

PROTECTION OF BIODIVERSITY THROUGH TRANSNATIONAL
ADMINISTRATIVE LAW AND ITS RELATIONSHIP WITH
CLIMATE CHANGE

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Abstract

First aim of the present study is to evaluate whether and how transnational administrative law would protect biodiversity. The study specifically focuses on identifying examples of transnational administrative law instruments intended to safeguard biodiversity, studying their characteristics and sources and attempting their classification. The second goal is to evaluate, by analyzing their interactions, if a connection exists between the abovementioned instruments and those designed to fight climate change.

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**1. Protection of biodiversity and its relationship with
climate change**

In the present time climate change and loss of biodiversity are major challenges. Effects of climate change (*i.e.*, global warming – the ongoing increase in global average temperature) are unprecedented in magnitude, shifting from weather patterns endangering food production to sea level rise favoring catastrophic flooding. Simultaneously biodiversity is decreasing at an alarming exponential rate, as compared to the weighted average of the last ten million years, leading to an unprecedented scenario: according to scientists, one million species of plants, insects, birds and mammals

are at risk of extinction and every day up to two hundred species go disappear¹. Based on present rates of biodiversity loss and on forecast for the future, the sixth mass extinction in the earth history is believed to be underway, the first caused by the impact of human activities on the planet life². While environment is exposed to a constant and natural change from a hydrological, biological and even climatic point of view – over time waters recede and expand, species become extinct, climate changes –, unlike in the past, today's change is no longer due to the wise and providential action of nature alone. Especially in recent decades it is instead significantly or predominantly the result of human activities and the related economic, political, social and cultural processes³.

This is especially worrying as biological diversity represents the backbone of life and plays a fundamental role in protecting the environment and safeguarding human health. Taking a step back, biodiversity, i.e. biological diversity, is a relatively poorly known, recent notion (the term “biodiversity” appeared for the first time in 1988 in a scientific publication⁴), of complex and not always

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¹ IPBES, *Summary for policymakers of the Global Assessment Report on Biodiversity and Ecosystem Services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services* (2019). On the rate of biodiversity loss, well in advance: E.O. Wilson, *Biophilia* (1984). Recently, WWF, *Living Planet Report 2020 - Bending the curve of biodiversity loss* (2020).

² See J. Rockström et al., *Planetary Boundaries: exploring the safe operating space for humanity*, 461 *Ecology Soc'y* 472 (2009).

³ On the impact of human action on nature: C.Y. Aoki Inoue, *La Convenzione sulla diversità biologica e la biodiversità come questione globale e locale*, in A. Del Vecchio & A. Dal Ri Junior (eds.), *Il diritto internazionale dell'ambiente dopo il vertice di Johannesburg* (2005); P.C. Stern, O. Young & D. Druckman (eds.), *Global Environmental Change. Understanding the Human Dimensions* (1992); P.J. Crutzen, *Geology of Mankind*, 23 *Nature* 415 (2000); P.J. Crutzen & E.F. Stoermer, *The “Anthropocene”*, 41 *IGBP Newsletter* (May 2000). See also UN Environment, *Global Environment Outlook – GEO-6: Summary for Policymakers* (2019).

⁴ E.O. Wilson, *Biodiversity* (1988), in which the ecologist Wilson collected the works of the National Academy of Sciences Symposium in Washington in 1986 “National Forum on BioDiversity”. The first to have used the extended expression “biological diversity” was instead a few years earlier the American biologist Lovejoy. See T.E. Lovejoy, *Changes in biological diversity*, in G.O. Barney (ed.), *The Global 2000 Report to the President. The Technical Report* (1980), while the contracted formula “biodiversity” was coined by the biologist and member of the National Academy of Sciences secretariat W.G. Rosen on the occasion of the aforementioned Symposium. See L. Marfoli, *Biodiversità: un percorso internazionale ventennale*, 155 *Rivista Quadrimestrale di Diritto dell'Ambiente* 3 (2012).

unambiguous meaning⁵. In general, it can be defined as the multiplicity and coexistence of natural resources and of the different organisms, or as the diversity and variability of living organisms in all their forms and interactions, or even as the diversity of genes, species and ecosystems. The definition of biodiversity universally accepted and mostly used by the legal community is in the Convention on Biological Diversity (CBD), the main international treaty in defense of biodiversity, signed in Rio de Janeiro in 1992. Art. 2 of the Convention, attributing autonomous legal relevance to biodiversity, defines it as “the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part: this includes diversity within species, between species and of ecosystems”.

Biodiversity and climate change are closely connected and influence each other, as confirmed in the EU Biodiversity Strategy for 2030⁶. On the one hand among the factors implemented by humans directly affecting biodiversity – such as soil consumption, pollution, excessive exploitation of wild flora and fauna species and introduction of non-native species – there is also climate change⁷. There is a scientific consensus that the rise in average global temperature due to increased greenhouse gas concentrations not only favors extreme weather events (for instance typhoons or heat

⁵ On the definition of “biodiversity”, *ex multis*: R.F. Noss, *Indicators for monitoring biodiversity: a hierarchical approach*, 355 *Conservation Biology* 4 (1990), which highlights the multiplicity of meanings of the term biodiversity (“biological diversity means different thing to different people”); L. Contoli, *Sulla diversità biotica come manifestazione ecologica dell’entropia*, 23 *Atti e Memorie dell’Ente Fauna Siciliana* 2 (1994), in which biodiversity is understood as a “cluster of concepts” elaborated in the different fields of knowledge that have studied the value of diversity from an ecological, social, cultural and philosophical point of view; D.C. Delong, *Defining biodiversity*, 738 *Wildlife Soc’y Bull.* 24 (1996), which has identified at least eighty-five definitions of biodiversity; H.M. Pereira & D. Cooper, *Towards the global monitoring of biodiversity change*, 123 *Trends in Ecology & Evolution* 3 (2006); C.Y. Aoki Inoue, *La Convenzione sulla diversità*, cit. at 3, 235; M. Buiatti, *La biodiversità* (2007).

⁶ Communication From The Commission To The European Parliament, The Council, The European Economic And Social Committee And The Committee Of The Regions *Eu Biodiversity Strategy for 2030 Bringing nature back into our lives*, COM/2020/380, para. 1, «The biodiversity crisis and the climate crisis are intrinsically linked».

⁷ These factors are identified by conservation biology, a discipline that identifies the primary causes of biodiversity loss.

waves that cause wildfires), but also generates slow-onset events, such as biodiversity loss⁸. Climate change negatively affects marine, terrestrial, and freshwater ecosystems across the world. It causes the loss of local species, increases diseases and drives widespread mortality of plants and animals, resulting in the first climate-driven extinctions. On the other hand, biodiversity plays a key role in fighting against climate change. In fact, while about half of the greenhouse gas emissions caused by human activity remains in the atmosphere, the other half is absorbed by the land and ocean. These ecosystems, together with the biodiversity they contain, act as natural carbon sinks and offer what are known as “nature-based” solutions to climate change⁹.

As a consequence of the close connection between biodiversity and climate, the challenges to which they give rise and the relative solutions are intimately interdependent, as first witnessed by the United Nations. For example, the Paris Agreement (2015) (an international treaty released at the United Nations Framework Convention on Climate Change) underlines how reducing emissions and abandoning fossil fuels use – fundamental steps to limit the increase of the global average temperature – must be accompanied by an urgent and deep transformation of the relationship with nature.

More recently and more explicitly, at the COP-27 of the United Nations Framework Convention on Climate Change (Sharm el-Sheikh, 2022) biodiversity was the key theme of an entire day, and the close connection between biodiversity and climate was stated. Furthermore, among the 23 targets envisaged by the Kunming-Montreal Global Biodiversity Framework adopted by the COP-15 of the CBD (2022), target 8 sets the objective of “minimize the impact of climate change and ocean acidification on biodiversity and increase its resilience through mitigation, adaptation, and disaster risk reduction actions, including through nature-based solution and/or ecosystem-based approaches, while minimizing

⁸ Human activity seems to have caused an increase in average temperatures over the last thirty years of about 0.2 °C per decade, increasing the frequency and intensity of extreme weather events (such as droughts and floods), having a strong impact on many aspects of biodiversity, such as the distribution of species. Although global warming is not the main cause of biodiversity loss to date, it is expected that in the future it will have an equal or greater impact than other factors.

⁹ See www.un.org/en/climatechange/science/climate-issues/biodiversity.

negative and fostering positive impacts of climate action on biodiversity”.

In light of the foregoing, the relationship between climate and biodiversity is not only deep but also doubly linked: on the one hand, climate change affects nature and ecosystems, contributing to a loss of species of unprecedented gravity at least since dinosaurs' extinction; on the other hand, protecting nature and biodiversity is essential to limit the climate crisis.

2. Multilevel legal orders protecting biodiversity

Full protection of biodiversity is an absolute necessity, given the relevance of biodiversity, the grave issues caused by its loss, and its strong connection to climate change and the associated challenges.

On a legal level, the international community, the European Union and individual States have gradually adopted disciplines aiming at protecting biodiversity and preventing and correcting its worrisome progressive impoverishment.

Biodiversity takes on legal significance first at an international level¹⁰. This is not surprising: considering that protecting biodiversity is a problem of global dimensions, it must first be tackled with unitary rules dictated by the international community. Various legal instruments have therefore been internationally adopted. These are generally acts with an universal vocation, which constitute a significant output of the multilateral cooperation between States and are the legal basis of the global governance of biodiversity¹¹. Among these acts, the CBD, legal framework for the protection of biodiversity at international level, is of special relevance¹².

¹⁰ M. Montini, *La disciplina settoriale sulla protezione dell'ambiente*, in P. Dell'anno & E. Picozza (eds.), *Trattato di diritto dell'ambiente* (2012), 62. On biodiversity in international law: M. Bowman & C. Redgwell (eds.), *International Law and the Conservation of Biological Diversity* (1996); R. Pavoni, *Biodiversità e biotecnologie nel diritto internazionale e comunitario* (2004).

¹¹ On the international biodiversity regulatory framework: L. Marfoli, *Biodiversità*, cit. at 4, 155; A. Porporato, *La tutela della fauna, della flora e della biodiversità*, in R. Ferrara & M.A. Sandulli (eds.), *Trattato di diritto dell'ambiente* (2014).

¹² The European Union and 195 countries are part of the CBD, constituting one of the most widely ratified international instruments. About CBD *ex multis*: A. Porporato, *La tutela della fauna*, cit. at 10, 745; L. Marfoli, *Biodiversità*, cit. at 4, 185; C.Y. Aoki Inoue, *La Convenzione sulla diversità biologica*, cit. at 3, 235, in which the

Legally introduced by the CBD, the notion of biodiversity is adopted and regulated also by the European Union. The latter plays a major role in the protection of biodiversity. Not only it 402nvironment402 to a number of international agreements on the issue and weighs heavily in their definition, but its sources also serve as a natural bridge between external and Internal norms, providing the former with the effectiveness they frequently lack. The majority of domestic legislation concerning biodiversity is actually a transposition of the European legislation, following the same trend seen in environmental legislation¹³.

Finally, individual States have implemented (and are implementing) regulatory disciplines aiming at protecting biodiversity, although often they are still incomplete, as in the case of the Italian legal system¹⁴.

This study intends to verify if and how biodiversity is protected through transnational administrative law, at the same time looking for connections with instruments aiming at tackling climate change. In particular, the focus will be on identifying, within the main acts aiming to biodiversity protection, some examples of principles, instruments and procedures of transnational administrative law prepared for the same purpose. Their source will be 402nvironm, attempting to offer, when possible, a classification in light of the categories that so far have

CBD is considered “pillar of the international biodiversity regime, understood as the set of principles, norms, rules and decision-making procedures, formal and informal, around which, in the area of biodiversity, the expectations of international actors converge”; A. Boyle, *The Rio Convention on Biological Diversity*, in M. Bowman & C. RedGwell, *International Law and the Conservation of Biological Diversity* (1996); Id., *The Convention on Biological Diversity*, in L. Campiglio, L. Pineschi, F. Siniscalco & T. Treves (eds.), *The Environment after Rio: International Law and Economics* (1994).

¹³ On European legislation on protection of biodiversity, see in general: R. Savoia, *Profilo storico della tutela della biodiversità nel diritto comunitario dell’ambiente*, 233 *Rivista Giuridica dell’Ambiente* (1997); N. De Sadeleer & C.H. Born, *Droit international et communautaire de la biodiversité* (2004); A. Garcia Ureta, *Derecho europeo de la biodiversidad* (2010).

¹⁴ In the Italian legal system, biodiversity is protected with a series of sector disciplines. On the other hand, there is still no national framework law on the conservation and enhancement of biodiversity that establishes the general principles and guidelines for regional legislation in the areas of biodiversity. The fragmentation, the lack of a rational overall design and the absence of organicity leave room for regulatory gaps, sometimes giving the impression of an incomplete legislative mosaic.

been outlined in transnational administrative law and highlighting possible limits, gaps or strengths.

3. Transnational administrative principles protecting biodiversity: the STH rule

Bilateral agreements, European Union legislation, multilateral international treaties are some of the sources of transnational administrative law. As the CBD is the primary international act protecting biodiversity, it seems appropriate to start the present research from this treaty. In CBD rules, instruments and principles of transnational administrative law for protection of biodiversity are identified.

Not differently from what happens for environment and climate, events occurring within the territory of a single State may have a negative impact on biodiversity also beyond its borders. On this basis, the CBD regulates cases in which activities that take place under the jurisdiction or control of a State party to the Convention are likely to significantly affect adversely the biological diversity of other States or areas beyond the limits of national jurisdiction. On the basis of reciprocity, the CBD promotes as well notification, exchange of information and consultation, by encouraging the conclusion of bilateral, regional or multilateral agreements (significant transboundary harm rule, STH rule, art. 14).

This rule is relevant from the point of view of transnational administrative law. Indeed, it heralds a type of cooperation aiming at addressing administrative transnational situations in which administrative authorities of two or more national legal systems are involved, having different but related functions. These are eminently cross-border situations. In particular, in the case at stake the activity carried out within a State is considered capable of producing significant damage beyond national borders or in any case in areas located outside the limits of national jurisdiction. It also involves including the administrative authorities of the concerned States in the notification, information-sharing, and consultation processes.

The STH rule, which can therefore be considered a rule of transnational administrative law, develops the broader principle (and related obligation) stated in art. 3 CBD, according to which "States have, in accordance with the Charter of the United Nations and the principles of international law, (...) the responsibility to

ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction”. This is the most general “no-harm rule”, which is a widely recognized principle of customary international law whereby a State is duty-bound to prevent, reduce and control the risk of environmental harm to other States¹⁵. This statement must be understood beyond its words: in fact the no-harm rule meets the two criteria of being both transboundary and significant¹⁶, evidently in accordance with the STH rule.

Moreover, the no-harm rule is not only an instrument of biodiversity protection, but also of environment and climate protection. In environmental matters it was first adopted in the 1941 Trail Smelter arbitration,¹⁷ while in climate matters, it is the foundation of international Climate Law¹⁸.

The STH rule is also applicable to the global response to climate change¹⁹. It can be applied to those activities that although taking place under the jurisdiction or control of a State are likely to significantly affect climate and climate change of other States or areas located beyond the limits of the original State jurisdiction. Evidently there is a convergence between tools used to respond to climate challenges and tools used for biodiversity loss emergency.

However, obligations to conduct an EIA, to notify, consult, and cooperate with other States for designing and updating climate policies are most of times impracticable. This is because for a State it is very difficult to know if activities carried out within its territory create a risk of a transboundary harm from climate change. By

¹⁵ Concerning the principle at stake: M. Jervan, *The Prohibition of Transboundary Environmental Harm. An Analysis of the Contribution of the International Court of Justice to the Development of the No-Harm Rule*, PluriCourts Research Paper No. 14-17 (2014); A. Akhtar-Khavari, *Restoring the transboundary harm principle in international environmental law: Rewriting the judgment in the San Juan River case*, in N. Rogers & M. Maloney (eds.), *Law as if earth really mattered: The wild law judgement project (Law, Justice and Ecology)* (2017); C. Campbell-Durufflé, *The Significant Transboundary Harm Prevention Rule and Climate Change: One-Size-Fits-All or One-Size-Fits-None?*, in B. Mayer & A. Zahar (eds.), *Debating Climate Law* (2021).

¹⁶ C. Campbell-Durufflé, *The Significant Transboundary Harm Prevention Rule*, cit. at 14, 30, and ICJ, *Pulp Mills on the River Uruguay, Argentina v. Uruguay*, 2010.

¹⁷ *Trail Smelter case*, United States, Canada, 16 April 1938 and 11 March 1941.

¹⁸ S. Maljean-Dubois, *The No-Harm Principle as the Foundation of International Climate Law*, in B. Mayer & A. Zahar (ed.), *Debating Climate Law* (2021).

¹⁹ S. Maljean-Dubois, *The No-Harm Principle as the Foundation of International Climate Law*, cit. at 17.

implication, for a State it is also conceptually very difficult (or even impossible) to determine if its procedural obligations are triggered in accordance with the due-diligence standard applicable under the STH rule²⁰.

These considerations may be appropriate also in regard of biodiversity protection. For a State it is not always possible, or at least easy, to define when the activities carried out in its territory involve the risk of damaging biodiversity across borders. In such a case, as for the climate, for a State it could be impossible or at least difficult to determine whether its procedural obligations are triggered in accordance with the due-diligence standard applicable under the STH rule.

The foundations of the STH rule can also be found in Principle 19 of the Rio Declaration on Environment and Development (1992), according to which “States shall provide prior and timely notification and relevant information to potentially affected States on activities that may have a significant adverse transboundary environmental effect and shall consult with those States at an early stage and in good faith”. This rule is expression of the principle of prevention. Indeed, the International Court of Justice stated that the obligation to notify and consult in good faith the State potentially adversely affected by the activity that another State is planning to undertake (as well as the obligation to conduct an environmental impact assessment in the case of significant transboundary harm) stems from the substantial principle of prevention²¹, of which the STH rule is an expression²².

The principle of prevention, in turn, “as a customary rule, has its origins in the due diligence that is required of a State in its territory”²³. More specifically, the obligation not to cause damage as duty of due diligence implies that States must use all available

²⁰ C. Campbell-Durufflé, *The Significant Transboundary Harm Prevention Rule*, cit. at 14.

²¹ On the principle of prevention, *ex multis*, M. Nunziata, *Una particolare lettura dei principi europei chi inquina paga, di precauzione e di prevenzione*, 656 *Giornale di diritto amministrativo* 6 (2014).

²² M. De Bellis & R. Lanceiro, *Transnational administrative procedures: a first survey*, J.-B. Auby, E. Chevalier, O. Dubos, & Y. Marique (eds.), *Traité de droit administratif transnational* (forthcoming).

²³ ICJ, joined cases *Certain Activities Carried out by Nicaragua in the Border Area (Costa Rica v Nicaragua)* and *Construction of a Road in Costa Rica along the San Juan River (Nicaragua v Costa Rica)* 2015. See M. De Bellis & R. Lanceiro, *Transnational administrative procedures: a first survey*, cit. at 21.

means in order to ensure to the highest possible extent that activities carried out on their territory or within their jurisdiction do not cause harmful consequences to other States or to areas beyond their national jurisdiction. From the due diligence obligation derive as corollaries a number of procedural obligations, which imply the application of transnational administrative law: information, notification, cooperation, impact assessment and continuous monitoring. These are exactly those obligations which, as seen, the CBD provides for biodiversity protection, thus closing the circle between the STH rule and its underlying principles.

4. Transnational administrative acts protecting biodiversity: the joint decision model

In addition to principles, transnational administrative law for protection of biodiversity includes also procedures and acts²⁴. The CBD is once more the starting point.

Beside other topics, CBD regulates the handling of biotechnology and the distribution of its benefits. In this regard, it invites the Parties to provide, if needed, a protocol of appropriate procedures, including advance informed agreement, for the safe transfer, handling and use of any living organism modified from biotechnology, that may have adverse effect on biological diversity (art. 19, para. 3).

The Cartagena Protocol on biosafety implemented the CBD guidelines²⁵. In accordance with the precautionary approach reaffirmed by Principle no. 15 of the Rio Declaration on Environment and Development²⁶, the Cartagena Protocol intends

²⁴ On the transnational administrative act, see for example M. Ruffert, *The transnational Administrative Act*, in O.J. Jansen & B. Schondorf-Haubold (eds.), *The European Composite Administration* (2011); L. De Lucia, *Administrative Pluralism, Horizontal Cooperation and Transnational Administrative Acts*, 17 *Rev.Eur. Admin. L.* 2 (2012).

²⁵ On the Cartagena Protocol (also known as the Biosafety Protocol), later integrated by the Nagoya - Kuala Lumpur Supplementary Protocol of 2010 on Liability and Redress, see: B. Eggers & R. Mackenzie, *The Cartagena Protocol on biosafety*, 525 *J. Int'l Econ. L.* 3 (2000); V. Della Fina, *Il Protocollo di Cartagena sulla biosicurezza*, in G. Tamburelli (ed.), *Discipline giuridiche dell'ingegneria genetica* (2008).

²⁶ On the precautionary principle, *ex multis*: S. Grassi, *Prime osservazioni sul principio di precauzione nel diritto positivo*, 45 *Diritto e gestione dell'ambiente* (2001); D. Amirante, *Il principio precauzionale tra scienza e diritto. Profili introduttivi*,

to provide an adequate level of protection for the safe transfer, handling and use of living modified organisms resulting from modern biotechnology that may have adverse effects on the conservation and sustainable use of biological diversity, taking also into account risks to human health, and specifically focusing on transboundary movements (art. 1).

In compliance with the aforementioned Protocol, the EU directive 2001/18/EC regulates the deliberate release into the environment of genetically modified organisms (GMOs), based of the consideration that living organisms, whether released into the environment in large or small amounts, either for experimental purposes or as commercial products, may reproduce in the environment and may cross national frontiers, thereby affecting other Member States and producing possibly irreversible effects²⁷.

Following the principle of prevention – in fact EU action for environmental protection is based on the principle of preventive

16 Diritto e gestione dell'ambiente (2001); A. Gragnani, *Il principio di precauzione come modello di tutela dell'ambiente, dell'uomo, delle generazioni future*, 9 *Rivista di diritto civile* (2003); G. Manfredi, *Note sull'attuazione del principio di precauzione nel diritto pubblico*, 1075 *Diritto pubblico* 3 (2004); F. Trimarchi, *Principio di precauzione e "qualità" dell'azione amministrativa*, 1673 *Rivista italiana di diritto pubblico comunitario* (2005); F. De Leonardis, *Il principio di precauzione nell'amministrazione di rischio* (2005); Id., *Il principio di precauzione*, in M. Renna & F. Saitta (ed.), *Studi sui principi del diritto amministrativo* (2012); S. Di Benedetto, *Il principio di precauzione nel diritto internazionale*, (2006); A. Milone, *Principio di precauzione: criterio di larga massima o principio ispiratore del procedimento di Via?*, 1740 *Foro amministrativo TAR* 5 (2006); M. Cecchetti, *Principio di precauzione e produzione pubblica del diritto. La funzione normativa di fronte alle sfide del "governo" dell'incertezza scientifica*, in G. Guerra, A. Muratorio, E. Pariotti, M. Piccini & D. Ruggiu (eds.), *Forme di responsabilità, regolazione e nanotecnologie* (2011); S. Cognetti, *Potere amministrativo e principio di precauzione fra discrezionalità tecnica e discrezionalità pura*, in S. Cognetti, A. Contieri, S. Licciardello, F. Manganaro, S. Perongini & F. Saitta (eds.), *Percorsi di diritto amministrativo* (2014); Id., *Precauzione nell'applicazione del principio di precauzione*, in *Scritti in memoria di Giuseppe Abbamonte* (2019); F. Follieri, *Decisioni precauzionali e stato di diritto. La prospettiva della sicurezza alimentare*, 1495 *Rivista italiana di diritto pubblico comunitario* 6 (2016); M. Allena, *Il principio di precauzione: tutela anticipata v. legalità/prevedibilità dell'azione amministrativa*, 411 *Diritto dell'economia* (2016); N. Olivetti Rason, *Il principio di precauzione tra sicurezza e libertà*, in *Liber amicorum per Vittorio Domenichelli* (2018); R. Titomanlio, *Il principio di precauzione fra ordinamento europeo e ordinamento italiano* (2018); A. Barone, *Principio di precauzione e governo del rischio*, in F. Ricci (ed.), *Principi, clausole generali, argomentazione e fonti del diritto* (2019).

²⁷ On Dir. 2001/18/EC see for example E. Caliceti, *Le nozioni di emissione deliberata, immissione in commercio e coltivazione di ogm: commento critico alla direttiva 2001/18/CE alla luce della direttiva 2015/412/UE*, 273 *BioLaw* 4 (2017).

action²⁸ – the aforementioned Directive asks the Member States to implement all appropriate measures and avoid negative effects on human health and on environment deriving from the use and/or circulation of GMOs in the European territory. To this end, according to the EU directive the deliberate release into the environment and the placing on the market of a GMO should be subject to a specific authorisation.

In particular, for placing GMO(s) on the market, the authorization procedure starts with a specific prior notification to the competent authority of the Member State in which the product is expected to be first placed on the market. If the notification complies with the legal requirements, and at the latest when the competent authority transmits its assessment report, the competent authority sends a copy to the Commission which transmits it to the competent authorities of the other Member States. This report indicates that the GMO(s) in question: (i) should be placed on the market, specifying under which conditions it could be done; (ii) should not be placed on the market. The assessment report, together with the information on which it is based, is sent by the competent authority to the Commission and by this it is forwarded to the competent authorities of the other Member States. Any competent authority or the Commission may ask for further information, make comments or present motivated objections. Comments, reasoned objections and replies are forwarded to the Commission, which immediately will forward them to all competent authorities and possibly discuss all issues in order to reach an agreement.

If the authority issuing the report states that the product may be placed on the market, in absence of any reasoned objection from a Member State or from the Commission or if controversies have been solved within the deadline set, the competent authority issuing the report shall give written consent for placing the product on the market, shall transmit it to the notifier and shall inform the other Member States and the Commission (arts. 13 ff.)²⁹.

²⁸ Art. 191, para. 2, TFUE.

²⁹ In relation to the placing on the market of products containing GMOs, Dir. 2001/18/EC, in its updated version (art. 26-ter), seems to weaken the transnational effect by providing that the States, in addition to being able to raise an objection to the placing on the market of a GMO, can ensure that their territory, or part of it, is excluded from the cultivation of the candidate product for reasons, among other things, of environmental policy, urban and territorial

The mentioned procedure includes the participation of administrative entities of multiple national legal systems (the competent authorities of the Member States), exercising different but related functions. In Italy, for example, the competent authority for Dir. 2001/18/EC, implemented with Legislative Decree no. 224/2003, is the Ministry of the Environment in concert, according to their respective competences, with the Ministry of Health and the Ministry of Agriculture. More specifically, the administrative authority of one or more Member States (and the Commission) participates in the administrative procedure of another Member State. After the initial phase, "strictly" at a national level, when the applicant presents his request complete with the appropriate documents, according to cooperation mechanisms the authorities of other Member States and the Commission are involved in a multilateral phase, and the final positive authorization is obtained only in case of non-opposition from the administrations involved. Differently, in case of objection from one of the Member States or from the Commission, the issue reverts to the Commission which initiates a comitology procedure.

The agreement of the national administrations involved or absence of any dissent is followed by an authorization of transnational administrative nature. Its effects are transnational, giving the act itself direct relevance and a binding power towards the involved authorities. However, these authorities may submit the authorization to a review procedure, to be carried out jointly with the authorities of the Member States and the Commission and not unilaterally by the single State which adopted the authorization decision.

This procedure is, as mentioned, an expression of the authorizing power. Transnational authorizations are classified in three categories³⁰: (i) Authorisation with Automatic Transnational Effects, whose effects are produced without need for consent of the

planning, socio-economic impact, essentially allowing each State to escape the transnational effect, without this giving rise to an administrative conflict and therefore the Commission being able to issue a binding decision on the matter. See: M. Porpora, *Gli OGM e la frammentazione della governance nel settore alimentare*, 1678 *Rivista italiana di diritto pubblico comunitario* (2016); L. De Lucia, *From mutual recognition to EU authorization: decline of transnational administrative acts*, 90 *IJPL* 1 (2023); F. Cittadino, *Libera circolazione degli OGM: più spazio per la tutela dell'ambiente alla luce della direttiva (UE) 2015/412?*, 209 *Rivista Giuridica dell'Ambiente* 1 (2016).

³⁰ L. De Lucia, *From mutual recognition*, cit. at 23, 95.

recipient State, which is obliged to respect the measure taken; (ii) Joint Decision, when all administrations involved – and sometimes even the Commission – have a co-decision role; and (iii) Authorisation Subject to Recognition, where there are several interconnected authorizations adopted in different State systems and, while one produces effects only in the State of origin, the other (or others) may produce effects in the State of destination.

The mentioned procedure appears to fall into the category of Joint Decisions. Indeed, the authorization act is the result of a composite procedure with the national administrations involved and the Commission playing a co-decision-making role by presenting (or not presenting) reasoned objections to the release for trade of GMOs.

The Joint Decisions model, typically aimed at balancing the principles of subsidiarity and unity and in which administrative polycentrism is counterbalanced by the uniqueness of the decision³¹, is an expression of the relevance of the public interest at stake, which, because of such relevance, requires the prior involvement of the public authorities affected by the decision. As important interests such as environment, biodiversity and health are at stake, it seemed opportune and necessary to involve the competent public authorities of the Member States as well as the Commission.

It is no coincidence that among the different forms of transnational authorization, a Joint Decision was preferred for protection of biodiversity through transnational administrative law. As described, this form of authorization requires intense procedural collaboration possibly involving all States in the decision-making process, thus influencing the content of the final act, even if eventually it's adopted by a single administrative authority. So the Joint Decision appears the most suitable procedural form to be adopted in delicate sectors in order to protect public interests, such as biodiversity. As the latter characteristically involves other delicate interests with which it must balance, it appears necessary to pursue the mostly shared decisions. Accordingly the procedure of Dir. 2001/18/EC also includes a phase of public information and participation through the presentation of observations. Namely, after having received the

³¹ S. Cassese, *L'arena pubblica. Nuovi paradigmi per lo Stato*, 648 *Rivista trimestrale di diritto pubblico* (2001).

notification, the Commission summarizes the dossier and the assessment reports available to the public, a deadline for submitting observations to the Commission is given, the Commission will forward them to the competent authorities (art. 24).

Lastly, with regard to the procedure referred to in Dir. 2001/18/EC, starting from the CBD a transnational administrative act has been developed, passing through European Union law. In fact, the latter is – also in the field of biodiversity protection – an important source of transnational administrative law³². This law, finding its source in the international law, implements it with acts of a Member State which, according to secondary EU law, produces legal effects in one or more other Member States, i.e. with acts that are transnational administrative measures in the legal order of the European Union.

5. Transnational cooperation protecting biodiversity

Transnational administrative law for the protection of biodiversity takes also the form of transnational cooperation. There are multiple transnational cooperation mechanisms, such as the informative procedure (i.e. information exchange among national administrative authorities), the “simple” procedure (a national administrative authority provides various types of input in a procedure carried out by another administrative authority, national or not), the “shared” procedure (several public administrations participating in an administrative procedure composed of multiple stages, each national administration being responsible for one or more phases, with at least one phase being assigned to a public administration of a different State), the institutional procedure (cooperation achieved through collegial boards made up of representatives of the authorities of the States involved in the relevant sector)³³.

These different mechanisms integrate according to the sectors in which they are used, are declined in multiple ways and perform a plurality of functions. They are intended to provide

³² On the relationship between transnational administrative law and EU legal order see L. De Lucia, *Amministrazione transnazionale e ordinamento europeo* (2009); M. Gautier, *Acte administratif transnational et droit communautaire*, in J.B. Auby-J. Dutheil De La Rochere (eds.), *Droit administratif européen* (2007).

³³ On the different types of transnational cooperation: L. De Lucia, *Administrative Pluralism*, cit. at 18, 22.

coordinated, efficient and homogeneous actions, mutual control, and relationship of mutual trust between the public subjects involved³⁴.

In relation to the transnational provision, cooperation has also the important function of providing an alternative in the decision-making process in case of absent action of the

administration of destination³⁵. This explains why the authority intervenes at various moments in the transnational act's life to protect relevant public interests (for example through safeguard measures) and why procedural mechanisms are anticipated for settling problems in a deliberative way.

There are many examples of transnational cooperation finalized to biodiversity protection. The extensive use of transnational cooperation measures is justified by the relevance of the object to be protected. In fact, transnational cooperation is particularly suitable for those sectors, such as protection of biodiversity – but also climate change and environment –, in which the widest possible sharing of efforts is necessary in order to reach equally shared decisions.

Returning to the CBD, it contains a general obligation to cooperation for biodiversity protection. For the conservation and sustainable use of biological diversity, if possible and appropriate, each Party shall cooperate with other Parties directly or, where appropriate, through competent international organizations, in respect of areas beyond national jurisdiction and on other matters of mutual interest (art. 5). There are many acts, and mostly treaties, protecting biodiversity (directly or indirectly) that require this type of general cooperation, among them the Convention for the Conservation of European Wildlife and Natural Habitats, also known as Bern Convention, 1979 (art. 1).

Transnational cooperation in the forms indicated is frequent. Limiting the analysis to a few examples, transnational information cooperation mechanisms can be found in Dir. 2004/35/EC on environmental liability with regard to the prevention and remedying of environmental damage. Indirectly it protects biodiversity as it is aimed at intervening on site contaminations that involve not only significant health risks, but also a significant loss of biodiversity (recital 1). Hence, this Directive establishes that

³⁴ W. Kahl, *Der Europäische Verwaltungsverbund: Strukturen – Typen – Phänomene*, 353 *Der Staat* 50 (2011).

³⁵ G. Sydow, *Verwaltungskooperation in der Europäischen Union* (2004).

when environmental damage affects or is likely to affect several Member States, these shall cooperate, including through the appropriate exchange of information, to ensure that preventive and, if needed, remedial action may be taken. The directive states also that, when environmental damage occurred, the Member State in which the damage originated shall provide sufficient information to the potentially affected Member States (art. 15).

Furthermore, there are many cases of transnational cooperation of a “simple” procedural type that protect biodiversity in the form of consultation, notification, opposition, advanced informed agreement or prior informed consent. For example, in the aforementioned Dir. 2001/18/EC, in relation to the placing on the market of GMOs, transnational cooperation takes the form of notification, advanced informed agreement and objection by a national administrative authority of a Member State in the procedure of another Member State.

In the EIA Directive 2011/92/EU (art. 7) and in the SEA Directive 2001/42/EC (art. 7) – both aiming to biodiversity protection³⁶ – transnational cooperation takes the form of consultation, as a possible sub-procedure. This has to be adopted if a Member State believes that the implementation of a plan, program or project being prepared on its territory is likely to have significant effects on the environment of another Member State, or if a Member State which could be significantly affected requests it.

In such cases the Member State in whose territory the implementation of the plan, program or project is envisaged forwards the relevant information to the Member State involved, and this within a reasonable period of time must communicate if it intends to participate in the decision-making procedures and carry out consultations.

If such communication is made, according to the EIA Directive the Member States involved carry out consultations on the possible transboundary environmental effects deriving from the

³⁶ The EIA and SEA Directives implement the CBD requiring the Parties to integrate the conservation and sustainable use of biodiversity in relevant sectoral and cross-sectoral plans and programs. Moreover, environmental assessment is an important tool for integrating environmental considerations into the preparation and adoption of certain plans and programs which may have significant effects on the environment in the Member States, where such possible effects include aspects such as biodiversity, and environmental assessment is aimed at ensuring that human activity takes place in compliance, inter alia, with the protection of biodiversity.

implementation of the plan or program as well as on the measures envisaged to reduce or eliminate these effects. In the case of the SEA Directive the Member States involved agree on specific procedures so that the environmental authorities, those asked to express their opinion and the public are adequately informed and have the opportunity to express their opinion within a reasonable time. In addition, the Member States involved shall enter into consultations concerning, *inter alia*, the possible transboundary impact of the project and the measures envisaged to reduce or eliminate this impact. A reasonable time limit for the consultation should be set. The detailed arrangements regarding the cross-border consultation procedure relating to the EIA may be defined by the Member States interested. It must allow the interested public in the territory of the Member State involved to effectively participate in the environmental decision-making process. Finally, results of the consultations must be considered by the Member State involved when adopting the act in question, the competent authorities must inform the environmental authorities, the public and all the consulted States of the final decision (articles 8 and 9 EIA and SEA Directives).

In the CBD and in the Nagoya Protocol³⁷, transnational cooperation takes the form of prior informed consent. In particular, art. 15 CBD, after stating that the authority to determine access to genetic resources belongs to the national governments (as States have the sovereign rights over their natural resources) states also that such access must be granted. Although granted, access to genetic resources shall be subject to prior informed consent of the Party providing such resources, unless otherwise determined by that Party.

Art. 15 CBD finds more extensive declination in the Nagoya Protocol. Pursuant to art. 6 of this Protocol, access to genetic

³⁷ The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from Their Utilization, also known as ABS Protocol, *Protocol on Access and Benefit-Sharing*, 2010) implements the third objective of CBD, namely the fair and equitable sharing of benefits deriving from the utilisation of genetic resources. ABS refers to the set of ways in which resources can be accessed and the modus operandi by which the benefits deriving from their use are distributed among the individuals or countries that use these resources (users) and the persons or States that provide them (suppliers). This Protocol was adopted at the end of COP-10, which acknowledged the failure of the international community to achieve the objectives set for 2010: O. Montanaro, *La COP 10 della CBD: le aspettative, i risultati*, 15 *Protecta* (2010).

resources for their utilization shall be subject to prior informed consent of the Party providing such resources that is the country of origin of such resources or the Party that acquired the genetic resources in accordance with the Convention, unless otherwise determined by that Party. Furthermore, as appropriate, all Parties shall take measures in order to ensure that prior informed consent or approval and involvement of indigenous and local communities for access to genetic resources is obtained, when they have the established right to grant access to such resources.

In consideration of the foregoing, transnational cooperation not only realizes through several different transnational administrative procedures, but appears to provide protection of biodiversity in many ways, thus representing a versatile tool to be frequently used when cooperation among States is required. It intertwines the different interests of different subjects in mechanisms capable of assembling and composing them in order to achieve the best protection of biodiversity.

6. Final remarks

Some preliminary conclusions on protection of biodiversity through transnational administrative law and on its connection with climate can be made.

First, between biodiversity and climate there is such a connection that the challenges they face and solutions adopted to solve problems are similar and intimately interdependent, also in relation to transnational administrative law. Similarly to what occurs for climate change, transnational administrative law contributes to the protection of biodiversity. In fact, this law is particularly suitable in a delicate and broad field such as biodiversity, where the protected interest, the associated loss factors and the connected effects transcend national boundaries, making it necessary for the participation of several national administrations.

Between the cross-border nature of transnational administrative situations and the nature of biodiversity there is a great compatibility that makes transnational administrative law particularly suitable to regulate biodiversity protection instruments. Biodiversity doesn't tolerate national boundaries, therefore it's particularly difficult to contain the relative law in the juridical space of the single States.

It is not surprising that international law - specifically international treaties, first of all the CBD - and secondary EU law serve as primary sources of transnational administrative law protecting biodiversity. While international treaties usually set out "wider mesh" principles and measures of transnational administrative law, EU law, which often refers to the international treaties, presents more detailed and articulated transnational mechanisms. These are complementary sources, to which also sources of customary law are added, all necessary, not unlike what happens in relation to climate challenge and the related sources of regulation, to respond to the challenge of biodiversity conservation.