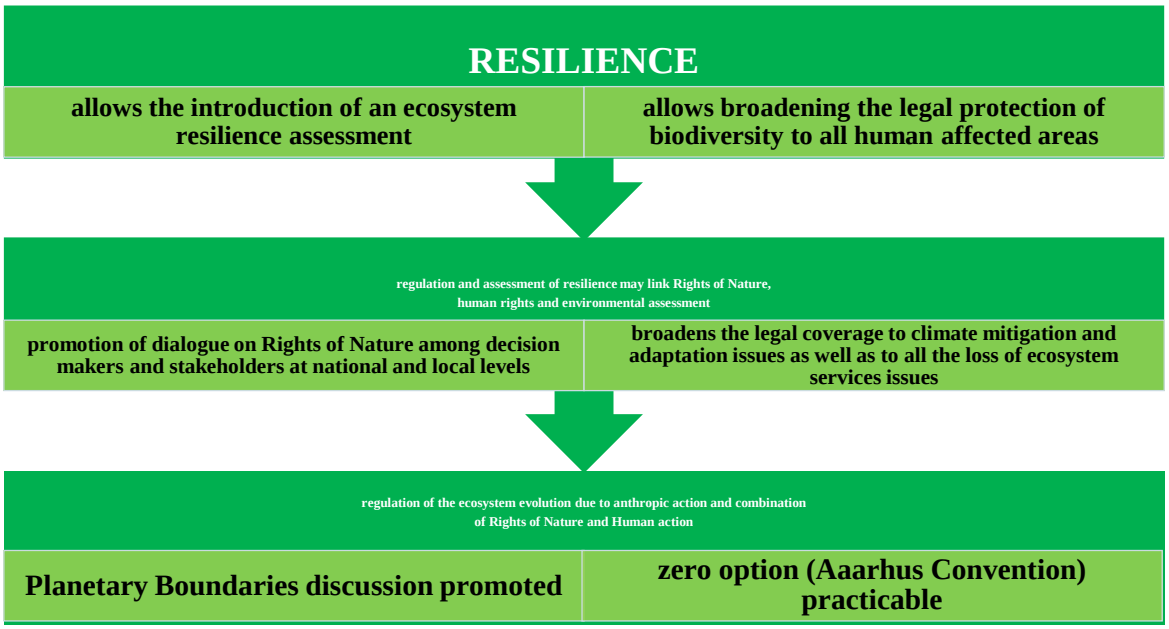
1) company A presents the local project X in a specific territory T1;
2) company B presents the local project Y in another adjacent area T2;
3) the local X + Y projects are part of the same European infrastructure regulated by EU Regulation no. 347/2013;
4) the infrastructure crosses the T1 + T2 territory and other territories;
5) however, companies A + B discuss the "cumulative impacts" of the T1 + T2 territories only;
6) The assessment is limited to territories T1 + T2;
7) In addition, companies A and B are formally separated as stakeholders;
8) Being separate stakeholders, they discuss "local" projects separately with the other stakeholders of the individual territories (public sector, workers, citizens, etc.) and with national and EU institutions (e.g. the EIB);
9) however, companies A and B are share capital or joint contracts;
10) consequently, they act as a single stakeholder and have common interests for the construction of the same infrastructure;
11) As an "integrated" stakeholder, they develop a common strategy towards other stakeholders who are "segmented" in the territories;
12) This situation determines a "dominant position" of information, tactics, lobbying relationships, which can be used in individual territories and towards other stakeholders;

[197] The participation of the public at an early stage of all decision-making processes, in order to include the so called zero-option among the possible choices, and the need to implement instruments for the representation of interests of future generations have been recommended by the 2015 UNECE *Maastricht Recommendations on Promoting Effective Public Participation in Decision-making in Environmental Matters and the Good Practices Recommendations on Public Participation in Strategic Environmental Assessment* (https://www.unece.org/fileadmin/DAM/env/pp/Publications/2015/1514364_E_web.pdf).

13) Consequently, company A gives information, strategies, tactics etc. to company B on the stakeholder behaviours in relation to the common environmental problems of the infrastructure, while the stakeholders of the T1 territory have more difficulty interacting with the stakeholders of the T2 territory;
14) Finally, "Salami Slicing" achieves a twofold objective: *a)* it simplifies the environmental issues of the infrastructure by considering them as less impacting local issues; *b)* through local "segmentation", it hinders the equality of information and discussions between stakeholders.

The provision of a binding rule for assessing resilience would prevent these strategies and would require all stakeholders to use a systemic and not a "segmented" perspective of the work.

Figure 16: Resilience Pillar



5.6.3 "*In dubio pro natura et clima*"

The principles of the UN "*World Charter for Nature*" also appear to be based on the "*pro natura*" and non-regression criteria. However, they are extremely generic. There is already in EU law the criterion "*in dubio pro natura*", but it has two characteristics that limit its application: it is not a general rule of law, applicable in all areas of EU decisions, but it is only a criterion for interpreting the Nature protection rules (the Habitats Directives); however, it is a recessive criterion compared to other interpretative criteria, such as "balancing".

Compared to the challenge of climate change, a sectoral approach is absolutely inappropriate. Indeed, climate change has been defined as the "perfect storm" of doubt[198]: how can local decisions be made nowadays to avoid the impending "planetary storm"?

Starting from 2030, the scenarios of planet Earth, with reference to the increase in earth's temperature, could be the following: if the temperature > 1.5°C, the scenario would be "dangerous"; if the temperature > 3°C, the scenario would be "catastrophic"; if the temperature > 5°C, the scenario would be "unknown"

[198] GARDINER et al., *Ethics and Global Climate Change*, 3 *Nat. Educ. Knowledge*, 10, 2012, 5.

and would be dangerous for the survival of living beings[199]. In addition, UNFCCC Decision 1/CP21 of 2015 described climate change and global warming as an «*urgent and potentially irreversible threat*».

How can law be interpreted and applied with a "threat" not only "urgent" but also "irreversible"? This premise explains the centrality of the criterion "*in dubio pro natura*".

The origin of this can be found in a judgment of the Sala Constitucional of the Corte Suprema de Justicia of Costa Rica (1995)[200] in which the criterion was used as an application of the general principle of precaution in "*favor naturae*", with reference to all types of legal rules. References exist in other States, such as Brazil[201], and also in the views of the International Court of Justice[202].

However, there is no complete correspondence between the precautionary principle and the "*in dubio pro natura*"[203] criterion. In fact, the precautionary approach concerns cases of scientific uncertainty, while "doubt" comes from science.

Otherwise, the criterion "*in dubio pro natura*" guides the decision of the legal operator in "*favor naturae*", in case of doubts about the Law: the interpretation of the Law may not protect nature.

This criterion was introduced for the first time at a constitutional level with art. 395 (4) of the Constitution of Ecuador. This criterion is used in order to:

- interpret any legal norm, not only environmental law;
- resolve "conflict of norms", in favour of Rights of Nature;
- resolve conflicts between rights and interests, in favour of Rights of Nature;
- fill and remove legal gaps that can favour the exploitation of Nature.

The basis of this criterion is contained in the Rights of Nature: only by protecting the Rights of Nature are the biospheric conditions of life also protected and the survival of human beings can be guaranteed. In fact, the protection of human rights and the mere balancing of interests are no longer enough to guarantee survival.

The Supreme Court of Mexico has defined the criterion "*in dubio pro natura*" as a "general interpretative mandate of justice"[204]. This perspective seems confirmed by Principle no. 5 of the IUCN "*World Declaration on the Environmental Rule of Law*": *«In cases of doubt, all matters before courts, administrative agencies, and other decision-makers shall be resolved in a way most likely to favor the protection and conservation of the environment, with preference to be given to alternatives that are least harmful to the environment. Actions shall not be undertaken when their potential adverse impacts on the environment are disproportionate or excessive in relation to the benefits derived therefrom».*

[199] XU Y. et al., *Well below 2°C: Mitigation Strategies for Avoiding Dangerous to Catastrophic Climate Changes*, cit.

[200] Sala Constitucional Corte Suprema de Justicia del Costa Rica, 05893/1995 (https://vlex.co.cr/vid/-497344562).

[201] https://www.jusbrasil.com.br/topicos/226425592/principio-in-dubio-pro-natura.

[202] Rep. 7/187 (Hung. v. Slovk) 1997 (Judge Herczegh Dissenting).

[203] BRYNER N.S. *Applying the Principle in Dubio Pro Natura for Enforcement of Environmental Law*, in General Secretariat of the Organization of American States, *Environmental Rule of Law: Trends from the Americas*, Montego Bay (Jamaica), 2015, 168-174.

[204] Primera Sala, Amparo en revisión, n. 307/2016, 14-11-2018 (https://www.scjn.gob.mx/sites/default/files/listas/documento_dos/2018-11/AR-307-2016-181107.pdf).

The "*in dubio pro natura*" criterion:
- strengthens the "zero option" in decisions relating to human impact on Nature (this option is allowed by the Aarhus Convention but is concretely not applied);
- implements the prevalence of Nature conservation interests over those of its exploitation.

A strong point in favour of this interpretation comes from the CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) Strategic Vision 2021-2030[205], adopted by CITES Conference of Parties and endorsed by the UN General Assembly in its document A/73/L.120 "*Tackling illicit trafficking in wildlife*". The main value of the strategy is the best interest of conservation of species and in order to reach the Convention's strategic goals, it is established that «*in cases of uncertainty, either as to the status of a species, or the impact of trade, Parties commit to act in the best interest of the conservation of the species and aim to adopt measures proportionate to the anticipated risks to the species under consideration*». So, a specific form of the "*in dubio pro natura*" criterion is already applied in the field of application of CITES, in matter of environmental penal justice.

This criterion appears implicit today also in the formula "*in dubio pro clima*", expressed by art. 2 (3) of the "*Model Statute for Proceedings Challenging Government Failure to Act on Climate Change*" (2020) of the International Bar Association[206].

Furthermore, this criterion does not regulate scientific uncertainty but instead seeks to "save" the climate to "save" the future of all human beings. Regarding the issue of the causes and impacts of climate change, there is no longer a real "scientific uncertainty".

This is demonstrated by: the amount of studies confirming the anthropogenic hypotheses[207]; agreement on the work done by the IPCC[208]; the validation of scientific hypotheses[209]; the empirical emergence of the hypothesized events; the consolidation of statistical probabilities[210].

In this scenario, it is no longer possible to speak about a mere "precaution". With this scientific knowledge and forecast, we must decide and act for the safety of the life system and therefore also of human beings.

This approach has not yet been developed in the EU context. The EU Court of Justice also uses the precautionary principle in a contradictory way, especially in matters concerning ecosystem resources and services, beyond the sphere of environmental law.

Precaution has not been consistently applied to sanction all the cases in which the institution did not apply it and thus did not prevent the occurrence of the risk (eg. climate change, endocrine disruptors, glyphosate). Moreover, the responsibility of the EU institutions for breach of this principle is limited. To date, in very few cases have the EU institutions been found liable for a breach of this principle[211].

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[205] https://www.cites.org/eng/documents/Strategic_vision.

[206] https://www.ibanet.org/Climate-Change-Model-Statute.aspx.

[207] POWELL J.L. *The Consensus on Anthropogenic Global Warming Matters*, 36 *Bull. Sc. Tech. Soc*., 3, 2016, 157-163.

[208] COOK J. et al. *Consensus on Consensus: a Synthesis of Consensus Estimates on Human-Caused Global Warming*, 11 *Envtl Research Let.*, 4, 2016, 1-8.

[209] SANTER B.D. et al. *Human Influence on the Seasonal Cycle of Tropospheric Temperature*, 361 *Science*, 6399, 2018, 1-11.

[210] SANTER B.D. et al., *Celebrating the Anniversary of Three Key Events in Climate Change Science*, and HALL A. et al., *Progressing Emergent Constraints on Future Climate Change*, 9 *Nat. Clim. Change*, 2019, 180-182 and 269-278.

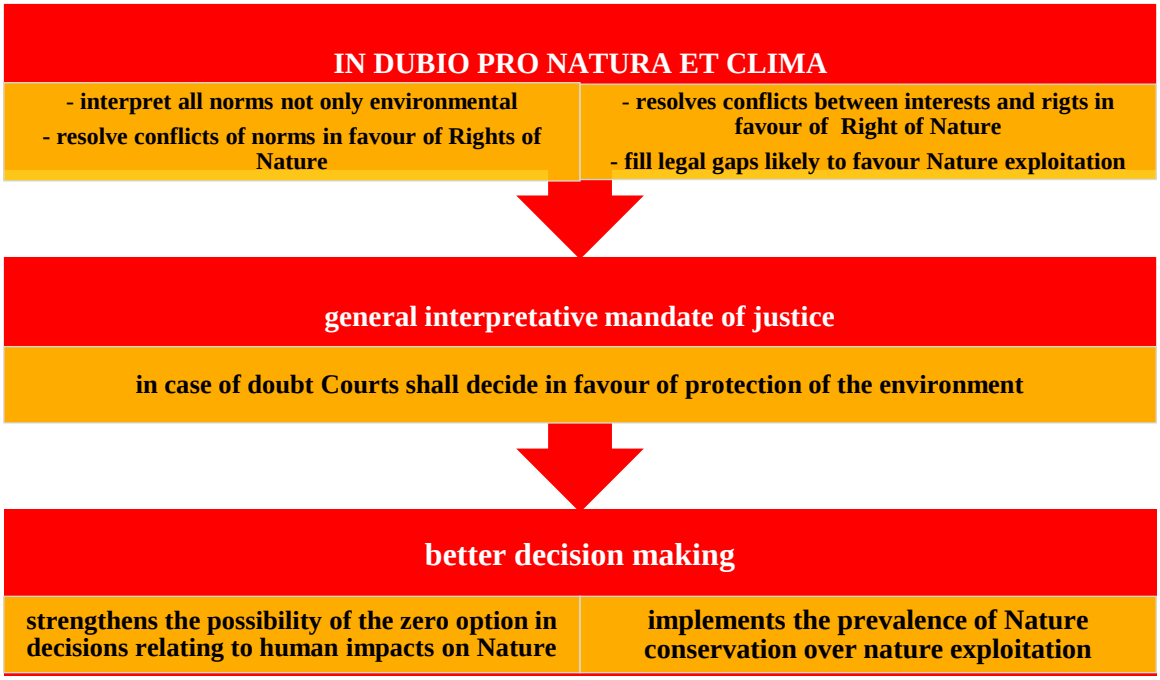
[211] See DONATI A. *Le principe de précaution en droit de l'Union européenne*, Thèse, Université Paris 1 Panthéon Sorbonne, 2019.

In this regard, the Italian "Xylella case" is emblematic and paradoxical[212]. Perhaps some analogy could be found in reference to art. 279 TFEU. A significant example is the "Bialowieza Forest case", in Poland, in which the EU Court of Justice assessed the danger of irreparable damage in vulnerable natural areas[213].

Instead, the "*in dubio pro natura*" criterion establishes a general rule of the whole legal system. For this reason, the comparison between the "*in dubio pro natura*" criterion and the precautionary principle in Europe, applied even beyond environmental law, is very important. Precaution is a principle of anticipated action, which is considered to be under EU law a corollary of the objective to pursue a high level of protection of the environment.

The link between precaution and the criterion "*in dubio pro natura*" may be the acknowledgement by the EU Court of justice that environmental and health issues shall have a pre-eminence over economic interests.

Figure 17: "*In dubio pro Natura et Clima*" Pillar



5.6.4 "Sustainable" democratic methods

Recognizing Rights of Nature means overcoming the "genetic" failure of environmental law caused by the lack of inclusion of Nature among stakeholders.

Humans are identified and legitimised to act as "counter-interested" subjects instead of "co-interested" in safeguarding Nature, in a perspective of balancing all interests that operates according to an exclusively human "Win-Win" logic.

[212] About "Xylella case", see TITOMANLIO R. *Il principio di precauzione fra ordinamento europeo e ordinamento italiano*, Torino, 2018.

[213] Cases C-441/17R and C-442/17R. See KRÄMER L. *Injuncitve Relief in Environmental Matters*, 15 *J. Eur. Envtl & Planning L*, 2018, 259-267.

In 1988, Barry Commoner explained that the content of this approach consists in assuming that there is a linear logical connection between human action and Nature and that this linearity allows to control the impacts on Nature[214]. Environmental law misjudges the complex and circular structure (based on "Feedback Loop") of ecosystem and climate dynamics.

Exceeding this limit is also a methodological problem. For this reason, the Rights of Nature issue is also closely linked to the theme of the "democratic method". Indeed, the main question is no longer "what" but "how" to decide, in the era of ecosystem complexity. Is it possible to continue to endorse the negotiation of human interests? Can the Rights of Nature be introduced into deliberative processes and policies?

As shown by empirical findings, "environmental" democracy has significant limitations[215]. "Environmental" democracy also fails because it is subject to the discretionary power of environmental assessments and does not take into account Nature's primacy over economic interests[216]. Discussions about the limits and contradictions of the Aarhus Convention persist[217].

New paths need to be tested

The Constitution of Ecuador introduces an innovation on this issue. Art. 71 provides that «*all persons, communities, peoples and nations can call upon public authorities to enforce the rights of nature*». This article relates to art. 396 which states that *«In case of doubt about environmental impact stemming from a deed or omission, even if there is no scientific evidence of the damage, the State shall adopt effective and timely measures of protection»*.

These two rules introduce a "proactive" right different from the participation rights introduced by the Aarhus Convention.

This "proactive" right has four characteristics:

a) it is independent of other rights or interests and is connected exclusively to the Rights of Nature;

b) it is autonomous and self-executing, because it can always be exercised before public authorities, without the need of further legislative implementation and without any formalities or burden on behalf of the subject seeking enforcement[218];

c) it is general because it refers to any environmental impact and to any procedure;

d) it is not conditioned by the information produced by public authorities.

The participation rights introduced by the Aarhus Convention, on the contrary, have diametrically opposite characteristics.

Indeed:

a) they are dependent on the discretionary decisions of public authorities (public authorities promote public participation, rather than vice versa);

[214] COMMONER B. *Failure of the Environmental Effort*, 18 *Envtl L. Rep. News & Analysis*, 10195, 1988, 1-7.

[215] See https://environmentaldemocracyindex.org/.

[216] PETERS M. *Can Democracy solve the Sustainability Crisis?*, 51 *Educational Philosophy and Theory*, 2, 2019, 133-141.

[217] http://www.unece.org/info/media/news/environment/2019/furthering-effective-and-inclusive-public-participation-in-environmental-matters-2019-aarhus-week/doc.html.

[218] See the appeal presented by the ONG CEDENMA before the Ecuadorian Supreme Court of Justice in the case 20331-2017-00179 about a criminal process for illegal fishing of sharks in the Galapagos Marine Reserve.

b) they do not always concern the Rights of Nature;
c) they are conditioned by the information produced by public authorities;
d) they are categorized by types of procedure or acts of public authorities.

However, the theme of the relationship between Rights of Nature and democracy is very complex and can be summarized as follows:
a) the difficulty of "representing" Rights of Nature within liberal representative democracy, based on individual consensus and freedom of opinion that is not necessarily "ecological"[219];
b) the attitude of the ecological movements that claim to participate on environmental issues (by implementing different versions of "environmental justice"), promoting forms of democracy "from below", based not on opposing interests but on common needs for survival with Nature and on the "ecological conversion" of land and resources management practices[220].

This second hypothesis does not always coincide with the forms of "environmental democracy" implemented through the Aarhus Convention[221]. On the contrary, the forms of participation provided for by the Aarhus Convention are often criticized[222], because they do not eliminate the information asymmetries between the participants and often produce local conflicts.

The Rights of Nature, however, also involves the role of democracy and deliberative practices in relation to the topic of public participation in scientific knowledge. Since the "post-normal" science concept of Silvio Funtowicz and Jerome Ravetz[223], the theme of access to science and the use of science in deliberative processes has accompanied the debate on the relationship between environmental rights and democracy.

The recognition of Rights of Nature inevitably requires not only "cultural" representations of the Nature but also the implementation of the debate about the scientific knowledge of ecosystem processes. It is therefore necessary not only to guarantee the public right to information, but above all to integrate legal languages with scientific ones and with the culture of local communities[224].

Therefore, the introduction of the Rights of Nature in the deliberative processes could favour a different public participation, which would have the following characteristics:
a) it would be "proactive", if a provision such as art. 71 of the Constitution of Ecuador;
b) it would operate according to the protection of Nature through the rules indicated above.

Ultimately, a legal system that introduces the Rights of Nature and establishes the rules of non-regression, resilience and "*in dubio pro natura*", would force all those who participate in the deliberations:
- to respect Nature as a priority rather than exclusively economic human interests (as required by art. 83 (6) of the Constitution of Ecuador);

[219] ECKERSLEY R. *Liberal Democracy and the Rights of Nature: The Struggle of Inclusion*, 4 *J. Envtl Politics*, 4, 1995, 169-198.

[220] MESSINA S. *Eco-democrazia*, Napoli-Salerno, 2019.

[221] See JENDROŚKA J., BAR M. (eds.) *Procedural Environmental Rights: Principle X in Theory and Practice*, Cambridge, 2017.

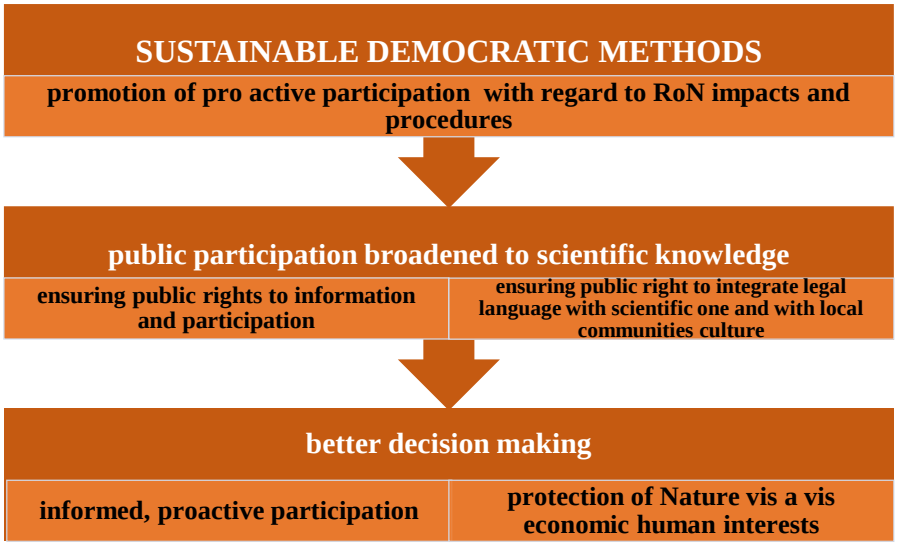
[222] PICKERING J. et al. *Between Environmental and Ecological Democracy*, 22 J. Envtl Pol. & Plan., 1, 2020, 1-15.

[223] FUNTOWICZ,S. O., RAVETZ J. R. *The Worth of a Songbird: Ecological Economics as a Post-Normal Science*, 10 *Ecol. Econ*., 3, 1994, 197-207, GUIMARÃES PEREIRA Â., FUNTOWICZ, S. (eds.). *Science for Policy: New Challenges, New Opportunities*, Oxford, 2009. See also BAGGIO G. *La scienza tra 'normalità' e 'post-normalità'*, 76 *Salesianum*, 2014, 497-515.

[224] CHAPRON G. et al. *A Rights Revolution for Nature*, 363 *Science*, 6434, 2019, 1392-1393.

- to limit the discretion of decision makers and preventing the "Salami Slicing" in environmental assessments (through the rule of resilience);
- to limit the lobbying of economic and financial interests on EU decision making (through the non-regression rule);
- to eliminate the conflicts of interpretation in a not exclusively anthropocentric perspective, based on scientific rules (through the "*in dubio pro natura et clima*" criterion).

Figure 18: Sustainable democratic methods Pillar



5.6.5 The rule of five responsibilities towards Nature, in reversing the burden of proof

Another innovation introduced by the Constitution of Ecuador is the liability rule for environmental damage. This liability is specific, preventive, objective, integral and absolute. This rule is contained in articles 72, 396 and 397.

Art. 72 identifies the elements of this specific liability:
a) Nature has the "right to restoration";
b) this obligation is independent from damages;

Thus, Nature has the right to restoration regardless of the right to compensation of persons or legal entities.

Art. 396 states that «*In the case of doubt about the environmental impact stemming from a deed or omission, although there is no scientific evidence of the damage, the State shall adopt effective and timely measures of protection*».

This rule identifies the preventative nature of liability: protection must always precede damage. Therefore, the obligation to protect art. 396 strengthens the precautionary principle according to the "*in dubio pro natura*" criterion. Indeed:

a) if there is an interpretative doubt, a "*pro natura*" decision must always be made (art. 395 (4) Constitution Ecuador);

b) if the doubt concerns the scientific evidence of damage, the special principle of "preventive protection measures" and not the general precautionary principle must be applied.

Art. 396 states also that «*Responsibility for environmental damage is objective. All damage to the environment, in addition to the respective penalties, shall also entail the obligation of integrally restoring the ecosystems and compensating the affected persons and communities*».

This provision defines responsibility as objective and integral according to the Rights of Nature. If Nature has the right to restoration regardless of any other damage the compensation for the damage is never "substitutive" but always "supplementary" whit respect to the other sanctions.

The absolute nature of liability is established by art. 397 and consists of three elements:

a) «*In case of environmental damages, the State shall act immediately and with a subsidiary approach to guarantee the health and restoration of ecosystems. In addition to the corresponding sanction, the State shall file against the operator of the activity that produced the damage proceedings for the obligations entailing integral reparation, under the conditions and on the basis of the procedures provided for by law. The responsibility shall also pertain to the public servants responsible for carrying out environmental monitoring*»;

b) It is allowed to «*any natural person or legal entity, human community or group, to file legal proceedings and resort to judicial and administrative bodies without detriment to their direct interest, to obtain from them effective custody in environmental matters, including the possibility of requesting precautionary measures that would make it possible to end the threat or the environmental damage that is the object of the litigation*».

c) Finally, *«The burden of proof regarding the absence of potential or real danger shall lie with the operator of the activity or the defendant*».

Through this responsibility clause, the Constitution of Ecuador prohibits all subjects (public and private) from infringing the Rights of Nature.

The most important rule of the Constitution of Ecuador regarding the subjectivity of Nature is contained in the last part of art. 397.Since Nature is a living but voiceless entity, the only effective way to protect it is by reversing the burden of proof.

Nature cannot produce evidence of harm and this cannot be adduced by humans in place of Nature, otherwise the assessment of damage to Nature would be subject to the discretion of humans and their interests.

The reversal of the burden of proof, in addition to the five responsibilities towards Nature established by law (articles 72, 396 and 397), allows an assertion of a presumption of harm.

This presumption of harm avoids the exclusively anthropocentric approach of the "*neminem laedere*" duty[225].

In the EU the "*neminem laedere*" duty is also present in reference to environmental law and in a preventative way[226]. Furthermore, many national supreme courts in the EU have defined the "*neminem*

[225] PIETARI K. *Ecuador's Constitutional Rights of Nature: Implementation, Impacts, and Lessons Learned*, 1 *Willamette Envtl L.J.*, 2016, 37-94.

[226] FOGLEMAN V. *The Duty to Prevent Environmental Damage in the Environmental Liability Directive*, 20 *ERA Forum*, 2020, 707–721.

laedere" as a constitutive element of the constitutional tradition (e.g. the Judgement of the Italian Constitutional Court no. 16/1992).

In this sense, this duty is part of the "common constitutional traditions" of the Member States" (art. 6 TEU).

In fact, there are the "Principles of European Tort Law" (PETL)[227].

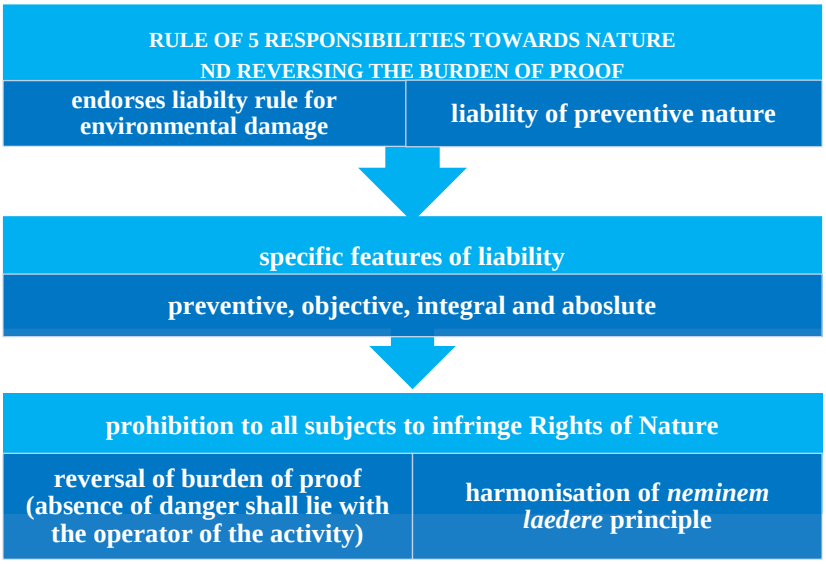
However, the characteristics of responsibility (specific, preventive, objective, integral and absolute), referring to the Rights of Nature in Ecuador, are not entirely evident in the European "*neminem laedere*" duty, since:

- there is no single EU regulation of the burden of proof and the legal cases of the States are very different[228];
- the Environmental Liability Directive does not concern all types of damage to Nature (for example those relating to climate change[229]).

Even the Habitats Directive does not contain a liability mechanism similar to that expressed by articles 72, 396 and 397 of the Constitution of Ecuador, as shown in the "Waddenzee case" (C-127/02), with reference to art. 6 (3) of the Directive and the reversal of the burden of proof[230].

Therefore, the introduction of the Rights of Nature would favour a harmonization of "*neminem laedere*" duties towards the environment and could promote a European debate on the subject of the burden of proof in order to protect Nature.

Figure 19: Rule of five responsibilities towards Nature in reversing the burden of proof Pillar



[227] http://www.egtl.org/ See EUROPEAN GROUP ON TORT LAW, *Principles of European Tort Law. Text and Commentary*, Wien-New York, 2005.

[228] KOZIOL K. *Harmonising Tort Law in the European Union: Advantages and Difficulties*,1 *Elte L.J.*, 2013, 73-88.

[229] See VUJANIĆ V. *Climate Change Litigation and EU Environmental Liability Directive*, 48 *Zbornik radova Pravnog fakulteta u Splitu*, 1, 2011, 135-164.

[230] See BORN C.-H. et al (eds.) *The Habitats Directive in its EU Environmental Law Context: European Nature's Best Hope?*, Abingdon-New York, 2017.

Table 6: Summary of key findings and needs of action

1)	Need to rethink the relationship between the Economy, Law and Nature
2)	22 "eco-legal" breaking points within three emergency dimensions (eco-systemic, climate, economic/energy) that need to be urgently addressed
3)	The Charter on Rights of Nature will offer the EU a great opportunity to take leadership in shaping the long-term systemic changes needed to transform our world
4)	The *whole systems approach* is a new paradigm to address the emergencies and overcome implementation challenges
5)	The five pillars of rights of nature will create, at EU level, new rules of decision and interpretation
6)	The holistic, dynamic, multidimensional approach of Charter on Rights of Nature will limit degeneration and boost regeneration, and is compatible with the five pillars of EU law. In fact:

The non-regression rule prevents pejorative regulation for environmental protection	→ Compatible with the EU legal system
Resilience assessment improves environmental assessment mechanisms and prevents the practice of "Salami Slicing"	→ Compatible with the EU legal system
The "*in dubio pro natura*" criterion resolves conflicts between not only environmental norms and promotes the primacy of nature over discretionary interpretations and economic interests	→ Compatible with the EU legal system
Sustainable democracy methods encourage stakeholder participation with regard not to their own interests but their duties of respect for the Rights of Nature.	**Hardly compatible, due to the different perspective of the Aarhus Convention and the different "constitutional identities" of the Member States**
The rule of five responsibilities towards Nature, in reversing the burden of proof, always and everywhere affirms objective liability in all cases of damage to nature	**Hardly compatible, due to the complex European tradition of the "*neminem laedere*" and the different "constitutional identities" of the Member States**

6. Advantages and obstacles of a Charter of the Rights of Nature in EU

In this *Section*, the focus will be placed on some fundamental questions regarding the five pillars of the Rights of Nature presented above.

These questions are as follows:

***a)* if they are useful in order to avoid the failures of environmental law;**

***b)* if they are compatible with a supranational system such as the EU legal regime;**

***c)* if they can find barriers in the EU;**

***d)* what are the arguments for or against the Rights of Nature in the EU;**

***e)* if and how they can interact with the EU Charter of Fundamental Rights.**

6.1 Rights of Nature as a foundation of sustainability

The five pillars do not pursue a single objective, such as protecting the value of Nature or recognizing the autonomy of ecological damage or implementing access to justice[231]. **The five pillars are, on the contrary, an answer to the ecosystem and climate emergency**. They are useful to overturn the current relationship between the human economy and the economy of Nature, and to place Nature as the heart of policies. Therefore, these five pillars are the basis and parameter of all policies not just environmental policies.

Environmental Law has very different characteristics: it operates in a sectoral and segmented way and it is not the main parameter of all policies.

The rules of environmental law define Nature on the basis of three main considerations:

- it is an "entity" distinct from the economy;
- it consists of a stock of goods and services, replaceable with other forms of goods and services;
- it must be fully protected only within protected areas[232].

Ecology has shown that this idea of Nature is illusory and misleading. In 2008, Erle Ellis and Navin Ramankutty represented a new, revolutionary map of the environment, with reference to the identification of "biomes"[233]. All biomes on Earth are "anthropogenic biomes", also called "anthromes". This means that Nature and humans cannot be separated. It is correct to speak of "Novel Ecosystems": they are new ecosystems produced by human intervention[234]. Consequently, the epistemic distinction (connected to Spinoza) between "natural nature" and "naturalized nature" is no longer perfectly traceable.

The world is a "Human and Nature Dynamics" (Handy)[235]. Human destiny and the destiny of Nature are inextricably linked[236].

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[231] See, for exemple, WARNOCK M. *Should Trees have standing?*, 3 *J. Human R. & Environ.*, Special Issue, 2012, 56-67.

[232] See FAURE M.G., PARTAIN R.A. *Environmental Law and Economics*, Cambridge, 2019.

[233] See ELLIS E.C., RAMANKUTTY N. *Putting People in the Map: Anthropogenic Biomes of the World*, 6 *Front. Ecol. and Environ.*, 8, 2008, 439-447; ELLIS E.C. et al. *Anthropogenic Transformation of the Biomes, 1700 to 2000*, 19 *Global Ecology and Biogeography*, 5, 2010, 589-606; www.globallandproject.org; www.ecotope.org.

[234] See HOBBS R.J. et al. *Novel Ecosystems: Intervening in the New Ecological World Order*, Wiley, 2013.

[235] See MOTESHARREI S. et al., *Human and Nature Dynamics (Handy)*, 101 *Ecol. Econ.*, 2014, 90-102, and BURGESS M.G, GAINES S.D. *The Scale of Life and its Lessons for Humanity*, 115 *PNAS*, 2018, 6318-6330.

[236] THIELE L.P. *Human Rights and the "End of Nature"*, 18 *J. Human R.*, 1, 2019, 19-35.

Furthermore, the climate emergency which is considered to be "*the greatest market failure ever seen*"[237] has shown that the exhaustion of natural capital and climate stability cannot be replaced or compensated for by other stocks of goods and services and cannot simply be guaranteed from the preservation of restricted protection areas.

The Earth's climate system is a complex system, with multiple interacting subsystems.
Human activity is one of these subsystems and this has three implications:
-The human economy is inserted in the biophysical and climate systems and it depends on them;
-Human health depends on the "health conditions" of the Earth system;
-Humans must not alter the economy of nature to avoid a worsening of the current ecosystem and climate emergency situation[238].

Nature is the basis of everything, it is the "fundamental rule" for proper coexistence[239]. Law needs to adapt to it and the five pillars promote this adaptation.
This concept is explained by the following scheme, inspired by the idea of "Institutional failure", presented by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) [240].

The IPBES underlines the following occurrences of "institutional failure":

a) law and policy failures, because the rules at the same time have mechanisms that support damages (for example preserving fossil fuel subsidies) and the methods for their suppression (for example through the "the polluter pays" principle);

b) market failures, since many companies continue production and consumption despite the are negative externalities, social costs and transaction costs related to climate change;

c) organizational failure, due to the balance between economic and ecological interests, with these interests often used interchangeably;

d) informal institutional failures due to the breakdown of collective action norms due to erosion of trust.

Both the United Nations Environment Program (UNEP) and the EU have highlighted specific profiles related to these failures[241].

Now it is necessary to verify whether the introduction of the rules relating to the five pillars of the Rights of Nature can overcome these failures.

[237] STERN N. *The Economics of Climate Change: The Stern Review*, Cambridge, 2007, 8.
[238] AL-DELAIMY W. et al. (eds.) *Health of People, Health of Planet and Our Responsibility*, Cham, 2020.
[239] CARDUCCI M., CASTILLO AMAYA L.P. *Nature as "Grundnorm" of Global Constitutionalism*, 12 *Rev. Br. Dir*., 2, 2016, 154-165.
[240] https://ipbes.net/glossary/institutional-failure.
[241] UNEP, *Rule of Environmental Law and its Failures*, Nairobi, 2019; EU COMMISSION, *The Costs of not Implementing EU Environmental Law*, Bruxelles, 2019.

Figure 20: Types of institutional failure and opportunities offered by the Rights of Nature

Types of failure	Attempted resolution through the five pillars of the Rights of Nature
law and policy failures	*1)* The rule of five responsibilities towards Nature, with reversal of the burden of proof, allows ecological damage to be taken into account even in case of legal provisions legitimizing the environmental harm. *2)* The "*in dubio pro natura et clima*" criterion always allows ecological interest to prevail over economic interest, even in the case of contradictory environmental regulation.
market failures	The rule of resilience evaluation compels companies to adequately assess the ecosystem and climate emergency and to avoid sectoral assessments with regard to the impact of their policies.
organizational failure	The rules of non-regression impose environmental improvement policies in all economic and social sectors.
informal institutional failures	The rule of "sustainable" democratic methods facilitates constant dialogue with civil society on the basis of the common ecological interest.

6.2 Rights of Nature in a multilevel system

Since no regulation of the Rights of Nature exists at the supranational level, their introduction in the EU legal system would be unprecedented.

Moreover, the EU Environmental Law system is unique in the world: it recognizes the environment as "shared competence" (art. 4 (2 letter e) TFEU) and states that «*environmental protection requirements must be integrated into the definition and implementation of the Union's policies and activities*» (art. 11 (1) TFEU).

However, the concept of "integration" does not mean that all EU decisions or policies take into account all the elements of Nature in an "integral" way.

What consequences would the introduction of the Rights of Nature (with the five pillars) cause in an unchanged context of "shared competence" (art. 4 (2 letter e) TFEU)?

Firstly, all the shared competences and not only the environmental one would be involved in the five pillars of the Rights of Nature.

Secondly, the impact of these pillars on relations between Member States and the EU would operate within the parameters of articles 4 (2) and 6 TEU.

Finally, through the reference to art. 6 TEU, the introduction of EU Nature Rights would have consequences in relation to the so-called "judicial dialogue" between national courts, the EU Court of Justice and European Court of Human Rights.

From this it follows that:

a) environmental policies are not homogeneous among the Member States, due to the different "constitutional identities" recognized and guaranteed by art. 4 (2) TEU;

b) consequently, the types of legitimation of environmental policies and public participation are also different;

c) States also have different legal systems with regard to civil liability, the regulation of damage and the burden of proof.

d) there are no "common constitutional traditions" of the Member States regarding the environment and Rights of Nature.

The latter point is analysed in § 6.5, because it is directly related to the contents of the EU Charter of Fundamental Rights.

Now the analysis concerns the first three points.

Not all of the five pillars of the Rights of Nature would be perfectly compatible with the current EU context of "shared competences". The most problematic ones would certainly be the last two, namely:
- the rule of "sustainable" democratic methods;
- the rule of five responsibilities towards Nature, with the reversal of the burden of proof.

Therefore, if on the one hand they could certainly work at EU level, on the other hand, they could conflict with art. 4 (2) TEU at the level of domestic legislation of the Member States. In fact, each State could claim its "identity" in relation to the institutional organization and the procedural system.

As is well known, the "*neminem laedere*" principle is common to all Member States. The PETL confirm a common basis in the European Tort system. However, with regard to types of liability, procedures and rules on evidence, there are many differences in the various member States.

This framework would not allow an effective transformation of the EU legal system in a pro Natura perspective.

Therefore, the EU context, with reference to these two pillars, could be "asymmetrical" not only between the EU and the Member States but also between the different Member States (because each State would have the possibility to implement these two pillars with its discretionary power).

The other three pillars would compensate for this asymmetry.
The rules of non-regression, the rule of resilience evaluation and "*in dubio pro natura et clima*" criterion, if placed at EU level, would influence State policies, without affecting their constitutional identity.

Indeed:
a) the rule of non-regression would impose a duty to constantly improve all EU legislation (not only the environmental legislation) towards Nature, activating improvements in State legislation;
b) the rule of resilience evaluation would prevent national circumvention of EU Environmental Law, through practices such as "Salami Slicing";
c) the "*in dubio pro natura et clima*" criterion would guide interpretations in accordance with EU law by national authorities.

Ultimately, these three pillars would promote a process of harmonization of the law of the Member States according to the pivotal role of Nature, as recognized by EU law.

This change would not create interpretative conflicts between national and EU judges and would not create contrasts between the rights of Nature and rights already recognized at State level.

Indeed:
a) The "*in dubio pro natura et clima*" criterion would prevail in any conflict of interpretation between State rules and EU law;
b) The contrast between rights recognized by the Member States and EU Nature Rights would be only apparent: in fact, the substantive rights of Nature would operate not as "alternative" but as "complementary" to fundamental rights, thanks to the common ecological interest.

Furthermore, the integration of the content of rights would also stimulate a useful dialogue with the jurisprudence of the European Court of Human Rights on the environmental issue, according to art. 6 TEU.

Ultimately, the three pillars (especially thanks to the non-regression rule and "*in dubio pro natura*" criterion) would strengthen and consolidate the rights already protected at domestic and ECHR level.

The only rights that could be harmed by the introduction of the Rights of Nature would be the right of property and the right of economic initiative.

However, the role of the Rights of Nature is precisely to overturn the relationship between the human economy and nature's economy. In addition, the EU Court of Justice, European Court of Human Rights and domestic jurisprudence already allow for some limitation of these rights in the name of environmental protection.

The introduction of the Rights of Nature would definitively consolidate this limitation guaranteeing the economy of Nature, without affecting freedom of movement.
An EU, founded on the Rights of Nature, would become a "Shared Area" for the protection of its economic and social ecosystem.

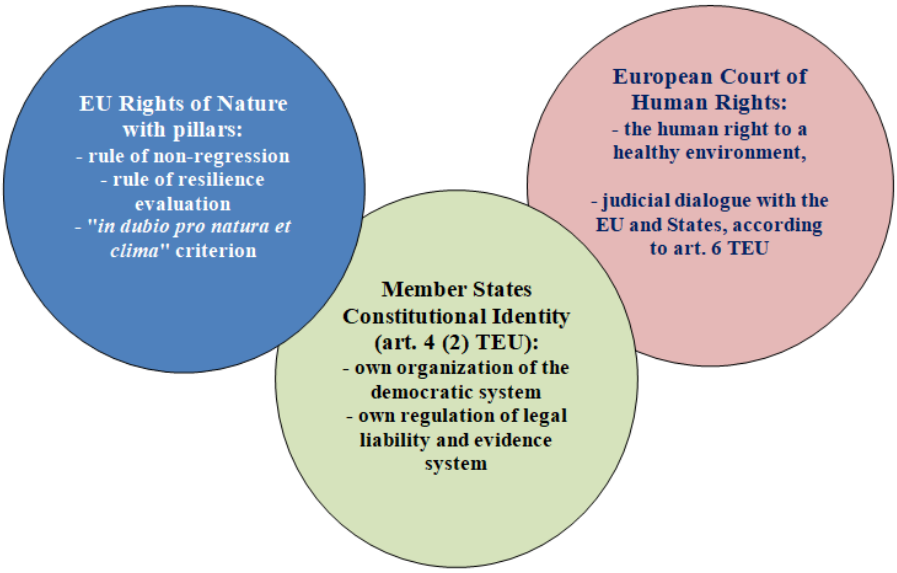
Christian Felber, founder of the social international movement of the "Economy for the Common Good"[242], suggests the creation of an "Ethical Trade Zone", made up of States that respect human rights, SDGs and fight against environmental degradation and climate change.

If the EU introduced a Charter on the Rights of Nature, it would become the first organization in the world to create a new dimension of supranational coexistence, in harmony with the Earth system.

[242] https://www.ecogood.org/.

The framework could be represented as follows:

Figure 21: EU as "Shared Area" of the Rights of Nature



The three pillars of non-regression, resilience and "*in dubio pro natura et clima*" would not conflict with the constitutional identity of States and would not collide with the rights protected by the Member States and with the fundamental rights recognized by the European Court of Human Rights.

6.3 An initial examination of barriers for civil society

Civil society barriers can be cultural (internal) and material (external) - all of which are a product of, and are entirely dependent on, the paradigm of thought from which they are born. There are four main cultural barriers:

a) environmental culture;
b) legal culture;
c) legal culture of operators serving civil society;
d) economic culture.

Here we refer to "environmental culture" as meaning the set of conceptions that organized social groups have of Nature and the use of Nature[243]. "Legal culture" of civil society means the set of conceptions that social subjects, individually or in a coordinated way, have of law and the use of law for the protection of their interests and rights[244]. "Legal culture" of operators means the set of conceptions that lawyers, judges[245] and jurists have of Law and its use[246]. Finally, "economic culture" indicates the set of beliefs and preferences shared by social groups in the market[247].

[243] LUTZ NEWTON J, SULLIVAN W.C. *Nature, Culture, and Civil Society*, 1 *J. Civ. Soc.*, 3, 2005, 195-209. About "Human Wildlife Conflicts" in in the EU context of nature conservation, see https://ec.europa.eu/environment/nature/cormorants/goodpractice.htm.

[244] MACAULAY S. *Popular Legal Culture: an Introduction*, 98 *Yale L. J.*, 8, 1989, 1545-1558, and GIBSON J.L., CALDEIRA G.A. *The Legal Cultures in Europe*, 30 *L. & Soc. Rev.*, 1, 1996, 55-86.

[245] See, for example, the consultation of the sites: https://www.eufje.org/index.php?lang=en; https://www.eufje.org/; https://www.environmentalprosecutors.eu/; http://www.ejtn.eu/; https://www.era.int/.

[246] FISCHER E. et al. *Maturity and Methodology: Starting a Debate about Environmental Law Scholarship*, 21 *J. Envtl L.*, 2, 2009, 213-250.

[247] SCHRÖTER H.G. *Economic Culture and its Transfer*, 58 *Rev. Écon.*, 1, 2007, 215-229.

What are they and how do they relate to Nature and the rights of Nature? The questions open up very complex perspectives, but some answers are possible[248]. Indeed, studies on environmental conflicts and environmental justice [249] show two evidences:

a) civil society's claims regarding the environment are often declined as individual or social rights and interests, which do not necessarily define an ecological concept of coexistence, nor do they claim Rights of Nature[250];

b) environmental conflicts frequently express contrasts towards economic paradigms based on development models and not towards visions of Nature as "object" or "subject" of law[251].

These two observations are very problematic.

The first shows that environmental conflicts are not automatically ecological conflicts in the sense of considering Nature as a common interest or even as a subject within the community. Ecology is often a topic of contest against institutions and the economy, rather than part of a different vision of the relationship between human rights and interests and those of Nature[252]. A paradigmatic example is found in the relationship between environmental claims and property rights[253].

The second consideration shows that environmental disputes concern primarily the economic field before the legal one. Therefore, two questions emerge from the observation of environmental conflicts: is the law or the economic system the main obstacle to effective environmental protection?

How could introducing rights of Nature be beneficial? Could it serve to claim ecological interests over individual interests or to strengthen only the protection of individual or social rights, maybe in order to challenge some economic paradigms?

When looking at contemporary cultural obstacles we can observe the following in terms of mind-set. Comparative law shows that rights of Nature have been claimed as superior interests on individual rights only by indigenous communities (characterized by "Cthonic" legal tradition [see *Annex 5*]), symbiotically linked to Nature. In the Western theoretical debate, rights of Nature, the right to the environment and the rights of future generations often belong to common conceptual frameworks[254]. Even European legal professionals do not use legal categories according to ecology. On the contrary - there is practically no effective dialogue between legal sciences and practices and ecological sciences and practices[255].

Moreover, the whole EU legal system, an expression of the "Western legal tradition", is based on denaturalized and exclusively humanized legal categories. A very fitting example is given by the "legal

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[248] BEATO S. *I quadri teorici della sociologia dell'ambiente tra costruzionismo sociale e oggettivismo strutturale*, 16 *Quad. Soc.*, 1998, 1-19; PELLIZZONI L., OSTI G., *Sociologia dell'ambiente*, Bologna, 2003; CHANEY P. *Civil Society Organizations' Experiences of Participative Environmental Mainstreaming: a Political Systems Perspective of a Regional European Polity*, 26 *Envtl Pol. Gov.*, 2016, 510–526.

[249] http://www.ejolt.org/.

[250] For example, in Colombia it was the judges, and not the parties, who recognized the Rights of Nature. The complaints were all focused on human rights in force.

[251] CORBERA E. et al. *Climate Change Policies, Natural Resources and Conflict: Implications for Development*, 19 *Climate Policy*, sup.1, 2019, 1-7.

[252] ELLS K. *Ecological Rhetoric through Vicarious Narrative*, 2 *Envtl Comm. J. Nat. & Cult.*, 3, 320-339.

[253] GRINLINTON D., TAYLOR P. (eds.). *Property Rights and Sustainability. The Evolution of Property Rights to Meet Ecological Challenges*, Leiden, 2011; MATTEI U., QUARTA A. *The Turning Point in Private Law: Ecology, Technology and the Commons*, Cheltenham, 2018; TALBOT-JONES J., BENNETT J. *Toward a Property Rights Theory of Legal Rights for Rivers*, 164 *Ecol. Econ.*, 2019.

[254] D'ALOIA A. *Bioetica ambientale, sostenibilità, teoria intergenerazionale della Costituzione*, 2 *BioL.J.*, 2019, 645-678.

[255] CHAPRON G. et al. *Bolster Legal Boundaries to Stay within Planetary Boundaries*, 1 *Nature, Ecology and Evolution*, 3, 2017, 1-5.

philosophy" of Tort Law as "Corrective Justice" or "Restorative Justice" between individuals and in favour of individuals[256], but not as "Protective Justice", expression of common interests that must be preserved in advance, in a meta-individual and multi-subjective perspective[257].

In this background culture, simple legal recognition of Rights of Nature is not enough to shift the mind-set on its own. Whilst legal personality and rights in itself will strengthen the litigation strategies of NGOs in their action to protect human rights and Nature[258],, the kinds of problems our society now faces cannot be solved only with litigation strategies. The climate emergency is an unprecedented challenge, which affects not only policies but also the role and responsibility of civil society in the use of law.

The challenge refers to the need to break down the theme of the environment into two different social areas of action, discussion and decision:

1) avoiding the collapse of ecological systems in conditions of critical resilience;

2) acting and deciding in conditions of non-critical resilience; in the co-evolutionary interactions between ecological and social systems.

The first perspective requires a universal hierarchy of objectives and interests, such as the hierarchy of rights referred to above. On the contrary, the second perspective allows the balancing of objectives and interests. It is appropriate to reflect on the role of Rights of Nature in these two different scenarios. Environmental law always works according to the logic of the second scenario and is therefore insufficient to produce effective answers in the era of the climate emergency and other multiple crises that we now face globally.

To date, the relationship between Rights of Nature laws and climate emergency response tools has not yet been investigated or tested[259]. The only example is the Permanent International Tribunal on the Rights of Nature, which is an opinion Tribunal without a legal basis, which takes into account any international *opinio iuris*. However, even if there was data available no rights of Nature laws embedded within a fully integrated whole systems society-wide framework for implementation exist as yet. This is because Rights of Nature laws started emerging organically in response to the needs and campaigning of particular stakeholder groups rather than as a concerted effort to update our legal system by designing a legal framework appropriate to meeting our objectives for 2050 and beyond.

There are three external material barriers:

a) the operating rules of the EU economic system;

b) EU procedural rules for the protection of rights;

c) the difficulty of identifying "common constitutional traditions" of the EU Member States on the protection of the environment and the Nature.

[256] SHEINMAN H. *Tort Law and Corrective Justice*, 22 *L. & Phil.*, 1, 2003, 21-73.

[257] See about the difference between "legal person" and "public trust" SHELTON D. *Nature as a Legal Person*, 22 *VertigO. Rev. Électronique Sc. Environnement*, 2015, 1-17.

[258] PISANÒ A. *Crisi della legge e litigation strategy*, Milano, 2016.

[259] BAGNI S. *El aporte del derecho procesal constitucional al litigio estratégico sobre el cambio climático*, in *La naturaleza como sujeto de derecho*, cit., 333-364.

The functioning of the economic system is described in art. 3 (3) TEU and articles 119 (1) and (2), 120 and 127 TFEU. In these rules, sustainable development is part of a highly competitive social market economy, aimed at:

1) balanced economic growth;

2) the objectives of full employment;

3) social progress and a high level of protection and improvement of the quality of the environment based on the balancing of interests and values, which, however, in articles 119 (1) and (2), 120 and 127 (1) of the TFEU, becomes preferential for an open market economy with free competition.

Moreover, free competition in the internal and external market is currently identified by some authors as a barrier to the full implementation of environmental principles[260]. Some questions are unavoidable. How are the Rights of Nature compatible with an open market economy with free external and internal competition[261]?

Furthermore, it is appropriate to consider whether it is possible to harmonize the high level of protection of Rights of Nature with free market competition and whether a European civil society favourable to free competition can accept limitations in the name of Rights of Nature. And also whether it is possible to create a hierarchy of the values and interests of free competition in situations of "critical resilience" of ecosystems, which would put Rights of Nature at risk. Some indications emerge from comparative law.

Firstly, it should be noted that Rights of Nature are generally associated with civil, social and solidarity economy models, based on the food autonomy of local communities and on experiments of participatory democracy. It is known that Rights of Nature are also claimed for the practices of the so-called "Demodiversity"[262].

The civil, social and solidarity economy is also recognized within the EU[263], but does not represent a priority factor in sustainable development policies. This finding suggests that the protection of Rights of Nature could be recessive with respect to the need to guarantee free competition. Scientific studies, however, suggest combining the strengthening of ecosystems with the spread of solidarity and social economic practices[264].

In this perspective, Rights of Nature could be functional to the diffusion of this more sustainable economic model. However, a dilemma between effective protection of Rights of Nature and economic regulation systems remains. In fact, the most problematic conflicts on Rights of Nature, in the countries where they have been recognized, have always concerned the relationship with the economic regulation of goods, within the general framework of free competition[265].

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[260] TORRE-SCHAUB M. *Economics and Environmental Law: dealing with Competition Law and Environmental Principles in the European Union context*, Global Law Working Paper, Law NYU.

[261] See FISH L. *Homogenizing Community, Homogenizing Nature: An Analysis of Conflicting Rights in the Rights of Nature Debate*, *Stanford Undergraduate Research J.*, 2013, 6-11.

[262] DE SOUSA SANTOS B., MENDES J.M. (eds.). *Demodiversity*, Abingdon, 2020.

[263] http://www.ripess.org/continental-networks/europe/?lang=en.

[264] http://www.solidarityeconomy.eu/.

[265] "Solon v. Morales" in MARK J., *Natural Law*, 27*Earth Island J.*, 1, 2012.

With regards to the EU rules of procedural protection of rights, there are several barriers.

a) Lack of standing of Nature (as plaintiff), in relation to the effects of recognition of rights that would concern the human being and not Nature. In the light of the jurisprudence of the EU Court of Justice, it seems difficult to recognise Rights of Nature without substantial changes within the Treaties or without procedural changes by the Court[266].

b) The relationship between Rights of Nature and property rights, regulated by national Constitutions and protected by state private law, according to non-homogeneous guidelines and in which the limits on property are often affirmed through duties and not through "new rights"[267].

c) possible competition between the Rights of Nature and other rights related to Nature, such as, for example, ecosystem protection or the right to health. This could potentially lead to: *c1)* collision between Rights of Nature and the climate mitigation energy projects (e.g. a hydroelectric plant on a river); *c2)* collision between Rights of Nature and the construction of hospitals, schools or other public works[268]. These situations can produce cases of "tragic legal choices" [see *Annex 11*].

d) the presence of different procedural systems for stakeholders' involvement in decision-making processes regarding EIA and SEA in the Member States, despite the attempt to harmonize them through the Aarhus Convention and EU respective directives. The only parameter that the EU Court of Justice can apply to review national legislation is the principle of effectiveness[269].

In these negative scenarios, under the current system, the balance between rights and interests is inevitable, unless the Rights of Nature are also defined through specific interpretative clauses, such as the "*in dubio pro natura*".

A further issue concerns who is the best *Guardian ad litem* of the rights of Nature and on which criterion to choose them, in the best interests of Nature. For example, in Ecuador and Bolivia there are specific types of *actio popularis*. These allow any citizen to bring an action in defence of the Rights of Nature, regardless of whether direct damage has been suffered to the applicant.

However, these tools have often been used for purposes unrelated to the ecological protection. It is therefore imperative that any introduction of Rights of Nature in the EU takes a fully comprehensive whole-systems approach that integrates these rights across all areas of society with implementing legal frameworks that circumvent these kinds of issues generated by our current paradigm.

In the EU, possible actions to protect the Rights of Nature should take into account three compatibility parameters: articles 263, 264 and 265 TFEU; the procedural rules of states for standing; and the Aarhus Convention of 1998 (art. 9). It is possible that some specific amendments to include new possibilities of access to justice in the name of the Rights of Nature may be necessary as a precautionary step, although

[266] About cases Plaumann, Pequeños Agricultores, Danielson, Inuit, Microban, see SCHOUKENS H. *Access to Justice in Environmental Cases after the Rulings of the Court of Justice of 13 January 2015: Kafka Revisited?*, 31 *Utrecht J. Int'l and Eur. L.*, 81, 2015, 46–67.

[267] COYLE S., MORROW K. *The Philosophical Foundations of Environmental Law: Property, Rights and Nature*, Oxford, 2004.

[268] Case Nepal *Yogi Narahari Nath v Honorable Prime Minister Girija Prasad Koirala* NKP 33: DALY E. *Constitutional Protection for Environmental Rights*, 17 *Int'l J. Peace St.*, 2, 2012, 71-80.

[269] See for instance, judgment of 7.11.2019, case C-280/18 § 27.

we believe that legal personality would give Nature standing as a subject in its own right which would bring it under the protection of the Aarhus Convention and the EU Aarhus Regulation.

In any case, the issue of access to justice also involves a substantive explanation of Rights of Nature. As is known, the mere assertion of Rights of Nature does not necessarily imply the definition of their substantial content. In the Constitution of Ecuador, Rights of Nature are recognized as constitutional interpretation clauses in "*favor naturae*" (consequence of the criterion "*in dubio pro natura*"). In contrast, the Bolivian State attributes to the Rights of Nature some substantial contents (right to life, right to biodiversity, right to respect for life cycles, right to water, right to restoration). The formulations of these rights are generic with respect to the concept of Nature. It is not clear whether the statement of the Rights of Nature would lead to the attribution of each element of Nature (such as a tree for example) with specific rights (and in the case of an affirmative answer it should be clarified if it refers to the single tree, to all the trees, or to some trees). Similar questions are relevant when the substantial content is identified in the protection of the ecosystem (unless the ecosystem also corresponds with a human community in harmony with Nature, as in the case of indigenous communities). These generic formulations determine concrete balances similar to those already implemented in by the EU and Member States courts in relation to the objective protection of the environment. Any formulation of the Rights of Nature should therefore involve clear definition of the substantive Nature of these rights to avoid ambiguity.

The last barrier refers to the possibility of identifying "common constitutional traditions" of the Member States in terms of environmental and Nature protection, compatible with the introduction of Rights of Nature. Outlining a "common constitutional tradition" of the Member States regarding the concept of environment is quite complex.

There are at least five reasons for this complexity:

a) the different forms of environmental protection within the individual European States, in which there are some models of codified protection (as in Italy) and other models of constitutionalized protection (as in France and Germany)[270];

b) the different use of the precautionary principle between the different European jurisdictions, also in relation to the jurisprudence of the EU Court of Justice on this principle[271];

c) the absence of the jurisprudence of the European Court of Human Rights aimed at protecting the environment as an "ecosystem" or as a "set of natural goods and services"[272];

d) the presence of different procedural systems for the protection of rights in the Member States, with particular reference to non-contractual liability in the preventive protection of damage to the environment and health, despite the attempt to harmonize this made by the "PETL"[273];

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[270] FRACCHIA F. *Il diritto ambientale comparato*, 7 *www.federalismi.it*, 2017, 1-68.

[271] GARNETT K. PARSONS D.J. *Multi-Case Review of the Application of the Precautionary Principle in European Union Law and Case Law*, 37 *Risk Analysis*, 3, 2017, 502-516.

[272] E.g., most recently, the European Court of Human Rights, case "Cordella and others v. Italy", 24 January 2019.

[273] Already mentioned *Principles of European Tort Law* (http://www.egtl.org/index.html) also used in *Oslo Principles on Global Climate Change Obligations* (https://globaljustice.yale.edu/oslo-principles-global-climate-change-obligations).

e) the lack of common discipline between states on "Commons" or "common goods", since goods, services and natural resources are frequently linked to this category[274].

The four case studies analysed above in *Section 3* give us concrete examples of how the introduction of an EU Charter of Rights of Nature could help to overcome the barriers for civil society.

- **Universal standing on behalf of Nature**: giving rights to nature means recognizing Nature as a legal entity. Since the first study by Stone in 1972[275], one of the first legal problems to be solved when proposing Rights of Nature has been the standing question. There are different possible solutions, that mainly include the recognition of specific guardians, such as environmental NGOs, or the provision of universal standing to every person willing to bring a case to courts. The difference between recognizing standing to Nature and extending standing to individuals in environmental cases is obviously based on the different type of actions and interests that each party could enact and claim.

- **Participatory Rights**: the same argument above can be applicable to participatory rights. Recognizing Nature as a legal entity entitles her with participatory rights in administrative or legislative decision-making processes. Nature's interests can be described and defended only from an ecosystemic perspective that underlines all the connections and impacts of human activities on a specific ecosystem, with a long-term vision. The phenomenon of "salami slicing" will be unmasked.

- **Separation of powers**. Together with substantive Rights of Nature, a Charter will also include interpretative and conflict of rules resolution criteria, to give practitioners (in particular judges and civil servants) concrete instruments of implementation. We refer to the four rules enunciated in § 5.6 (non-regression; resilience; "*in dubio pro natura*" (and now *pro clima*); "sustainable" democratic methods), where they have been defined and their compatibility with EU law have been demonstrated. All together, these rules lead legal enforcers toward a specific direction in defence of ecosystemic stability and integrity, giving little space for instrumental interpretations of the law. Moreover, their implementation is based on scientific bases, so that it would be difficult to support the "political question doctrine" argument against the existence of judicial jurisdiction.

- **The "all or none" argument**: the rules of resilience and non-regression represent the proper counter-argument. Every single preventive or restorative action, even if implemented at local level, is able to feed the capacity of Nature to recover from external disturbances.

- **Fostering scientific knowledge on Ecology and Ecological Law**. Spreading the Rights of Nature approach will contribute to foster ecological discourses among the public at large, and to strengthen awareness about the interdependence of humans, non-humans and the environment. The sole proposal of an EU Charter of Rights of Nature from within EU institutions will give raise to a public debate where people will be invited to reflect on our connection with the Earth ecosystem.

- **The promotion of different economic models and styles of life**. The Rights of Nature approach is based on scientific premises from ecology and natural sciences, but is also deeply rooted in ancestral

[274] DUIT S. *Greening Leviathan: the rise of the environmental State?*, 25 *Envtl Politics*, 1, 2016, 1-25.

[275] STONE C.D., *Should Trees have Standing? Toward Legal Rights for Natural Objects*, 45 *Southern California L. Rev.*, 1972, 450-501.

cultures, that have not forgotten their original dependence on Nature. Rights of Nature are a concept that translates into legal terms different cosmovisions from all around the world[276]. It means they are part of a deeper cultural discourse, that can be spread into all branches of human knowledge. From an economic perspective, Rights of Nature opens up different models of development and economic systems: agro-economy, permaculture, organic production, eco-tourism, solidary and popular economy, circular economy, etc., that is a whole set of solutions able to sustain human life in harmony with Nature.

- The liberation of governments from electoral blackmail. A Charter of Rights of Nature proposal from above, that is supported by EU institutions, could help Governments in the process of building consensus within their own society. Moreover, Rights of Nature are also supported by the UN. It could become a great occasion, in particular after the Covid-19 crisis[277], to create an international consensus based upon the necessity to assure to humanity the highest possible standard of protection against extinction, by putting the defence of a liveable condition of life on the planet as the global common priority. A supranational approach could be the easiest way to commit Governments to long-term environmental strategies.

Having said all of the above, whilst the outlook from where we are currently standing looks bleak, it has to be remembered that the cultural and material barriers stem from an outdated paradigm systemically entrenched by commonly accepted behaviour. However, especially in the wake of the Covid-19 pandemic we can see that we are in a vastly changed world to the one our predecessors created - and that the paradigms of thought, culture and the ensuing systems that they generated are out of synch with a viable future for all.

This is where the EU Fundamental Charter for the Rights of Nature will have the greatest impact - in being able to start a different conversation and to set a different paradigm. This paradigm would be based on a vision of a thriving ecological conversion at a high level that is entrenched in law through comprehensive legal frameworks that take a whole systems integrated perspective that provide a legal imperative for all of our systems to evolve. We have looked at studies based on existing Rights of Nature laws - but we are recommending an evolutionary step that other countries are yet to take - taking Rights of Nature to the next level by coupling it with a comprehensive implementing framework of ecological law.

6.4 Arguments for and against a Charter of Fundamental Rights of Nature

In *Section 4* we have underlined specific milestones for the implementation of a different whole-systems approach to tackle the current environmental crisis. In particular, we have indicated possible legal developments within the EU system of law. In this paragraph, we will focus on the **pros and cons** of the introduction of a EU Charter of Rights of Nature as implementation of the constitutional "ecological mandate" (*supra*, § 2.1) that derives from all the theoretical and practical premises that we have proposed in previous paragraphs and *Sections*.

[276] KOTHARI A. et al. (eds.) *Pluriverse: A Post-Development Dictionary*, Tulika Books, New Delhi, 2019.

[277] See *"Opinion on Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions - Sustainable Europe Investment Plan - European Green Deal Investment Plan"* [COM(2020) 21 final] ECO/505 – EESC-2020-00463-00-01-AC-TRA (en), and "EESC proposals for post-COVID-19 crisis reconstruction and recovery" – EESC-2020-02549-00-00-RES-TRA (en): «*The EU must be guided by the principle of being considered a community of common destiny*».

Each point is supported by a set of arguments that have a major impact on different sectors or produce major implications for specific stakeholders.

We have divided them into five categories, following the prevalent issues they address:
- environmental;
- social;
- political;
- economic;
- cultural.

Considering the complexity of the emergencies (*supra*, § 5.1), they must be intended not as sealed compartments, but as a network of inter-dependent factors, influencing one another.

6.4.1 A unifying whole-systems framework to tackle the "eco-legal" breaking points

The EU Charter of Rights of Nature will provide a unifying whole-systems overarching framework for human society's existence in the 21st century, fostering collaboration between all areas of society and between Member States[278]. The current fragmented and mechanistic system of law will be substituted by multidimensional adaptive systems. Rights of Nature framework will bring law up to date with modern science.

Environmental issues (Env1)

Pros: Almost all laws and policies have environmental consequences, but currently they are not treated as such – e.g. economic, agricultural, international trade, etc. The Charter will clarify that **all human actions have an impact on Nature**, so we have to deal with it. This corresponds to one of the three premises of the constitutional ecological mandate: recognizing that Rights of Nature must be taken into consideration in all policies. An example can clarify the point. Scholars have demonstrated that EU Common Agricultural Policy is directly responsible for Europe's problems of drought[279], but the policy is not strictly considered as belonging to the environmental competence.

Cons: This would involve reviewing all existing laws or policies for inconsistency (for instance, the EU strategy on bioeconomy[280], to be oriented to the respect of natural cycles and the primacy of economy of Nature over human economy[281], in the genuine meaning of Nicholas Georgescu-Reogen[282]), or a new discipline of contracts and procurement, with the introduction of binding ecological clauses or "ecological conditionality" clauses[283], or the introduction of a better law making program based on the criterion "*in dubio pro natura et clima*", the introduction of the "ecological" analysis of the law, the

[278] The need of "a holistic approach across sectors" had been signaled also by the EU Commission in its Communication "*The EU Environmental Implementation Review: Common challenges and how to combine efforts to deliver better results*", 3.2.2017 COM(2017) 63 final, § 1 and 4, https://ec.europa.eu/environment/eir/pdf/comm_en.pdf.

[279] PE'ER G. et al., *Action needed for the EU Common Agricultural Policy to address sustainability challenges*, *People Nat*. 2020, 1-12.

[280] https://ec.europa.eu/knowledge4policy/publication/updated-bioeconomy-strategy-2018_en.

[281] The current European strategy considers the territory as a "container" of resources to be exploited. See CECCHERINI G. et al. *Abrupt Increase in Harvested Forest Area over Europe after 2015*, 583 *Nature*, 2020, 72-77.

[282] https://www.institutmomentum.org/bioeconomics/.

[283] PENNISCALCO M. *Sviluppo sostenibile e contratto ecologico. Un altro modo di soddisfare i bisogni*, 4 *Rass. Dir. Civ.*, 2016, 1291-1322.

revision of treaties "businesses oriented"[284] such as the "Energy Charter"[285] and its "Zombie Clause"[286]. However, this could be a very time-consuming, yet necessary, process.

Social issues (S1)

Pros: Social policies are often decided in isolation from considerations on environmental impacts. In this regard, the inconsistency between the EU Sustainable Development Agenda and the 2020 Agenda for Growth and Jobs are evident. The holistic approach of Rights of Nature will be able to evidence this dystopic view, so that **environment and social issues can be tackled jointly**. The Rights of Nature, with their pillars and in the integration of the essential content of fundamental rights, would guarantee the **"ecologically safe and socially just space"**, between social foundation and ecological ceiling[287].

Cons: Without adequate education and awareness raising, it could be perceived that social issues are more important than environmental ones, and taking the environment into account across the board would be too stifling on the economic progress of society. The Nature's rights model needs to be mainstreamed so that people understand that the only way to get a truly sustainable and regenerative result is to have economic and other systems that support both human society and Nature synergistically – which will involve a lot of behavioural change.

Political issues (P1)

Pros: The EESC has underlined in many of his Opinions that very often the poor results of EU environment legal framework implementation were due to lack of political will by Member States. This resulted in negative outcomes for Nature and so consequently for human society in the mid-long term. The Charter will circumvent any issue of lack of political will and **give a moral and legal imperative to act** regardless of political ideology. As an example, it is worth mentioning the 20-year old environmental battle in Roșia Montană, Romania[288]. The Carnic Mountain is an area of outstanding natural beauty; yet, the area had been designated to be the Europe's biggest goldmine, excluding any other competing interests. The controversial mega mining project would have involved the creation of a cyanide lake and mass destruction to the ecosystems. With an EU Charter of Rights of Nature, this kind of policy would have immediately been reworked.

Cons: Without adequate education and mainstreaming of the principles, Member States could perceive the Charter as restricting their freedom to pursue their own agendas and respond to the concrete needs that arise from their own constituencies, rather than be bound by "ideologies" that could undermine internal political stability. Communication and understanding of the principles is key to overcoming this.

Economic issues (Eco1)

Pros: The current neoliberal growth-oriented economics of the EU, with GDP as the sole measure of progress, is unsustainable over the medium to long term. The Charter can provide a moral and legal imperative to **evolve into an economic model that can be intrinsically sustainable and even regenerative**. The EU Commission, both with respect of the EU Green Deal strategy and in its recent communication on EU Biodiversity Strategy for 2030 (20.5.2020 COM(2020) 380 final) has provided data about the economic costs that Europe will face, if the Union do not fix new targets of environmental

[284] See EBERHARDT P. *The Zombie ISDS*, Amsterdam-Bruxelles, 2016.

[285] http://trade.ec.europa.eu/doclib/press/index.cfm?id=2017.

[286] CEO-TNI *One Treaty to rule the all*, Amsterdam, 2018.

[287] RAWORTH K. *What on Earth is the Doughnut?*, 2017 (https://www.kateraworth.com/doughnut/).

[288] See WELLHAUSEN R.L. *The Shield of Nationality*, Cambridge, 2015, 188 ss.

protection. Similar findings can be read also in Mark Carney's speech "*Breaking the tragedy of the horizon*", and in the JPMorgan Chase & Co. Report "*Understanding Our Climate-Related Risks and Opportunities*"[289], May 2019. The WWF Global Futures Report[290] found that loss of Nature will wipe £368bn a year off global economic growth by 2050. Enterprises will be invited to consider Nature as subjects of their marketing and developing strategies and this new approach could show up on competitive advantages with clients more and more committed to environmental issues.

Whilst the data encourages us to take action now, in order to design better legislation and avoid the prospective economic losses, the Charter can help educate that the value of Nature is beyond that which can be economically measured and that we need new wellbeing indicators of progress as GDP no longer works.

Cons: The lobbying of economic and financial interests could condition the contents of the Rights of Nature, watering it down and producing mediocre results, risking the great challenges of change.

Cultural issues (C1)

Pros: The EU Charter of Rights of Nature will be the result of the **encounter between ecology and natural sciences**, from one side, **and legal sciences**, from the other. As we have already demonstrated (*supra*, 5.1), an ecological conversion is needed also in the legal paradigm currently in use, in order to produce the change we need to overcome the environmental crisis. The scientific principles and methods that govern the resilience of complex adaptive systems will be at the roots of the Charter of Rights of Nature.

Cons: As governments have political discretionary power the final choice is always political, despite what science says about it. We need to ensure as much objectivity as possible and move away from governments protecting interests to governments serving the whole.

Figure 22: Providing a unifying framework to tackle the emergencies

[289] CARNEY M. *Breaking the Tragedy*, cit., and J.P. MORGAN, *Special Report*, cit.

[290] https://wwf.panda.org/?359334.

6.4.2 Improving access to environmental justice in the EU

The Charter of Rights of Nature will improve access to environmental and climate justice in the EU[291], by giving Nature standing and empowering people to bring cases in the name of Nature as the aggrieved party. The same will happen with respect to Nature's interests during administrative and legislative decision-making processes. A justice system is meant to serve subjects entitled with rights: if a natural or legal person doesn't have adequate access to the courts, or cannot represent its own interests in administrative or legislative processes, the EU could be accused of infringing the same pillars on which it was built, namely the rule of law, democratic principles and human rights.

Environmental issues (Env2)

Pros: One of the biggest issues in environmental law worldwide is legal standing. This procedural dimension is often not given sufficient attention, though it leads to failures in the justice system. Standing for judicial review in the EU has for years remained severely restricted. European courts continue to interpret access to justice criteria so rigidly that it precludes challenges, particularly by non-governmental organizations, against the decisions of EU institutions, agencies and bodies. Standing is only given to individuals who are personally affected by a situation. The Charter of Rights of Nature will **grant legal personality to ecosystems and species**. This will also admit Nature's interests to be taken into consideration in the phase of determination of development policies' planning. It will also help to avoid the phenomenon of salami slicing in EIA/SEA, because Nature's interests can be understood only in the medium to long terms and from a broad and comprehensive perspective. Recent examples of standing barriers in environmental and climate justice at national and EU levels can be seen in the climate cases in Germany, UK, Switzerland and the "People Climate case", all dismissed by courts for lack of standing[292]. A clear example on how recognizing Nature as a subject of rights can impact on environmental justice, even in the absence of a legislative reform of civil and criminal adjective law is represented by the "Shark case" in Ecuador, where a NGO's intervention was accepted by the Supreme Court, directly based on the general constitutional right of implying Nature's rights implementation by public authorities[293].

Cons: A Charter is not needed to solve the standing problem. Courts can directly assume a less rigid stance in interpreting standing criteria; or the legislator could revise existing laws. However, solving the standing issue would be a welcome "side effect" of the Charter. It is important to understand the main purpose of the Charter is to bring about systemic change and not to get side-tracked into perceiving Rights of Nature purely as a litigation tool.

Social issues (S2)

Pros: Nature legal standing will open the door to NGOs and individuals being able to challenge the decisions of EU institutions and Member States, when it comes to upholding the Charter and protecting Nature's rights. In order to create an ecologically thriving world for all, **we need full participation from society**: all social groups and local communities will be invited to become protagonists of the ecological conversion, enhancing the subsidiarity principle. This is also in line with previous findings by the EESC (see for instance the Position paper – July 2018, "*Making civil society a driving force in the*

[291] A situation of persistence of "obstacles to access to justice in environmental matters" had been denounced by the EU Commission in its Communication "*The EU Environmental Implementation Review: Common challenges and how to combine efforts to deliver better results*", 3.2.2017 COM(2017) 63 final, § 2, https://ec.europa.eu/environment/eir/pdf/comm_en.pdf.

[292] https://www.urgenda.nl/en/themas/climate-case/global-climate-litigation/.

[293] http://www.cedenma.org/wp-content/uploads/2019/02/Caso-de-transporte-ilegal-de-tiburones-por-la-Reserva-Marina-de-Galápagos.pdf.

implementation of the UN 2030 Agenda for Sustainable Development", as well as the Opinion "*A more constructive role for civil society in implementing environmental law*", NAT/759 EESC-2019-00097). The Rights of Nature will **support environmental activism** and the wide standing will limit lobbying power of established pressure groups. Moreover, the EU Charter of Rights of Nature will help to **prioritize social interests above pure economic ones**, considering that the rights of Nature include the wellbeing of human and non-human life as well. An interesting testing ground would be the use of 5G. Even though 180 scientists appealed to the EU to follow Resolution 1815 of the Council of Europe asking for a moratorium on the roll out of 5G and an independent task force to reassess its health effects, the Commission responded that under art. 168 of the TFEU, the primary responsibility of protecting the public rests with the Member States. A Charter would place an obligation on the EU as well as Member States to uphold eco-systemic rights. It would also provide a basis to challenge actions such as the roll out of 5G which affect Europe as a whole. Another example comes from water deprivation in the province of Almeria, Andalucia, Spain. The aquifers are running dry and people don't have adequate water due to prioritization of economic interests (using up all the water for irrigation of olive crops for export by foreign companies, for example). It has not been possible to challenge any of these situations successfully, despite numerous attempts. A Charter and implementing legislation in the Member States would empower people to take action in cases such as this.

Cons: Without proper education and understanding, vested interests and governments may perceive the Charter as a threat to their profits, power and autonomy.

Political issues (P2)

Pros: the granting of legal standing to Nature, and as a consequence, to NGOs and/or individuals on behalf of Nature, will represent both for the EU and for Member States, **a full compliance with the Aarhus Convention**. The same could be said for their participatory rights in administrative and legislative processes. The EU and its Member States could be a model worldwide, in particular with regards to the countries that have adopted the Escazú Convention on Access to Information, Participation and Access to Justice in Latin America and the Caribbean[294], who look at Europe as their **source of inspiration** and best practices. Contrary to what could be imagined, the legal conflicts within the EU could diminish, due to a clearer set of common values and hierarchies of interests.

Cons: It could be feared that granting legal personality and rights to Nature will open the floodgates to too many legal cases- although this was not the case in Ecuador, even though it was feared. Member States have full competence over their civil procedure laws, which would therefore need to be reformed with respect to civil liability, damages and burden of proof.

Economic issues (Eco2)

Pros: A broader legal standing, legitimizing NGOs and individuals to challenge environmental degradation could also be extremely **helpful for SME and self-employed persons** that work in sectors deeply affected by climate change, such as eco-tourism, organic food, agro-economy and agro-forestry. The interests of these small companies or even of sole proprietor enterprises often give way to the economic demands of the multinationals of the agri-food business. A Charter of Rights of Nature will give those subjects new instruments to demand a sustainable economic model.

Cons: Extended legal standing on behalf of Nature could put a stop to all main economic activities, and put us into a major recession – the Charter's implementation would have to be phased in strategically and appropriate subsidies stopped and diverted towards scaling up business activities that align with the

[294] https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-18&chapter=27&clang=_en.

Charter's goals. Adaptation costs could affect in particular SME which is why the diversion of subsidies are important in the beginning.

Cultural issues (C2)

Pros: The more people are empowered to bring cases in the name of Nature, the more obvious it will become that our current economic model doesn't work to serve the needs of the rest of the biosphere. This will force society to **rethink how we "develop"** and try to focus on alternatives to or alternative forms of "development". Moreover, a Charter based on ecological principles and rules will encourage the judiciary to give more space in legal cases to scientific arguments, not only in environmental and climate justice, but also in cases of human rights violations. It could also foster the creation of **"green national tribunals"**[295] (whose composition have mixed origins: legal and technical) or the realization of the "**European Criminal Court of the Environment**"[296], on the model of the popular International Mother Earth Tribunal[297].

Cons: It is always possible to find contrasting scientific positions on any subject matter. The judiciary must be autonomous from scientific findings in its decisions and the independence of the scientific research has to also be established to know whether it was sponsored by vested interests or not.

Figure 23: Improving access to justice in the EU

6.4.3 Addressing some of the most critical issues of our time

The Charter of Rights of Nature will represent a concrete step forward in addressing some of the most critical and urgent issues of our time, namely the breakdown of our natural systems, due to their

[295] AMIRANTE D. *Environmental Courts in Comparative Perspective: Preliminary Reflections on the National Green Tribunal of India*, 29 *Pace Envtl L. Rev.*, 2, 2012, 441-469.

[296] http://www.iaes.info/en/.

[297] https://therightsofnature.org/statute-of-the-international-tribunal-of-mother-earth-rights/.

irresponsible overexploitation by humans[298], that has produced the eco-legal breaking points we have listed in § 5.1.

Environmental issues (Env3)

Pros: In order to reverse the damage done to the Earth, it is essential to take **a systemic approach, based on ecological principles and rules**. This has recently been upheld by the EU Commission in its communication on EU Biodiversity Strategy for 2030 (20.5.2020 COM(2020) 380 final, and had been previously underlined by the EESC on its Opinion "*Biodiversity beyond 2010*" NAT/471-CESE 1178/2010.

The biodiversity loss is a clear example of the lack of ecosystemic approach in EU legislation. Our current legal regime doesn't have an adequate solution, as the biodiversity crisis defies a purely quantitative approach. For instance, the endangered species listing system has not worked: in the time it takes to do the scientific studies required to list a species, it is already too late. Moreover, the annexes to the Habitats and Birds Directives, listing the endangered species, have never been updated, despite sharp declines in biodiversity. It also looks at biodiversity in isolation of all the other systemic factors that drive the loss.

Cons: No downsides here to a Rights of Nature approach as it can only act to fill in gaps and enhance any of the existing protections to make the system more robust. Downsides would only occur if the rights were dropped into the existing system without proper integration of the ecological mandate, 5 pillars, hierarchy of rights and so on.

Social issues (S3)

Pros: The Rights of Nature approach goes hand in hand with the **fight to redress social inequalities and the battle to eradicate poverty**. This appears very clear also in documents that do not officially endorse Rights of Nature, but that support the "ecological conversion", such as the Encyclical Letter *Laudato si* (2015 the Final Document of the Synod on the Amazon "*The Amazon: new paths for the Church and for an integral ecology*" (2019) and the Post-synodal Apostolic Exhortation "*Querida Amazonía*" (2020). A Charter of Rights of Nature, by defending Rights of Nature, contemporarily asserts that the wellbeing of all must prevail over other types of interests. As explained in § 5.3 and § 6.5, the Rights of Nature is inclusive with respect of human needs.

Cons: A downside would only occur if the Rights of Nature were adopted without the imperative to evolve the economic system into something that simultaneously served the widest number of people whilst also serving the needs ecosystems and species. If this didn't happen then the Rights of Nature and economy would be perceived to in conflict, like environmental law and economics are at the moment. Law needs to evolve to serve the whole rather than interests so implementation is key.

Political issues (P3)

Pros: The Charter will ensure a greater collaboration among the Member States as all its overriding objectives will be set at the highest level of EU legislation. An overarching initiative from above, that is from the EU institutions, could give national Governments the necessary **political impulse to create a wide consensus** between different political forces and among citizens, also thanks to the global movements against environmental collapse and climate change born inside the EU.

[298] «*The overall status of protected species and habitats has not significantly improved over the last six years*» was one of the main findings of the EU Commission's Communication "*The EU Environmental Implementation Review: Common challenges and how to combine efforts to deliver better results*", 3.2.2017 COM(2017) 63 final, § 2, https://ec.europa.eu/environment/eir/pdf/comm_en.pdf.

Cons: The Charter could just end up being nice words on a piece of paper whist business as usual continues. Its success depends on active citizens, institutions and governments who ensure that the secondary legislation and full implementation in all of the policy areas is actually carried out to transform society.

Economic issues (Eco3)

Pros: Addressing the current ecological crisis has to be moved to the top of the political agenda because **with no viable planet there is no economy**. Yet, at present there is little evidence of this happening. Unsustainable production and consumption patterns are arguably the mother of all environmental issues. In the EU territory more resources are consumed that in most other regions, leading to unsustainable waste and unnecessary environmental degradation. The economy must be adjusted to drive much more sustainable forms of consumption that operate in harmony with Nature. Arguably, the Covid-19 pandemic may act as Nature's way of rebalancing human excesses, as the ensuing global economic lockdown has seen Nature starting to make a recovery. It has also demonstrated that behaviours can change rapidly, if people understand the concrete level of risk they are facing. Finally, the pandemic has demonstrated another important thing: all nations, and possibly all individuals, should become more and more autonomous on their food supply. **Different economic models such as popular and solidary economy, agro-economy and agro-forestry**, etc. are viable and useful. Rejecting overuse of land and monocultures, and preserving local seeds and harvesting traditions, etc. are all objectives that merit serious consideration.

Cons: The economic loss generated by the global pandemic cannot be allowed to take priority over Nature. There is a danger that governments may once again prioritise short term economic fixes at the expense of longer term systemic changes that need to start happening now.

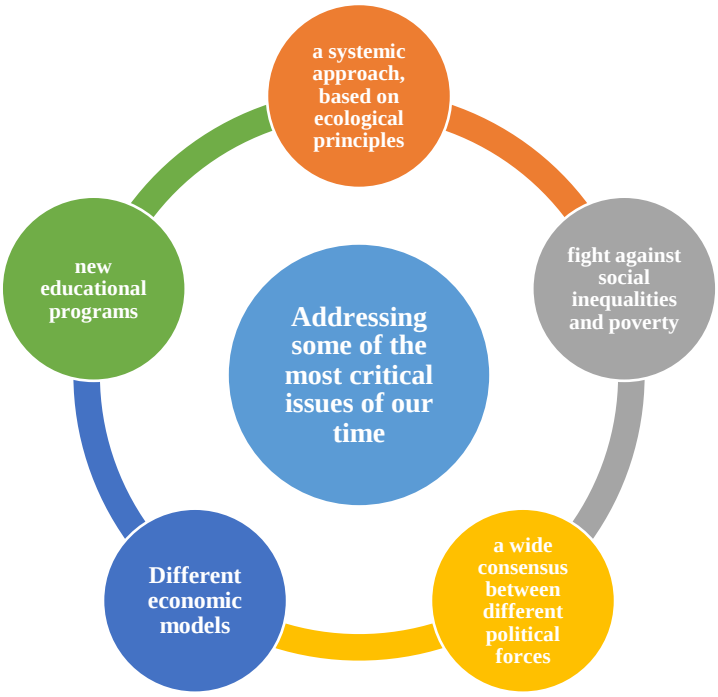
Cultural issues (C3)

Pros: Our laws come from our paradigm of thought and hold the structures in our society in their current mode of operation. By encoding a new paradigm in law through Rights of Nature framework we can start to turn the wheel the other way, from degeneration to regeneration. A "glocal" approach, from the local to the global, could be feasible, as it happened in Santa Monica, US[299]: since incorporating Rights of Nature in the local normative system via ordinances, they have found it to be a useful tool in reorienting planning policy around a positive vision and in preventing environmental harms. The Charter will inspire **educational programs aimed at the diffusion of the new five pillars of the ecological conversion** and will also lead scientific research towards the common good of sustainability.

Cons: For a society that is used to crisis management and fire-fighting, prioritising long term strategic goals to shift the whole system and its paradigms of thought can be perceived to be a challenge and not deserving of adequate resources – yet it is fundamental to the future of our world.

[299] CRESPI KAPLAN C. *Perspectives on Rights of Nature in Santa Monica, California*, Univ. Texas at Austin, 2017.

Figure 24: Addressing some of the most critical issues of our time



6.4.4 Taking EU to an international leading role

By approving the Charter of Rights of Nature, the EU will take up a leading role in the fight against climate change and environmental degradation. In particular, at the international level, the EU will strengthen its world prestige among other State partners in relevant international organizations committed to guarantee peace and human development, such as the UN. In fact, the Charter will support the implementation of the UN SDGs within Europe.

At regional level, it will realize a more perfect union, revitalizing the bond of solidarity between the Member States in the name of the common good.

Environmental issues (Env4)

Pros: By proposing the implementation of a legal instrument that will concretely guarantee the preference of eco-systemic interests of resilience above the economic interests of transnational corporations, a system unique in the world will be put at the centre of the world political agenda.

Cons: Many EU and national legislations should be revised and maybe also the institutional structure of the EU will need some adjustments, in order to assure the financial resources for the Charter to be implemented, such as a common fiscal policy.

Social issues (S4)

Pros: The Charter of Rights of Nature will foster the **diffusion of the One Health approach**, that would benefit both citizens', animals' and the environment's health.

Cons: National Government must be able to organize their public health system without external interferences on their political agenda and budgetary policies.

Political issues (P4)

Pros: At institutional and regional level, a Charter of Rights of Nature will **strengthen the role of the EU Courts**, by **fostering a dialogue** with national judges on the basis of a common EU parameter on the defence of Nature. In the current situation, as we have demonstrated in *Section 3*, this dialogue does not exist because there is no such a thing as a "common constitutional" tradition of the Member States on the protection of the environment. The subject-matter is regulated by directives that receive different levels of implementation in each Member State, often with a not too much hidden intent of leaving the situation fluid and uncertain. So much so, that the environment is the sector with a higher level of conflicts between the EU and Member States. A similar dialogue will be built also with the European Court of Human Rights that is involved in a process of creative interpretation of the ECHR, in order to recognize the right to a healthy environment. Moreover, the Charter of Rights of Nature will give new emphasis on the role of the EU Mediator that will be able to play the *Amicus Naturae*. All the objectives of EU environmental directives, such as the Habitats or the Wild Birds Directives, and all the current applicable principles, such as the polluter pays, the precautionary principle, etc., will receive a new vitality, being interpreted following eco-systemic principles and rules.

Cons: Supreme and Constitutional Courts in Member States could oppose themselves to this harmonization trend by using the so-called counter-limits doctrine or by appealing to art. 4 (2) and 6 TEU (*supra*, § 6.2) so this needs to be dealt with up front in the Charter and through sufficient education.

Economic issues (Eco4)

Pros: The economies of EU Member States will gain a **prominent position in the international market**, due to their experiences and competencies in new sustainable models of production.

Cons: Transnational companies may not accept being limited by the Charter or being handicapped in the international market due to loss of profits and so may lobby hard to prevent its introduction. Education is the key and incentives for transnationals to change their business model to become aligned with regenerative activities in the spirit of the Charter.

Cultural issues (C4)

Pros: The discussion about a **new sustainable style of life, in harmony with Nature**, that will be generated in Europe by the introduction of the Charter of Rights of Nature will be able to affect the rest of the world and inspire all the world society. This new inclusive and sustainable lifestyle will bridge the historical gap between Western culture and indigenous and other older cultures and worldviews, helping the transition of the EU into an intercultural form of State.

Cons: There is a danger that widespread populism in Europe may negatively affect the ecological transition, pushing some national Governments to oppose this cultural revolution. Education is key.

Figure 25: International leading role for the EU

6.5 EU Charter of Rights of Nature and EU Charter of Fundamental Rights?

In examining how to develop a perspective of Rights of Nature compatible with the EU legal system, we found that there are no officially granted Rights of Nature within supranational regional organizations. However, even if there was it would be of little relevance due to the uniqueness and complexity of the EU legal system. The EU system bases its integration on the "common constitutional traditions" of the Member States. This reference legitimized the EU Charter of Fundamental Rights. Therefore, from this premise we must start to identify, in the EU Charter of Fundamental Rights, some elements of connection with the elements emerged from the comparison of the experience of Rights of Nature.

Three such elements are:
a) improvement of the quality of the environment (art. 37 EU Charter of Fundamental Rights);
b) sustainable development (art. 37 Charter and art. 11 TFEU);
c) future generations (Preamble to the Charter and other EU sources).

Any formulation of the Rights of Nature is compatible with these three elements and therefore connects to the above mentioned elements, as recognized by EU law. However, in the EU lexicon there is no perfect coherence on the concept of sustainable development, e.g. between art. 11 TFEU and art. 37 of the Charter. The first article provides for the integration of EU policies and actions aimed at promoting sustainable development. Instead, it seems that art. 37 of the Charter states that integration must be in conformity with sustainable development[300]. This antinomy prevents the qualification of sustainable development as a "legal parameter" of EU law[301].

[300] See FRA *Applying the Charter of Fundamental Rights of the European Union in law and policymaking at national level. Guidance*, Luxembourg, 2018; COZZI A.-O., *Diritti e principi sociali nella Carta dei diritti fondamentali dell'Unione europea*, Napoli, 2017.
[301] See ONIDA M. *Art. 37*, in *Carta dei diritti fondamentali dell'Unione europea*, eds. Mastroianni R. et al. , Milano, 2017, 697.

In addition, art. 37 was considered a contradictory provision, because it sets an objective ("high protection") and a parameter ("sustainable development"), without identifying a substantive right to claim[302].

Furthermore, art. 37 has been interpreted as the source of a fundamental right only once, with the Opinion of the Advocate General Ruiz-Jarabo Colomer in case C-87/02: § 26: «... *Community citizens are entitled to demand fulfilment of that responsibility under art. 37 of the Charter of Fundamental Rights of the European Union, which guarantees a high level of environmental protection and the improvement of the quality of the environment. Accordingly, the main elements of any measure which strays from the general criteria aimed at protecting the environment must be duly specified, since that is an embodiment of the rational exercise of power, as well as being a tool which, if necessary, enables the measure to be reviewed subsequently*». It is explicitly identified in the Explanations relating to the Charter as "principle"[303].

The introduction of an EU Charter of Rights of Nature can help to solve the external antinomy between art. 11 TFEU and art. 37 of the EU Charter of Fundamental Rights, but also the internal contradiction in art. 37.

The first argument is a "formal" one. The EU and its Member States pursue the common objectives of the protection of the environment, climate and biodiversity. This kind of protection, introduced by the 1992 Conventions (UNFCCC, CBD, UNCCD), is aimed at the benefits of present and future generations. The EU and its Member States are also committed to implementing the 17 SDGs. There is a link between "benefits" of present and future generations, environment, biodiversity, climate and sustainable development. In its Recommendation CM/Rec(2017)7 on the contribution of the European Landscape Convention to the exercise of human rights and democracy with a view to sustainable development, the Committee of Ministers of the Council of Europe encouraged all State Parties to the European Landscape Convention to take action in pursuance of the Convention's objectives, by integrating all Nature's rights' dimensions:

a) the importance of the quality and diversity of landscapes for the minds and bodies of human beings (holistic approach);

b) the landscape as indicator of sustainable development;

c) framing landscape policies in the long term, so that they take into account the common surroundings for present and future generations;

d) guaranteeing the right to participation by the general public, local and regional authorities, and other relevant parties including non-governmental organisations;

e) implementing the rule of non-regression.

Therefore, only Rights of Nature are "ecological" rights that include climate, biodiversity and human "benefits". Rights of Nature should not be considered as opposed to human rights. As pointed out by IUCN, only a «*Nature based approach to climate ch*ange» can favour a "legal culture" suitable to face the challenges of the present and the future[304]. For this reason, the reference model of these Rights of Nature must not simply be a catalogue of subjective contents (as seen in Bolivia), but rather a model

[302] See O'GORMAN R. *The Case for Enshrining a Right to Environment within EU Law*, 19 *Eur. Pub. L.*, 3, 2013, 583-604; MORGERA E. MARÍN DURÁN G., *Commentary on Article 37*, in *Commentary on the EU Charter of Fundamental Rights*, eds. Peers S. et al., Oxford, 2014, 983-1003; SCOTFORD E. *Environmental Rights and Principles in the EU Context: Investigating Article 37 of the Charter of Fundamental Rights*, in *Environmental Rights in Europa and Beyond*, eds. Bogojević S. et al., Oxford, 2018, 133-154.

[303] See FRA *Applying the Charter of Fundamental Rights of the European Union in law and policymaking at national level*, cit. 21.

[304] See BAS L. *Nature-Based Solutions are Key to achieving Europe's ambitious Climate Change Targets*, 2018 (https://www.iucn.org/news/europe/201810/nature-based-solutions-are-key-achieving-europes-ambitious-climate-change-targets).

based on ecological methods of inclusion of Nature in human rights for the interpretation and application of the law and vice versa[305].

The "*Ratio*" of this "inclusion" comes from the common "vulnerability" of Nature and humans in the era of ecological and climate emergency. And it is a "*Ratio*" compatible with EU law and the "common constitutional traditions" of the Member States[306]. In fact:

a) it reinforces the essential content of fundamental rights (art. 52 (1) Charter): Nature becomes the constitutive element of the essential content and not the external element);

b) it does not compete with the levels of protection in the States or according to the European Convention on Human Rights (art. 53 Charter), facilitating a dialogue between interpretations of the human right to the environment and Rights of Nature[307];

c) it underlines the theme of "vulnerability", identified by all scientific reports as a "common condition" of the whole biosphere and already present within the decisions of the EU Court of Justice[308];

d) it identifies the Rights of Nature not as external subjects to the human being but as an element of the biosphere (to safeguard the entire biosphere, the EU must recognize equal dignity to all living subjects of its biosphere);

e) the recognition of equal dignity of all living beings is not an expression of a cosmovision[309] but of a common reality for the survival of European generations;

f) equal dignity of all living beings; would mean finally declaring the interdependence of life in the biosphere[310];

g) the equal dignity of all living beings becomes a parameter of the validity of EU law, without opposing its legal and social cultures or the EU economic context, but concretely directing cultures and economics towards sustainability in respect of planetary boundaries;

h) Rights of Nature can also become the parameter of EU commercial policies, as already recognized with reference to sustainable development[311];

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[305] Some scholars refer to "ecologization" of human rights or "eco-dependence" of human rights. See CAVEDON-CAPEDEVILLE F. *L'écologisation des juridictions régionales de protection des droits de l'homme: des nouveaux espaces d'accès à la justice en matière d'environnement*, 2 *Rev. Roumaine Dr. Environ.*, 2, 2010, 51-65.

[306] See SQUINTANI L. ANNINK D. *Judicial Cooperation in Environmental Matters: Mapping National Courts' Behaviour in Follow-up Cases*, 15 *J. Eur. Envtl & Planning L.*, 2018, 147-170.

[307] Human right to the environment is discussed in the States (such as Italy and France) and in the decisions of the European Court of Human Rights (DOGARU L. *Preserving the Right to a Healthy Environment: European Jurisprudence*, 141 *Procedia. Soc. & Behavioral Sc.*, 2014, 1346-1352. COUNCIL OF EUROPE, *Manual on Human Rights and The Environment*, Strasbourg, 2012).

[308] The EU Court of Justice discusses the issue of vulnerability with regard to Nature (e.g. cases C-258/00; C-396/01; C-121/03; C-404/09; C-41/11; C-15/17).

[309] As in the Andean constitutionalism (Ecuador and Bolivia).

[310] It would mean that the "legal system" finally corresponds to the "ecological system" (PEÑA CHACON M. *Diálogo entre sistemas ecológicos y jurídicos*, 33 *Rev. Iberoamericana Der. Amb. Recursos Nat.*, 2019, 1-2).

[311] See BEAUCILLON C., *Opinion 2/15: Sustainable is the New Trade. Rethinking Coherence for the New Common Commercial Policy*, 2 *Eur. Papers. J. on Law & Integration*, 3, 2017, 819-828.

i) in this perspective, the theme of Rights of Nature does not become a topic of contestation or opposition of interests among stakeholders, because it defines the common conditions for life of any stakeholder;

l) in this way, each stakeholder can contribute to discussing the common condition of the European biosphere in all forums[312];

m) the reference to Rights of Nature would concern any field of legal regulation, like the protection of fundamental rights (it would not be a feature of environmental matters only).

Finally, this possibility of qualifying the Rights of Nature could contribute to strengthening three EU action scenarios: the 17 SDGs in a biospheric and not just socio-economic perspective[313]; the best use of scientific results not only to protect human health, but also to ensure biospheric health (according to the "Global Health" logic[314]); the link between human rights and climate in terms of safety and stability of the climate system in consideration of all the components of the biosphere[315].

[312] This can also be useful in the activities of environmental prosecutors and in the exchange of good practices for the definition of crimes such as that of "disaster", also as a consequence of the lack of consideration of the Rights of Nature (see https://www.environmentalprosecutors.eu/).

[313] MASTERSON V.A. et al. *Revisiting the Relationships between Human Well-Being and Ecosystems in Dynamic Social-Ecological Systems*, 2 *Global Sustainability*, 8, 2019, 11–14.

[314] See EKINS P., GUPTA J. *Perspective: a Healthy Planet for Healthy People*. 2, *Global Sustainability* 2, 20, 2019, 1–9;

[315] https://www.ohchr.org/en/NewsEvents/Pages/DisplayNews.aspx?NewsID=24998&LangID=E&fbclid=IwAR3v9KEatcMttvWMUJVY_gBP2u2uzzO3hgmNTuTFTctaWY9fQbXDZ36EQQg.

Table 7: Summary of key and action needed

1)	The introduction in Europe of the Rights of Nature would be unprecedented.	
2)	Harmony with Nature is the "fundamental rule" for a proper coexistence. The legal ecological conversion will: • represent an answer to the ecosystem and climate emergency; • be useful to overturn the relationship between human economy and the economy of nature, and to place nature as the basis of policies; • be a useful tool to overcome law, policy, market and institutional failures.	
3)	3 out 5 pillars are perfectly compatible with the current EU context of "shared competences" (art. 4 (2 lett. e) TFEU), while 2 might be problematic: • Rule of non-regression; • Rule of resilience; • Rule of "*in dubio pro natura et clima*"; • Rule of sustainable democratic methods; • Rule of five responsibilities towards nature, with reversal of the burden of proof.	*compatible* *compatible* *compatible* *problematic* *problematic*
4)	The rule of non-regression would impose a constantly improvement of all EU legislation towards Nature's protection, activating also improvements in Member States law; A resilience evaluation would prevent national circumvention practices of EU Environmental Law, such as "salami slicing"; "*in dubio pro natura et clima*" would guide interpretations in accordance with EU law by national authorities.	
5)	Several benefits (*pros)* coming from a Charter on Rights of Nature: • promotion of a process of harmonization of Member States law, according to the centrality of nature, recognized by EU law; • dialogue between national and EU judges and no contrasts between the rights of Nature and rights already recognized at State level; • dialogue with the European Court of Human Rights on environmental issues, according to art. 6 TEU; • strengthening and consolidation of the rights already protected at EU, domestic and ECHR level.	

7. Conclusions: towards an "EU Charter of Fundamental Rights of Nature"

7.1 Binding/non-binding nature of the Charter

The introduction of a Charter of Rights of Nature with at least the 3 pillars (non-regression, resilience and *in dubio pro Natura et Clima*) in the EU legal system could happen following two different paths:

a) the **incorporation of the Charter into the EU Treaties**, following art. 48 (2) TEU;
or
b) the **adoption of the Charter** as **an inter-institutional non-legislative act** by the Council, the Parliament and the Commission.

Both solutions have pros and cons.

From the point of view of its legal force, ***option a)*** would give the Charter immediately binding effects within the EU legal system. As for the Member States, it would depend on the internal mechanism each State foresees for the reception of international law in its own legal system (sometimes it is automatic; sometimes, it depends on formal mechanisms that could include sub-processes such as constitutional judicial review).

However, ***option a)*** could potentially present more challenges, because it requires a revision of the Treaties, a time-consuming process and more demanding in terms of building the necessary political consensus. It would generate a process of revision both of EU secondary legislations and of national legislation, with possible increase of legal conflicts, due to uncertainty about the conformity of secondary European legislation and national legal Acts with the reformed Treaty. To counteract this, ***option a)*** would have to include its own framework for integration and implementation that gives it primacy and settles any potential legislative conflict at the outset. It could also produce a "sovereignist" reaction by Member States, that might argue that such a reform is outside the EU competence or affect the fundamental and intangible constitutional principles of some States. Given the binding force of the instrument, once incorporated in the Treaties, it is quite evident that if a common political consent on the adoption would emerge, this solution would offer the Charter the most powerful legal status. In times of crisis we need to be bold in our action and take the most effective route. ***Option a)*** is legally the stronger choice delivering potentially faster and more powerful outcomes if swiftly adopted.

Option b) would require a shorter decision-making procedure inside the EU institutions, that could appear more attractive both for the EU and for the Member States. Given the non-binding nature of the Charter, Member States could be more willing to enter into a compromise on those issues.

Even if non-binding, the Charter could generate both a politico-institutional impact and relevant legal effects.

From a political point of view, the Charter's approval could represent an ambitious political objective within the broader Green Deal policy recently launched by the Commission and could be used also by national Governments as an important result achieved within the international climate change and environmental commitments, in national political debates and in front of their own constituencies.

From the legal perspective, it can be useful to resume the history of the adoption of the EU Charter of Fundamental Rights, in order to imagine a plausible scenario for the Charter of Rights of Nature in ***option b)***.

With the Treaty of Lisbon, since 2009 the Charter is now part of European constitutional law (art. 6 (1) TEU). However, the Charter was first proclaimed before the formal opening of the Council session in Nice in 2000, after having been signed by the Parliament and the Commission. Even if the document had been initially recognized as non-binding, in the immediate aftermath, the EU institutions committed themselves to its implementation in many official acts and enthusiastically proclaimed again the Charter in Strasbourg in 2007[316].

As for the case law, both the EU courts and national constitutional courts, and even the European Court of Human Rights, began to refer to the Charter even before the document had become binding, considering it as a declaration that contains substantial objectives, principles and rules to which the actions of the EU and national institutions must be informed[317].

Two aspects must be underlined, that have influenced this happy ending in the history of the EU Charter of Fundamental Rights. First of all, since the 1970s, the case law of the EU Court of Justice and then of the Tribunal had developed a very rich set of principles and arguments in favour of the guarantee of rights as an intrinsic competence of the EU. Second, the content of the Nice Charter could be grounded on the "common constitutional traditions" of the Member States, that already recognized the human rights enlisted in the Charter in their own constitutions.

With respect to the future Charter of Rights of Nature, there are existing legal elements in the EU and national legal systems that could help the positive acceptance of the Charter as an interpretative and integrative legal instrument.

1) There are specific references, both in the Treaties and in the EU Charter of Fundamental Rights, to the obligations that the EU has towards the defence of the environment, sustainable development, and protection of human dignity.

2) The EU is bound by many international instruments to a high level of commitment to counteract climate change, protect the environment and the biodiversity, etc.

The above points might be the legal grounds justifying the adoption of the Charter of Rights of Nature within the EU legal system.

As for the "common constitutional traditions" of the Member States, we have demonstrated in *Section 3* that traces of eco-systemic legal thinking can be found in the constitutional case law of some member States. So, even in the case of the adoption of a non-binding document, the impact that the Charter could produce on the EU and national legal systems could be very high.

[316] TRUCCO L. *The EU Charter of Fundamental Rights and the Constitutionalization of the European Law*, *Diritticomparati.it*, 28 July 2014 (https://www.diritticomparati.it/the-eu-charter-of-fundamental-rights-and-the-constitutionalization-of-the-european-law/).

[317] https://multimedia.europarl.europa.eu/en/history-eu-charter-of-fundamental-rights_V001-0025_ev.

The Charter could be used by all civil servants and judges as a guiding instrument to an ecological interpretation of the existing laws.

This would require no legislative process of revision, adaptation or reception. In a case by case approach, the harmonization of the whole legal system to the new ecological framework will be generated through legal precedents and administrative practices.

The persuasive force of the Charter could also influence decision-makers for the adoption of future legislation.

The Charter could work from inside as a switch towards the "ecological conversion of the law" and could generate both a political and social impact, entering in the public debate, rising citizens' awareness of the "eco-legal" breaking points, fostering a change in personal behaviours.

7.2 The necessary contents of the Charter

We now present five schemes to summarize the topics addressed in this study and summarize the differences between current Environmental Law and Rights of Nature.

In this way, we identify all the founding elements of the "Earth Jurisprudence" and the "ecological mandate".

The schemes concern the following comparisons:

1) **differences between current Environmental Law and Rights of Nature;**

2) **differences in the Protection of Nature with or without the Rights of Nature;**

3) **differences of logic of argumentation about freedoms, rights and "values" with or without the Rights of Nature;**

4) **differences in the qualification of fundamental rights;**

5) **role differences of stakeholders with or without the Rights of Nature.**

From these bases and from the documents analysed and compared in the study, it is possible to start by hypothesising the "necessary contents" of a Charter of the Rights of Nature, in compatibility with the EU *acquis*.

The main points will refer to:

- structure of the Charter;

- general contents;

- substantive rights.

1) Main differences between current Environmental Law and Rights of Nature

The element of Comparison	Current Environmental Law	Rights of Nature
Representation of the Earth System	The human being is at the center of the Earth system	The "planetary boundaries" promote harmony between the entire Earth system and all living beings, including the human being
Representation of Nature	Nature is a set of factors of the production of wealth, in favour of human interests	Nature is a set of irreplaceable ecosystem services, because life on Earth depends on them
Representation of Natural Capital	Natural capital is an economic exchange value and is countervailable with other economic or financial capital	Natural capital is an irreplaceable value in use, and it is not countervailable with other economic or financial capital
Representation of economy	The economy is based on the exchange of goods and services between human beings	The economy is based on the priority consideration of natural capital and ecosystem services
Representation of development	Development consists of the growth of the gross domestic product (GDP) and global economic competition	Development consists of everyone's natural well-being, within ecosystem services
Relationship between subject and object	Legal entities are only human (natural or legal persons) and use natural resources and other forms of non-human life as objects of exploitation, consumption or protection.	All living forms are interdependent and no one dominates the other.
Representation of Law	Law regulates the relationships between human beings and their freedoms	Law aims to regenerate natural capital and ecosystem services
Representation of the Rights	Rights are individual needs and interests that depend on human wishes	Rights are needs that depend on Nature and guarantee the survival of all living species, not only the human one.
Objectives of environmental protection	Environmental protection is never absolute: it finds protection only in relation to some human actions and it works according to human interests.	Environmental protection is absolute, and it is guaranteed in relation to all human actions
Objective of Environmental Protection Rules	Environmental rules regulate the compromise between human interests and natural goods or services	Environmental rules guarantee the protection of natural capital and ecosystem services
Protection of Natural Resources	Protection is partial and limited to single areas or contexts	Protection refers to all ecosystems in all contexts, including urban ones
Representation of the Damage to Nature	The damage affects single events, goods or territories, according to human interests	The damage affects all living beings and all ecosystem functions

***2)* Contents of the Protection of Nature with or without the Rights of Nature**

TYPE OF PROTECTION	WITHOUT THE RIGHTS OF NATURE	WITH THE RIGHTS OF NATURE
PROTECTED AREAS	Yes	Yes
THE EQUILIBRIUM OF ECOSYSTEMS	Only within protected areas and in impact assessments	Everywhere and always
LIFECYCLES REGENERATION	It is guaranteed only within protected areas	It is guaranteed everywhere
PROTECTION OF ALL ECOSYSTEMS, INCLUDING URBAN ONES	No	Yes
RECOGNITION OF THE VALUE OF NATURE WITHIN ALL INTERACTION CONTEXTS BETWEEN HUMAN ACTION AND NATURE	No	Yes
NON-REGRESSION ABOUT ENVIRONMENTAL PROTECTION	It is not guaranteed	It is guaranteed
LINK WITH THE FIGHT AGAINST CLIMATE CHANGE	It is not guaranteed	It is guaranteed

3) **The logic on freedoms, rights and "values" with or without the Rights of Nature**

THE LOGIC ON FREEDOMS, RIGHTS AND "VALUES" WITHOUT THE RIGHTS OF NATURE	THE LOGIC ON FREEDOMS, RIGHTS AND "VALUES" WITH THE RIGHTS OF NATURE
The premise upon Nature: anthropocentric presumption about Nature as an "object" dependent on human will	**The premise upon Nature:** Nature is not a human creation nor a "value", but a biophysical condition independent of human will
Logical consequence on Nature: the human will is independent of Nature	**Logical consequence on Nature:** the human will is dependent on Nature
Logical condition 1: there are only freedoms and rights as human wills	**Logical condition 1:** there are not only freedoms and rights as human wills, but there are also "planetary boundaries" and ecosystem services that must be respected
Logical consequence 1a: human freedom, rights and wills are limited only by human will through balancing	**Logical consequence 1a:** without respect for "planetary boundaries", natural capital and ecosystem services, human freedom, rights and will cannot survive
Logical condition 2: "values" are creations of the human will therefore the environment can also be defined as a "value" by the human will	**Logical condition 2:** although "values" are human creations they cannot deny the existence of "planetary boundaries", natural capital and ecosystem services
Logical consequence 2a: even the environment, as a "value" created by the human will, can be balanced with all human creations and, therefore, with all the other freedoms or rights or "values"	**Logical consequence 2a:** "planetary boundaries ", natural capital and ecosystem services cannot be balanced with the creations of human will, because they are just their presupposition
Logical consequence 2b: Ecosystem and climate emergencies do not call into question current law.	**Logical consequence 2b:** Current law is not adequate for the unprecedented challenges of ecosystem and climate emergencies.

***4)* The main elements of Fundamental Rights with or without the Rights of Nature**

THE MAIN ELEMENT OF FUNDAMENTAL RIGHTS	WITHOUT THE RIGHTS OF NATURE	WITH THE RIGHTS OF NATURE
IDENTIFICATION OF THE RELEVANT CONTENT	Exclusively for human interests	For ecosystem services and natural capital, through the *"in dubio pro natura"* criterion
RIGHT TO LIFE AND RIGHT TO HEALTH	Exclusively for humans	For all living beings
SOLVING CONFLICTS BETWEEN RIGHTS	Through the balance of all rights and interests, including economic ones	For ecosystem services and natural capital, through the *"in dubio pro natura"* criterion
RELATIONSHIP BETWEEN ECONOMIC OPTIONS AND RIGHTS	It is based on the proportionality between economic advantages and limitation of rights	It is based on the rule of assessment of ecological resilience and on the use of economic analyses for the maintenance of natural capital and ecosystem services, through the *"in dubio pro natura"* criterion
RELATIONSHIP BETWEEN POLICIES, RIGHTS AND THE ENVIRONMENT	Policy options are not negotiable (*Political Question;discretionary powers*)	Policy options are negotiable through the *"in dubio pro natura"* criterion and the rule of non-regression.
RELATIONSHIP BETWEEN SCIENCE AND RIGHTS	Science is subordinate to human interests	Science is a priority to define the safeguarding of natural capital and ecosystem services
PRECAUTION TOWARDS THE MAIN RISKS AND UNCERTAINTIES	It depends on political and economic options	It is based on the *"in dubio pro natura"* criterion
NON-REGRESSION ABOUT ENVIRONMENTAL PROTECTION	It is not guaranteed	It is guaranteed by the non-regression rule
CONNECTION WITH THE FIGHT AGAINST CLIMATE CHANGE	It is not guaranteed	It is guaranteed by the *"in dubio pro natura"* criterion
SOLIDARITY BETWEEN GENERATIONS	It is not guaranteed	It is guaranteed by the non-regression rule

5) **The role of stakeholders with or without the Rights of Nature**

ROLE OF STAKEHOLDERS	WITHOUT THE RIGHTS OF NATURE	WITH THE RIGHTS OF NATURE
INTERESTS	They are in opposition and in competition, for human purposes only	They are oriented towards respect for "planetary boundaries", natural capital and ecosystem services
PARTICIPATION IN DECISION-MAKING	It is aimed at realizing its interests	It is aimed at sharing common duties to safeguard "planetary boundaries", natural capital and ecosystem services
RIGHT TO INFORMATION	It is regulated and limited according to interests	It allows free, unconditional and unlimited access to all information
ACCESS TO JUSTICE	It is conditioned and limited	It is unconditional and unlimited
AVAILABILITY TO ACCEPT WORKS/PROJECTS CONSIDERED TO BE OF STRATEGIC IMPORTANCE	It depends on the interests and economic advantages	It depends on the resilience and ecological compatibility of the works with respect to natural capital and ecosystem services
COST–BENEFIT ANALYSIS	It is based on primarily economic assessments	It is based on primarily ecological assessments

7.2.1 The international context

As we have noticed in *Section 2*, at the moment there are no binding international or supranational documents recognizing Rights of Nature. However, we have also mentioned that there are two documents that could be used for a comparative analysis in order to draft a proposal of a tentative structure and contents of a Rights of Nature Charter: the "*Universal Declaration of Rights of Mother Earth*", adopted by the civil society, and the UN "*World Charter for Nature*". Another important document is the "*Global Pact for the Environment*", also supported by the EU Commission.

At national level, there are already many legal systems that have incorporated Rights of Nature, even if only Ecuador has included a specific and detailed regulation in the Constitution. Besides, Bolivia is the only State that has implemented a comprehensive legislation on the rights of Mother Earth.

For these reasons, the aforementioned documents will be used to suggest a set of options in order to propose the structure and contents of the Charter.

7.2.2 Structure

All documents, even if coming from different contexts and times, present a preamble and a threefold structure, consisting of:

1) objectives, definitions and principles;

2) substantive rights of Nature;

3) obligations of States and individuals towards Nature.

7.2.3 General contents

Preamble

Usually, the preamble contains all the prior factual and political reasons that have animated the parties to adopt the document.

In this part, references to the scientific basis of the eco-systemic, climate, and fossil fuels emergencies (*supra*, *Section 1*) and to the "eco-legal" breaking points (*supra*, § 5.1) could be added. Moreover, it could be an occasion to resume all the main principles of the current EU Environmental Law, still compatible with the Rights of Nature (the polluter pays; the net-gain principle to give nature back more than it takes; the precautionary principle; etc.)

Objectives, definitions and principles

A first choice concerns the inclusion of a definition of Nature and an explanation of other ecological and climate terms (ecosystem; ecosystem functions, biomes and anthromes, "laws" of Nature; laws of thermodynamics; climatic stability; tipping points; bearing capacity; ecological deficit; critical natural capital; Planetary Boundaries; ecosystem approach; balance; integrity; extinction; Carbon Budget etc.).

In this case, however, these definitions should be based on a scientific language[318]. In addition, they must take into account the scientific definitions of international law (specifically CBD, UNCCD, UNFCCC) and refer to the IPCC, IPBES-IRP, EEA etc.

Finally, it is important to also include the concepts of "emergency" and "threat", used by science in its "warnings"[319].

Then, in conformity with our prior findings, we suggest to include in the Charter the following:

1) **"Common recognition rules**":

«*All living beings have equal rights to exist, because they are interdependent in the biosphere and commonly vulnerable to environmental degradation*». Moreover, the recognition that «*The EU is a Shared Area of non-regression, resilience and ecological integrity, within the Planetary Boundaries*».

2) **"Axiological" principles**:

«*In the face of the loss of biodiversity and the concrete risk of the tipping points the Earth System, the EU recognizes ecological integrity as a primary public interest for the benefit of present and future generations and directs its actions in consideration of the resilience of ecosystems and the promotion of biodiversity in all the contexts of life of its citizens*».

3) **Rule of insertion of Nature into the essential content of fundamental rights**:

«*Nature and all its life cycles are an element that cannot be exempted from the fundamental rights of any person. The existence of fundamental rights depends on respect for the life cycles of nature*».

«*Everyone must live in harmony with nature. The health of every living being must be guaranteed*».

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[318] About the problem of the correspondence between the scientific language and legal, social and economic discourses, see HURT A.E. *A Global Threat: The Emergence of Climate Change Science*, New York, 2018, and NERLICH B. et al (eds.) *Communicating Biological Sciences*, London-New York, 2009.

[319] See *Section 8 Complete bibliographical references (cited and for future research)* no. 7 (*Sources on climate and ecosystem emergencies*) and no. 8 (*Bibliography on ecosystem services and nature-based solutions*).

«*The existence of all forms of life in the biosphere is guaranteed. Every living subject is part of the common way of life. All EU policies and actions must respect it*».

«*The existence of all forms of life guarantees the global health of EU, in dialogue with all sciences*».

«*The EU policies and actions promote the ecological balance between all the subjects of nature and the ecosystem services that guarantee its survival. Any human interest has a duty to pursue the ecological balance for itself and for future generations*».

4) **"Methodological" rules (in analogy with the rules of the "ecological mandate": "non-regression"; assessment of "resilience"; "*in dubio pro natura*")**:

«*EU law is based on the rule of non-regression in the levels of environmental protection and preservation. New rules or acts can only increase or expand environmental protection. No rule or act can derogate from the prohibition of environmental regression*».

«*For any doubt in the interpretation of EU law the criterion of favour naturae is applied, which consists in preferring the most favourable interpretation to environmental protection and preservation*».

«*All EU actions are inspired by the assessment of the lowest environmental impact and must identify the maximum level of degradation possible, not to compromise all living beings in their biosphere*».

«*Any environmental impact must be made with the assessment of resilience*».

«*EU citizens have the right to participate in environmental, agricultural and energy decisions and have the right to be informed about damage to Nature*».

«*All EU citizens have the right to unconditional information on damage to Nature*».

«*All EU citizens have the right of access to justice for the defense of the rights of Nature*».

«*Educating to respect Nature is a primary duty of the EU*».

The above clauses represent the general provisions governing the interpretation and application of the Charter, its backbone. Where the first two clauses contain general statements on the recognition of the ecological values and principles that inspire the Charter, the second two are prescriptive rules of interpretation and conflict-resolution, that assure the implementation of the Charter in coordination with the rest of the legal system. These rules are fundamental for the viability of Rights of Nature in the current legal context and would give civil servants and judges the necessary instruments to select the applicable rule in each concrete case, limiting discretionary balancing.

These hypotheses have many benefits, some of which are indicated as follows:

a) **they favour** the promotion of argumentative processes within the EU "in function" of the centrality of the Nature as a condition of better survival of human beings; so, **they work as a "learning" tool**;

b) **they improve the "quality" of the content of decision-making processes** and public participation in an "ecological" dimension;

c) **they allow "environmental", "legal" and "economic" culture** to use a common vocabulary, focused on Nature. Thus, they have an **"educational" capacity**. They do not require amendments to the EU legal system or implementations by the Member States. Therefore, they do not depend on the States, but they can guide legal interpretations within the States (as for the Charter of Fundamental Rights). They strengthen the protection of fundamental rights in an "ecological" perspective.

7.2.4 Substantive rights

A long list of Rights of Nature can be generated, looking at all the experiences currently available in the world. We can try to divide them into homogeneous categories, in order to ease picking them up.

Rights related to Nature's life or existence: the right to life and to exist; integral respect for its existence and for the maintenance and regeneration of its life cycles, structure, functions and evolutionary processes; the right for its essential processes not to be impaired; the right to be respected; not to compromise genetic viability; protection from degradation.

Rights related to conservation: as we have demonstrated throughout our study, conservation must not be limited to protected areas. The "ecological mandate" and the whole systems approach require a guarantee of conservation in all areas of the Earth. Some examples of formulations could be: the right to maintain the population levels of each species to a sufficient number; safeguarding of habitats and ecosystems; the right to regenerate Nature's bio-capacity and to continue its vital cycles and processes; the right to maintain its identity and integrity as a distinct, self-regulating and interrelated being; the right to maintain diversity among species.

Rights of specific natural components: right to clean water and air, free from contamination;

Right to health: the right to be free from contamination, pollution and toxic or radioactive waste.

Standing rights: recognition of the legal personality to Nature implies indicating the subjects that will act on its behalf, that is to say identifying guardians. The most common provision is giving to every person (not only to citizens) the right to stand in courts or to participate in administrative proceedings or decision-making process to represent Nature's interests and rights. This same right could be assigned to communities, peoples and nations, environmental NGOs, associations, trusts, funds, etc. In this case, it is necessary to specify on the basis of which criteria standing will be recognized (statutory objectives; scope of the organization; territorial presence; number of members; democracy of the internal structure; etc.).

Right to restoration: the fundamental point it that restoration shall be apart from the obligation of the State and natural persons or legal entities to compensate individuals and communities that depend on affected natural systems.

A safe-guard clause that recognizes that the list of rights is open is to be recommended: «*Nothing in this Charter shall be interpreted as restricting or adversely affecting Rights of Nature eventually recognised, by Union law and international law and by international agreements to which the Union or all the Member States are party, and by the Member States' constitutions or legislation*».

7.2.5 Obligations of States and individuals towards Nature

Common obligations: to respect Nature's rights, to guarantee a safe and healthy environment, to make a sustainable, rational and resilient use of natural resources; to promote the common good above individual interests, in order to realize a good life for all, in harmony with Nature; to preserve and respect the common cultural and natural heritage of the world; to use natural resources within the capacity of Nature to regenerate them; to use the soil in a manner that can safeguard its long-term fertility and the

process of organic decomposition, and prevent erosion and all other forms of degradation; to recycle and re-use.

State obligations:

Preventative: to implement public policies of prevention, protection, defence, respect, care for Nature; to prevent any human action that could affect, degrade, destroy, threaten, extinguish or alter Nature's life cycles and processes; to develop and support sustainable economic models of production and consumption in harmony with Nature, guaranteeing Nature's regeneration and integrity; to prohibit, also at international level, over-exploitation of natural resources and forms of commercialization of its vital systems and processes; to develop public policies of energy sovereignty, based on renewables and clean energy sources; to bring about, at an international level, the equitable recognition of environmental debts; to commit to a policy of peace and disarmament, in order to avoid nuclear, chemical and biological forms of contamination and mass destruction; the State shall apply preventive and restrictive measures on activities that might lead to the extinction of species, the destruction of ecosystems and the permanent alteration of natural cycles; to prohibit the introduction of organisms and organic and inorganic material that might definitively alter the Nation's genetic assets; to require ecological impact studies of legislation and development projects in advance; to prohibit the realization of activities which are likely to cause irreversible damage to Nature; to establish precautionary and restrictive measures to prevent human activities from causing species extinction, the destruction of ecosystems or the disruption of ecological cycles.

Restorative: to establish the most effective mechanisms to achieve restoration and adopt adequate measures to eliminate or mitigate harmful environmental consequences; to guarantee that damages caused by violations of the inherent rights recognized in this Declaration are punished and that those responsible are held accountable for restoring the integrity and health of Nature.

Educational: to promote and support practices of respect for Mother Earth and all beings, in accordance with their own cultures, traditions and customs.

Individual obligations: to actively participate, individually or in groups or associations, in the defence of the Rights of Nature; to assume personal behaviours and consumption patterns compatible with Nature's rights; to report to the competent public authorities every violation of the Rights of Nature; to promote and participate in learning, analysis, interpretation and communication about how to live in harmony with Nature.

A safe-guard clause to guarantee the compatibility of the Charter with EU Treaties, as in the EU Charter of Fundamental Rights, could be recommendable.

«*The provisions of the Charter shall not extend in any way the competences of the Union as defined in the Treaties*».

7.3 Pathway to achieve the Charter

How to start this ambitious path?

In order to promote the introduction of a Charter of Rights of Nature within the EU legal system, the EESC should launch a broad public consultation process aimed at raising awareness on the relevance of the Rights of Nature issue, in connection with the application of the EU Charter of Fundamental Rights.

The broad public consultation process should be based on a clear pathway to be defined beforehand. A proposal to this effect is sketched here. This foresees a consultation process based on three steps:

1) The first step refers to an internal consultation of the EESC Members, as organised in the three EESC constitutive groups (Employers, Workers and Diversity Europe), as well as in the various sections and observatories.

2) Subsequently, or in parallel with step 1, a wide-ranging consultation of the European academic and scientific community should be held. This should be conducted with an interdisciplinary perspective, through the organisation of seminars and roundtables, both online and (possibly) in person.

3) Building on steps 1 and 2, EESC should promote an open public consultation of all the interested European civil society stakeholders, including both civil society organisations and individuals.

Figure 26: Pathway to achieve the EU Charter of Fundamental Rights of Nature

On the basis of the outcomes of the broad public consultation described above, the EESC should prepare an Opinion to be sent to the Commission, advocating the preparation of a Communication from the Commission to the other EU institutions on the possibility of adopting a EU Charter of Rights of Nature.

7.4 Rights of Nature in the REFIT framework

When the Charter of Nature Rights will be introduced into the EU legal system, it will be necessary both its implementation through further legal acts (Regulations, Directives etc.) and also the reformulation of the IA/REFIT system[320].

In fact, the IA/REFIT system will have to take into account the substantive content and the "pillars" of the Rights of Nature.

In particular, "Due Process of EU Law" and "Better Lawmaking" will have to be "ecologically oriented".

[320] https://ec.europa.eu/info/law/law-making-process/evaluating-and-improving-existing-laws/refit-making-eu-law-simpler-less-costly-and-future-proof_en. About the importance of REFIT see: EESC Opinion on *REFIT* SC/44–EESC-2016-00869-00-00-AC-TRA (FR) 128/187; Opinion OT SC/44-EESC-2016-00869-00-00-AC-TRA; Opinion "*Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions - Better regulation for better results - An EU agenda*" COM (2015) 215 final, EESC-2015-03697-00-03-AC-TRA.

This "paradigm shift" is also suggested by several studies on the "eco-legal" breaking points mentioned in the *Section 3*.

One of these studies found that nine of the eleven "Tipping Points" identified by the IPCC were reached[321].

The study defines the current situation as an "existential threat" to humans, which cannot be compensated by any purely economic cost-benefit analysis. Also the UNFCCC, in Decision no 1/CP21-2015, speaks of an "urgent and potentially irreversible threat". Consequently, the impact analyses:

a) cannot have an exclusively economic-social content;

b) must consider the context of the "existential threat" of "Tipping Points";

c) must include the time factor of 'urgency';

d) must provide ecosystem information on biodiversity loss, "Tipping Points", etc.

The *"Green Swan"* Report[322] also suggests a paradigm shift in impact and risk analysis.

The "Eco-legal" emergencies affect the time variable of risk forecasts and cost/benefit comparisons. This situation is called "tragedy of horizon": the time to make decisions that can have improvising effects is very limited. This "tragedy" makes all political plans and projects out of date (as demonstrated by the EU Regulation no. 1999/2018 and the National Energy and Climate Plans).

Finally, the prognostic study on the emergency[323] provides negative predictions, starting from 2030-2050, according to the following estimates:

temperatures > 1.5°C, dangerous situation;

temperatures > 3°C, catastrophic situation;

temperatures > 5°C, unknown situation.

The current IA/REFIT mechanism is an administrative system of knowledge of interests and public consultation, within a non-emergency scenario and without ecosystem information.

On the contrary, "eco-legal" breaking points describe an "urgent", "pejorative", "existential threat" scenario that places ecosystem equilibrium at the centre.

Therefore, the traditional "chronopolitics" of the institutions[324] must be reformed in function of the planetary emergency, since this emergency

- is not temporary but systemic;
- it is anthropogenic;
- it cannot be compensated by market mechanisms;
- it is 'pejorative' in relation to future climate and ecosystem scenarios.

Analyses and impact assessments must take into account all these factors.

Therefore, with the recognition of the Rights of Nature, the EU IA/REFIT system should introduce new ecosystem strategies, such as:

- the introduction of an integrated long-term approach, with regular updates (such as, for example, an "Annual European Ecosystem Act", covering all European policies according to the "pillars" of the Rights of Nature, and applicable to both citizens and businesses);

[321] LENTON T.M. et al. *Climate Tipping Points*, cit.

[322] BOLTON P. et al. *The Green Swan. Central*, cit.

[323] XU Y. et al. *Well below 2°C*, cit.

[324] KAISER M. *Reactions to the Future*, 9 *Nanoethics*, 2015, 165-177.

- the affirmation of the primacy of safeguarding the Rights of Nature and ecosystems as the source of the present and future life of European citizens;

- the introduction of the ecological and economic analysis of Law (through the primacy of ecology over economics) (see *Annex 10*);

- the consideration of possible scenarios of "tragic choices" (see *Annex 11*);

- the implementation of an integrated environmental and climate information system binding on the EU and the Member States (by reforming the EIONET mechanism[325]);

- the promotion of innovative forms of environmental democracy and citizen science;

- strengthening the interactions between the economy and ecology within the European institutions;

- the use of parameters other than Gross Domestic Product (GDP), such as the "*Gross Ecosystem Product*" (GEP)[326] or other critical approaches to the "*Green Economy*"[327] (which is based on balancing exclusively human interests);

- the creation of integrated ecosystem and social indicators[328], which can also be used by the EU Court of Auditors (ECA) and the Courts of Auditors of the Member States;

- a permanent consultation of the EU academic and scientific community (see *Annex 13*).

These strategies should concern both citizens and businesses in a common and shared responsibility towards Nature.

If everyone respects Nature and its Rights, it is possible to build a future not "threatened" by "eco-legal" breaking points[329].

Table 8: Summary of key and actions needed

1)	The Charter of the Rights of Nature will represent an ambitious political objective meaningfully contributing to the green deal policy endorsed by the EU Commission and will represent a flagship achievement for Member States within their international climate change and environmental commitments
2)	The Charter of the Rights of Nature shall be based on 3 pillars (non-regression, resilience and "*in dubio pro natura et clima*") and should embrace the new holistic, ecological bases approach.
3)	The Charter of the Rights of Nature could be adopted according to two different legal techniques, both presenting *pros & cons:* *a)* incorporation into the EU treaties, following art. 48 (2) TEU; or *b)* adoption of the Charter as an inter-institutional non-legislative act by the Council, the Parliament and the Commission.
4)	If *a)*: • The Charter would have immediately binding effects within the EU legal system, but could potentially present more challenges, because it requires a revision of the treaties;

[325] https://www.eea.europa.eu/about-us/countries-and-eionet.

[326] See OUYANG Z. et al. *Using Gross Ecosystem Product (GEP) to value Nature in Decision Making*, 117 *PNAS*, 25, 2020, 14593-14601.

[327] For example see UNMÜßIG B.et al. *Critique of the Green Economy*, Heinrich Böll Foundation Berlin, 2012.

[328] The current indicators are mainly sectoral and partial. About this "comparison" problem see DUIT A. (ed.) *State and Environment. A Comparative Study of Environmental Governance*, Cambridge (Ma), 2014.

[329] On Nature as a solution to economic and social problems see, for example: KAHN, L. *Perspective: The One-Health Way*, 543 *Nature*, 2017, S47; PALAHÍ M. et al. *Investing in Nature to Transform the Post COVID-19 Economy. A 10-point Action Plan to Create a Circular Bioeconomy devoted to Sustainable Wellbeing*, 11 *Solutions*, 2, 2020.

	• Legally stronger choice, delivering potentially faster and more powerful outcomes, if swiftly adopted.
5)	If *b)*: • Shorter decision-making procedure, that could appear more attractive both for the EU and for the Member States (i.e.: given the non-binding nature of the Charter, Member States could be more willing to enter into a compromise on those issues); • Even if non-binding, the Charter could generate both a political institutional impact and relevant legal effects.
6)	Whatever the choice, there are already existing legal elements in the EU and national legal systems providing the legal grounds justifying the adoption of Charter within the EU legal system and helping the positive acceptance of the Charter as an interpretative and integrative legal instrument: • Specific references, both in the Treaties and in the EU charter of fundamental rights, to the obligations that the EU has towards the defence of the environment, sustainable development, and protection of human dignity; • The EU is bound by many international instruments to a high level of commitment to counteract climate change, protect the environment and biodiversity.
7)	The Charter could be used by all legal civil servants and judges as a guiding instrument to an ecological interpretation of the existing laws. This would require no legislative process of revision, adaptation, reception. In a case by case approach, the harmonization of the whole legal system to the new ecological framework will be generated through legal precedents and administrative practices.
8)	The persuasive force of the Charter could also influence decision-makers for the adoption of future legislation. It could work from the inside as a switch towards the "ecological conversion of the law" and could generate both a political and social impact, entering in the public debate, rising citizens' awareness on the "eco-legal" breaking points, fostering a change in personal behaviours.
9)	The implementation of the Charter needs an "ecologically oriented" approach within the REFIT framework.

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Sez. III-Quater, Judgement no. 5771/2020

México
Primera Sala Corte Suprema de la Nación, Amparo en revisión, no. 307/2016, 14-11-2018

Nepal
Yogi Narahari Nath v Honorable Prime Minister Girija Prasad Koirala NKP 33

Spain
Tribunal Supremo Sent. 30-09-2011-Casación no. 1294/2008

11 Sitography

https://actu.dalloz-etudiant.fr/le-billet/article/
https://www.allianceforcorporatetransparency.org/news/companies-failing.html
https://www.animalhumanesociety.org/health/five-freedoms-animals
http://cdca.it/en/perche-i-conflitti-ambientali
http://www.cedenma.org/wp-content/uploads/2019/02/Caso-de-transporte-ilegal-de-tiburones-por-la-Reserva-Marina-de-Galápagos.pdf
https://www.circularity-gap.world/2020
https://www.cites.org/eng/documents/Strategic_vision
https://www.co2.earth/daily-co2
https://www.coe.int/en/web/compass/environment
https://corporateeurope.org/en/lobbying-the-eu
https://digitallibrary.un.org/record/676394
https://digitallibrary.un.org/record/84366
http://droitshumanite.fr/?lang=en
https://earthcharter.org/read-the-earth-charter/
https://www.earthlawcenter.org/co-violations-of-rights
http://www.earthtrusteeship.world/the-hague-principles-for-a-universal-declaration-on-human-responsibilities-and-earth-trusteeship/
https://ec.europa.eu/environment/eir/pdf/comm_en.pdf
https://ec.europa.eu/environment/eurobarometers_en.htm
https://ec.europa.eu/environment/nature/capital_accounting/index_en.htm
https://ec.europa.eu/environment/nature/cormorants/goodpractice.htm
https://ec.europa.eu/environment/nature/legislation/index_en.htm
https://ec.europa.eu/environment/sustainable-development/SDGs/index_en.htm
https://ec.europa.eu/eurostat/statistics-explained/index.php/SDG_16_-_Peace,_justice_and_strong_institutions#Access_to_justice
https://ec.europa.eu/food/plant/plant_health_biosecurity/legislation/new_eu_rules_en
https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12165-Access-to-Justice-in-Environmental-matters
https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/1597-Global-Pact-for-the-Environment
https://ec.europa.eu/knowledge4policy/publication/updated-bioeconomy-strategy-2018_en
https://ec.europa.eu/research/environment/index.cfm?pg=nbs
http://ec.europa.eu/transparency/regdoc/rep/1/2014/IT/1-2014-216-IT-F1-1.Pdf
https://www.eea.europa.eu/about-us/countries-and-eionet
https://www.ecogood.org/
https://ecolegalpersona.com/
https://www.ecologic.eu/16575
https://www.eea.europa.eu/data-and-maps/indicators/ecological-footprint-of-european-countries-2/assessment
https://efface.eu/case-study-ilva; https://www.ecologic.eu/12327

http://www.egtl.org/
http://environmentalrightsdatabase.org/category/obligation-tofacilitate-publicparticipation-in-environmental-decision-making
https://environmentaldemocracyindex.org/
https://epi.yale.edu/
http://www.esdaw.eu/unesco.html
http://www.euro.who.int/en/publications/policy-documents/european-charter-on-environment-and-health,-1989
https://europa.eu/european-union/topics/environment_en
https://www.europe1.fr/societe/laffaire-du-siecle-avec-plus-de-18-million-de-signatures-la-petition-pour-le-climat-peut-elle-aboutir-3829112
https://facdedroit.univ-lyon3.fr/retour-sur-conference-du-president-du-conseil-constitutionnel-laurent-fabius
https://www.globalanimallaw.org/database/europe.html
https://www.globalecointegrity.org/
http://www.governo.it/sites/governo.it/files/documenti/documenti/Approfondimenti/EU60/RomaDichiarazione_it17.pdf
http://www.harmonywithnatureun.org/
http://www.iaes.info/en/
https://www.ibanet.org/Climate-Change-Model-Statute.aspx
https://www.impel.eu/now-online-commission-report-on-eu-implementation-of-the-aarhus-convention-in-the-area-of-access-to-justice-in-environmental-matters/
https://indicators.report/targets/16-3/
https://www.institutmomentum.org/bioeconomics/
https://www.internationalfuturesforum.com/three-horizons
www.ipbes.net
https://ipbes.net/glossary/institutional-failure
https://www.iucn.org/commissions/commission-environmental-economic-and-social-policy/our-work/religion-spirituality-environmental-conservation-and-climate-justice)
https://www.jusbrasil.com.br/topicos/226425592/principio-in-dubio-pro-natura
www.millenniumassessment.org
https://multimedia.europarl.europa.eu/en/history-eu-charter-of-fundamental-rights_V001-0025_ev
https://naturalcapitalcoalition.org
http://www.naturalcapitalproject.org
http://www.naturensrattigheter.se/2019/05/15/amendment-for-the-rights-of-nature-in-the-constitution-of-sweden/
https://natures-rights.org/
https://www.ohchr.org/en/NewsEvents/Pages/DisplayNews.aspx?NewsID=24998&LangID=E&fbclid=IwAR3v9KEatc
https://www.oie.int
MttvWMUJVY_gBP2u2uzzO3hgmNTuTFTctaWY9fQbXDZ36EQQg
https://www.ohchr.org/EN/ProfessionalInterest/pages/NaturalResources.aspx
https://www.rightsofmotherearth.com/
http://www.ripess.org/continental-networks/europe/?lang=en
https://sites.google.com/site/williamdnordhaus/dice-rice
https://www.smart.uio.no/publications/
http://www.solidarityeconomy.eu/
https://sustainabledevelopment.un.org
http://www.teebweb.org
https://therightsofnature.org/framework-for-tribunal/
https://therightsofnature.org/statute-of-the-international-tribunal-of-mother-earth-rights/
http://thomasberry.org/publications-and-media/earth-jurisprudence-private-property-and-the-environment
https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-18&chapter=27&clang=_en
http://www.unece.org/info/media/news/environment/2019/furthering-effective-and-inclusive-public-participation-in-environmental-matters-2019-aarhus-week/doc.html
https://www.unenvironment.org/about-un-environment/faith-earth-initiative/religions-and-environmental-protection
https://www.unenvironment.org/events/conference/towards-global-pact-environment
https://www.unenvironment.org/resources/report/production-gap-report-2019
https://unfccc.int/news/fossil-fuels-are-biggest-part-of-global-ecological-footprint
https://www.urgenda.nl/en/themas/climate-case/
https://www.vaticannews.va/en/vatican-city/news/2020-05/vatican-climate-season-of-creation-laudato-si.html
https://whc.unesco.org/en/culturallandscape/
https://wwf.panda.org/?359334
https://www.wavespartnership.org/

9. Documents attached

Annex 1: Legal recognition of Rights of Nature: Most Recent Milestone Report

A list of laws and judicial decisions by Country, on the Rights on Nature, is in "*Rights of Nature, Law, Policy and Education*" (http://www.harmonywithnatureun.org/rightsOfNature/)

LEVEL OF GOVERNMENT	2008	2009	2010	2014/ 2016	2017/ 2018	2019/ 2020
STATE LEVEL	**First Constitution containing the *"ecological mandate"*** (Ecuador)	**First Constitution based on *"Pacha Mama"*** (Bolivia)	**First Organic Law on *"the rights of Mother Earth"*** (Bolivia)	**A Constitutional Court recognizes the Rights of an Ecosystem for the first time** (Colombia, Atrato River - 2016) **First National Act** recognizing a natural element as a legal entity (Te Urewera Act 2014)	**First recognition of the "Rights of Nature easement"** (US-Hawai. 2017) **First general application of the "*in dubio pro natura*" criterion as "mandate of justice"** (Supreme Court of Mexico. 2018)	**Damages against Nature are defined as imprescriptible** (Supreme Federal Court of Brazil - 2020) **Judicial distinction between anthropocentric biocentric and ecocentric legal parameters** (Supreme Court of Colombia - 2020)
LOCAL LEVEL					**First capital of a State that recognizes the Rights of Nature** (México City - 2017)	
GLOBAL LEVEL	**UN:** the launch of "*Harmony with Nature*" Programme	**Universal Declaration** of the *"Rights of Mother Earth* (ME)"		***The International Rights of Nature Tribunal*** has been created as permanent opinion Tribunal (2014)		**Recognition of Environmental Damage as General Principle of International Law** (ICJ, *Costa Rica v. Nicaragua* - 2018)
REGIONAL OR SUPRANATIONAL LEVEL					**OAS:** The Inter-American Court of Human Rights (OC - 23/17) recognizes that environment has a universal dimension such as human rights **EU:** Nature's Rights Draft EU Directive (European Citizens' Initiative) (2017)	

Annex 2: Organizations promoting the Rights of Nature

The most recent study is:

KAUFFMAN C.M. *Mapping Transnational Rights of Nature Networks & Laws: New Global Governance Structures for More Sustainable Development*, Prepared for the International Studies Association Annual Conference Toronto, March 29, 2020

MAIN ORGANIZATIONS

International and Global organizations

- UNEP List of accredited organizations: https://www.unenvironment.org/civil-society-engagement/accreditation/list-accredited-organizations
- CIEL: https://www.ciel.org/
- Earth Rights Conference: http://www.earthrightsconference.org/
- Ecodemocracy: https://ecodemocracy.net/
- EcoHealth Alliance: https://www.ecohealthalliance.org/
- Ecological Law and Governance Association: https://www.elgaworld.org/
- Earth Charter: https://earthcharter.org/
- Earth Law Alliance: https://earthlawyers.org/
- Earth System Governance: https://www.earthsystemgovernance.org/
- Earth Trusteeship: https://www.earthtrusteeship.world/
- Ecologia Política: https://www.ecologiapolitica.info/
- Economy for the Common Good: https://www.ecogood.org/
- Elni: https://www.elni.org/
- End Ecocide on Earth: https://www.endecocide.org/en/
- Environmental Ethics and Law: https://www.environmentalethicsandlaw.org/
- Eradicating Ecocide: http://eradicatingecocide.com/
- Friends of the Earth International: https://www.foei.org/
- Gaia Foundation: https://www.gaiafoundation.org/
- Global Alliance for the Rights of Nature: https://therightsofnature.org/
- Global Ecovillage Network: https://ecovillage.org/
- Global Integrity: https://www.globalecointegrity.org/
- Green 10 NGOs: https://green10.org/
- The Global Network for Human Rights and the Environment: https://gnhre.org/
- Humans and Nature: https://www.humansandnature.org/
- International Union for Conservation of Nature: https://www.iucn.org
- Land Rights Now: https://www.landrightsnow.org/
- Lawyers of Nature: http://lawyersfornature.com/
- Mission Life Force: https://www.missionlifeforce.org/
- Movement Rights: https://www.movementrights.org/
- Nature's Rights: http://www.natures-rights.org/
- Nature's Rights Watch: http://naturerightswatch.com/
- Non Human Rights Project: https://www.nonhumanrights.org/
- Rapid Transition Alliance: https://www.rapidtransition.org/
- Regenesis Group: https://regenesisgroup.com/team
- Rights of Mother Earth: https://www.rightsofmotherearth.com/
- Stop Ecocide: https://www.stopecocide.earth/
- UN Harmony with Nature: http://www.harmonywithnatureun.org/
- La Via Campesina: https://viacampesina.org/en/
- Wild Law: http://www.wildlaw.org/
- Wild Life Trusts: https://www.wildlifetrusts.org/
- Women's Earth and Climate Action Network: https://www.wecaninternational.org/

Africa

- Green Belt Movement: http://www.greenbeltmovement.org/
- Trees for Future: https://trees.org/

America

- Alberta Civil Liberties Research Center: http://www.aclrc.com/rights-of-nature
- Ambiente en América latina: http://ambiental.net/
- Biodiversidad en América latina: http://www.biodiversidadla.org/
- Bioneers: https://bioneers.org/
- Celam: https://celeam.org/
- Center for Earth Jurisprudence: http://www.earthjurist.org/
- Community Environmental Legal Defense Fund (CELDF): https://celdf.org/
- De Justicia: https://www.dejusticia.org/

- Derechos de la naturaleza: https://www.derechosdelanaturaleza.org.ec/
- Direitos da Mãe Terra: http://www.direitosdamaeterra.org.br/
- Earth Law Center: https://www.earthlawcenter.org/mission/
- Earth Jurist: http://www.earthjurist.org/
- Earth Justice: https://earthjustice.org/about
- Ecología Social: http://ecologiasocial.com/
- Gobernanza de la Tierra: http://gobernanzadelatierra.org.pe/
- Inredh Derechos Humanos, Pueblos, Naturaleza: https://www.inredh.org/
- Nature Rights Watch: http://naturerightswatch.com/
- Wildlife Conservation Network: https://wildnet.org/

Asia
- Eco-Business: https://www.eco-business.com/
- Earth Rights International: https://earthrights.org/
- Earth Trusteeship Platform: https://earthtrusteeshipplatform.org/
- Navdanyia: https://www.navdanya.org/home

Europe
- Carta dei diritti della natura: https://carta-dei-diritti-della-natura.jimdosite.com/
- Client Earth: https://www.clientearth.org/
- Corporate Europe: https://corporateeurope.org/en
- Diritti della natura Italia: https://www.dirittidellanaturaitalia.it/
- Droits de la nature: https://droitsdelanature.com/
- Ecologia politica: http://www.ecologiapolitica.org/wordpress/
- Eurogroup for Animals: https://www.eurogroupforanimals.org/
- European Environmental Law Forum: http://www.eelf.info/
- European Rights of Nature Hub: https://vimeo.com/europeanhub/about
- Gaia Trust: https://gaia.org/
- Mouvements: http://www.mouvements.info/Droits-de-la-nature-mythe-ou.html
- Naturens rättigheter: http://www.naturensrattigheter.se/
- Nature Rights: http://www.naturerights.com/blog/
- Rechte der Natur: https://www.rechte-der-natur.de/de/
- Rewilding Europe: https://rewildingeurope.com/
- Wildlegal: https://www.wildlegal.eu/

Oceania
- Australian Earth Law Alliance: https://www.earthlaws.org.au/
- Green Agenda: https://greenagenda.org.au/
- The Green Institute: https://www.greeninstitute.org.au/
- New Zealand Centre for Environmental Law: http://www.nzcel.auckland.ac.nz/en/nzcel.html

Observers
Centro Documentazione Conflitti Ambientali: http://cdca.it/
Environmental Justice Atlas: http://www.ejolt.org/
Extractivismo: http://extractivismo.com/
Observatorio Latinoamericano de Conflictos Ambientales: http://olca.cl/oca/index.htm

Opinion Tribunals
- European Rights of Nature Tribunal in Defense of aquatic ecosystems: https://therightsofnature.org/open-call-for-cases-european-rights-of-nature-tribunal-in-defense-of-aquatic-ecosystems/
- International Rights of Nature Tribunal: https://www.rightsofnaturetribunal.com/about
- Monsanto Tribunal: https://www.monsanto-tribunal.org/

Annex 3: Stakeholders who are promoting assumptions about Rights of Nature in the EU context

Social and political mobilization groups

Earth Trusteeship (www.earthtrusteeship.world)

Targets

The Platform launched the "*Hague Principles for a Universal Declaration on Responsibilities for Human Rights and Earth Trusteeship*"

Contact: info@earthtrusteeship.world

Ecological Law and Governance Association (ELGA) (www.elga.world)

Targets

The Network promotes the "*Oslo Manifesto for Ecological Law and Governance*" (2016) and the "*Siena Declaration*" (2017)

Contact: elga@elgaworld.org

European Rights of Nature Hub (https://therightsofnature.org/)

Targets

1. Start a legal emergency fund to address European cases of ecocide and violations of Rights of Nature through legal support
2. Development of an Advocacy Kit for European Hub members to promote and speak about the Rights of Nature in their communities (schools, universities, community centre, municipality, organizations)
3. Action fund for advocacy work on location in Europe exclusively (for 2 years)
4. Development and coordination of a European Academics Research Team
5. Promotional support of the Rights of Mother Earth signature campaign
6. Creation of a European Research group for the Rights of Nature

Contact: Hana Begovic: hanabegovic1@gmail.com

Research groups

Amsterdam Center for Transformative Private Law (https://act.uva.nl/)

Targets

The Center promotes an European conference on "*Private Rights for Nature*"

Contact: Prof. Marija Bartl: M.Bartl@uva.nl

Cedeuam (Centro di Ricerca Euro Americano sulle Politiche Costituzionali) Università del Salento (www.cedeuam.it)

Targets

Ecological analysis of law and policies

Contacts: info@cedeuam.it; michele.carducci@unisalento.it

Gruppo italiano sulla Bioeconomia

Targets

The group discusses the impacts of the EU bioeconomy strategy on the "laws" of nature and the legal and economic systems of energy production

Contact: Prof. Margherita Ciervo: margherita.cirevo@unfg.it

Euro-American Reflection Group for the "Ecological Approach" to Law and Politics

(F. Falancia, Mario Melo - PUCE Ecuador, David Cordero-Heredia - CDH PUCE Ecuador)

Targets

Social movements and co-violation of human rights and Rights of Nature

Contact: Prof. David Cordero-Heredia: dac393@cornell.edu

Research Group "*Representing the Absent*": "*A comparative analysis of procedures established to represent past and future generations*". Max Planck Institute for Procedural Law (Luxembourg)

Targets

The objective of this research is to understand and analyze, from an interdisciplinary perspective (law, philosophy, sociology, political science), and with a procedural focus, the commonalities and differences between the representation of past and future generations. In this regard, one of the procedural instruments studied is the granting of rights to nature. These rights epitomize the need for an epistemological shift in our relationship to nature, moving from a human-centred to an Earth-centred approach, which should ensure that human governance systems are consistent with natural systems.

Contacts: Prof. Hélène Ruiz Fabri: helene.ruizfabri@mpi.lu; Prof. Valérie Rosoux: valerie.rosoux@uclouvain.be; Dr. Av. Alessandra Donati: alessandra.donati@mpi.lu

OPT-IN Project *Erasmus+ Capacity Building* 2017-2020 "*Nuevo programa de posgrado para la formación de OPeradores Transnacionales e INterculturales para la defensa de la naturaleza y la construcción de la paz en la Comunidad Andina*"- OPT-IN

Coordinador: University "Alma Mater" of Bologna and Partners: Flacso (Quito), Universidad Andina Simón Bolívar (Quito), Universidad Libre (Bogotá), Universidad del Rosario (Bogotá), SciencePo (Paris), Universidad Castilla La Mancha (Toledo), Università di Siena; Associated Partner: Tribunal Andino; Secretaría de Educación Superior (Ecuador)

Targets

The project has the following objectives:

- Build a professional profile of transnational and intercultural operator (OPT-IN) with comparative, multidisciplinary and cross-cultural skills that still does not exist in LLM Latin American programs.
- Activate an innovative Master (specifically the Master "*Nuevo programa de posgrado para la formacion de operadores transnacionales e interculturales para la defensa de la naturaleza y la construccion de la paz en la comunidad andina*".

Contacts: Prof. Giorgia Pavani: giorgia.pavani@unibo.it; Prof. Silvia Bagni: silvia.bagni@unibo.it

Regulation for Sustainability (R4S) (http://r4s.unisi.it/)

Targets

R4S is a dynamic and forward looking interdisciplinary research group. It is part of a global research network on Sustainability Science, which promotes a interdisciplinary approach to sustainability and its challenges.

Contacts: r4s@unisi.it; massimiliano.montini@unisi.it

Université Toulouse 1 Capitole

Targets

Colloque de l'IEJUC: "*Rights of Nature: opening the Academic Debate in the European Legal Context*" (https://www.ut-capitole.fr/recherche/equipes-et-structures/colloques-conferences-seminaires/rights-of-nature-opening-the-academic-debate-in-the-european-legal-context-colloque-de-l-iejuc-807678.kjsp)

Contacts: Prof. Julien Bétaille (julien.betaille@ut-capitole.fr)

University of Cambridge - Department of Geography

(https://www.geog.cam.ac.uk/research/projects/rightstonature/)

Target

Rights to Nature in post-crisis Europe: Tracing alternative political ecologies to the neoliberal agenda through the study of emerging environmental movements.

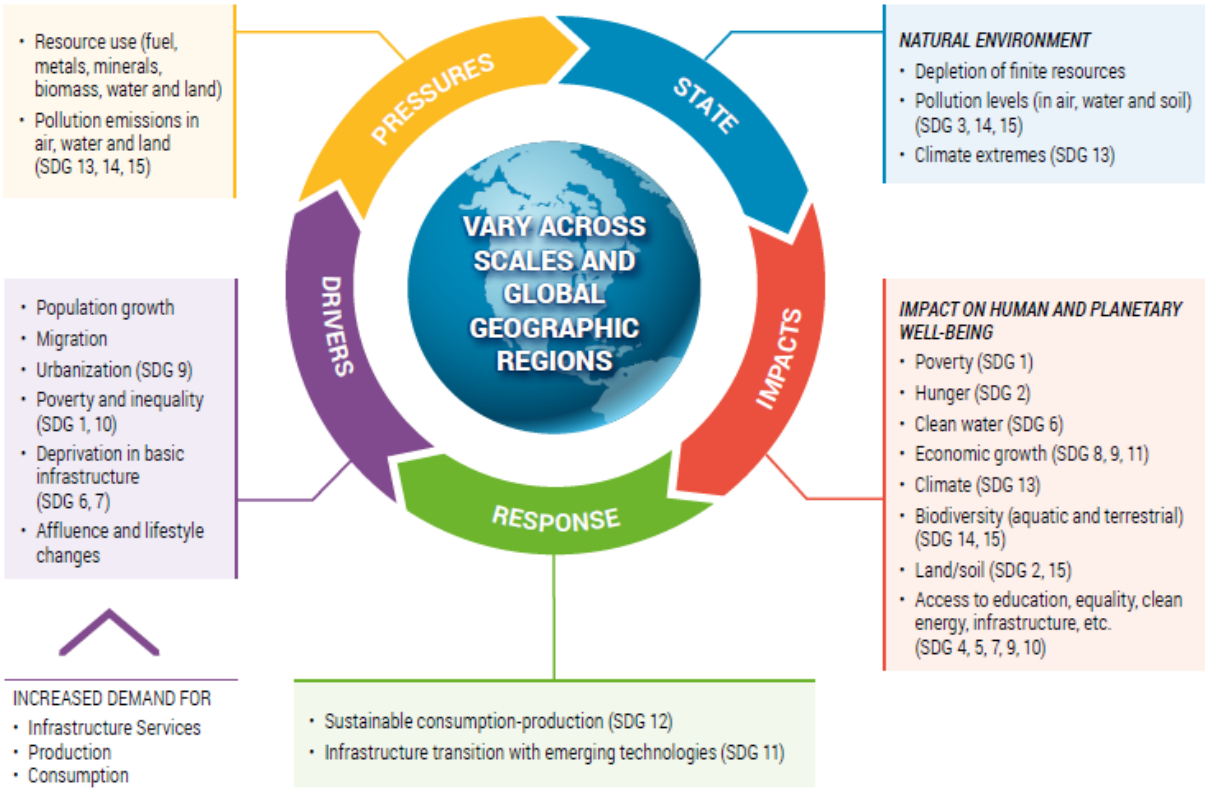
Contact: enquiries@geog.cam.ac.uk

Annex 4: Systemic and integrated approach of policies, according to the International Resource Panel

INTERNATIONAL RESOURCE PANEL

Assessing Global Resource Use.

A Systems Approach to Resource Efficiency and Pollution Reduction. Summary for Policymakers, Paris, 2017



Annex 5: Why is there no shared legal definition regarding Nature? (source: Bagni S., Carducci M. 2020)

BAGNI S., CARDUCCI M. *Rights of Nature and "tragic choices"* (CEDEUAM-UniSalento, 2020)

There is no common legal definition of Nature among the different legal systems.

This mismatch can be explained by two historical reasons.

1) The first reason regards the concept of "natural resources" contained in a principle of international law, defined as "permanent sovereignty over natural resources"[330]. State sovereignty legitimized "sovereign" legal definitions of the Nature and its exploitation[331]. In the last decade, this approach has been criticized by scholars[332], as it is considered a barrier to effective responses against the planetary ecological catastrophe and the global climate emergency. For this reason, the legal doctrine conceptualized new universal legal principles as an alternative to the State sovereignty over the N. Some of these are, for example: pursuit of common ecological interests[333]; common duties of internal protection from global risks[334]; respect for common ecological thresholds[335].

2) The second reason of non-correspondence in the legal definitions about Nature concerns the existence, of different legal traditions[336].

The "Western tradition" of Civil and Common Law predominates in the international, constitutional and environmental law on a global level.

In this tradition, Nature is generally framed:

a) as an "asset", ie. a set of resources and objects to be exploited and protected rationally for the needs of the human being[337];

b) as a cultural and immaterial representation of human activities over time (e.g. with the meaning of "landscape"[338]);

c) as a specific area or form of life to be preserved (natural parks, reserves, protected species).

This last legal definition prevails in EU law. In the preamble to the Habitats Directive (92/43/EEC) it is also written that «*the threatened habitats and species form part of the Community's natural heritage*»[339]. However, this definition was never developed by EU law and is almost never used by judges[340]. The distinction-separation between "natural sites" and "natural resources" prevails, for example in EU Aarhus Regulation no. 1367/2006.

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[330] See https://www.ohchr.org/EN/ProfessionalInterest/pages/NaturalResources.aspx. In EU Law, see EU Court of Justice, case C-266/16.

[331] See also the opinion of the EU Court of Justice on this principle: case C-266/16.

[332] See DI BENEDETTO S. *Sovranità dello Stato sulle risorse naturali e tutela degli equilibri ecologici nel diritto internazionale generale*, Torino, 2018; CALDWELL J. *An Ecological Approach to Environmental Law*, Auckland, 1988; JUAGUARIBE H. *El equilibrio ecológico mundial y los países subdesarrollados*, 5 *Est. Internacionales*, 17, 1972, 92-123.

[333] See FRENCH D. *International Law and Policy of Sustainable Development*, Manchester, 2005.

[334] See MAGALHAES P.et al. *SOS Treaty. A New Approach to Managing Our Use of the Earth System*, Cambridge Scholars Publishing, 2016; See too earthsystemgovernance.org.

[335] DI BENEDETTO S. *Sovranità*, cit., 192 ss.

[336] GLENN H.P. *Legal Traditions of the World*, Oxford, 2010.

[337] See article 44 Italian Constitution; articles 810, 812, 813, 820, 821, 923, 924, 926, 2052 Italian Civil Code (see BIANCHINI R. *Diritto umano e diritto animale*, 6 *Cultura Giur. Dir. Vivente*, 2019, 1-7); CoE Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment (Lugano, 21.VI.1993); CoE. *Convention on the Conservation of European Wildlife and Natural Habitats* (Bern, 19.IX.1979).

[338] See art 9 Italian Constitution, and UNESCO (https://whc.unesco.org/en/culturallandscape/). See also: JAMES S.P. *Legal Rights and Nature's Contributions to People: Is there a Connection?*, 241 *Biol. Conserv.*, 108325, 2020, 1-4.

[339] See https://ec.europa.eu/environment/nature/legislation/index_en.htm, and SUNDSETH K. et al. *Article 6 of the Habitats Directive Rulings of the European Court of Justice. Final Draft*, 2014, EUROPEAN COMMISSION, *Nature and Biodiversity Cases Ruling of the European Court of Justice*, Luxembourg, 2006.

[340] See, for example, EU Court of Justice Case C-441/17R, §§ 59 and 208.

The concept of Nature as an "asset" has been recently influenced and slightly changed towards a Rights of Nature compatible framework by the latest documents of the Catholic Church on the environment.

The Encyclical Letter *Laudato si* (2015), the Final Document of the Synod on the Amazon "*The Amazon: new paths for the Church and for an integral ecology*" (2019) and the Post-synodal Apostolic Exhortation *Querida Amazonía* (2020) invite all human beings to an ecological conversion, recognizing that everything is connected and that we must repair the bonds we have broken[341]. The ecological conversion methods are indicated in the document "*Journeying for the care of the common home*" (2020).

In legal traditions different from Western ones (such as those based on "Chtonic traditions", the "Hinduism", and Islam), Nature is conceived as:

a) a "sacred"/"legal" entity, comparable to a "subject" (a river, a tree, etc.)[342] , in the "Chthonic" and Hindu traditions;

b) a set of services of use to human beings, that must be preserved and cared for their reproduction similar to a "system" (this is the case of "Hima", unavailable area of conservation of natural resources in Islamic tradition)[343].

Therefore, it is clear that the main difference between "Western legal tradition" and "other legal traditions" deals with the "preferential orientation" in the humans /Nature relationship: the Western one is based on a "Human and Market Oriented" approach while the others are based on "Human and Nature Oriented" approach.

[341] https://www.vaticannews.va/en/vatican-city/news/2020-05/vatican-climate-season-of-creation-laudato-si.html.

[342] Te Urewera Park, Whanganui River, Taranaki Mountain, Vilcabamba River, Ganges River etc. See O'DONNEL E.L. et al. *Creating Legal Rights for Rivers: Lessons from Australia, New Zealand, and India*, 23 *Ecol. and Soc.*, 1, 2018, 1-10, and *Attributing Legal Personality to Nature as an Effective Means of Protection* (*https://www.howtoregulate.org/legal-personality-nature/*) 30. August 2019. However, recognition of the protection of natural places declared "subjects" produces legal effects similar to European protected areas.

[343] See UNEP: https://www.unenvironment.org/about-un-environment/faith-earth-initiative/religions-and-environmental-protection; and IUCN: https://www.iucn.org/commissions/commission-environmental-economic-and-social-policy/our-work/religion-spirituality-environmental-conservation-and-climate-justice.

Annex 6: What are the legal definitions of "Nature" and "Rights of Nature"? (source: Bagni S., Carducci M. 2020)

BAGNI S., CARDUCCI M. *Rights of Nature and "tragic choices"* (CEDEUAM-UniSalento, 2020)

The concepts and definitions of Nature, inserted in legal formats (such as Constitutions or Acts)[344], were mainly the following:

a) Nature as a "legal entity" with access to justice (for example articles 71 and 88 Ecuador Constitution 2008);
b) Nature as an expression of a "common meta-right" influencing and guiding the policies[345] (for example in Bolivia with the Constitution of 2009 and the *"Defensoria de la Madre Tierra*" or art. 18 of the new 2017 Constitution of Mexico City);
c) Nature as part of expression of the "ecological integrity"[346] (for example: *Canada National Parks Act*).

In non-binding documents are present other definitions of Nature, for example:

a) as inspiration for so-called "eco-legal principles*"* (e.g. "*Universal Charter for Species of Flora and Fauna and Ecosystem Rights*"[347]);
b) as an "Earth Community" in connection with the universality of Human Rights (e.g. "*The Hague Principles for a Universal Declaration on Responsibilities for Human Rights and Earth Trusteeship*"[348]).

In legal theory, after Stone's seminal study[349] and Elder's criticism[350], Nature was defined as part of a general reformulation of law, conceived as: "rule of ecological law"[351]; "rule of law for nature"[352]; "ordre public écologique"[353]; "Estado de Direito Ecológico"[354]; "ecological conversion" of law and politics[355]; "Planetary Trust"[356]; "Biocracy"[357]. In these theories, Nature represents the "container" of a new vision of law and economics. This, however, does not necessarily mean recognizing Nature as a legal entity. For example, not all of these theories discuss the relationship between human rights and the Rights of Nature.

However, the issue of the relationship between legal systems, Nature and recognition of Rights of Nature has also been discussed by natural and ecological scientists. In particular, we must consider the appeals of scientists for a trans-disciplinary collaboration with legal scholars, in order to develop "eco-legal principles" and to avoid "ecological collapse", through new legal instruments. The characteristics of these instruments can be summarized as follow:
a) to be identified by Earth system sciences[358];

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[344] About the concept of legal formant, see SACCO R. *Legal Formants: a Dynamics Approach to Comparative Law* (I & II), 39 *Am. J. Comp. L.*, 1-2, 1991, 1-34, 343-401.

[345] Similar are the definitions of Nature as a "Common" or Nature as "Wild Law".

[346] WESTRA L. et al. (eds.). *Ecological Integrity, Law and Governance*, London, 2018, and https://www.globalecointegrity.org/.

[347] https://ecolegalpersona.com/.

[348] http://www.earthtrusteeship.world/the-hague-principles-for-a-universal-declaration-on-human-responsibilities-and-earth-trusteeship/

[349] STONE C.D. *Should Trees have Standing? Toward Legal Rights for Natural Objects*, 45 *Southern California L. Rev.*, 1972, 450-501.

[350] ELDER P.S. *Legal Rights for Nature: the Wrong Answer to the Right(s) Question*, 22 *Osgoode Hall L. J.*, 2, 1984, 285-295.

[351] See GARVER G. *The Rule of Ecological Law*, 5 *Sustainability*, 1, 2013, 316-337.

[352] See VOIGT C. (ed.) *Rule of Law for Nature*, Cambridge, 2013.

[353] See BELAÏDI N. (ed.) *Dossier «L'Ordre public écologique», du concept à la juridicité*, 68 *Droit et Cultures*, 2014, 2.

[354] See RUBENS MORATO LEITE J. et al. (eds.), *Estado de Direito Ecológico*, São Paulo, 2017.

[355] See CAPRA F., MATTEI U. *The Ecology of Law: Toward a Legal System in Tune with Nature and Community*, Oakland, 2015.

[356] See WEISS E.B. *The Planetary Trust. Conservation and Intergenerational Equity*, 11 *Ecology L. Quart.*, 4, 495-582.

[357] See GÖLLINGER T. *Biokratie*, Marburg, 2015.

[358] REID W.V. et al. *Earth System Science for Global Sustainability: Grand Challenges*, 330 *Science*, 2010, 916-917.

b) cannot be modified by interpretations and balancing by the courts[359];
c) not to be negotiable by political authorities[360].

In this perspective, for example, Guillaume Chapron speaks about "legal boundaries" conforming to the "planetary boundaries" of sustainability[361].

These hypotheses presuppose a qualification of the legal order as a shared area and this legal qualification is already known by international law[362]. It would therefore be possible to accept these "eco-legal" proposals.

Other hypotheses include rules (non only principles) such as "non-regression"[363], "resilience"[364] (although the concept is complex in its concrete applications[365]), definition of the "maximum permitted levels"[366] of degradation and depletion of natural resources[367].

[359] MONTEDURO M. *Le decisioni amministrative nell'era della recessione ecologica*, 2 *Riv. AIC*, 2018, 1-37.

[360] LIVINGLAW. *Giving Nature a Voice*, 2018, AA.VV. *Rights of Nature & Mother Earth. Rights-Based Law for Systemic Change*, Oakland, 2017.

[361] See CHAPRON G. et al. *Bolster Legal Boundaries to Stay within Planetary Boundaries*, 1 *Nature, Ecology and Evolution*, 3, 2017, 1-5, with interesting comparisons with the legal instruments of biodiversity protection.

[362] See BRUNNÉE J. *Common Areas, Common Heritage and Common Concern*, in *Oxford Handbook of International Law*, Oxford, eds. Bodansky D. et al., 2007, 550-565.

[363] See PRIEUR-VASSALLO *Le principe de non-régression et la biodiversité*, 44 *Rev. Jur. Env.*., 3, 2019, 769-786, and "*World Declaration on the Environmental Rule of Law*" (*World Environmental Law Congress*, Rio de Janeiro, 2016).

[364] See "*Law for Social-Ecological Resilience Conference*", Stockholm, 2010 (https://www.earthsystemgovernance.org/events/law-for-social-ecological-resilience-conference/).

[365] See FOLKE C. et al. *Resilience Thinking: Integrating Resilience, Adaptability and Transformability*, 15 *Ecol. and Soc*., 4, 2010, 1-9.

[366] As an economic and not only environmental objective.

[367] LAMPERT A. *Over-Exploitation of Natural Resources is followed by Inevitable Declines in Economic Growth and Discount Rate*, 10 *Nature Communication*, 1419, 2019, 1-10.

Annex 7: Fragmentation of sources and approaches to environmental problems in the States involved in the four case studies of *Section 3*

Country	Constitution	Statutes
France	Preamble: reference to the *Charte de l'environnment*	Charter of the Environment: art. 1 *Chacun a le droit de vivre dans un environnement équilibré et respectueux de la santé*.
Germany	Lack of reference. It is an "aim of the State" Article 20a [Protection of the natural foundations of life and animals] Mindful also of its responsibility towards future generations, the State shall protect the natural foundations of life and animals by legislation and, in accordance with law and justice, by executive and judicial action, all within the framework of the constitutional order.	No environmental code; only specific legislations on environmental matters
Italy	Lack of reference.	Environmental Code, art. 3-ter *Principio dell'azione ambientale (1)* *1. La tutela dell'ambiente e degli ecosistemi naturali e del patrimonio culturale deve essere garantita da tutti gli enti pubblici e privati e dalle persone fisiche e giuridiche pubbliche o private, mediante una adeguata azione che sia informata ai principi della precauzione, dell'azione preventiva, della correzione, in via prioritaria alla fonte, dei danni causati all'ambiente, nonché al principio "chi inquina paga" che, ai sensi dell'articolo 174, comma 2, del Trattato delle unioni europee, regolano la politica della comunità in materia ambientale*.
Portugal	art. 9 The fundamental tasks of the State shall be: […] e. To protect and enhance the Portuguese people's cultural heritage, defend nature and the environment, preserve natural resources and ensure proper town and country planning; art. 66 Everyone shall possess the right to a healthy and ecologically balanced human living environment and the duty to defend it. In order to ensure enjoyment of the right to the environment within an overall framework of sustainable development, acting via appropriate bodies and with the involvement and participation of citizens, the State shall be charged with: […] h. Ensuring that fiscal policy renders development compatible with the protection of the environment and the quality of life. art. 52 (3)3. Everyone shall be granted the right of *actio popularis*, to include the right to apply for the appropriate compensation for an aggrieved party or parties, in such cases and under such terms as the law may determine, either personally or via associations that purport to defend the interests in question. The said right shall particularly be exercised in order to: a. Promote the prevention, cessation or judicial prosecution of offences against public health, consumer rights, the quality of life or the preservation of the environment and the cultural heritage.	*Lei n.º 19/2014, de 14 de Abril* *AS BASES DA POLÍTICA DE AMBIENTE*. Artigo 5.º Direito ao ambiente 1 - Todos têm direito ao ambiente e à qualidade de vida, nos termos constitucional e internacionalmente stabelecidos. 2 - O direito ao ambiente consiste no direito de defesa contra qualquer agressão à esfera constitucional e internacionalmente protegida de cada cidadão, bem como o poder de exigir de entidades públicas e privadas o cumprimento dos deveres e das obrigações, em matéria ambiental, a que se encontram vinculadas nos termos da lei e do direito.

Romania	art. 35 Right to a healthy environment The State recognizes the right of every person to a healthy, well-preserved and balanced environment. Natural and legal persons have a duty to protect and improve the environment. art. 135 (2) 2. The State is expected to ensure: […] e. the restoration and protection of the environment, as well as the preservation of ecological balance;	*Loi n˚137 du 29 décembre 1995 loi sur la protection de l'environnement*
Sweden	The Instrument of Government art. 2 (3) The public institutions shall promote sustainable development leading to a good environment for present and future generations. Protection of property and the right of public access art. 15 (3) In the case of limitations on the use of land or buildings on grounds of protection of human health or the environment, or on grounds of safety, however, the rules laid down in law apply in the matter of entitlement to compensation. Everyone shall have access to the natural environment in accordance with the right of public access, notwithstanding the above provisions.	Swedish Environmental Code

Annex 8: Difference of "constitutional identity" in the provisions on the Stakeholders access to environmental justice in the States involved in the four case studies of *Section 3*

Country	To contest administrative acts against Public Authorities	To contest legislative acts (judicial review of legislation)	Environmental class action	Public action or *actio popularis*
France	L142-1 Code	Not directly; only through preliminary referral	L142-3-1 Code	
Germany	Environmental Appeals Act (*Umweltrechtsbehelfsgesetz*)	*Verfassungsbeschwerde* (for fundamental rights only)		Environmental Appeals Act (*Umweltrechtsbehelfsgesetz*)
Italy	art. 310 Code	only through preliminary referral	art. 840bis ff. code of civil procedure	
Portugal		Not directly; only through preliminary referral		Artigo 7º Direitos processuais em matéria de ambiente 1 - A todos é reconhecido o direito à tutela plena e efetiva dos seus direitos e interesses legalmente protegidos em matéria de ambiente. 2 - Em especial, os referidos direitos processuais incluem, nomeadamente: a) O direito de ação para defesa de direitos subjetivos e interesses legalmente protegidos, assim como para o exercício do direito de ação pública e de ação popular; b) O direito a promover a prevenção, a cessação e a reparação de violações de bens e valores ambientais da forma mais célere possível; c) O direito a pedir a cessação imediata da atividade causadora de ameaça ou dano ao ambiente, bem como a reposição da situação anterior e o pagamento da respetiva indemnização, nos termos da lei.
Romania	yes			
Sweden				Part. 4, sec. 13 Code

Annex 9: Relevant case law in the "People Climate case" on individual standing before EU courts, ex art. 263 TFEU

Case 25/62 Plaumann & Co v. Commission, 15 July 1963:

A German importer of clementines took action for the annulment of a decision of the EU Commission that refused to authorize the German Government to suspend certain customs duties applicable to food products produced by the applicant. In the case, the contested Commission decision was not expressly addressed to the applicant. For the first time ever, the Court clarified the meaning of the condition foreseen by art. 173 EEC Treaty (today art. 263 TFEU) «*Persons other than those to whom a decision is addressed may only claim to be individually concerned if that decision affects them by reason of certain attributes which are peculiar to them or by reason of circumstances in which they are differentiated from all other persons and by virtue of these factors distinguishes them individually just as in the case of the person addressed*».

Case C- 43/72 Merkur Außenhandel-GmbH & Co. KG v Commission of the European Communities, Opinion of Advocate General Henry Mayras delivered on 27 June 1973, § II-1:

«*Those who drafted the Treaty of Rome, benefiting by the experience gained of the system of actions in the Treaty of the Coal and Steel Community, were clearly anxious lest a too generous availability of the action for annulment — however little the Court might entertain a liberal interpretation of the concept of an interest in the action — might lead to a permanent litigation on Community regulations and open the way to a veritable 'popular action' to be resorted to at will by any natural or legal person belonging to a class whose interests were capable of being prejudiced by a regulation*».

CFI case decision 25 July 2002 T-177/01 (Jégo-Quéré):

Application for annulment of art. 3(d) and 5 of Regulation (EC) no. 1162/2001 of 14 June 2001 established measures for the recovery of the stock of hake in ICES sub-areas III, IV, V, VI and VII and ICES divisions VIII a, b, d, e and associated conditions for the control of activities of fishing vessels. Those provisions required fishing vessels operating in certain defined areas to use nets of a minimum mesh size for the different techniques employed when fishing with nets. The applicant was a fishing company established in France which operated on a regular basis in the waters south of Ireland, in ICES sub-area VII as referred to in art. 5 (1 lett. a) of the Regulation.

The Court recognized that the contested provisions were of general application. As a consequence, they had to evaluate the fulfilment of the condition of «*being of direct and individual concern to the applicant*», as the fact of an act being of general application does not prevent it from implementing the condition. «*For a person to be directly concerned by a Community measure, the latter must directly affect the legal situation of the individual and leave no discretion to the addressees of that measure who are entrusted with the task of implementing it, such implementation being purely automatic and resulting from Community rules without the application of other intermediate rules*». As for "being individually concerned", the Court recalled the "Plaumann doctrine". The applicant was affected due to his objective capacity, as any other economic operator actually or potentially in the same situation, meaning that he was not "individually concerned". However, in the case at hands, denying standing to the applicant would have produced a situation of lack of judicial remedy. As the regulation was self-executing, it would have been impossible for the applicant to act before national courts. As for the non-contractual liability, the Court found that through that action they could not realize a proper judicial review of the legality of the regulation. As a consequence, a violation of the right to an effective judicial remedy had occurred. On one hand, the Court said that the right to judicial remedy does not impose to the EU institutions to change the judicial review system. However, the Court stated that «*as Advocate General Jacobs stated in point 59 of his Opinion in Unión de Pequeños Agricultores v Council (...), there is no compelling reason to read into the notion of individual concern, within the meaning of the fourth paragraph of art. 230 EC, a requirement that an individual applicant seeking to challenge a general measure must be differentiated from all others affected by it in the same way as an addressee*». The conclusion of the Court was that the strict interpretation of the notion of a person "individually concerned" must be reconsidered. The new interpretation is «*if the measure in question affects his legal position, in a manner which is both definite and immediate, by restricting his rights or by imposing obligations on him. The number and position of other persons who are likewise affected by the measure,*

or who may be so, are of no relevance in that regard». This precedent has not been considered by the EU General Court in the "People Climate case".

Case T-16/04 Arcelor v Parliament and Council, decision 2 March 2010:

Application for partial annulment of Directive 2003/87/EC of the EU Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community. The applicant is the world's largest steel producer. The Court recognizes that a directive can be considered within the scope of art. 230 EC and that in the case «*the contested Directive, by means of both its form and its substance, is a measure of general application which applies to objectively defined situations and gives rise to legal effects in respect of categories of persons defined in general or abstract terms. However, it cannot be excluded that, in certain circumstances, the provisions of such a measure of general application may concern certain individuals directly and individually*». Nevertheless, the Court states that «*the claim that such a measure infringes those rules or rights is not sufficient in itself to establish that the action brought by an individual is admissible, without running the risk of rendering the requirements of the fourth paragraph of art. 230 EC meaningless, as long as that alleged infringement does not distinguish the applicant individually just as in the case of the addressee of a measure*».

EU General Court Order 6 September 2011, case T-18/10 (Inuit Tapirijt Kanatami):

The original case was proposed to the EU General Court: application for annulment of the Regulation (EC) no. 1007/2009 about the establishment of 'harmonised rules concerning the placing on the market of seal products'. Applicants were individuals and association of Inuit and other indigenous peoples from the Artic Region, seal hunters and trappers. The EU General Court rejected the application as inadmissible, on the basis of the "Plaumann doctrine". Appellants asked the European Court of Justice to revise the first judgement, supporting their assumption that the "Plaumann doctrine" should be overruled and the interpretation of the expression "individual concern" should be replaced with the criterion of "substantial adverse effect". They recalled the Jégo-Quéré precedent. The ECJ dismissed the appeal and refused to follow that reasoning, stating that the integrated system of judicial remedies existing between EU and national courts fully comply with the human right to an effective judicial protection and that eventually was up to member States to consolidate this right (as the Court already stated in the case T-173/98, Union de Pequenos Agricultores [1999] ECR II-3357 (GC)).

Annex 10: Economic and Ecological Analysis of Rights of Nature (source: Bagni S., Carducci M. 2020)

BAGNI S., CARDUCCI M. *Rights of Nature and "tragic choices"* (CEDEUAM-UniSalento, 2020)

The topic of the economic and ecological analysis of the Rights of Nature is very complex and little discussed in the legal sphere[368].

However, the introduction of the Rights of Nature requires an appropriate elaboration according to the objectives of the European Commission's REFIT program.

Some schemes are shown below.

In current law, the environment is qualified in two different ways:

- as a set of "goods";
- as a set of "ecosystem functions".

In the first case, the Law regulates the use of resources and gives them an economic value[369]. In the second case, the Law protects natural processes (ecosystem functions[370]) and gives them a value.

These two perspectives always propose a "balance" between "value" of Nature as "good" or "function" and other human values (political, social, economic values). This balance is regarded as "legitimate", only because it conforms to the plurality of human interests (procedural and substantive) and not to the functioning rules of ecosystems.

Many cases confirm this perspective.

For example, in the Opinion of Advocate General Kokot in Case C-127/02, § 143, the protection of Nature is not considered as a protectable right, but only a general interest "balancing" with other interests.

In France, the Council of State (Conseil d'État) considers that "imperative reasons of overriding public interest", with economic and political content, may prevail over "ecological reasons" for the protection of wild species[371].

In Italy, the Council of State (Consiglio di Stato) qualifies environmental assessment as a "political function" of balancing interests, not only environmental but also economic; therefore, environmental assessment is never ecological[372].

Therefore, this legal approach has not fought the ecosystem and climate emergency that threatens the Earth. Thus, balancing could be defined as an ecological failure.

The main forms of this failure are the following:

a) the so-called "Chronic disturbance"[373] of ecosystems, due to a set of environmental impact assessments regulated by law in the absence of medium and long-term integrated analysis of cumulative data and solely focused on the interests of human action;

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[368] See, for example, COMINELLI L. *Cognition of the Law*, Cham 2018 (Chapter 3: Nature, Evolution, and Law, 83-134), GUSSEN B. *Axial Shift*, Singapore, 2019, 87-124.

[369] For example with the PES (Payments for Ecosystem Services): see EU Commission Science for Environment Policy, DG Environment News Alert Service, Issue 30/2012 *Payments for Ecosystem Services*, and *EU Natural Capital Accounting* (https://ec.europa.eu/environment/nature/capital_accounting/index_en.htm).

[370] See GRUMBINE E. *What is Ecosystem Management?*, 11 *Conservation Biology*, 1, 1997, 41-47.

[371] Conseil d'Etat no. 425395/2020.

[372] See Cons. Stato Sez II, no. 2248/2020.

[373] Starting from SINGH K. *Chronic Disturbance, a Principal Cause of Environmental Degradation in Developing Countries*, 25 *Envtl Conserv.*, 1, 1998, 1-2.

b) The "Tyranny of Small Decisions" emphasized by William E. Odum[374], in which the law operates a fiction, dividing the biosphere into distinct sections and giving each of them a different regulation, and considering the biosphere as an entity different from the other ecosystem dimensions;

c) The "Tyranny of Localism"[375], based on the idea that community-based environmental management can in itself satisfy the knowledge of the biosphere complexity;

d) the absence of a three-dimensional approach of "Climate Change and Environmental Degradation", focused on the joint assessment of *1)* climate change, *2)* air pollution and *3)* loss of ecosystem goods, resources and services[376];

e) the improper application of the principle of sustainable development and the precautionary principle[377];

f) the rhetorical use of the balance between economic and environmental interests, supported by the vision of the so-called "three pillars" (or "rings"[378]) of sustainability (society, economy, environment), which is highly criticized because it places on the same level situations that are actually very different[379].

Actually, Law, Economy and States depend on Nature, and not the opposite[380]. Stephanie R. Fishel called this dependence "*Microbial State*"[381].

If this dependence is not respected, economic analyses of the environment produce negative spirals and further ecosystem losses (called "*lose-lose*").

By introducing the Rights of Nature, Law must not simply attribute a "value" to goods and functions. It must respect the functioning rules of these goods and functions. Through the Rights of Nature, the "imperative reasons of overriding public interest" concern the functioning rules of the ecosystems on which everyone's life depends.

Ecological assessments are very complex[382] but scientists have identified the main ecosystem rules to be respected[383].

These rules are absolutely compatible with the "pillars" of the Rights of Nature.

The following scheme can be submitted

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[374] ODUM W.E. *Environmental Degradation and the Tyranny of Small Decisions*, cit.

[375] LANE M.B., CORBETT T. *The Tyranny of Localism*, 7 *J. Envtl Policy & Planning*, 2, 2005, 141-159.

[376] https://ec.europa.eu/knowledge4policy/foresight/topic/climate-change-environmental-degradation_en

[377] READ R., O'RIORDAN T., *The Precautionary Principle Under Fire*, 59 *Environment: Sc. & Pol. for Sust. Development*, 5, 2017, 4-15.

[378] BARBIER E.B. *The Concept of Sustainable Economic Development*, 14 *Envtl Conserv.*, 2, 1987, 101-110.

[379] LAITOS J.G., WOLONGEVICZ L.J. *Why Environmental Laws Fail*, 39 *Wm. & Mary Envtl L. & Pol. Rev.*, 1, 2014, 1-52.

[380] PELLETIER N. *Of Laws and Limits: An ecological Economic Perspective on Redressing the Failure of Contemporary Global Environmental Governance*, 20 *Global Envtl Governance*, 2, 2010, 220-228.

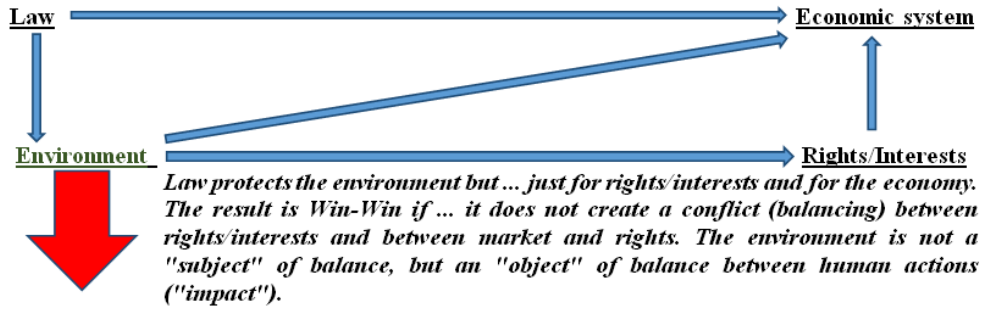
[381] FISCHEL R.S. *The Microbial State*, Minneapolis, 2017.

[382] See WHITE E.R. et al, *Success and Failure of Ecological Management is Highly Variable in an Experimental Test*, 116 *PNAS*, 46, 2019, 3169-23173.

[383] See MITTELSTAEDT **P. et al.** *Laws of Nature*, Berlin-Heidelberg-New York, 2005. The ecosystem approach allows to consider the "laws" of nature (see https://www.cbd.int/ecosystem/). In fact, it identifies, through scientific knowledge, the "critical non-replaceable" natural capital. This capital prevails over any "law" of the human will. Furthermore, it favors deliberation in compliance with the "fundamental laws" of ecology (the "Laws" of Albert A. Bartlett, Kenneth Boulding, Barry Commoner, Nicolas Georgescu-Roegen, Brilliant Green, Garrett Hardin, Karl William Kap, Stefano Mancuso etc.). See BOERO F. *Nature and the Governance of Human Affaris*, in *Come governare l'ecosistema? How to govern the Ecosystem? ¿Como gobernar el ecosistema?*, ed. Bagni S., Bologna, 2018, 47-60, and MANCUSO S. *La nazione delle piante*, Roma-Bari, 2019.

ECOSYSTEM AND CLIMATE EMERGENCY IN THE CURRENT EUROPEAN ENVIRONMENTAL LAW

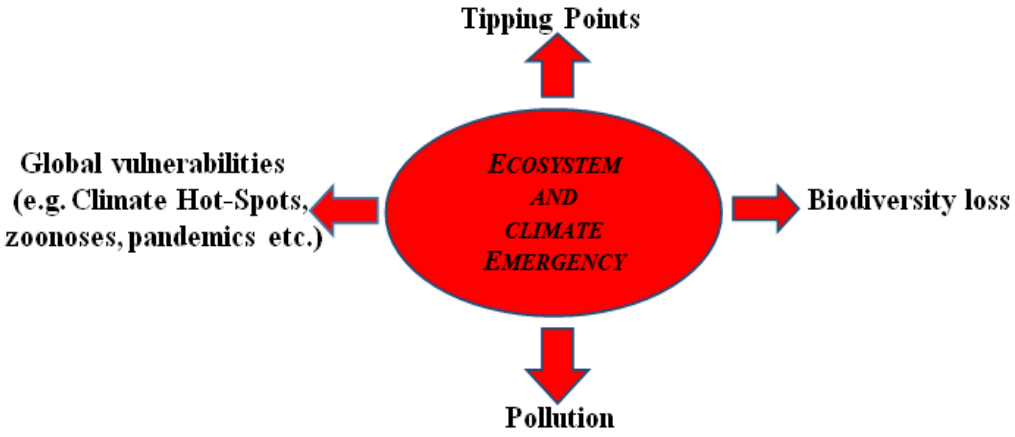
The structure of current environmental law.
(Alleged) Win-Win logic of the balance between rights/interests - economy - environment



Law protects the environment but ... just for rights/interests and for the economy. The result is Win-Win if ... it does not create a conflict (balancing) between rights/interests and between market and rights. The environment is not a "subject" of balance, but an "object" of balance between human actions ("impact").

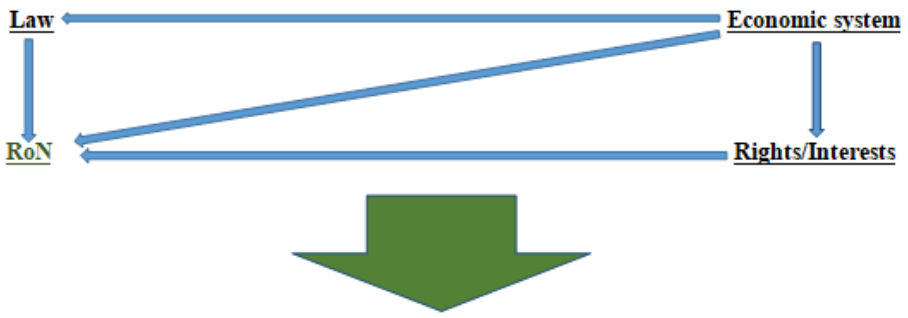
But ... the ecosystem and climate emergency show that the concrete effect of environmental regulation is Win-Lose not for the "environment" but for "earth life" (one earth - one health) and therefore for the economy and rights/interests. Definitely, it's Lose-Lose.
In the age of emergency, a "current" law becomes "dysfunctional" (fails).
But the failure in the emergency turns into a failure of an entire legal system.
It multiplies a dangerous "Lose-Lose" spiral.

EXAMPLE OF LOSE-LOSE SPIRAL



For this reason, we need to think of a "new subject" of law that includes all the components inside the "Spiral" of emergency and it can "govern" them through a new "method"; the elements of the emergency are all the components of the earth system, namely Nature.
Therefore, speaking about RoN does not mean recognizing the rights of "other subjects", but means including "all subjects" of the earth system in this unprecedented emergency. Even the human being is Nature. Consequently, also the human being has the "same rights" of Nature. This "identification" is not "cultural", but "physiological". We will overcome the emergency if we recover the "physiology" of the earth's system. If all the elements of life (all "subjects") do not come out of the spiral nobody will win. In the age of emergency, decisions are not a "tragic game" (sacrificing someone for someone else's sake); nor a "zero-sum game" (making a Win-Lose compromise). They are a "necessary game" (to give up something "exclusive of one's own", to win everything that belongs to any living subject: nature with its biodiversity, without pollution, without pandemics, without "Tipping Points").

RoN PERSPECTIVE IN THE ECOSYSTEM AND CLIMATE EMERGENCY



Law protects life (not "the environment") only if, in case of conflict between RoN and rights/interests, the primacy of RoN is affirmed "unconditionally". Only in this way all the people "win" everywhere, also for the economy. Man and the economy do not "lose", but "give up", because it is the only way to guarantee present and future life (pro natura as pro vita). Any other "Win" is a defeat, because the emergency remains "inside". Any balance is a "Loss" because it aggravates the emergency. The RoN discipline is used to define the "legal methods" of "renunciation". The "methods" must be applied in any "field" of European law. They are not a "matter" of environmental law, but the new "method" of the interpretation and action of all European law. Nature becomes the "subject" of rights which means that "essential content" of rights is constituted by the "method" of the RoN. Without RoN, fundamental rights can have a "present", but not a "future".

A European Charter of RoN must serve this purpose.
The only alternatives to this plan is balancing the "current" Law; but, in the era of the ecosystem and climate emergency, balancing only causes "Loss" (Tipping Points, Biodiversity loss, Pollution, Climate Change Hot-spots, Vulnerability, Pandemics etc.).

In conclusion, the ecological analysis of the Law serves to verify that human rules comply with these ecosystemic functioning rules. In this perspective, for example, the introduction of the "ecological impact analysis" of policies has been proposed[384].

However, the introduction of the Rights of Nature also modifies the economic analysis of the Law, as it imposes inter-temporal economic evaluations on the costs and benefits of any policy with respect to the natural cycles of the Earth system. In this perspective, the economic analysis of the Rights of Nature is similar to the economic analysis of the rights of future generations[385].

[384] See ASVIS *Rapporto SDGs 2019*.

[385] See ABRESCIA M. *Un diritto al futuro. Analisi economica del diritto, Costituzione e responsabilità tra generazioni*, in *Un diritto per il futuro. Teorie e modelli dello sviluppo sostenibile e della responsabilità intergenerazionale*, eds. Bifulco R., D'Aloia A., Napoli, 2008, 161-171.

Annex 11: Rights of Nature and "tragic legal choices" (source: Bagni S., Carducci M. 2020)

BAGNI S., CARDUCCI M. *Rights of Nature and "tragic choices"* (CEDEUAM-UniSalento, 2020)

The contrasts between fundamental rights that produce "moral conflict" in the decision-maker (legislator, administrative authority, judge) can be defined as "tragic choices".

These occur in two cases[386]:
a) when two or more fundamental rights are in conflict within the same category of persons to whom the decision is addressed;
b) when the same fundamental right conflicts between different categories of persons to whom the decision is addressed.

We talk about "moral conflict" because the "tragic choices" impose "*aut-aut*" decisions. These are based on:
- the denial of a fundamental right in order to protect another fundamental right within the same category of persons, in case ***a)***,
- the denial of the protection of one category of persons rather than another one, even though both of them have the same fundamental right, in case ***b)***.

In the field of fundamental human rights, the "tragic choices" involve bioethical issues: for example, in the case of abortion, the collision between two different rights of the mother (the right to life and the right to motherhood) or the collision of the same right (the right to life) between mother and unborn child may occur.
In these specific cases, the "*aut-aut*" decision is focused on the criterion of prevalence and proportionality (*pro choice/pro life*).

Can "tragic choices" occur in the case of Rights of Nature? How does the criterion of prevalence and proportionality apply?

The following possibilities can occur:
a) the collision between different Rights of Nature related to the same subject (single living being/species/ecosystem), for example between the right to life and the right to migration of the living subject/species X;
b) collision of the same Right of Nature between different categories of subjects (single living being/species/ecosystem), for example between the right to life of the living being/species/ecosystem X and the right to life of the living being/species/ecosystem Y
c) the collision between Rights of Nature and fundamental human rights with the same content, for example between the right to life of the living being/species X and the right to life of humans.

In practical terms the collision depends on the type of:
- content of Rights of Nature;
- Subject holding these rights (single living being, living species, ecosystem).

For example, if animals are considered as legal entities, the meaning of the so called "*five freedoms of animal welfare*" ("*Freedom from hunger and thirst (food and water)*"; "*Freedom from discomfort*"; "*Freedom from pain, injury and disease*"; "*Freedom to express normal behaviour*"; "*Freedom from fear and distress*")[387] changes.

Therefore, the introduction of the Rights of Nature into current EU law could produce some "tragic choices".

[386] See RUGGERI A. *Fatti, norme, criteri ordinatori. Lezioni*, Torino, 2009; CALABRESI G., BOBBIt Ph., *Tragic Choices*, New York, 1978, VAN DOMSELAAR I. *On Tragic Legal Choices*, 11 *L. & Humanities*, 2, 2017, 184-204.

[387] See https://www.animalhumanesociety.org/health/five-freedoms-animals.

Let us consider the following EU law provisions:
- article 13 TFEU, on "animal welfare" as "sentient beings";
- articles 36 and 114 (4) TFEU, on public policy, protection of health and life of humans and animals, preservation of plants, protection of the environment;
- Annex 1 to the TFEU, which lists 'live animals' among the 'products' of Article 38 TFEU (Chapter 1);
- Recital no. 41 of Directive 2006/123/EC, which states «*The concept of 'public policy', as interpreted by the Court of Justice, covers the protection against a genuine and sufficiently serious threat affecting one of the fundamental interests of society and may include, in particular, issues relating to human dignity, the protection of minors and vulnerable adults and animal welfare. Similarly, the concept of public security includes issues of public safety*».

How does the interpretation of these rules change if the Rights of Nature are recognized to subjects (animals or plants), to entire living species, to ecosystems?

What happens if the "*in dubio pro natura*" rule is included among the "fundamental interests" of the EU and if it collides with other rules (such as the right to life, the right to ecological integrity, the right to the reproduction of life cycles)?

The right to life of a living species (animal or plant) or an ecosystem could legitimize a State to use article 36 TFEU or article 114 (4) TFEU, as has already occurred in some cases (C-6/99; C-236/01; T-584/13).

Moreover, the Rights of Nature would also strengthen the content of Article 13 TFEU by extending the concept of "animal welfare" to the whole living system[388]. This "welfare" would become a parameter of proportionality of European decisions, according to the interpretation introduced by the Opinion of Advocate General L.A. Geelhoed in case C-244/03 (§§91-124).

In this context, the definition of the concept of "product" in art. 38 TFEU should be amended.

So, the scenarios of "tragic choices" could still arise. The cases could involve:
- the right to life of every single living being (for example, through imprisonment for the protection of the species) and the right to live freely in an ecosystem (there is a Colombian judicial precedent in the *habeas corpus* case known as "oso Chucho": Corte constitucional - sentencia SU-016/20[389]);
- the right to life of an alien animal species and the right to life of native animal species in the same ecosystem (can the 'right to migrate' of living species due to climate change be recognised?);
- the right to reproduction of the life cycles of all living beings and its preservation through sterilization practices;
- the collision between Rights of Nature and cultural rights and religious practices on animals or plants[390], or between the right to the health of living beings and the human right to health through scientific progress (article 15 of 1966 UN Covenant on Economic, Social and Cultural Rights) through animal experimentation[391];
- the collision between the right to the ecological integrity of a natural ecosystem and the human right to the maintenance of an ecosystem and its energy requirements;
- the collision between the "*in dubio pro natura*" rule and the "*in dubio pro reo*" principle in environmental crimes or crimes against animals and plants, where the prevailing criterion is always the human one[392].

[388] See SPARKS T. *Protection of Animals through Human Rights: The Case-Law of the European Court of Human Rights*, in *Studies in Global Animal Law*, ed. Peters A., Berlin-Heidelberg, 2020, 153-171; PETERS A. *Liberté, Egalité, Animalité. Human-Animal Comparison in Law*, 5 *Transn'l Envtl L.*, 1, 2016, 25–53.

[389] According to the Constitutional Court of Colombia, the Habeas Corpus «*es un instrumento de protección de la libertad de los seres humano, que es un derecho que no se puede predicar de los animales*».

[390] See ROTHENBURG W.C., STROPPA T. *Sacrifício ritual e crueldade contra animais: un caso de sustentabilidade cultural*, 17 *Veredas do Dir.*, 37, 2020, 295-322.

[391] See Italian case on experimentation on macaques: TAR Lazio, Sez. III-Quater, no. 5771/2020.

[392] See Corte di Cassazione, Sez III penale no. 13214/2010.

If the right of access to justice in relation to the Rights of Nature is recognized, these collisions would become the basis for litigation.

How to deal with such "tragic choices"?

Some authors propose "ecologically oriented"[393] or "ecological proportionality"[394] interpretations. Other authors suggest "Due Process of ecological law"[395].

However, these proposals do not include the Rights of Nature: they always consist of balancing operations, based on exclusively human interests.

Instead, by including the Rights of Nature, "tragic choices" must be decided through the above-mentioned "pillars", in particular the rules of non-regression, resilience and "*in dubio pro natura et clima*".

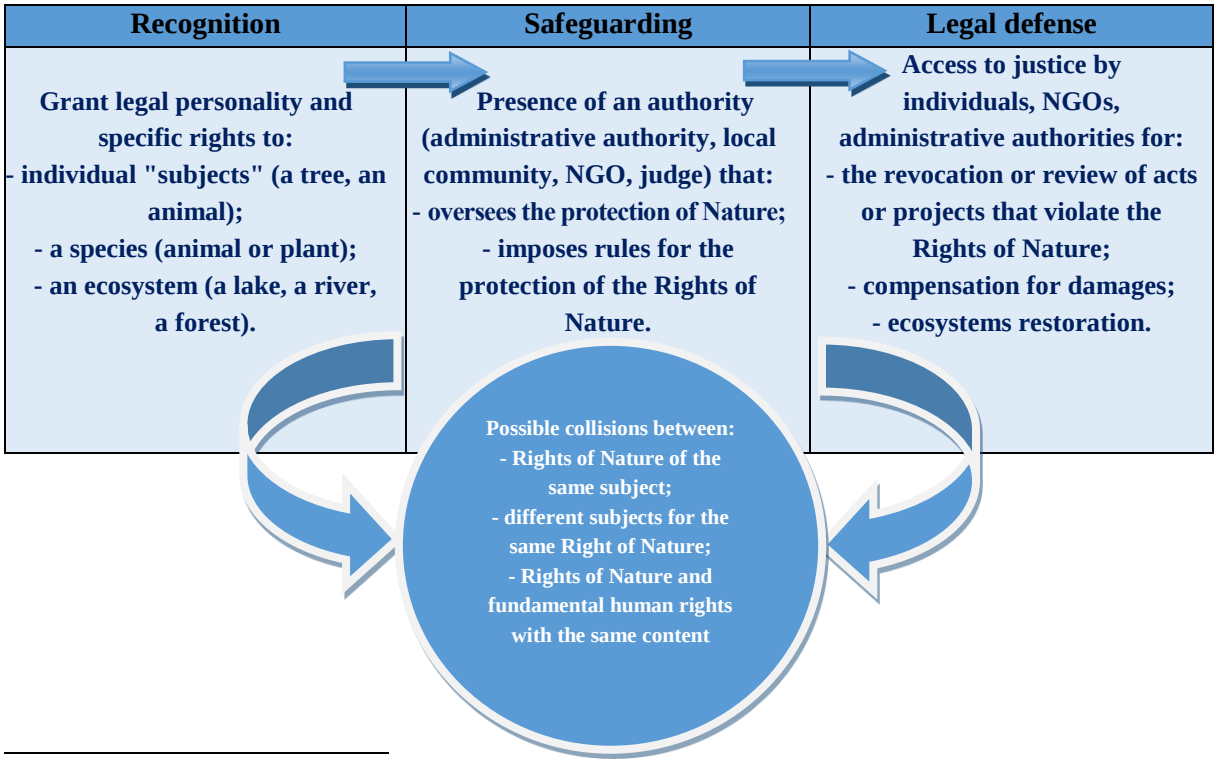
In fact, only these "pillars" ensure the protection of the entire ecosystem in the face of all "eco-legal" breaking points. They guarantee all living beings, including the human being.

In this perspective, they do not produce collisions in the common interest of survival.

Therefore, the "pillars" are the *Grundnorm* to solve any "tragic choice" in the era of the ecosystem and climate emergency.

The following scheme can be submitted:

Figure 27: Rights of Nature and "tragic choices" in the era of "eco-legal" breaking points



[393] MONTEDURO M. *Per una "nuova alleanza" tra diritto ed ecologia: attraverso e oltre le "aree naturali protette"*, 11 *Giust. Amm. Riv. Dir. Amm.*, 6, 2013, 1-44

[394] WINTER G., *Ecological Proportionality: an Emerging Principle of Law for Nature?*, in *The Rule of Law for Nature*, Voigt C. (ed.), cit., 111-116.

[395] DE ARAÚJO AYALA P. *Devido processo ambiental e direito fundamental ao medio ambiente*, Rio de Janeiro, 2020.

In the "tragedy" of the ecosystem and climate emergencies, the Rights of Nature prevent worsening "tragic choices". In fact, they adapt the legal system to the ecosystem reality. Let's see how.

In the anthropocentric law, legal subjectivity has always been related to the concept of "person", both natural or legal. It refers to a human being, real or in fiction. By the way, the word "person" comes from ancient Greek πρόσωπον (prósōpon) that means both the face, the actor's mask used in classic time during theatre performances and the character played. So, even if in legal history, not all human beings have been considered as "natural persons" since the beginning (let's think about blacks, slaves, strangers, women, children, disabled, etc.), when trade and economic interests pretended separating personal assets from business ones, the fiction of "legal person" was generated. Anyway, a human form (e.g. a company or association), belief (e.g. an idol) or interest (e.g. a trust) always stands behind the legal person.

The consequence is that the law can recognize to legal persons some or all rights usually recognized to natural persons. And once the right is recognized, no preferences could be claimed on the basis of the different qualification of the right-bearer: the honor of an individual is comparable to the honor of a company; property rights of a multinational are equivalent to the ones of a real person. Then, there are some rights that are only "human". We call them "human rights" and we enshrine them in international declarations or treaties, depending if they must be considered binding or not for the States.

Non-human species and the ecosystems would not enter into the person's fiction. They are not masks of humans, but autonomous entities. Moreover, an ecosystem, being it a garden or the Planet Earth, intended not as an autonomous subject, but as a complex relational concept, represents the conditions of existence for all its living components, but at the same time, the harmonic balance of all the parts is the condition of existence of the ecosystem.

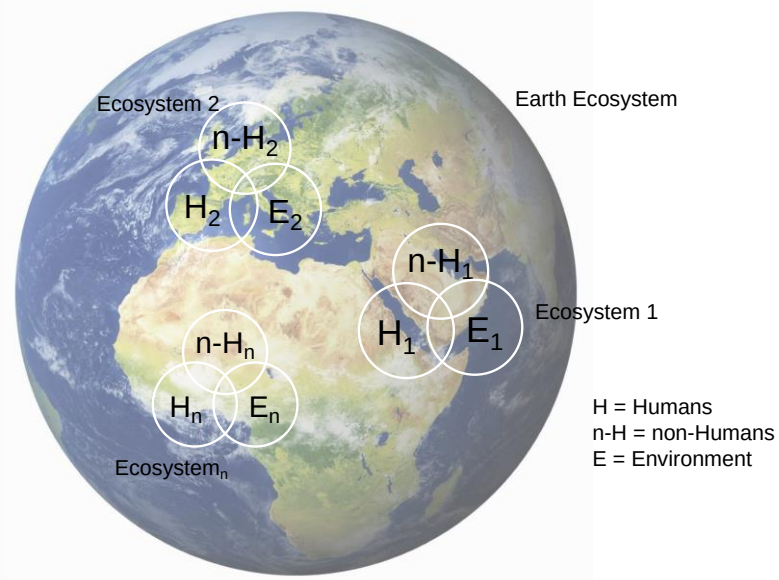
This means that there is an inter-dependent relationship between the survival of the whole and that of its parts. And the same interdependency exists even among the various minor ecosystems and the whole Earth ecosystem. Including non-human species and the ecosystems as new subject of rights means making the substantial differences among them relevant in the interpretative process, because there is a survival relationship of dependency among humans and non-humans legal subjects as part of an ecosystem, and among the various ecosystems and the planet.

This ecological principle of co-living, clearly stated in the theory of evolution, demands a change in the substantial concept of right. In legal theory, a right is a claim supported by the law. From an ecological point of view, an ecosystem's right is a set of co-living relationships whose balance must be defended for the survival of each subject of the relation[396]. It is true that in the theory of evolution, mutation and adaptation are the mechanisms that permit an evolution in the conditions of co-living and in the global balance. But the theory of evolution is neutral with respect of the interests of each species and ecosystem. This means that the planet life will always find a proper equilibrium, but it is absolutely equivalent in favor of whom the new balance will be established. The ecological principle of coexistence excludes "tragic choices", as it is based on a "ladder of choices" that always favors the survival of all living subjects.

This "ladder of choices" is built with this distinction of subjects:
- **Earth ecosystem** (**EE**);
- **Other ecosystems**, co-existing inside the planet (**E_1**, **E_2**, **E_3**, … **E_n**);
- **Human** and **non-human species**, co-existing in each ecosystem (**HS** and **n-HS**);
- **Human** and **non-human individuals** inside each species (**HI** and **n-HI**).

[396] NEDELSKY J. *Reconceiving Rights as Relationship*, 1 *Rev. Const. Studies/ Revue d'études const.*, 1, 1993, 1-26.

Figure 28a: "Ladder of choices" in the Earth Ecosystem



When anthropocentric rights collide, the criteria applied to solve the conflict are different:

a) **Hierarchy**,
a-1) if the rights are recognized by sources of law of different level: e.g. constitutional rights prevail over legislative rights;
a-2) where there is an interpretative criterion that recognizes preference to one of them (e.g. in dubio pro reo);

b) **Balancing**,
if all the rights in conflict are formally equivalent (e.g. all constitutional rights). In this case, two different principles can be applied. The principle of proportionality requires limitations of fundamental rights to be adequate, necessary and proportional to the aims pursued. On the other hand, the principle of protection of the essential nucleus of fundamental rights prevents the total sacrifice of one of the conflicting rights.

How would these criteria be applied, when eco-centric rights collide, pretending that Rights of Nature were incorporated at EU Treaties' level (or at constitutional level in national contexts)?

The survival of the planet is the pre-condition for the existence of all other subjects, so whatever action or omission that has a negative impact on the planetary boundaries should always be prohibited and EE rights should always prevail over the other legal subjects. The "*in dubio pro natura et clima*" rule should be interpreted and applied in this sense.

Then, diversity is a fundamental component both of the theory of evolution[397] and of biological communities. Moreover, other key ecological elements must be taken into consideration: complexity, productivity, stability (resilience and resistance), structure[398].

The complex co-living relationship among all natural ecosystems and the delicate balance between and inside them, make it more difficult to foreseeing all the feed-back loops deriving from their interaction. So, the second legal principle to be applied, when the first condition does not occur, is the "pro conservation rule" (already recognized by the CITES with respect of biodiversity and in principle 5 of the ecosystem approach endorsed by the COP of the Convention on Biological Diversity

[397] PIEVANI T. *La teoria dell'evoluzione. Attualità di una rivoluzione scientifica*, Bologna, 2017[3].
[398] CUNNINGHAM W.P. et al. *Environmental Science: a Global Concern*, Boston, 2004[9].

UNEP/CBD/COP/5/23[399]), in accordance with the "*in dubio pro natura et clima*" rule. This means that, when the conflict does not entail the safety of the EE, it must be applied the solution that guarantees the conservation of ecosystem and species diversity, independently from its costs, and even in cases where we are not able to estimate the exact ecological impact of a human action or omission.

In the same way, species rights should always prevail over individual rights.

Only when the previous conditions are satisfied, a safeguard clause in favor of human rights should apply. In fact, from an ecological point of view, among each category there is a total equivalency.

The EE interests prevail over the interests of the sub-ecosystems of the planet, that prevail over the interests of single species, that prevail over the interests of any individual.

But in ecological terms, anthropic ecosystems have the same value as the arctic biome; and among individual rights, the right to life of a man has the same value as that of a polar bear.

From a human point of view, this is unacceptable, as far as law is a human product and will always be administered by humans and for humans.

Only the common condition of vulnerability of all individuals and species in front of planetary ecological disaster justifies the juridification of the ecological rules and an expansion in the theory of legal personhood.

Therefore, when individual human and non-human rights collide, the "*pro-homine*" principle[400] should apply. But, in this case, the "principle of eco-proportionality" (proposed by Winter[401]) and the principle of defense of the "essential content" of the Rights of Nature should guarantee a reasonable balance and preserve the fundamental right to life also of non-human individuals.

So, in the case exemplified above, if the maintenance of human communities in the Arctic circle would put at risk the entire biome, the principle of conservation should prevail, preventing irreversible changes to the Arctic ecosystem.

If a human community can live in the Arctic, respecting the biome equilibrium, all such measures in order to preserve a harmonic coexistence in diversity must be taken.

If humans' communities hunt whales in pursuance of an ancient cultural tradition, and this does not menace the species survival, the human cultural right should prevail.

But if hunting is merely a human amusement or the rituals inflict unjustified sufferance to the animal, it should be prohibited, in application of the proportionality principle and the protection of the essential core of the animal dignity and right to life.

Here follows a scheme of conflicting rights resolution criteria.

[399] PADOVANI L. et al. *L'approccio ecosistemico: una proposta innovativa per la gestione della biodiversità e del territorio*, 49 *Energia, Ambiente e Innovazione*, 1, 2003, 23-32.

[400] MAZZUOLI DE OLIVEIRA V. et al. *The Pro Homine Principle as a Fundamental Aspect of International Human Rights Law*, 47 *Meridiano. J. Global Studies*, 17, 2016, 1-9.

[401] WINTER G., *Ecological Proportionality*, cit., 111-128.

Figure 28b: Conflicting Rights/Applicable rules

Conflicting Rights	Applicable rules
EE	Always prevail ("*in dubio pro natura et clima*")
E_1 v. **E_2**	Pro conservation and "*in dubio pro natura*" rules
HS v. **n-HS**	Pro conservation and "*in dubio pro natura*" rules. If extinction is not a risk, "*pro homine*" principle, but "eco-proportionality" and protection of the "essential content" of Rights of Nature
HI v. **n-HI**	"*pro homine*" principle, but "eco-proportionality" and protection of the "essential content" of Rights of Nature
E v. **S** or **E** v. **I**	Hierarchy, as application of the conservation principle
S v. **I**	Hierarchy, as application of the conservation principle

EE = Earth Ecosystem
E = Ecosystem
HI = Human Individual
HS = Human Species
I = Individual
n-HS = non-Human Species
n-HI = non-Human Individual
S = Species

Annex 12: Statistics on cases of Rights of Nature (source: Kauffman C.M. 2020)

KAUFFMAN C.M. *Mapping Transnational Rights of Nature Networks & Laws: New Global Governance Structures for More Sustainable Development*, Prepared for the International Studies Association Annual Conference Toronto, March 29, 2020

Table 1: Cases by Level

Level	Number	Percent
Local	114	64%
National	58	33%
Tribal	5	2.5%
International	1	0.5%

Table 2: Countries With Existing or Pending Cases of Local RoN Legal Provisions

Country	Number of Cases
Argentina	4
Australia	5
Belgium	1
Brazil	6
Canada	2
Colombia	6
France	1
India	4
Mexico	3
Netherlands	1
Trinidad & Tobago	1
U.S.A.	79
United Kingdom	1
Total	114

Table 3: Countries with Existing or Pending National RoN Legal Provisions

Country	Number
Argentina	1
Bangladesh	1
Bolivia	2
Bosnia	1
Brazil	2
Chile	1
Colombia	3
Ecuador	35
El Salvador	1
France	1
Nepal	1
New Zealand	3
Nigeria	1
Pakistan	1
Serbia	1
Sweden	1
Uganda	1
Uruguay	1
Total	58

Table 4: Number of Legal Provisions By Year

Year	Number of Adopted Provisions	Number of Ongoing Provisions	Total (Adopted + Ongoing)
2006	4		4
2007	4		4
2008	9		9
2009	6		6
2010	8		8
2011	11		11
2012	10		10
2013	9		9
2014	13		13
2015	9	1	10
2016	8		8
2017	12	2	14
2018	11	15	26
2019	24	22	46

Annex 13: Questions for a development of scientific discussion in the EU about Rights of Nature (source: CEDEUAM-UniSalento)

What content is needed for a European Charter on the fundamental rights of nature?

1. What content is considered necessary for a European Charter on the fundamental rights of nature?
2. How to connect these necessary contents with the contents of art. 37 of the EU Charter of Fundamental Rights and with the European Convention on Human Rights?
3. How to coordinate these contents with the contents of articles 51-54 of the EU Charter of Fundamental Rights?

Rules or principles?

4. Should the Charter of Rights of Nature contain rules or only principles?
5. What principles?
6. What rules?
7. Is it possible to identify, with reference to the protection of nature, "common constitutional traditions" between the States of the EU, so as to make the Rights of Nature compatible with these "traditions"?
8. 5. Is it possible to insert, within European law, the mandatory rule of the "*ecosystem approach*" and define its contents necessary to protect nature?
9. Is it possible to introduce the principle of "superior interest in the protection of nature in the presence of collapse situations declared by science"?
10. Is it possible to insert the principle "*in dubio pro natura*" into European law?
11. What would be the relationship between this principle and the principles of art. 191 of the TFEU?
12. Is it possible to introduce a general principle of resilience and a rule of "assessment of resilience" in environmental and strategic assessments?
13. Is it possible to affirm a rule of "prohibition" on balancing human (economic and social) interests in conditions of critical resilience of the natural context?
14. Is it possible that the protection of nature in conditions of critical resilience becomes a conditioning clause in the EU's external relations and in relations with businesses?

Nature as a system of rights?

15. Is it possible to affirm, and how, a principle of equality between all living beings?
16. It is possible to make this principle compatible with art. 20 of the EU Charter of Fundamental Rights?
17. What are the Rights of Nature?
18. Are they substantive rights or procedural rights only?
19. Is it possible to define an "essential content" of these rights?
20. How to make this "essential content" compatible with the "essential content" referred to in art. 52 of the EU Charter of Fundamental Rights?

Vulnerability

21. Is it possible to define nature as a "vulnerable subject"?
22. What would be the elements of this vulnerability?
23. Could there be a higher public interest in protecting this vulnerability than human interests?

Nature and climate change

24. How to combine the Rights of Nature with the climate emergency (for example, with regard to the problem of the so-called "Tipping Points" of ecosystems)?
25. How to combine the Rights of Nature with the protection of human rights in climate change?
26. Is it possible, and how, to insert the Rights of Nature into the social and environmental responsibility of companies?

To guarantee effective judicial protection or even defense in deliberations?

27. How to guarantee effective judicial protection?
28. Is it appropriate to provide for the establishment of an "*Amicus naturae*"?
29. Should it be like an "Amicus curiae" or a European office?
30. Would "*Amicus naturae*" operate only in the Court of Justice or could it also be organized as an *Ombudsman* (like the *Defensoria de la Madre Tierra* in Bolivia)?
31. What skills should "*Amicus naturae*" guarantee? Exclusively legal or (only) ecological competences?
32. How can the collision between human rights and Rights of Nature be resolved in the context of legal or deliberative disputes?

33. How can we resolve the antinomies between European rules on human interests (economic, social etc.) and rules on nature, in the context of legal or deliberative disputes?
34. What role to assign to science?
35. Can the scientific principle of resilience be described as a "general rule" of European law?
36. Is it possible to condition the balancing of rights and the interpretation of European law to the principle of resilience?

Annex 14: Proposals for the EU

There are two proposals on the Rights of Nature, specifically related to the EU.

The first is the ***Nature's Rights Draft EU Directive*** (European Citizens' Initiative) (2017) promoted by non-profit Organization *Nature's Rights*. The text can be downloaded from the site: https://natures-rights.org/

The second is a hypothesis of "***European Charter of Duties towards Nature and Climate***" (2020), developed by the non-profit organization "ASud" together with the Italian CDCA (Documentation Center on Environmental Conflicts). It is in Italian to promote public awareness and encourage discussion events and endorsements.

The text is reported.

PROPOSTA DI "ASud" e CDCA

«CARTA EUROPEA DEI DOVERI UMANI PER I DIRITTI DELLA NATURA E DEL CLIMA»

PREAMBOLO

Constatazione dell'emergenza ecosistemica e climatica
Il mondo versa in una situazione di deficit ecologico e di perdita crescente di biodiversità.
Gli organismi delle Nazioni Unite, in particolare UNEP, IPBES e IPCC, hanno dimostrato, sulla base di evidenze scientifiche non controverse, l'entità e la gravità del degrado ambientale che interessa l'intero Pianeta e le minacce che ne derivano per gli equilibri ecologici di tutte le forme di vita.
L'umanità tutta è minacciata da un'emergenza ecosistemica e climatica senza precedenti, destinata a peggiorare nel tempo. Degrado ambientale ed emergenza ecosistemica e climatica coinvolgono anche l'Unione europea e gli Stati membri.

Constatazione dell'errore ecologico dell'attuale diritto ambientale
L'attuale approccio europeo di apposizione di vincoli di tutela limitatamente a determinate aree naturali non è sufficiente a contrastare l'emergenza ecosistemica e climatica, perché fondato su un duplice errore ecologico:
- quello di trattare gli interessi dell'essere umano indipendentemente dall'equilibrio ecologico generale del sistema Terra;
- quello di inquadrare l'equilibrio ecologico esclusivamente all'interno di determinati territori separati dalla presenza e dall'azione umana (habitat naturali, riserve, aree protette).
L'equilibrio ecologico non è un dato settoriale né è circoscrivibile solo a determinati territori. Esso dipende da tutti i comportamenti umani e deve quindi rappresentare l'interesse prioritario di qualsiasi decisione pubblica o privata, perché garantisce la sopravvivenza di tutti gli esseri viventi per il presente e il futuro.

Necessità di doveri di solidarietà intergenerazionale verso la Natura
Per tali motivi, è dovere di tutti condividere come prioritaria la tutela dell'equilibrio ecologico e agire di conseguenza nella solidarietà tra la presente e le future generazioni, per impedire che il futuro della Terra sia peggiore del presente.
L'adempimento di questo dovere impone inderogabili azioni finalizzate:
- all'immediato abbandono delle attività umane che alterano le funzioni ecosistemiche, accelerano i cambiamenti climatici e l'ulteriore riscaldamento globale del Pianeta;
- al recupero, e non solo alla conservazione, della biodiversità, per scongiurare il collasso degli ecosistemi;
- al mantenimento della stabilità climatica del presente e del futuro, per impedire l'accelerazione di eventi meteorologici estremi e del processo di mutamento delle condizioni climatiche, che causano perdite e danni alle persone e all'ambiente.

Le finalità di queste azioni si realizzano attraverso:
- il rispetto di tutte le forme di vita che compongono la biodiversità;
- il rispetto dell'integrità dei beni e dei servizi ecosistemici;
- il divieto dei comportamenti umani che riducono o alterano la biodiversità e la stabilità climatica.

Necessità di una Carta dei doveri per i diritti della natura e del clima
La ***Carta dei doveri umani per i diritti della natura e del clima*** disciplina i doveri umani verso la natura e il clima, in quanto elementi costitutivi della sopravvivenza di tutte le specie viventi e della stessa possibilità di vita della specie umana all'interno del sistema climatico del Pianeta Terra. Per questo la Carta **obbliga l'Unione europea verso i diritti della Natura e del clima**, in quanto:
- la **Natura**, in tutte le sue manifestazioni di vita, ha il **diritto di essere rispettata nelle sue funzioni ecosistemiche e nelle sue regole di funzionamento**;
- il **clima** ha il **diritto di essere rispettato nella stabilità del suo sistema di azioni e interazioni planetarie**.

PARTE PRIMA: DOVERI

Art. 1 - Interessi prioritari dell'Unione europea
1. L'Unione europea riconosce biosfera e atmosfera come patrimonio comune dell'umanità.
2. La preservazione della biodiversità e il mantenimento della stabilità climatica sono interessi prioritari dell'Unione europea, degli Stati membri e di tutti i cittadini europei.
3. L'equilibrio storico degli ecosistemi del territorio europeo deve essere garantito e preservato nel tempo.

4. Tutte le persone, fisiche e giuridiche, pubbliche e private, agiscono per preservare la biodiversità e mantenere la stabilità climatica.
5. I diritti di proprietà e l'iniziativa economica, pubblica e privata, sono esercitati e garantiti nell'interesse superiore del rispetto della biodiversità e della stabilità climatica.

Art. 2 - Dovere di rispetto della Natura

1. La natura è un insieme di soggetti viventi, beni e servizi ecosistemici senza i quali la stessa vita umana è impossibile.
2. Il rispetto di tutti i soggetti viventi, beni e servizi ecosistemici impone doveri inderogabili a carico di tutti gli esseri umani.

Art. 3 - Dovere di prevenzione, protezione e cura

1. Tutte le attività e politiche dell'Unione europea, in qualsiasi ambito di sua competenza, devono essere improntate al perseguimento di tre doveri prioritari di:
- prevenzione dei danni ambientali e climatici,
- protezione di tutti gli esseri viventi dagli effetti di alterazione degli ecosistemi e del clima causati dall'azione umana;
- cura degli ecosistemi esistenti e delle loro biodiversità.

2. Nessun interesse strategico europeo o statale può prevalere su questi tre doveri.
3. Tutti gli atti dell'Unione europea devono essere motivati in base ai tre doveri indicati.

Art. 4 - Dovere di garantire la stabilità climatica

1. Il clima è un servizio ecosistemico essenziale e insostituibile per tutte le forme di vita.
2. L'abbandono definitivo e irreversibile delle risorse fossili è un dovere prioritario.

Art. 5 - Dovere di prevenzione verso la biodiversità

1. Tutti hanno il dovere di rispettare la biodiversità, in base al principio di prevenzione.
2. Tutte le azioni dell'Unione europea, degli Stati membri e degli operatori economici, pubblici e privati, devono essere improntate alla prevenzione dei danni nei confronti di qualsiasi forma di vita, bene e servizio ecosistemico che compone la biodiversità.
3. L'Unione europea disciplina forme e modi di esercizio del dovere di prevenzione verso la biodiversità.

Art. 6 - Dovere di promozione della biodiversità

1. L'Unione europea promuove la biodiversità in tutte le politiche di sua competenza e all'interno di tutti i contesti di azione.
2. La biodiversità deve essere rispettata e promossa su tutto il territorio dell'Unione, comprese le aree urbane, industriali, produttive e agricole.

Art. 7 - Dovere di incremento delle aree di protezione assoluta della biodiversità

1. Gli Stati membri dell'Unione europea hanno l'obbligo di incrementare le aree di protezione assoluta della biodiversità, in base a programmi e piani europei, fondati sulle informazioni e acquisizioni della scienza.

Art. 8 - Dovere di contribuzione e compensazione preventiva in favore della biodiversità

1. È dovere di tutti concorrere alle spese di promozione e ripristino della biodiversità.
2. È dovere di chi inquina mettere in atto le azioni per il completo ripristino degli ecosistemi danneggiati.
3. Gli operatori economici pubblici e privati che incidono direttamente o indirettamente sulla biodiversità devono concorrere al suo recupero attraverso apposite misure di compensazione preventiva vincolata.
4. Le misure di compensazione preventiva vincolata non escludono le responsabilità per danni.
5. L'Unione europea disciplina forme e modi di esercizio dei doveri di contribuzione e di compensazione preventiva in tutte le politiche e azioni di sua competenza.
6. Il mercato interno dell'Unione europea persegue l'interesse superiore del rispetto degli ecosistemi della stabilità climatica.

Art. 9 - Dovere della valutazione di impatto e di resilienza

1. Tutte le attività economiche pubbliche e private sono sempre sottoposte alla valutazione preventiva del loro impatto sulla biodiversità e la stabilità climatica.
2. La valutazione di impatto deve includere l'analisi della resilienza dei territori interessati all'attività economica, nel quadro degli effetti cumulativi sui cambiamenti climatici in atto e sugli obiettivi di stabilità della temperatura terrestre.

Art.10 - Doveri di conversione e transizione ecologica

1. Tutte le attività umane devono essere convertite in processi compatibili con il mantenimento:
- della biodiversità
- degli equilibri storici degli ecosistemi europei
- della stabilità climatica.

2. A tal fine, l'Unione europea promuove politiche volte a:
- sostituire le materie prime estrattive con materia prima-seconda;
- sostituire l'allevamento intensivo con il pascolo naturale;
- abbandonare la produzione e l'uso della plastica;
- sostenere e finanziare le comunità agroecologiche e il ripopolamento dei piccoli centri;
- sostenere e finanziare le comunità energetiche totalmente rinnovabili e autonome;
- sostenere e finanziare le piccole imprese ecocompatibili e i distretti industriali ecologici;
- incentivare la partecipazione della cittadinanza nel monitoraggio del consumo di suolo e nella pianificazione urbana;
- abbandonare la costruzione di mega infrastrutture legate all'utilizzo delle fonti fossili o alla difesa militare;
- incentivare e sostenere finanziariamente azioni di prevenzione e riduzione della produzione dei rifiuti, oltre che buone pratiche di riuso, recupero e riciclo;
- incentivare e sostenere finanziariamente forme di gestione pubblica e partecipata dei servizi pubblici essenziali, a partire dal servizio idrico e dall'energia, in nome del diritto umano all'acqua e all'accesso all'energia;
- incentivare e sostenere finanziariamente la tutela della salute umana e l'accesso ai servizi sanitari all'interno di programmi unitari di salvaguarda della biodiversità e della stabilità climatica;
- incentivare e sostenere finanziariamente la ricerca pubblica interdisciplinare sulla salute, la biodiversità e la stabilità climatica.

3. I doveri di conversione e transizione ecologica non possono costituire oggetto di bilanciamento con altri interessi o doveri dell'Unione europea.

PARTE SECONDA: DIVIETI

Art. 11 - Divieto di ricorso a nuove risorse fossili e alle biomasse

1. Il ricorso a nuove risorse fossili, in aggiunta di quelle già esistenti e utilizzate all'interno del territorio europeo e degli Stati membri, è contrario agli interessi prioritari dell'Unione europea.
2. La produzione di energia attraverso la combustione di fossili e biomasse è vietata.
3. Sono eliminati e vietati i sussidi diretti e indiretti alle imprese del settore fossile.
4. È sanzionata e vietata qualsiasi attività pubblicitaria e informativa che qualifichi le fonti fossili e le biomasse come risorse ecocompatibili con l'ambiente e la stabilità climatica.
5. Tutte le attività economiche pubbliche e private devono essere pianificate e realizzate in attuazione dei doveri di mitigazione climatica previsti dagli accordi internazionali.

Art. 12 - Divieto di nuovo consumo di suolo e di obsolescenza programmata

1. All'interno dell'Unione europea, è vietato l'ulteriore consumo di suolo.
2. È dovere di tutti rigenerare aree antropizzate già esistenti.
3. Tutte le azioni dell'Unione europea, degli Stati membri e degli operatori economici pubblici e privati sono improntate al recupero o alla sostituzione degli spazi antropizzati già esistenti.
4. È vietata l'obsolescenza programmata di qualsiasi bene, prodotto o materiale fabbricato o importato all'interno dell'Unione europea.

Art. 13 - Divieto di opere e attività economiche all'interno delle aree naturali protette

1. È vietata qualsiasi opera o attività economica pubblica e privata all'interno delle aree naturali protette dal diritto europeo.
2. Il taglio della vegetazione naturale protetta è vietato.

Art. 14 - Divieto di alterazione degli equilibri ecologici naturali

1. Gli equilibri ecologici naturali non possono essere alterati dalla tecnologia.
2. È proibito l'impiego di OGM e fitofarmaci di sintesi, altresì vietata è la loro importazione e commercializzazione.

PARTE TERZA: DIRITTI

Art. 15 - Diritto alla non regressione nella tutela della Natura

1. Nessuna azione o atto dell'Unione europea, degli Stati membri e degli operatori economici pubblici e privati può limitare o ridurre, anche temporaneamente, livelli di tutela della biodiversità e della stabilità climatica, già introdotti da precedenti atti europei, internazionali o statali.
2. Qualsiasi dubbio interpretativo deve essere sempre risolto a favore della migliore e più elevata tutela della biodiversità e della stabilità climatica.
3. L'individuazione della migliore e più elevata tutela è basata esclusivamente sulle informazioni e acquisizioni della scienza.
4. In ogni caso, gli interessi alla preservazione della biodiversità e alla stabilità climatica non sono bilanciabili con qualsiasi altro interesse pubblico o privato, anche se riconosciuto da altre fonti europee, internazionali o statali.

Art. 16 - Diritto di accesso alla giustizia

1. Chiunque, in forma individuale o associata, ha diritto di accedere alla giustizia europea e degli Stati membri, per far valere la non regressione nella tutela della Natura.
2. L'azione è esperibile nei confronti dell'Unione europea, degli Stati membri e degli operatori economici pubblici e privati sulla base del principio generale del "*neminem laedere*".
3. Qualsiasi limitazione è vietata.

Art. 17 - Diritto al risarcimento del danno

1. Chiunque, in forma individuale o associata, può agire in giudizio, in sede europea o dei singoli Stati membri, per il risarcimento dei danni prodotti dall'azione umana agli altri esseri viventi, ai beni naturali, ai servizi ecosistemici e alla stabilità climatica.
2. L'azione di risarcimento ha finalità pubblica e può essere esperita verso autorità pubbliche e soggetti privati.
3.Qualsiasi danno ambientale e i danni climatici non sono soggetti a prescrizione.
4. Le somme riscosse a livello europeo o dei singoli Stati membri sono destinate a un apposito fondo, istituito dall'Unione europea per la promozione dei contenuti e degli obiettivi della presente Carta.

Art. 18 - Diritto alla scienza

1. Qualsiasi decisione dell'Unione europea, degli Stati membri o degli operatori economici pubblici e privati deve essere motivata sulla base di informazioni e acquisizioni scientifiche pubbliche, trasparenti e verificabili, che dimostrino l'utilità della decisione rispetto alla preservazione della biodiversità e al mantenimento della stabilità climatica.
2. Chiunque, in forma individuale o associata, ha diritto di accedere alle informazioni e acquisizioni scientifiche poste a base delle decisioni dell'Unione europea, dello Stato membro e degli operatori economici pubblici e i privati.
2. In nessun caso, tale diritto di accesso può essere limitato o condizionato.

Art. 19 - Diritto all'istruzione ambientale e climatica

1. Tutti hanno diritto all'istruzione pubblica e gratuita in tema di funzionamento degli ecosistemi, conoscenza della biodiversità europea, della stabilità climatica e dei doveri di mitigazione e adattamento.

Art. 20 - Clausola di chiusura

1. I contenuti della Carta integrano il nucleo essenziale del diritto alla vita di qualsiasi persona umana, in quanto ne permettono la sopravvivenza presente e futura nella stabilità della biodiversità e del clima.
2. La tutela di questo nucleo essenziale è assoluta e non bilanciabile.

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