

**Dottorato di Ricerca in “Diritto degli Affari e Tributario  
dell’Impresa”**

**XXVI CICLO**

Coordinatore: Chiar.ma Prof.ssa Livia Salvini

**ENVIRONMENTAL TAXATION: A LEGAL  
PERSPECTIVE**

*Relatore:*

Chiar.ma Prof.ssa Livia Salvini

*Candidato:*

Federica Pitrone

*Correlatore:*

Chiar.mo Prof. Giuseppe Melis

Anno Accademico 2013/2014

## **Table of Contents**

<b>Acknowledgments</b> .....	<b>7</b>
<b>Introduction</b> .....	<b>9</b>
<b>Chapter 1</b> .....	<b>13</b>
<b>Environmental protection: the long road towards sustainability</b> .....	<b>13</b>
1. Introduction.....	13
2. The international level .....	18
3. The European level .....	30
4. Creating a link between environmental protection and environmental taxation: the polluter pays principle and the user pays principle. ....	37
5. Human rights and environmental protection.....	45
5.1. A global perspective .....	47
5.2. The European perspective.....	51
6. Changing the perspective: from a right to a duty.....	55
7. Conclusions .....	60
<b>Chapter 2</b> .....	<b>62</b>
<b>The Concept of Environmental Taxes</b> .....	<b>62</b>
1. Introduction.....	62
2. Why a common understanding of environmental taxes is necessary.....	68
3. Taxes versus charges and fees.....	72
4. The origin of environmental taxes: the Pigouvian taxes.....	83
5. The first definition of environmental taxes in the international context....	86
6. The evolution of the concept: environmental taxes or environmentally related taxes? .....	89

6.1. Negative impact on the environment.....	91
7. The definition of environmental taxes: some national experiences.....	97
8. The classification of environmental taxes.....	100
8.1. Fiscal or environmental goals?.....	101
8.2. Categories based on the type of physical unit used as the tax base.....	103
9. Environmental charges and fees.....	105
10. Conclusions: a common definition of environmental taxes? .....	109
<b>Chapter 3.....</b>	<b>116</b>
<b>Environmental Taxation: seeking a balance between national and supranational legal principles .....</b>	<b>116</b>
1. Introduction.....	117
2. Introducing taxes for other reasons than raising revenue: the so-called regulatory taxes .....	119
3. Principles of environmental taxation in a global context.....	128
3.1. The polluter pays principle and the role of charges and fees.....	130
3.2. Environmental solidarity and the role of taxes stricto sensu .....	136
4. Environmental taxation and the ability to pay principle: some preliminary remarks .....	139
4.1. The difficult interplay between environmental taxes and the ability to pay principle .....	144
4.2. A supranational principle?.....	149
4.3. A different interpretation of the ability to pay principle.....	154
5. Environmental taxes and the EU legal framework .....	158
6. Conclusions.....	163
<b>Chapter 4.....</b>	<b>165</b>
<b>Any room for a global environmental tax?.....</b>	<b>165</b>

1. Introduction .....	165
2. Global taxes: an old debate in a new context.....	171
3. An international environmental tax or internationally harmonized national environmental taxes? .....	177
3.1. An international environmental tax .....	179
3.2. Internationally harmonized national environmental taxes.....	181
4. Some examples: carbon taxes and international transportation fuel taxes	183
5. Conclusions .....	189
<b>Chapter 5 .....</b>	<b>190</b>
<b>Conclusions .....</b>	<b>190</b>
<b>Bibliography.....</b>	<b>198</b>

*A mia Madre e mio Padre,  
per l'amore, il sostegno e la fiducia incondizionati.*

*“Everything flows from the rights of the others  
and my never-ending duty to respect them”.*  
Emmanuel Lévinas

## ACKNOWLEDGMENTS

This dissertation is the outcome of the research I carried out while I was pursuing a Phd at Luiss Guido Carli University. While I was writing this dissertation, I had the privilege to do a few research stays abroad and, specifically, in a chronological order, at the Max Planck Institute in Munich, at NYU in New York and at the Institute for Austrian and International Tax Law in Vienna. These experiences were amazing and, it goes without saying that, they increased my professional and personal knowledge. That is why it is not an obligation but rather a privilege for me to thank all the people and colleagues that I have met on my way.

First of all, my heartfelt thanks to my supervisors Prof. Livia Salvini and Prof. Giuseppe Melis for teaching me almost everything that I know about tax law.

Prof. Livia Salvini taught me to love tax law and I will never thank her enough for this.

Prof. Giuseppe Melis every day gives me a great example of cleverness, hardworking, reliability and commitment. Both a counsellor and a mentor, I will always be thankful to him for his fundamental help and support. Moreover, I want to thank him, in a more general fashion, for believing in me and inspiring me with his passion.

I take the opportunity also to thank Prof. Pasquale Pistone, not only, for his remarkable comments, but also for giving me unique opportunities and for being such a source of inspiration.

Moreover, I want to thank Prof. Marta Villar for her immeasurable help and for teaching me to never give up.

I want to thank the members of the Max Planck Institute for their hospitality and, in particular, Prof. Schön for welcoming me and for taking the time to discuss with me. Moreover, I want to thank Chiara Balbinot and Sarah Lindeberg, two colleagues and friends always ready to help.

I would like also to thank Prof. David Rosenbloom, who gave me the opportunity to carry out research on environmental taxation at NYU and to benefit from a lovely environment.

With reference to my experience at the Institute for Austrian and International Tax Law in Vienna, I want to thank Prof. Victor Uckmar. In fact, my research stay in Vienna would have not been possible without The Uckmar Visiting Research Scholarship in International Tax Law.

Furthermore, I want to thank Prof. Michael Lang, for welcoming me, for taking the time to discuss with me and for letting me understand that what we learn and we consider fundamental in a national context can be differently interpreted abroad. Also, I want to thank all the members of the Institute for Austrian and International Tax Law for their support and kindness.

Furthermore, I want to thank Prof. Guglielmo Maisto for giving me the opportunity to discuss the topic of my dissertation at an IFA seminar and, broadly speaking, for inspiring me.

I would also like to thank Prof. Laura Castaldi, Prof. Lorenzo Del Federico and Dr. Luca Peverini for their remarkable comments and interesting discussions.

Also, I thank Prof. Rainer Prokisch, Prof. Luja Raymond and Prof. Marjon Weerepas for their remarks and observations at the *18th Ius Commune Conference*, held in Maastricht.

Last but not least, enormous thanks to my beloved friends and my beloved family, for their love, their support and their joy.

*A Tutti, Grazie.*

*Federica*



## INTRODUCTION

During the last decade, a growing social sensitivity towards ecological issues determined an always stronger and firmer request to the governments about introducing suitable instruments in order to prevent noxious effects on the environment due to polluting substances.

In other words, it is nowadays evident that action needs to be taken to prevent irreversible changes and damages to the environment.

In such a context, European Union institutions, OECD and other global organizations keep calling for a wide-ranging use of environmental taxes, considered as one of the instruments to be preferred in order to tackle environmental pollution, both in terms of environmental effectiveness and of economic efficiency. <sup>(1)</sup>

Environmental taxation, due to its origins <sup>(2)</sup>, is often considered and analysed more from an economic perspective than from a legal one, and, for this reason, the fact that, despite its important advantages, the introduction of environmental taxation can bring along many juridical problems is not quite often taken into account.

This dissertation, starting from the idea that the time is ripe for a tax system modification towards environmental taxation, is aimed at understanding the juridical problems and limitations deriving from this kind of taxation.

Going into details, the first chapter analyses the evolution of environmental law and environmental protection both at the international and European level.

This analysis is fundamental for at least two reasons.

---

<sup>(1)</sup> This dissertation does not attempt to analyze the advantages and disadvantages in terms of economic efficiency and environmental effectiveness of using environmental taxation. Other commentators have taken on that task. However, broadly speaking, it is worth noting that there is a general consensus among scholars, on the effectiveness and efficiency of environmental taxation. Therefore, for the purposes of this study, we have taken this as a fact: environmental taxation can be considered as an efficient and effective environmental policy tool that governments have at their disposal.

<sup>(2)</sup> The pioneer of environmental taxation is considered the economist Pigou. See, A. C. PIGOU, *The Economics of Welfare*, London, 1920.

First and foremost, to point out that environmental issues are a global concern and they cannot be addressed only at the national or local level, but there is the need to take also the supranational perspective into account.

Secondly, this analysis is important to define which, if any, guiding principles – at the international and European level – should be considered in order to protect the environment and consequently to introduce environmental taxes.

In particular, the chapter deals with the “polluter pays” principle, which has been recognized as a fundamental principle of EU policy, and the “user pays” principle, that can be considered the framework within which environmental protection and environmental taxation meet each other.

Moreover, one part of the chapter is focused on the relevant linkage among human rights, duties and the environment. The reason why we think it is necessary to take into account human rights in this context is that, international law in general, and international human rights law in particular, have a great impact in the area of environmental taxes. Therefore, this approach is fundamental to define the role of environmental protection, to point out the importance that has achieved in our own world and to elaborate on the need of environmental solidarity.

The second chapter is focused on the definition and the concept of environmental taxes.

In fact, a common understanding of the concept of this kind of taxes is needed. This is because there are at least three different and detailed definitions of environmental taxes both in the international and European context (two general definitions and one which is specifically related to State aid) that lead to its lack of clarity. Furthermore, there is a frequent use of different terms i.e. environmental taxes, green taxes, eco-taxes, environmentally related taxes and it is not clear if they should be used interchangeably.

Lastly, the notion of “environmental tax” is often used in a “non-technical” way, usually including every fiscal instrument, which is aimed at attacking, preventing, eliminating or reducing polluting activities or products.

Bearing the possible differences among the different terms in mind, it is necessary to clarify what an environmental tax is and if we need a common definition of environmental taxes or if, vice versa, it is preferable to favour different approaches regarding different policies and areas of law.

Our analysis is also aimed at clarifying the legal distinction between environmental taxes, charges and fees.

The third chapter addresses how and why environmental taxes might violate legal principles.

The core of this speculation is represented by the national constitutional principles which result to be the starting point to understand the nature, the assumptions and the structure of future possible tax reforms.

First of all, it seems necessary to elaborate on how much and to what extent we can use taxes for other reasons than raising revenue, such as environmental taxes that discourage a certain behavioural pattern, i.e. the environmental pollution.

This gives us also the opportunity to clarify the justification to differentiate between, on the one hand, fines or penalties and, on the other hand, regulatory taxes such as environmental taxes.

Secondly, the analysis is focused on the inherently problematic interplay between the introduction of environmental taxes and the “ability to pay” principle, which is enshrined in many national constitutions and that could act as a counter-limit in the event of conflict with EU law. After an in depth analysis of the problem, the chapter is focused on how to find a balance between national and supranational legal principles.

In this context, it is also important to evaluate the role of the charges and fees and to analyse if they can successfully implement the “polluter pays” principle or if, vice versa, only taxes should be introduced in order to protect the environment.

Furthermore, in dealing with the concept and the design of environmental taxes in the context of EU law, we have also to take into account that environmental taxation, directly or indirectly, may affect Treaty obligations, such

as State aid regulation, EU principles regulating the customs union, non-discrimination principle and fundamental freedoms.

Therefore, it is important to clarify the legal framework in which Member States can introduce environmental taxes.

Last but not least, the fourth chapter analyses the possible development of new environmental taxation strategies, clarifying the role, if any, that the OECD Model Convention can take on.

In particular, this chapter discusses the feasibility and the design of an international environmental tax in the absence of fiscal sovereignty.

## CHAPTER 1

### ENVIRONMENTAL PROTECTION: THE LONG ROAD TOWARDS SUSTAINABILITY

*“Some consume the Earth’s resources at a rate that would leave little for future generations. Others, many more in number, consume far too little and live with the prospect of hunger, squalor, disease, and early death”.*  
*World Commission on Environment and Development, Our common future, 1987.*

*“Quite inadvertently, by ignoring environmental costs we have given an economic advantage to the careless polluter over his more conscientious rival”*  
*President R. Nixon, Special Message to the Congress on Environmental Quality, February 10, 1970*

TABLE OF CONTENTS: **1.** Introduction. – **2.** The international level. – **3.** The European level. – **4.** Creating a link between environmental protection and environmental taxation: the polluter pays principle and the user pays principle. – **5.** Human rights and environmental protection. – **5.1.** A global perspective – **5.2.** The European perspective – **6.** Changing the perspective: from a right to a duty. - **7.** Conclusions.

#### *1. Introduction*

We are quite sure that everyone has heard or read an interesting (or not so interesting) discussion about environmental protection <sup>(3)</sup> and how to deal with it.

---

<sup>(3)</sup> EUROPEAN COMMISSION, *Community Guidelines on State aid for Environmental Protection*, 2008/C 82/01, art. 2(2) states that: «*environmental protection means any action designed to remedy or prevent damage to physical surroundings or natural resources by a beneficiary’s own activities, to reduce the risk of such damage or to lead to more efficient use of natural resources, including energy-saving measures and the use of renewable sources of energy*».

This expression is a sort of “empty box” that everybody tries to fill up with generic statements on why it is important to preserve our environment.

However, what matters is not only *why* but also *how*, and often this *how* is a grey area full of good intentions but empty of real solutions.

Climate change <sup>(4)</sup>, global warming <sup>(5)</sup>, desertification, loss of biological diversity, deforestation, the depletion of the ozone layer are the enemies of our world, how to hinder them from becoming stronger is our mission.

Unfortunately this mission is becoming harder and harder, because we have underestimated these environmental issues for a long period, or, in other words, we have not taken them seriously.

In fact, even if nowadays it is hard to believe, public and political awareness of the importance of the environment and of the need of an urgent intervention to protect it at national and global level, through a coordinated international response, is a rather recent achievement.

---

<sup>(4)</sup> Climate change “refers to any change in climate over time, whether due to natural variability or as a result of human activity”. See INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *Climate Change 2007: Summary for policy makers*, 2007, available at <http://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wg1-spm.pdf>; UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE, *Essential Background – Feeling the Heat, Climate Change Science*, available at <http://unfccc.int/2860.php>; UNITED STATES ENVIRONMENTAL PROTECTION AGENCY available at <http://www.epa.gov/>. In literature see E. WESTON BROWN, *A common morality: toward a framework for designing fiscal instruments to respond to global climate change*, 15 *Widener Law Review*, 391, 2009-2010, pp. 391 et seqq., according to whom the consequences of global climate change upon the Earth present the most profound moral dilemma of our day and that global climate change is viewed “as the result of the free market to apportion optimal allocations of resources in the society”; R. A DE MOOIJ, M. KEEN, I. W. H. PARRY, E. WESTON (EDS.), *Fiscal Policy to mitigate climate change: a guide for policymakers*, International Monetary fund, September 2012; A. GORE, *Earth in the balance*, London, 1992; T. TIETENBERG, L. LEWIS, *Environmental & Natural Resource Economics*, New Jersey, 2009, p. 3, according to the Authors “Problems arise when the concentration of greenhouse gases increases beyond normal levels, thus retaining excessive heat somewhat like a car with its windows closed in the summer. Since the Industrial Revolution, greenhouse gas emissions have increased considerably. These increases have enhanced the heat-trapping capability of the earth’s atmosphere. According to the Intergovernmental Panel on Climate Change (2007), “Warming of the climate system is unequivocal . . .”. That study concludes that most of the warming over the last 50 years is attributable to human activities. As the earth warms, extreme heat conditions are expected to affect both human health and ecosystems.”.

<sup>(5)</sup> Global warming is one aspect of climate change and refers to the recent and ongoing rise in global average temperature near Earth’s surface. It is caused mostly by increasing concentrations of greenhouse gases in the atmosphere, United States Environmental Protection Agency, available at <http://www.epa.gov/>. In literature see, G. E. METCALF, *Paying for greenhouse gas reductions: what role for fairness?*, *Lewis & Clark Law Review*, 15:2, 2011, pp. 393-415; D. PEARCE, *The role of carbon taxes in adjusting to global warming*, *The economic journal*, IOI, July 1991, pp. 938-948.

In particular, only in the second half of the XX Century there was a relevant and significant evolution of the international and European environmental law with the will and the aim of intensifying environmental protection. <sup>(6)</sup>

Due to this evolution it is now well known that environmental protection is a global issue that can be faced through the implementation of different strategies, both at the national and supranational level.

Going into details, in economics, the environment is viewed as “*a composite asset that provides a variety of services. It is a very special asset, because it provides the life support systems that sustain our very existence, but it is an asset nonetheless. As with other assets, we wish to enhance, or at least prevent undue depreciation of, the value of this asset so that it may continue to provide aesthetic and life-sustaining services*”. <sup>(7)</sup>

For example, environmental goods are common goods freely available to everyone and subject to exploitation. <sup>(8)</sup> The cost to society of the exploitation is not taken into account by the polluter and therefore there is the need of responding to environmental conflicts through several interventions by governments.

It is not the principal aim of this dissertation to take up the general discussion of which strategies should be preferred by governments when dealing with environmental problems, but still it is important to stress that there is a wide variety of criteria that may be used.

In particular, governments have a range of environmental policy tools at their disposal. <sup>(9)</sup>

---

<sup>(6)</sup> G. CORDINI, P. FOIS, S. MARCHISIO, *Diritto ambientale – Profili internazionali, europei e comparati*, Torino, 2008; A. CROSETTI, R. FERRARA, F. FRACCHIA, N. OLIVETTI RASON, *Diritto dell'ambiente*, Roma, 2008.

<sup>(7)</sup> T. TIETENBERG, L. LEWIS, *Environmental & Natural Resource Economics*, *op. cit.*, pp. 17 et seqq. The environment provides the economy with raw materials, which are transformed into consumer products by the production process, and energy, which fuels this transformation and it also provides services directly to consumers.

<sup>(8)</sup> E. WESTON BROWN, *A common morality: toward a framework for designing fiscal instruments to respond to global climate change*, *op. cit.*, pp. 391 et seqq., according to which “*A factory pollutes the air and water during production without accounting for the cost to society of the exploitation of those resources*”.

<sup>(9)</sup> OECD, *Instruments mixes for Environmental policy*, Paris, 2007. We can distinguish four categories: economic strategies, normative strategies, informational strategies and physical strategies. Economic strategies include strategies that directly affect the costs and the benefits of activities and/or the prices of products e.g. subsidies, taxes and charges. Economic strategies have

Specifically, there are “command-and-control” (or regulatory) instruments, market-based (or economic) instruments <sup>(10)</sup>, agreements, subsidies, and information campaigns. <sup>(11)</sup>

Whichever strategy governments or European and international organisations want to implement, there is an absolute certainty: intensifying the efforts to protect the environment is necessary and it cannot be avoided any longer. <sup>(12)</sup>

Bearing this in mind, this chapter – starting from the idea that “*profound moral issues demand a profound response from law*” <sup>(13)</sup> – is aimed at analysing all the steps on the road towards the awareness process of the need of an urgent

---

become important for environmental protection, and many predict that their importance will increase in the years to come. Efforts to protect the environment have to a large extent been based on normative strategies. Normative strategies, well known as “command and control instruments”, include all strategies that make use of different kind of norms. Norms, in this context, denote rules, both legal, moral, social etc. that indicate what persons shall or shall not do. Above all, we can think about legal rights and obligations imposed by public authorities. All norms are sanctioned and the interaction between norms and sanctions is of vital importance to the effectiveness of normative strategies. The latter implies that a polluter should respond to economic signals once a market in ‘pollution’ is created. The term “informational strategies”, means attempts by public authorities to influence the behaviour of private parties and public institutions through increasing their knowledge of environmental problems. One aspect of this strategy is related to specific information concerning the causes of the environmental problems and alternative ways to deal with such problems. Another aspect of the strategy relates to the flow and availability of environmental information in general, and education schemes that enable people and institutions to use such information. Physical strategies mean strategies that aim at making activities that adversely affect the environment physically and which are also difficult to pursue, and activities that improve environmental conditions physically which are easy to pursue. Physical strategies include a wide variety of measures: from the availability of places to return recyclable wastes, to the general infrastructure provided by the public authorities. Physical strategies are often necessary supplements to normative and economic strategies.

<sup>(10)</sup> These tools are called market-based instruments because they operate through the daily workings of the market. Moreover they are also called economic instruments “because they are founded on economic theories about how adjusting price signals can influence behavior”, J. E. MILNE, M. SKOU ANDERSEN, *Introduction to environmental taxation concepts and research*, in J. E. MILNE, M. SKOU ANDERSEN (eds.), *Handbook Of Research On Environmental Taxation*, Cheltenham/Massachusetts, 2012, p. 15.

<sup>(11)</sup> M. FAURE, S. UBACHS, *Comparative benefits and optimal use of environmental taxes*, in J. MILNE, K. DETELAERE, L. KREISER, H. ASHIABOR (eds.), *Critical Issues in Environmental Taxation. International and Comparative Perspectives*, Vol. I, Richmond, 2003; K. KOSONEN, G. NICODÈME, *The role of fiscal instruments in environmental policy*, in L.H. LYE, J. MILNE, H. ASHIABOR, K. DEKETAERE, L. KREISER, *Critical Issues in Environmental Taxation. International and Comparative Perspectives*, Vol. VII, Oxford New York, 2009, pp. 3 et seqq..

<sup>(12)</sup> B. MCKIBBEN, *The end of Nature*, New York, 1989; R. STAVINS, *Economics of the Environment: Selected Readings*, New York, 2000; WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, *Our Common Future, Annex to document A/42/427*, 20 March 1987.

<sup>(13)</sup> A. SINDEN, *Climate change and Human Rights*, 27 *J. Land Resources & Env'tl. L.* 255, 2007, p. 257.



intervention to protect the environment, both at the international and European level.

In doing so, it examines the principles behind this field, with a particular focus on the principles that are generally considered as the ones that create a bridge between environmental protection and environmental taxation, and, specifically, on the so called “polluter pays” principle (hereinafter PPP) and on the “user pays” principle (hereinafter UPP).

Moreover, this chapter is aimed at exploring the linkage among human rights, duties and environmental protection.

Starting from the legal definition of environment, this gives us the opportunity to analyse and elaborate on the need to recognize a global environmental solidarity and a moral and legal obligation to protect the rights of future generations.

## 2. *The international level*

The concerns for environmental issues have emerged from various origins such as religious and ethical beliefs. <sup>(14)</sup>

Notwithstanding this, at the international level it is only within the second half of the XX Century that environmental issues start to become more relevant.

Before that, in fact, there was a general understanding, endorsed above all by developing countries, according to which criteria and minimal standards to preserve the environment should have been defined only at the national level. <sup>(15)</sup>

In this context, the Declaration of the United Nations Conference on the Human Environment (hereinafter “Stockholm Declaration”) <sup>(16)</sup> can be considered a keystone that marks the beginning of modern international environmental law <sup>(17)</sup> and fosters a global perspective of the matter. In particular, the Stockholm Declaration contains a set of “*common principles to inspire and guide the people of the world in the preservation and enhancement of the human environment*” <sup>(18)</sup>, providing a basic code of environmental conduct. <sup>(19)</sup>

---

<sup>(14)</sup> For example, in the Bible there is written: “And God, saw everything that he had made, and behold, it was very good” (Genesis 1.31). A. KISS, D. SHELTON, *Guide to International Environmental Law*, Leiden, 2007, pp. 31 et seqq.; K.T. KRISTL, *Diminishing the Divine: climate change and the act of God defense*, 15 *Widener Law Review*, 325, 2009-2010, pp. 325 et seqq..

<sup>(15)</sup> UNITED NATIONS, *Development and environment*, A/Res. 2849 (XXVI), 20 December 1971.

<sup>(16)</sup> UNITED NATIONS, *Declaration of the United Nations Conference on the Human Environment*, A/Conf. 48/14iRev.1, Stockholm, 16 June 1972. This declaration proclaims its concern about: “*growing evidence of man-made harm in many regions of the earth: dangerous levels of pollution in water, air, earth and living beings; major and undesirable disturbances to the ecological balance of the biosphere; destruction and depletion of irreplaceable resources; and gross deficiencies harmful to the physical, mental and social health of man, in the man-made environment, particularly in the living and working environment*”. It is worth noting that this Conference was suggested by Sweden in 1968 with the aim of focusing the attention of Governments and public opinions in various countries on the importance of the problems of human environment see L. B. SOHN, *The Stockholm Declaration on the Human Environment*, *The Harvard International Law Journal*, 1973, 14, 424-425.

<sup>(17)</sup> E. BEYERLIN, *Bridging the North-South Divide in International Environmental Law*, *Zeitschrift für ausländisches öffentliches Recht und Völkerrecht*, 2006, 66, 260; L. B. SOHN, *The Stockholm Declaration on the Human Environment*, *op. cit.*, 513.

<sup>(18)</sup> UNITED NATIONS, *Declaration of the United Nations Conference on the Human Environment*, A/Conf. 48/14iRev. 1, Stockholm, 16 June 1972.

<sup>(19)</sup> UNITED NATIONS ENVIRONMENT PROGRAMME, *Nairobi Declaration on the state of worldwide environment*, UNEP/GC.10/INF.5, 19 May, 1982.

Therefore, the Stockholm Declaration can be considered an important tool through which the increasing of public awareness on the fragility of the environment was reached. <sup>(20)</sup>

To understand the fundamental role of the Stockholm Declaration, it is important to go into further details and to focus specifically on the first principle. The first part of the first principle reads as follows: “*Man has the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being*”. The second part of the first principle states that a man “*bears a solemn responsibility to protect and improve the environment for present and future generations*”. <sup>(21)</sup>

This first principle is addressed to “*man*”, giving us the idea of its far-reaching scope. <sup>(22)</sup>

Moreover, it contains the double aspect of the protection of the environment which is going to be the *leit motiv* of this chapter. The first statement, in fact, creates the link between environmental protection and human rights <sup>(23)</sup>. In fact, to enjoy the right to freedom, equality and adequate conditions of life people need a decent environment that grants a life of dignity and well-being.

The second statement considers the protection of the environment as a duty of men and governments of the entire world. In particular, states have not only a responsibility towards their own citizens and other states to prevent or reduce significant environmental pollution and to establish adequate environmental protection standards <sup>(24)</sup>, but also towards future generations.

---

<sup>(20)</sup> UNITED NATIONS ENVIRONMENT PROGRAMME, *Nairobi Declaration on the state of worldwide environment*, UNEP/GC.10/INF.5, 19 May, 1982.

<sup>(21)</sup> UNITED NATIONS, *Declaration of the United Nations Conference on the Human Environment*, *op. cit.*, Principle 1.

<sup>(22)</sup> According to some scholars the reference to “*man*” weakens the Declaration, in particular compared to the Universal Declaration of Human Rights which is referred to “*everyone*”. This is because it is not clear if it is the individual “*man*” entitled to benefit from the Declaration or the mankind as a whole; L. B. SOHN, *The Stockholm Declaration on the Human Environment*, *op. cit.*, 455.

<sup>(23)</sup> S. TURNER, *The human right to a good environment – the sword in the stone*, *Non-State Actors and International Law*, 2004, 4, p. 278.

<sup>(24)</sup> WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, *Our Common Future*, *op. cit.*, Chapter 12.

The Stockholm Declaration does not formulate legally binding provisions, thus it can be considered as “soft law”.<sup>(25)</sup>

However, for the sake of completeness, it is worth noting that there are some principles that are considered as expressing a basic norm of customary international environmental law, in particular principle 21 of the Declaration – which recognizes States’ sovereignty over their natural resources.<sup>(26)</sup>

In any case, even if the Stockholm Declaration cannot be considered more than soft law, we have to underline that it was a very important step, because from then onwards, environmental protection increasingly became the focus of policy-making at the international level, and many initiatives to concretely address environmental degradation were implemented.<sup>(27)</sup>

Another important Declaration adopted by the United Nations was the Nairobi Declaration of 1982 in which it is recognized, first of all, that many environmental problems cannot be solved within national boundaries, because there are implications that go beyond national policies, and therefore they require international action and cooperation in the field of environmental protection.<sup>(28)</sup> Secondly, it not only reaffirms the important concept of the link between a life in human dignity for everyone and the protection of environment, but also the need to protect the environment for future generations.<sup>(29)</sup>

---

<sup>(25)</sup> I. HODKOVA, *Is there a right to a healthy environment in the international legal order?*, *Connecticut Journal of Int'l Law*, 1991-1992, 67; S. TURNER, *The human right to a good environment – the sword in the stone*, op. cit., p. 278-279. It is worth noting that there is also a common understanding that a more enlightened view of the nature of the Stockholm Declaration should have been accepted. See L. B. SOHN, *The Stockholm Declaration on the Human Environment*, op. cit., p. 515.

<sup>(26)</sup> A. KISS, D. SHELTON, *Guide to International Environmental Law*, op. cit., 36. Principle 21 reads as follow: “States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and 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”.

<sup>(27)</sup> P. GALIZZI, *From Stockholm to New York, via Rio and Johannesburg: has the environment lost its way on the global agenda?*, *Fordham International Law Journal*, 29, 2005, pp. 966 et seqq..

<sup>(28)</sup> UNITED NATIONS ENVIRONMENT PROGRAMME, *Nairobi Declaration on the state of worldwide environment*, UNEP/GC.10/INF.5, May 19, 1982.

<sup>(29)</sup> UNITED NATIONS ENVIRONMENT PROGRAMME, *Nairobi Declaration on the state of worldwide environment*, op. cit., para. 10.

Another important step for our chronological analysis was the creation of the World Commission on Environment and Development (hereinafter “Brundtland Commission”) in 1983. <sup>(30)</sup>

This step is fundamental because, for the first time, it points out a clear definition of “sustainable development” and it stresses the importance of finding new sources of revenue to finance international actions for environmental protection.

In particular, the Brundtland Commission had the aim of proposing long-term environmental strategies for achieving sustainable development and of considering ways and means by which the international community could deal more effectively with environment concerns. <sup>(31)</sup>

As we have just said, the Brundtland Commission defined the concept of “sustainable development”. In particular, in the landmark report this fundamental concept is defined as “*development that meets the needs of the present without compromising the ability of future generations to meet their own needs*” <sup>(32)</sup> and that can be secured only through cooperation on a global scale. <sup>(33)</sup>

In other words, this concept stresses the idea that the economic, social and environmental aspects of any action are inextricably linked. Therefore, our actions must take into account effects on the environment, economy and society, and we have to be aware that what we do today should not compromise the well-being of future generations. <sup>(34)</sup>

For the purposes of this study, it is important to underline that, the report of the Brundtland Commission points out the need to consider new sources of revenue for financing international action in support of sustainable development,

---

<sup>(30)</sup> A. KISS, D. SHELTON, *Guide to International Environmental Law*, *op. cit.*, 38 – 39.

<sup>(31)</sup> WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, *Our Common Future*, *op. cit.*, 20 March 1987. The Commission’s mandate had three objectives: to re-examine the critical environment and development issues and to formulate realistic proposals for dealing with them; to propose new forms of international cooperation on these issues that influence policies and events in the direction of needed changes; and to raise the levels of understanding and commitment to action of individuals, voluntary organizations, businesses, institutes, and governments.

<sup>(32)</sup> WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, *Our Common Future*, *op. cit.*, Chapter 2.

<sup>(33)</sup> Few years later, in 1989, the UN General Assembly recognized that “*climate change is a common concern of mankind*”; see, UNITED NATIONS, *Protection of Global Climate for Present and Future Generations of Mankind*, A/Res./43/53, 1989, para. 1

<sup>(34)</sup> OECD, *Sustainable Development. Critical Issues*, Paris, 2001; T. STRANGE, A. BAYLEY, *Sustainable development. Linking economy, society, environment*, Paris, 2008.

including revenue from the use of international commons, taxes on international trade (such as a general trade tax, taxes on specific traded commodities, on invisible exports, or on surpluses in balance of trade or a consumption tax on luxury goods) and international financial measures. <sup>(35)</sup>

To sum up, the Brundtland Commission stresses the importance of introducing taxes – not specifically environmental – in the context of environmental protection and sustainable development.

Moreover, according to the Brundtland Commission Report an international Conference should have been convened to review progress made and promote follow-up arrangements that would have been needed over time to set benchmarks and to maintain human progress within the guidelines of human needs and natural laws.

This conference was the UN Conference on Environment and Development (hereinafter UNCED), held in 1992 in Rio de Janeiro. In this context, two fundamental documents were adopted: the Declaration on Environment and Development <sup>(36)</sup> (hereinafter “Rio Declaration”) and an action program called Agenda 21. <sup>(37)</sup>

Starting with 1992 Rio Declaration on Environment and Development, we should underline that it reaffirms the basic ideas concerning the responsibilities of human beings and nations to safeguard the environment and promote sustainable development, identified at the United Nations Conference on the Human Environment, and it seeks to build upon it.

Going into further details, the Rio Declaration is a statement of 27 principles which nations agreed to base their actions upon, in dealing with environmental and development issues.

---

<sup>(35)</sup> WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, *Our Common Future*, *op. cit.*, Chapter 12; E.B. STEINBERG; J.A. YAGER, *New Means of Financing International Needs*, Washington, DC, 1978; Additional Measures and Means of Financing for the Implementation of the Plan of Action to Combat Desertification, UNEP/GC.6/9/Add.1, 1978; UNITED NATIONS, *Study on Financing the United Nations Plan of Action to Combat Desertification: report of the Secretary-General*, General Assembly document A/35/396, 1980.

<sup>(36)</sup> UNITED NATIONS, *Report of the United Nations conference on Environment and Development*, Rio de Janeiro, A/CONF.151/26 (Vol. I), 3-14 June 1992. See C. YOKE LING, *The Rio Declaration on Environment and Development: an Assessment*, Malaysia, 2012.

<sup>(37)</sup> UNITED NATIONS, *United Nation conference on Environment and Development. Agenda 21*, Rio de Janeiro, 3-14 June 1992.

The Rio Declaration states that long term economic progress is only ensured if it is linked with the protection of the environment. Moreover, it points out that human beings are at the centre of concerns for sustainable development and that they are entitled to a healthy and productive life in harmony with nature. <sup>(38)</sup>

If this is what to be achieved, then nations must establish a new and equitable global partnership involving the creation of new levels of cooperation among States, people and the key sectors of society. Moreover, there is the need to define international agreements that protect the global environment together with sustainable development.

In particular, the Rio Declaration refers to the *right* to development that must be fulfilled to equitably meet developmental and environmental needs of present and future generations. <sup>(39)</sup>

Principle 7 confirms that “*States shall cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth’s ecosystem*”. <sup>(40)</sup>

Principle 10 is also interesting for our purposes.

In fact, it refers to “environmental information” stating that: “*environmental issues are best handled with the participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes*”.

---

<sup>(38)</sup> Principle 1, UNITED NATIONS, *Report of the United Nations conference on Environment and Development*, Rio de Janeiro, A/CONF.151/26 (Vol. I), 3-14 June 1992.

<sup>(39)</sup> Principle 3, UNITED NATIONS, *Report of the United Nations conference on Environment and Development*, Rio de Janeiro, A/CONF.151/26 (Vol. I), 3-14 June 1992.

<sup>40</sup> Principle 7, UNITED NATIONS, *Report of the United Nations conference on Environment and Development*, Rio de Janeiro, A/CONF.151/26 (Vol. I), 3-14 June 1992. Principle 7 states: “*In view of the different contributions to global environmental degradation, States have common but differentiated responsibilities. The developed countries acknowledge the responsibility that they bear in the international pursuit of sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command*”.

Moreover, states shall facilitate and encourage public awareness and participation by making information widely available. Therefore, effective access to judicial and administrative proceedings shall be provided.

This principle was also confirmed by the Aarhus Convention on Access to Information (hereinafter “the Aarhus Convention”) considered as a remarkable step forward in the development of international law that was signed by 35 States and the European Union. <sup>(41)</sup>

According to the Aarhus Convention “*in order to contribute to the protection of the right of every person of present and future generations to live in an environment adequate to his or her health and well-being, each Party shall guarantee the rights of access to information, public participation in decision-making, and access to justice in environmental matters in accordance with the provisions of this Convention*”. <sup>(42)</sup>

Going back to the Rio Declaration, it is worth noting that it enshrines some fundamental principles with a legal character. <sup>(43)</sup>

First of all, principle 15 concerns the use of the precautionary approach in dealing with the protection of the environment, which is widely accepted as a foundation of environmental law at both the national and international levels. <sup>(44)</sup>

In particular, according to Oecd, «*the “precautionary principle” has become a central issue for international co-operation because of its usefulness in the protection of the “global commons”. The idea that in some cases the anticipative (act then learn) approach to risk management was preferable to the*

---

<sup>(41)</sup> J. WATES, *The Aarhus Convention: a Driving Force for Environmental Democracy*, JEEPL, 1, 2005, pp. 2 et seqq..

<sup>(42)</sup> UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE, *Convention on access to information, public participation in decision-making and access to justice in environmental matters*, Aarhus, Denmark, 25 June 1998. “Environmental information” includes any information on: (a) The state of elements of the environment, such as air and atmosphere, water, soil, land, landscape and natural sites, biological diversity and the interaction among these elements; (b) factors, such as substances, energy, noise and radiation, and activities or measures, including administrative measures, environmental agreements, policies, legislation, plans and programmes, affecting or likely to affect environment; c) the state of human health and safety, conditions of human life, cultural sites and built structures, inasmuch as they are or may be affected by the state of the elements of the environment or, through these elements, by the factors, activities or measures referred to in subparagraph (b) above.

<sup>(43)</sup> A. KISS, D. SHELTON, *Guide to International Environmental Law*, op. cit., 39.

<sup>(44)</sup> Principle 15 states that: «*In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation*».



*adaptive (learn then act) one is believed to have been first formalised in the 1970s, in the notion of Vorsorgeprinzip*». <sup>(45)</sup> This principle was later referred to as the precautionary principle.

Principle 16 refers to another fundamental principle generally recognized as the “polluter pays” principle (hereinafter also “PPP”).

In particular, principle 16 of the Rio Declaration on Environment and Development states that: “*National authorities should endeavour to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment*”.

It is worth saying that this article is fundamental for the purposes of this study, because it recognizes the necessity for States to implement the PPP and to use economic instruments in order to tackle environmental pollution.

As we are going to analyse later on, the PPP was already stressed and defined by the OECD in a Recommendation of 1972 <sup>(46)</sup>, according to which the “Polluter-Pays Principle” is the principle to be used for allocating costs of pollution prevention and control measures to encourage rational use of scarce environmental resources and to avoid distortions in international trade and investment.

The second document adopted by the Rio Conference is a program of actions for sustainable development worldwide called Agenda 21. <sup>(47)</sup> The goals of the Agenda 21 were significant: improving the living standards of those in need, better managing and protecting the ecosystem, and bringing about a more prosperous future for all.

For the purposes of this study, this document is quite relevant.

In fact, in Agenda 21, specifically in chapter 4 “*The development of national policies and strategies to encourage changes in unsustainable consumption patterns*”, the need to move towards environmentally sound pricing

---

<sup>(45)</sup> OECD, *Emerging Systemic Risks in the 21st Century. An agenda for action*, Paris, 2003.

<sup>(46)</sup> OECD, *Recommendation of the Council on Guiding Principles concerning International Economic Aspects of Environmental Policies*, C (72)128, 26 May 1972.

<sup>(47)</sup> UNITED NATIONS, *Agenda 21*, United Nations Conference on Environment & Development Rio de Janeiro, Brazil, 3 to 14 June 1992.

is clearly stressed. Moreover, this chapter points out that in order to grant significant changes in consumption and production patterns, the stimulus of prices and market signals is needed to make clear to consumers and producers the environmental costs of the consumption of energy, materials and natural resources and of the generation of wastes.

Furthermore, in chapter 8 “*Integrating Environment and Development in Decision-Making*”, it is pointed out that an effective use of economic instruments is necessary. In particular, together with environmental laws and regulations, governmental fiscal policies play an important role in shaping attitudes and behaviour towards the environment. <sup>(48)</sup>

Therefore, according to Agenda 21, the use of environmental taxes and charges, of deposit/refund system, and, broadly speaking, of appropriate economic instruments to influence consumer behaviour should be encouraged.

It is important to underline that in Rio, countries signed an international treaty: the United Nations Framework Convention on Climate Change, in order to consider what they could do to limit average global temperature increases and climate change.

By 1995, countries realized that provisions about emission reductions in the Convention were inadequate. Therefore, they launched negotiations to strengthen the global response to climate change, and, in 1997, the Kyoto Protocol was signed. <sup>(49)</sup> This international agreement, which entered into force in 2005, legally binds developed countries to emission reduction targets.

---

<sup>(48)</sup> According to Agenda 21: “*the challenge is to achieve significant progress in the years ahead in meeting three fundamental objectives: a. To incorporate environmental costs in the decisions of producers and consumers, to reverse the tendency to treat the environment as a “free good” and to pass these costs on to other parts of society, other countries, or to future generations; b. To move more fully towards integration of social and environmental costs into economic activities, so that prices will appropriately reflect the relative scarcity and total value of resources and contribute towards the prevention of environmental degradation; c. To include, wherever appropriate, the use of market principles in the framing of economic instruments and policies to pursue sustainable development.*”

<sup>(49)</sup> D. FREESTONE, C. STRECK, *Legal Aspects of Carbon Trading: Kyoto, Copenhagen, and beyond*, New York, 2009, 4, according to which: “*There are still outstanding issues: the fact that the US—until recently the largest single emitter of GHGs—is not a party; the fact that some states have expressed concerns about meeting their Kyoto emissions reduction targets and one, Canada, has openly stated that it will not try; and the fact that the reductions envisaged by the Kyoto Protocol will not by themselves solve the problem of climate change*”.

This can be considered an evidence of the fact that many States are now aware of the need of global efforts to solve many environmental issues.

In fact, after the Rio Conference, every major international convention included environmental protection as one of the goals of states. <sup>(50)</sup> Notwithstanding this, many of the Rio principles have not filtered down into meaningful action in practice. <sup>(51)</sup>

In 2002 the United Nations convened in Johannesburg the World Summit on Sustainable Development. A Declaration on Sustainable Development was adopted and it reads as follow: “*We recognise that sustainable development aims at improving the quality of life of all the world’s people, both today and for future generations, without increasing the use of our natural resources beyond the earth’s carrying capacity. This requires integrated action towards economic growth and equity, conservation of natural resources and the environment, and social development. Each of these pillars is mutually supportive of the others, creating an interconnected sustainable development triad, which underpins good health*”. <sup>(52)</sup>

Lastly, on 24th December 2009 the UN General Assembly decided to hold the United Nations Conference on Sustainable Development in 2012 - also referred to as “Rio+20” or “Rio 20”. <sup>(53)</sup>

The Conference on Sustainable Development was held in Rio de Janeiro, and the Parties renewed their commitment to sustainable development and to ensuring the promotion of an economically, socially and environmentally sustainable future for the planet and for present and future generations. <sup>(54)</sup>

---

<sup>(50)</sup> A. KISS, D. SHELTON, *Guide to International Environmental Law*, op. cit., 42.

<sup>(51)</sup> UNITED NATIONS DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS, *Review of implementation of Agenda 21 and the Rio principles. Synthesis*, January 2012, available at [http://sustainabledevelopment.un.org/content/documents/641Synthesis\\_report\\_Web.pdf](http://sustainabledevelopment.un.org/content/documents/641Synthesis_report_Web.pdf), p. 8 et seqq..

<sup>(52)</sup> WORLD HEALTH ORGANIZATION, *Johannesburg Declaration on Health and Sustainable Development*, Johannesburg, 2002, available at [http://www.who.int/mediacentre/events/HSD\\_Plaq\\_02.8\\_def1.pdf](http://www.who.int/mediacentre/events/HSD_Plaq_02.8_def1.pdf)

<sup>(53)</sup> The Conference, held on 20th-22nd June 2012, focused on two themes: (a) a green economy in the context of sustainable development and poverty eradication; and (b) the institutional framework for sustainable development. For more information: <http://www.uncsd2012.org/rio20/index.html>.

<sup>(54)</sup> UNITED NATIONS, *Report of the Conference on Sustainable Development*, Rio de Janeiro, Brazil 20 – 22 June 2012

In particular, they reaffirmed the principles of the Stockholm Declaration, the Rio Declaration, Agenda 21 and the Johannesburg Declaration on Sustainable Development.

It is worth noting that twenty years after the Rio Summit, the United Nations have published a study on the review of the implementation of the Rio Declaration and Agenda 21. <sup>(55)</sup>

This study offers some proposals for action, pointing out the need of fiscal reform through taxes used to incentivise positive behaviours and to discourage harmful ones. Moreover, according to this study all the subsidies that undermine sustainable development should be eliminated “*particularly those underpinning fossil fuel use and unsustainable agricultural and fishing practices*”. <sup>(56)</sup>

Clean Energy, green growth, sustainable development and the will to fight climate change have become important components of the G-20 agenda over time. <sup>(57)</sup>

Moreover, the World Bank and the International Monetary Fund have stressed their concerns about environmental issues as well. <sup>(58)</sup>

To sum up, at the international level, the exam – even if not comprehensive – of the most relevant UN Declarations and documents with reference to environmental issues gives us the certainty that environmental protection is a global concern.

Moreover, another fundamental point flows from our analysis of the international context: there are many legal instruments that can be used and introduced to face environmental issues. These go from rights to duties and obligations, via principles such as the “polluter pays” principle, the principle of sustainable development and the precautionary principle.

---

<sup>(55)</sup> UNITED NATIONS DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS, *Review of implementation of Agenda 21 and the Rio Principles. Synthesis*, January 2012.

<sup>(56)</sup> UNITED NATIONS DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS, *Review of implementation of Agenda 21 and the Rio principles. Synthesis, op. cit.*, p. 16

<sup>(57)</sup> G 20, *Cannes summit final declaration “building our common future: renewed collective action for the benefit of all”*, 4 November 2011.

<sup>(58)</sup> R. A DE MOOLIJ, M. KEEN, I. W. H. PARRY, E. WESTON (EDS.), *Fiscal Policy to mitigate climate change: a guide for policymakers*, op. cit., pp. 1 et seqq.; WORLD BANK, *Turn Down the Heat: Why a 4°C Warmer World Must be Avoided*, November 1992, available at [http://climatechange.worldbank.org/sites/default/files/Turn\\_Down\\_the\\_heat\\_Why\\_a\\_4\\_degree\\_centrigade\\_warmer\\_world\\_must\\_be\\_avoided.pdf](http://climatechange.worldbank.org/sites/default/files/Turn_Down_the_heat_Why_a_4_degree_centrigade_warmer_world_must_be_avoided.pdf)

These principles, as we are going to see in a short while, can be also found at the European level and they constitute the framework for the introduction of environmental taxes.

In fact, from the Brundtland Report onwards the idea of introducing taxes – even at a global level – to safeguard the environment starts to become more and more relevant.

### 3. *The European level*

In the second half of the XX century also the European Union started to devote increasing attention to the environment and to make it one of the most important policy areas of the European Union. <sup>(59)</sup>

Since 1973, due to the lack of reference to the environment in the original Treaties, the European Union's environmental policy has been developed through various non-bindings "Environmental Action Programmes". In particular, the first Environmental Action Programme was adopted in November 1973. <sup>(60)</sup>

The keystone of this evolution was a decision of the European Court of Justice in 1985. In this decision, in fact, the Court defined the environmental protection as one of the European Union's essential objectives. <sup>(61)</sup>

Two years later, in 1987, the Single European Act (hereinafter SEA) referred to environmental protection as one of its objectives, setting out, for the first time, the main objectives of the European Union's environmental policy. <sup>(62)</sup> Moreover, in title VII "*Environment*", the SEA formulated three goals: to preserve, protect and improve the quality of the environment; to contribute to

---

<sup>(59)</sup> EUROPEAN ENVIRONMENT AGENCY, *Environmental policy integration in Europe: looking back, thinking ahead*, 2004; EUROPEAN ENVIRONMENT AGENCY, *Environmental policy integration in Europe. State of play and an evaluation framework*, 2005; A. JORDAN (ed.), *Environmental policy in the European Union: actors, institutions and processes*, UK and USA, 2005, K. LENARTS, P. VAN NUFFEL, *Constitutional Law of the European Union*, London, 2005; C. LONDON, *Droit Communautaire de l'environnement*, *Revue Trimestrielle de Droit Européen*, 1997, 3; P.S.R.F. MATHIJSEN, *A guide to European Union Law*, London, 1999, pp. 439 et seqq.; K.J.M. MORTELMAS, *Horizontal and Flanking Policies*, in KAPTEYN & VERLOREN VAN THEMAAT, *The Law of the European Union and the European Communities*, The Netherlands, 2008, p. 1092 et seqq.; I. VON HOMEYER, *The Evolution of EU Environmental Governance*, in J. SCOTT (ed.), *Environmental Protection: European Law and Governance*, Oxford, 2009; P. WENNERÅS, *The enforcement of EC Environmental Law*, New York, 2007.

<sup>(60)</sup> COUNCIL OF EUROPE, *Declaration of the Council of the European Communities and of the representatives of the Governments of the Member States meeting in the Council of 22 November 1973 on the programme of action of the European Communities on the environment*, C 112, 22 December 1973. The first four Community action programmes on the environment gave rise to about 200 pieces of legislation covering different areas: e.g. pollution of the atmosphere, water and soil and so on. See COUNCIL OF EUROPE, *Resolution of the Council and the Representatives of the Governments of the Member States, meeting within the Council of 1 February 1993 on a Community programme of policy and action in relation to the environment and sustainable development*, C 138, 17 May 1993, p. 21.

<sup>(61)</sup> EUROPEAN COURT OF JUSTICE, *Procureur de la République v. Association défense des brûleurs d'huiles usages*, Case C-240/83, 7 February 1985, para. 13.

<sup>(62)</sup> Art. 130r(2) EEC Treaty provides that environmental protection requirements shall be a component of the Community's other policies.

protect human health and to ensure a prudent and rational utilization of natural resources.

The Treaty of Maastricht, signed in 1992, was also fundamental to this evolution. In fact, on the one hand, it provided a legal basis for the concept of sustainable development.

On the other hand, the Treaty of Maastricht formulated another goal: the promotion of measures at international level to deal with regional or worldwide environmental problems. <sup>(63)</sup> This goal was slightly modified by the Treaty of Lisbon, signed in 2007, which added that such measures have to deal with combating climate change. <sup>(64)</sup> Moreover, the Treaty of Lisbon added the new Title XXI concerning energy. <sup>(65)</sup>

Going into details, according to art. 3(3) of the TEU, as amended by the Treaty of Lisbon, the Union “*shall work for the sustainable development of Europe based on balanced economic growth and price stability, a highly competitive social market economy, aiming at full employment and social progress, and a high level of protection and improvement of the quality of the environment*”. <sup>(66)</sup>

---

<sup>(63)</sup> See art. 174 Treaty establishing the European Community (Nice consolidated version).

<sup>(64)</sup> P. FOIS, *Il diritto ambientale nell'Unione Europea, in Diritto ambientale - Profili internazionali, europei e comparati, op. cit.*, pp. 51 et seqq.; see art. 191 of the Treaty on the Functioning of the European Union.

<sup>(65)</sup> Article 194 of the Treaty on the Functioning of the European Union: “*In the context of the establishment and functioning of the internal market and with regard for the need to preserve and improve the environment, Union policy on energy shall aim, in a spirit of solidarity between Member States, to:*

*(a) ensure the functioning of the energy market;*

*(b) ensure security of energy supply in the Union;*

*(c) promote energy efficiency and energy saving and the development of new and renewable forms of energy; and*

*(d) promote the interconnection of energy networks.*

*2. Without prejudice to the application of other provisions of the Treaties, the European Parliament and the Council, acting in accordance with the ordinary legislative procedure, shall establish the measures necessary to achieve the objectives in paragraph 1. Such measures shall be adopted after consultation of the Economic and Social Committee and the Committee of the Regions.*

*Such measures shall not affect a Member State's right to determine the conditions for exploiting its energy resources, its choice between different energy sources and the general structure of its energy supply, without prejudice to Article 192(2)(c).*

*3. By way of derogation from paragraph 2, the Council, acting in accordance with a special legislative procedure, shall unanimously and after consulting the European Parliament, establish the measures referred to therein when they are primarily of a fiscal nature”.*

<sup>(66)</sup> Art. 3 Consolidated Version of the Treaty of European Union.

Moreover, art. 11 of the Treaty on the Functioning of the European Union (hereinafter TFEU) reads as follows: “*environmental protection requirements must be integrated into the definition and implementation of the Union’s policies and activities, in particular with a view to promoting sustainable development*”.

This article is contained in the part of the Treaty entitled “*Principles*” and enshrines a general principle of EU law: the environmental integration principle. For this reason, it is very important because it points out that environmental protection requirements have to be implemented in all the Union’s policies and activities, and not only in the one which are specifically referred to the environment. In other words, according to this article, a priority of the economic goals in the single market cannot be accepted anymore and European institutions should pursue the aim of environmental protection in the course of every policy and activity.

It is worth noting that this principle constitutes both a guideline for the adoption of new measures in the European Union and a rule of interpretation of European Union’s legislation. In other words, European Union’s legislation “*should, basically, be interpreted in a way that renders it consistent with environmental protection requirements, respectively with the objective of protection of the environment*”.<sup>(67)</sup> The impact and the importance of this line of reasoning will be discussed in the next paragraphs.

Environmental matters are provided for by two different titles in the TFEU: Title XX on “*Environment*”<sup>(68)</sup> and Title XXI on “*Energy*”.

---

<sup>(67)</sup> M. WASMEIER, *The integration of environmental protection as a general rule for interpreting community law*, *Common Market Law Review*, 2001, 38, p. 159.

<sup>(68)</sup> Article 191 of the Treaty on the Functioning of the European Union provides: “1. *Union policy on the environment shall contribute to pursuit of the following objectives:*

- *preserving, protecting and improving the quality of the environment,*
- *protecting human health,*
- *prudent and rational utilisation of natural resources,*
- *promoting measures at international level to deal with regional or worldwide environmental problems, and in particular combating climate change.*

2. *Union policy on the environment shall aim at a high level of protection taking into account the diversity of situations in the various regions of the Union. It shall be based on the precautionary principle and on the principles that preventive action should be taken, that environmental damage should as a priority be rectified at source and that the polluter should pay.*

*In this context, harmonisation measures answering environmental protection requirements shall include, where appropriate, a safeguard clause allowing Member States to take provisional measures, for non-economic environmental reasons, subject to a procedure of inspection by the Union.*



According to art. 191 TFEU the environmental policy of the European Union is aimed at (i) preserving, protecting and improving the quality of the environment; (ii) protecting human health, (iii) using in a prudent and rational way natural resources, (iv) promoting measures at international level to deal with regional or worldwide environmental problems, and in particular combating climate change.

Furthermore, the second paragraph of art. 191 TFEU enshrines the principles on which the EU's environmental policy is based: the precautionary principle, the principle of preventive action, the principle according to which environmental damage shall be rectified at source, the principle of high level of protection and the "polluter pays" principle. In fact, art. 191, para. 2, TFEU states that: *"Union policy on the environment shall aim at a high level of protection taking into account the diversity of situations in the various regions of the Union. It shall be based on the precautionary principle and on the principles that preventive action should be taken, that environmental damage should as a priority be rectified at source and that the polluter should pay. In this context, harmonisation measures answering environmental protection requirements shall include, where appropriate, a safeguard clause allowing Member States to take provisional measures, for non-economic environmental reasons, subject to a procedure of inspection by the Union"*.

Going into further details, it is worth noting that, the principle of high level of protection is a criterion of interpretation in order to solve the conflicts that may arise between environmental protection and other Union's objectives. <sup>(69)</sup>

---

3. *In preparing its policy on the environment, the Union shall take account of:*

- *available scientific and technical data,*
- *environmental conditions in the various regions of the Union,*
- *the potential benefits and costs of action or lack of action,*
- *the economic and social development of the Union as a whole and the balanced development of its regions.*

4. *Within their respective spheres of competence, the Union and the Member States shall cooperate with third countries and with the competent international organisations. The arrangements for Union cooperation may be the subject of agreements between the Union and the third parties concerned.*

*The previous subparagraph shall be without prejudice to Member States' competence to negotiate in international bodies and to conclude international agreements"*.

<sup>(69)</sup> P. M. HERRERA, *Derecho Tributario Ambiental (La introducción del interés ambiental en el ordenamiento tributario)*, Madrid, 2000, pp. 37-38.

Furthermore, the precautionary principle and the prevention principle are not defined in the TFEU.

With reference to the precautionary principle, it is important to point out that the dimension of this principle goes beyond the problems which are associated to a short or medium-term approach to risks. It also concerns the longer run and the well-being of future generations. <sup>(70)</sup>

In particular, the precautionary principle is interpreted as concerning cases of scientific uncertainty. In other words, according to the precautionary principle if there is “*a strong suspicion that a certain activity may have environmentally harmful consequences, it is better to act before it is too late rather than wait until full scientific evidence is available which incontrovertibly shows the casual connection*”. <sup>(71)</sup> Therefore, a precaution-based approach can be seen in the decision to take measures without waiting until all the necessary scientific knowledge is available, and can be summarized in the statement “*in dubio pro natura*”.

The prevention principle is also based on the concept that prevention is better than cure. <sup>(72)</sup> However, in this case, preventive measures must be taken in case of dangerous activities or activities with well-known risk for the environment or human health. These measures are to be taken at an early stage, not in order to repair the damage after it has occurred but to prevent damage occurring at all.

It is important to underline that, according to eminent scholars: “*There seems to be no EU action which would be possible under the precautionary principle but not under the prevention principle - and vice versa. Since both principles are in practice almost always used together and there is no definition of them in the TFEU, the added legal value of one to the other is not visible - therefore they should be used synonymously*”. <sup>(73)</sup>

Going back to the EU framework, in 2010 the European Commission launched the Europe 2020 strategy that stresses three priorities: smart, sustainable

---

<sup>(70)</sup> EUROPEAN COMMISSION, Communication from the Commission on the precautionary principle, COM/2000/0001 final.

<sup>(71)</sup> J. H. JANS, H. H. B. VEDDER, *European Environmental Law. After Lisbon*, Groningen, 2012, pp. 43 et seqq..

<sup>(72)</sup> J. H. JANS, H. H. B. VEDDER, *European Environmental Law. After Lisbon*, op. cit., pp. 47 et seqq.; L. KRÄMER, *EU Environmental Law*, London, 2011, p. 24;

<sup>(73)</sup> L. KRÄMER, *EU Environmental Law*, op. cit., p. 24.

and inclusive growth. <sup>(74)</sup> With reference to environmental issues, there is the will to meet the so-called 20/20/20 climate change and energy sustainability targets. The aims are to reduce the emissions of greenhouse gases by 20% compared to 1990, to reach 20% of renewables in total energy consumption and to increase the energy efficiency by 20% by 2020. It is important to underline that the 2020 target of saving 20% of the EU's primary energy consumption is not legally binding for Member States, but significant progress has nevertheless been made.

Nowadays environmental protection and energy policy are hot topics in the European Union.

The last two documents released by the European institutions on these issues are the Commission's Green Paper on a 2030 framework for climate and energy policies <sup>(75)</sup> and the conclusions of the meeting of the European Council held on the 22<sup>nd</sup> of May 2013. <sup>(76)</sup>

In the former, the aim is to consult stakeholders to obtain evidence and views to support the development of the 2030 framework. Moreover, the Commission is consulting on issues relating to the international negotiations of a new legally binding agreement for climate action. It is surely relevant that the Commission asks the stakeholders if the targets that will be suggested for 2030 should be legally binding.

In the latter, the European Council stresses the need to boost the EU's energy policy and to ensure the supply of affordable and sustainable energy.

The growing of the environmental Union policy seems to be unstoppable due to the economic and environmental crisis too.

To sum up, in the EU context, many different principles are taken into account in dealing with environmental issues: the environmental integration principle, a high level of environmental protection, the "polluter pays" principle,

---

<sup>(74)</sup> EUROPEAN COMMISSION, *Europe 2020. A strategy for smart, sustainable and inclusive growth*, COM(2010) 2020 final, 3 March 2010.

<sup>(75)</sup> EUROPEAN COMMISSION, *Green Paper A 2030 framework for climate and energy policies*, COM/2013/0169 final, according to which: "The 2030 framework must draw on the lessons from the current framework: what has worked, what has not worked and what can be improved. It should take into account international developments and spur stronger international climate action. And it must identify how best to maximise synergies and deal with trade-offs between the objectives of competitiveness, security of energy supply and sustainability".

<sup>(76)</sup> EUROPEAN COUNCIL, *Conclusions*, Euco 75/1/13, 23 May 2013.

the principle of sustainable development, the precautionary principle and the prevention principle.

As we have already analysed, most of these principles can be found at the international level as well.

The new element of the European 2030 framework for climate and energy policies seems to be the will to introduce legally binding targets and instruments.

That being said, it is important to go into more details and to explore if there are supranational binding tools that may be invoked to protect the environment and consequently be used to adopt environmentally-friendly tax provisions.

#### 4. *Creating a link between environmental protection and environmental taxation: the polluter pays principle and the user pays principle.*

As we have analysed above, one of the principles that has been pointed out both at the international and European level is the so called “polluter pays” principle.

The “polluter pays” principle, which is the cornerstone of the European Union policy on the environment, is generally considered the framework within which environmental protection and environmental taxation meet each other. In order to clarify this statement we have to analyse the origins and evolution of this principle.

As a starting point, we have to underline that even if the concept of the “polluter pays” principle seems *prima facie* very easy to be defined the devil is in the details. In fact, this principle has been interpreted in various ways and it can be considered ambiguous and it is subject to criticism. <sup>(77)</sup>

As we have already said, the “polluter pays” principle was adopted for the first time by the OECD in 1972. In particular, the *Recommendation on Guiding Principles Concerning International Economic Aspects of Environmental Policies* <sup>(78)</sup> enshrines the first formulation of the “polluter pays” principle, as an economic principle for allocating the costs of pollution control.

The baseline of this principle can be found in a very obvious statement: economic activities can harm the environment through pollution and we cannot disregard it.

Even if this statement is so obvious there is a tendency to not recognize it. Hence, undertakings and human beings can avoid bearing the cost of the

---

<sup>(77)</sup> A. BLEEKER, *Does the Polluter pay? The polluter-pays principle in the Case Law of the European Court of Justice*, *European Energy and Environmental Law Review*, December 2009, p. 289; H. C. BUGGE, *The polluter pays principle: dilemma of justice in national and international contexts*, in J. EBBESSON, P. OKOWA (eds.), *Environmental Law and Justice in Context*, New York, 2009, p. 411; L. KRÄMER, *EU Environmental Law*, op. cit., p. 26, according to which: “hardly any Union text contains provisions on who shall pay for what or any other provision which puts the polluter-pays principle into practice: if the principle were legally binding and enforceable, this would be a systematic omission that could hardly be tolerated; however, no one has as yet invoked this principle and claimed damages”; N. DE SADELEER, *Environmental Principles: From Political Slogans to Legal Rules*, Oxford New York, 2002, p. 21 et seqq..

<sup>(78)</sup> OECD, *Recommendation of the Council on Guiding Principles concerning International Economic Aspects of Environmental Policies*, C (72)128, 26 May 1972.

environmental harm arising from their activities and the negative external effects of production are not taken into account by the polluter, but are borne by society as a whole. This is why the implementation of the PPP is very important.

In fact, according to this principle, the polluter <sup>(79)</sup> has to bear the costs of carrying out pollution prevention measures or paying for damage caused by pollution. This is intended to ensure that the private costs reflect the true social costs of the economic activity.

Moreover, allocating the costs to the polluter makes the polluter more aware of the consequences of using scarce environmental resources and, as a result, can induce more rational, economically efficient decisions about the use of those resources.

According to the OECD, *“The principle to be used for allocating costs of pollution prevention and control measures to encourage rational use of scarce environmental resources and to avoid distortions in international trade and investment is the so-called ‘Polluter-Pays Principle’*. This principle means that the polluter should bear the expenses of carrying out the above-mentioned measures decided by public authorities to ensure that the environment is in an acceptable state. In other words, the cost of these measures should be reflected in the cost of goods and services which cause pollution in production and/or consumption. Such measures should not be accompanied by subsidies that would create significant distortions in international trade and investment”. <sup>(80)</sup>

The Principle, as defined in 1972 by the OECD, was not based on total internalization of pollution costs but, instead, on levels of pollution emissions determined by public authorities.

---

<sup>(79)</sup> With reference to the meaning which is given to the word ‘polluters’, it soon became accepted that the PPP should be applied to any activity that contributed to deterioration of the environment, rather than being strictly limited to polluting activities. The 1975 Communication confirms this broader definition, defining a ‘polluter’ as *“someone who directly or indirectly damages the environment”*. In the Community Guidelines on State aid a more precise definition can be found: *“‘polluter’ means someone who directly or indirectly damages the environment or who creates conditions leading to such damage”*, see EUROPEAN COMMISSION, *Community Guidelines on State aid for Environmental Protection*, 2008/C 82/01.

<sup>(80)</sup> OECD, *Recommendation of the Council on Guiding Principles concerning International Economic Aspects of Environmental Policies*, op. cit., para. 4. See, U. KETTLEWELL, *The answer to global pollution? A critical examination of problems and potential of polluter-pays principle*, *Colo. J. Int'l Env'tl. L. & Pol'y*, 1992, 3.

The principle, according to this definition of the OECD, was intended to guide the allocation of costs between the government and the private sector in paying for environmental pollution.

Moreover, it was considered as a non- subsidization principle, and, for this reason, governments should have not – as a general rule – granted, tax advantages or other measures to their industries for pollution control.

The ratio behind this principle was to prevent environmental protection measures from being required to be financed by the Government through subsidies or other measures. <sup>(81)</sup>

The principle has progressively been generalized and extended in a double way.

In fact, first, from being a principle of partial internalization it is becoming a principle of full internalization. In fact, as we have already said, initially, the polluter-pays principle was restricted to cover “*costs of pollution prevention and control measures*”, and it covered only those costs which were necessary to ensure that the environment was in “*an acceptable state*”. Ultimately, all the costs that pollution may cause are covered by the principle, including accidental pollution. <sup>(82)</sup> In other words, it seems that we are going towards full internalization <sup>(83)</sup> of environmental costs by the polluter.

Second, it was implemented by the OECD as an economic principle: a principle of efficiency <sup>(84)</sup>, and it turned into a legal principle, recognized at both European and international levels. <sup>(85)</sup>

---

<sup>(81)</sup> However, in the follow up Recommendation on the Implementation of the Polluter Pays Principle adopted by the OECD in 1974, the OECD specifies that in some cases the granting of these measures is possible. In particular, “*it should be selective and restricted to those parts of the economy, such as industries, areas or plants, where severe difficulties would otherwise occur; it should be limited to well-defined transitional periods, laid down in advance and adapted to the specific socioeconomic problems associated with the implementation of a country's environmental programme; c) it should not create significant distortions in international trade and investment*”. See, OECD, *The Implementation of the Polluter-Pays Principle*, 14 November 1974, C (74)223.

<sup>(82)</sup> OECD, *The polluter pays principle. OECD analysis and Recommendations*, Paris, 1992, pp. 33 et seqq..

<sup>(83)</sup> EUROPEAN COMMISSION, *Community Guidelines on State aid for Environmental Protection*, 2008/C 82/01: «“*internalisation of cost*” means the principle that all costs associated with the protection of the environment should be included in the polluting undertakings' production costs».

<sup>(84)</sup> Some doctrine proposes to distinguish among the following four aspects of the polluter pays principles: (i) the PPP as an economic principle: a principle of efficiency; (ii) the PPP as a legal principle: a principle of (“just”) distribution of income; (iii) the PPP as a principle of international harmonization of national environmental policy; (iv) the PPP as a principle of allocation of costs

At the EU level, “*the polluter pays principle*’ means that the costs of measures to deal with pollution should be borne by the polluter who causes the pollution, unless the person responsible for the pollution cannot be identified or cannot be held liable under Community or national legislation or may not be made to bear the costs of remediation. Pollution in this context is the damage caused by the polluter by directly or indirectly damaging the environment or by creating conditions leading to such damage, to physical surroundings or natural resources”.<sup>(86)</sup>

In any case, it is worth noting that the ‘polluter pays’ principle is important in terms of environmental protection above all because it gives polluters an incentive to avoid polluting the environment.

According to some scholars, this principle can be considered a reflection of the solidarity principle.<sup>(87)</sup>

Even if this theory is very fascinating it does not seem completely in line with the general interpretation of the polluter pays principle and with the aim of fair allocation of the costs of environmental pollution. In fact, according to this principle the costs of the environmental pollution are not imposed on the society at large but on the polluter.

For this reason, in our opinion, there is not a principle of common solidarity behind the PPP, but on the contrary through the implementation of the PPP the polluters exclude others from the duty to pay.

The European Court of Justice considers the “polluter pays” principle as a reflection of the principle of proportionality.<sup>(88)</sup> Furthermore, it seems that the

---

between states. See H. C. BUGGE, *The Principles of “Polluter Pays” in Economics and Law*, in E. EIDE AND R. VAN DEN BERGH (eds.), *Law and Economics of the Environment*, Oslo, 1996, pp. 53–90.

<sup>(85)</sup> P. M. HERRERA MOLINA, *El principio “quien contamina, paga” desde la perspectiva jurídica*, *Noticias de la Unión Europea*, 1995, 122, p. 81; OECD, *The polluter pays principle. OECD analysis and Recommendations*, op. cit., p. 9.

<sup>(86)</sup> EUROPEAN COMMISSION, *Community Guidelines on State aid for Environmental Protection*, 2008/C 82/01.

<sup>(87)</sup> P. M. HERRERA MOLINA, *El principio “quien contamina, paga” desde la perspectiva jurídica*, op. cit., p. 82.

<sup>(88)</sup> EUROPEAN COURT OF JUSTICE, Case C-293/97, *Standley and Others*, 1999, para. 52; OPINION OF THE ADVOCATE GENERAL KOKOTT, Case C- 254/08, *Futura Immobiliare srl Hotel Futura, Meeting Hotel, Hotel Blanc, Hotel Clyton, Business srl vs. Comune di Casoria*, 23 April 2009.



“polluter pays” principle can be a specific expression of the principle of equal treatment. <sup>(89)</sup>

These aspects of the polluter-pays principle say nothing explicit about the choice among various strategies to deal with environmental problems.

The issue is whether this principle can have a mere relevance in terms of compensating the costs for environmental damage, or also a fiscal relevance, or even a sort of “open” relevance, because it can be implemented both through forms of compensation and taxation. The latter interpretation seems to be the one to be preferred. <sup>(90)</sup>

In fact, nowadays, it is quite evident that the “polluter pays” principle can be implemented through different legal instruments and that taxation is one of them.

In particular, the PPP can be implemented either by setting mandatory environmental standards or by market-based instruments. <sup>(91)</sup> This statement has been confirmed by both the European Council <sup>(92)</sup> and the European Commission. <sup>(93)</sup>

That being said, it is now important to understand the role of the “polluter pays” principle in the European Union legislation and its impact on Member States.

As we have already said, this principle is enshrined in art. Art. 191(2) TFEU, according to which the Union policy on the environment “*shall be based on (...) the principle(s) that (...) the polluter should pay*”.

---

<sup>(89)</sup> OPINION OF THE ADVOCATE GENERAL KOKOTT, Case C- 254/08, *Futura Immobiliare srl Hotel Futura, Meeting Hotel, Hotel Blanc, Hotel Clyton, Business srl vs. Comune di Casoria*, 23 April 2009, para. 33. This principle requires that comparable situations must not be treated differently and that different situations must not be treated in the same way unless such treatment is objectively justified.

<sup>(90)</sup> C. VERRIGNI, *La rilevanza del principio comunitario “chi inquina paga” nei tributi ambientali*, *Rass. Trib.*, 5, 2003, pp. 1614 et seqq..

<sup>(91)</sup> EUROPEAN COMMISSION, *Community Guidelines on State aid for Environmental Protection*, 2008/C 82/01.

<sup>(92)</sup> EEC, *Council Recommendation regarding cost allocation and action by public authorities on environmental matters*, 75/436/Euratom, 3 March 1975, according to which the polluter-pays principle may be implemented using both direct regulations and charges.

<sup>(93)</sup> Environmental taxes and charges form part of the range of environmental instruments and they can represent an appropriate way of implementing the polluter pays principle, by including the environmental costs in the price of a good or service. These instruments can thereby induce consumers and producers into environmentally more sustainable behaviour. See, EUROPEAN COMMISSION, *Environmental taxes and charges in the Single Market*, COM(97) 9 final, 26 March 1997.

Article 191(2) TFEU does not define the “polluter pays” principle but the wording highlights that the “polluter pays” principle is compulsory.

But compulsory for whom?

With reference to EU institutions, the PPP can be considered compulsory because it is directed at action at European Union level. This means that, EU measures that are not in line with this principle can be subject to judicial review.  
(<sup>94</sup>)

With reference to Member States, we have to distinguish between areas that have been harmonized by secondary EU law and areas that have not been harmonized.

Regarding the former, it is clear that, Member States in introducing measures related to the environment in an area covered by environmental policy for which the EU legislation was adopted, are obliged to apply and respect the “polluter pays” principle.

For the latter, we have to elaborate more on it.

First, according to the EU documents, Member States may set national standards or environmental taxation at a higher level than required by EU legislation or they may use environmental taxation to implement PPP unilaterally in the absence of EU law. (<sup>95</sup>)

Secondly, some scholars consider the polluter pays principle as a principle that can be binding on the Member States and be considered as a general principle of national legislation. (<sup>96</sup>).

However, the European Court of Justice seems to choose a different approach.

In fact, according to the Court: “since Article 174 EC (*now art. 191 TFEU*), which establishes the ‘polluter pays’ principle, is directed at action at Community level, that provision cannot be relied on as such by individuals in

---

(<sup>94</sup>) N. DE SADELEER, *The Polluter-pays Principle in EU Law – Bold Case Law and Poor Harmonisation*, in *Teischrift Hans-Christian Bugge*, Oslo, 2012, p. 407.

(<sup>95</sup>) EUROPEAN COMMISSION, *Community Guidelines on State aid for Environmental Protection*, 2008/C 82/01.

(<sup>96</sup>) P. SELICATO, *La tassazione ambientale: nuovi indici di ricchezza, razionalità del prelievo e principi dell'ordinamento comunitario*, Riv. dir. trib. internaz., 2004, 3-4, pp. 272 et seq.; C. VERRIGNI, *La rilevanza del principio comunitario “chi inquina paga” nei tributi ambientali*, op. cit., pp. 1614 et seq..

order to exclude the application of national legislation – such as that at issue in the main proceedings – in an area covered by environmental policy for which there is no Community legislation adopted on the basis of Article 175 EC that specifically covers the situation in question”.<sup>(97)</sup>

According to this line of reasoning, article 191 TFEU simply sets out the general objectives of EU environment law, which the Community legislature must give substance to before they can be binding on the Member States.<sup>(98)</sup>

In conclusion, it seems that the PPP has no direct effects, and for this reason individuals cannot invoke the provisions of treaty law dedicated to the protection of the environment and Member States cannot be reviewed on the basis of this principle.<sup>(99)</sup>

It will be important to see if the EU targets for sustainable growth and the Europe 2020 and 2030 strategies can bring some new inputs to ECJ case law.

In fact, as we have already said, it is important to stress that one of the element of the European 2030 framework for climate and energy policies seems to be the will to introduce legally binding targets and instruments. The polluter pays principle could easily become one of these legally binding principles.

That being said, we have to underline that the PPP is not the only principle proposed by the OECD on this matter. In fact, a complementary principle has been developed and it is widely used by the OECD and can be found enshrined in national law: the User Pays Principle (hereinafter “UPP”).

---

<sup>(97)</sup> EUROPEAN COURT OF JUSTICE, C-378/08, *Raffinerie Mediterranee (ERG) SpA, Polimeri Europa SpA and Syndial SpA v Ministero dello Sviluppo economico and Others*, para. 46; EUROPEAN COURT OF JUSTICE, C-379/92, *Matteo Peralta*, 14 July 1994, para. 57. See also, L. KRÄMER, *EU Environmental Law*, op. cit., p. 27, according to which the possibility to adopt measures which charge persons who cause environmental pollution to bear the cost of pollution, would also be available to EU institutions without the polluter pays principle being inserted in art. 191 TFEU.

<sup>(98)</sup> OPINION OF THE ADVOCATE GENERAL KOKOTT, Case C- 254/08, *Raffinerie Mediterranee SpA (ERG), Polimeri Europa SpA, Syndial SpA vs. Ministero dello Sviluppo Economico and Others* and Cases C-379/08 and C-380/08, *Raffinerie Mediterranee SpA (ERG), Polimeri Europa SpA, Syndial SpA V Ministero dello Sviluppo Economico and Others*, p. 45.

<sup>(99)</sup> N. DE SADELEER, *The Polluter-pays Principle in EU Law – Bold Case Law and Poor Harmonisation*, op. cit., pp. 408 et seqq..

The UPP is defined as “*the variation of the polluter-pays principle that calls upon the user of a natural resource to bear the cost of running down natural capital*”.<sup>(100)</sup>

The idea behind the UPP is that the user of a public facility, or consumer of a public good, pays for the environmental good or service or the damages which may arise from that use.<sup>(101)</sup> As an example we can think to a fee levied on visitors to national parks, where the charges ensure that the costs of use are borne by the person using the public good.

Theoretically, a user fee equivalent to the total use value would be charged for use of an environmental resource.

In terms of the environment, anyone who directly or indirectly benefits from the environment would pay a cost related to the level of the benefit he has received.

In the case of inexhaustible environmental goods such as habitat areas, parks and forests, users might be encouraged to pay for the existence of the resource.

At the international level, attempts are being made to extend the User Pays Principle to shared resources and the global commons. Approaches might include an estimation of “*user fees*” based on the estimated cost of maintaining various natural resources of global significance.

The User Pays Principle underlies approaches in international environmental policy where countries possessing resources or assets of common concern to mankind, such as genetic resources or rainforests, would be compensated for the environmental services they provide.

---

<sup>(100)</sup> UNITED NATIONS, *Glossary of Environment Statistics, Studies in Methods*, Series F, No. 67, New York, 1997.

<sup>(101)</sup> OECD, *Environmental principles and concepts*, Ocde/GD(95)124, Paris, 1995.

## 5. *Human rights and environmental protection.*

One binding tool that could be used by people to force States to adopt environmentally friendly tax provisions is a human right to a healthy environment. <sup>(102)</sup> In particular, it would be a powerful tool that would allow people to challenge developments and decisions more effectively.

Starting from these statements, this paragraph explores the linkage between human rights and the environment. In fact, human rights law can make a positive contribution to our analysis and, broadly speaking, to environmental protection.

Before going into details, it is worth noting that this linkage is going to be analysed both from an international and European perspective. In fact, we cannot avoid an analysis of this link from a global perspective because if we consider the global environment as the common concern of humanity the response of human rights law should be global. <sup>(103)</sup>

Moreover, in the European context this link seems more and more relevant, especially after the achievements of human rights protection. Broadly speaking, the starting point is that nowadays the protection of many fundamental rights needs to be ensured according to the common standards identified at the EU level. In other words, these rights cannot be addressed at the level of the national constitutions of EU Member States any longer. <sup>(104)</sup>

---

<sup>(102)</sup> D. GUTMANN, *Taking Human Rights Seriously: Some Introductory Words on Human Rights, Taxation and the EU*, in G. KOPLER, M. POIARES MADURO, P. PISTONE (eds.), *Human rights and Taxation in Europe and the World*, The Netherlands, 2011, p. 105; S. TURNER, *The human right to a good environment – the sword in the stone*, op. cit., p. 294, according to which: “One aspect of the human right to a good environment is that it offers the possibility of internalising the costs of “sustainable development” and thus avoiding the huge financial outlays that would have been necessary with Agenda 21. It institutes a mechanism whereby environmentally degrading activities can be taxed equitably. Thus the costs of polluting or degrading the environment can be internalised and the resultant financial resources can be utilised for programmes to either clean or restore aspects of the environment that have been degraded, or to equitably compensate those whose lives have been adversely affected”.

<sup>(103)</sup> A. BOYLE, *Human Rights and The Environment: Where next?*, *The European Journal of International Law*, 23, 3, 2012, p. 642.

<sup>(104)</sup> G. KOPLER, P. PISTONE, *General Report*, in G. KOPLER, M. POIARES MADURO, P. PISTONE (eds.), *Human rights and Taxation in Europe and the World*, op. cit., p. 3.

This is particularly true after the entry of the Treaty of Lisbon into force, that brought some important – although inherently problematic <sup>(105)</sup> – changes.

The first one is that the EU Charter of Fundamental Rights has become binding as primary EU law (art. 6(1) TEU). The second one is that the Union has the mandate to accede to the European Convention for the Protection of Human Rights and Fundamental Freedoms (art 6(2) TEU). <sup>(106)</sup>

That being said, it is now necessary to take a step forward and analyse if a – and what kind of – link between human rights and the environment exists and what its effects are.

We are going to start with the analysis of this issue from a global perspective and then we are going to elaborate on the European one.

---

<sup>(105)</sup> S. BESSON, *The Human Rights Competence in the EU: The State of the Question after Lisbon*, in G. KOPLER, M. POIARES MADURO, P. PISTONE, *Human rights and Taxation in Europe and the World*, *op. cit.*, 39 ss; G. MELIS, A. PERSIANI, *Trattato di Lisbona e sistemi fiscali, Diritto e Pratica Tributaria*, 2, 2013, pp. 267-334.

<sup>(106)</sup> B. DE WITTE, *The Use of the ECHR and Convention Case Law by the European Court of Justice*, in P. POPELIER, C. VAN DE HEYINING, P. VAN NUFFEL (eds.), *Human rights protection in the European legal order: The interaction between the European and the national courts*, Cambridge, Antwerp, Portland, 2011, pp. 33 – 34; G. KOPLER, P. PISTONE, *General Report*, in G. KOPLER, M. POIARES MADURO, P. PISTONE, *Human rights and Taxation in Europe and the World*, *op. cit.*, p. 3.

### 5.1. *A global perspective*

There is a significant amount of distinguished literature <sup>(107)</sup> trying to answer the question if there is a human right to a healthy environment, and, more generally, what is the nature of the link, if any, between human rights and the environment.

It seems that the answer could be summarized as follows: there is not (at least, not yet) a declared human right to a healthy environment, but there is a significant linkage between human rights and the environment; and this keeps hope alive that in the next future this human right will be introduced. In fact, in fact, it seems that present and future generations' interest for the environment needs to be rooted in positive law. <sup>(108)</sup>

In connection with the second issue, both the United Nations human rights treaty institutions and the Council of Europe recognize the intrinsic link between the environment and the realization of a range of human rights, such as the right to life, to health, to food, to water, and to housing. <sup>(109)</sup>

Moreover, sustainable development and the protection of the environment are considered factors that can contribute to human well-being and the enjoyment of human rights. <sup>(110)</sup>

Environmental protection is thus an essential instrument in the effort to safeguard the effective universal enjoyment of human rights.

---

<sup>(107)</sup> B. LEWIS, *Environmental rights or a right to the environment? Exploring the nexus between human rights and environmental protection*, *Macquarie J. Int'l & Comp. Env'tl.*, 2012, 8, p. 37

<sup>(108)</sup> S. TURNER, *The human right to a good environment – the sword in the stone*, op. cit., p. 277.

<sup>(109)</sup> COUNCIL OF EUROPE, *Manual on Human Rights and the Environment*, Strasbourg, 2012; UNITED NATIONS HUMAN RIGHTS COUNCIL, *Report of the Office of the United Nations High Commissioner for Human Rights on the relationship between climate change and human rights*, A/HRC/10/61, 15 January 2009.

<sup>(110)</sup> UNITED NATIONS HIGH COMMISSIONER FOR HUMAN RIGHTS, *Analytical study on the relationship between human rights and the environment*, A/HRC/19/34, 16 December 2011, p. 3; UNITED NATIONS HUMAN RIGHTS COUNCIL, *Report of the Office of the United Nations High Commissioner for Human Rights on the relationship between climate change and human rights*, op. cit., p. 7, according to which “ILO Convention No. 169 (1989) concerning Indigenous and Tribal Peoples in Independent Countries provides for special protection of the environment of the areas which indigenous peoples occupy or otherwise use. At the regional level, the African Charter on Human and Peoples' Rights and the San Salvador Protocol to the American Convention on Human Rights recognize the right to live in a healthy or satisfactory environment”.

With reference to the nature of the relationship between human rights and the environment, according to the United Nations High Commissioner for Human Rights, three major approaches can be underlined.

The first approach postulates that the environment is a precondition to the enjoyment of human rights. The second approach submits that human rights are tools to address environmental issues, both procedurally and substantively. This approach emphasizes the possibility of using human rights to achieve adequate levels of environmental protection. The third approach proposes the integration of human rights and the environment under the concept of sustainable development. These approaches do not necessarily exclude one another. <sup>(111)</sup>

If this seems clear and generally accepted <sup>(112)</sup>, with reference to a right to a healthy environment, the situation seems more complex and there is not a common opinion.

In fact, even if the Universal Human rights treaties do not refer directly to a specific right to a healthy environment, some authors consider the right to an healthy environment as a genuine human right <sup>(113)</sup> that is emerging from customary law <sup>(114)</sup>, or that it should be included – as a new right – in international human rights treaties. <sup>(115)</sup>

In particular, the right to a healthy environment is considered to be part of a third generation of human rights called “rights of solidarity”. <sup>(116)</sup> Under this label all the rights that reflect an idea of community life are included, and for this reason they can only be implemented by the efforts of everyone (individuals, states, public and private institutions). <sup>(117)</sup>

---

<sup>(111)</sup> UNITED NATIONS HIGH COMMISSIONER FOR HUMAN RIGHTS, *Analytical study on the relationship between human rights and the environment*, op. cit., p. 4.

<sup>(112)</sup> B. LEWIS, *Environmental rights or a right to the environment? Exploring the nexus between human rights and environmental protection*, op. cit., p. 36.

<sup>(113)</sup> T. HAYWARD, *Constitutional Environmental Rights*, Oxford, 2004.

<sup>(114)</sup> D. SHELTON, *Human Rights, Environmental Rights and the Right to Environment*, *Stanford Journal of International Law*, 1992, 28, 106; W. P. GORMELEY, *The Legal Obligation of the International Community to Guarantee a Pure and Decent Environment: the Expansion of human Rights Norms*, *Georgetown International Environmental Law Review*, 1990, 3, p. 85.

<sup>(115)</sup> K. MACDONALD, *A right to a healthful environment – humans and habitats: rethinking rights in an age of climate change*, *European Energy and Environmental Law Review*, 2008, 17, p. 213.

<sup>(116)</sup> K. VASAK, *Human Rights: A Thirty-Year Struggle: the Sustained Efforts to give Force of law to the Universal Declaration of Human Rights*, *UNESCO Courier* 30:11, November 1977.

<sup>(117)</sup> K. VASAK, *Human Rights: A Thirty-Year Struggle: the Sustained Efforts to give Force of law to the Universal Declaration of Human Rights*, op. cit., p. 29. The Author includes in this category



According to some scholars, even if it is important to give the right an international recognition, the most effective means to protect the environment is through the application of the right at the national level. <sup>(118)</sup>

That being said, it is important to underline that a right to a healthy environment brings different problems along.

The first one is that the content of the right is quite unclear and it is not easy to be defined because the claims that can be subsumed under it appear to be open-ended. Moreover, it is also difficult to make it autonomous and independent from the other human rights. <sup>(119)</sup>

The second and probably the most important and relevant problem regarding a right to a healthy environment, is that it would be too anthropocentric and linked only to human interests without taking animals, plants, species and eco-systems into account. <sup>(120)</sup>

In other words, non-humans and other elements of the nature cannot enjoy the legal protection ensured by the right and, in the end, with a right to a healthy environment there could be the paradoxical consequence that the mankind would not consider its responsibility towards the nature and the environment. <sup>(121)</sup>

In any case, it seems that “*while an environmental human right is essentially an anthropocentric concept which present some concerns, it may nonetheless play some useful role in developing an ecological consciousness which will foster the adoption of a new environmental ethic*”. <sup>(122)</sup>

However, some authors recognize to the environmental human right a much more important role.

---

the right to development, the right to a healthy environment, the right to peace and the right to ownership of the common heritage of mankind.

<sup>(118)</sup> S. TURNER, *The human right to a good environment – the sword in the stone*, op. cit., pp. 295 et seqq..

<sup>(119)</sup> B. LEWIS, *Environmental rights or a right to the environment? Exploring the nexus between human rights and environmental protection*, op. cit., pp. 46 et seq.

<sup>(120)</sup> F. FRACCHIA, *La tutela dell'ambiente come dovere di solidarietà*, in L. ANTONINI (ed.), *L'imposizione ambientale nel quadro del nuovo federalismo fiscale*, Napoli, 2010, pp. 17 et seqq.: B. LEWIS, *Environmental rights or a right to the environment? Exploring the nexus between human rights and environmental protection*, op. cit., pp. 45 et seqq..

<sup>(121)</sup> F. FRACCHIA, *La tutela dell'ambiente come dovere di solidarietà*, in L. ANTONINI (ed.), *L'imposizione ambientale nel quadro del nuovo federalismo fiscale*, op. cit., p. 21.

<sup>(122)</sup> B. LEWIS, *Environmental rights or a right to the environment? Exploring the nexus between human rights and environmental protection*, op. cit., p. 46.

In fact, according to this interpretation <sup>(123)</sup>, an environmental human right - by forcing those who are involved in activities that degrade the environment, to pay for the cost of that harm by way of “*an equitable form of compensation*” - would essentially have the effect of redistributing burdens.

However, this interpretation seems to look at the issue more from the point of view of duties than of rights.

---

<sup>(123)</sup> S. TURNER, *The human right to a good environment – the sword in the stone*, op. cit., p.

## 5.2. *The European perspective*

That being said with reference to the global perspective, we can now turn to the European Union dimension.

In fact, in discussing whether there is a link between human rights and the environment we should also answer the question whether a right to a healthy environment has been recognized in the European context and if this right can be considered a human right.

In doing so, we have to start with the analysis of the Charter of Fundamental Rights of the European Union (hereinafter the “Charter” or “EUCFR”) and the European Convention on Human Rights (hereinafter “ECHR”).<sup>(124)</sup>

The latter does not contain any explicit provision related to the environment or to the right to a healthy environment, while the Charter enshrines one article dedicated to environmental issues.

With reference to the ECHR, the European Court of Human Rights has found ways to fix this gap by allowing compensation for environmental damages under other rights, such as the right to life, privacy and family life and freedom of expression.

On the contrary, in the EUCFR there is, under Title IV “*Solidarity*”, an article dedicated to environmental issues, namely art. 37 EUCFR.

Going into further details, art. 37 reads as follow: “*A high level of environmental protection and the improvement of the quality of the environment must be integrated into the policies of the Union and assured in accordance with the principle of sustainable development*”.<sup>(125)</sup>

Art. 37 EUCFR, even if it is enshrined in the Charter of Fundamental Rights, has been unanimously considered nothing more than a policy statement

---

<sup>(124)</sup> We should underline the relation between fundamental rights of the EU and human rights: “*In principle both shares common features as supreme sources of law. Although all fundamental rights of the EU are also human rights, not all human rights are necessarily also fundamental rights of the EU, which is a matter that can be explained by the peculiar structure of Union law based on a legal protection given in function of the attribution of competences by the Member States*”, see G. KOPLER, P. PISTONE, *General Report*, in G. KOPLER, M. POIARES MADURO, P. PISTONE, *Human rights and Taxation in Europe and the World*, op. cit., p. 5.

<sup>(125)</sup> Charter of Fundamental Rights of the European Union, C 364/01, 2000.

that belongs to the category of principles and does not assert an environmental right. <sup>(126)</sup> In other words, it is – together with the provisions dedicated by the Charter to consumer protection and health care – considered to be one of the *parent pauvres* of the Charter. <sup>(127)</sup>

The explanation on Article 37 EUCFR clarifies that the principles which are set out in this article have been based on article 3(3) of the TEU, articles 11 and 191 of the TFEU and on the provisions of some national constitutions.

Bearing this in mind, it is important to make some further remarks.

Art. 37 EUCFR does not enshrine a right to the environment and it seems that a great occasion in order to create a bridge between environmental issues and fundamental rights within the framework of the European Union has been missed. <sup>(128)</sup>

Nevertheless, we have to go further and clarify if, and to what extent, art. 37 EUCFR can have an impact on European and national legislations. Article 37 EUCFR has a wording which is very similar to article 11 TFEU, even if, according to the literal interpretation, the enunciation of the principle of environmental integration under the Charter seems to be more restrictive. <sup>(129)</sup>

---

<sup>(126)</sup> N. DE SADELEER, *Enforcing EUCFR Principles and Fundamental Rights in Environmental Cases*, *Nordic Journal of International Law*, 2012, 81, pp. 44 et seqq., according to whom art. 37 EUCFR enshrines principles or programmatic requirements; M. LOMBARDO, *The Charter of Fundamental Rights and the Environmental Policy Integration Principle*, in G. DI FEDERICO (ed.), *The EU Charter of Fundamental Rights. From Declaration to Binding Instruments*, London, New York, 2011, p. 223; G. MARÍN DURÁN, E. MORGERA, *Commentary on Article 37 of the EU Charter of Fundamental Rights – Environmental Protection*, *Edinburgh School of Law Research Paper Series*, 2013/20; A. KISS, *Environmental and Consumer Protection*, in S. PEERS AND A. WARD (eds.), *The EU Charter of Fundamental Rights: politics, law and policy*, Oxford, 2004, p. 250. According to some authors art. 37 enshrines “the embryonic development of a “third generation” human rights”; D. GUTMANN, *Taking Human Rights Seriously: Some introductory Words on Human Rights, Taxation and the EU*, in G. KOPLER, M. POIARES MADURO, P. PISTONE, *Human rights and Taxation in Europe and the World*, op. cit., p. 108.

<sup>(127)</sup> A. KISS, *Environmental and Consumer Protection*, in S. PEERS AND A. WARD (eds.), *The EU Charter of Fundamental Rights: politics, law and policy*, op. cit., pp. 247 - 268

<sup>(128)</sup> Contra A. NOLLKAEMPER, *Three Conceptions of the Integration Principle in International Environmental Law*, in A. LENSCHOW (ed.), *Environmental Policy Integration: Greening Sectoral Policies in Europe*, London, 2001, pp. 28-29, according to which it could be considered a legal principle with an autonomous normative value. This interpretation is based on the Opinion of Advocate General Cosmas, *Greenpeace Council and Others vs. Commission*, 23 September 1997 para. 62, according to which the Treaty provisions concerning the environment are not mere proclamations of principle but they impose on the EU institutions “a specific and clear obligation which could be deemed to produce direct effect in the Community legal order”.

<sup>(129)</sup> G. MARÍN DURÁN, E. MORGERA, *Commentary on Article 37 of the EU Charter of Fundamental Rights – Environmental Protection*, op. cit., part D.

In any case, it can easily be interpreted as a confirmation of the environmental integration principle provided for by art. 11 TFEU, which is a general principle of EU law.

This consistency must not be underestimated. In fact, as stated above, this principle calls for a “greening” of all the Union policies and activities: a substantial – and not formal <sup>(130)</sup> – integration of the environmental protection requirements. <sup>(131)</sup>

In the fifth Community action programme this point is distinctly stressed: the “greening” of the Union policies has to be done not only for the sake of the environment but also for the sake of the continued efficiency of the other policies. <sup>(132)</sup>

This principle is not a mere political statement but it can be considered, as we have already highlighted, a specific rule of interpretation of both primary and secondary European Union law. This means that in a potential conflict between the protection of the environment and economic objectives, an interpretation that reconciles the interests involved should be found. <sup>(133)</sup>

This line of reasoning is relevant also with reference to the introduction of national protective measures. In fact, in the light of article 11 TFEU and article 37 EUCFR, Member States must be able to implement new stringent economic instruments for environmental protection when a consensus at the EU level cannot be reached or when the EU does not take adequate and effective measures to limit the environmental damage.

These stringent measures can provide added value for the entire European Union environment: if one Member State reduces its pollution the entire Union will benefit of this reduction. In other words, article 11 TFEU “*can provide for a*

---

<sup>(130)</sup> M. WASMEIER, *The integration of environmental protection as a general rule for interpreting community law*, op. cit., 164.

<sup>(131)</sup> L. KRÄMER, *EU Environmental Law*, op. cit., p. 20.

<sup>(132)</sup> EUROPEAN COMMISSION, *European Community programme of policy and action in relation to the environment and sustainable development “Towards sustainability”*, 18 March 1992.

<sup>(133)</sup> M. WASMEIER, *The integration of environmental protection as a general rule for interpreting community law*, op. cit., 163.

*wider scope of national measures that serve the Community environment*” if the other Union objectives are not severely affected. <sup>(134)</sup>

In this context, the European Court of Justice (hereinafter also “ECJ”) stated that environmental protection is one of the essential objectives of the EU and a mandatory requirement that can in itself limit the application of the free movement of goods. <sup>(135)</sup>

It goes without saying that the EU targets for sustainable growth, the Europe 2020 strategy and, generally speaking, all the recent discussions about the need to counter climate change and to reinforce environmental protection give new lifeblood to this line of reasoning.

---

<sup>(134)</sup> M. WASMEIER, *The integration of environmental protection as a general rule for interpreting community law*, op. cit., 166.

<sup>(135)</sup> EUROPEAN COURT OF JUSTICE, *United Kingdom of Great Britain and Northern Ireland vs. Kingdom of Denmark*, Cause C-302/86, 20 September 1988, paras. 8 et seqq..

## 6. *Changing the perspective: from a right to a duty.*

At this point, we think that it is necessary to take another step forward and change our point of view.

In particular, even if a declared principle, which enshrines the right to a healthy environment, does not exist yet, we think that our analysis cannot end right now but, on the contrary, that should go on. However, a change of perspective is needed.

In fact, we have to analyse the relationship between environment and duties and answer to the question if a general and global duty to protect the environment can be considered, and, if so, which consequences this duty could cause. <sup>(136)</sup>

This change of perspective finds deep roots in international law <sup>(137)</sup> and it is based on a general consideration: the goal of environmental law should not be

---

<sup>(136)</sup> The concept of duty is well stressed in many Constitutions. For example, art. 24, c. 1, Greek Constitution reads: “*The protection of the natural and cultural environment constitutes a duty of the State and a right of every person. The State is bound to adopt special preventive or repressive measures for the preservation of the environment in the context of the principle of sustainability*”. Art. 53 Constitution of Estonia (Preservation of Human and Natural Environment) reads: “*Everyone shall be obliged to preserve the human and the natural environment and to compensate for damages caused by him or her to the environment*”. Article 45 Constitution of Spain reads: “*Todos tienen el derecho a disfrutar de un medio ambiente adecuado para el desarrollo de la persona, así como el deber de conservarlo. Los poderes públicos velarán por la utilización racional de todos los recursos naturales, con el fin de proteger y mejorar la calidad de la vida y defender y restaurar el medio ambiente*”. The Italian Constitution does not enshrine a declared duty to protect the environment, but, notwithstanding this, the Italian Constitutional Court clarified that environmental protection is a leading and absolute constitutional value because it determines the quality of life of human beings. Constitutional Court, n. 641 17-30 December 1997. This interpretation is based on two articles of the Italian Constitution: artt. 9 and 32. According to art. 9 Cost. the Republic: “*safeguards natural landscape and the historical and artistic heritage of the Nation*”. Art. 32 reads: “*The Republic safeguards health as a fundamental right of the individual and as a collective interest, and guarantees free medical care to the indigent*”. Moreover, we have to underline that there is the will to change the Italian Constitution and in particular art. 9. In fact, the intention is to introduce a duty to protect and preserve the environment for present and future generations. See G. CORDINI, *Principi costituzionali in tema di ambiente e giurisprudenza della Corte Costituzionale Italiana, Rivista Giuridica dell'Ambiente*, 5, 2009, pp. 611 et seqq.; F. DE LEONARDIS, *L'ambiente tra i principi fondamentali della Costituzione, Federalismi.it*, February 2004, pp. 1 et seqq.. Moreover, also the principles of international law, e.g. the polluter-pays, prevention, and precautionary principles can be read by using the concepts of duty and responsibility.

<sup>(137)</sup> E. B. WEISS, *Our rights and obligations to future generations for the environment, The American Journal of International Law*, 1990, 84, pp. 198 et seqq..

only considered the protection of the environment *per se* but also the survival of mankind through the protection of the environment. <sup>(138)</sup>

The only way to reach this goal is to set duties on human beings which are based on an environmental solidarity principle, the direct object of which is the protection of the environment; nonetheless, in the end, that is a way to create a link between present and future generations and to protect also future generations, granting the survival of humankind. <sup>(139)</sup>

The starting point of this line of reasoning is that, the human community has to be considered as a “*partnership among all the generations*” <sup>(140)</sup> and the world atmosphere is a part of the “*common heritage of mankind*”. In other words, we hold our planet in common with the past generations, the present generations and the future generations.

In this context, we are aware of the fact that our decisions can influence the future and change the life of future generations.

Is this something that has to bother us? Yes, if we take the principles of international justice into account and, in particular, the intergenerational equity that has been commonly accepted as a fundamental principle governing international environmental law. <sup>(141)</sup>

According to the intergenerational equity, the present generation owes a duty to future generations to preserve the environment. <sup>(142)</sup> This implies that we have a commitment to making the lives of future generations worth living giving

---

<sup>(138)</sup> F. DE LEONARDIS, *L'ambiente tra i principi fondamentali della Costituzione*, op. cit., February 2004; F. FRACCHIA, *La tutela dell'ambiente come dovere di solidarietà*, in L. ANTONINI (ed.), *L'imposizione ambientale nel quadro del nuovo federalismo fiscale*, op. cit., p. 17 et seqq..

<sup>(139)</sup> F. FRACCHIA, *La tutela dell'ambiente come dovere di solidarietà*, in L. ANTONINI (ed.), *L'imposizione ambientale nel quadro del nuovo federalismo fiscale*, op. cit., p. 17.

<sup>(140)</sup> E. B. WEISS, *Our rights and obligations to future generations for the environment*, op. cit., pp. 198 et seqq..

<sup>(141)</sup> S. TURNER, *The human right to a good environment – the sword in the stone*, op. cit., p. 296. Moreover, the number of “soft” instruments calling on the world community to strengthen international cooperation based on a global approach has been increasing so much that, concerning the environmental responsibility that the present generation owes towards future generations, it should have some legal consequence. See, P. M. DUPUY, *Soft law and the international law of the environment*, 12 *Mich. J. Int'l L.* 420, 1990-1991, p. 427.

<sup>(142)</sup> There are a few objections to the fact that the present generation has a moral duty to help future generations. For example, it seems that we cannot quantify the impact of our actions on future generations. In any case, these objections are not so convincing if we limit the concern for future generations to the impacts on those living one or two generations in the future. See B. C. MANK, *Standing and Future Generations: Does Massachusetts v. EPA Open Standing for Generations to Come?*, *Columbia Journal on Environmental Law*, 2009, 34, p. 10.



them a liveable planet. <sup>(143)</sup> More precisely, it implies that we owe future generations a global environment at least in no worse condition than the one we enjoy. <sup>(144)</sup>

Both national and international law have recognized that mankind has a moral and legal obligation to protect the rights of future generations. <sup>(145)</sup> For example, article 225 of the Brazilian Constitution reads: “*All have the right to an ecologically balanced environment, which is an asset of common use and essential to a healthy quality of life, and both the Government and the community shall have the duty to defend and preserve it for present and future generations*”. <sup>(146)</sup>

It is worth noting that there is also a relevant judgment of the Philippines Supreme Court that recognized the necessity to preserve the environment for future generations. <sup>(147)</sup>

Moreover, as we have stated above, according to the first principle of Stockholm Declaration, the protection of the environment is a duty of men and Governments of the all world and man “*bears a solemn responsibility to protect and improve the environment for present and future generations*”. In addition, according to the Nairobi Declaration all Governments and people of the world have to “*ensure that our small planet is passed over to future generations in a condition which guarantees a life in human dignity for all*”. <sup>(148)</sup>

---

<sup>(143)</sup> N. H. BUCHANAN, *What kind of environment do we owe future generations?*, *Lewis & Clarks Law Review*, 2011, 15:2, p.343.

<sup>(144)</sup> E. B. WEISS, *Our rights and obligations to future generations for the environment*, op. cit., pp. 198 et seqq.; *Contra* A. D'AMATO, *Do we owe a duty to future generations to preserve the global environment?*, *American Journal of International Law*, 1990, 84.

<sup>(145)</sup> B. C. MANK, *Standing and Future Generations: Does Massachusetts v. EPA Open Standing for Generations to Come?*, op. cit., pp.16 - 17

<sup>(146)</sup> See [http://bd.camara.gov.br/bd/bitstream/handle/bdcamara/1344/constituicao\\_ingles\\_3ed.pdf](http://bd.camara.gov.br/bd/bitstream/handle/bdcamara/1344/constituicao_ingles_3ed.pdf). In the Brazilian constitution the protection of the environment is a fundamental right, see J. M. DOMINGUES, *Tax system and environmental taxes in Brazil: the case of the electric vehicles in a comparative perspective with Japan*, *Osaka University Law Review*, No. 59, February 2012, pp. 37 et seqq..

<sup>(147)</sup> PHILIPPINES SUPREME COURT, *Minors Oposa v. Sec'y of Dep't Env't and Natural Res.*, 30 July 1993, according to which: “*Needless to say, every generation has a responsibility to the next to preserve that rhythm and harmony for the full enjoyment of a balanced and healthful ecology. Put a little differently, the minors' assertion of their right to a sound environment constitutes, at the same time, the performance of their obligation to ensure the protection of that right for the generations to come*”.

<sup>(148)</sup> UNITED NATIONS ENVIRONMENT PROGRAMME, *Nairobi Declaration on the state of worldwide environment*, op. cit., para. 10.

In other words, it seems that the common law of environment includes a general obligation to protect and preserve the global environment <sup>(149)</sup>, not only for the present generation but also for the future one.

According to this line of reasoning, men – both aggressors and victims – have the duty and the responsibility to protect the environment, and have to deal with the consequences of their behaviour in a dimension of environmental solidarity. <sup>(150)</sup>

This is confirmed by the fact that, as we have already said, a right of a healthy environment is considered to be part of a third generation of human rights that are called “rights of solidarity” and that can be implemented only by the efforts of everyone. Moreover, art. 37 EUCFR is expressly included in the chapter of the Charter dedicated to solidarity. Therefore, environmental protection and solidarity are closely linked.

Following this line of reasoning, environmental protection should be considered as a duty of social solidarity or, in other words, the duty to protect the environment should be respected by States and citizens according to the solidarity principle. <sup>(151)</sup>

However, there is something more that it is necessary to underline.

The solidarity principle and the intergenerational equity are strictly linked with the promotion of “*sustainable development*”. <sup>(152)</sup>

In fact, as we have already said, this concept is definable as “*development that meets the needs of the present without compromising the ability of future generations to meet their own needs*”.

Therefore, “sustainability” means that the planet has to be passed on to future generations in at least as good a condition as that in which this generation came to it. <sup>(153)</sup>

---

<sup>(149)</sup> A. KISS, D. SHELTON, *Guide to International Environmental Law*, op. cit., p. 109.

<sup>(150)</sup> F. FRACCHIA, *La tutela dell'ambiente come dovere di solidarietà*, in L. ANTONINI (ed.), *L'imposizione ambientale nel quadro del nuovo federalismo fiscale*, op. cit., p. 21; T. ROSEMBUJ, *El tributo ambiental. Primeras reflexiones en torno al los principios comunitarios y constitucionales*, *Impuestos*, 1994, 4, pp. 3 et seqq..

<sup>(151)</sup> It is worth noting that, in the Italian Constitution this solidarity principle finds its baseline in art. 2 of the Constitution, according to which: “*The Republic expects that the fundamental duties of political, economic and social solidarity be fulfilled*”.

<sup>(152)</sup> P. M. HERRERA MOLINA, *El principio “quien contamina, paga” desde la perspectiva jurídica*, op. cit., p. 82; T. ROSEMBUJ, *El tributo ambiental. Primeras reflexiones en torno al los principios comunitarios y cositucionales*, op. cit., p. 4.

The “sustainable development” principle, as we have already said, is recognized both at the international level and at the European Union level.

In the latter case, we can find references to the “*sustainable development*” both in art. 3(3) TEU and art. 11 TFEU. It goes without saying that, accordingly, this concept acquires legal relevance.

That being said, it seems that we have the tools to walk through the road towards sustainability; we just have to use them better.

One of the possible ways to use these tools and to implement this duty to protect and preserve the environment is to implement environmental taxes, even global ones. This is because the solidarity principle also represents the baseline of the duty to pay taxes, as we are going to analyse in details in the next chapters.

The duty to protect the environment is a global duty, and it can be used to solve many environmental problems that, it is worth reaffirming, cannot be underestimated any longer.

---

<sup>(153)</sup> S. TURNER, *The human right to a good environment – the sword in the stone*, op. cit., p. 293.

## 7. Conclusions

This chapter explores and analyses the evolution of environmental law and environmental protection both at the international and European level, pointing out that environmental issues are a global concern and they cannot be addressed anymore just at the level of the national constitutions; therefore, other supranational principles have to be taken into account.

The need to adopt this approach is strictly linked with the need to clarify and explore the principles, the rights and the duties that characterize international and European environmental law.

What we gather from our analysis is that the supranational perspective is characterized by many different legal principles that should be considered in order to protect the environment and that should define the legal framework in which environmental taxes can be introduced.

For this purpose, as we are going to clarify in the next chapters, the duty to protect the environment and the principle of environmental solidarity behind it, the environmental integration principle, the “polluter pays” principle, the precautionary principle and the “user pays” principle seem the most relevant and useful tools at our disposal.

However, one of the most important elements that flows from our analysis is that most of these principles are enshrined in “soft” law. In particular, international law which is related to the protection of the environment is one of the areas where “soft” law has emerged in predominant fashion. <sup>(154)</sup> <sup>(155)</sup>

---

<sup>(154)</sup> P. M. DUPUY, *Soft law and the international law of the environment*, op. cit., pp. 420 et seqq.. The Author underlines that: “*the soft law wave reflects both, on the one hand, a desire for new type of law rendered necessary by the previously enunciated factors and, on the other, a certain fear that existing law is too rigid – either too difficult to be rigorously applied by the poorest countries or incapable of adapting to the rapidly evolving areas which it is supposed to cover and regulate*”.

<sup>(155)</sup> In any case, we should underline that, broadly speaking, soft law is very important also with reference to international taxation, e.g. we can think to Model Conventions and Commentaries, OECD Transfer Pricing Guidelines, OECD Standards for Transparency and Effective Exchange of Information. See K. W. ABBOTT, D. SNIDAL, *Hard and Soft Law in International Governance*, *International Organization*, vol. 54, no. 3, 2000, p. 401-419; H.J. AULT, *Reflections on the Role of the OECD in Developing International Tax Norms*, *Brooklyn Journal of International Law*, vol. 34, 2009, p. 757-781; J.M. CALDERÓN, *The OECD Transfer Pricing Guidelines as a Source of Tax Law: Is Globalization Reaching the Tax Law?*, *Intertax*, vol. 35, no. 1, 2007, p. 4-29; C. M. CHINKIN, *The Challenge of Soft Law: Development and Change in International Law*,

However, even if soft law does not formulate legally binding provisions, its indirect effects should not be underestimated. In fact, it defines the best standards and provides for the guidelines in order to coordinate the policies of the States.

Moreover, it is important to underline that, according to our analysis, the common law of environment includes a general obligation to protect and preserve the global environment – also enshrined in the sustainable development principle – that has to be implemented in a dimension of environmental solidarity. The latter, as we are going to see in the next chapters, may be the best ground to introduce global and national environmental taxes.

---

*International and Comparative Law Quarterly*, vol. 38, no. 4, 1989, p. 850-866; A. CHRISTIANS, *Hard Law & Soft Law in International Taxation*, *Wisconsin International Law Journal*, vol. 25, no. 2, 2008, pp. 235-333; J. KLABBERS, *The Undesirability of Soft Law*, *Nordic Journal of International Law*, vol. 67, pp. 381-391; D. RING, *Who is Making International Tax Policy? International Organizations as Power Players in a High Stakes World*, *Fordham International Law Journal*, vol. 33, no. 3, pp. 649-722.

## CHAPTER 2

### THE CONCEPT OF ENVIRONMENTAL TAXES

*“The charming landscape which I saw this morning, is indubitably made up of some twenty or thirty farms. Miller owns this field, Locke that, and Manning the woodland beyond. But none of them owns the landscape. There is a property in the horizon which no man has but he whose eye can integrate all the parts, that is, the poet. This is the best part of these men's farms, yet to this their land deeds give them no title”.*  
Ralph Waldo Emerson, *Nature*

*“What's in a name? that which we call a rose  
By any other name would smell as sweet”.*  
William Shakespeare, *Romeo and Juliet, Act II, Scene II.*

TABLE OF CONTENTS: **1.** Introduction. – **2.** Why a common understanding of environmental taxes is necessary – **3.** Taxes versus charges and fees. - **4.** The origin of environmental taxes: the Pigouvian taxes. - **5.** The first definition of environmental taxes in the international context. - **6.** The evolution of the concept: environmental taxes or environmentally related taxes. – **6.1.** Negative impact on the environment. – **7.** The definition of environmental taxes: some national experiences - **8.** The classifications of environmental taxes – **8.1.** Fiscal or environmental goals? – **8.2.** Categories based on the type of physical unit used as the tax base - **9.** Environmental charges and fees – **10.** Conclusions: a common definition of environmental taxes.

#### *1. Introduction*

As stated above, governments have a range of environmental policy tools at their disposal, such as “command-and-control” (or regulatory) instruments,

market-based (or economic) instruments (e.g. taxes, charges and tradable permits), agreements, subsidies, and information campaigns.

In recent documents, both the EU institutions and OECD expressed their preference for environmental taxation <sup>(156)</sup> as a tool to deal with environmental problems and, generally speaking, there has been an increasing willingness in preferring this instrument in OECD Countries. <sup>(157)</sup>

It is worth noting that, in 1970s and 1980s environmental policy was only driven by command and control instruments. However, from 1980s onwards policy makers started to become interested in the use of market based instruments to address environmental objectives. <sup>(158)</sup>

Furthermore, the interest in economic instruments and, in particular, in environmental taxation has grown in recent years.

In fact, OECD and other global organizations keep on calling for a wide ranging use of environmental taxation that “*have many important advantages, such as environmental effectiveness, economic efficiency, the ability to raise public revenue, and transparency*”. <sup>(159)</sup>

---

<sup>(156)</sup> EUROPEAN COMMISSION, *Communication from the commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions Rio+20: towards the green economy and better governance*, COM (2011) 363 final, 20 June 2011, according to which fiscal reforms that shift tax burdens from labour to environmental impacts and energy can create win-win outcomes for employment and the environment. Moreover, schemes such as fiscal incentives for SMEs, water charges, eco-taxes, and feed-in tariffs have proven to be effective markets instruments; OECD Ministerial Meeting of the Environment Policy Committee Brussels, 30 March 2012, according to which it is necessary a shift from taxation of labour towards environmental taxation and to cut environmentally harmful subsidies; Tax policy can influence environmental practices, OECD says, Tax Notes International, March 26, 2012; R. Mitchell, OECD Forum says Carbon taxes key to curbing emissions, but still hard to sell, International Tax Monitor, April 26, 2012.

<sup>(157)</sup> EUROPEAN COMMISSION, *Taxation trends in the European Union, Data for the EU Member States, Iceland and Norway*, Belgium, 2013, pp. 41 et seqq.; OECD, *Taxation, Innovation and Environment: A Policy Brief*, available at <http://www.oecd.org/env/tools-evaluation/48178034.pdf>, September 2011, pp. 1 et seqq.

<sup>(158)</sup> P. EKINS, *European environmental taxes and charges: recent experience, issues and trends*, in *Ecological Economics*, 31, 1999, pp. 39 et seqq.

<sup>(159)</sup> OECD, *Environmental Taxation: A Guide for Policy Makers*, Paris, September 2011, pp. 1 et seqq., according to which the use of environmental taxes is important because they “*can directly address the failure of markets to take environmental impacts into account by incorporating these impacts into prices*”. Moreover, “*taxes leave consumers and businesses with flexibility to determine the least-cost way to reduce the environmental damage*”. To sum up, according to the OECD: “*Environmental taxation has a significant role to play in addressing environmental challenges. Taxes can be extremely effective when they are properly designed, are levied as close to the environmentally damaging pollutant as possible, and are set at an adequate rate*”. In any case, the OECD is aware of the fact that environmental taxes alone are not enough, and that they

As we have already said in the first chapter, at the international level, principle 16 of the Rio Declaration declares that States should endeavour to promote the internalization of environmental costs, and the use of economic instruments - such as taxes or charges - taking into account the PPP.

At EU level, the European Commission played an important role in this evolution. In fact, it proposed a larger use of market-based instruments in environmental policies, including fiscal measures. <sup>(160)</sup>

In particular, the Fifth Environmental Action Plan calls for a “broadening and deepening” of the range of the fiscal measures currently in use as one of its specific priorities. In particular, according to the Action Plan: *“In order to get the prices right and to create market based instruments for environmentally friendly economic behavior, the use of economic and fiscal instruments will have to constitute an increasingly important part of the overall approach. The fundamental aim of these instruments will be to internalize all external environmental costs incurred during the whole life-cycle of products”*.

Broadly speaking, there is a growing consensus on the fact that environmental taxes are one of the instruments to be preferred in order to tackle environmental pollution, both in terms of environmental effectiveness and of economic efficiency.

In fact, environmental taxation *“embodies the concept of using the tax system to adjust prices in a way that will influence behavior in an environmentally positive manner”*. <sup>(161)</sup> In particular, environmental taxation is aimed at altering polluting human behaviour by imposing taxes that can be avoided generating less of the substance being taxed and, therefore, through more environmentally friendly behavior.

---

need to be combined with other policy instruments to obtain the most efficient and effective environmental policy package.

<sup>(160)</sup> EUROPEAN COMMISSION, *Environmental taxes and charges in the Single Market*, COM (97)9, 1997; EUROPEAN COMMISSION, *Green Paper on Market-Based Instruments for Environment and Related Policy Purposes*, COM (2007) 140 Final. Moreover, the European Community's Fifth Environmental Action Programme, its 1996 Review, and the European Councils of Madrid (1995) and Florence (1996), have each called for greater use of economic or market-based instruments for the purpose of environmental policy.

<sup>(161)</sup> J. E. MILNE, M. SKOU ANDERSEN, *Introduction to environmental taxation concepts and research*, in J. E. MILNE, M. SKOU ANDERSEN (eds.), *Handbook Of Research On Environmental Taxation*, op. cit., p. 15.



In other words, taxation can be helpful for environmental protection through the incorporation of the cost of environmental damage into the price of goods, services or activities which give rise to it. In this way, these taxes create an incentive to shift away from non-environmentally friendly behavior.

Moreover, by including the environmental costs in the price of goods or service <sup>(162)</sup>, environmental taxation is considered to be an appropriate way of implementing the “polluter pays” principle <sup>(163)</sup>.

It is worth noting that, the increasing use of taxation to deal with pollution is driven by many factors apart from the search for more effective and efficient environmental policies. In particular, it is also influenced by the search for alternative sources of tax financing and by the search for increasing government revenue - especially because of the global economic and financial crisis that started in 2008. <sup>(164)</sup> In our opinion, this is probably not the best approach to deal with environmental taxation because it undermines the reasons behind the introduction of this kind of taxation and the goals that we want to reach introducing it.

Moreover, in this context, *all that glitters is not gold*.

In fact, the introduction of environmental taxes in the tax systems, although it is ideologically justified by the willingness of reaching a common objective like safeguarding the environment, actually brings many relevant juridical problems along.

Broadly speaking, there is a pressing need for governments to take a more coherent approach to environmental taxes, and to pay more attention to the relationship between the country's general tax system and environmental issues. <sup>(165)</sup>

---

<sup>(162)</sup> EUROPEAN COMMISSION, *Environmental taxes and charges in the Single Market*, COM (97)9, 1997, pp. 10 et seqq..

<sup>(163)</sup> The polluter pays principle is considered the principle according to which the polluter should bear the cost of measures to reduce pollution according to the extent of either the damage done to society or the exceeding of an acceptable level (standard) of pollution, see OECD, *Recommendation of the Council on Guiding Principles concerning International Economic Aspects of Environmental Policies*, C (72)128, 1972.

<sup>(164)</sup> G. MELIS, F. PITRONE, *Coordinating Tax Strategies at the EU Level as a Solution to the Economic and Financial Crisis*, Intertax, September 2011, pp. 377 et seqq.

<sup>(165)</sup> R. A. WESTIN, *Understanding Environmental Taxes*, in *Tax Lawyer*, 1992-1993, vol. 46, No. 2, p. 328.

The first problem that governments have to face is the lack of a common definition of environmental taxes. <sup>(166)</sup>

In fact, in the international and European literature there is a frequent use of the following terms: *environmental taxes*, *green taxes*, *eco-taxes*, *environmentally related taxes*, *Pigouvian taxes*.

These terms are often used in an interchangeable way and, apparently, it seems very easy to understand their meaning. However, as it often happens, the devil is hidden in the details and things are much more complicated than it seems at first glance.

This is because, on the one hand, there is no single definition of *environmental tax* and creating this definition is inherently problematic <sup>(167)</sup>; and, on the other hand, all those terms could have different meanings.

Moreover, there are at least three different and detailed definitions of environmental taxes, both in the international and European context (two general definitions and one which is specifically referred to State aid, i.e. the one provided for by art. 17(10) of the General Block Exemption Regulation (GBER)).

It is important to stress that there has been controversy about terminology even between the European Commission and the OECD, because they both use the notions of environmental taxes and of environmentally related taxes. It is not clear if these two terms, even if they are used interchangeably – as we will see in the next paragraphs – have exactly the same meaning. <sup>(168)</sup>

The absence of a common understanding of environmental taxes gives rise to uncertainty and to different results in identifying which kind of fiscal measures can be included into the label “environmental taxes”.

As a result of this controversy, it seems that the term environmental tax is becoming very broad referring to many different fiscal measures that are, firstly,

---

<sup>(166)</sup> M. VILLAR EZCURRA, *Desarrollo sostenible y fiscalidad ambiental*, in *International tax law review*, January/December, 2010; according to some scholars there is a gap in environmental taxation theory that can be filled up by clarifying the concept of environmental taxes, see. C. SOARES, *Environmental tax: the weakening of a powerful theoretical concept*, in J. MILNE, H. ASHIABOR, K. DEKETELAERE, L. KREISER (eds.), *Critical Issues in Environmental taxation: international and comparative perspectives*, Oxford New York, 2005, II, p. 46.

<sup>(167)</sup> OECD, *Taxation, innovation and the environment*, Paris, 2010, p. 33.

<sup>(168)</sup> J.P. BARDE, *Implementing Green Tax Reforms in OECD Countries: Progress and Barriers*, in *Critical Issues in Environmental Taxation*, II, op. cit., p. 3.

not always taxes *per se* and secondly, not always strictly related with the environment. It goes without saying that this leads to its lack of clarity. <sup>(169)</sup>

Before analysing how to use environmental taxes, their efficacy and efficiency, a common understanding of the concept of environmental taxation seems fundamental.

The aim of this chapter is to find this common understanding and to explain the difference among all the several terms used, with a particular focus on environmental taxes and environmentally related taxes.

In doing so, this chapter analyses if there is any need to set a common definition of environmental taxes or if the best solution is to provide for different definitions and approaches regarding different policies and areas of law, or if a mere classification of this kind of taxes (as the one provided by the EUROSTAT) is enough.

The starting point of this analysis is to take into account that the label “environmental tax” is composed of two words: “environmental” and “tax”. For this reason, it seems necessary to elaborate also on the concept of “tax” and on the difference with the concepts of fees and charges.

Moreover, the chapter explores the best indicator to use for classifying a tax as “environmental” (i.e. the tax base, the effect of the tax, the tax object, the declared purpose, the use of revenue).

---

<sup>(169)</sup> C. SOARES, *Environmental tax: the weakening of a powerful theoretical concept*, in *Critical Issues in Environmental Taxation*, II, op. cit., pp. 23 et seq..

## 2. *Why a common understanding of environmental taxes is necessary*

Finding a common understanding of environmental taxes is not an academic exercise but it can be useful for many reasons.

First of all, as we have already said, environmental taxes are growing in importance as an instrument to deal with environmental problems. In particular, there is the will to move from taxation of traditional sources towards environmental taxation. <sup>(170)</sup>

According to some States, a definition of environmental taxes will help governments to provide a demonstration that a shift in this direction has been made. <sup>(171)</sup>

Secondly, it seems that a key challenge for the future is an internationally coordinated implementation of environmental taxation. <sup>(172)</sup> In fact, probably one of the most important criticisms linked to the introduction of environmental levies, is that if these levies are not implemented globally they can lead to a loss of international competitiveness. <sup>(173)</sup>

In this context, the absence of a common definition or understanding of environmental taxation gives rise to uncertainty and to different results in identifying which kind of fiscal measures can be included into the label “environmental taxes”.

The example of the United Kingdom can be helpful to elaborate more on this point. In fact, in the U.K., because of the absence of a definition, two different environmental tax definitions were identified, one – based on the effect of the tax – set by the Office for National Statistics (ONS) and the other one – narrow and

---

<sup>(170)</sup> EUROPEAN COMMISSION, *Roadmap to a Resource Efficient Europe*, COM (2011) 571/3.

<sup>(171)</sup> P. SHERIDAN, K. MYLREA, O. QUAID, V. KEYS, S. DAMES, *HM Treasury Defines “Environmental Tax”*, 27 July 2012, available at <http://www.lexology.com/library/detail.aspx?g=37d6e372-25aa-4c67-94da-2317d504732c>.

<sup>(172)</sup> H. MANISTY, M. SCHOFIELD, *Time arrives for coordination on green taxes*, in *International tax review*, June 2009, p. 23.

<sup>(173)</sup> COMETR, *Competitiveness effects of environmental tax reforms*, Denmark, December 2007; ECOTEC, *Study on the economic and environmental implications of the use of environmental taxes and charges in the European Union and its Member States*, April 2001, p. 39, according to which: «The argument runs that environmental taxes impose costs on industry, and that since the taxes are usually applied at the Member State level, industries in the Member State that imposes the tax will see their competitive position relative to other countries deteriorate».

based on the primary intention behind the introduction of the tax – set by the HM Treasury. <sup>(174)</sup>

These two definitions set different lists of what is covered by the label “environmental tax”. In fact, according to the U.K. Treasury, six taxes are included into the label environmental taxes and, specifically, Climate Change Levy, Aggregates Levy, Landfill Tax, EU Emissions Trading System, Carbon Reduction Commitment and the Carbon Floor Price.

However, the ONS’s 2010 Environmental Accounts also includes Fuel Duty, VAT on Fuel Duty, Renewable Energy Obligation, Vehicle Excise Duty and Air Passenger Duty in its definition. The Treasury does not consider these to be environmental taxes because they were not introduced with the aim of changing environmental behaviour.

The absence of a definition gave rise to criticism by stakeholders including the Parliament’s Environmental Audit Committee. For this reason – as we will see in the next paragraphs – on 16<sup>th</sup> July 2012, the government published “a long awaited” definition of environmental taxes. <sup>(175)</sup>

The example of the United Kingdom explains how difficult can be to define environmental taxes and how a different interpretation can lead to different results and, consequently, to uncertainty.

Thirdly, according to the Report “A new strategy for the single market” prepared in 2010 by Mario Monti <sup>(176)</sup>, environmental taxation is one of the areas where tax coordination <sup>(177)</sup> would prove benefits.

---

<sup>(174)</sup> HOUSE OF COMMONS, Environmental Audit Committee, *Budget 2011 and Environmental Taxes, Sixth Report of Session 2010-12*, 2011, pp. 1-43. An environmental tax is defined by the Official for National Statistics as a tax whose base is a physical unit such as a liter of petrol, or a proxy for it, for instance a passenger flight, that has a proven specific negative impact on the environment. By convention, in addition to pollution related taxes, all energy and transport taxes are classified as environmental taxes. The Government is developing a workable definition of an environmental tax that will be based on the following broad principles: (i) the tax is explicitly linked to the Government's environmental objectives; (ii) the primary objective of the tax is to encourage environmentally positive behaviour change; (iii) the tax is structured in relation to environmental objectives, for example: the more polluting the behaviour, the greater the tax levied. According to the Environmental Audit Committee the Office for National Statistics' definition is the favourable solution because the most important characteristic of an environmental tax is that it promotes more sustainable and less environmentally damaging behaviours regardless of why it was introduced.

<sup>(175)</sup> P. SHERIDAN, K. MYLREA, O. QUAID, V. KEYS, S. DAMES, *HM Treasury Defines “Environmental Tax”*, op. cit., pp. 1 et seqq.

<sup>(176)</sup> M. MONTI, *A new strategy for the single market – At the service of Europe’s economy and*

These issues should not be underestimated because the lack of harmonization and/or tax coordination can create some relevant problems.

First of all, countries imposing environmental taxes have to face “leakage”: companies could move to countries that do not introduce any environmental tax or they will transfer in another country their polluting activities. Secondly, the lack of harmonization and the multiple layers involved in introducing environmental taxes could create unfair competition, efficiency loss, double taxation or double non taxation<sup>(178)</sup> and double burden.

Fourthly, in some tax systems the definition of environmental taxes is relevant to better understand their limits and their impact with respect to national legislations.<sup>(179)</sup>

Without knowing what an environmental tax is, it is really hard to think that these challenges can be faced.

Lastly, a definition of environmental taxation is required to compare the trends in the taxation of environmental tools in the European Union Member

---

*society*, Report to the President of the European Commission Josè Manuel Barroso, 2010.

<sup>(177)</sup> G. MELIS, *Coordinamento fiscale nell'Unione Europea*, *Enciclopedia del diritto*, Annali, I, Milano, 2007; PETER BIRCH SØRENSEN, *Tax coordination in the European Union: What are the issues?*, *Swedish Economic Policy Review*, 8, 2001, pp. 143-195; EUROPEAN COMMISSION, *Towards Tax-Coordination in the European Union – A Package to tackle harmful Tax Competition*, 5 Nov 1997, COM (97)564 final. In any case, as the adoption of environmental taxes at EU level requires unanimity, there are many difficulties to reach a European approach. A comprehensive EU-wide approach has never been really embraced, notwithstanding some minor harmonization achievements under the Energy Taxation Directive. The European Commission published on April 13, 2011 a proposal to amend the Energy Taxation Directive. The proposal will allow Member States to make the best possible use of taxation and support “sustainable growth”. In order to do so, the European Commission proposes to split the minimum tax rate into two parts: one would be based on CO<sub>2</sub> emissions of the energy product (minimum carbon tax); the other one would be based on energy content of the energy products. See EUROPEAN COMMISSION, *Proposal for a Council Directive amending Directive 2003/96/CE restructuring the Community framework for the taxation of energy products and electricity*, COM (2011) 169/3, 2011.

<sup>(178)</sup> T. KULCSAR, *International Tax Aspects of Climate Change*, IFA research paper, 2011, pp. 18 et seqq.; J. PAUWELYN, *Carbon leakage measures and border tax adjustment under WTO law*, in D. PREVOST, G. VAN CALSTER (eds.), *Research Handbook on Environment, Health and the WTO*, Cheltenham, 2013, according to which: “with a domestic climate policy in place, imports from countries without mandatory carbon restrictions may gain a price advantage over domestic goods”.

<sup>(179)</sup> With reference to the Italian tax system, for example, it is necessary to understand if the introduction of environmental taxes could be compatible with the ability to pay principle as indicated by article 53 of the Italian Constitution. See F. GALLO, *Le ragioni del fisco*, Bologna, 2007, pp. 95-96; F. GALLO, F. MARCHETTI, *I presupposti della tassazione ambientale*, in *Rassegna Tributaria*, 1, 1999, pp. 115 et seqq..

States and in OECD Countries <sup>(180)</sup> and to measure the revenues of environmental taxes.

---

<sup>(180)</sup> EUROPEAN COMMISSION, *Manual: Statistics on Environmental taxes*, version 3.0, 1996, pp. 3 et seqq..

### 3. *Taxes versus charges and fees*

Before we proceed any further, we need to clarify and make some considerations on terminology and, in particular, on the distinction among environmental taxes, environmental charges and fees.

In fact, the notion of “environmental tax” is often used in a “non-technical” and improper way, usually including every fiscal instrument, which is aimed at attacking, preventing, eliminating or reducing polluting activities or products. This is because the term “tax” is used in a very broad way to describe all kinds of government levies <sup>(181)</sup> without taking the legal distinction among taxes, charges and fees into account.

However, the legal definition of taxes - that may differ among countries - has an influence on how these can be used for environmental protection. <sup>(182)</sup>

Broadly speaking it seems necessary to define the terms *taxes*, *charges* and *fees* more precisely. In doing so, it is worth noting that we can refer to the relevant literature on what can be considered a general issue in public finance law.

In fact, even if environmental taxes can be considered as regulatory taxes <sup>(183)</sup> and, therefore, they can have a different function than the one to raise revenue, i.e. the driving of consumer's choices, there is not – in our opinion – a different approach to be considered with reference to the concept of tax.

In other words, in dealing with the definition of tax we have to take into account that nowadays the aim of taxes is not only to raise revenue but also to

---

<sup>(181)</sup> W. B. BARKER, *The relevance of a concept of tax*, in B. PEETERS (ed.), *The concept of tax*, op. cit., p. 22; B. JADOT, *Les taxes environnementales: objectifs et principes*, *Fiscalité de l'environnement*, Bruylant, 1994, p. 9, according to which: «L'expression “taxes environnementales” englobe tous les prélèvements qui sont en rapport avec la politique de l'environnement»; R. A. WESTIN, *Understanding Environmental Taxes*, op. cit., p. 328.

<sup>(182)</sup> EUROSTAT, *Environmental taxes – revised statistical guide 2013*, 20-21 March 2013, ENV/EXP/WG/5.2(2013), p. 10.

<sup>(183)</sup> Regulatory taxes are the one that perform public control over private sector behaviour as opposed to a fiscal nature, see C. DIAS SOARES, *The design features of environmental taxes*, MPhil thesis, The London School of Economics and Political Science, 2011, available at <http://etheses.lse.ac.uk/368/>, p. 9; K. MÄÄTTÄ, *Environmental taxes. An Introductory Analysis*, Cheltenham-Northampton, 2006, pp. 35 et seqq.; A. ZATTI, *La tassazione ambientale come strumento di finanziamento degli enti locali: alcune considerazioni preliminari*, *Riv. Di dir. Finanziario e scienza delle finanze*, LXX, 1, I, 2011, p. 38.



reach different political, economic and social goals, therefore, “[a] tax is not any less a tax because it has a regulatory effect”.<sup>(184)</sup>

Bearing this in mind, this paragraph is aimed at clarifying and analyzing the distinction between taxes and charges/fees and at underlining its importance.

In fact, this difference cannot be underestimated and should be always taken into account especially in some countries, such as Germany, Italy and Spain<sup>(185)</sup>, where there is the need to use the right nomenclature in order to assure that the fiscal measure is in line with the Constitution. Moreover, if we want to implement an international or a European framework for environmental taxes is fundamental to follow a common perspective and to have a common ground and a common understanding of it.

This perspective should start from the very general question: what is a tax?

Broadly speaking, there is no general definition of *tax* in the European Union because a functional concept of tax is the one which is preferred.<sup>(186)</sup>

Furthermore, it is worth noting that every country has its own peculiarities and it is not easy to find a detailed concept that can be satisfactory in every situation. However, what seems possible is to build up a general framework within which States can introduce their own definition of taxes – and, in particular, environmental taxes – but without altering the general framework.

Going into further details, in 1997 the European Commission published one of the most relevant documents on environmental taxation: “*Environmental*

---

<sup>(184)</sup> U.S. Supreme Court, *Sonzinsky v. United States*, 300 U.S. 506, 513, 1937; U.S. Supreme Court, *National Federation Of Independent Business V. Sebelius*, 567 U.S., 2012, and the comment of J. E. MILNE, *The U. S. Supreme Court Opens a Door: Expanded Opportunities for environmental taxes*, *Environmental law reporter*, 5, 2013, pp. 10406 et seqq.. In literature see, S. AVI-YONAH, *Taxation as regulation: carbon tax, health care tax, bank tax and other regulatory taxes*, *Public law and legal theory working paper series*, no. 216, August 2010; H. VORDING, *The normative background for a broad concept of tax*, in B. PEETERS (ed.), *The concept of tax*, 2005 EATLP Congress, Naples (Caserta), 27-29 May 2005, p.48 according to which “to apply the concept of tax, it should not matter whether or not the state collects (or intends to collect) revenues”. Moreover, we can underline that article 3 of the German Abgabenordnung was changed in 1977 and now states with reference to taxes that “revenue raising may only be incidental”. M. BARASSI, *The notion of tax and the different types of taxes*, in B. PEETERS (ed.), *The concept of tax*, *op. cit.*, p. 64.

<sup>(185)</sup> In fact, in Germany the general category is called *abgabe* while tax is called *steuer*, in Italy is called *tributo* and *imposta*, in Spain *tributo* and *impuesto*.

<sup>(186)</sup> W. B. BARKER, *The relevance of a concept of tax*, in B. PEETERS (ed.), *The concept of tax*, *op. cit.*, p. 23.

*Taxes and Charges in the Single Market*".<sup>(187)</sup> In this document, the European Commission refers not only to environmental taxes but also to environmental charges, considering both of them covered by the label "*environmental levies*".

In particular, the Commission clarifies that "*the term «taxes and charges» should be understood to cover all compulsory, unrequited payments, whether the revenue accrues directly to the Government budget or is destined for particular purposes (e.g. earmarking)*".<sup>(188)</sup>

This definition is relevant because, as we have just said, it refers to both taxes and charges, but it is somehow difficult to be understood as far as it considers the term *taxes and charges* to cover *all compulsory unrequited payments* without taking a position on the differences between these two terms.

This conclusion puzzles us a little bit. However, our understanding is that *taxes and charges/fees* are not the same thing, therefore when we use the term *taxes* we are referring to a specific fiscal measure whose elements will be analyzed in a short while.

As an example, it should be pointed out that, according to the European Court of Justice<sup>(189)</sup> with reference to Directive 2006/12 on waste<sup>(190)</sup> there is no legislation imposing a specific method upon the Member States for financing the cost of the disposal of urban waste. Therefore, the cost may, in accordance with

---

<sup>(187)</sup> EUROPEAN COMMISSION, *Environmental Taxes and Charges in the Single Market*, COM(97) 9 final, 26 March 1997.

<sup>(188)</sup> EUROPEAN COMMISSION, *Environmental Taxes and Charges in the Single Market*, op. cit., pp. 3-4. The german version states: *«In dieser Mitteilung sollen deshalb nicht die verschiedenen Typen der in den Mitgliedstaaten benutzten Instrumente beschrieben werden. Unter "Steuern und Gebühren" sind alle zwingenden Zahlungen ohne volle Gegenleistung zu verstehen, unabhängig davon, ob die Einnahmen unmittelbar in den Staatshaushalt fließen oder bestimmten Zwecken vorbehalten sind. In dieser Mitteilung bedeutet "Abgabe" sowohl Steuern als auch Gebühren im oben festgelegten Sinne»*. The italian version states: *«La presente comunicazione, di conseguenza, non definisce i vari tipi di strumenti utilizzati negli Stati membri. I termini "tasse e imposte" sono usati per definire tutti i tributi coattivi, non applicati secondo il criterio della controprestazione, il cui gettito è versato direttamente all'erario o destinato a fini specifici (per esempio accantonamento di fondi). I termini "tributo" e "prelievo fiscale" sono usati nel senso di "tasse e imposte", secondo la precedente definizione»*. The spanish version states: *«esta Comunicación no se dedica a definir los diferentes tipos de instrumentos que se aplican en los países comunitarios. La expresión "impuestos y gravámenes" (taxes and charges) debe entenderse que cubre todo pago obligatorio y sin contraprestación, tanto si se ingresa en el presupuesto del Estado como si se destina a fines concretos. En la presente Comunicación el término exacciones (levies) se utiliza para referirse en general a "impuestos y gravámenes" tal como se han definido anteriormente»*.

<sup>(189)</sup> EUROPEAN COMMISSION, Case C- 254/08, *Futura Immobiliare srl Hotel Futura, Meeting Hotel, Hotel Blanc, Hotel Clyton, Business srl vs. Comune di Casoria*, 16 July 2009.

<sup>(190)</sup> DIRECTIVE 2006/12/EC of the European Parliament and of the Council of 5 April 2006 on waste.

the choice of the Member State concerned, be equally well financed by means of a *tax or of a charge* or in any other manner.

Before going into further details, it is important to underline that if it is our intention to refer to a general term that covers all fiscal compulsory payments we should use the terms *levies or* - as some authors <sup>(191)</sup> do - *fiscal measures* and *compulsory contribution*. <sup>(192)</sup>

Even if we should use these general terms, some delimitations are necessary and we must analyse, in a more general fashion, what is not covered by these labels.

In particular, these general labels should not include penalties or fines for violation of legal limits, because, even if they are compulsory payments, they can be considered punitive tools rather than fiscal measures. In other words, if we are dealing with penalties or fines there should be a prohibition, and specifically with reference to the environment, a polluting activity that is forbidden.

For the same reasons, we are not referring either to compensatory damages and, generally speaking, to liability owed by private parties to the government in order to compensate for environmental damage. These situations are excluded from our general label, in fact the term *levies* covers all those payments related to activities that are not forbidden, and that are, most of the time, expressly authorized by governments or authorities.

Moreover, the term *levies* does not cover the deposit-refund system. In fact, this system is quite different from a fiscal measure because in this case the government collects a charge on a certain product or material, but refunds that payment once the product is returned or properly disposed of. <sup>(193)</sup> In the latter case, the payment is not definitive and, therefore, it cannot be covered by the term *levies*.

---

<sup>(191)</sup> S. E. GAINES, R. A. WESTIN, *Introduction and Overview*, in S. E. GAINES, R. A. WESTIN (eds.), *Taxation for Environmental Protection. A Multinational Legal Study*, Westport, 1991, pp. 6 et seqq..

<sup>(192)</sup> M. BARASSI, *The notion of tax and the different types of taxes*, in B. PEETERS (ed.), *The concept of tax*, op. cit., p. 60; V. THURONYI, *Comparative tax law*, The Hague, 2003, pp. 47 et seqq.

<sup>(193)</sup> S. E. GAINES, R. A. WESTIN, *Introduction and Overview*, op. cit., p. 7 .

Lastly, the EU Emission Trading Scheme cannot be considered as a form of taxation <sup>(194)</sup> and, therefore, it is not covered by our general category: environmental levies or environmental compulsory contributions. This is also clearly stated by the ECJ in the case C-366/10. <sup>(195)</sup>

In particular, according to the Court “*unlike a duty, tax, fee or charge on fuel consumption, the scheme introduced by Directive 2003/87 as amended by Directive 2008/101, apart from the fact that it not intended to generate revenue for the public authorities, does not in any way enable the establishment, applying a basis of assessment and rate defined in advance, of an amount that must be payable per tonne of fuel consumed for all the flights carried out in a calendar year*”. <sup>(196)</sup> Therefore, the EU Emission Trading Scheme cannot be considered as a form of obligatory levy that might be regarded as constituting a custom duty, tax, fee or charge on fuel held or consumed by aircraft operators.

Having said that, our question is still unanswered and it is now necessary to go through it: what is a *tax*?

It is important to underline as a starting point that, the environmental tax statistics framework uses the tax definition of the national accounts as a reference. In other words, for international comparability purposes the environmental tax definition must be based on the national accounts tax definition. <sup>(197)</sup>

Going into further details, they refer to the world-level System of National Accounts <sup>(198)</sup> (hereinafter SNA) and its European version: the European System

---

<sup>(194)</sup> Á. ANTÓN ANTÓN AND I. BILBAO ESTRADA, *State aid and the EU Council Directive 2003/96/EC: the case for augmenting the environmental component*, in C. DIAS SOARES, J. E. MILNE, H. ASHIABOR, L. KREISER, K. DEKETELAERE (eds.), *Critical Issues in Environmental Taxation. International and Comparative Perspectives*, Vol. VIII, Oxford New York, 2010, pp. 454 et seqq.

<sup>(195)</sup> EUROPEAN COURT OF JUSTICE, *Air Transport Association of America and Others vs. Secretary of State for Energy and Climate Change*, C-366/10, 21 December 2011.

<sup>(196)</sup> EUROPEAN COURT OF JUSTICE, *Air Transport Association of America and Others vs. Secretary of State for Energy and Climate Change*, C-366/10, 21 December 2011, p. 143.

<sup>(197)</sup> EUROSTAT, *Environmental taxes – revised statistical guide 2013*, 20-21 March 2013, ENV/EXP/WG/5.2(2013), pp. 8 et seqq..

<sup>(198)</sup> INTER-SECRETARIAT WORKING GROUP ON NATIONAL ACCOUNTS, *System of National Account 2008*, New York, 2009. The Inter-Secretariat Working Group on National Accounts (ISWGNA), consists of five organizations: the Statistical Office of the European Communities (Eurostat), the International Monetary Fund (IMF), the Organisation for Economic Cooperation and Development (OECD), the United Nations Statistics Division and regional commissions of the United Nations, Secretariat and the World Bank. The 2008 SNA is jointly published by the five organizations. “*The basic concepts and definitions of the SNA depend upon economic reasoning and principles which should be universally valid and invariant to the particular economic circumstances in which*

of National and Regional Accounts <sup>(199)</sup> (hereinafter ESA). These two documents provide accounting principles and a framework for the systematic and detailed description of a national economy.

The reason behind this choice is that the national account definition permits international comparisons and allows integration of tax data with the national accounts as well as with systems of integrated environmental and economic accounting.

The SNA 2008 defines taxes as “*compulsory, unrequited payments, in cash or in kind, made by institutional units to government units*”. Moreover, the tax revenue should enter the general budget of the government unit. The term “unrequited” means that government provides “*nothing in return to the individual unit making the payment, although governments may use the funds raised in taxes to provide goods or services to other units, either individually or collectively, or to the community as a whole*”. <sup>(200)</sup> This definition is consistent with the one of taxes in paragraphs 4.14 and 4.77 of ESA 95. <sup>(201)</sup>

Moreover, this definition is consistent with the one given by the the EU/OECD workgroup, according to which the term *taxes* shall be used for any compulsory unrequited payments to general governments, where the benefits provided by government to the taxpayer are not directly linked to the payment and they are not normally proportionated to their payments. <sup>(202)</sup>

---

*they are applied. Similarly, the classifications and accounting rules are meant to be universally applicable*”.

<sup>(199)</sup> Council Regulation (EC) No 2223/96 of 25 June 1996 on the European system of national and regional accounts in the Community. The purpose of this Regulation is to set up the European System of Accounts 1995 hereinafter referred to as 'ESA 95', by providing for: a methodology on common standards, definitions, classifications and accounting rules, intended to be used for compiling accounts and tables on comparable bases for the purposes of the Community.

<sup>(200)</sup> INTER-SECRETARIAT WORKING GROUP ON NATIONAL ACCOUNTS, *System of National Account 2008*, para. 7.71

<sup>(201)</sup> Esa 95 distinguishes among (i) taxes on production and imports – “*compulsory unrequited payments, in cash or in kind which are levied by general government, or by the Institutions of the European Union in respect of the production and importation of goods and services, the employment of labour, the ownership or use of land, buildings or other assets used in production*”; (ii) current taxes on income, wealth, etc. – “*all compulsory, unrequited payments, in cash or in kind, levied periodically by general government and by the rest of the world on the income and wealth of institutional units, and some periodic taxes which are assessed neither on the income nor the wealth*”; (iii) capital taxes – “*taxes levied at irregular and very infrequent intervals on the values of the assets or net worth owned or transferred by institutional units*”.

<sup>(202)</sup> EUROPEAN COMMISSION, *Manual: Statistics on Environmental taxes*, op. cit., pp. 4-5; OECD, *Taxation, Innovation and the Environment*, Paris, 2010, p. 33

In other words, a tax is clearly identified when the payment is compulsory, paid to the government and unrequited. General government includes central government, state government, and local government.

This seems also in line with the definition of taxes which is based on a comparative perspective. <sup>(203)</sup>

In fact, from a comparative perspective taxes are, first of all, compulsory. Secondly, their main aim is to raise revenue but they can have also redistributive and regulatory functions. Thirdly, taxes are imposed by an organ of government and they are paid without anything received in return for the payment (or are not due in exchange for specific services or goods) and, therefore, unrequited. <sup>(204)</sup>

There is something more. The national accounts tax definition is also the one used for reporting under Regulation (EU) n. 691/2011. <sup>(205)</sup>

In fact, according to art. 2(2) of the Regulation: “*environmentally related tax’ means a tax whose tax base is a physical unit (or a proxy of a physical unit) of something that has a proven, specific negative impact on the environment, and which is identified in ESA 95 as a tax*”. <sup>(206)</sup>

Therefore, from these definitions we can start to build up a common framework for environmental taxation. However, countries may choose, for national purposes, to describe environmental taxes both from a legal and a national accounts perspective.

Broadly speaking, for international and European purposes we can consider taxes those payments having the following characteristics: they are

---

<sup>(203)</sup> The notion of tax is mostly a scholarly issue. Only a few States, such as Germany and Spain have a definition of tax provided for by the law. See, C. SACCHETTO, *The notion of tax and the principle of cohesion – the Italian perspective*, in B. PEETERS (ed.), *The concept of tax*, op. cit., p. 319.

<sup>(204)</sup> M. BARASSI, *The notion of tax and the different types of taxes*, in B. PEETERS (ed.), *The concept of tax*, op. cit., p. 64.

<sup>(205)</sup> Regulation (Eu) No 691/2011 of the European Parliament and of the Council of 6 July 2011 on European environmental economic accounts.

<sup>(206)</sup> Annex II, Section 2 of the Regulation states: “*Environmentally related taxes have the same system boundaries as ESA 95 and consist of compulsory, unrequited payments, in cash or in kind, which are levied by general government or by the institutions of the Union. Environmentally related taxes fall within the following ESA 95 categories:*

- *taxes on production and imports (D.2),*
- *current taxes on income, wealth, etc. (D.5),*
- *capital taxes (D.91)."*

compulsory, unrequited and imposed by an organ of government for public purposes.

That being said, the second question we have to answer to is: which are, if any, the differences between taxes and charges or fees?

Charges or fees – terms that are used interchangeably - are something different from taxes, even if the line between these fiscal measures is not always clear-cut in practice.

According to the SNA 2008 and ESA 95, “*One of the regulatory functions of governments is to forbid the ownership or use of certain goods or the pursuit of certain activities, unless specific permission is granted by issuing a licence or other certificate for which a fee is demanded. If the issue of such licences involves little or no work on the part of government, the licences being granted automatically on payment of the amounts due, it is likely that they are simply a device to raise revenue, even though the government may provide some kind of certificate, or authorization, in return*”.<sup>(207)</sup>

In particular, if the licences are being automatically granted on payment of the due amounts, the payment is treated as taxes.

On the contrary, if the government uses the issue of licences to exercise some proper regulatory function – such as checking the competence, or qualifications, of the person concerned, checking the efficient and safe functioning of the equipment in question, or carrying out some other form of control that it would otherwise not be obliged to do – the made payments should be treated as purchases of services from government rather than payments of taxes, unless the payments are clearly out of all proportion to the costs of providing the services.

One example is the case of payments by households to obtain certain licences.

In this situation, payments by persons or households for licences to own or use vehicles, boats or aircraft and for licences for recreational hunting, shooting or fishing are treated as current taxes. Payments for all other kinds of licences (for example, driving or pilot's licences, television or radio licences, firearm licences,

---

<sup>(207)</sup> INTER-SECRETARIAT WORKING GROUP ON NATIONAL ACCOUNTS, *System of National Account 2008*, para. 7.80.

etc.) or fees to government (for example, payments for passports, airport fees, court fees, etc.) are treated as purchases of services rendered by governments. <sup>(208)</sup>

In other words, the payment should be considered as a fee or charge if there is a link between payments and services rendered – which means that governments have to exercise some proper regulatory function and to provide a specific service in return for the levy - and the payment is clearly in proportion to the cost of providing the service (otherwise, if either of the two conditions is not satisfied, the payment should be considered as a tax). <sup>(209)</sup>

This seems consistent with the definition given by the OECD. The latter defines charges and fees as: “*compulsory, requited payments to either general government or to bodies outside general government, such as for instance an environmental fund or a water management board*”. <sup>(210)</sup> Therefore, fees and charges which are levied in proportion to the provided service (e.g. waste collection services) are excluded from the definition of environmental taxes.

In other words, the most relevant difference between taxes and charges/fees – that it is relevant for our purposes - is that the latter are paid to government in return for services rendered.

Like taxes, they are compulsory, but their purpose is to recover the cost of providing a service and, for this reason, they are not unrequited.

According to OECD definition <sup>(211)</sup>, a levy could be considered as “unrequited”:

a) where the levy greatly exceeds the cost of providing service;

---

<sup>(208)</sup> It is worth noting that in Italy television license is considered as a tax, the taxable event of which is the ownership of TV (Constitutional Court 535/1988). In Germany, since 2013 the licence levy for radio and TV is paid by companies and institutions in accordance with their permanent sites, employees and vehicles that they have. For general public the rule is one flat one levy. There is a discussion if this levy can be considered as a fee or as a tax. See, P. KIRCHHOF, *Gutachten über die Finanzierung des öffentlich-rechtlichen Rundfunks, erstattet im Auftrag der ARD, des ZDF und D Radio*, Heidelberg, April 2010.

<sup>(209)</sup> EUROSTAT, *Environmental taxes – revised statistical guide 2013*, 20-21 March 2013, ENV/EXP/WG/5.2(2013), pp. 19 et seqq..

<sup>(210)</sup> OECD, *Economic instruments for pollution control and natural resources management in OECD Countries: a survey*, Paris, 1999, p. 9.

<sup>(211)</sup> OECD, *Economic instruments for pollution control and natural resources management in OECD Countries: a survey*, op. cit., p. 9.



- b) where the payer of the levy is not the receiver of the benefit (e.g. a fee collected from slaughterhouses to finance a service which is provided to farmers);
- c) where government is not providing a specific service in return for the levy which it receives even though a license may be issued to the payer (e.g. where the government grants a hunting, fishing or shooting license which is not accompanied by the right to use a specific area of government land);
- d) where the benefits are only received by those paying the levy but the benefits which are received by each individual are not necessarily in proportion to his payments (e.g. a milk marketing levy paid by dairy farmers and used to promote the consumption of milk).

With reference to this interpretation, we would like to make some further considerations.

First, fees and charges can be considered as part of the so-called para-commutative taxation, as opposite to contributing taxation (taxes). In particular, the label “para-commutative fiscal levies” covers charges/fees and special contributions, while it does not cover taxes *stricto sensu*. In other words, it covers what we have called compulsory contribution minus taxes.

They are called para-commutative fiscal levies due to the fact that there is a specific correlation between government services and the levies being imposed which compensate for their costs and the consequent taxpayer's virtual benefit. Therefore, we could see them as levies concerning a public relationship that is almost commutative. ‘Almost’ because it never creates an effective private law synallagmatic relation (such as *do ut des* or *do ut facias*) but it is in any case compelled by law. <sup>(212)</sup>

In other words, in this case there is no private law synallagmatic relation, because there are not free decisions by the parties: it is the law that imposes these levies even if they are proportionate to the value of the government service.

---

<sup>(212)</sup> DEL FEDERICO, *The notion of tax and para-commutative taxation*, in B. PEETERS (ed.), *The concept of tax*, op. cit., p. 78. According to the Author: “the purpose of para-commutative taxation reflects a taxpayer's responsibility for specific items of public expenditure and compensation for enjoying government benefits (that is not based on wealth)”.

The object of the levy is what matters. In fact, the object of the charge or fee has to show the link between the activity of the public entity and the taxpayer's responsibility or benefit.

In this case, two equal and rational tax distribution criteria can be considered.

The first one is the *Kostendeckungsprinzip*, according to which the amount of the fee or the charge is determined according to the cost suffered by the government in order to provide the activity. The second one is the *Äquivalenzprinzip*, or the equivalence criterion, according to which fees or charges are based on the equivalence of the advantage. <sup>(213)</sup>

It is worth noting that, as we are going to see in the next chapter, the polluter pays principle, could be used as another equal and rational distribution criterion.

Moreover, it is important to point out that we are dealing with fees or charges even if the individual does not use the service in practice and, therefore, regardless of the actual effectiveness of the benefits. In other words, we can refer to fees or charges even if there is only a mere possibility to enjoy that government service or public good. <sup>(214)</sup>

---

<sup>(213)</sup> DEL FEDERICO, *The notion of tax and para-commutative taxation*, in B. PEETERS (ed.), *The concept of tax*, op. cit., p. 77. If the levy does not satisfy cost or equivalence principles, in order to verify the validity of it, the ability to pay principle should automatically be applied.

<sup>(214)</sup> G. MELIS, *Lezioni di diritto tributario*, Torino, 2013, pp. 23 et seq..

#### 4. *The origin of environmental taxes: the Pigouvian taxes*

In dealing with the definition of environmental taxes, it is really important to go back to and analyse the origin of these taxes.

The pioneer of these taxes is A.C. Pigou. In particular, in 1920, Pigou proposed the well-known principle of internalizing environmental externalities. <sup>(215)</sup>

According to this principle, taxes should be introduced in order to internalize the so-called externalities or, in other words, the external costs of any economic activity, service or product that damages environmental goods. Negative externalities arise when an action by an individual or group produces unintended external harmful effects on other producers and consumers. <sup>(216)</sup>

For instance, pollution is a negative externality, which creates costs in the form of health costs and air purification costs. Thus, an environmental levy system is a pricing system on environmental commodities. <sup>(217)</sup>

We can refer to these taxes as Pigouvian taxes.

The OECD provides for a specific definition of a Pigouvian tax. In particular, it refers to “*A tax levied on an agent causing an environmental externality (environmental damage) as an incentive to avert or mitigate such damage*”. <sup>(218)</sup>

In other words, the idea behind these taxes is to discourage environmental damages <sup>(219)</sup> and to serve as an incentive for behavioral changes – reducing the demand for polluting activities or substituting pollution-intensive

---

<sup>(215)</sup> A. C. PIGOU, *The Economics of Welfare*, op. cit., pp. 1 et seqq..

<sup>(216)</sup> Externalities may be positive or negative. Positive externality arises when an action by an individual or a group confers benefits to others. A technological spill over is a positive externality and it occurs when a firm's invention not only benefits the firm but also enters into the society's pool of technological knowledge and benefits the society as a whole.

<sup>(217)</sup> E. MOHR, *Environmental taxes and charges and EC Fiscal Harmonisation: Theory and Policy*, *Kieler Diskussionsbeiträge*, 161, 1990, p. 4.

<sup>(218)</sup> OECD Glossary of Statistical Terms.

<sup>(219)</sup> P. M. HERRERA MOLINA, *Design options and their rationales*, in J. E. MILNE, M. SKOU ANDERSEN (eds.), *Handbook Of Research On Environmental Taxation*, op. cit., p. 86

commodities by other goods <sup>(220)</sup> – through the increase of the cost of environmentally damaging activities. <sup>(221)</sup>

Moreover, according to the OECD, these taxes “*introduce a price signal that helps ensure the polluters take into account the costs of pollution on the environment when they make production and consumption decisions*”. <sup>(222)</sup>

In this sense, it seems that Pigouvian taxes are the best way to implement the PPP. In fact, as we have already said, according to the OECD, the PPP is satisfied if “*the polluter assumes the cost of the damage he causes or the cost of waste treatment*”. <sup>(223)</sup>

Having said that, we would like to underline the peculiarity of these fiscal measures – called Pigouvian taxes so far – and to give an answer to the following question: can they really be included into the label *taxes*?

It seems that we should give a negative answer to this question.

In fact, these fiscal measures are based on the so called equivalence principle, and, for this reason, “*the environmental tax due should be equivalent to the external costs inflicted on the environment, in the same way that the user charge due for a service should be equivalent to the costs assumed by the public sector in order to provide the service*”. <sup>(224)</sup>

In other words, it seems that - due to the peculiar allocation of the costs to the polluter - this kind of fiscal measures (the one based on the Pigouvian tradition) should be included into the label “charges” or “fees”, not “taxes”.

The German tradition is also very clear in this sense. In fact, the German word of the PPP is “*Verursacherprinzip*” which can be literally translated as “the

---

<sup>(220)</sup> W. SUHR, *Zur Wirksamkeit von Umweltsteuern – Erfahrungen im In-und Ausland*, *Die Welwirtschaft*, 1989, pp. 50-63.

<sup>(221)</sup> J. MILNE, *Environmental taxation in the United States: the long view*, 15 *Lewis & Clark L. Rev.*, 2011, p. 418.

<sup>(222)</sup> OECD, *The Political Economy of Environmentally Related Taxes*, Paris, 2006, p. 10. Moreover, “*the purpose of tax instruments is to reduce the level of harmful emissions generated by production processes or consumption, by adjusting relative prices and changing market signals to discourage particular consumption patterns or production methods and to encourage the use of alternatives that lead to less environment degradation*”; see OECD, *Implementation Strategies for environmental taxes*, Paris, 1996, p. 10.

<sup>(223)</sup> OECD, *The Polluter Pays Principle*, Paris, 1975, p. 34.

<sup>(224)</sup> P. M. HERRERA MOLINA, *Design options and their rationales*, in J. E. MILNE, M. SKOU ANDERSEN (eds.), *Handbook Of Research On Environmental Taxation*, op. cit., p.87.

principle of the causer”, and that it is used to express the equivalence principle of charges too. <sup>(225)</sup>

This gives us the possibility to point out – as we will see in the next chapter – that charges and fees can successfully implement, and they are probably the best way to implement, the polluter pays principle.

---

<sup>(225)</sup> P. M. HERRERA MOLINA, *Design options and their rationales*, in J. E. MILNE, M. SKOU ANDERSEN (eds.), *Handbook Of Research On Environmental Taxation*, op. cit., p. 87. *Contra* K. MÄÄTTÄ, *Environmental taxes. An Introductory Analysis*, op. cit., p. 18 according to which: «it is to some extent paradoxical to require the application of 'charge' on the basis that it would emphasize the regulatory nature of environmental taxes. For instance, user charges have a revenue-raising purpose, and administrative charges are usually also levied for revenue-raising purposes. Consequently, charges may manifest the revenue-raising purpose, rather than the regulatory purpose in the field of environmental policy».

## 5. *The first definition of environmental taxes in the international context*

As we have already said, in the international and European context there is a frequent use of the different terms *environmental taxes*, *green taxes*, *eco-taxes*, *environmentally related taxes*.

First of all, it seems that *environmental taxes* and *eco-taxes* are overlapping concepts, having the same meaning.<sup>(226)</sup>

Secondly, only in a few papers of OECD and of European Union institutions, there is a reference to the notion of *green taxes*. In any case, this notion seems to be broader than the notion of *environmental taxes*.

To better understand this concept, we can underline the wording of the paper *Taxation trends in the EU*, according to which “the Netherlands applies a wide range of *green taxes*, e.g. *environmental taxes* (italics added) (taxes on groundwater, tap water, waste materials, fuels and the regulatory energy tax) and taxes on vehicles (goods vehicle tax, tax on private cars and motorcycles and tax on heavy goods vehicles)”.<sup>(227)</sup>

Thus, environmental taxes are considered as a part of the broader green taxes category. In other words, green taxes encompass a range of economic instruments of environmental policy, and only some of these are taxes in a legal sense.<sup>(228)</sup>

Thirdly, in recent papers, both the European Union Commission<sup>(229)</sup> and OECD<sup>(230)</sup> use the notions of environmental taxes and of environmentally related taxes in an interchangeable way. In our opinion, as we will see, these terms have

---

<sup>(226)</sup> J.P. BARBE, *Economic Instruments in Environmental Policy: Lessons from OECD Experience and their relevance to Developing Economies*, OCDE/GD(93)193, 1994, available at <http://www.oecd.org/dev/1919252.pdf>, pp. 17 et seqq..

<sup>(227)</sup> EUROPEAN COMMISSION, *Taxation Trends in the EU*, 2011, available at [http://epp.eurostat.ec.europa.eu/cache/ITY\\_OFFPUB/KS-DU-11-001/EN/KS-DU-11-001-EN.PDF](http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-DU-11-001/EN/KS-DU-11-001-EN.PDF), p. 87.

<sup>(228)</sup> R. BUCKLEY, *Green taxes: legal and policy issues in using economic instruments for environmental management*, in *Revenue Law Journal*, 2, 1991.

<sup>(229)</sup> EUROPEAN COMMISSION, *Taxation Trends in the EU*, op. cit., pp. 1 et seqq.; EUROPEAN COMMISSION, *Tax reforms in EU Member States*, 2011, available at [http://ec.europa.eu/economy\\_finance/publications/european\\_economy/2011/ee5\\_en.htm](http://ec.europa.eu/economy_finance/publications/european_economy/2011/ee5_en.htm), pp. 23 et seqq..

<sup>(230)</sup> OECD, *Taxation, Innovation and the Environment: A Policy Brief*, Paris, 2011.

not exactly the same meaning and using them interchangeably gives rise to uncertainty.

Going through the concept of environmental taxes we have to underline that there are at least two different interpretations of this concept.

The first one was given by OECD in the broader context of the economic instruments in environmental policy.

According to OECD, economic instruments are fiscal and other economic incentives and disincentives to incorporate environmental costs and benefits into the budgets of households and enterprises. <sup>(231)</sup>

Bearing this definition in mind OECD distinguishes five categories of economic instruments.

First, economic instruments include taxes, charges or fees.

Second, OECD considers the deposit-refund systems that are payments which are made when purchasing a product (e.g. packaging). The payment is fully or partially reimbursed when the product is returned to the dealer or a specialized treatment facility.

In the third category there are subsidies: all forms of explicit financial assistance or users of natural resources for environmental protection.

In the fourth category there are marketable permits, rights or quotas, which operate by fixing an aggregate quantity of emissions rather than charging a price for each unit of emissions. Instead of being charged for releases, one needs to hold a 'permit' to emit or discharge. By controlling the total number of permits, one is effectively controlling the aggregate pollution quantity.

Lastly there are non-compliance fees, imposed under civil law to compensate for the damage caused by a polluting activity. Liability payments, made to victims or to government under civil law to compensate for the damage caused by a polluting activity. Performance bonds are used to guarantee compliance with environmental or natural resources requirements.

In this context, OECD defines environmental taxes as taxes which have been introduced to achieve a "specific environmental objective" and which have been explicitly identified as "environmental taxes", or taxes which were

---

<sup>(231)</sup> OECD, *Economic Instruments for Pollution Control and Natural Resources Management in OECD Countries: a survey*, Paris, 1999, pp. 11 et seq..

introduced for non-environmental reasons but which impact on environmental objectives. <sup>(232)</sup>

In this framework, the fiscal tool is not used to safeguard the environment itself as a protected good. Vice versa, taxes and charges are considered nothing more than one of the multiple instruments that could be used to internalize environmental externalities and that can be used in dealing with environmental problems.

According to some scholars, this first interpretation takes only taxes with environmental purposes into account but not environmental taxes in itself, because the environment *per se* is not considered as the tax base. <sup>(233)</sup>

In any case, before we proceed any further, we should analyze the concept of “environment” and its framework.

This is another difficult point because if the environment is defined in a very broad sense, we should for example include into the label environmental taxes excise taxes on alcohol, taxes on tobacco and also taxes paid by dog-owners. <sup>(234)</sup>

This interpretation seems too broad and perhaps provocative, but a narrow definition of the environment would not be correct as well. In fact, the environment includes not only the protection of air, soil and water, but also resource utilization and the use of land or water resources, preservation of natural beauty, urban development planning, occupation of land, protection of land and urban renewal. <sup>(235)</sup> Therefore, as we are going to see in the next chapters, considering taxes on tobacco as environmental taxes is not “heresy”.

---

<sup>(232)</sup> OECD, *Implementation Strategies for Environmental Taxes*, Paris, 1996, p. 9.

<sup>(233)</sup> F. GALLO, F. MARCHETTI, *I presupposti della tassazione ambientale*, op. cit., pp. 115 et seqq..

<sup>(234)</sup> K. MÄÄTTÄ, *Environmental taxes. An Introductory Analysis*, op. cit., p. 16 e autori citati.

<sup>(235)</sup> A. ZATTI, *La tassazione ambientale come strumento di finanziamento degli enti locali: alcune considerazioni preliminari*, op. cit., p. 46.



## 6. *The evolution of the concept: environmental taxes or environmentally related taxes?*

This situation changed in the second half of the Nineties. In fact, in 1996, the European Commission and OECD - both aware of the fact that there was no definition of environmental taxes - tried to clarify the concept of environmental tax. <sup>(236)</sup>

According to the wording of the report, the aim of the study was to give an operational definition of *environment-related taxes* which are necessary for internationally harmonized statistics. Next to environment-related taxes the study refers to *environmental taxes*.

During the meeting, three possible indicators for classifying a tax as “environmental” were discussed: the tax base, the incentive action or the effect, and the declared purpose.

According to the tax base indicator, we can refer to an environmental tax if the tax is levied on a physical base which has a scientifically verifiable negative impact on the environment.

According to the incentive action indicator the environmental tax may act as an economic incentive for environmental improvement.

Lastly, the declared purpose indicator refers to the political intention of the legislator which has to be environmental improving.

At the end, the OECD/EU workgroup defined as *environmental* a tax whose “*tax base is a physical unit (or a proxy of it) of something that has a proven, specific negative impact on the environment, when used or released*”. <sup>(237)</sup>

The rationale behind this choice was that the tax base indicator was considered to be the only objective basis for a definition; the others more depending on expectations and subjective judgments, were stated to be used only as an auxiliary evidence for the identification of environmental taxes.

---

<sup>(236)</sup> The declared intention was to reach a consensus on definitions, classifications, operational procedures and treatment of borderline cases. This definition is used by the European Commission, the OECD and the International Energy Agency (IEA).

<sup>(237)</sup> EUROPEAN COMMISSION, *Manual: Statistics on Environmental taxes*, op. cit., p. 3.

In fact, according to OECD <sup>(238)</sup>, taxes may have been implemented for a number of reasons, most likely general revenue-raising, with a little or no consideration for the environment.

So, attempting to differentiate taxes which are based on the motivation of the government or to exclude some taxes because of their design would, of course, pose significant challenges. Therefore, a broad definition that only considers the type of tax base has been used, but which is not considering the intention or the appropriateness of the instrument.

Taking this definition into consideration, several grey areas to be clarified actually appear. In particular, they are connected with the complex definition of concepts like “taxes”, “proven specific negative impact” and “negative impact on the environment”.

We have already discussed about the term “taxes”. In the next paragraphs, we are going to analyse the other two concepts.

---

<sup>(238)</sup> OECD, *Taxation, innovation and the environment*, Paris, 2010, p. 33.

### 6.1. Negative impact on the environment

A “negative impact on the environment” means, according to the workgroup, a deterioration of hitherto free environmental goods or a reduction of the supply of such goods.

This negative impact has to be a tolerable environmental deterioration, possibly reversible and reparable. In fact, if the deterioration is irreversible we cannot use fiscal tools but sanctions, and the activities that produce an irreversible deterioration have to be banned. <sup>(239)</sup>

On this issue, the OECD/Eu workshop does not go further, but it is important to understand when there is an environmental deterioration or damage. <sup>(240)</sup>

Looking at the EU documents <sup>(241)</sup> the concept of environmental damage means “a measurable adverse change in a natural resource or measurable impairment of a natural resource service which may occur directly or indirectly”. <sup>(242)</sup>

Therefore, it seems that the environmental damage includes not only a damage that creates a negative impact on human health, but also an objective damage on the environment without any consequence on human health.

---

<sup>(239)</sup> P. M. HERRERA, *Derecho tributario ambiental. (La introducción del interés ambiental en el ordenamiento tributario)*, op. cit., pp. 64 et seqq.; A.E. LA SCALA, *Il carattere ambientale di un tributo non prevale sul divieto di introdurre tasse ad effetto equivalente ai dazi doganali*, *Rass. Trib.*, 4, 2007, p. 1326. It is worth noting that according to some authors environmental taxes have to be levied on both licit and illicit activities.

<sup>(240)</sup> According to the Directive 2004/35/CE of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage, prevention and remedying of environmental damage should be based on the “polluter pays” principle.

<sup>(241)</sup> Directive 2004/35/CE of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage.

<sup>(242)</sup> Directive 2004/35/CE of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage. The directive distinguishes three different categories of damage. The first category is constituted by any damage that has significant adverse effects on reaching or maintaining the favorable conservation status of protected species and natural habitats. The second category is constituted by any damage that significantly adversely affects the ecological, chemical and/or quantitative status and/or ecological potential of the waters (water damage). The third category is constituted by every land contamination that creates a significant risk of human health being adversely affected as a result of the direct or indirect introduction, in, on or under land, of substances, preparations, organisms or micro-organisms (land damage).

One of the most relevant problems, which arises from this definition, is how to measure the environmental damage.

Some environmental damages are relatively easy to measure, but the problem arises when there is something that does not have a clear market value, like biodiversity or clean air. <sup>(243)</sup>

The physical unit may be a unit of substance emitted, e.g. 1 kg of CO<sub>2</sub>, or a unit of a proxy for emission, e.g. 1 liter of petrol burned in the standard engine or one motor vehicle with a certain emission specification, or a unit of finite natural resources, e.g. fresh water.

It is often difficult to measure or monitor emissions directly, so it may be necessary to levy a tax on a proxy for the emissions, typically on the resource that causes the pollution. <sup>(244)</sup> According to OECD: “*Administration costs or barriers may necessitate the taxation of proxies to environmentally harmful activities, but care should be taken to ensure this does not impair environmental outcomes*”. <sup>(245)</sup>

A “proven specific negative impact” is constituted by a causal relationship between this physical unit and a specific environmental deterioration.

This, according to the OECD/Eu workgroup, is verified if three criteria are satisfied: technical knowledge, techno-economic knowledge and social acceptance. <sup>(246)</sup>

First of all, there must be sufficient scientific evidence that the physical unit is noxious for the environment (technical knowledge). Secondly, the environmental deterioration must be well above the average negative impact of all economic activities (techno-economic knowledge). Thirdly, the impact must be politically determined as significant (social acceptance).

In any case, it is not so easy to define what is covered by “a specific negative impact”.

---

<sup>(243)</sup> OECD, *Environmental taxation. A guide for Policy Makers*, Paris, 2011. On this issue see, M. DI PACE, *La valutazione del danno ambientale*, *Rivista di Diritto Tributario Internazionale*, 2004, pp. 2-3.

<sup>(244)</sup> T. KULCSAR, *International Tax Aspects of Climate Change*, op. cit., pp. 9 et seqq..

<sup>(245)</sup> OECD, *Environmental taxation, A guide for Policy Makers*, op. cit., pp. 12. In particular, it would be difficult to tax directly the emissions from motor vehicles because of the administrative cost of measuring emissions from individual vehicles, but taxes on motor vehicle fuels are efficient proxies for taxing CO<sub>2</sub> emissions, since the CO<sub>2</sub> intensity of petrol and diesel combustion is fixed.

<sup>(246)</sup> EUROPEAN COMMISSION, *Manual: Statistics on Environmental taxes*, op. cit., p. 4.

For example, according to the European Commission, taxes on tobacco products, on alcoholic beverages and similar taxes, such as taxes on coffee and taxes on pet animals cannot be considered as environmental taxes. The reason behind this exclusion is that these taxes are not considered to be specifically negative for the environment. <sup>(247)</sup>

We do not agree with this interpretation, especially with reference to taxes on tobacco products. In fact, tobacco products pollute in at least two different ways. First, they cause air pollution. Secondly, cigarette butts thrown on the ground have a toxic impact on the environment. <sup>(248)</sup>

It is important to underline that, according to the definition we are analyzing, the fiscal or environmental reasons of introducing the taxes are not decisive for the classification. On the contrary, the potential effect of a tax in terms of its impact on costs and prices is relevant, <sup>(249)</sup> e.g. a tax on petrol introduced for fiscal reasons will have the same effect as one that is introduced with the purpose of reducing emissions.

In fact, many environmental taxes contribute to environmental improvements by causing price increases that reduce the demand for the environmentally harmful products in question.

Moreover, the definition at stake is based on tax base, not on destination of tax revenues. <sup>(250)</sup>

Pollutant taxes and environmental taxes on products have been already classified as environmental because, irrespective of the destination of the revenue, their tax base has a proven specific negative environmental impact.

If a tax was earmarked for environmental protection without having an environmental tax base such taxes would not fall under the definition of “environmental tax”.

Another relevant point is that VAT is excluded from the definition of environmental taxes. <sup>(251)</sup> The *rationale* of this choice is that VAT has its own

---

<sup>(247)</sup> EUROSTAT, *Environmental taxes – revised statistical guide 2013*, op.cit., p. 17.

<sup>(248)</sup> See the Cigarette butt pollution project available at <http://www.cigwaste.org/research/>.

<sup>(249)</sup> EUROPEAN COMMISSION, *Environmental taxes – a statistical guide*, Luxembourg, 2001, p. 9.

<sup>(250)</sup> E. MOHR, *Environmental taxes and charges and EC Fiscal Harmonisation: Theory and Policy*, op. cit., p. 5, according to which “An income or profit tax earmarked to finance environmental policy expenses is apparently not a market-oriented environmental policy instrument. It creates an incentive to avoid income or profit instead of environmental pollution”.

characteristics and it does not influence relative prices in the same way that other taxes on environmentally related tax bases do.

According to the European Commission <sup>(252)</sup>, by using the definition of environmental taxes indicated above, it can be argued that the term *environmental taxes* is not a good description of involved taxes.

In fact, it can be interpreted as referring to taxes with an environmental, rather than a fiscal, motivation.

Since motivation is not part of the definition, the term *environmentally related taxes* is more precise, and this is preferred by OECD, even if the term *environmental taxes* is in common use.

So far, it seems that the terms *environmental taxes* and *environmentally related taxes* are overlapping concepts.

The problem arises when we read the definition, given by OECD, of environmentally related taxes.

In fact, according to OECD an environmentally related tax “*is defined as any compulsory, unrequited payment to general government levied on tax-bases deemed to be of particular environmental relevance. Taxes are unrequited in the sense that benefits provided by government to taxpayers are not normally in proportion to their payments*”. <sup>(253)</sup>

Immediately, it seems that this definition is broader than the one of environmental taxes explained above.

We are not referring to the term *payment* because this is only a clarification of the term “taxes” as indicated by the OECD/EU workgroup as well and that we have already analyzed. <sup>(254)</sup>

---

<sup>(251)</sup> EUROPEAN COMMISSION, *Environmental taxes – a statistical guide*, op. cit., p. 11. However, in principle, many environmental taxes could be subject to VAT, such as mineral oil taxes or taxes on specific harmful products. The part of the VAT on environmental taxes that cannot be deducted by the taxpayer would be of relevance. For example, in Austria and Spain a special high VAT rate was levied on car sales that had to be abolished in the early 1990s due to tax harmonization. See, EUROPEAN COMMISSION, *Environmental taxes – revised statistical guide 2013*, Meeting of 20 and 21 March 2013, pp. 15-16. In literature: M. BOTES, *Should VAT not support the Environment?*, *International VAT Monitor*, March/April 2012, pp. 97 et seqq., according to which “*by introducing environment-friendly principles into the VAT legislation, governments can influence environmental attitude and behavior at ground level*”.

<sup>(252)</sup> EUROPEAN COMMISSION, *Environmental taxes – a statistical guide*, op. cit., p. 9.

<sup>(253)</sup> OECD, *Environmentally related taxes in OECD Countries – Issues and strategies*, Paris, 2001.

<sup>(254)</sup> *Contra* T. KULCSAR, *International Tax Aspects of Climate Change*, op. cit., p. 10.

The reason why the concept of environmentally related taxes seems broader than the concept of environmental tax is that it refers to a tax base of *particular environmental relevance*.

This statement is much more general than the one provided by the definition of environmental tax. In fact, it does not require *something that has a proven, specific negative impact on the environment*.

So, first of all, the tax base of environmentally related taxes does not have to be a physical unit or a proxy to it. In any case, according to OECD <sup>(255)</sup>, the relevant tax base includes energy products, motor vehicles, measured or estimated emissions, natural resources and so on.

Moreover, the link between the tax base and its *environmental relevance* is not so strong, as a *proven, specific impact* is not required and the term *relevance* seems less strong than *impact* as well. <sup>(256)</sup>

Finally, environmentally related taxes can cover also taxes with positive impacts on environment, and not only with a negative effect. <sup>(257)</sup>

For these reasons, the concept of environmentally related taxes is broader than the one of environmental taxes, and it can include a wider range of taxes.

Therefore, environmental taxes and environmental related taxes are not overlapping concept.

In our opinion, since the definition of environmentally related taxes is more comprehensive and less restrictive than the one given by the OECD/EU workgroup, it is the one to be preferred.

This is because this definition can include different kinds of taxes, such as those taxes with a positive environmental relevance, e.g. a direct tax that provides a tax incentive for investing in environmentally friendly technology. <sup>(258)</sup>

Moreover, this definition can be linked, but it is not necessarily linked to the environmental deterioration and its difficult assessment.

This makes room for using the environment itself as a tax base, considering it as an economic good with a measurable value. <sup>(259)</sup>

---

<sup>(255)</sup> OECD, *The Political Economy of Environmentally Related Taxes*, 2006.

<sup>(256)</sup> T. KULCSAR, *International Tax Aspects of Climate Change*, op. cit., pp. 9-13.

<sup>(257)</sup> *Ibidem*, p. 11.

<sup>(258)</sup> T. KULCSAR, *International Tax Aspects of Climate Change*, op. cit., pp. 9-13.

<sup>(259)</sup> F. MARCHETTI, *Ambiente (Dir. Trib.)*, in *Dizionario di Diritto Pubblico*, Milano, 2006.

In any case, we should be aware that the qualification of environmentally related taxes is a hard task <sup>(260)</sup>, because the concept of *particular environmental relevance* is really vague.

---

<sup>(260)</sup> T. KULCSAR, *International Tax Aspects of Climate Change*, op. cit., 12.



## 7. *The definition of environmental taxes: some national experiences*

It is worth noting that some States have their own definition of environmental taxes. This can be provided by the law/regulation or can be derived from legal doctrine. What can be considered a common point of these definitions is that they are not always in line with the definitions given by the EU and OECD.

In the U.K., as we have already said, on 16<sup>th</sup> July 2012, the government published “a long awaited” definition of environmental taxes. <sup>(261)</sup>

In particular, environmental taxes are defined as those which meet all of the following three principles: (i) the tax is explicitly linked to the government’s environmental objectives; (ii) the primary objective of the tax is to encourage environmentally positive behaviour change; (iii) the tax is structured in relation to environmental objectives, for example: the more polluting the behaviour, the greater the tax levied.

Applying these principles, the Treasury has identified the following taxes as environmental, and these will comprise the baseline against which the government’s commitment to increase the proportion of environmental tax revenue will be measured: Climate Change Levy, Aggregates Levy, Landfill Tax, EU Emissions Trading System (EU ETS), Carbon Reduction Commitment Energy Efficiency Scheme, Carbon Price Support.

It seems that the government includes all kinds of measures in this definition, without taking the differences between fiscal measures into account.

In Norway, the definition of environmental taxes tries to follow the guidelines which are given by the Eurostat, but – because of the fact that they consider this definition too broad including too many taxes and, particularly, all taxes related to the environment – another definition is preferred.

In fact, a pure Pigouvian tax or, in other words, “*a tax levied on a market activity to internalize the cost of negative externalities associated with this activity*” is considered an environmental tax. <sup>(262)</sup>

---

<sup>(261)</sup> P. SHERIDAN, K. MYLREA, O. QUAID, V. KEYS, S. DAMES, *HM Treasury Defines “Environmental Tax”*, op. cit., pp. 1 et seqq..

<sup>(262)</sup> E. M. NAESS, T. SMITH, *Environmentally related taxes in Norway. Totals and divided by industry*, *Statistics Norway*, 5, 2009, pp. 5 et seqq..

In Belgium environmental taxes are defined as “*taxe assimilée aux accizes, frappant un produit mis à la consommation en raison de nuisances écologiques qu’il est réputé générer*”.<sup>(263)</sup> In this case, environmental taxes are assimilated to excise duties.

In Italy some scholars define environmental taxes in two different ways: in a *scripto sensu* or in a functional way.<sup>(264)</sup> The latter covers taxes with an environmental purpose or function such as encouraging or discouraging activities or the use of goods linked with the environment, or still taxes, which are earmarked for environmental protection without having an environmental tax object.

On the contrary, environmental taxes *stricto sensu* are in line with the definition given by the European Commission. In fact, in this case, environmental tax is considered as a “tax characterized by a direct causal link between its object and the physical unit (polluting emissions, environmental resource, good or product) which causes or may cause environmental damages”.<sup>(265)</sup>

In Germany, some scholars use a very broad definition, including all the levies related with environmental protection into the label “environmental tax”, regardless of the kind of link there can be between the levy and the environment: in fact, it can be a payment for using the environment, a payment to finance environmental goals, an incentive levy and so on.<sup>(266)</sup>

Moreover, it is worth noting that according to some scholars<sup>(267)</sup>, a special category of environmental levies should be introduced. In particular, they propose a constitutional reform in order to introduce the concept of environmental levy (*Umweltabgabe*) as an autonomous tax category, the revenue of which should be

---

<sup>(263)</sup> K. MÄÄTTÄ, *Environmental taxes. An Introductory Analysis*, op. cit., p. 15.

<sup>(264)</sup> R. ALFANO, *Tributi Ambientali. Profili interni ed europei*, Torino, 2012, pp. 31 et seqq.; F. GALLO, *Profili critici della tassazione ambientale*, in L. ANTONINI (ed.), *L'imposizione ambientale nel quadro del nuovo federalismo fiscale*, op. cit., pp. 3 et seqq.; F. GALLO, F. MARCHETTI, *I presupposti della tassazione ambientale*, op. cit., pp. 115 et seqq.; S. CIPOLLINA, *Osservazioni sulla fiscalità ambientale nella prospettiva del federalismo fiscale*, in L. ANTONINI (ed.), *L'imposizione ambientale nel quadro del nuovo federalismo fiscale*, op. cit., pp. 96 et seqq..

<sup>(265)</sup> F. GALLO, G. MELIS, *The Italian tax system: International and EU obligations and the realization of fiscal federalism*, *Bulletin for International Taxation*, 2010, p. 403.

<sup>(266)</sup> K. MESSERSCHMIDT, *Umweltabgaben als rechtsproblem*, *Schriften zum Umweltrecht*, Berlin, 1986, p. 27.

<sup>(267)</sup> S. F. FRANKE, *Umweltabgaben und Finanzverfassung*, *Steuer und Wirtschaft*, vol. 71, no. 1, 1994, pp. 26-38.

earmarked to a special fund and that should be managed by a special administration. Even if this interpretation is very fascinating, it does not seem that there is any need to have a new category of levies. <sup>(268)</sup>

In Brazil environmental taxes are generally considered - like in Spain <sup>(269)</sup> - those taxes “*tending to disincentive polluting behaviours and setting down favorable fiscal treatment*”. <sup>(270)</sup>

However, according to some scholars environmental tax may be defined in two different ways. In a broad sense or improper sense, meaning a traditional tax which is “*adapted so as to benefit environmental protection efforts*”. In a strict or a proper sense, in which a separate tax is introduced and its taxable event is “*the fact of polluting*”. <sup>(271)</sup>

---

<sup>(268)</sup> P. M. HERRERA, *Derecho tributario ambiental. (La introducción del interés ambiental en el ordenamiento tributario)*, op. cit., pp. 119 et seqq.

<sup>(269)</sup> P. M. HERRERA, *Derecho tributario ambiental. (La introducción del interés ambiental en el ordenamiento tributario)*, op. cit., p. 59; see also M. VILLAR EZCURRA, *Fiscalidad ambiental, Diccionario de Derecho Ambiental*, Madrid, 2006, pp. 674-683, according to which: “*con la terminología de 'fiscalidad ambiental' se hace referencia al conjunto de medidas fiscales que persiguen una finalidad ambiental*”.

<sup>(270)</sup> J. M. DOMINGUES, *Tax system and environmental taxes in Brazil: the case of the electric vehicles in a comparative perspective with Japan*, op. cit., p. 50.

<sup>(271)</sup> *Ibidem*, pp. 50 et seqq..

## 8. *The classification of environmental taxes*

For the sake of completeness, we have to point out that one of the most used approaches in dealing with environmental taxes is to set a mere classification.

Due to the existence of several types of environmental taxes, two different classifications should be considered. <sup>(272)</sup>

The first one is based on the fiscal or environmental goal of the tax; while the second one is based on the type of physical unit that is used as the tax base of the environmental taxes.

---

<sup>(272)</sup> Environmental levies can also be classified according to the different functions they can perform. In particular, we can distinguish three classes based on how they function: (i) rules that reduce fiscal burdens; (ii) rules that withdraw fiscal benefits; (iii) rules that impose fiscal burdens. See, A. WESTIN, *Environmental Tax Initiatives and Multilateral Trade Agreements: Dangerous Collisions*, Cambridge, 1997, p. 24.

### 8.1. Fiscal or environmental goals?

The first classification that we can analyze is the one that involves the reasons and the motivations behind the introduction of environmental taxes. <sup>(273)</sup>

Going into details, we can distinguish three different kinds of taxes <sup>(274)</sup>.

First, taxes introduced for mainly environmental reasons or incentive taxes.

These taxes are regulatory and they are aimed at changing the behavior of taxpayers, therefore the Pigouvian or regulatory taxes are included. These taxes serve as an incentive for behavioral changes – reducing the demand for polluting activities or substituting pollution-intensive commodities by other goods and increasing the cost of environmentally damaging activities.

Their revenues are of secondary importance, if they have importance at all. This does not exclude that also revenue reasons for their introduction may have existed.

In that case, the tax can be defined as an 'environment plus tax', but the expected revenue will then decrease when production patterns shift towards sustainable and renewable energy sources. This is defined as an 'environment minus tax'.

---

<sup>(273)</sup> S.O. LODIN, *Introduction*, in *Ifa, Environmental taxes and charges*, Proceedings of a Seminar held in Florence, Italy, in 1993 during the 47<sup>th</sup> Congress of the International Fiscal Association, vol. 18d, The Hague-London-Boston, 1993, p. 4; K. MÄÄTTÄ, *Environmental taxes. An Introductory Analysis*, op. cit., pp. 17 et seq.; A. ZATTI, *La tassazione ambientale come strumento di finanziamento degli enti locali: alcune considerazioni preliminari*, op. cit., 47.

<sup>(274)</sup> K. MÄÄTTÄ, *Environmental taxes. An Introductory Analysis*, op. cit., pp. 17 et seq.. It is worth noting that there is another classification that distinguishes between the following types:

- cost covering charges, whereby those making use of the environment contribute to or cover the cost of monitoring or controlling that use. The level of a cost-covering charge is determined by the service it is intended to deliver or the other purposes which the revenues will support.
- incentive taxes, which are levied purely with the intention of changing environmentally damaging behaviour, and without any intention to raise revenues. Indeed, the success of such a tax may be judged by the extent to which initial revenues from it fall, as behavior changes.
- revenue-raising taxes, which may influence behaviour but still yield substantial revenues over and above those required for related environmental regulation.

Clearly these three types of environmental tax are not mutually exclusive: a cost-covering charge may have incentive effects, as may a revenue-raising tax, or the revenues from a revenue-raising tax may be partially used for related environmental purposes. See P. EKINS, S. SPECK, *Competitiveness and Exemptions from Environmental Taxes in Europe*, *Environmental and Resource Economics*, Vol.13 (4), 1999, pp. 369-395.

In any case, it is worth noting that even if the ideal environmental tax should not raise any revenue, a well-designed environmental tax is not aimed at reaching the “*Erdrosselung*” (literally choking).<sup>(275)</sup>

Redistributive environmental taxes can also be classified as incentive taxes.

Second, fiscal environmental taxes or, in other words, taxes having environmental effects, although not at all or not mainly introduced for environmental reasons. Most of existing environmental levies belongs to this group. They are taxes which are primarily aimed at generating revenue but which may have significant positive effects on the environment.

Third, financing environmental taxes: tax measures intended to raise revenue in pursuit of an environmental policy. An integral aspect of financing environmental levies is that their proceeds are earmarked to that end.

The rate of financing tax is determined by the amount of expenditure required for the programme. They are not regulatory taxes since the primary purpose of financing environmental taxes is to generate funds, so they can be classified as fiscal taxes.<sup>(276)</sup>

---

<sup>(275)</sup> U. SACKSOFSKY, *Verfolgung ökologischer und anderer öffentlicher Zwecke durch Instrumente des Abgabenrechts*, NJW 2000, p. 2621.

<sup>(276)</sup> An example of an earmarked tax which satisfies the definition of environmental taxes based on the tax base is the Dutch water pollution tax, which is used to finance activities of sanitation and purification of wastewater. See, EUROSTAT, *Environmental taxes – revised statistical guide 2013*, op. cit., p. 10.

## 8.2. Categories based on the type of physical unit used as the tax base

Moreover, depending on the type of physical unit that is used as the tax base of the environmental taxes, two different categories have to be taken into account. <sup>(277)</sup>

The first category includes taxes on pollutants or emission taxes, where the tax base is a physical unit of a specific pollutant, e.g. the tax on each ton of SO<sub>2</sub> or NO<sub>x</sub> or a tax on CO<sub>2</sub> emissions.

Emission taxes are direct payments on the quantity and quality of polluting discharge such as water effluents, waste or noise. The amount to be actually levied may be calculated from a measured quantity of emissions of this pollutant or based on an estimate of the emission potential.

The second category concerns environmental taxes on products, where the tax base is a physical unit of a resource, or of a product the use of which produces pollution (e.g. fertilizers, pesticides, solvents, batteries, one way packaging, plastic bags, paper, refrigerators, gasoline, diesel, and so on). This kind of taxes is born because of the difficulties in implementing emission taxes, and it is easier to impose a tax on the product itself, even if in this case taxes are levied on a base that is more indirectly linked to the caused pollution. <sup>(278)</sup>

Environmental taxes on products can be divided into two different groups: (i) input taxes – in which the goods subject to tax are input materials (e.g. fertilizers) in the production of final goods and (ii) final product taxes - in which taxes are imposed on final products (e.g. batteries and plastic bags). <sup>(279)</sup> These

---

<sup>(277)</sup> According to the World Bank, environmental taxes can be divided into three major categories namely (i) taxation on the emissions themselves, (ii) taxation on the users of certain facilities which produce emissions and (iii) taxation on goods or services that are generating pollution in the manufacturing, consumption or disposal phase, see WORLD BANK GROUP, *Pollution prevention and abatement handbook 1998: toward cleaner production*, 1998, p. 161.

<sup>(278)</sup> S. SMITH, *Taxation and the Environment: A survey*, *Fiscal studies*, 1992, vol. 13, n. 4, p. 35. Some authors underline that the tax or charge should be linked as closely as possible to the pollution that is to be controlled. For example, a tax on fuel is more effective than a tax on car ownership. See, E. MOHR, *Environmental taxes and charges and EC Fiscal Harmonisation: Theory and Policy*, op. cit., p. 5.

<sup>(279)</sup> X. OBERSON, *Environmental taxes on products*, in *Ifa, Environmental taxes and charges*, op. cit., p. 73. See also, T. A. BARTHOLD, *Issues in the design of environmental excise taxes*, *The Journal of Economic Perspective*, vol. 8, no. 1, 1994, pp. 133-151; J. R. HINES JR., *Taxing consumption and other sins*, *The Journal of economic perspective*, vol. 21, no. 1, 2007, pp. 49-68, which underlines that “consumption taxes in the form of excises can be designed to help protect

taxes take the form of taxes such as excise and sales taxes, and they can be considered excise duties. <sup>(280)</sup>

Moreover, the taxable event can be represented by the manufacturing of the product or the selling of products to the consumers.

Environmental taxes are classified into four main categories which correspond to four categories of tax bases: energy taxes <sup>(281)</sup>, transport taxes, pollution taxes and resources taxes. <sup>(282)</sup>

---

*the environment and control other externalities, whereas it is much more difficult to pursue the same goal with income taxes”.*

<sup>(280)</sup> See T. A. BARTHOLD, *Issues in the design of environmental excise taxes*, op. cit., pp. 133-151.

<sup>(281)</sup> See, L. SALVINI, *Questioni attuali sulla fiscalità del settore energetico*, *Rassegna Tributaria*, Vol. 6, 2007, p. 1670-1676; ID., *Agevolazioni IVA per energia da fonti rinnovabili e forniture di calore-energia*, in G. BONARDI, C. PATRIGNANI (eds.), *Energie alternative e rinnovabili*, Milano, 2010, pp. 549-558.

<sup>(282)</sup> EUROSTAT, *Environmental taxes – revised statistical guide 2013*, op. cit., pp. 12 et seqq. Energy taxes include taxes on energy products used for both transport – e.g. petrol and diesel - and stationary purposes – e.g. fuel oils, natural gas, coal and electricity. CO<sub>2</sub>-taxes are included under energy taxes. The reasons behind this decision are many. First of all, it is often not possible to identify CO<sub>2</sub> taxes separately in tax statistics, because they are integrated with energy taxes, e.g. via differentiation of mineral oil tax rates. In addition, they are partly introduced as a substitute for other energy taxes and the revenue from these taxes is often large compared to the revenue from the pollution taxes. This means that including CO<sub>2</sub>-taxes with pollution taxes rather than energy taxes would distort international comparisons. If they are identifiable, CO<sub>2</sub>-taxes should be reported as a separate category next to energy taxes. Transport taxes are taxes related to the ownership and use of motor vehicles. Pollution taxes are taxes on measured or estimated emission to air and water, management of solid waste and noise. Resource taxes typically include taxes on water abstraction, forest and some raw materials.



## 9. *Environmental charges and fees*

Having said that, we can now specifically focus on environmental charges and fees, bearing in mind that the distinction between taxes and charges can be somewhat blurred.

In particular, environmental charges are defined as “*those where the charge base is a physical unit, or proxy of it, which is known to be harmful to the environment*”.<sup>(283)</sup>

We can distinguish four kinds of environmental charges: administrative charges, user charges, product charges and effluent charges.<sup>(284)</sup>

While the direct charge is the most straightforward, the difficulty of systematically measuring these charges limits their possible application and may give a comparative advantage to indirect instruments, such as fuel taxes or water charges.<sup>(285)</sup>

Administrative charges may have a redistributive effect and can give an ecological incentive.<sup>(286)</sup> In particular, they can be divided into licence fees and registration or control fees.<sup>(287)</sup>

In fact, they “*are payments for administrative services, such as registration of certain (chemical) substances (registration fees), granting of operating permission (permission fees) or enforcement of regulations (non-compliance fee)*”.<sup>(288)</sup>

These charges represent an exchange for an official act and can be calculated according to the advantage received or the costs of the service granted; ecological costs can be taken into account as well.

User charges are prices for a concrete and measurable service to be rendered. In fact, they are payments for the use of collective goods and services that “*confer a special benefit to the purchaser beyond that enjoyed by the general*

---

<sup>(283)</sup> ECOTEC, *Study on the economic and environmental implications of the use of environmental taxes and charges in the European Union and its Member States*, op. cit., p. 3.

<sup>(284)</sup> OECD, *Taxation and the Environment*, Paris, 1995, p. 22.

<sup>(285)</sup> THE INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT/THE WORLD BANK, *Pollution Prevention and Abatement Handbook 1998. Toward Cleaner Production*, Washington, 1999, pp. 143 et seqq..

<sup>(286)</sup> M. RODI, *Environmental charges*, in *Ida, Environmental taxes and charges*, op. cit., pp. 79-85.

<sup>(287)</sup> K. MÄÄTTÄ, *Environmental taxes. An Introductory Analysis*, op. cit., p. 17.

<sup>(288)</sup> M. RODI, *Environmental charges*, in *Ida, Environmental taxes and charges*, op. cit., pp. 79-85.

*population*".<sup>(289)</sup> In other words, user charges or fees are compulsory payments made by consumers for the provision of specific services.

Even in this case, ecological costs can be taken into consideration, based on the quantity of consumptions or the noxiousness to the environment.

User charges are usually imposed on the consumption of water and electricity and they are primarily used as a financing device by local authorities, e.g. for the collection and treatment of solid waste and sewage water.<sup>(290)</sup> Moreover, they may be based on the amount or quality of effluent treated.

An appropriate user fee has to follow some specific criteria.

In particular, it has to influence the user in such a way that the facility is used efficiently. Secondly, it has to provide guidance as to where capacity changes are needed, and, lastly, it has to generate revenue to finance additional capacity.

Product charges are different from the charges we have described so far. In fact, they are levied during the manufacturing or consumption phases upon the price of products which pollute.

In this case, it is assumed that the use or the consumption of a product results in certain environmental costs.

For this reason, product charges are intended to modify the relative prices of the products.

Product charges are most widely imposed on fuels, as a proxy for an air pollution charge, and on products that can be recycled or that are needed to be

---

<sup>(289)</sup> M. RODI, *Environmental charges*, in *Ifa, Environmental taxes and charges*, op. cit., p. 80. "User charges or fees are often seen as payments for a government service that is used so widely that payments at the immediate point of consumption are not practical. In other cases, as with gasoline taxes, they are used as a proxy for consumption, because when motorized traffic first appeared direct collection of a road price involved high transactions costs with manual tollbooths. But a genuine user fee directly relates the costs of an activity to the fees that are collected. A critical issue is, therefore, the way in which the taxes are determined for this hypothecation. Such fees, because they are not direct prices, are generally very much a second-best means of paying for a facility". See also, K. J. BUTTON, *The Taxation Of Air Transportation*, Center for Transportation Policy, Operations and Logistics School of Public Policy George Mason University Fairfax, Virginia, April 2005.

<sup>(290)</sup> THE INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT/THE WORLD BANK, *Environmental fiscal reform. What should be done and how to achieve it*, Washington DC, 2005, available at [http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/1999/06/03/000094946\\_99040905052283/Rendered/PDF/multi0page.pdf](http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/1999/06/03/000094946_99040905052283/Rendered/PDF/multi0page.pdf), p. 83.

safely disposed of. Unlike air emissions charges, fuel taxes can be used to control diffuse sources and they are relatively easy to collect.

Effluent or emission charges, such as noise or water effluent charges, are based on quantity of discharged pollutants, regardless of any principle abatement effort but only because the environment is used as a sink. <sup>(291)</sup>

In particular, pollution charges can be levied on actual source emissions (direct emissions charge) or estimated emissions (presumptive emissions charge).

Going into further details, they are imposed on air borne emissions, water effluents or solid waste at the point of release into the environment.

It is worth noting that they represent an ideal instrument for ecological reasons, because they allocate ecological costs according to the individual emission of hazardous substances.

Emission charges are one of the best way to internalize the cost of pollution and to change the behaviour of economic agents.

However, they should be set at a high level and for a limited number of pollutants. <sup>(292)</sup>

Broadly speaking, whereas the theoretical advantage of pollution charges is in their incentive impact, their revenue-raising function often makes this instrument appealing to environmental policymakers.

In this situation, user charges (payments for services rendered) or earmarking of charges for specific environmental expenditure often become more politically acceptable.

Charges where revenue never enters the general budget but is earmarked for other purposes also exist, and it would seem that these differ from environmental taxes principally in the original destination of the revenue. <sup>(293)</sup>

In this case, it is important to have clear financing objectives and priorities.

---

<sup>(291)</sup> J. E. MILNE, M. SKOU ANDERSEN, *Introduction to environmental taxation concepts and research*, in J. E. MILNE, M. SKOU ANDERSEN (eds.), *Handbook Of Research On Environmental Taxation*, op. cit., p. 20.

<sup>(292)</sup> THE INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT/THE WORLD BANK, *Pollution Prevention and Abatement Handbook 1998. Toward Cleaner Production*, op. cit., pp. 160 et seqq..

<sup>(293)</sup> THE INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT/THE WORLD BANK, *Pollution Prevention and Abatement Handbook 1998. Toward Cleaner Production*, op. cit., p. 164.

In the next chapter, we are going to analyze if, and when, this kind of charges may be used.

## 10. Conclusions: a common definition of environmental taxes?

We have analyzed the definitions of both environmental taxes and of environmentally related taxes, we have demonstrated that they are not overlapping concepts and that the definition of environmentally related taxes seems the one to be preferred. It is now necessary to take a step forward.

The starting point is that the definition given by OECD appears to be a definition with too many grey areas and loopholes that does not seem to take the idea behind environmental taxes into account: to discourage environmental damages and to serve as an incentive for behavioural changes.

Bearing this in mind, there are a few reasons why there is not really the need to have a so detailed definition of environmental taxes.

Firstly, this definition is not comprehensive of all kinds of taxes with an impact on environment. For example, it excludes taxes - even without a polluting tax base - which are introduced to achieve specific environmental objectives.

This exclusion does not seem the correct approach. We cannot forget that the first definition of environmental taxes given by OECD was in this sense. In fact, as we have already said, OECD defined environmental taxes as taxes which have been introduced to achieve a “specific environmental objective”, or taxes which were introduced for non-environmental reasons but which impact on environmental objectives. <sup>(294)</sup>

Moreover, this definition is not coherent. In this context, the example of Norway is significant. In fact, in the Norwegian perspective, using the Eurostat definition many fiscally motivated taxes that have only a vague link to the environment from an environmental point of view are considered environmental taxes. <sup>(295)</sup>

Furthermore, choosing the polluting tax base as an element of identification of environmental taxes is not satisfactory, because there is not an

---

<sup>(294)</sup> OECD, *Implementation Strategies for Environmental Taxes*, op. cit., p. 9.

<sup>(295)</sup> E. M. NAESS, T. SMITH, *Environmentally related taxes in Norway. Totals and divided by industry*, op. cit., pp. 4 et seqq..

inevitable connection between taxing a polluting tax base and obtaining an environmental effect. <sup>(296)</sup>

One example can be helpful to take the matter further and it can be found in the current Energy Taxation Directive (hereinafter “ETD”). It is common knowledge that energy taxes are viewed, because of their tax bases, as a subset of environmental taxes. <sup>(297)</sup>

What can probably be more surprising is that the minimum rates of the current Energy Taxation Directive, being based on the volume of the energy products consumed rather than on energy content, are contradictory to the global climate change goals. In particular, they promote – through a lower tax rate – the use of coal which is the product with the highest CO<sub>2</sub> content and they discriminate against renewable energy sources. The latter are taxed at the same rate as the energy source they are intended to replace (e.g. biodiesel is taxed the same as diesel). As this rate is based on volume, products with lower energy content, such as renewables, carry a heavier tax burden compared to the fuels they are competing with. <sup>(298)</sup>

In other words, the ETD provides no incentive or even price signal to promote alternative energies and encourage consumers to save energy. This means that these forms of taxation do not produce any environmental effects and, in our opinion, if designed like this, they are not environmental taxes.

Moreover, it is important to take into account a recent decision of the French Constitutional Court (hereinafter “the Court”). In this case, the Court considered the carbon tax introduced by the 2010 Budget Law with the goal of fighting climate change as ineffective and unfair and, therefore, unconstitutional. <sup>(299)</sup>

---

<sup>(296)</sup> C. SOARES, *Environmental tax: the weakening of a powerful theoretical concept*, in *Critical Issues in Environmental taxation*, vol. II, op. cit., pp. 44-46.

<sup>(297)</sup> EUROSTAT, *Environmental taxes – revised statistical guide 2013*, op. cit., pp. 10 et seqq.. The tax bases are grouped by four main categories: energy, transport, pollution, resources.

<sup>(298)</sup> EUROPEAN COMMISSION, *Summary of the impact assessment. Accompanying document to the Proposal for a Council Directive amending Directive 2003/96/EC restructuring the Community framework for the taxation of energy products and electricity*, SEC(2011) 410, pp. 2 et seqq..

<sup>(299)</sup> FRENCH CONSTITUTIONAL COURT, decision n. 2009-599 DC, 29 December 2009.

The reason behind this decision is that this tax was introduced together with a large number of exemptions. In particular, 93% of the emissions were exempted from the carbon tax.

According to the Court, these exemptions run counter to the goal of fighting climate change and, therefore, the carbon tax is ineffective<sup>(300)</sup> and it violates the equality which is enjoyed by all in terms of public charges. In fact, the tax would have let many industrial polluters off, while placing a disproportionately heavy burden on ordinary households.<sup>(301)</sup>

These two examples clearly demonstrate that a tax, which is imposed on a polluting tax base, does not have necessarily an environmental effect and a tax, which is levied on a non-polluting base, can still have an environmental effect.

For this reason, it seems necessary to underline that an alternative approach must be taken into account and we do not think that this approach should be to set a mere classification or list of environmental taxes.

In particular, we agree with the idea that “*the definition of a legal concept admits different approaches depending on the legal framework*”.<sup>(302)</sup> However we do think – as we have already explained - that a common perspective on the concept of environmental tax is necessary.

The starting point is that there are no environmental taxes but only taxes that have (potential) environmental effects.<sup>(303)</sup>

This means that in using the term *environmental taxes* we should refer to taxes that have, generally speaking, environmental effects and, specifically, that

---

<sup>(300)</sup> According to the Court: “*qu'en conséquence, 93 % des émissions de dioxyde de carbone d'origine industrielle, hors carburant, seront totalement exonérées de contribution carbone; que les activités assujetties à la contribution carbone représenteront moins de la moitié de la totalité des émissions de gaz à effet de serre ; que la contribution carbone portera essentiellement sur les carburants et les produits de chauffage qui ne sont que l'une des sources d'émission de dioxyde de carbone ; que, par leur importance, les régimes d'exemption totale institués par l'article 7 de la loi déferée sont contraires à l'objectif de lutte contre le réchauffement climatique et créent une rupture caractérisée de l'égalité devant les charges publiques*”, FRENCH CONSTITUTIONAL COURT, decision n. 2009-599 DC, 29 December 2009, para. 82.

<sup>(301)</sup> M. BERGO, *L'imposta ambientale in Francia*, in L. ANTONINI (ed.), *L'imposizione ambientale nel quadro del nuovo federalismo fiscale*, op.cit., pp. 280 et seqq..

<sup>(302)</sup> M. VILLAR EZCURRA, *State Aids and Energy Taxes: Towards a Coherent Reference Framework*, *Intertax*, Issue 6/7, 2013, p. 345.

<sup>(303)</sup> We are aware of the fact that it is not easy to evaluate the environmental effects of a tax but we should understand that even the implementation of both the precautionary principle and the prevention principle is based on the potential effects of the tools introduced in order to prevent environmental damages.

induce a behavioural change to promote environmentally friendly behaviours and that discourage environmental damages and/or a reduction in the use of natural resources (e.g. through taxes on natural resource use).

Thus an environmental fiscal policy must take the immediate environmental effects of all taxation decisions into account.

This seems to be also the European Commission approach. In fact, according to the Commission, the potential effect of a tax in terms of its impact on costs and price is relevant for the definition of environmental taxes. <sup>(304)</sup>

The same line of reasoning seems to be followed also by the Eurostat.

In particular, according to the definition recently adopted by the Eurostat: *“The definition of a tax as environmental is independent of its classification by economic function: any tax, be it on consumption, labour or capital, that has the effect of raising the cost of activities which harm the environment is classified here as environmental tax”*.

It is not a case that even in the U.K., the Environmental Audit Committee pointed out that the best definition of environmental taxes is the one that considers the effects of a particular tax, *“because the most important characteristic of an environmental tax is that it promotes more sustainable and less environmentally damaging behaviours regardless of why it was introduced”*. <sup>(305)</sup>

Moreover, at the IFA Congress held in Florence in 1993 environmental taxes were defined as: *“taxes or charges which have been introduced for environmental reasons or have environmental effects independent of the motive behind the introduction of the tax or charge”*. <sup>(306)</sup> This definition seems to be – at least partly - coherent with our line of reasoning, even if it is important to underline that the effects have to be taken into account, not the objectives.

Therefore, with reference to the first part of the definition, we do not believe that environmental reasons or objectives should be taken into account,

---

<sup>(304)</sup> EUROPEAN COMMISSION, *Environmental taxes – a statistical guide*, op. cit., p. 9.

<sup>(305)</sup> HOUSE OF COMMONS ENVIRONMENTAL AUDIT COMMITTEE, *Budget 2011 and Environmental taxes. Sixth Report of Session 2010-12*, Vol. 1, London, 7 July 2011, p. 35.

<sup>(306)</sup> S.O. LODIN, *Introduction*, in *IFA, Environmental taxes and charges*, op. cit., p. 3.



because the goal of the laws can be obscure and the legislator could take advantage of “the fiscal illusion”.<sup>(307)</sup>

There is something more. As we have already said, a definition of environmental tax can be found in State aid regulation, and, in particular, in the Community Guidelines on State Aid for Environmental Protection and in the General block exemption Regulation (hereinafter GBER).<sup>(308)</sup>

Even with reference to State aid regulation, the chosen definition seems to overcome and minimize the detailed definitions given by the Eu and OECD.

In fact, the Guidelines and the GBER state that «*‘Environmental tax’ means a tax whose specific tax base has a clear negative effect on the environment or which seeks to tax certain activities, goods or services so that the environmental costs may be included in their price and/or so that producers and consumers are oriented towards activities which better respect the environment*».

This is a broad definition, which includes both taxes with a polluting tax base and taxes with environmental effects into the label environmental taxes for State aid purposes.

In our opinion, the first part of the definition is redundant because as we have already said, the polluting tax base is only one of the elements that can be considered in order to design environmental taxes aimed at changing the behaviour of polluters but it does not grant an attempt to alter the behaviour *per se*.

What we consider more important - if we really want to pursue the goal of changing human behaviours - is to implement informational strategies together with environmental taxation.

---

<sup>(307)</sup> K. MÄÄTTÄ, *Environmental taxes. An Introductory Analysis*, op. cit., p. 16; J. M. BUCHANAN, *Public Finance in Democratic Process: Fiscal Institutions and Individual Choice*, Berkeley, 1967 available at

[http://www.uca.edu.sv/mcp/media/archivo/b45378\\_collectedworksofjamesbuchanan.pdf](http://www.uca.edu.sv/mcp/media/archivo/b45378_collectedworksofjamesbuchanan.pdf)

According to the latter: «*if a particular attitude is pervasive in the community, an opportunity is provided to levy a tax that will capitalise on such sentiment, making the burden appear less than might otherwise be the case*».

<sup>(308)</sup> Art. 17 (10), COMMISSION REGULATION (EC) No 800/2008, declaring certain categories of aid compatible with the common market in application of Articles 87 and 88 of the Treaty, 6 August 2008.

The term informational strategies means attempts by public authorities to influence the behaviour of private parties and public bodies through increasing their knowledge of environmental problems. <sup>(309)</sup>

Last but not least, our idea is that the best way to introduce environmental taxes - which are facing a strong resistance by businesses - is as a part of an environmental tax reform.

The term 'environmental tax reform' refers to "a gradual shift of the tax base away from taxing "good resources" such as investment and labour, toward taxing "bad resources" such as pollution and inefficient use of energy". <sup>(310)</sup>

---

<sup>(309)</sup> O.K. FAUCHALD, *Environmental Taxes and Trade Discrimination*, The Netherlands 1998. According to the Author one aspect of this strategy is related to specific information concerning the causes of the environmental problems and alternative ways to deal with such problems; In Switzerland, for example, studies demonstrate that the plastic bag tax has positive environmental effects also due to a proper information of the population; see X. OBERSON, *Environmental taxes on products*, in *Ifa, Environmental taxes and charges*, op. cit., p. 77. Moreover, we have to underline that *The Future We Want* – the Outcome document from the UN Conference on Sustainable Development - states in paragraph 43: "We underscore that broad participation and access to information and judicial and administrative proceedings are essential to the promotion of sustainable development".

<sup>(310)</sup> C. BEUERMANN, T. SANTARIUS, *Ecological tax reform in Germany: handling two hot potatoes at the same time*, Energy Police, 34, 2006, pp. 917-929, the Authors describe ETR policy in Germany underling that in 1999 an ETR with two objectives was introduced in Germany. The first objective was to protect the environment; the other one was to reduce the statutory pension contributions in order to reduce labour cost and to increase employment; P. EKINS, S. SPECK, *Environmental taxes and ETRs in Europe: The current situation and a review of the modeling literature*, Oxford New York, 2011; EUROPEAN COMMISSION, *White Paper on Growth, Competitiveness and Employment*, COM (93) 700, 1993; EUROPEAN ENVIRONMENT AGENCY, *The European Environment: State and Outlook 2005*, Copenhagen, 2005; EUROPEAN ENVIRONMENT AGENCY, *Environmental tax in Europe: implications for income distribution*, Copenhagen, 16, 2011; S. GILJUM, C. LUTZ, C. POLZIN, *Global implications of a European environmental tax reform*, Vienna, 2010; M. KNIGGE, B. GÖRLACH, *Effects of Germany's Ecological tax reforms on the Environment, Employment, and Technological Innovation*, Berlin, August 2005; M. KOHLHAAS, *Ecological tax reform in Germany. From theory to policy*, Economics studies program series, volume 6, Washington D.C., 2000; OECD, *Environmental fiscal reform for poverty reduction*, Paris, 2005. The concept of ETR has 3 main pillars. By shifting taxes from labour to pollution, ETR is meant in principle to bring a so-called "double dividend". The double-dividend hypothesis suggests that increased taxes on polluting activities can provide two kinds of benefits. The first is an improvement in the environment, and the second is an improvement in economic efficiency from the use of environmental tax revenues to reduce other taxes such as income taxes that distort labour supply. The concept of revenue neutrality is also often associated with ETR, as the tax shift can be designed in a way that the increase in environmental taxes is compensated by an equivalent decrease of labour taxes, the overall tax burden remaining the same. Revenue neutrality, however, is a choice, and ETR can also form part of an overall tax reduction or increase approach (Uk, Denmark). Discussions around ETRs have been going on for more than 20 years in Europe and good examples of tax reform exist in some EU Member States. Significant tax reforms were undertaken during the 1990s and the early 2000s. Their main objectives were to broaden the overall tax base leading to an increase in environmental taxes, and to reduce labour costs. The strategy taken by those countries (such as the Nordic governments, the Netherlands, the UK and Germany) was to launch new environmental taxes, in the majority of cases, taxes levied on the consumption of energy and CO<sub>2</sub> emissions, and to revise already existing energy taxes.

Thus, the approach of an 'environmental tax reform' is a comprehensive restructuring of the tax system to achieve environmental objectives, which is not about, or at least, not necessarily about, increasing taxes, but about shifting the tax base.

Another tool that can be used is the so called 'environmental fiscal reform' which as the name suggests is broader than the one of 'environmental tax reform'. In fact, it can also provide for the restructuring of fees and charges to improve their environmental effectiveness and it extends the tax reform to include the reduction or the elimination of environmentally harmful subsidies. <sup>(311)</sup>

These kinds of reforms are a challenge that many States could and should really take up.

Coming to an end, we have to point out that even if we can use taxes and charges in order to protect the environment, rhetoric is one thing and action is another. In order to act properly we should, first of all, stop calling environmental taxation what it is not.

Transparency is needed if we really want to respect the "*solemn responsibility to protect and improve the environment for present and future generations*". <sup>(312)</sup> Otherwise, the risk is that we are just trying to settle on the proper price to the right to pollute. <sup>(313)</sup>

---

<sup>(311)</sup> J. MILNE, *Environmental taxation in the United States: the long view*, op. cit., p. 423, according to which: «it looks at a government's fiscal picture broadly to reform the fiscal flow of revenues in way that will enhance environmental protection». According to the OECD, «Environmental fiscal reform refers to a range of taxation and pricing measures which can raise fiscal revenues while furthering environmental goals», see OECD, *Environmental Fiscal Reform for poverty reduction*, Paris, 2005, p. 12. The same definition can be found in THE INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT/THE WORLD BANK, *Environmental fiscal reform. What should be done and how to achieve it*, op. cit., p. 1.

<sup>(312)</sup> UNITED NATIONS, *Declaration of the United Nations Conference on the Human Environment*, op. cit., Principle 1.

<sup>(313)</sup> M. J. SANDEL, *It's immoral to buy the right to pollute*, New York Times, December 17, 1997, p. A29.

## CHAPTER 3

### ENVIRONMENTAL TAXATION: SEEKING A BALANCE BETWEEN NATIONAL AND SUPRANATIONAL LEGAL PRINCIPLES

*For too long this country has been taxing people on their ability to pay, rather than on who they are.  
Take for instance, tall people. They have advantages money can't buy.  
Tall men get all the girls, see better at movies, block the view of the people behind them,  
are better suited for most sports  
and command respect from people who, like the Pentagon, confuse size with authority.  
Slim people should also be taxed.  
I am not referring here to people who diet or exercise to stay slim.  
I am talking of people who do nothing, eat anything they want, and don't get a pound.  
No tax can be too exorbitant for these people.  
In fact, there should be a surcharge for every time they look up for something like a banana split and say 'I, don't know  
why it is. I just can't gain weight'. Tax 'em.  
Richard Cohen, Washington Post, 19 March 1984*

*Oliver Wendell Holmes said that "Taxes are what we pay for civilization."  
I would add that in addition to being what we pay for civilization,  
taxes should also be what we pay to preserve civilization.  
L. H. Summers, The case for corrective taxation, September 1991.*

TABLE OF CONTENTS: **1.** Introduction. – **2.** Introducing taxes for other reasons than raising revenue: the so-called regulatory taxes. – **3.** Principles of environmental taxation in a global context – **3.1.** The polluter pays principle and the role of charges and fees – **3.2.** Environmental solidarity and the role of taxes stricto sensu – **4.** Environmental taxation and the ability to pay principle: some preliminary remarks. – **4.1.** The difficult interplay between environmental taxes and the ability to pay principle – **4.2.** A supranational principle? – **4.3.** A different interpretation of the ability to pay principle – **5.** Environmental taxes and the EU legal context. – **6.** Conclusions.

## 1. *Introduction*

In the first two chapters, we have analysed the principles that create the framework where environmental protection and taxes meet each other.

Moreover, we have elaborated on the definition of environmental taxes and its relevance and we have underlined that we have to bear in mind the differences between taxes and charges. This differentiation will be taken into account in the next paragraphs.

This chapter goes through the legal principles we have already analysed in the first chapter and analyses the other principles which are enshrined in the tax systems, dealing with how and why environmental taxes might violate legal principles.

The core of our speculation is represented by the national principles which are enshrined in the Constitution and by the EU legal framework.

First of all, it seems necessary to elaborate on how much and to what extent we can use taxes for other reasons than raising revenue, such as regulatory taxes.

This gives us also the opportunity to clarify the justification to differentiate between, on the one hand, fines or penalties and, on the other hand, regulatory taxes.

Secondly, the analysis is particularly focused on the inherently problematic interplay between the introduction of environmental taxes and the “ability to pay” principle, which is enshrined in many national constitutions and that could act as a counter-limit in the event of conflict with EU law. With reference to this issue, the aim of the chapter is to find a balance between national and supranational legal principles.

In this context, it is also important to evaluate the role of fees and charges (or para-commutative fiscal levies) <sup>(314)</sup>, and to analyse if through these fiscal measures we can successfully implement the “polluter pays” principle or if, vice versa, only taxes should be introduced in order to implement this principle.

---

<sup>(314)</sup> See, L. DEL FEDERICO, *The notion of tax and para-commutative taxation*, in B. PEETERS (ed.), *The concept of tax*, op. cit., pp. 74 et seq..

Moreover, it is also important to evaluate the role of the other principles such as the precautionary principle and the prevention principle.

Furthermore, in dealing with environmental taxes in the context of EU law, we have also to consider that environmental taxation, directly or indirectly, may affect Treaty obligations, such as State aid regulation, EU principles regulating the customs union, non-discrimination principle and fundamental freedoms.

Therefore, it is important to clarify the legal framework in which Member States can introduce environmental taxes, in order to avoid conflicts and also that environmental goals are discarded as soon as they jeopardise other interests.

## 2. *Introducing taxes for other reasons than raising revenue: the so-called regulatory taxes*

It is common knowledge that taxes are introduced in order to raise revenue for necessary governmental functions. However, it is worth noting that, this cannot be considered as the only goal of taxation.

In fact, the role of taxes has changed across time “*depending on the changes of the relations between the State and the individual and on the functions that taxes assumed in consequence of the State intervention in the economy and society*”.<sup>(315)</sup>

According to this line of reasoning, taxation can have, firstly, a redistributive function.<sup>(316)</sup> Secondly, taxation is also used to regulate and to steer private sector activity in the directions desired by governments.<sup>(317)</sup>

Our aim is to elaborate more on this last function, because, as we have already said, environmental taxation can be included into the label “regulatory taxation”.

We want to start this analysis with the recent the decision of the U.S. Supreme Court aimed at upholding the constitutionality of the Patient Protection and Affordable Health Care Act.<sup>(318)</sup>

---

<sup>(315)</sup> M. BARASSI, *The notion of tax and the different types of taxes*, in B. PEETERS (ed.), *The concept of tax*, op. cit., p. 59.

<sup>(316)</sup> F. GALLO, *Disuguaglianze, giustizia distributiva e principio di progressività*, *Rass. Trib.*, 2. 2012, pp. 290 et seqq..

<sup>(317)</sup> Most countries have both income and consumption taxes because of revenue and redistributive goals of taxation, see R. S. AVI-YONAH, *The three goals of taxation*, *Tax L. Review*, Vol. 60, 1, 2006, pp. 1-28. From the Italian perspective see, A. AMATUCCI, *Qualità della vita, interessi diffusi e capacità contributiva*, in *Riv. dir. fin. sc. fin.*, 1975, I, pp. 351 et seqq.; E. DE MITA (ed.), *Interesse fiscale e tutela del contribuente*, Milano, 2006, pp. 17 et seqq.; F. MOSCHETTI, *La capacità contributiva*, in A. AMATUCCI (ed.), *Trattato di diritto tributario*, Padova, 1994, vol. I, pp. 223 et seqq.; R. PERRONE CAPANO, *L'imposizione e l'ambiente*, in A. AMATUCCI (ed.), *Trattato di Diritto Tributario*, annuario, Padova, 2001, pp. 123 et seqq.; P. SELICATO, *Fiscalità ambientale e Costituzione*, in F. PICCIAREDDA-P. SELICATO, *I tributi e l'ambiente*, Milano, 1996, p. 97 et seqq.; P. SELICATO, *La tassazione ambientale: nuovi indici di ricchezza, razionalità del prelievo e principi dell'ordinamento comunitario*, op. cit., pp. 273 et seqq..

<sup>(318)</sup> U.S. SUPREME COURT, *National Federation Of Independent Business V. Sebelius*, 567 U.S., 2012. It is important to underline that we do not want to analyze the substantive merits of the Court's decision. On this issue see, J. E. MILNE, *The U.S. Supreme Court Opens a Door: Expanded Opportunities for environmental taxes*, op. cit., p. 10406, footnote n. 1.

This decision, in fact, is very important for our purposes because it gives us the possibility to stress, firstly, that taxes can be and are introduced to influence conduct, and, secondly, that regulatory taxes and penalties are different.

With reference to the first issue, in particular, the U.S. Supreme Court states that: “(...) *taxes that seek to influence conduct are nothing new. Some of our earliest federal taxes sought to deter the purchase of imported manufactured goods in order to foster the growth of domestic industry. See W. Brownlee, Federal Taxation in America 22 (2d ed. 2004); cf. 2 J. Story, Commentaries on the Constitution of the United States §962, p. 434 (1833) (“the taxing power is often, very often, applied for other purposes, than revenue”). Today, federal and state taxes can compose more than half the retail price of cigarettes, not just to raise more money, but to encourage people to quit smoking. And we have upheld such obviously regulatory measures as taxes on selling marijuana and sawed-off shotguns. See United States v. Sanchez, 340 U. S. 42, 44– 45 (1950); Sonzinsky v. United States, 300 U. S. 506, 513 (1937). Indeed, “[e]very tax is in some measure regulatory. To some extent it interposes an economic impediment to the activity taxed as compared with others not taxed.” Sonzinsky, supra, at 513”.* <sup>(319)</sup>

To put it simply, according to the U.S. Supreme Court, every tax is in some measure regulatory.

It is worth noting that, this is not something new. For example, one of the oldest typologies of taxes, implemented in the sixteenth century, was a luxury tax aimed at diminishing bad habits and the waste of money. <sup>(320)</sup>

Moreover, during the last decade there has been a noticeable tendency to place an increasing emphasis upon the economic and social effects of taxation. Taxes for regulation have become, in the minds of some economists and leaders, more important than taxes for revenue.

In fact, it is more widely recognized that all taxes do have economic effects and that their effects should be weighed in their use for revenue and regulation. <sup>(321)</sup>

---

<sup>(319)</sup> U.S. SUPREME COURT, *National Federation Of Independent Business V. Sebelius*, 567 U.S., 2012, pp. 37-38

<sup>(320)</sup> D. BIRK, *Diritto Tributario Tedesco*, (traduzione a cura di Enrico De Mita), Milano, 2006, p. 7.

<sup>(321)</sup> A. G. BUEHLER, *Ability to pay*, *Tax Law Review*, 1, 1946, p. 258.



Therefore, there is a general consensus on the issue of “corrective taxation” or “incentive taxation”.<sup>(322)</sup>

The fundamental characteristic of these taxes is that their revenues are of secondary importance, because they are aimed at guiding the behaviour of polluters.

In Germany, this is explicitly stated in article 3 of the German *Abgabenordnung*, that was modified in 1977. This article now states, with reference to taxes that “*revenue raising may only be incidental*”.<sup>(323)</sup>

Also, in Spain this issue is very relevant<sup>(324)</sup>. In particular, the Constitutional Court states: “*Es verdad que, como hemos afirmado, el legislador puede establecer tributos con finalidad no predominantemente recaudatoria o redistributiva, esto es, configurar el presupuesto de hecho del tributo teniendo en cuenta consideraciones básicamente extrafiscales*”.<sup>(325)</sup>

In particular, if taxes are not primarily introduced to raise revenue, the Constitutional Court states: “*la intentio legis del tributo no es crear una nueva fuente de ingresos públicos con fines estrictamente fiscales o redistributivos... no*

---

<sup>(322)</sup> See, R. S. AVI-YONAH, *Taxation as regulation: carbon tax, health care tax, bank tax and other regulatory taxes*, op. cit., pp. 1 et seqq., according to which taxation has three goals: to raise revenue, to redistribute income and to regulate; D. BIRK, *Diritto Tributario Tedesco*, (traduzione a cura di Enrico De Mita), op. cit., pp. 7 et seqq.; Y. MARTUL-ORTEGA, *I fini extrafisicali dell'imposta*, in A. AMATUCCI (ed.), *Trattato di Diritto Tributario*, op. cit., pp. 655 et seqq.; L. H. SUMMERS, *The case for corrective taxation*, *National Tax Journal*, Vol. 44, Issue 3, 1991, pp. 289-292.

<sup>(323)</sup> Article 3 *Abgabenordnung* – Imposte, prestazioni tributarie accessorie para. (1) states “*Le imposte sono prestazioni pecuniarie dovute dal soggetto passivo, senza alcuna correlazione con una controprestazione, pretese dal potere pubblico per il conseguimento di entrate nei confronti di coloro che realizzano la fattispecie a cui la legge collega il dovere della prestazione; il conseguimento di entrate può essere anche obiettivo secondario*”, V. E. FALSITTA (ed.), *Legge Generale Tributaria della Repubblica Federale Tedesca (Abgabenordnung)*, Milano, 2011.

<sup>(324)</sup> G. CASADO OLLERO, *Los fines no fiscales de los tributos*, in *Comentarios a la Ley General Tributaria y líneas para su reforma. Libro-homenaje al Profesor F. Sainz de Bujanda*, vol. I, I.E.F., Madrid, 1991, p. 104; M.A. GARCÍA FRÍAS, *Los fines no fiscales en las tasas*, in *Tasas y precios públicos en el ordenamiento jurídico español*, Institutos de estudios Fiscales, Marcial Pons, Madrid, 1991, p. 171; J.E. VARONA ALABERN, *Los tributos extrafiscales. Extrafiscalidad regular e irregular*, in A. BAEZA MORENO-D.JH. JIMÉNEZ-VALLADOLID, *Tratado sobre la Ley General Tributaria*, Pamplona, 2010, p. 59; M. T. SOLER ROCH, *El principio de capacidad económica y la tributación medioambiental*, in F. BECKER ZUAZUA, L. M. CAZORLA PRIETO, J. MARTÍNEZ-SIMANCAS SÁNCHEZ (eds.), *Tratado de Tributación medioambiental*, Navarra, 2008, p. 87 et seqq..

<sup>(325)</sup> SPANISH CONSTITUTIONAL COURT, 194/2000, 19 July 2000, para. 8. See also, SPANISH CONSTITUTIONAL COURT, 37/1987, 26 March 1987, para. 13, according to which: “*A ello no se opone tampoco el principio de capacidad económica establecido en el artículo 31.1 de la Constitución, pues el respeto a dicho principio no impide que el legislador pueda configurar el presupuesto de hecho del tributo teniendo en cuenta consideraciones extrafiscales*”; SPANISH CONSTITUTIONAL COURT, 197/1992, 19 November 1992, para. 6.

*es el mero gravamen de una manifestación de riqueza, de capacidad económica exteriorizada, sino coadyuvar a disuadir a los sujetos pasivos de la realización de una determinada conducta, del incumplimiento de ciertas obligaciones o, dicho en términos positivos, su intención es estimular o incentivar una determinada actuación”.* <sup>(326)</sup>

Therefore, the Spanish Constitutional Court clearly recognizes the regulatory function of taxes.

Bearing this in mind, we can now take a step further and analyse a few typologies of incentive or regulatory taxes.

In this context, we can think about, first of all, excise taxes. These taxes can force people to reconsider certain decisions or behaviors that are undesirable to society. Gasoline taxes, for example, internalize driving externalities.

“Sin taxes” on products like cigarettes and alcohol are enacted partly as behavioral controls. These taxes reduce consumption through both changes in price and by signalling communal behaviour norms through pricing.

Another important example is the so-called fat tax that is gaining consensus in an effort to reduce obesity. <sup>(327)</sup>

All of the above examples illustrate that taxes can serve a regulatory function and can be used to curb or prevent undesirable behaviours. <sup>(328)</sup>

However, it is not always the case for incentive taxation.

For example, *“It is easy to say a food tax might be desirable to combat moral hazard, adverse selection, or certain behavioral tendencies. It is another*

---

<sup>(326)</sup> SPANISH CONSTITUTIONAL COURT, 122/2012, 5 June 2012, para. 4.

<sup>(327)</sup> “The rationale of a fat tax seems clear. Make ‘bad’ food more expensive, ‘good’ food relatively less so, and people will probably shift at least some of their purchases to those healthier options. Fattening foods tend to be cheap and fresh produce and meat are often among the priciest food products”, A. ALEMANNI, I. CARREÑO, *Fat taxes in the EU between fiscal austerity and the fight against obesity*, *European Journal of Risk Regulation*, 4, 2011. Moreover, “There are different forms such a tax could take. One possibility is to tax the nutrient contents of foods such that those containing more fat or salt, for example, are taxed more heavily. Alternatively, particular types of foods, such as snacks or soft drinks, could be subject to a tax, or VAT could be extended to foods that are currently zero-rated but have a high fat content. Revenue from a ‘fat tax’ could be used in various ways, such as financing subsidies for healthy foods or exercise equipment, funding advertising campaigns for healthy eating or in schools. Alternatively, it could form part of general government receipts”, A. LEICESTER, F. WINDMEIJER, *The “Fat Tax”: economic incentives to reduce obesity*, The Institute for Fiscal studies, Briefing Note n. 49. See also, J. STRNAD, *Conceptualizing The “Fat Tax”: The Role Of Food Taxes In Developed Economies*, *Southern California Law Review*, Vol. 78, 2005.

<sup>(328)</sup> E. A. SCHARFF, *Taxes As Regulatory Tools: An Argument For Expanding New York City’s Taxing Authority*, *New York University Law Review*, Vol. 86, 2011, pp. 1556-1589.

*task entirely to show how the tax might apply for specific diseases and behaviors or how it might operate in a general system that addresses many diseases and behaviors simultaneously*".<sup>(329)</sup> This means that design of regulatory taxes can be quite difficult.

Moreover, regulatory taxes bring along some important juridical problems because they are not aimed at reaching the equal distribution of the tax burden but at changing behaviours.<sup>(330)</sup>

Therefore, these taxes could not be in line with the Constitution and, in particular, with the principle of equality.

However, they can be justified if they are adequate to reach their regulatory goal<sup>(331)</sup>, and if the legislator wants to protect other constitutional values, such as the protection of the environment.

Furthermore, regulatory taxes can create a conflict of interests.

The most important example in this sense is the one of environmental taxation. In fact, it is quite clear that the growing consensus on environmental taxation is not only due to the will to solve environmental issues but also, and probably mostly, to the States' need to find new and alternative sources of financing in order to counter the economic crisis.

This is clearly stated in the EU context. Let us think about the revision of the ETD<sup>(332)</sup>.

In particular, according to the Commission: "*Given that many Member States are now defining their policy strategies to exit from the economic and financial crisis and are considering structural reforms to their fiscal policies and*

---

<sup>(329)</sup> J. STRNAD, *Conceptualizing The "Fat Tax": The Role Of Food Taxes In Developed Economies*, op. cit., p. 1325.

<sup>(330)</sup> P. KIRCHHOF, *Umweltschutz im Abgaben- und Steuerrecht*, Köln, 1993.

<sup>(331)</sup> For example, the Spanish constitutional court stated that environmental taxes must be adequate to achieve their regulatory purpose, Const. Court 289/2000. This requires a correct definition of the taxable event and tax base so that the less the taxpayer pollutes, the lower tax has to pay. P.M. HERRERA, *Legal limits on the Competence of Governments in Spain*, in J. MILNE, K. DETELAERE, L. KREISER, H. ASHIABOR (eds.), *Critical Issues in Environmental Taxation. International and Comparative Perspectives*, Vol. I, op. cit., p. 112. Moreover, the French constitutional court, as we have already pointed out, considered the carbon tax introduced by the 2010 Budget Law with the goal of fighting climate change as ineffective and unfair and, therefore, unconstitutional, because, due to the large number of exemptions, the carbon tax was not adequate to reach its goal.

<sup>(332)</sup> Council Directive 2003/96/EC of 27 October 2003 restructuring the Community framework for the taxation of energy products and electricity.

*tax systems the revision of the Energy Tax Directive comes at a particular appropriate time as it provides opportunities to meet both environmental and economic objectives at the same time*".<sup>(333)</sup>

This link between environmental and economic objectives has a double aspect. On the one hand, it can have positive consequences giving the possibility to reach two advantages at the same time (the so-called double dividend). On the other hand, it can also have negative consequences because environmental and fiscal goals could collide in the long run and the risk is that this approach overlooks the primary reason behind the introduction of environmental taxation: the protection of the environment. In fact, from a fiscal perspective, an ideal environmental tax brings a lot of revenue in. From an environmental perspective, the ideal environmental tax has to reduce pollution and consequently it reduces the revenue yield.

For example, in 2011, the European Parliament proposed the introduction of a European carbon tax based on the "polluter pays principle". According to the European Parliament, a carbon tax might provide significant additional revenue, even if the main reason for introducing it is to change behaviours and production structures. This is why the expected revenue will then decrease when production patterns shift towards sustainable energy sources.

However, as we have already pointed out, even if the ideal environmental tax should not raise any revenue, a well-designed environmental tax is not aimed at reaching the "*Erdrosselung*" (literally choking).<sup>(334)</sup> Moreover, for example, revenues from energy taxes or tobacco taxes will never be discarded by the legislator in order to reach a regulatory function.

This can be clearly seen as a conflict of interests and it is the reason why we need to ask ourselves if – and when – regulatory taxation is reliable.

Broadly speaking, eminent scholars underline that "*in general, taxation as regulation makes sense when (1) it is applied to small numbers of taxpayers,*

---

<sup>(333)</sup> EUROPEAN COMMISSION, *Smarter energy taxation for the EU: proposal for a revision of the Energy Taxation Directive*, COM (2011) 168/3, pp. 6 et seqq..

<sup>(334)</sup> R. ALFANO, *Tributi Ambientali. Profili interni ed europei*, op. cit., p. 36; U. SACKSOFSKY, *Verfolgung ökologischer und anderer öffentlicher Zwecke durch Instrumente des Abgabenrechts*, op. cit., p. 2621.

(2) *the taxpayers are sophisticated and able to deal with complex tax incentives,*  
(3) *the regulatory goal is clear and related to the level of the tax*".<sup>(335)</sup>

Therefore, it is clear that taxation is not always the most effective way to achieve a specific regulatory goal.

However, in some cases regulatory taxation is indeed the most effective way to be implemented.

In particular, one of these cases is the use of taxation to combat global climate change. In fact, among the methods that have been advanced for the governments to reduce greenhouse gas emissions there is a broad consensus among scholars that carbon taxes are the most effective.<sup>(336)</sup> Moreover, environmental taxation if well designed can satisfy the three criteria we have seen above.

However, an important consequence that has to be stressed with reference to the use of environmental taxation is that it can be regressive and it raises difficult issues of distributive justice.<sup>(337)</sup>

In particular, we know that environmental taxation increases the price in order to reduce demand in energy consumption, car use or waste production.

---

<sup>(335)</sup> R. S. AVI-YONAH, *Taxation as regulation: carbon tax, health care tax, bank tax and other regulatory taxes*, op. cit., p. 9. With reference to food taxes, according to some scholars: "Using food taxes as implicit insurance premiums set at the level of future expected medical cost also would have subsidiary effects on other goals. Some of these effects would be distinctly positive. For instance, such taxes would impound signals in food prices that would help consumers who are confused about the health effects of various foods. The fact that the taxes would fund the associated medical cost removes the double cost problem that would exist if the tax were used for informational purposes alone. In addition, if the taxes increased the price of unhealthy foods, they would serve as a "self-control" device for individuals struggling to free themselves from bad dietary habits. Since the taxes would fund an actuarially fair insurance system, they would tend not to harm, and might even benefit, individuals with no demand for a self-control device. As a result, the heterogeneity problems with using food taxes strictly as a selfcontrol device would be greatly reduced or eliminated", J. STRNAD, *Conceptualizing The "Fat Tax": The Role Of Food Taxes In Developed Economies*, op. cit., p. 1325 et seqq..

<sup>(336)</sup> R. S. AVI-YONAH, *Taxation as regulation: carbon tax, health care tax, bank tax and other regulatory taxes*, op. cit., p. 4. In particular, the advantage of a carbon tax are that it is inherently simple, it generates revenue, it ensures cost certainty and it sends a clear signal to polluters, see R. S. AVI-YONAH, D. M. UHLMANN, *Combating Global Climate Change: Why a Carbon Tax is a better response to global warming than cap and trade*, 28 *Stan. Envtl. L. J.*, 3, 2009, pp. 37 et seqq..

<sup>(337)</sup> A. BARANZINI, J. GOLDEMBERG, S. SPECK, *A future for carbon taxes*, *Ecological Economics*, 32, 2000, pp. 395–412; H. C. BUGGE, *The polluter pays principle: dilemma of justice in national and international contexts*, in J. EBBESSON, P. OKOWA (eds.), *Environmental Law and Justice in Context*, op. cit., p. 417; C. A. GRAINGER, C. KOLSTAD, *Who pays a price on carbon?*, 2010, available at <http://fiesta.bren.ucsb.edu/~kolstad/HmPg/papers/CarbonTaxIncidence.pdf>, pp. 1 et seqq.; S. E. GAINES, R. A. WESTIN (eds.), *Taxation for Environmental Protection. A Multinational Legal Study*, op. cit., pp. 11 et seqq..

Therefore, carbon pricing may involve some social hardships since lower-income groups tend to spend a higher share of their income on energy and transport services.

Hence, “*most of the environmental effect of taxes is achieved through the sacrifices of the poorest segment of the population*”.<sup>(338)</sup>

However, this negative consequence depends on who will effectively bear the burden of the tax. In other words, it depends on “*whether the carbon tax will be fully passed on to the consumers via higher prices for energy and products, or whether the fossil fuels producers and workers will bear the burden in terms of lower profits and salaries respectively*”.<sup>(339)</sup>

In any case, it is important that some of the revenues which are generated from an environmental tax may be used for accompanying social measures and, consequently, for reducing the eventual regressive impacts.<sup>(340)</sup>

As stated above, the second issue of this paragraph deals with the differences between regulatory taxes and penalties. In fact, even if regulatory taxes revenue raising may only be incidental and therefore regulatory taxes can be considered very similar to penalties, we should distinguish between these two categories.<sup>(341)</sup>

Starting with the recent the decision of the U.S. Supreme Court aimed at upholding the constitutionality of the Patient Protection and Affordable Health Care Act can be helpful again.

---

<sup>(338)</sup> “*The effect of the PPP as a principle of internalization of costs becomes its caricature: ‘Those who can pay may pollute’*”, see H. C. BUGGE, *The polluter pays principle: dilemma of justice in national and international contexts*, in J. EBBESSON, P. OKOWA (eds.), *Environmental Law and Justice in Context*, op. cit., p. 417.

<sup>(339)</sup> A. BARANZINI, J. GOLDEMBERG, S. SPECK, *A future for carbon taxes*, op. cit., p. 304.

<sup>(340)</sup> “*In this context, redistribution options range from a lump-sum redistribution scheme to the reduction of (distortionary) taxes such as labour and value added taxes (VAT)*”, see, A. BARANZINI, J. GOLDEMBERG, S. SPECK, *A future for carbon taxes*, op. cit., pp. 303 et seq.. Moreover, “*The regressive nature of the costs of a price on carbon could be alleviated (or eliminated) by carefully recycling revenues. This could be done by targeted transfers, financing cuts in regressive payroll or excise taxes, targeting income tax cuts at lower income groups, or by increasing spending on government programs targeted at lower income groups*” see, C.A. GRAINGER, C. KOLSTAD, *Who pays a price on carbon?*, op. cit., p. 24.

<sup>(341)</sup> “*It is possible that using ‘penalty’ rather than ‘tax’ could generate a different behavioral response - an issue that merits investigation by behavioral economists, at least in the mind of this author. Perhaps we might take greater measures to avoid a penalty, given the subliminal inference of illegality or negativity, than a tax, which we know we legally must pay. Conversely, a ‘shared responsibility payment’ might engage people in a more positive way than a tax. The behavioral impact of the choice of vocabulary warrants research.*”, see J. E. MILNE, *The U. S. Supreme Court Opens a Door: Expanded Opportunities for environmental taxes*, op. cit., p. 10408.

In fact, the US Supreme Court distinguishes penalties from taxes and states “if the concept of penalty means anything, it means punishment for an unlawful act or omission.” *United States v. Reorganized CF&I Fabricators of Utah, Inc.*, 518 U. S. 213, 224 (1996); see also *United States v. La Franca*, 282 U. S. 568, 572 (1931) (“[A] penalty, as the word is here used, is an exaction imposed by statute as punishment for an unlawful act”).<sup>(342)</sup>

When we are dealing with regulatory taxation, we are not dealing with an unlawful act or omission.

Therefore, we refer to penalties or fines only when there is a prohibition, and specifically with reference to the environment, a polluting activity that is forbidden.

For the same reasons, as we have already said, we are not referring either to compensatory damages and, generally speaking, to liability owed by private parties to the government in order to compensate for environmental damage.

These situations are excluded from regulatory taxation because this label covers all those payments which are related to activities that are not forbidden, and that, most of the times, are expressly authorized by governments or authorities.<sup>(343)</sup>

Accordingly, activities which cause serious environmental damages should be prohibited and not taxed.<sup>(344)</sup>

---

<sup>(342)</sup> U.S. SUPREME COURT, *National Federation Of Independent Business V. Sebelius*, 567 U.S., 2012.

<sup>(343)</sup> *Contra* A. GIOVANNINI, *Capacità contributiva*, Enciclopedia Treccani, Diritto Online, 2013, available at [http://www.treccani.it/enciclopedia/capacita-contributiva\\_\(Diritto\\_on\\_line\)/](http://www.treccani.it/enciclopedia/capacita-contributiva_(Diritto_on_line)/).

<sup>(344)</sup> P.M. HERRERA, *Legal limits on the Competence of Governments in Spain*, in J. MILNE, K. DETELAERE, L. KREISER, H. ASHIABOR (eds.), *Critical Issues in Environmental Taxation. International and Comparative Perspectives*, Vol. I, op. cit., p. 112.

### 3. *Principles of environmental taxation in a global context*

As we have already said, environmental issues are a global concern and they cannot be addressed only at the national or local level, but there is the need to take also the supranational level into account.

Consequently, in this field, we may have multiple layers of regulation and taxation and it is not an easy challenge to coordinate them.

Before going into further details, it is important to recap the principles of environmental taxation in a global context.

At the international level, the introduction and the use of many legal instruments have been stressed in order to face environmental issues: from rights to duties and obligations, via principles such as the “polluter pays” principle and the principle of sustainable development.

For our purposes, the interaction between taxation and the environment can be based on the duty to protect the environment, the sustainable development principle, the precautionary principle, the polluter pays principle and the user pays principle.

At the European level, this interaction can be found in many different principles and, in particular, in the environmental integration principle, in the prevention principle, the precautionary principle, the polluter pays principle and the sustainable development principle.

However, we have to underline that in the context of EU law there are also some constraints. In fact, we have to take into account that the introduction of environmental taxation, directly or indirectly, may affect Treaty obligations, such as State aid regulation, EU principles regulating the customs union, non-discrimination principle and fundamental freedoms. Therefore, it is also important to take into account limits and constraints imposed by EU law.

At the national level, we should consider the right and the duty to protect the environment, the precautionary principle, the prevention principle and the polluter pays principle.

Moreover, with reference to the introduction of environmental taxes, we have to take into account the ability to pay principle which, as we have already



said, is enshrined in many national constitutions, and that could act as a counter-limit in the event of conflict with EU law, and the benefit principle.

Having said that, it is now necessary to take a step forward and analyse how these principles interact with each other and the legal framework in which environmental taxation can be introduced.

In doing so, we will start with the polluter pays principle which is commonly considered as the most relevant principle in the field of environmental taxation.

### 3.1. *The polluter pays principle and the role of charges and fees*

The polluter pays principle is considered to be the framework within which environmental protection and environmental taxation meet each other.

However, a deep analysis of this principle leaves some questions open.

In particular, the most relevant question we would like to answer is: which is the best fiscal measure to be introduced in order to implement this principle? In other words, in order to implement this principle, do we have to introduce taxes or charges and fees?

In order to answer this question, we have to underline two elements which are related to the peculiarity of Pigouvian taxes and of the PPP.

Generally speaking, as we have already pointed out, Pigouvian taxes are based on the so called equivalence principle, and, for this reason, “*the environmental tax due should be equivalent to the external costs inflicted on the environment, in the same way that the user charge due for a service should be equivalent to the costs assumed by the public sector in order to provide the service*”.<sup>(345)</sup>

In other words, it seems that - due to the peculiar allocation of the costs to the polluter - fiscal measures based on the Pigouvian tradition should be included into the label “charges” or “fees”, not “taxes”.

This is fundamental for our purposes, because it gives us the possibility to stress that probably taxes *stricto sensu* are not the best way to reach the goal behind the introduction of Pigouvian taxes.

Moreover, according to the PPP the costs of the environmental pollution are not imposed on the society but on the polluter.

In other words, together with the evaluation of the PPP in terms of efficiency calling for the internalisation of negative externalities in the cost of the product, an element of “equity” or “fairness” is reflected in the PPP.

This element can be seen in the fact that the costs of pollution are not imposed on the society at large but on the person who is responsible for the pollution. Moreover, the proportionality element of the PPP means it is

---

<sup>(345)</sup> P. M. HERRERA MOLINA, *Design options and their rationales*, in J. E. MILNE, M. SKOU ANDERSEN (eds.), *Handbook Of Research On Environmental Taxation*, op. cit., p. 87.

inequitable and unjust to impose costs on polluters for dealing with pollution they did not contribute to. <sup>(346)</sup> For example, it would be unjust to impose the costs of disposing of waste on someone who has not produced the waste.

In other words, according to this interpretation, the polluter pays principle is, first of all, an economic principle and has to be understood as expressing the concept that “*the cost of environmental impairment, damage and clean up should not be borne via taxes by society but that the person who caused the pollution should bear those costs*”. <sup>(347)</sup> Therefore, the PPP is a principle that excludes that the costs of pollution are covered by public budgets. <sup>(348)</sup>

Furthermore, it is important to say that, in our opinion, the polluter pays principle seems to be more oriented towards the restoration and compensation of damage to nature caused by the polluter.

This means that – if we use the polluter pays principle as a guiding principle – taxes *stricto sensu* are not the best instrument to be introduced for environmental protection. On the contrary, the best way to implement the PPP is to use and introduce charges or fees. <sup>(349)</sup>

The German tradition is also very clear in this sense. In fact, the German word of the PPP is “*Verursacherprinzip*” which can be literally translated as “the principle of the causer”, and it is used to express the equivalence principle of charges too. <sup>(350)</sup>

Having said that, we need to analyse the problems which are linked to the possibility to use charges and fees in order to implement the polluter pays principle.

---

<sup>(346)</sup> “*This definition of the PPP as a manifestation of equity is of course extremely elastic and can be stretched to cover very interesting but wide debates such as on the “fair” distribution of the economic and social costs of mitigating climate change according to responsibility for causing emissions in the past. An ‘equity’ interpretation makes the PPP a central feature within the notion of ‘environmental justice’*”. See, A. BLEEKER, *Does the Polluter Pay? The Polluter-Pays Principle in the Case Law of the European Court of Justice*, op. cit., p. 291.

<sup>(347)</sup> L. KRÄMER, *EC Environmental Law*, op. cit., 2007, pp. 26 et seqq..

<sup>(348)</sup> H. C. BUGGE, *The polluter pays principle: dilemma of justice in national and international contexts*, in J. EBBESSON, P. OKOWA (eds.), *Environmental Law and Justice in Context*, op. cit., p. 412.

<sup>(349)</sup> L. DEL FEDERICO, *Tasse, tributi paracommutativi e prezzi pubblici*, Torino, 2000, p. 306. *Contra* F. GALLO, *Profili critici della tassazione ambientale*, in L. ANTONINI (ed.), *L'imposizione ambientale nel quadro del nuovo federalismo fiscale*, op. cit., p. 5. According to the Author, designing an environmental charge would mean that we grant the right to pollute.

<sup>(350)</sup> P. M. HERRERA MOLINA, *Design options and their rationales*, in J. E. MILNE, M. SKOU ANDERSEN (eds.), *Handbook Of Research On Environmental Taxation*, op. cit., p. 87.

The starting point is that, we should be aware of the fact that there are some disadvantages in using environmental charges or fees, such as administrative charges, user charges, product charges and effluent charges. <sup>(351)</sup>

First, it seems that the level of charges – because of the fact that they can cover nothing more than total costs from the service rendered – may be so low that they “provide little incentive for polluters to change their behavior”. <sup>(352)</sup>

Instead, with respect to taxes, in principle and with the possible exception of confiscatory taxes, there are no legal limits in setting the tax rate and this could be higher than the marginal cost of pollution prevention and control.

This argument does not seem so strong. In fact, first, the European Commission clearly declared that to reach an environmental objective the tax rate of both taxes and charges has to be set at a correct level. <sup>(353)</sup>

Moreover, our idea is that the polluter pays principle should be used as another rational distribution criterion – beside the *Kostendeckungsprinzip* and the *Äquivalenzprinzip* – in order to justify charges and fees and to define their amount. <sup>(354)</sup>

---

<sup>(351)</sup> OECD, *Taxation and the Environment*, op. cit., p. 22.

<sup>(352)</sup> K. MÄÄTTÄ, *Environmental taxes. An Introductory Analysis*, op. cit., p. 18, according to which: «it is to some extent paradoxical to require the application of 'charge' on the basis that it would emphasize the regulatory nature of environmental taxes. For instance, user charges have a revenue-raising purpose, and administrative charges are usually also levied for revenue-raising purposes. Consequently, charges may manifest the revenue-raising purpose, rather than the regulatory purpose in the field of environmental policy».

<sup>(353)</sup> EUROPEAN COMMISSION, *Environmental Taxes and Charges in the Single Market*, COM (97) 9 final, 26 March 1997, p. 1.

<sup>(354)</sup> DEL FEDERICO, *The notion of tax and para-commutative taxation*, in B. PEETERS (ed.), *The concept of tax*, op. cit., p. 77. With reference to how to calculate environmental charges, we can refer to what has been stated by the European Court of Justice in the case *Futura Immobiliare*. In this case, the national court essentially asks whether Directive 2006/12 on waste, must be interpreted as precluding national legislation which, for the purposes of financing an urban waste management and disposal service, provides for a tax or charge which is calculated on the basis of an estimate of the volume of generated waste by users of that service and not on the basis of the quantity of waste which they have actually produced and presented for collection. The national court is uncertain, in particular, whether that provision must be interpreted as requiring the cost borne by the 'holder' of the waste, who presents it for collection for the purpose of its disposal, to be proportional to the quantity of waste actually presented. According to the Court, the Member States are obliged, to ensure that, in principle, all the users of that service collectively bear the overall cost of disposing of the waste. The Court is aware of the fact that it is often difficult to determine the precise volume of urban waste presented for collection by each 'holder'. Accordingly, recourse to criteria founded, first, on the waste-production capacity of the 'holders', calculated on the basis of the surface area of the property which they occupy and of its use, and/or, second, on the nature of the waste produced can provide a means of calculating the costs of disposing of that waste and allocating them among the various 'holders', since those two parameters are such as to have a direct impact on the amount of the costs. From this point of view,

In fact, according to relevant literature, the PPP can be consistent with any means of making the polluters pay, but even if it takes the form of a levy, it should be an “incentive charge” aimed at altering behavior and not at raising revenues. <sup>(355)</sup>

In using the polluter pays principle as a distribution criterion we should analyse what - according to this principle - the polluter could pay for. In fact, the definition of the actual costs that the principle is expecting the polluter to pay through environmental taxation will determine the formula of the amount to pay. <sup>(356)</sup>

---

national legislation which, for the purposes of financing the management and disposal of urban waste, provides for a tax or charge calculated on the basis of an estimate of the volume of waste generated and not on the basis of the quantity of waste actually produced and presented for collection cannot, as Community law currently stands, be considered contrary to Article 15(a) of Directive 2006/12. Second, the ‘polluter pays’ principle does not preclude the Member States from varying, on the basis of categories of users determined in accordance with users’ respective capacities to produce urban waste, the contribution of each of those categories to the overall cost necessary to finance the system for the management and disposal of urban waste. In the main proceedings, it is apparent with regard to calculation of the waste tax that hotel establishments constitute a category of ‘holders’ and that, in the submission of Futura Immobiliare and Others, hotel establishments are treated less favourably than individuals. In that regard, it must be found that, when calculating a waste disposal tax or charge, a distinction drawn for fiscal purposes between categories of users of the urban waste collection and disposal service – like that drawn by the national legislation at issue in the main proceedings between hotel undertakings and individuals – which is based on objective criteria having a direct relationship with the cost of the service, such as their waste-production capacity or the nature of the waste produced, may prove appropriate for achieving the objective of financing the service. While the distinction drawn for fiscal purposes must not go beyond what is necessary in order to achieve that financing objective, it is however to be noted that the competent national authorities have a broad discretion when determining the manner in which such a tax or charge is calculated. Thus, it is incumbent upon the national court to review, on the basis of the matters of fact and law placed before it, whether the waste tax at issue in the main proceedings results in the allocation to certain ‘holders’, in the case in point hotel establishments, of costs which are manifestly disproportionate to the volumes or nature of the waste that they are liable to produce. In light of the foregoing, the answer to the question referred is that Article 15(a) of Directive 2006/12 must be interpreted as not precluding national legislation which, for the purposes of financing an urban waste management and disposal service, provides for a tax or charge calculated on the basis of an estimate of the volume of waste generated by users of that service and not on the basis of the quantity of waste which they have actually produced and presented for collection. It is, however, incumbent upon the national court to review, on the basis of the matters of fact and law placed before it, whether the waste tax at issue in the main proceedings results in the allocation to certain ‘holders’, in the case in point hotel establishments, of costs which are manifestly disproportionate to the volumes or nature of the waste that they are liable to produce, see EUROPEAN COURT OF JUSTICE, Case C- 254/08, *Futura Immobiliare srl Hotel Futura, Meeting Hotel, Hotel Blanc, Hotel Clyton, Business srl vs. Comune di Casoria*, 23 April 2009.

<sup>(355)</sup> D. PEARCE, *The polluter pays principle*, Briefing Papers on key issues in environmental economics, Gatekeeper series no. LEEC 89-03, 2003, available at <http://www.mekonginfo.org/assets/midocs/0002714-economy-the-polluter-pays-principle.pdf>

<sup>(356)</sup> J. MILNE, *Environmental taxation: Why Theory Matters*, in in J. MILNE, K. DETELAERE, L. KREISER, H. ASHIABOR (eds.), *Critical Issues in Environmental Taxation. International and Comparative Perspectives*, I, op. cit., p. 15 et seqq..

Going into further details, the polluter could pay for, first of all, the costs of pollution prevention and control plus the cost of restoration of damage that is not prevented.

Secondly, the polluter could pay for the full internalization of pollution costs, also including the costs of any residual environmental damage that society incurs as a result of less than full prevention and restoration. <sup>(357)</sup>

For this reason, if fees or charges are designed by governments in line with the PPP taking into account the full internalization of pollution costs, they can be implemented in a way that cover all social values <sup>(358)</sup>, including also environmental costs, and they can really provide incentive for polluters to change their behaviour. <sup>(359)</sup>

In this context, it is worth noting that the European Court of Justice has pointed out that there is some flexibility in the implementation of the PPP.

In fact, the Court considers the fact that the polluter has contributed to the creation of pollution to be relevant. <sup>(360)</sup>

Lastly, with reference to the problems which are related to the introduction of environmental charges and fees, it seems that if services – or the mere possibility to enjoy government services or public good - do not exist it is not possible to levy any charges.

In particular, as stated above, “*User charges or fees are compulsory payments made by consumers (individuals or industry) for the provision of a*

---

<sup>(357)</sup> J. MILNE, *Environmental taxation: Why Theory Matters*, in J. MILNE, K. DETELAERE, L. KREISER, H. ASHIABOR (eds.), *Critical Issues in Environmental Taxation. International and Comparative Perspectives*, op. cit., p. 6.

<sup>(358)</sup> F. VON ZEZWITZ, *Environmental Taxes in Germany*, in S. E. GAINES, R. A. WESTIN (eds.), *Taxation for Environmental Protection. A Multinational Legal Study*, op. cit., p. 72.

<sup>(359)</sup> One example can be the Nitrogen Oxide Charge in Sweden, the impact of which is an emission reduction of 5,000 to 7,000 tons per year. This charge is levied at the rate of 40 SEK per kilogram of nitrogen oxides in the emission and is imposed only on large combustion plants.

The computation of the charge is based on the true and measured emissions, but because the environmental damage is impossible to estimate, the charge has been set by reference to the marginal cost of reducing the emissions. In particular, the cost of reducing 1 kilogram of material may range between 3 and 63 SEK. The decision on the rate is the result of a compromise between the desire not to lay too heavy a burden on the chargeable operators and the need to create a sufficient incentive to reduce the emissions. See, A. ERIKSSON, *Environmental Taxes in Sweden*, in F. VON ZEZWITZ, *Environmental Taxes in Germany*, in S. E. GAINES, R. A. WESTIN (eds.), *Taxation for Environmental Protection. A Multinational Legal Study*, op. cit., pp. 145-146

<sup>(360)</sup> EUROPEAN COURT OF JUSTICE, C-293/97 *Standley and Others*, 1999, para. 52; EUROPEAN COURT OF JUSTICE, C-188/07 *Commune de Mesquer*, 2008.

*service. User charges are therefore most applicable in the context of water and energy services, and the disposal of waste”.* <sup>(361)</sup>

In this context, for example, waste water charges cannot be used on those polluters who discharge waste waters into open waters, but only on those who release them to the sewage system. <sup>(362)</sup>

Differently, a waste water tax could be levied regardless of where the waste water is discharged.

In other words, levying charges requires the existence of a public service providing benefits for users <sup>(363)</sup> and, therefore, they cannot be used in order to cover every situation.

Moreover, where imposition of direct charges is too costly, a tax on a complementary product may be used in lieu of charges. For example, gasoline tax may be used in lieu of tolls. <sup>(364)</sup>

Therefore, charges and fees – even if they can be considered as the best instrument to implement the polluter pays principle – cannot be the only fiscal measure to be used and be introduced in order to protect the environment.

However, we think that this does not imply that environmental taxes should be introduced in the light of the polluter pays principle. On the contrary, environmental taxes have to be introduced in the light of different grounds.

This basis, as we are going to see in a short while, is constituted by the other environmental principles that we have already analysed.

---

<sup>(361)</sup> “For example, consumers of waste water services from a public or private utility could be asked to cover the cost of the collection and treatment infrastructure, and the cost of operating the infrastructure, through a two-part tariff: (a) a flat rate that is independent of volume, and (b) a charge per unit of discharge. The impact of higher user charges on the poor is ambiguous, and depends on the size of the price increase, their access to the service, and whether there are any compensating measures (wealth transfers) to protect low-income consumers. Often the poor, particularly in Africa and in rural areas, do not have formal access to electricity, water and waste services, and thus may not be so directly affected by price rises. Where the poor do not have formal access to the service, they will rely on other — often more expensive — strategies to secure water (from private vendors) and energy (such as purchasing charcoal or kerosene)”. See, THE INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT/THE WORLD BANK, *Environmental fiscal reform. What should be done and how to achieve it*, op. cit., p. 83 et seqq..

<sup>(362)</sup> K. MÄÄTTÄ, *Environmental taxes. An Introductory Analysis*, op. cit., pp. 17-18.

<sup>(363)</sup> F. GALLO, F. MARCHETTI, *I presupposti della tassazione ambientale*, op. cit., pp. 115 et seqq.; K. MÄÄTTÄ, *Environmental taxes. An Introductory Analysis*, op. cit., p. 17.

<sup>(364)</sup> R. A. MUSGRAVE, P. B. MUSGRAVE, *Public Finance in Theory and Practice*, United States, 1989, pp. 221.

### 3.2. *Environmental solidarity and the role of taxes stricto sensu*

We have analysed how to implement the polluter pays principle and we have stressed our concern in using taxes *stricto sensu* in the light of this principle. In fact, this principle is aimed at assigning the costs of environmental pollution to the person who is responsible for the pollution and not to society. The latter shall not pay, because according to the PPP the social costs of pollution have to be covered by the polluter. Accordingly, the PPP is a principle according to which the costs of pollution cannot be covered by public budgets.

Moreover, we have pointed out that the polluter pays principle seems more oriented towards the restoration and compensation of damage to nature, and not towards preventive measures based on the solidarity principle.

However, we have also said that if we really want to pursue environmental protection, we cannot only introduce charges and fees but we need to implement environmental taxes as well, that should have a totally different role and should be introduced in the light of different grounds.

In particular, these taxes should take the costs of pollution prevention into account, and, generally speaking, of the improvement and protection of the environment.

Moreover, this form of taxation is aimed at reaching two different and fundamental goals. First of all, it seeks to avoid pollution, to protect and to improve the environment. Secondly, these taxes pre-pay for possible environmental disasters. This second aim would solve the situations in which there is a systemic crisis caused by negative externalities and it would be too late to apply the polluter pays principle, because the polluters would not be able to pay anymore. <sup>(365)</sup>

Notwithstanding this, it is still not clear where we can find the grounds in the light of which we should introduce these taxes.

---

<sup>(365)</sup> For example, a tax to help dealing with floods damages in densely populated areas in which the probability of floods is very high has been proposed. See, R. CELLERINO, *Environmental taxation and floods in Italy: Problems and proposals, Critical issues in environmental taxation*, Vol. III, op. cit. pp. 557 et seq..



In our opinion, these taxes have to be based on the duty to protect the environment and on both the prevention principle and the precautionary principle. The former element (the duty to protect the environment) indicates the tool to be used: taxes. The latter elements (the prevention principle and the precautionary principle) indicate how to design this tool.

Let us start with the duty to protect the environment. As stated above, the common law of environment includes a general obligation to protect and preserve the global environment – enshrined also in the sustainable development principle – that has to be implemented in a dimension of environmental solidarity.

In particular, a need can be recognized, that is of considering a global environmental solidarity in the context of a moral and legal obligation to protect the rights of present and future generations that also scratches and undermines the traditional concept of sovereignty – as we will see in further details in the next chapter.

Accordingly, human beings have the duty and the responsibility to protect the environment, and have to deal with the consequences of their behaviour in a dimension of environmental solidarity. Environmental solidarity calls for a commitment to environmental protection of all people.

Therefore, the best tool to implement this duty to protect the environment (as stated above, also linked to the “sustainable development”) in a dimension of environmental solidarity is introducing taxes. This is due to the fact that taxes are “*the citizen’s contribution to the common good by reason of solidarity among the members of a society*”.<sup>(366)</sup>

Moreover, if we really want to protect the environment, we need to design these taxes as prevention or precautionary measures in order to anticipate, prevent

---

<sup>(366)</sup> W. SCHÖN, *International tax coordination for a second-best world (Part I)*, *World Tax Journal*, Vol. 1, No. 1, October 2009, p. 71. See also, G. FALSITTA, *Manuale di diritto tributario. Parte generale*, Padova, 2010, pp. 156 et seq.; A. FEDELE, *Appunti dalle lezioni di diritto tributario*, Torino, 2005, pp. 14 et seq.; F. MOSCHETTI, *La capacità contributiva*, in A. AMATUCCI (ed.), *Trattato di diritto tributario*, op. cit., pp. 226 et seq.; ID, *I principi di giustizia fiscale della Costituzione italiana, per “l’ordinamento giuridico in cammino” dell’Unione Europea*, *Riv. dir. tributario*, 2010, I, pp. 427 et seq.. In particular, according to the Author: “*il doveroso “concorso alle spese pubbliche” è visto come dovere di solidarietà, dovere di fare la propria parte nell’interesse collettivo, in ragione delle proprie possibilità; le “capacità” delle persone hanno, per così dire, anche un vincolo di destinazione altruistica: non sono solo finalizzate agli interessi propri, ma anche agli interessi comuni*”.

or minimize the causes of climate change and mitigate its adverse effects. <sup>(367)</sup>  
Moreover, with reference to the costs which are related to the improvement of the environment we can think about earmarked environmental taxes. <sup>(368)</sup>

The prevention principle and the precautionary principle teach us that prevention is better than cure and that we need also to implement a long term approach and to take the well-being of future generations into consideration.

In this context, the precautionary principle seems the best principle to be applied because it gives us the possibility to take measures without waiting until all the necessary scientific knowledge is available. Furthermore, according to this principle, it is important that policies and measures to deal with climate change should be cost-effective so as to ensure global benefits at the lowest possible cost. <sup>(369)</sup>

Environmental taxes, as we have already said, are considered one of the most cost-effective way instruments in order to protect the environment. <sup>(370)</sup>

Therefore, according to the precautionary principle and the duty to protect the environment in a dimension of environmental solidarity, we can implement environmental taxes that can consider the costs of pollution prevention, and, generally speaking, of the improvement and protection of the environment, preventing the causes of climate change and mitigating its adverse effects.

---

<sup>(367)</sup> OECD, *Environmental principles and concepts*, Ocde/GD(95)124, Paris, 1995, p. 15.

<sup>(368)</sup> On this issue, see C. DIAS SOARES, *Earmarking revenues from environmentally related taxes*, in J. E. MILNE, M. SKOU ANDERSEN (eds.), *Handbook Of Research On Environmental Taxation*, op. cit., pp. 102 et seqq..

<sup>(369)</sup> OECD, *Environmental principles and concepts*, Ocde/GD(95)124, Paris, 1995, p. 15.

<sup>(370)</sup> OECD, *Carbon taxes and emissions trading are cheapest ways of reducing CO<sub>2</sub>*, OECD says, November 2013, available at <http://www.oecd.org/newsroom/carbon-taxes-and-emissions-trading-are-cheapest-ways-of-reducing-co2.htm>

#### 4. *Environmental taxation and the ability to pay principle: some preliminary remarks*

The ability to pay principle is considered one of the most relevant principles when comes to the design of a good tax system.

To put it simply, there is a broad consensus on the fact that taxation is fair and equitable if and when it is in accordance with “ability to pay”.<sup>(371)</sup>

---

<sup>(371)</sup> A. G. BUEHLER, *Ability to pay*, op. cit., pp. 243 et seqq., according to which: “*A slogan popular for centuries in tax discussions has been the phrase “ability to pay.” It suggests that there is an ability to pay taxes that can be determined and that tax burdens should be shared according to the abilities of the taxpayers as they are measured by a specified or implied standard.*”; D. BIRK, *Diritto Tributario Tedesco*, (traduzione a cura di Enrico De Mita), op. cit., p. 14; B. W. DEMPSEY., *Ability to pay*, *Review Of Social Economy*, Vol. LXIII, No. 3, September 2005, pp. 335 et seqq.; D. G. DUFF, *Tax fairness and the tax mix*, November 2008, available at [http://taxprof.typepad.com/taxprof\\_blog/files/tax\\_fairness.pdf](http://taxprof.typepad.com/taxprof_blog/files/tax_fairness.pdf), pp. 9 et seqq., according to which: “*The rationale for this approach to tax fairness is best expressed by John Stuart Mill, who was as fierce an opponent of the benefit principle of taxation as he was an advocate of the ability-to-pay approach. Rejecting the notion that taxes should be apportioned according to some measure of the protection that individuals obtain from the state, Mill argued that the purposes of government extend beyond the protection of persons and property to include all purposes “ends of ... the social union” and that government was “so preeminently a concern of all” that it was pointless to determine who are “most interested in it”. More importantly, he continued, since a government should “make no distinction of persons or classes in the strengths of their claims upon it,” it followed that “whatever sacrifice it requires from them should be made to bear as nearly as possible with the same pressure upon all.”*”; J. ENGLISH, *The Impact of Human Rights on Domestic Substantive Taxation - the German Experience*, in G. KOPLER, M. POIARES MADURO, P. PISTONE (eds.), *Human rights and Taxation in Europe and the World*, op. cit., pp. 288 et seqq.; G. FALSITTA, *Manuale di diritto tributario. Parte generale*, op. cit., pp.155 et seqq.; F. GALLO, *Le ragioni del fisco*, op. cit., pp. 81 et seqq.; K. HOLMES, *The Concept of Income: A Multidisciplinary Analysis*, Amsterdam, 2001, pp. 21 et seqq.; G. MELIS, *Lezioni di diritto tributario*, op. cit., pp. 38 et seqq.; R.A. MUSGRAVE, *The Future of Fiscal Policy*, Leuven, 1978, pp. 57 et seqq., according to which: “*The essence of the ability-to-pay approach is to ask the question: assuming that resources are to be withdrawn from the private sector, how should the burden be distributed in an equitable fashion?*”; T. ROSEMBUJ, *La capacità contributiva del 'non fare'. Il concetto di imposta. A proposito di un'importante sentenza della Corte Suprema degli Usa*, *Dir. prat. trib.*, 2012, I, pp. 1295 ss.; J. A. SCHOENBLUM, *Tax Fairness or Unfairness. Consideration of the Philosophical Bases for Unequal Taxation of Individuals*, *The American Journal of Tax Policy*, Vol. 12:2, p. 235, according to which: “*The ability to pay principle has now gained such widespread currency that its underlying premise rarely is questioned by tax law scholars. They tend to assume uncritically that there is a direct relation between ability to pay and fairness*”; E. R. A. SELIGMAN, *Progressive Taxation in Theory and Practice*, Princeton University Press, 1908, p. 129 et seqq.; W. SCHÖN, *International tax coordination for a second-best world (Part I)*, op. cit., p. 71, according to which: “*Although the ability-to-pay principle is criticized in many circles for its vagueness and susceptibility to political or ideological fallacies, it still has a major impact on tax policy throughout the world. In some countries it is even traced back to the constitution, thus rendered immune against new legislative tendencies*”; M. SLADE KENDRICK, *The Ability-to-Pay Theory of Taxation*, *The American Economic Review*, Vol. 29, No. 1, 1939, pp. 92-101; M. T. SOLER ROCH, *El principio de capacidad económica y la tributación medioambiental*, in F. BECKER ZUAZUA, L. M. CAZORLA PRIETO, J. MARTÍNEZ-SIMANCAS SÁNCHEZ (eds.), *Tratado de Tributación*

In other words, people should contribute to the public expenditure in line with their ability to pay.

According to some scholars, the ability to pay principle should even be one of the principles which must form the constitutional framework for a European Legal Order. <sup>(372)</sup>

Moreover, it is worth noting that the ability to pay principle is enshrined in some national constitutions, such as the Italian Constitution <sup>(373)</sup>, the Spanish

---

*medioambiental*, op. cit., p. 85, according to which “*Es bien sabido que la capacidad económica es el principio básico de justicia que fundamenta el deber de contribuir al sostenimiento de los gastos públicos y ello, con independencia de que así se establezca o no expresamente en una norma constitucional. La práctica totalidad de la doctrina ha reconocido que la capacidad económica como parámetro en función del cual se paga el tributo es, ante todo, una exigencia lógica; es más, es el único criterio adecuado para satisfacer la igualdad de los ciudadanos ante el cumplimiento de dicho deber*”; S. UTZ, *Ability to pay*, *Whittier L. Rev.*, Vol. 23, 2002, pp. 867 et seqq.; F. VANISTENDAEL, *Is Fiscal Justice Progressing?*, *Bulletin for International Taxation*, Vol. 64, No. 10, 2010, pp. 527 et seqq.; ID., *Legal Framework for Taxation*, in V. THURONYI (ed.), *Tax Law Design and Drafting* International Monetary Fund, vol. 1, 1996, available at <http://www.imf.org/external/pubs/nft/1998/tlaw/eng/>. Article 13 of the 1789 *Déclarations des Droits de l'Homme et du Citoyen*, already established that taxes should be “*également répartie entre tous les citoyens, en raison de le leur facultés*”. *Contra* L. EISENSTEIN, *The ideologies of taxation*, Cambridge, Massachusetts and London, 2010, pp.14 et seqq., according to which: “*The ideology of ability to pay speaks with the voice of dispassionate justice, as a good ideology should. According to its adherent, taxation on the basis of ability is an ideal principle of fiscal policy that is immaculately aloof from the pressures of warring contentions. It is the principle to which all understanding legislators should wisely aspire, for it is inherently impeccable like the Forms or Ideas of Plato. At the very least, the ideology continues, the principle calls for a progressive income tax which universally applies without special favour or exception. Such a levy is intrinsically just, regardless of class, group, or interest. Deviations from the principle are an unseemly surrender to selfish pressures. This view is undoubtedly attractive, but it unduly ignores history*”, moreover, according to the Author: “*to speak forcefully about the ability to pay is merely to indulge in evasive rhetoric*”; W. GASSNER, M. LANG, *Das Leistungsfähigkeitsprinzip im Einkommen- und Körperschaftsteuerrecht: dogmatische Grundfragen – rechtspolitischer Stellenwert*, 14. *Österreichischer Juristentag*, 2000, Vol. III/1, p. 643.

<sup>(372)</sup> J. LANG, J. ENGLISCH, *A European Legal tax order based on Ability to Pay*, in A. AMATUCCI (ed.), *International Tax Law*, The Netherlands, 2012, pp. 264 et seqq.. Moreover, according to some scholars the ability to pay principle is already a fundamental principle of the European law, see G. FALSITTA, *I principi di capacità contributiva e di eguaglianza tributaria nel diritto comunitario e nel diritto italiano tra “ragioni del fisco” e diritti fondamentali della persona*, *Riv. Dir. Trib.*, 2011, I, pp. 519 et seqq..

<sup>(373)</sup> Art. 53 of the Italian Constitution reads: “*Everyone shall contribute to public expenditure in accordance with his means*” (see the official translation as published by the Italian Constitutional Court). In literature, see P. BORIA, *I principi costituzionali dell'ordinamento fiscale*, in A. FANTOZZI (ed.), *Il diritto tributario*, Torino, 2012, pp. 59 et seqq.; E. DE MITA, *Capacità contributiva*, in *Dig. disc. priv., Sez. comm.*, Torino, 1987; G. FALSITTA, *Manuale di diritto tributario. Parte generale*, op. cit., pp.155 et seqq., according to which art. 53 of the Italian Constitution is “*‘norma cardine’ del sistema tributario*”; ID., *Il doppio concetto di capacità contributiva*, *Riv. dir. trib.*, 2004, I, pp. 889 et seqq.; ID., *Natura e funzione dell'imposta*, in *Giustizia tributaria e tirannia fiscale*, Milano, 2008, p. 75 ss.; A. FEDELE, *Appunti dalle lezioni di diritto tributario*, op. cit., pp. 25 et seqq.; G. GAFFURI, *Il senso della capacità contributiva*, in L. PERRONE, C. BERLIRI (eds.), *Diritto tributario e Corte costituzionale*, Napoli, 2006, pp. 25 et seqq.; F. GALLO, *L'uguaglianza tributaria*, Napoli, 2012; E. GIARDINA, *Le basi teoriche del*

Constitution<sup>(374)</sup>, and the Brazilian one<sup>(375)</sup>. In this case, it constitutes a limit to governmental taxing powers.<sup>(376)</sup>

Broadly speaking, according to the ability to pay principle, “*taxpayers with equal ability to pay in terms of the relevant tax base should be taxed equally, whereas taxpayers in different conditions of ability to pay should be taxed to a greater or lesser extent corresponding to their higher or lower capacity. The former rule is referred to as horizontal and the latter as vertical equity*”.<sup>(377)</sup> Therefore, the fair treatment of taxpayers requires that burdens to be equal.<sup>(378)</sup>

---

*principio della capacità contributiva*, Milano, 1961; A. GIOVANNINI, *Capacità contributiva e imposizione patrimoniale: discriminazione qualitativa e limite quantitativo*, *Rass. trib.*, 2012, pp. 1131 et seqq.; F. MAFFEZZONI, *Il principio di capacità contributiva nel diritto italiano*, Torino, 1970; I. MANZONI, *Il principio della capacità contributiva nell'ordinamento costituzionale italiano*, Torino, 1965; I. MANZONI, G. VANZ, *Il diritto tributario. Profili teorici e sistematici*, Milano, 2007, p. 40; G. MELIS, *Lezioni di diritto tributario*, op. cit., pp. 38 et seqq., according to which: “*L’art. 53, co. 1, Cost., nel disporre che “tutti sono tenuti a concorrere alle spese pubbliche in ragione della loro capacità contributiva”, afferma il principio di capacità contributiva, considerato vera e propria “norma cardine” dell’intero sistema tributario*”; F. MOSCHETTI, *Capacità contributiva* in *Enc. giur.*, Roma, 1988, p. 3; ID., *La capacità contributiva*, in A. AMATUCCI (a cura di), *Trattato di diritto tributario*, op. cit., pp. 223 et seqq.; L. PEVERINI, *Presupposto, soggettività passiva e capacità contributiva nelle accise: riflessioni a margine di una recente sentenza della Corte Costituzionale*, *Riv. Dir. Trib.*, 2011, I, pp. 449 et seqq.

<sup>(374)</sup> Art. 31 of the Spanish Constitution reads: “*Everyone shall contribute to sustain public expenditures according to their economic capacity, through a fair tax system based on the principles of equality and progressive taxation, which in no case shall be of a confiscatory scope*”, see P.M. HERRERA, *Legal limits on the Competence of Governments in Spain*, in J. MILNE, K. DETELAERE, L. KREISER, H. ASHIABOR (eds.), *Critical Issues in Environmental Taxation. International and Comparative Perspectives*, Vol. I, op. cit., p. 112; K. TIPKE, *Die Steuerrechtsordnung*, Vol. 2, Cologne, 2003, p. 488 et seqq.

<sup>(375)</sup> Art. 145 of the Brazilian Constitution states: “*§ 1º Sempre que possível, os impostos terão caráter pessoal e serão graduados segundo a capacidade econômica do contribuinte, facultado à administração tributária, especialmente para conferir efetividade a esses objetivos, identificar, respeitados os direitos individuais e nos termos da lei, o patrimônio, os rendimentos e as atividades econômicas do contribuinte*”. See, L. AMARO, *Direito Tributário Brasileiro*, São Paulo, 2011, pp. 161 et seqq.; A. A. BECKER, *Teoria Geral Do Direito Tributario*, São Paulo, 2010, pp. 513 et seqq.; L. CESARINO PESSÔA, *O principio da capacidade contributiva na jurisprudencia do Supremo Tribunal Federal*, *Revista Direito GV*, 2009, pp. 95 et seqq.; H. TAVEIRA TORRES, *Direito Constitucional Tributário e Segurança Jurídica*, São Paulo, 2012, pp. 586 et seqq.

<sup>(376)</sup> According to some scholars, the ability to pay principle cannot be regarded as a rule of prudence for legislators in the design of the tax system, but rather it is in general a genuine and binding limit to governmental taxing powers. See, J. LANG, J. ENGLISCH, *A European Legal tax order based on Ability to Pay*, in A. AMATUCCI (ed.), *International Tax Law*, op. cit., p. 266.

<sup>(377)</sup> J. LANG, J. ENGLISCH, *A European Legal tax order based on Ability to Pay*, in A. AMATUCCI (ed.), *International Tax Law*, op. cit., p. 267; See also, M. BURTON, *Economic Income And The Search For A Fair And Simple Income Tax*, Australian Tax Teachers’ Association (ATTA) Annual Conference, 1996, available at <http://pandora.nla.gov.au/tep/23524>, according to which: “*The principle of horizontal equity can be traced at least to Adam Smith’s formulation of the principle of tax equity which required that taxpayers be required to contribute in proportion to their capacity to pay. Horizontal equity is founded upon the definition of fairness which holds that equals should be treated equally, and that there should be reasonable differences in the treatment of unequals. In the tax arena, horizontal equity requires that people in the same or substantially*

If this is commonly accepted, opinions differ as to the best measure of ability to pay. More specifically, ability to pay lacks a universally accepted meaning. <sup>(379)</sup> This inevitably undermines the role of the ability to pay principle.

Moreover, it is important to stress that there is also another approach to tax equity which is the so-called benefit principle, even if only a minority tradition in tax policy considers this principle a significant alternative.

Both these principles are included in Adam Smith maxim of equitable taxation that states: “*that the subjects of every State ought to contribute to the support of the government, as nearly as possible, in proportion to their respective abilities, that is in proportion to the revenue which they respectively enjoy under the protection of the State*”. <sup>(380)</sup>

The essence of the benefit principle is that each taxpayer has to contribute according to the benefits that he receives from public services. However, the benefits principle lacks practicability, being very difficult to quantify and attribute the benefit of public services financed by taxes to single taxpayers. <sup>(381)</sup>

In other words, “*the benefit principle might be an attractive way to allocate the cost of government expenditures in a liberal society, since it requires individuals and enterprises to pay only for those publicly-provided goods and services that they themselves enjoy, without having to pay for goods and services that governments provide to others*”. <sup>(382)</sup>

---

*similar circumstances should pay the same amount of tax. This definition of horizontal equity has generally been accepted as the starting point for tax policy debate at least since Simons' work*”; R.A. MUSGRAVE, *The Future of Fiscal Policy*, op. cit., pp. 59 et seqq.; R. A. MUSGRAVE, P. B. MUSGRAVE, *Public Finance in Theory and Practice*, op. cit., pp. 223 et seqq..

<sup>(378)</sup> S. UTZ, *Ability to pay*, op. cit., p. 869.

<sup>(379)</sup> “*When one attempts to define it, he encounters a task as difficult, indeed, as the definition of such concepts as 'truth,' 'beauty,' and 'justice'*”, see A. G. BUEHLER, *Ability to pay*, op. cit., p. 243.

<sup>(380)</sup> DEL FEDERICO, *Tasse, tributi paracommutativi e prezzi pubblici*, op. cit., p. 12; R.A. MUSGRAVE, *The Future of Fiscal Policy*, op. cit., p. 57, according to which: “*There are two great traditions in the theory of taxation, one is the ability to pay and the other the benefit strand*”.

<sup>(381)</sup> J. LANG, J. ENGLISCH, *A European Legal tax order based on Ability to Pay*, in A. AMATUCCI (ed.), *International Tax Law*, op. cit., pp. 266 et seqq..

<sup>(382)</sup> D. G. DUFF, *Tax fairness and the tax mix*, op. cit., p. 6; ID, *Benefit Taxes and User Fees*, Theory and Practice Research Paper Submitted to Ontario Role of Government Panel, 2003, p. 8, according to which: “*Among advocates, benefit taxation is generally favoured on one or more of three grounds: (1) that benefit taxes and user fees advance economic efficiency by ensuring that scarce resources are allocated to their most highly-valued uses, both within the public sector and between the public and private sectors; (2) that these levies also enhance the accountability of the public sector, making it more responsive to differing preferences and changes in the demand for*

However, it is impossible to apply the benefit principle to pure public goods and services, such as public security and national defence, whose benefits are generally shared, without resorting to arbitrary presumptions regarding the manner in which these benefits are distributed.

In any case, the benefit principle can be beneficially applied in some specific circumstances, and, specifically, where particular services are provided on a benefit basis.

In other words, benefit taxes are simply one method of raising government revenue that may be appropriate in some circumstances and inappropriate in others. <sup>(383)</sup>

The cases in which they may be appropriate are the following. First, this could be the case of introducing transit fees, user charges or tolls in the areas of transportation, of water and sewage, and of the collection and disposal of solid waste. Second, in the case of taxes which are introduced in lieu of charges, such as gasoline taxes and the taxation of mineral oils. <sup>(384)</sup>

In the latter, a tax on mineral oil can be justified through the benefit principle as far as it internalizes the costs which their consumption causes to the environment or the costs of road building. <sup>(385)</sup>

Therefore, bearing in mind that the benefit and ability to pay approaches can be compatible and they can coexist in a tax system, it is important to underline that the benefit principle could be the baseline for some typologies of environmental levies.

---

*publicly-provided goods and services; and (3) that benefit taxation embodies a basic principle of fairness since taxpayers only pay for the publicly-provided goods and services that they use*".

<sup>(383)</sup> D. G. DUFF, *Benefit Taxes and User Fees*, op. cit., p. 71.

<sup>(384)</sup> L. DEL FEDERICO, *Tasse, tributi paracommutativi e prezzi pubblici*, op. cit., pp. 9 et seqq.; R. A. MUSGRAVE, P. B. MUSGRAVE, *Public Finance in Theory and Practice*, op. cit., pp. 219 et seqq.. D. G. DUFF, *Tax fairness and the tax mix*, op. cit., pp. 8-9, according to which: "Tax fairness suggest that modern welfare states might make greater use of benefit-related taxes to finance public expenditures in several areas "such as higher education, roads and highways, and municipal services such as water and sewage and the collection and disposal of solid waste".

<sup>(385)</sup> D. G. DUFF, *Tax fairness and the tax mix*, op. cit., p.8; J. LANG, J. ENGLISCH, *A European Legal tax order based on Ability to Pay*, in A. AMATUCCI (ed.), *International Tax Law*, op. cit., p. 266.

#### 4.1. *The difficult interplay between environmental taxes and the ability to pay principle*

That being said, it is important to take a step further and to analyze why the ability to pay principle is relevant in this context and, in particular, why there can be a tension between the introduction of environmental taxes *stricto sensu* and the “ability to pay” principle.

The starting point is that in those Countries where the ability to pay principle is traced back in the Constitution, the benefit principle cannot be the baseline for the introduction of environmental taxes *stricto sensu*.

Going into further details, only charges can be potentially ruled by the benefit principle rather than by the ability to pay principle. <sup>(386)</sup>

Therefore, the implementation of environmental taxes has to take the ability to pay principle into account.

The latter can constitute a constraint on the introduction of some typologies of environmental taxes.

Going into further details, the issue is if a physical unit of something that leads to environmental damages or that somehow affects the environment can be legitimately considered as a tax base according to the ability to pay principle.

In fact, according to the “*qualified ability to pay*” theory, all taxes must be based on a clear manifestation of wealth (i.e. income, overall wealth, or consumption) belonging to the taxpayers, and the tax legislator must abstain from taxing acts that do not constitute a manifestation of wealth. <sup>(387)</sup>

---

<sup>(386)</sup> SPANISH CONSTITUTIONAL COURT, Case 296/1994, 30 November 1994. In literature, see P.M. HERRERA, *Legal limits on the Competence of Governments in Spain*, in J. MILNE, K. DETELAERE, L. KREISER, H. ASHIABOR (eds.), *Critical Issues in Environmental Taxation. International and Comparative Perspectives*, Vol. I, op. cit., p. 114. In the same fashion from an Italian perspective see L. DEL FEDERICO, *Tasse, tributi paracommutativi e prezzi pubblici*, op. cit., pp. 9 et seqq.. According to some scholars, however, the benefit principle can also be considered as a qualifying element of the ability to pay principle. See, F. GALLO, *L'autonomia tributaria degli enti locali e l'imposta sui cespiti immobiliari*, *Riv. dir. fin.*, 1982, I, p. 402; ID., *Ratio e struttura dell'IRAP*, *Rassegna Tributaria*, 1998, p. 631. *Contra*, P. SELICATO, *La tassazione ambientale: nuovi indici di ricchezza, razionalità del prelievo e principi dell'ordinamento comunitario*, op. cit., pp. 281 et seqq.. The Italian Constitution Court has many times stated that the ability to pay principle is not applicable to charges, see, A. FEDELE, *Tassa*, *Enc. Giur.*, Vol. XXX, Roma, 1993, p. 3.

<sup>(387)</sup> G. FALSITTA, *Manuale di diritto tributario. Parte generale*, op. cit., pp. 158 et seqq.; ID., *Il doppio concetto di capacità contributiva*, in G. FALSITTA, *Giustizia tributaria e tirannia fiscale*, Milano, 2008, pp. 153 et seqq..



This interpretation has a clear impact on some kinds of environmental taxes.

In particular, we have to consider only environmental taxes whose tax bases is deemed to be of particular environmental relevance, and we have to exclude taxes with an environmental objective or taxes which are earmarked for environmental protection without a polluting tax base.

These cases are generally considered in line with the ability to pay principle because they are usually based on a clear manifestation of wealth, but the legislator gives them a particular purpose, such as encouraging or discouraging activities or goods connected with the environment. <sup>(388)</sup>

In particular, according to the Spanish Constitutional Court “*regulatory taxes do not infringe the ability to pay principle if the taxable event refers to some actual or potential economic power*”. <sup>(389)</sup>

Moreover, the inherently problematic interplay between the introduction of environmental taxes *stricto sensu* and the “ability to pay” principle is related to taxes on pollutants or emission taxes and not to environmental taxes on products.

In fact, the second category concerns those taxes whose tax bases are physical units of resources, or of products whose use produce pollution (e.g. fertilizers, pesticides, solvents, batteries, one way packaging, plastic bags, paper, refrigerators, gasoline, diesel, and so on). Therefore, these taxes have a clear manifestation of wealth, namely consumption. <sup>(390)</sup>

On the contrary, taxes on pollutants or emission taxes, where the tax base is a physical unit of a specific pollutant, according to the “qualified ability to pay” theory, would be unconstitutional because it would be impossible to measure the ability to pay of the taxpayer.

---

<sup>(388)</sup> F. GALLO, *Profili critici della tassazione ambientale*, in L. ANTONINI (ed.), *L'imposizione ambientale nel quadro del nuovo federalismo fiscale*, op. cit., pp. 5-6.

<sup>(389)</sup> P.M. HERRERA, *Legal limits on the Competence of Governments in Spain*, in J. MILNE, K. DETELAERE, L. KREISER, H. ASHIABOR (eds.), *Critical Issues in Environmental Taxation. International and Comparative Perspectives*, Vol. I, op. cit., p. 112.

<sup>(390)</sup> F. GALLO, *Profili critici della tassazione ambientale*, in L. ANTONINI (ed.), *L'imposizione ambientale nel quadro del nuovo federalismo fiscale*, op. cit., p. 6; P.M. HERRERA, *Legal limits on the Competence of Governments in Spain*, in J. MILNE, K. DETELAERE, L. KREISER, H. ASHIABOR (eds.), *Critical Issues in Environmental Taxation. International and Comparative Perspectives*, Vol. I, op. cit., p. 112

In other words, following the “*qualified ability to pay*” theory, emission taxes are in breach of the ability to pay principle, because they are not based on wealth factors and, therefore, they are unconstitutional. <sup>(391)</sup>

Broadly speaking, emission taxes, using the actual emissions as a nexus, introduce a new concept of tax imposition that is often not easily to fit into the traditional tax system.

In Germany, for example, effluent charges will only be constitutional in very limited circumstances. Therefore, in the German tax system in order to solve this issue the so-called *Sonderabgaben* are used. <sup>(392)</sup>

Going into further details, these special taxes do not pursue the goal of revenue accumulation for the state budget, but they flow into funds for special purposes. Moreover, they fall upon a relatively narrow group rather than on public at large. The revenue from these special taxes has to be used for the benefit of the group burdened with it.

Since *Sonderabgaben* compete directly with taxes but apply only to certain groups and normally do not accrue to the general budget and, therefore, they raise questions of equality in the distribution of financial burdens, they must conform to strict prerequisites. <sup>(393)</sup>

On the contrary, it is worth noting that, according to some scholars, every environmental tax complies with the ability to pay principle.

This is because, besides consumption, environmental taxes on industrial processes are related to the potential economic power of industrial activities, while emission taxes are related to the potential economic power necessary to

---

<sup>(391)</sup> *Contra* F. GALLO, *Le ragioni del fisco*, op. cit., pp. 95-96. According to the Author, article 53 of the Constitution has to be considered as a mere criterion of a fair and reasonable distribution. In particular, this article would “only” stress the need of equity and redistributive justice and it underlines that the burden of taxation has to be distributed fairly. Therefore, according to this interpretation, a tax base linked to a manifestation of wealth of the taxpayers is not necessary.

<sup>(392)</sup> M. RODI, *Environmental charges*, in *Ifa, Environmental taxes and charges*, op. cit., pp.; F. VON ZEZCHWITZ, *Environmental Taxes in Germany*, in S. E. GAINES, R. A. WESTIN (eds.), *Taxation for Environmental Protection. A Multinational Legal Study*, op. cit., p. 95.

<sup>(393)</sup> According to the jurisprudence of the Federal Constitutional Court, these prerequisites are intended to ensure that such levies conform to the country’s fiscal system and to the Basic Law’s principle of equality (see for example Federal Constitutional Court vol. 82, p. 159 [178 ff.]). See, D. BIRK, *Diritto Tributario Tedesco*, (traduzione a cura di Enrico De Mita), 2006, Milano, pp. 10 et seq.; L. GLERIA, *Le imposte ambientali: profili costituzionali nell’ordinamento tedesco*, in *Riv. dir. trib.*, 2003, nn. 7-8, I, p. 597.

consume energy or to the potential economic power of the industrial activity that produces the emissions. <sup>(394)</sup>

Furthermore, eminent scholars solve this issue underlying that these taxes should not be analyzed in the light of the ability to pay principle.

This is because, environmental taxes are not aimed at financing public expenditure but they have “*naturaleza reparadora*”, in the sense that they are aimed at fixing the damage caused, and, therefore, they cannot be interpreted according to the ability to pay principle. <sup>(395)</sup>

However, even if environmental taxes should be considered indemnity taxes, they would still be taxes and, therefore, they should still be analysed in the light of the ability to pay principle. <sup>(396)</sup>

Moreover, we do not think that this can represent a general solution for every environmental tax, because, as we have already pointed out, we have to consider different typologies of these taxes, which are based not only on the polluter pays principle but on other principles, such as the precautionary principle. These taxes cannot be considered as indemnity taxes.

In fact, as we have already pointed out, these taxes are not only oriented towards the reparation, restoration and compensation of damage to nature caused by the polluter, but also towards preventive measures which are based on the solidarity principle.

Environmental taxes, in particular, should take the costs of pollution prevention into account, and, generally speaking, of the improvement and protection of the environment.

Therefore, we need to find a different solution to this issue.

---

<sup>(394)</sup> P.M. HERRERA, *Legal limits on the Competence of Governments in Spain*, in J. MILNE, K. DETELAERE, L. KREISER, H. ASHIABOR (eds.), *Critical Issues in Environmental Taxation. International and Comparative Perspectives*, Vol. I, op. cit., p. 112.

<sup>(395)</sup> G. FALSITTA, *Manuale di diritto tributario. Parte generale*, op. cit., p. 36; M. T. SOLER ROCH, *El principio de capacidad económica y la tributación medioambiental*, in F. BECKER ZUAZUA, L. M. CAZORLA PRIETO, J. MARTÍNEZ-SIMANCAS SÁNCHEZ (eds.), *Tratado de Tributación medioambiental*, op. cit., p. 101. See also, F. MOSCHETTI, “*Interesse fiscale*” e “*Ragioni del fisco*” nel prisma della capacità contributiva, in M. BEGHIN, F. MOSCHETTI, R. SCHIAVOLIN, L. TOSI, G. ZIZZO (eds.), *Atti della Giornata di studi in onore di Gaspare Falsitta. Per un ordinamento tributario non confiscatorio e non rinunciatario: alla ricerca di criteri costituzionali di giustizia tributaria*, Padova, 2012, p. 197. According to the Author, environmental taxes cannot be analysed in the light of the ability to pay principle.

<sup>(396)</sup> L. PEVERINI, *I tributi ambientali*, in L. SALVINI, G. MELIS (eds.), *Atti delle Giornate di Studio su L'evoluzione del sistema fiscale e il principio di capacità contributiva*, forthcoming.

Accordingly, in the next paragraphs, we are going to elaborate on three possible solutions.

First of all, we are going to analyze if there is a supranational principle, according to which we can introduce environmental taxes, which can limit the application of the ability to pay principle and overtake it.

The second option is the possibility to deviate from the ability to pay principle taking into account other constitutional principles and using the proportionality test.

Lastly, bearing in mind that the best measure of the ability to pay is still open to dispute, we can rethink the ability to pay principle enlarging its scope.

#### 4.2. *A supranational principle?*

As we have already said, there are many different principles at the international and European level according to which environmental taxes should be implemented.

The question behind this paragraph is if these principles can constitute a limit to the application of the ability to pay principle as enshrined in some national Constitutions.

Starting with the European level, the interaction between taxes and the environment finds its ground in many different principles and, in particular, in the prevention principle, the precautionary principle, the polluter pays principle, the environmental integration principle and the sustainable development principle.

That being said, it is now important to understand the role of these principles in the European Union legislation and their impact on Member States.

Starting with the polluter pays principle, it has been clarified that the ability to pay principle is a manifestly unsuitable criterion for the implementation of the 'polluter pays' principle. <sup>(397)</sup>

In fact, "*The aim of the 'polluter pays' principle is that all social strata tailor their behaviour so as to harm the environment as little as possible. It would therefore be incompatible with that principle to exempt certain groups from paying the costs connected with the environmental pollution they cause on the basis of greater need or less ability to pay. However, that does not preclude such costs from being taken into consideration in the assessment of any social support measures, in particular to the extent that environmental pollution is an unavoidable part of life. This would safeguard the incentive function of the 'polluter pays' principle*". <sup>(398)</sup>

---

<sup>(397)</sup> OPINION OF THE ADVOCATE GENERAL KOKOTT, Case C- 254/08, *Futura Immobiliare srl Hotel Futura, Meeting Hotel, Hotel Blanc, Hotel Clyton, Business srl vs. Comune di Casoria*, 23 April 2009, para. 67. *Contra*, M. W. HOWARD, *Environmental justice: sharing the burdens of climate change*, Philosophy at the Edge 2009: Ethics in Today's Policy Choices, Camden Philosophical Society, 24 July 2009, p. 1. According to the Author, "*in both national and global cases, the 'polluter pays principle' should be qualified by an 'ability to pay' principle*".

<sup>(398)</sup> OPINION OF THE ADVOCATE GENERAL KOKOTT, Case C- 254/08, *Futura Immobiliare srl Hotel Futura, Meeting Hotel, Hotel Blanc, Hotel Clyton, Business srl vs. Comune di Casoria*, 23 April 2009, para. 68. In literature, see M. T. SOLER ROCH, *El principio de capacidad económica y la tributación medioambiental*, in *Tratado de Tributación medioambiental*, op. cit., p. 89.

The same line of reasoning can be used in dealing with the prevention principle and the precautionary principle.

Therefore, it means that if one of these principles is binding on Member States, the ability to pay principle should not be taken into account by the Legislator in introducing environmental taxes.

However, according to article 191(2) TFEU these principles are compulsory only for EU institutions.

With reference to Member States, however, it seems that article 191 TFEU simply sets out the general objectives of EU environment law, which the Community legislature must give substance to before they can be binding on the Member States. <sup>(399)</sup>

In conclusion, it seems that these principles have no direct effects, and for this reason individuals cannot invoke the provisions of treaty law which are dedicated to the protection of the environment and Member States cannot be reviewed on the basis of these principles.

With reference to the environmental integration principle, according to which environmental protection requirements have to be implemented in all the Union's policies and activities, it constitutes both a guideline for the adoption of new measures in the European Union and a rule of interpretation of European Union's legislation.

In other words, as we have already said, European Union's legislation "*should, basically, be interpreted in a way that renders it consistent with environmental protection requirements, respectively with the objective of protection of the environment*". <sup>(400)</sup>

Therefore, this principle does not have direct effects either.

In any case, even if those principles could have been bound on Member States, we have to underline that, according to some scholars, the ability to pay principle could also act as a counter limit in the EU context.

---

<sup>(399)</sup> OPINION OF THE ADVOCATE GENERAL KOKOTT, Case C- 254/08, *Raffinerie Mediterranee SpA (ERG), Polimeri Europa SpA, Syndial SpA vs. Ministero dello Sviluppo Economico and Others* and Cases C-379/08 and C-380/08, *Raffinerie Mediterranee SpA (ERG), Polimeri Europa SpA, Syndial SpA V Ministero dello Sviluppo Economico and Others*, p. 45.

<sup>(400)</sup> M. WASMEIER, *The integration of environmental protection as a general rule for interpreting community law*, *Common Market Law Review*, 2001, 38, p. 159.

Taking for example Italy into account, the starting point is that “*the ranking of legislative powers appears to be as follows: first, the principles and fundamental rights established by the Constitution, which can abstractly be considered to be “counter-limits”; second, primary and secondary EU law; third, other provisions of the Constitution; and fourth and finally, ordinary law provisions*”.<sup>(401)</sup>

In this context, some scholars consider the ability-to-pay principle a fundamental constitutional principle and, therefore, a counter-limit in the event of conflict with EU principles.

In particular, the ability to pay principle is considered to be a fundamental principle because it would function as a measure to guarantee the protection of persons and individual rights, due to its link with the principle of equality.<sup>(402)</sup>

With reference to the international level, we know that all the principles originate from soft law and that is why they cannot be considered legally binding.

However, it is important to underline that the common law of environment includes a general obligation to protect and preserve the global environment towards present and future generations – enshrined also in the sustainable development principle – that has to be implemented in a dimension of environmental solidarity.

We have also already pointed out, that this concept appears in the provisions of many Constitutions.

This gives us the opportunity to take a step forward and analyse if we can create a link between the duty that flows from the international level and the

---

<sup>(401)</sup> F. GALLO, G. MELIS, *The Italian tax system: International and EU obligations and the realization of fiscal federalism*, op. cit., p. 402.

<sup>(402)</sup> L. ANTONINI, *Dovere tributario, interesse fiscale e diritti costituzionali*, Milano, 1996, pp. 184 et seqq.. *Contra* P. BORIA, *I principi costituzionali dell'ordinamento fiscale*, in A. FANTOZZI (ed.), *Il diritto tributario*, op. cit., p. 106 et seqq.; F. GALLO, *Ordinamento comunitario e principi costituzionali tributari*, *Rass. Trib.*, 2006, pp. 414 et seqq.. See also, F. GALLO, G. MELIS, *The Italian tax system: International and EU obligations and the realization of fiscal federalism*, op. cit., p. 402, according to which: “*If, however, the ability-to-pay principle is found not to be a fundamental principle, the only principle that could theoretically characterize the Italian tax system, compared to the EU tax system, would be that of substantive equality. This could be interpreted as the correct distribution of wealth and equal treatment (under parity of conditions) in Art. 3(1) and (2) of the Constitution. Such a principle would not be in line with EU law in cases where EU law takes into account the values of equality – specifically, of substantial equality – but protects those values to a lesser degree and with different implications than under Italian constitutional principles*”.

principle of solidarity behind it and other principles enshrined in national Constitutions.

If this link can be created, then we will see how it interacts with the ability to pay principle.

In order to reach this goal, we are going to analyse the Italian Constitution. In fact, it is worth mentioning that, in the Italian Constitution the solidarity principle finds its baseline in art. 2 of the Constitution, according to which: “*The Republic recognises and guarantees the inviolable rights of the person, as an individual and in the social groups within which human personality is developed. The Republic requires that the fundamental duties of political, economic and social solidarity be fulfilled*”.<sup>(403)</sup>

This article does not explicitly refer to the environment; however, it seems that we have to consider the duties of solidarity enshrined in the Constitution as an “open category” that can be combined with other values of the Constitution<sup>(404)</sup>.

It is worth noting that, the Italian Constitution does not enshrine a declared duty to protect the environment.

Notwithstanding this, the Italian Constitutional Court clarified that environmental protection is a leading and absolute constitutional value because it determines the quality of life of human beings.<sup>(405)</sup>

Therefore, the protection of the environment can be considered as one of the values of the Constitution that can be combined with the duties of solidarity which are enshrined in the Constitution.

Accordingly, the duty to protect the environment in a dimension of environmental solidarity can be found in art. 2 of the Italian Constitution.<sup>(406)</sup>

---

<sup>(403)</sup> See, [http://www.quirinale.it/qrnw/statico/costituzione/pdf/costituzione\\_inglese.pdf](http://www.quirinale.it/qrnw/statico/costituzione/pdf/costituzione_inglese.pdf)

<sup>(404)</sup> L. ANTONINI, *Presentazione*, in L. ANTONINI (ed.), *L'imposizione ambientale nel quadro del nuovo federalismo fiscale*, op. cit., p. XIII; P. BORIA, *I principi costituzionali dell'ordinamento fiscale*, in A. FANTOZZI (ed.), *Il diritto tributario*, op. cit., p. 127; E. DE MITA (ed.), *Interesse fiscale e tutela del contribuente*, op. cit., pp. 5 et seqq.; F. FRACCHIA, *La tutela dell'ambiente come dovere di solidarietà*, in L. ANTONINI (ed.), *L'imposizione ambientale nel quadro del nuovo federalismo fiscale*, op. cit., pp. 20 et seqq..

<sup>(405)</sup> ITALIAN CONSTITUTIONAL COURT, n. 64/1997, 17-30 December 1997. This interpretation is based on two articles of the Italian Constitution: artt. 9 and 32. According to art. 9 Cost. the Republic: “safeguards natural landscape and the historical and artistic heritage of the Nation”. Art. 32 reads: “The Republic safeguards health as a fundamental right of the individual and as a collective interest, and guarantees free medical care to the indigent”. See, P. SELICATO, *La tassazione ambientale: nuovi indici di ricchezza, razionalità del prelievo e principi dell'ordinamento comunitario*, op. cit., pp. 275 et seqq..



Therefore, being this article a fundamental principle of the Italian Constitution, it can constitute a limit to the ability to pay principle. This is the consequence if the latter, as we have already analysed, is not considered as a fundamental principle of the Constitution.

If, however, the ability-to-pay principle is found to be a fundamental principle, we need to find a balance between both values.

In other words, it is possible to deviate from the ability to pay principle taking into account other constitutional principles (namely the duty to protect the environment in a dimension of environmental solidarity), using the proportionality test.

According to the proportionality test, three tests have to be fulfilled. <sup>(407)</sup>

The first one is the suitability test, according to which the measure (namely the emission tax) has to be useful to achieve its goal.

The second test is the necessity one, according to which restrictions imposed on other Constitutional principles are only allowed if and in so far as the objectives cannot be wholly met by other means at similar cost.

Lastly, there is the proportionality test *stricto sensu*, according to which the benefits of the measure must be more important than its negative consequences.

The proportionality test should be done on a case by case approach, but it seems that there are rooms so as emission taxes can fulfil these three requirements.

---

<sup>(406)</sup> S. GEROTTO, *La tutela dell'ambiente come dovere di solidarietà. Qualche spunto di riflessione dal diritto comparato*, in L. ANTONINI (ed.), *L'imposizione ambientale nel quadro del nuovo federalismo fiscale*, op. cit., p. 143-144.

<sup>(407)</sup> P.M. HERRERA, *Legal limits on the Competence of Governments in Spain*, in J. MILNE, K. DETELAERE, L. KREISER, H. ASHIABOR (eds.), *Critical Issues in Environmental Taxation. International and Comparative Perspectives*, Vol. I, op. cit., p. 111.

#### 4.3. *A different interpretation of the ability to pay principle*

One of the most relevant problems which is related to the ability to pay principles is how to measure ability to pay. <sup>(408)</sup> In particular, many indexes have been considered as the best measure of ability to pay: individual wealth, income, endowment for consumption and other proxies. <sup>(409)</sup>

Going into further details, according to eminent scholars: “*The perfect formulation would consider people in equal positions – and subject to equal tax – if they are confronted with an equal set of options, and independent of the choice which they make among them*”. <sup>(410)</sup>

In particular, this means that the ability to pay should reflect the entire welfare which a person can derive from all the options which are available to him or her, including consumption, holding of wealth and the enjoyment of leisure. The latter is however impossible to determine, and, therefore, a second-best approach must be adopted. <sup>(411)</sup>

---

<sup>(408)</sup> “*The meaning of ability to pay was itself subject to disagreement. In particular, many writers referred to a ‘faculty’ theory. Faculty, in one sense, was broader than ability to pay. While ability to pay gradually became identified with income, faculty referred to the totality of wealth available to an individual. It was contended that faculty increases faster than income and justifies progressivity*”, see J. A. SCHOENBLUM, *Tax Fairness or Unfairness. Consideration of the Philosophical Bases for Unequal Taxation of Individuals*, op. cit., pp. 234 et seqq.

<sup>(409)</sup> “*We would reason more cogently about taxation if we carefully distinguished between two approaches that have been conflated. One postulates that utility schedules or welfare schedules of another sort are the ultimate touchstone of fairness in taxation. The second, strongly associated with the rejection of the “welfarism” of the first approach, holds that monetary measures of wealth, income, or consumption are adequate and indeed authoritative in settling questions of equal treatment*”, see S. UTZ, *Ability to pay*, op. cit., pp. 869 et seqq..

<sup>(410)</sup> D. BIRK, *Diritto Tributario Tedesco*, (traduzione a cura di Enrico De Mita), op. cit., p. 14; R.A. MUSGRAVE, *The Future of Fiscal Policy*, op. cit., p. 60.

<sup>(411)</sup> “*Unfortunately, however, such a concept is not operational. For one thing, people’s potential earning capacities differ and are not known. They may choose to work at a more pleasant but lower paying job than is available to them, so that the opportunity cost of leisure is not readily determined. For another, people’s tastes differ, so that people with equal positions may choose different consumption and leisure patterns. Equal positions, therefore, can no longer be taken to imply equal options and it no longer follows that people with equal options will be in equal positions. People in equal pre-tax positions with regard to income and to leisure, when subjected to the same tax formula, may incur different burdens and be let in different post-tax positions since they may suffer a different dead-weight loss or efficiency cost*”, R.A. MUSGRAVE, *The Future of Fiscal Policy*, op. cit., p. 60; R. A. MUSGRAVE, P. B. MUSGRAVE, *Public Finance in Theory and Practice*, op. cit., pp. 223 et seqq..

This has given rise to severe criticism of the ability to pay principle that has been considered as a “totally ‘ambiguous’ principle”.<sup>(412)</sup>

That being said, it is important to underline two points.

First, the ability to pay principle is not sacrosanct.<sup>(413)</sup> However, in the States where it is enshrined in the Constitution we cannot just act as it does not exist.<sup>(414)</sup>

Second, in order to interpret this principle we need to keep it updated and to consider that the social function of taxation is growing.

Bearing this in mind, the aim of this paragraph is to rethink the ability to pay principle trying to enlarge its scope and update it.

In particular, the ability to pay principle may be approached by a different angle from the one which is commonly used: the power of the individual rather than his sacrifice. In other words, “*ability to pay may also include elements of privilege*”.<sup>(415)</sup> The reason behind this statement finds its roots in the role of taxation.

In fact, it is common knowledge that taxes are needed not only to raise revenue for governmental functions but also for redistributive purposes, such as to reduce inequality and unequal distributions of wealth.

Moreover, ethics and taxation should be strictly linked. In other words, “*Every decision about who and what should be taxed involves important moral decisions about values like fairness and justice*”.<sup>(416)</sup>

Therefore, approaching the ability to pay from this new angle, a taxpayer cannot be considered as “*homo oeconomicus*”, who is only linked to his own property, but a person “*dipped*” in social relationships, and, for this reason, the measure of ability to pay may also include “advantageous positions” or privileges

---

<sup>(412)</sup> J. A. SCHOENBLUM, *Tax Fairness or Unfairness. Consideration of the Philosophical Bases for Unequal Taxation of Individuals*, op. cit., p. 235. See also, A. G. BUEHLER, *Ability to pay*, op. cit., p. 256. According to the Author: “*In view of the various meanings attached to ability to pay it is not strange that some persons have found it meaningless*”.

<sup>(413)</sup> K. FIELD, *Should the ability to pay principle be re-examined*, *Taxes – The tax magazine*, 1942, p. 664.

<sup>(414)</sup> G. FALSITTA, *Il doppio concetto di capacità contributiva*, in G. FALSITTA, *Giustizia tributaria e tirannia fiscale*, op. cit., p. 153.

<sup>(415)</sup> K. FIELD, *Should the ability to pay principle be re-examined*, op. cit., pp. 664-665.

<sup>(416)</sup> R. M. GREEN, *Ethics and Taxation: A Theoretical Framework*, *Journal of Religious Ethics*, Vol. 12, No. 2, 1984, pp. 146-161.

that other people do not have. <sup>(417)</sup> The delicate task is to define these “advantageous positions” or privileges in order to avoid arbitrary choices.

In order to reach this goal we should make reference to the capabilities approach developed by Amartya Sen and Martha Nussbaum and to its new theoretical framework about well being. <sup>(418)</sup>

The capability approach is based on the idea that economic factors, such as GDP, cannot be an adequate measure of economic well being. Accordingly, when making normative evaluations, the focus should be on what people are able to be and to do, and not – only – on what they can consume, or on their income. <sup>(419)</sup>

Going into further details, according to Amartya Sen: “*a poor person’s(...) freedom from undernourishment would depend not only on her resources and primary goods(...) but also on her metabolic rates, gender, pregnancy, climatic environment, exposure to parasitic diseases and so on. Of two persons with identical incomes and other primary goods and resources one may be entirely free to avoid undernourishment and the other not at all free to achieve this*”.

The consequence of using this approach in a tax law context, would be that a taxpayer can be taxed, if the legislator decides so, on criteria (*rectius* “advantageous positions”) which are associated to his existence in the society and not necessarily linked to economic factors. <sup>(420)</sup>

Therefore, the tax legislator can choose these criteria on a discretionary basis, as long as these “advantageous positions”: (i) are measurable and economically valuable; (ii) are reasonable and not arbitrary. <sup>(421)</sup>

So, going back to emission taxes, the advantageous positions would be the use of the environment *per se* or the authorization to use it. <sup>(422)</sup>

---

<sup>(417)</sup> F. GALLO, *Le ragioni del fisco*, op. cit., pp. 82 et seqq..

<sup>(418)</sup> M. NUSSBAUM, *Creating capabilities. The Human Development approach*, United States of America, 2011; A. SEN, *The idea of Justice*, United States of America, 2009.

<sup>(419)</sup> “*Capabilities are a person’s real freedoms or opportunities to achieve functionings. Thus, while travelling is a functioning, the real opportunity to travel is the corresponding capability. The distinction between functionings and capabilities is between the realized and the effectively possible, in other words, between achievements, on the one hand, and freedoms or valuable opportunities from which one can choose, on the other*”, see I. ROBEYNS, *The capability approach*, *Stanford Encyclopedia of philosophy*, 2011, available at <http://plato.stanford.edu/entries/capability-approach/>.

<sup>(420)</sup> F. GALLO, *Le ragioni del fisco*, op. cit., p. 87; P. SELICATO, *La tassazione ambientale: nuovi indici di ricchezza, razionalità del prelievo e principi dell’ordinamento comunitario*, op. cit., pp. 296 et seqq..

<sup>(421)</sup> F. GALLO, *Le ragioni del fisco*, op. cit., pp. 82 et seqq..

It is worth noting that, the Spanish constitutional court reached the conclusion that causing environmental damages proves the ability to pay taxes *per se*.<sup>(423)</sup>

These criteria can be considered as reasonable, measurable and economically valuable. Therefore, accepting this interpretation, emission taxes would be in line with the ability to pay principle.

---

<sup>(422)</sup> F. GALLO, *Le ragioni del fisco*, op. cit., p. 96; L. PEVERINI, *I tributi ambientali*, in L. SALVINI, G. MELIS (eds.), *Atti delle Giornate di Studio su L'evoluzione del sistema fiscale e il principio di capacità contributiva*, 2014, forthcoming, para. 8.

<sup>(423)</sup> SPANISH CONSTITUTIONAL COURT, Case 296/1994, 30 November 1994. In the same fashion, according to some scholars: “*El impuesto sobre la emisión de los gases con efecto invernadero – dióxido de carbono, metano, óxido nitroso, hidrofluorcarbonos, perfluorcarbonos y hexafluoruro de azufre - grava la manifestación de capacidad económica exhibida por determinados sujetos en la realización de actividades contaminantes de riesgo sistémico*”, T. ROSEMBUJ: *El impuesto ambiental*, Barcelona, 2009, pp. 160 et seqq.. See also, ID., *Principios globales de fiscalidad internacional*, Barcelona, 2012, pp. 118 et seqq.. *Contra*, P.M. HERRERA, *Legal limits on the Competence of Governments in Spain*, in J. MILNE, K. DETELAERE, L. KREISER, H. ASHABOR (eds.), *Critical Issues in Environmental Taxation. International and Comparative Perspectives*, Vol. I, op. cit., p. 112. According to the Author, “*such an understanding of the ability to pay makes the principle itself meaningless*”.

## 5. *Environmental taxes and the EU legal framework*

In this last part, we want to elaborate more on the EU legal framework for environmental taxes.

It is important to point out that, due to the depth of the subject, we do not want to analyse all the aspects related to this issue. However, we want to define an outline of this topic because it gives us the opportunity to make some further considerations about the definition and the design of environmental taxes.

In fact, this topic is really important because through this analysis we can easily reach the conclusion that even if environmental protection can be a valid justification in order to introduce environmental taxes, it cannot, however, be used as a way to circumvent EU law.

More specifically, in dealing with the concept and the design of environmental taxes in the context of EU law, we have to take into account that environmental taxation may affect Treaty obligations, such as State aid regulation, EU principles regulating the customs union, non-discrimination principle and fundamental freedoms.

In particular, the aim of this paragraph is to focus on two important decisions of the ECJ with reference to customs union and fundamental freedoms, and then to underline the possible relationship between environmental taxes and State aid.

With reference to the first issue, the first judgment we want to analyse is C- 173/05 *Commission of the European Communities vs. Italian Republic* in which the Court considered that a tax imposed by the Sicilian authorities on gas pipelines was a tax having equivalent effect to a customs duty prohibited by Articles 23 (now art. 28 TFEU) and 25 EC (now art. 30 TFEU).<sup>(424)</sup>

The starting point is that, the European Union is based upon a customs union that involves the prohibition between Member States of all customs duties

---

<sup>(424)</sup> EUROPEAN COURT OF JUSTICE, C- 173/05 *Commission of the European Communities vs. Italian Republic*, 21 June 2007. In literature, see P. MENGOZZI, *La giurisprudenza europea in materia di tributi ambientali*, in L. ANTONINI (ed.), *L'imposizione ambientale nel quadro del nuovo federalismo fiscale*, op. cit., pp. 68 et seqq.; A. E. LA SCALA, *Il carattere ambientale di un tributo non prevale sul divieto di introdurre tasse ad effetto equivalente ai dazi doganali*, op. cit., pp. 1317 et seqq..

on imports and exports and of all charges having equivalent effect to such duties, and also the adoption of a common customs tariff in their relations with third countries.

Going into further details, the Sicilian government instituted an environmental tax on the ownership of the gas pipelines containing the gas, which cross the territory of the Sicilian Region. This tax was introduced for the purpose of funding investments to reduce and to prevent environmental risks arising from the presence of gas pipelines containing methane gas installed in the Sicilian Regions territory.

Under the Sicilian legislation, the revenue should have been used to fund initiatives for preserving, protecting and improving the quality of the environment, particularly in the zones those pipelines cross.

According to the Commission, however, the true purpose of this levy is to tax the transported product, namely methane gas, and not the infrastructure itself. Under the Sicilian legislation, in fact, the chargeable event is ownership of the gas pipelines containing the gas, whilst the persons liable to that tax are the owners of the gas pipelines who carry on at least one of the activities of transportation, sales or purchasing of the gas. In other words, the tax is payable only when gas is actually present in the pipeline.

Therefore, according to the Commission, goods which are originating in a non-member State and placed in free circulation or in transit in Italy are made subject to a pecuniary charge which amounts to a tax having equivalent effect to a customs duty on imports (if the gas is imported into the Community) or exports (if that gas is transported to other Member States).

Accordingly, the Court finds that the tax introduced by the Sicilian Law is a fiscal measure which is levied on goods imported from a non-member country, namely Algerian methane gas, for the purpose of distribution and consumption of that gas in Italy or of the transit thereof towards other Member States.

Consequently, the Court held that the Sicilian tax is a tax levied on goods (the gas) imported from a non-member country for distribution and consumption in Italy or in transit to other member States.

Lastly, regarding the Italian Government's argument to the effect that the Commission's action is unfounded because the disputed tax was introduced with the sole aim of protecting the environment, in the light of the requirements of the precautionary principle, the Court notes that levies having equivalent effect to customs duties are prohibited irrespective of the purpose for which they are introduced and the destination of the revenue from them. <sup>(425)</sup>

This strict interpretation of the Court with reference to the relationship between environmental taxes and Treaty obligations has been confirmed in another recent decision: *Presidente del Consiglio dei Ministri v. Regione Sardegna*. <sup>(426)</sup>

With reference to the facts of the case, in 2006, the Region of Sardegna introduced a regional tax on stopovers for tourist purposes by aircraft used for private transport or persons; or recreational craft. The tax was due only by individuals and legal entities resident outside the territory of Sardegna. Therefore, residents were not subject to this tax.

The case was assessed on the basis of the freedom to provide services and, in particular, this legislation was considered a restriction on the freedom to provide services. The reason behind this decision is that the relevant legislation created an advantage for operators who are resident in Sardegna.

The Region of Sardegna submits that, even admitting that the regional tax on stopovers constitutes a measure restricting the freedom to provide services, such a tax is justified on public interest grounds and, in particular, by environmental protection requirements. <sup>(427)</sup>

---

<sup>(425)</sup> See also, EUROPEAN COURT OF JUSTICE, Case C-72/03, *Carbonati Apuani*, 2004, paragraph 31.

<sup>(426)</sup> EUROPEAN COURT OF JUSTICE, Case C-169/08 *Presidente del Consiglio dei Ministri v. Regione Sardegna*, 17 November 2009. In literature, see F. ENGELN, *State Aid and Restrictions on Free Movement: Two Sides of the Same Coin?*, *European Taxation*, May 2012, pp. 204 et seqq..

<sup>(427)</sup> “*In particular, justification for that tax is said to be found in a new regional policy for the protection of the environment and countryside of Sardinia. Under that policy, according to the Region of Sardinia, there are plans for a series of levies designed, first, to discourage squandering of the environmental and coastal landscape heritage and, secondly, to finance expensive measures to restore coastal areas. Such a tax can also be justified by the ‘polluter pays’ principle since, indirectly, it is imposed on the operators of the means of transport which are one of the sources of pollution*”, EUROPEAN COURT OF JUSTICE, Case C-169/08 *Presidente del Consiglio dei Ministri v. Regione Sardegna*, 17 November 2009, para. 41.



Whilst environmental protection can serve as a valid justification, the concerned legislation was held to be disproportionate. In fact, it is not appropriate or necessary for the attainment of those general objectives. In particular, even if it is accepted that private aircraft and recreational craft making stopovers in Sardegna constitute a source of pollution, that pollution is caused regardless of where those aircraft and boats come from and, in particular, it is not linked to the tax domicile of those operators. The aircraft and boats of residents and non-residents alike contribute to environmental damage. Therefore, again, environmental protection cannot be used as a justification in order to design environmental levies in breach of EU law principles.

Moreover, it is important to underline that the legislation at issue constitutes State aid measure in favour of undertakings established in Sardegna.

This gives us the opportunity to point out that the relationship between environmental taxes and State aid is really important and quite complex and it gives rise to many open questions.

In particular, this problem can be analysed from two different perspectives.

First, quite often the introduction of national environmental taxes is followed by the granting of tax reductions. The latter are not aimed at protecting the environment *per se* but at avoiding bad consequences - such as the loss of international competitiveness - for heavy polluters.

However, these tax reductions bring many problems along. In fact, they can produce negative environmental impact, they do not respect the PPP favouring heavy polluters over less intensive producers, and, above all, they can be considered as State Aid. <sup>(428)</sup>

Second, many environmental taxes that are introduced with a narrow scope could be potentially considered as negative State aid. <sup>(429)</sup> Therefore, it is really important to take into account State aid regulations while designing environmental taxes.

---

<sup>(428)</sup> P. M. HERRERA MOLINA, *Design options and their rationale*, in J. E. MILNE, M. SKOU ANDERSEN (eds.), *Handbook Of Research On Environmental Taxation*, op. cit., p. 94.

<sup>(429)</sup> A. CORDERWENER, *Asymmetrical Tax Burdens and EU State Aid Control*, *Ec Tax Review*, 6, 2012, pp. 288-292.

In fact, according to the ECJ case law <sup>(430)</sup> environmental considerations cannot justify the exclusion of selective measures, even specific ones such as environmental levies, from the scope of Article 107(1) TFEU.

Moreover, using State aid in the context of the PPP would relieve the polluter from the burden of paying the cost of his pollution. Therefore, State aid may not be an appropriate instrument in such cases. <sup>(431)</sup>

At the same time, State aid may be an appropriate instrument to enable Member States to adopt national environmental regulation exceeding EU standards, by lowering the burden on the undertakings, which are affected the most by this regulation, and thus making the regulation possible.

Therefore, there are specific cases in which aid for environmental purposes can be granted. However, the challenge is where to draw the line.

In this context, it is important to see if the EU targets for sustainable growth, the Europe 2020 strategy, State Aid Modernisation and the *Review of Community Guidelines on State aid of environmental protection and of the GBER* <sup>(432)</sup> will bring some new inputs to ECJ case law.

---

<sup>(430)</sup> EUROPEAN COURT OF JUSTICE, *Spain v. Commission*, C-409/00, 13 February 2003; EUROPEAN COURT OF JUSTICE, *British Aggregates Association v. Commission of the European Commissions*, C-487/06 P, 22 December 2008; EUROPEAN COURT OF JUSTICE, *Commission v. Kingdom of the Netherlands*, C-279/08 P, 8 September 2011.

<sup>(431)</sup> EUROPEAN COMMISSION, *Community Guidelines on State aid for Environmental Protection*, 2008/C 82/01.

<sup>(432)</sup> On this issue, see [http://ec.europa.eu/competition/state\\_aid/modernisation/index\\_en.html](http://ec.europa.eu/competition/state_aid/modernisation/index_en.html).

## 6. *Conclusions*

In this chapter, we have analysed how the principles regulating environmental taxes interact with each other.

In particular, we have seen that even if environmental protection and environmental taxes are growing in importance, there are many legal limits to be respected in implementing and designing this kind of taxes.

Therefore, States have to consider these limits - both at the national and the supranational level - if they want to introduce and implement legitimate environmental taxes. In other words, environmental protection cannot be a “pass” to circumvent law.

However, as we have already demonstrated, a balance can be found between these principles.

In particular, the inherently problematic interplay between the introduction of environmental taxes and the “ability to pay” principle, which is enshrined in many national constitutions, can be solved. The solutions proposed are two; one is linked with the acknowledgement of a duty to protect the environment in the dimension of solidarity. The other one is linked with the possibility to enlarge the scope of the ability to pay principle.

With reference to the obligations derived from EU law, it will be interesting to see if the EU targets for sustainable growth, the Europe 2020 strategy, State Aid Modernisation and the *Review of Community Guidelines on State aid of environmental protection and of the GBER* can bring some new inputs to ECJ case law, which is quite strict so far.

Moreover, we have seen that probably the best way to implement the polluter pays principle – due to its nature as a principle which is more oriented towards the restoration and compensation of damage to nature caused by the polluter - is through the introduction of fees and charges.

Whilst, taxes *stricto sensu* should be introduced in the light of other principles, such as the prevention principle, the precautionary principle and the sustainable development principle.

More specifically, according to the precautionary principle and to the duty to protect the environment in the dimension of solidarity, we can implement environmental taxes that can take the costs of pollution prevention into account, and, generally speaking, of the improvement and protection of the environment, preventing the causes of climate change and mitigating its adverse effects.

## CHAPTER 4

### ANY ROOM FOR A GLOBAL ENVIRONMENTAL TAX?

*“This should serve as a reminder not to jettison major taxation ambitions  
in the name of short-term political realism.  
The best strategy is not to eschew grand visions, but rather  
to move towards them step by step”  
- Jean Pierre Landau, December 2004*

*[C]ountry-by-country legislation and measures form a risk of market distortion  
with implications for competitiveness, and tax avoidance and arbitrage  
opportunities. It is crucial that governments work closely with each other and  
establish a coordinated approach, adapting and adopting the success stories and  
new approaches to unlock the potential of environmental taxes and incentives to  
make a significant contribution to the fight against climate change.  
-- Mark Schofield & Harry Manisty, *Time Arrives for Coordination on Green  
Taxes*, *Int'l Tax Rev.* June 2009.*

*Since the temperature of the heart's atmosphere is a true common resource,  
global cooperation on the imposition of carbon excise is imperative.  
Free riders cannot be tolerated on the greenhouse express.  
Sjibren Cnossen and Herman Bollebergh, *Toward a global excise on carbon*,  
*National Tax Journal*, 1992*

TABLE OF CONTENTS: **1.** Introduction. – **2.** Global taxes: an old debate in a new context. – **3.** An international environmental tax or internationally harmonized national environmental taxes? – **3.1.** An international environmental tax – **3.2.** Internationally harmonized environmental taxes – **4.** Some examples: carbon taxes and international transportation fuel taxes. – **5.** Conclusions.

#### *1. Introduction*

The last chapter is focused on international environmental taxation. More specifically, the question behind this chapter is if introducing a global environmental tax – that can have three parallel aims: (i) policy steering, (ii) revenue raising, and (iii) income re-distribution - can be feasible.

This question is relevant for at least two reasons.

The first reason is straightforward. As we have already said, environmental problems, and global warming in particular, are a global concern and issue. In other words, they are cross border problems and they know no boundaries. In this context, the international community is increasingly pronouncing its willingness to tackle these problems in a cooperative fashion.

In fact, a global problem should not – and cannot – be solved by local or national solutions but all countries should participate in resolving it. <sup>(433)</sup> This is particularly obvious in a globalized world. Solutions require intense international cooperation.

Going into further details, if we do not act all together and simultaneously, the risk is to favor the so called “carbon leakage”. <sup>(434)</sup>

To put it simply, carbon intensive industries could relocate to countries having less strict provision on carbon emissions. In other words, the carbon costs imposed by domestic climate policies (e.g. national carbon tax) could put domestic producers at a competitive disadvantage vis-à-vis producers in countries which are not imposing similar strict carbon constraints. <sup>(435)</sup> This is a risk that we cannot underestimate, especially in times of global economic crisis.

However, it is not only a matter of competitiveness and there is another risk that we cannot underestimate in times of climate crisis. In fact, the risk is also to create “carbon havens” endangering the global effectiveness of carbon-constraining policies emission reduction. <sup>(436)</sup>

---

<sup>(433)</sup> “It is not through the unilateral action of a few that the climate crisis will somehow be halted. We must keep our eye on the ball, and not lose sight of the magnitude of the problem that we are confronted with. That problem represents no less than our very ability to survive in future.”. See, WTO PUBLIC FORUM 2009, *Global problems, global solutions: toward better global governance*, Switzerland, 2010, available at [http://www.wto.org/english/res\\_e/booksp\\_e/public\\_forum09\\_e.pdf](http://www.wto.org/english/res_e/booksp_e/public_forum09_e.pdf). In literature see F. VANISTENDAEL, *Global Law and the search for constitutional pluralism*, in G. KOPLER, M. POIARES MADURO, P. PISTONE (eds.), *Human rights and Taxation in Europe and the World*, pp. 192 et seqq..

<sup>(434)</sup> The possibility to counter carbon leakage through the introduction of border tax adjustments (BTA) measures on imports will not be addressed. See, WORLD TRADE ORGANIZATION, *The interface between the trade and climate change regimes: scoping the issue*, Staff Working Paper ERSD-2011-1, 12 January 2011.

<sup>(435)</sup> WTO-UNEP, *Trade and Climate Change*, 2009, available at [http://www.wto.org/english/res\\_e/booksp\\_e/trade\\_climate\\_change\\_e.pdf](http://www.wto.org/english/res_e/booksp_e/trade_climate_change_e.pdf), pp. 99 et seqq..

<sup>(436)</sup> R. H. WEBER, *Innovative taxation strategies supporting climate change resilience*, in L. KREISER, J. SIRISOM, H. ASHIABOR, J. MILNE (eds.), *Environmental taxation and climate change. Achieving Environmental Sustainability through Fiscal Policy*, Cheltenham, 2011, p. 47.

Therefore, in order to avoid “carbon leakage” and “carbon havens” we need to boost international cooperation and global solutions.

The second reason why we think that a global tax could be used to solve environmental problems is clearly linked to the first one.

In particular, it finds its roots in the fact that the traditional concept of sovereignty does not fit into the globalized world any more and, in particular, in a global environmental context.

It goes without saying that, we are aware of the fundamental role of national sovereignty in taxation.

In fact, one of the most relevant limits to the implementation of international taxes is that only states have the power to tax. In this context, both an international organization with adequate taxing powers and the will of states to hand over part of their fiscal sovereignty to regional or global organizations are absent. In this sense, international taxes constitute a slippery path.

Moreover, eminent scholars underline that “*Any proposal which would ask sovereign states to fundamentally change their national tax systems in order to pave the way for an improved international regime would require too much and miss the chance for real-world success*”.<sup>(437)</sup> Therefore an international tax seems to be the wrong solution.

Notwithstanding this, we believe that in the case of environmental taxation there are good reasons to think differently.

In other words, we do not want to reach the conclusion that the traditional concept of sovereignty is always inadequate in taxation.<sup>(438)</sup>

However, we want to point out that when we use taxation to solve environmental issues we are facing a specific and peculiar situation for at least two reasons.

---

<sup>(437)</sup> W. SCHÖN, *International tax coordination for a second-best world (Part I)*, *World Tax Journal*, op. cit., p. 85.

<sup>(438)</sup> Even if maybe the same conclusion can be reached with reference to global fiscal transparency and exchange of information, and the international pressure that is causing a reformulation of tax policy and treaty by many countries. Global fiscal transparency “*due to its current dimension and the significant endorsement at a national level, almost reflects the substance of an opinio iuris ac necessitatis. An international customary tax law, perhaps the first one in our domain, is, therefore, gradually emerging*”. See, P. PISTONE, *Exchange of Information and Rubik Agreements: The Perspective of an EU Academic*, *Bulletin for international taxation*, April/May 2013, p. 216.

First, because we have to deal with worldwide problems, such as climate change and global warming, that cannot be solved by individual states. <sup>(439)</sup>

Second, because we are dealing with global commons or public goods.

In particular, public goods “*are goods in the public domain: available for all to consume and so potentially affecting all people. Global public goods are public goods with benefits — or costs, in the case of such “bads” as crime and violence — that extend across countries and regions, across rich and poor population groups, and even across generations*”. <sup>(440)</sup>

This means that, the maintenance of public goods needs additional financial resources. In particular, global public goods have to be publicly financed. <sup>(441)</sup>

Furthermore, all countries treat the environment as a common property without preventing its overuse <sup>(442)</sup> and without considering the systemic risks for others by the creation of negative externalities, or, in other words, the social costs which are imposed on others. <sup>(443)</sup>

---

<sup>(439)</sup> To ensure environmental sustainability is one of the Millenium Development goals established at a UN General Assembly in 2000. These goals should be achieved by 2015.

<sup>(440)</sup> I. KAUL, P. CONCEIÇÃO, K. LE GOULVEN, R. U. MENDOZA, *Why do global public goods matter today?*, 2003,

available at <http://web.undp.org/globalpublicgoods/globalization/pdfs/Overviews.pdf>. According to the Landau report: “*Public goods are both non-rival and non excludable. Non-rivalry means that consumption by one person does not reduce the quantities available to other individuals. A public good is available in equal measure to all consumers. Because of non-rivalry, there is no incentive for anyone to voluntarily contribute to the production of a public good. All consumers will try and free ride on someone else contribution. In turn, free riding leads to underproduction of the public good. Non-excludability occurs when it is technically impossible to prevent consumption by any individual. Because of non-excludability, it is impossible to charge a price for the use of a public good*”. See, GROUPE DE TRAVAIL SUR LE NOUVELLES CONTRIBUTION FINANCIÈRES INTERNATIONALES, *Rapport à Monsieur Jacques Chirac Prèside de la Rèpublique, English version*, December 2004, available at <http://www.diplomatie.gouv.fr/en/IMG/pdf/LandauENG1.pdf>, p. 82.

<sup>(441)</sup> GROUPE DE TRAVAIL SUR LE NOUVELLES CONTRIBUTION FINANCIÈRES INTERNATIONALES, *Rapport à Monsieur Jacques Chirac Prèside de la Rèpublique, English version*, op. cit., p. 82.

<sup>(442)</sup> S. CNOSSEN, H. VOLLEBERGH, *Toward a global excise on carbon*, National Tax Journal, Vol. XLV, no. 1, 1992, pp. 23-36; B. P. HERBER, *International Environmental Taxation in the Absence of Sovereignty*, IMF Working Paper, 1992, pp. 1 et seqq.. This is the so-called tragedy of the commons, see GARRET HARDIN, *The Tragedy of the Commons*, 162 Science 1243, 1968. The original concept of a tragedy of the commons can be traced back to Aristotle: “[T]hat which is common to the greatest number has the least care bestowed upon it. Every one thinks chiefly of his own, hardly at all of the common interest.”.

<sup>(443)</sup> “*La externalidad, más allá de Pigou, es el nuevo nombre de la igualdad y de la igualdad tributaria, esta vez, en la dimensión global, que no solo local*”, see T. ROSEMBUIJ, *La regulación financiera global y la fiscalidad innovadora*, *Cronica Tributaria*, No. 143, 2012, pp. 185-203.



Global environmental taxes, as an instrument for enforcing social justice and ecological sustainability<sup>(444)</sup>, are the tool to implement and establish in order to solve these issues.

Therefore, in the framework where environmental issues and taxation meet each other there is the need to adopt a new concept of cooperative sovereignty<sup>(445)</sup> in a dimension of solidarity.<sup>(446)</sup>

As we have already pointed out, states have an obligation to take prevention measures in order to protect the environment in the light of the fundamental principles governing international environmental law: international justice and, in particular, the intergenerational equity.

The solidarity principle and the intergenerational equity are strictly linked with the promotion of “sustainable development”, which is clearly recognized both at the international and European level.

In the latter case, we can find references to the “sustainable development” principle both in art. 3(3) TEU and art. 11 TFEU, and this gives a legal and strong relevance to this concept.

In other words, the common law of environment includes a general obligation to protect and preserve the global environment<sup>(447)</sup> that scratches and undermines the traditional concept of sovereignty.

---

<sup>(444)</sup> P. WAHL, *International Taxation. Regulating Globalisation – Financing Development, World Economy, Ecology and Development*, Berlin, 2005, p. 5. Environmental taxes could therefore be an excellent starting point for a worldwide taxation system.

<sup>(445)</sup> R. H. WEBER, *New Sovereignty Concepts in the Age of Internet*, *Journal of International Law*, Vol. 8, 2010, pp. 12 - 20.

<sup>(446)</sup> Solidarity as a basis for the international cooperation in raising revenues is also pointed out by the United Nations. In particular, “*A key feature of the innovative financing for development framework is human solidarity. The aim of achieving the Millennium Development Goals by 2015 is shared by the international community as a whole. The innovative source of financing framework has encouraged both developed and developing countries to propose and implement new financing mechanisms jointly in an unprecedented way. The innovative financing for development framework has a strong element of partnership, joint design and decision making between developing and developed countries in the aspect of raising the resources, whereas the traditional financing approach has emphasized partnership only in the use of the resource. Thus, it is a key feature that mechanisms such as air-ticket levy continue to be implemented both in developed and developing countries around the world*”. See, UNITED NATIONS, *Innovative financing for development the I-8 group Leading Innovative Financing for Equity [L.I.F.E.]*, General Assembly, 64<sup>th</sup> Session, December 2009, available at <http://www.un.org/esa/ffd/documents/InnovativeFinForDev.pdf>, p. 82.

<sup>(447)</sup> “*The states duty to protect against non-state abuses is part of the international human rights regime’s very foundation. The duty requires states to play a key role in regulating and adjudicating abuse by business enterprises or risk breaching their international obligations*.”. See

According to this line of reasoning, men have the duty and the responsibility to protect the environment, and have to deal with the consequences of their behaviour in a dimension of environmental solidarity.

One of the possible ways to implement this duty to protect and preserve the global environment in the context of a global solidarity is the introduction of global environmental taxes. This is because the solidarity principle is also the baseline of the duty to pay taxes.

The solidarity and the sustainable development principle plus the inadequacy of the traditional concept of sovereignty in international environmental taxation, give us the possibility to stress that the time is ripe for implementing a global environmental tax.

In the next paragraphs, we are going to point out that global taxes are not a new idea and many proposals, such as transaction taxes and environmental taxes, have already been discussed.

However, we have to rethink these issues in the new context which is derived from the financial crisis, where we are totally aware of the risks that our world has to face and deal with.

Moreover, we are going to analyse the different instruments of international environmental taxation and, in particular, we will focus on the implementation and the design of global fuel taxes on aviation and shipping.

---

UNITED NATIONS, *Report on Human Rights, prepared by the Special Representative of the Secretary-General*, UN Doc. A/HRC/4/35, Feb. 19, 2007, para. 18.

## 2. *Global taxes: an old debate in a new context*

That being said, in this paragraph we want to underline that even if global taxes are not a new idea the context in which they should be implemented is a new one. In particular, as we are going to analyse in a short while, this change is due to the impact of the global economic crisis on the tax systems.

The discussion on global taxes started long time ago. It was not and it is not limited to environmental taxes, but the latter played a major role in boosting this debate.

In particular, one of the first references to global taxes can be found in 1884. In fact, in 1884 James Lorimer in his *Ultimate problem of international jurisprudence* stated that: “*The expenses of the International Government shall be defrayed by an international tax, to be levied by the government of each State upon its citizens; and the extent of such tax shall be proportioned to the number of representatives which the State sends to the International Legislature.*”<sup>(448)</sup>

Many of the most famous economists of the earlier twentieth century considered and analysed global taxes. Furthermore, Jan Tinbergen, in 1945, pointed out that “*curtailment of national sovereignty with regard to economic policy*” is required “*if a more stable and prosperous social system is to be realized in the world*”.<sup>(449)</sup>

In the 1950s and 1960s, global taxes receded from view, due to the fervent opposition from the United States government.

However, in 1972, James Tobin proposed his global tax on currency transactions in order to increase financial stability and generate revenue to eradicate poverty.<sup>(450)</sup>

Moreover, the United Nations Environment Programme published two major reports on global taxation<sup>(451)</sup> and, as we already know, the report of the Brundtland Commission pointed out the need to consider new sources of revenue

---

<sup>(448)</sup> M. J. FRANKMAN, *International Taxation: the trajectory of an idea from Lorimer to Brandt, World Development*, Vol. 24, No. 5, 1996, pp. 807-820.

<sup>(449)</sup> M. J. FRANKMAN, *International Taxation: the trajectory of an idea from Lorimer to Brandt*, op. cit., p. 809.

<sup>(450)</sup> P. CASAL, *Global Taxes on Natural Resources, Journal of Moral Philosophy*, 8, 2011, p. 312.

<sup>(451)</sup> UNITED NATIONS, *Study on Financing the United Nations Plan of Action to Combat Desertification: report of the Secretary-General*, General Assembly document A/35/396, 1980.

for financing international action in support of sustainable development. This report considers revenue from the use of international commons, taxes on international trade (such as a general trade tax, taxes on specific traded commodities, on invisible exports, or on surpluses in balance of trade or a consumption tax on luxury goods) and international financial measures. <sup>(452)</sup>

In 1995, the Commission on Global Governance proposed a tax on currency transactions, a tax on multinational corporations, and “user fees” for the global commons, including fees on international airline tickets, ocean maritime transport and ocean, non-coastal fishing. <sup>(453)</sup>

However, in this context, the United States government blocked a dialogue from taking place within United Nations fora. In particular, US payments to the United Nations were conditional upon UN abandoning efforts, which “*develop, advocate, promote, or publicize proposals*” that impose taxes or fees on US citizens who are considered as a threat to US sovereignty. <sup>(454)</sup>

In 2001, the report of the High-level Panel on Financing for Development (hereinafter the Zedillo Panel Report) – which was commissioned by the UN Secretary General - concluded that “there is a genuine need to establish, by international consensus, stable and contractual new sources of multilateral finance”, or, in other words, global taxes. The report goes on to consider two proposals: currency transactions tax and a carbon tax.

In particular, it recommends a global tax on carbon emissions, underlining that “*This tax could serve two important goals: limiting the rise in global temperatures associated with burning these fuels, and raising revenue. Adhering*

---

<sup>(452)</sup> WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, *Our Common Future*, op. cit., Chapter 12; E.B. STEINBERG; J.A. YAGER, *New Means of Financing International Needs*, Washington, DC, 1978. During the 1980s, nations established one global tax – a levy on deep seabed mining, incorporated in the UN Law of the Sea Convention, see J. A. PAUL, K. WAHLBERG, *Global taxes for Global property*, *Global Policy Forum*, 2002, available at [http://www.globalpolicy.org/component/content/article/216/46027.html#\\_edn8](http://www.globalpolicy.org/component/content/article/216/46027.html#_edn8).

<sup>(453)</sup> The Dag Hammarskjöld Foundation report on Renewing the United Nations System (1994), the Independent Commission on Population and Quality of Life (1995), the Global Commission to Fund the United Nations (1995) and the South Centre report on UN reform (1996) also offered proposals and analysis on the subject. Even within the precincts of the International Monetary Fund, a serious working paper on currency transaction taxes emerged. Several governments, including Austria and the Netherlands, studied the issue and quietly supported it. See J. A. PAUL, K. WAHLBERG, *Global taxes for Global property*, op. cit..

<sup>(454)</sup> See, US Senate Bill 1519, 104th Congress, 2nd Session, 22 January 1996; H.R. 2159 Foreign Operations, Export Financing, and Related Programs Appropriations Act, 1998; H.R. 312 IH, 105th Congress, 1st Session, 1997.

*to the sound and fair principle of “make polluters pay”, it would create price incentives to economize on the consumption of fossil fuels. It would guide production to less damaging sources of supply and create a further stimulus to bring science to bear in saving energy”.* <sup>(455)</sup>

In March 2002, the Monterrey Consensus recognized the value of exploring innovative sources of finance in order to meet internationally agreed UN Millennium Development Goals (MDGs).

The first concrete outcome in the innovative financing framework came with the publication of the Landau report in 2004. <sup>(456)</sup>

According to the report, the obstacles to the creation of a global tax are more political than technical. Moreover, the report proposes international taxes on carbon emissions, financial transactions, on the profits of multinational corporations and on arms to improve progress on the MDGs. <sup>(457)</sup>

In the same year, the presidents of Brazil, France and Chile, supported by UN Secretary General Kofi Annan, launched an initiative to promote international taxes to finance development and set up a “Technical Group on Innovative Financing Mechanisms”, better known as the Lula group.

Since then, the leaders of Spain, Germany, Algeria and South Africa have joined the process.

In September 2004, the Lula group released its report on “Action Against Hunger and Poverty” arguing for alternative financing for development to reach the Millennium Development Goals. This report called for partnership between developing and developed countries to address the “challenges and risks” “common to humanity as a whole.” It identified the feasibility of new financial sources such as solidarity levies and market-based mechanisms, which could be coordinated internationally but implemented at a national level.

---

<sup>(455)</sup> UNITED NATIONS, *Executive summary of the report of the High-level Panel on Financing for Development*, A/55/1000, 2001, available at <http://www.un.org/esa/ffd/a55-1000.pdf>, p. 27.

<sup>(456)</sup> GROUPE DE TRAVAIL SUR LE NOUVELLES CONTRIBUTION FINANCIÈRES INTERNATIONALES, *Rapport à Monsieur Jacques Chirac Prèsident de la République, English version*, op. cit., pp.3 et seqq.. The Landau report, released in December 2004, was commissioned by President Chirac and produced by a group of French and British specialists.

<sup>(457)</sup> The report concludes that there is a gap in the financing of MDGs; that the search for innovative forms of financing is justified, in a spirit of solidarity; and that technical solutions are available which combine moral generosity and economic efficiency. See, GROUPE DE TRAVAIL SUR LE NOUVELLES CONTRIBUTION FINANCIÈRES INTERNATIONALES, *Rapport à Monsieur Jacques Chirac Prèsident de la République, English version*, op. cit., p. 11.

By June 2005, the group had limited its tax proposals to a “solidarity contribution” on plane tickets to finance a global health fund. This novel idea for the first time involved levying a tax that would not be paid back in the country where it was levied but elsewhere in the world for the benefit of the poor. <sup>(458)</sup>

The activities undertaken by the Group have made it possible to identify several initiatives: solidarity levies on globalised activities, implemented at national level but within a framework of international coordination, and more generally, instruments that can generate extra resources over and above those from official aid and the market.

Concrete innovative sources of finance so far explored include currency transaction taxes, taxes on arms trade, taxes on carbon emissions, an International Financial Facility (IFF), advance market commitments (AMC), “solidarity levies” on things such as international airplane tickets, enhanced efforts to combat tax evasion and illicit financial transfers, and a world lottery. <sup>(459)</sup>

Building on the Landau and Lula reports, the European Commission released three papers in 2005 on global taxes to raise revenue.

The Commission initially looked into several taxes, including a CTT, environmental taxes, health-related taxes, taxes on arms trade and the profits of transnational corporations.

---

<sup>(458)</sup> At the 2005 World Summit, the Heads of State and Government joined the ongoing international efforts, with seventy-nine countries endorsing the New York Declaration on Innovative Sources of Financing for Development, co-sponsored by Algeria, Brazil, Chile, France, Germany and Spain. At their spring meetings in 2005, the IMF and World Bank joint development committee invited the international financial institutions to “deepen their analysis of the most promising nationally applied and internationally coordinated taxes for development.” From 28 February to 1 March 2006 another meeting was convened by the French President in Paris, where a second group, called “the Leading Group on Solidarity Levies to Fund Development”, was launched, establishing the first institutionalized international framework for practical action. The objective of the Leading Group was to harness support from the international community, first, for the levy on airplane tickets, implemented in France in July 2006, and, second, to continue to explore and promote similar solidarity levies, as well as other possible innovative sources of finance. A total of 44 countries joined the Leading Group and 17 signalled their intention to introduce an air-ticket solidarity levy at the Paris Conference. Now it brings 55 member countries and 3 observer countries, as well as major international organizations including the World Bank, WHO, UNICEF, UNDP, and NGOs together. The Leading Group has a permanent secretariat in Paris and a six-month-rotating presidency, which has been held by Brazil, Norway, South Korea, Senegal, Guinea and France. Plenary meetings have been held in Brazilia, Oslo, Seoul, Dakar and Conakry, with the last one in Paris in May 2009. See, UNITED NATIONS, *Innovative financing for development the I-8 group Leading Innovative Financing for Equity* [L.I.F.E.], General Assembly, 64<sup>th</sup> Session, op. cit., para. 15 et seqq.

<sup>(459)</sup> UNITED NATIONS, *Innovative financing for development the I-8 group Leading Innovative Financing for Equity* [L.I.F.E.], General Assembly, 64<sup>th</sup> Session, op. cit., para. 17.

Moreover, recently the Commission pointed out that innovative financing should be found. In particular, according to the Commission: “While efforts at improving traditional tax instruments, including through better tax coordination, will be necessary and should be high on the political agenda, new avenues should also be explored, as the overall financial needs are huge, and innovative sources of financing could have a non-negligible role to play”.<sup>(460)</sup> This includes levies on the financial sector and the pricing of carbon emissions (e.g. carbon taxes).

None of these proposals have been approved and introduced so far. One could argue that the failure of these attempts is due to the impossibility of implementing global taxes.

However, this is true only until we do not consider the great impact that the global economic and financial crisis which started in 2008 has been having on our tax systems<sup>(461)</sup> and the idea of introducing the so-called systemic levy in the attempt to prevent systemic risks.<sup>(462)</sup>

In particular, we would like to focus on the idea of considering the global environmental tax as a systemic levy based on the precautionary principle.<sup>(463)</sup>

---

<sup>(460)</sup> “The revenue-raising potential of an instrument and its variability are of primary interest. Revenues will vary considerably with the country and product coverage of implementation given that tax bases can be mobile by relocating to countries or by shifting to products with no such tax. Net revenues might also be lower where these repercussions on economic activity reduce other tax revenues. Revenues may also vary over time because of their sensitivity to the economic cycle. All of these aspects make precise revenue estimates particularly difficult”. EUROPEAN COMMISSION, *Commission Staff Working Document Innovative financing at a global level*, SEC (2010) 409 final, pp. 1 et seqq..

<sup>(461)</sup> G. MELIS, F. PITRONE, *Coordinating Tax Strategies at the EU Level as a Solution to the Economic and Financial Crisis, Intertax*, Volume 39, Issue 8/9, 2011, pp. 374-380.

<sup>(462)</sup> OECD, *Emerging Systemic Risks in the 21st Century. An agenda for action*, op. cit., pp. 1 et seqq.. “A common factor in the various definitions of systemic risk is that a trigger event, such as an economic shock or institutional failure, causes a chain of bad economic consequences - sometimes referred to as a domino effect. These consequences could include (a chain of) financial institution and/or market failures”. See, S. L. SCHWARCZ, *Systemic Risk*, *The Georgetown Law Journal*, Vol. 97, 2008, p. 198.

<sup>(463)</sup> “The “precautionary principle” has become a central issue for international co-operation because of its usefulness in the protection of the “global commons”. The idea that in some cases the anticipative (act then learn) approach to risk management was preferable to the adaptive (learn then act) one is believed to have been first formalised in the 1970s, in the notion of *Vorsorgeprinzip*. This “forecaring principle” gradually became a cornerstone of German environmental policy, and was later referred to in various international fora as the precautionary principle. The precautionary principle figuring in the Rio Declaration of the 1992 United Nations Conference on Environment and Development states that: “Where there are threats of serious and irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation””. See, OECD, *Emerging Systemic Risks in the 21st Century. An agenda for action*, op. cit., p. 91.

In this context, for example, a carbon tax can be considered a systemic tax, to be introduced in order to prevent global warming and climate change. <sup>(464)</sup>

In other words, when referring to global taxes we do not have to focus solely on the revenue raising aspect of the taxes. Firstly, because they can play a fundamental role in steering policies. Secondly, because they are also the tool that can take into account the inherently systemic risks of economic actions. This is because, as we have already said, these taxes can internalize the negative externalities that go beyond the economic activities of the agents that carry them out and the social costs imposed on others.

Therefore, with reference to global environmental taxes, these taxes are not only a way to raise revenue or to protect the environment per se, but they are also a way to consider the inherently systemic risks of economic actions to the environment, and thus a tool to prevent and avoid the so-called environmental systemic crisis. <sup>(465)</sup>

In the everlasting struggle between paying now or paying more later, we would like to recall John Rawls' line of reasoning when comparing his liberal egalitarian principles with rival utilitarian principles.

In particular, according to Rawls, we should consider "*the worst that could happen to us under each principle, and select the principle that yields, when things go badly, the least burdensome outcome*". <sup>(466)</sup>

In this sense, the least burdensome outcome seems to be to pay now, both because we save money and because we can, implementing the precautionary principle, prevent natural disasters.

That being said, it is now necessary to take a step forward and analyse what kind of instruments we have at our disposal and how we can implement a global environmental tax.

---

<sup>(464)</sup> T. ROSEMBUJ, *La regulación financiera global y la fiscalidad innovadora*, *Cronica Tributaria*, op. cit., pp. 185-203.

<sup>(465)</sup> "*La externalidad, más allá de Pigou, es el nuevo nombre de la igualdad y de la igualdad tributaria, esta vez, en la dimensión global, que no solo local*", see T. ROSEMBUJ, *La regulación financiera global y la fiscalidad innovadora*, *Cronica Tributaria*, op. cit., pp. 185-203.

<sup>(466)</sup> P. CASAL, *Global Taxes on Natural Resources*, *Journal of Moral Philosophy*, op. cit., p. 316.



### 3. *An international environmental tax or internationally harmonized national environmental taxes?*

This paragraph is aimed at underlining that there are different instruments of international environmental taxation that could be implemented.

These instruments can have a different impact with reference to environmental-effectiveness, revenue-effectiveness, cost-effectiveness, fairness and compliance. <sup>(467)</sup>

In particular, we can distinguish between an international environmental tax imposed by a supranational body and internationally harmonized domestic taxes. In the next subchapters we are going to analyse these two different instruments bearing in mind that the reluctance of nations to delegate the power to tax to a supranational body, or, to agree to internationally harmonized domestic environmental taxes, has resulted in the use of cost sharing, based on a voluntary approach, in existing international environmental agreements. <sup>(468)</sup>

Before going into further details, it is important to underline, that whatever instrument we want to use, there are some recommendations that need to be followed in implementing a global tax. <sup>(469)</sup>

First, the action which is financed must be visible and effective. Resources should be concentrated on a small number of objectives, which should be defined by indisputable, easily measured quantitative indicators.

For maximum legitimacy, the tax should be focused on a significant cause that everyone would naturally recognize as legitimate, ethically indisputable and backed by very strong economic rationale.

Moreover, the chosen tax should clearly signal solidarity between developed and developing countries, or even directly between rich and poor ones.

---

<sup>(467)</sup> P. THALMANN, *Global Environmental taxes*, in J. E. MILNE, M. SKOU ANDERSEN (eds.), *Handbook Of Research On Environmental Taxation*, op. cit., pp. 458 et seqq.

<sup>(468)</sup> “Cost sharing, also known as burden sharing, lacks the automaticity of a conventional tax. There is no direct use of a conventional tax base, that is, income, wealth, or market transactions. Instead, it is a “voluntary” contribution made by nations signatory to an international agreement”. B. P. HERBER, *International Environmental Taxation in the Absence of Sovereignty*, op. cit., p. 10.

<sup>(469)</sup> GROUPE DE TRAVAIL SUR LE NOUVELLES CONTRIBUTION FINANCIÈRES INTERNATIONALES, *Rapport à Monsieur Jacques Chirac Prèsident de la République, English version*, op. cit., pp. 79-80.

Therefore, very close attention should be paid to possible unwanted redistributive side effects of the tax.

Furthermore, there is the need for a mode of governance of these funds that is indisputable in the eyes of both beneficiary governments and their populations, and of observers in the international community.

Last but not least, given the political opposition and prejudice, whichever tax is chosen must be economically flawless, to avoid the criticism that it impedes economic growth.

### 3.1. *An international environmental tax*

An international environmental tax can be implemented through a sovereign or nonsovereign international body.

The possibility to create a sovereign international body possessing the direct authority to impose environmental taxes seems quite unlikely. For this reason, an alternative could be the negotiation of multilateral environmental agreements <sup>(470)</sup>, which delegate national sovereignty to a nonsovereign supranational body. <sup>(471)</sup>

With reference to the design of this environmental tax, each country pays a tax, proportional to its CO<sub>2</sub> emissions, to an international agency or a common fund. The revenues can be returned to the participating countries in fixed shares. If this tax is aimed at protecting the environment, the fundamental point is its tax rate. In fact, only a high tax rate can lower total emissions.

Another option is to combine the emission trading scheme with a global tax on CO<sub>2</sub> at a reduced rate. In this case, the aim is not the reduction of emissions *per se*. In fact, the revenues should be used to generate funds for programmes combating climate change. <sup>(472)</sup>

---

<sup>(470)</sup> With reference to the multilateral tax agreements, it is important to underline that the OECD Model Tax Convention is widely accepted in treaty practice. Therefore, it should be our starting point. In fact, “*it is easier to implement a multilateral tax treaty if the draft is based on familiar notions*”, see M. LANG, *The Concept of a Multilateral Tax Treaty*, in M. LANG, H. LOUKOTA, A. J. RÄDLER, J. SCHUCH, G. TOIFL, C. URTZ, F. WASSERMEYER (eds.), *Multilateral Tax Treaties*, London - The Hague - Boston, 1997, p. 193.

<sup>(471)</sup> “*Though each nation would individually gain by being a free rider and not cooperating, all nations together would be better off if they do cooperate to internalize the relevant environmental externalities*”, see B. P. HERBER, *International Environmental Taxation in the Absence of Sovereignty*, op. cit., p. 6; M. HOEL, *An international tax or harmonized domestic taxes?*, *European Economic Review*, 36, 1992, pp. 401-402. According to some scholars: “*A global environmental tax will be effective only if at least the main emitters participate, and they must participate voluntarily as there is no world authority to impose participation. This concerns not only current large emitters but also future one*”, see P. THALMANN, *Global Environmental taxes*, in J. E. MILNE, M. SKOU ANDERSEN (eds.), *Handbook Of Research On Environmental Taxation*, op. cit., p. 458 et seqq..

<sup>(472)</sup> “*In this way, it can be seen how totally different proposals contribute in different ways and with different intensities to the goal of emission reduction: greenhouse gas emission disincentive versus funding programmes combating climate change. One specific initiatives worth mentioning is that of the UN Conference on Climate Change in Bali in December 2007 which called for the adoption of a reduced rate global CO<sub>2</sub> tax as a means of financing a multilateral adaptation fund in order to combat climate change, especially in developing countries*“. See, I. BILBAO, P. PISTONE, *Global CO<sub>2</sub> Taxes, Intertax*, Issue 1, 2013, pp. 6 et seqq..

Such programmes include projects mitigating and adapting to climate change, conservation of ecosystems, development of sustainable technology and energy efficiency, technology transfer, and so on.

It is worth noting that, the international community seems more likely to accept such taxes if their revenues are earmarked for international spending, especially spending related to the nature of the taxes. <sup>(473)</sup>

Moreover, even if a universal agreement seems unreachable in the near future, there could be flexible solutions that do not require universal participation.

For example, the Lula's group proposed to introduce a "solidarity contribution on airplane tickets" that not all countries must implement since the tax would be too small to distort airline industry competition or encourage tax evasion.

Similarly, the European Commission looked at a variety of proposals that do not need global consensus and hence can be implemented at the regional (EU) level.

These approaches are important because they allow for a small committed group of countries to adopt a more ambitious proposal, rather than compromising with a very weak universal instrument.

---

<sup>(473)</sup> "Every dollar of tax per ton of CO<sub>2</sub> emissions in high-income countries would generate US\$15 billion in revenues for the global fund". See, P. THALMANN, *Global Environmental taxes*, in J. E. MILNE, M. SKOU ANDERSEN (eds.), *Handbook Of Research On Environmental Taxation*, op. cit., p. 463.

### 3.2. *Internationally harmonized national environmental taxes*

As we have already said, another possible option, probably politically more acceptable and realistic, is to reach an agreement of harmonizing domestic taxes.

In this case, an international agreement would require each participating country to impose a specific domestic carbon tax on its CO<sub>2</sub> emissions. <sup>(474)</sup>

This approach has two main problems that have to be addressed.

The first one is the free rider problem. In fact, it could happen that some countries try to make this environmental tax as ineffective as possible reducing other domestic environmental taxes.

The second problem is related to the revenues and the coordination aspect of these taxes. In fact, first of all, participating countries should coordinate the tax rate, and it is fundamental that tax rates are uniform across nations. <sup>(475)</sup>

What we think we should avoid is to introduce minimum tax levels and the possibility to use too many exemptions and reduced rates. In other words, we should learn from the past and, in particular, from the Directive 2003/96/EC restructuring the Community framework for the taxation of energy products and electricity. However, there should be the possibility to lower rates in developing countries.

Secondly, the agreement should have a clause according to which part of the revenues collected from nationally imposed taxes is earmarked for international environmental uses and, therefore, part of them should be put in a common fund. <sup>(476)</sup>

In fact, as we have already said, the fact that monies accrued through the taxation of degradation that has a transnational effect could be paid to a global

---

<sup>(474)</sup> B. P. HERBER, *International Environmental Taxation in the Absence of Sovereignty*, op. cit., pp. 9-10; M. HOEL, *An international tax or harmonized domestic taxes?*, *European Economic Review*, op. cit., p. 404; For example, the Lula group proposes to tax airplane tickets nationally with each participating country designing its own domestic tax scheme. The proposal goes on to say that, participating governments could choose to coordinate the tax rate and revenue distribution through some kind of international agreement.

<sup>(475)</sup> P. THALMANN, *Global Environmental taxes*, in in J. E. MILNE, M. SKOU ANDERSEN (eds.), *Handbook Of Research On Environmental Taxation*, op. cit., p. 457.

<sup>(476)</sup> B. P. HERBER, *International Environmental Taxation in the Absence of Sovereignty*, op. cit., p. 10; P. THALMANN, *Global Environmental taxes*, in in J. E. MILNE, M. SKOU ANDERSEN (eds.), *Handbook Of Research On Environmental Taxation*, op. cit., p. 457.

fund in order that they can be used to fund environmental protection, compensation and restoration, is important for the acceptance of the global tax as well.

In conclusion, working on the international environmental tax design is an essential step toward environmental protection.

#### 4. *Some examples: carbon taxes and international transportation fuel taxes*

It is now time to elaborate more on some examples of global taxes.

In this context, carbon taxes – as tools to help to reduce carbon emissions which are the main factor to be responsible for the greenhouse effect which contributes to global warming and to generate substantial revenues - are the ones that are gaining consensus all over the world. <sup>(477)</sup>

However, we want to point out that there are other kinds of taxes that can be implemented such as taxes on both the use or the ownership of natural resources <sup>(478)</sup>. Moreover, in this paragraph, we would like to focus specifically on taxes on aviation and shipping fuels for two fundamental reasons.

First, in this field, there is a particular interest in a global approach due to the international nature of these sectors the high potential of carbon leakage as

---

<sup>(477)</sup> R. S. AVI-YONAH, D. M. UHLMANN, *Combating Global Climate Change: Why a Carbon Tax is a better response to global warming than cap and trade*, op. cit., pp. 3 et seqq.. Generally speaking, carbon emissions are diffuse, caused by a wide range of human activities (heating, transportation, electricity production, etc.) and affecting a great number of individuals. In this situation, taxation would be the most effective instrument relative to other forms of intervention, e.g. regulatory standards. “Sweden, Finland, the Netherlands and Norway introduced carbon taxes in the 1990s. The EU considered a carbon tax covering member states prior to starting its emission trading scheme in 2005 and Australia, Italy, the UK, the USA and Canada have been considering similar taxes. The IMF has recently proposed a uniform global tax on carbon dioxide as the most efficient way for managing climate change, in preference over direct regulation or performance standards. According to IMF calculations, if all countries introduce such a tax in 2013, the carbon price would reach \$86 per ton by 2040, corresponding to a \$0.27 increase in the price of a gallon of gasoline over current levels, and a yield of \$71/ton of CO<sub>2</sub> tax revenue. Projected aggregate revenues from such charges on carbon emissions range from insignificant 0.1 per cent in 2020 to more than 3 per cent of world GDP in 2060. The disadvantage of a global approach is that poorer countries will be taxed at several times the rate of developed countries, as a proportion of their GDP, therefore, at a minimum cross border financial transfers will be needed to assist developing countries with adjustment under this scenario. A uniform global taxation scheme could also impose hardships on low income households, whose coping strategies to higher market prices could increase environmental damage. As a climate mitigation and fiscal tool, carbon taxes would be most suitable for implementation in mature economies”. See, UNITED NATIONS, *Innovative financing for development the I-8 group Leading Innovative Financing for Equity* [L.I.F.E.], General Assembly, 64<sup>th</sup> Session, op. cit., p. 91.

<sup>(478)</sup> “Pogge intends to tax the use and Steiner the ownership of natural resources; Pogge defends a flat tax sufficient to eradicate severe poverty, whilst Steiner taxes the full rental value of owned resources. Finally, Pogge recommends distributing the revenue to individuals below the relevant minimum, while Steiner advocates distributing it equally among all human beings. Steiner's project is thus closer to a scheme of unconditional basic income, whilst Pogge's benefits are means tested. The solution proposed more recently by climate scientist James Hansen combines features of the two. He recommends an egalitarian distribution of the proceeds of a flat tax on fossil fuel extraction, and import duties on products from non-complying countries, proportional to the fossil fuels required to produce them. The latter will fund developing countries' sustainable development efforts, like family planning and forest conservation”. See, P. CASAL, *Global Taxes on Natural Resources*, *Journal of Moral Philosophy*, op. cit., p. 311

well as the need to ensure a level playing field. <sup>(479)</sup> Moreover, market-based instruments (MBIs) for international aviation and maritime fuels – such as emissions (fuel) taxes - have appeal as an innovative source of climate finance. <sup>(480)</sup>

The starting point is that, international aviation and maritime fuels are subject to no excise tax to reflect environmental damages in fuel prices. In other words, they are effectively exempt from any charge on their fuel use, in contrast to the normal practice for domestic transportation activities.

For example, currently, aviation fuel which is used in international flights is exempted from fuel taxes under the Convention on International Civil Aviation, signed in Chicago on 7 December 1944 (the Chicago Convention). <sup>(481)</sup>

Second, by 2020, global international aviation emissions are projected to be around 70% higher than in 2005 even if fuel efficiency improves by 2% per

---

<sup>(479)</sup> The EU Member States and the European Commission have been actively working for many years through the United Nations Framework Convention for Climate Change (UNFCCC), the International Civil Aviation Organisation (ICAO) and the International Maritime Organisation (IMO) to agree measures to reduce CO<sub>2</sub> emissions from international aviation and maritime transport. To date, there has been no agreement on mandatory measures to address greenhouse gas emissions from international maritime transport at the IMO. There have been a number of submissions on market based measures, e.g. a global cap-and-trade scheme or a levy on maritime fuel to create a fund that could be used to offset maritime emissions. Market-based measures which are applied to international maritime transport could generate significant revenues to tackle climate change. EUROPEAN COMMISSION, *Pricing carbon emissions from international maritime and aviation transport available*, 2010, available at [http://ec.europa.eu/taxation\\_customs/resources/documents/taxation/gen\\_info/economic\\_analysis/tax\\_papers/taxation\\_paper\\_23\\_en.pdf](http://ec.europa.eu/taxation_customs/resources/documents/taxation/gen_info/economic_analysis/tax_papers/taxation_paper_23_en.pdf)

<sup>(480)</sup> INTERNATIONAL MONETARY FUND/WORLD BANK, *Market-Based Instruments for International Aviation and Shipping as a Source of Climate Finance Background Paper for the Report to the G20 on —Mobilizing Sources of Climate Finance*, November 2011, available at <http://www.imf.org/external/np/g20/pdf/110411a.pdf>, p. 5.

<sup>(481)</sup> Art. 24(a) of the Chicago Convention states: “(a) Aircraft on a flight to, from, or across the territory of another contracting State shall be admitted temporarily free of duty, subject to the customs regulations of the State. Fuel, lubricating oils, spare parts, regular equipment and aircraft stores on board an aircraft of a contracting State, on arrival in the territory of another contracting State and retained on board on leaving the territory of that State shall be exempt from customs duty, inspection fees or similar national or local duties and charges. This exemption shall not apply to any quantities or articles unloaded, except in accordance with the customs regulations of the State, which may require that they shall be kept under customs supervision”.

A number of studies by the Organization for Economic Cooperation and Development (OECD), the International Civil Aviation Organization (ICAO) and the IPCC have examined taxes on aviation fuel as a means to mitigate global warming and other negative effects on the atmosphere including the ozone layer. They have concluded that a tax on aviation fuel would make passenger and freight charges somewhat more expensive, though a 25% fuel tax, if entirely passed along to customers would only add only about 5% to user costs and reduce demand by 5-10%. Such increased fuel costs would, however, create a powerful incentive to airlines to use fuel-efficient engines and more efficient aircraft design. Higher fuel prices would also increase incentives for a more efficient air traffic control system and other factors affecting airline emissions.



year. International Civil Aviation Organization forecasts that by 2050 they could grow by a further 300-700%.

It is important to underline that the Commission proposed the inclusion of aviation in the EU ETS, concluding that this was the most cost-efficient and environmentally effective option for controlling aviation emissions.

According to the Commission, compared with alternatives such as a fuel tax, including aviation in the EU ETS provides the same environmental benefit at a lower cost to society - or a higher environmental benefit for the same cost. <sup>(482)</sup>

In fact, if aviation were to achieve the same environmental goal under emissions trading and emissions charges, the economic costs for the sector and for the EU as a whole would be lower if this was done under the EU ETS rather than under a charging system for aviation only.

In the view of the Commission, both emissions charges and emissions trading are compatible with the current international legal framework for aviation. However, the concept of emissions charges has been contentious at international level and the extent to which such charges can be applied by States to foreign carriers was the single most disputed issue at ICAO's 35th Assembly in October 2004.

By contrast, the concept of voluntary emissions trading as well as incorporating international aviation emissions into States' existing emissions trading schemes has been explicitly endorsed by ICAO. <sup>(483)</sup>

---

<sup>(482)</sup> Emissions trading works by first setting a limit on total emissions from a group of entities, and then letting the market determine the cost for emitting each tonne of emissions. By contrast, charges set the cost for emitting a tonne of emissions, but then let the entities concerned determine the extent to which emissions are reduced in response. In the present context the two instruments also differ in terms of environmental effectiveness, economic efficiency and potential for wider application. If emissions trading or emissions charges were applied to the aviation sector in isolation, the two instruments would in principle be equivalent in terms of environmental effectiveness and economic efficiency. However, emissions trading need not be applied to the aviation sector in isolation. Emissions trading is already being used as a means of tackling climate change: Parties with emissions limitations under the Kyoto Protocol are able to trade with each other. In addition, many of these Parties are either delegating, or considering delegating, part of their own emissions limitation to company level through a domestic or regional emissions trading scheme.

<sup>(483)</sup> EUROPEAN COMMISSION, *Communication from the Commission to the Council, the European Parliament, the European Economic and Social committee and the Committee of the Regions - Reducing the Climate Change Impact of Aviation*, SEC(2005) 1184, 2005.

Due in part to the lack of progress at a global level, the EU adopted Directive 2008/101<sup>(484)</sup> and decided to include in the ETS emissions from all flights anywhere in the world that arrive or depart from a European airport.

Some airlines have argued that the EU law violates US sovereignty and is illegal under international law and the Chicago Convention. However, the EU law only holds the US airlines accountable for their emissions if they land in the EU. This extension was considered compatible with international law by the European Court of Justice.<sup>(485)</sup>

Notwithstanding this, in April 2013 the EU decided to temporarily suspend enforcement of the EU ETS requirements for flights operated in 2010, 2011, and 2012 from or to non-European countries, while continuing to apply the legislation to flights within and among countries in Europe.<sup>(486)</sup>

The EU took this initiative to allow time for the International Civil Aviation Organization (ICAO) Assembly in autumn 2013 to reach a global agreement to tackle aviation emissions. In October 2013, the ICAO Assembly agreed to develop by 2016 a global market-based mechanism (MBM) addressing international aviation emissions and to apply it by 2020. In particular, one of the

---

<sup>(484)</sup> Directive 2008/101/EC of the European Parliament and of The Council of 19 November 2008 amending Directive 2003/87/EC so as to include aviation activities in the scheme for greenhouse gas emission allowance trading within the Community.

<sup>(485)</sup> EUROPEAN COURT OF JUSTICE, *Air Transport Association of America and Others vs. Secretary of State for Energy and Climate Change*, C-366/10, 21 December 2011. The Court stated that: the extension of the EU ETS to aviation infringes neither the principle of territoriality, nor the sovereignty of third countries; the EU ETS does not constitute a tax, fee or charge on fuel, which could be in breach of the EU-US Air Transport Agreement; the uniform application of the EU ETS to European and non-European airlines alike is consistent with provisions in the EU-US Air Transport Agreement prohibiting discriminatory treatment between aircraft operators on nationality grounds.

<sup>(486)</sup> The European Commission proposed amending the EU ETS so that only the part of a flight that takes place in European regional airspace is covered by the EU ETS. The key features of the revised system would be: (i) emissions from flights between airports in the European Economic Area (EEA, covering the 28 EU Member States plus Norway and Iceland) would continue to be covered; (ii) emissions from flights to and from countries outside the EEA would be fully exempted for 2013; (iii) from 1 January 2014, flights to and from countries outside the EEA would benefit from a general exemption for the proportion of emissions that take place outside EEA airspace. Only the emissions from the proportion of a flight taking place within EEA airspace would be covered; (iv) to accommodate the special circumstances of developing countries, flights between the EEA and least developed countries, low-income countries and lower-middle income countries which benefit from the EU's Generalised System of Preferences and have a share of less than 1% of international aviation activity would be fully exempted from the EU ETS.

options that is considered is to apply a fee to each tonne of carbon, for instance, through a transaction fee. <sup>(487)</sup>

Having said that, we think that the best way to deal with these issues is to replace the emissions trading scheme with a global emission tax.

The reason behind this conclusion is that an emission tax is much simpler than the emissions trading scheme. <sup>(488)</sup>

Moreover, as we have already pointed out, “*taxation as regulation makes sense when (1) it is applied to small numbers of taxpayers, (2) the taxpayers are sophisticated and able to deal with complex tax incentives, (3) the regulatory goal is clear and related to the level of the tax*”. <sup>(489)</sup>

These three elements would be satisfied by introducing international transportation fuel taxes.

In order to focus on environmental considerations, it is necessary to apply the tax to fuel, rather than passenger tickets, or arrivals/departures. Moreover, a critical issue in containing policy costs is to use revenues (whether for climate finance or other purposes) productively, for socially desirable spending, fiscal consolidation, or to reduce broader taxes that distort incentives for work effort and capital accumulation. <sup>(490)</sup>

Furthermore, it is worth mentioning that, by 2020, a globally implemented carbon charge of \$25 per tonne of CO<sub>2</sub> on these fuels could raise around \$12 billion from international aviation and around \$26 billion for shipping, while moderately reducing CO<sub>2</sub> emissions from each sector by reducing fuel demand.

---

<sup>(487)</sup> INTERNATIONAL CIVIL AVIATION ORGANIZATION, *Assembly – 38th Session, Market Based Measures (MBMs)*, A38-WP/29, EX/24, 2013.

<sup>(488)</sup> “*Cap and trade, on the other hand, is inherently more complicated. While the cap can also be imposed “upstream”, it has several features that require complexity. First, the proposal needs to determine how allowances will be created and distributed, either for free or by auction. Free distribution requires deciding which industries receive allowances, while an auction requires a complex monitoring system to prevent cheating. Second, the trading in allowances needs to be set up and monitored: a system needs to be devised to prevent the same allowance from being used twice, and penalties need to be established for polluters who exceed their allowances*”. R. S. AVI-YONAH, *Taxation as regulation: carbon tax, health care tax, bank tax and other regulatory taxes, Public law and legal theory working paper series*, op. cit., pp. 3 et seqq..

<sup>(489)</sup> R. S. AVI-YONAH, *Taxation as regulation: carbon tax, health care tax, bank tax and other regulatory taxes, Public law and legal theory working paper series*, op. cit., pp. 3 et seqq..

<sup>(490)</sup> INTERNATIONAL MONETARY FUND/WORLD BANK, *Market-Based Instruments for International Aviation and Shipping as a Source of Climate Finance Background Paper for the Report to the G20 on —Mobilizing Sources of Climate Finance*, op. cit., pp. 5 et seqq..

Once in place, the fuel taxes would gradually increase over time to promote more aggressive emissions mitigation.

Therefore, our proposal is to focus on the implementation and the design of international transportation fuel taxes.

In this context, probably the best way to propose and introduce this tax could be through the OECD Model and, in particular, under article 8 of the OECD Model Convention “*Shipping, inland waterways transport and air transport*”.

(<sup>491</sup>)

---

(<sup>491</sup>) This could be the first example of creating a tax through the OECD Model.

## 5. *Conclusions*

Introducing global taxes is not a utopia anymore. On the contrary, in the environmental field they seem to be the only feasible instrument in order to solve some global environmental problems, such as global warming.

More specifically, as we have demonstrated, the solidarity and the sustainable development principle plus the inadequacy of the traditional concept of sovereignty in international environmental taxation, give us the possibility to stress that the time is ripe for implementing a global environmental tax.

Furthermore, global environmental taxes are not only a way to raise revenue or to protect the environment per se, but – being based on the precautionary principle – they are also an instrument to take the inherently systemic risks of economic actions to the environment into account, and thus a tool to prevent and to avoid the so-called environmental systemic crisis.

In this context, our proposal is to focus on the implementation and the design of carbon taxes and, in particular, on international transportation fuel taxes.

## CHAPTER 5

### CONCLUSIONS

In light of the above, we can point out some brief conclusions on the legal perspective of environmental taxation and its limits and constraints.

In particular, as stated above, the introduction of environmental taxation can bring some juridical issues along. Some of these issues have been deeply analysed and some solutions have been found.

The overall conclusion is that it is not possible to think that the justifications, or the goals, behind the introduction of taxes and charges – such as environmental protection – can be a way to circumvent legal principles and constitutional constraints. Otherwise, the opposite solution would give “*carte blanche*” to legislators. In other words, environmental protection cannot represent a “pass” to circumvent law.

Therefore, if we want to use taxation in order to protect the environment we cannot overlook the key fact that, notwithstanding the fundamental role that this tool can play in our mission to save the planet, taxes and charges shall always be implemented in their legal context. In particular, there are many legal limits to be respected while implementing and designing this kind of taxes.

Therefore, States have to take these limits into account - both at the national and the supranational level - if they want to introduce and implement legitimate environmental taxes.

This is really relevant especially because the increasing use of environmental taxation is driven by many factors apart from the search for more effective and efficient environmental policies. In fact, it is also influenced by the search for alternative sources of tax financing and by the search for increasing government revenue.

Broadly speaking, there is a pressing need for governments to take a more coherent approach to environmental taxes, and to pay more attention to the relationship between the country's general tax system and environmental issues.

The first problem that governments have to face is the lack of a common definition of environmental taxes and charges. In fact, the concept of environmental tax is becoming very broad referring to many different fiscal measures that are, firstly, not always taxes *per se* and secondly, not always strictly related with the environment. This leads to its lack of clarity.

We think that in order to use environmental taxation properly we should, first of all, stop calling environmental tax what it is not. Transparency is needed if we really want to respect the “*solemn responsibility to protect and improve the environment for present and future generations*”.<sup>(492)</sup> Otherwise, the risk is that we are just trying to settle on the proper price to the right to pollute.<sup>(493)</sup>

In order to solve this problem there is the need to develop a common framework for defining environmental taxes and to avoid an improper use of this term.

To reach this goal, we have analyzed the definitions which are given by Eurostat and OECD of both environmental taxes and of environmentally related taxes - that give relevance only to the polluting tax base - demonstrating that they are not overlapping concepts and that the definition of environmentally related taxes seems the one to be preferred.

However, this definition appears to have too many grey areas and loopholes and does not seem to take into account the idea behind the introduction of environmental taxes: to discourage environmental damages and to serve as an incentive for behavioural changes.

Therefore, in order to find a common perspective on the concept of environmental taxes and charges, we have proposed an alternative approach.

First of all, we have stressed the need to distinguish between taxes and charges or fees. In fact, the legal definition of taxes - that may differ among

---

<sup>(492)</sup> UNITED NATIONS, *Declaration of the United Nations Conference on the Human Environment*, op. cit., Principle 1.

<sup>(493)</sup> M. J. SANDEL, *It's immoral to buy the right to pollute*, op. cit., p.A29.

countries - has an influence on how these can be used for environmental protection.

Therefore, if it is our intention to refer to a general term that covers all fiscal compulsory payments, we should use the terms *levies* or *compulsory contribution*.

In any case, even if we should use these general terms, some delimitations are necessary and we have said that these general labels should not include penalties or fines for violation of legal limits or compensatory damages. In fact, the term *levies* covers all those payments which are related to activities that are not forbidden, and that most of the time are expressly authorized by governments or authorities.

Moreover, the term *levies* does not cover the deposit-refund system. In fact, this system is different from a fiscal measure because, in this case, the government collects a charge on a certain product or material, but refunds that payment once the product is returned or properly disposed of. In the latter case, the payment is not definitive and, therefore, it cannot be covered by the term *levies*.

Lastly, the EU ETS cannot be considered a form of taxation and, therefore, it is not covered by our general category: environmental levies or environmental compulsory contributions.

Secondly, our idea is that there are no environmental taxes but only taxes that have (potential) environmental effects.

This means that in using the term *environmental taxes* we should refer to taxes that have, generally speaking, environmental effects and, specifically, that induce a behavioural change to promote environmentally friendly behaviours and that discourage environmental damages and/or a reduction in the use of natural resources (e.g. through taxes on natural resource use).

Therefore, the polluting tax base is only one of the elements that can be considered in order to design environmental taxes which are aimed at changing the behaviour of polluters but it does not grant an attempt to alter the behaviour *per se*.



What we consider more important - if we really want to pursue the goal of changing human behaviours - is to implement informational strategies together with environmental taxation and to introduce environmental taxes as a part of an environmental tax reform.

The second conclusion we have drawn is related to the fact that environmental taxation is a form of regulatory taxation. In particular, we have underlined that taxes can serve a regulatory function and can be used to curb or prevent undesirable behaviours.

However, this statement is not absolute. In fact, it is clear that taxation is not always the most effective way to achieve a specific regulatory goal. Nonetheless, in some cases regulatory taxation is indeed the most effective way to be implemented.

Environmental taxation if well designed can be used as a regulatory tool to combat global climate change.

However, an important consequence that has to be stressed with reference to the use of environmental taxation is that it can be regressive and it raises difficult issues of distributive justice. For this reason, it is really important that some of the revenues generated from an environmental tax may be used for accompanying social measures and, consequently, for reducing the eventual regressive impacts.

That being said, another conclusion that we have reached is that, even if the polluter pays principle is considered the framework within which environmental protection and environmental taxation meet each other, it is not the only principle to take into account in this field.

In particular, we think that taxes *stricto sensu* are not the best way to implement the polluter pays principle.

The reason is that in applying the PPP the costs of the environmental pollution should not be imposed on the society but on the polluter. For this reason, there is not a principle of common solidarity behind the PPP, but on the contrary, through the implementation of the PPP the polluters exclude others from the duty to pay.

In other words, the polluter pays principle has to be understood as expressing the concept that “*the cost of environmental impairment, damage and clean up should not be borne via taxes by society but that the person who caused the pollution should bear those costs*”.<sup>(494)</sup> Therefore, the PPP is a principle that excludes that the costs of pollution are covered by public budgets.<sup>(495)</sup>

In other words, the polluter pays principle seems more oriented towards the restoration and compensation of damage to nature caused by the polluter.

This means that – if we use the polluter pays principle as a guiding principle – taxes *stricto sensu* are not the best instrument to be introduced for environmental protection. On the contrary, the best way to implement the PPP is to use and introduce charges or fees, and, above all, user charges.

Going into further details, the polluter pays principle could be used as another rational distribution criterion – beside the *Kostendeckungsprinzip* and the *Äquivalenzprinzip* – in order to justify charges and fees and to define their amount.

Bearing this in mind, even if the PPP takes the form of a charge or a fee, the latter should be implemented as incentive charges or fees aimed at altering behaviour, not at raising revenues.

Therefore, if fees or charges are designed by governments in line with the PPP taking into account the full internalization of pollution costs, they can be implemented in a way that covers all social values, also including environmental costs, and they can really provide incentive for polluters to change their behaviour.

However we should be aware of the fact that levying charges requires the existence of a public service providing benefits for users and, therefore, they cannot be used in order to cover every situation.

Therefore, charges and fees – even if they can be considered as the best instrument to implement the polluter pays principle – cannot be the only fiscal measure to be introduced in order to protect the environment.

---

<sup>(494)</sup> L. KRÄMER, *EC Environmental Law*, op. cit., 2007, pp. 26 et seqq..

<sup>(495)</sup> H. C. BUGGE, *The polluter pays principle: dilemma of justice in national and international contexts*, in J. EBBESSON, P. OKOWA (eds.), *Environmental Law and Justice in Context*, op. cit., p. 412.

However, we think that this does not imply that environmental taxes should be introduced in the light of the polluter pays principle. On the contrary, environmental taxes have to be introduced in the light of some different grounds.

Bearing this in mind, it is important to understand which grounds can be used in order to introduce environmental taxes and how we should use taxes in order to protect the environment.

With reference to the latter issue, we have to underline that these taxes should take into account the costs of pollution prevention, and, generally speaking, of the improvement and protection of the environment.

In particular, this form of taxation is aimed at reaching two different and fundamental goals. First of all, it seeks to avoid pollution, to protect and to improve the environment. Secondly, these taxes pre-pay for possible environmental disasters. This second aim would solve the situations where there is a systemic crisis caused by negative externalities and it would be too late to apply the polluter pays principle, because the polluters would not be able to pay anymore.

These taxes have to be based on the duty to protect the environment and on both the prevention principle and the precautionary principle. The former element (the duty to protect the environment) indicates the tool to be used: taxes. The latter elements (the prevention principle and the precautionary principle) indicate how to design this tool.

The best way to implement this duty to protect the environment (also linked to the “sustainable development”) in a dimension of environmental solidarity is by introducing taxes. The latter, in fact, are “*the citizen’s contribution to the common good by reason of solidarity among the members of a society*”.<sup>(496)</sup>

Moreover, if we really want to protect the environment, we need to design these taxes as prevention or precautionary measures in order to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects. Moreover, with reference to the costs related to the improvement of the environment we can think about earmarked environmental taxes.

---

<sup>(496)</sup> W. SCHÖN, *International tax coordination for a second-best world (Part I)*, *World Tax Journal*, op. cit., p. 71.

In this context, the precautionary principle seems the best principle to be applied because it gives us the possibility to take measures without waiting until all the necessary scientific knowledge is available. Furthermore, according to this principle, it is important that policies and measures to deal with climate change should be cost-effective so as to ensure global benefits at the lowest possible cost.

Environmental taxes, as we have already said, are considered one of the most cost-effective instruments in order to protect the environment. <sup>(497)</sup>

Therefore, according to the precautionary principle and to the duty to protect the environment in a dimension of environmental solidarity, we can implement environmental taxes that can take into account the costs of pollution prevention, and, generally speaking, of the improvement and protection of the environment, preventing the causes of climate change and mitigating its adverse effects.

Furthermore, the need to consider a global environmental solidarity in the context of a moral and legal obligation of protecting the rights of present and future generations scratches and undermines also the traditional concept of sovereignty. This gives room to the possibility of introducing global taxes that, in the environmental field, seem to be the only feasible instrument in order to solve some global environmental issues.

In particular, global environmental taxes are not only a way to raise revenue or to protect the environment per se, but – being based on the precautionary principle – they are also an instrument through which considering the inherently global systemic risks of economic actions to the environment, and thus a tool to prevent and avoid the so-called environmental systemic crisis.

In this context, our proposal is to focus on the implementation and the design of carbon taxes and, in particular, on international transportation fuel taxes.

Lastly, we have analysed, the inherently problematic interplay between the introduction of emission taxes and the “ability to pay” principle, which is enshrined in many national constitutions, and we have underlined how this problem can be solved focusing, specifically, on the Italian perspective.

---

<sup>(497)</sup> OECD, *Carbon taxes and emissions trading are cheapest ways of reducing CO<sub>2</sub>*, OECD says, November 2013, available at <http://www.oecd.org/newsroom/carbon-taxes-and-emissions-trading-are-cheapest-ways-of-reducing-co2.htm>

The proposed solutions are two; the first one is linked with the acknowledgement of the duty to protect the environment in the dimension of solidarity as a fundamental principle of the Italian constitution.

The other one is linked with the possibility to enlarge the scope of the ability to pay principle, and, in particular, if we take into account that the social function of taxation is growing, with the possibility to measure the ability to pay looking also at the power of the individual rather than his sacrifice.

## BIBLIOGRAPHY

### ARTICLES

ABBOTT K. W., SNIDAL D., *Hard and Soft Law in International Governance*, *International Organization*, vol. 54, no. 3, 2000;

ALFANO R., *Agevolazioni fiscali in materia ambientale e vincoli dell'Unione Europea*, *Rassegna Tributaria*, vol. 2, 2011;

AMATUCCI A., *Qualità della vita, interessi diffusi e capacità contributiva*, in *Riv. dir. fin. sc. fin.*, I, 1975;

AULT H.J., *Reflections on the Role of the OECD in Developing International Tax Norms*, *Brooklyn Journal of International Law*, vol. 34, 2009;

AVI-YONAH R. S., *The Three goals of taxation*, *Tax L. Review*, Vol. 60, 1, 2006;

AVI-YONAH R. S., UHLMANN D. M., *Combating Global Climate Change: Why a Carbon Tax is a better response to global warming than cap and trade*, 28 *Stan. Envtl. L. J.*, 3, 2009;

AVI-YONAH S., *Taxation as regulation: carbon tax, health care tax, bank tax and other regulatory taxes*, *Public law and legal theory working paper series*, no. 216, August 2010;

BARANZINI A., GOLDEMBERG J., SPECK S., *A future for carbon taxes*, *Ecological Economics*, 32, 2000;

BARBE J. P., *Economic Instruments in Environmental Policy: Lessons from OECD Experience and their relevance to Developing Economies*, OCDE/GD(93)193, 1994, available at <http://www.oecd.org/dev/1919252.pdf>;

BARTHOLD T. A., *Issues in the design of environmental excise taxes*, *The Journal of Economic Perspective*, vol. 8, no. 1, 1994;

BATISTONI FERRARA F., *I tributi ambientali nell'ordinamento italiano*, *Riv. Dir. Trib.*, 2008, 12;

BEUERMANN C., T. SANTARIUS, *Ecological tax reform in Germany: handling two hot potatoes at the same time*, *Energy Policy*, 34, 2006;

BEYERLIN E., *Bridging the North-South Divide in International Environmental Law*, *Zeitschrift für ausländisches öffentliches Recht und Völkerrecht*, 2006;

BILBAO I., PISTONE P., *Global CO<sub>2</sub> Taxes*, *Intertax*, Issue 1, 2013;

BIRCH SØRENSEN P., *Tax coordination in the European Union: What are the issues?*, *Swedish Economic Policy Review*, 8, 2001;

BLEEKER A., *Does the Polluter pay? The polluter-pays principle in the Case Law of the European Court of Justice*, *European Energy and Environmental Law Review*, December 2009;

BOTES M., *Should VAT not support the Environment?*, *International VAT Monitor*, March/April 2012;

BOYLE A., *Human Rights and The Environment: Where next?*, *The European Journal of International Law*, 23, 3, 2012;

BUCHANAN N. H., *What kind of environment do we owe future generations?*, *Lewis & Clarks Law Review*, 15:2, 2011;

BUEHLER A. G., *Ability to pay*, *Tax Law Review*, 1, 1946.

BURTON M., *Economic Income And The Search For A Fair And Simple Income Tax*, Australian Tax Teachers' Association (ATTA) Annual Conference, 1996, available at <http://pandora.nla.gov.au/tep/23524>;

BUTTON K. J., *The Taxation Of Air Transportation*, Center for Transportation Policy, Operations and Logistics School of Public Policy George Mason University Fairfax, Virginia, April 2005;

CALDERÓN J.M., *The OECD Transfer Pricing Guidelines as a Source of Tax Law: Is Globalization Reaching the Tax Law?*, *Intertax*, vol. 35, no. 1, 2007;

CASAL P., *Global Taxes on Natural Resources*, *Journal of Moral Philosophy*, 8, 2011;

CERIONI F., *Brevi note sull'applicazione dell'accisa sulle emissioni di anidride solforosa e di ossidi di azoto (c.d. «ecotassa»)*, *Boll. Trib.*, 7, 2010;

CHINKIN C. M., *The Challenge of Soft Law: Development and Change in International Law*, *International and Comparative Law Quarterly*, vol. 38, no. 4, 1989;

CHRISTIANS A., *Hard Law & Soft Law in International Taxation*, *Wisconsin International Law Journal*, vol. 25, no. 2, 2008;

CORDERWENER A., *Asymmetrical Tax Burdens and EU State Aid Control*, *Ec Tax Review*, 6, 2012;

CORDINI G., *Principi costituzionali in tema di ambiente e giurisprudenza della Corte Costituzionale Italiana*, *Rivista Giuridica dell'Ambiente*, 5, 2009;

D'AMATO A., *Do we owe a duty to future generations to preserve the global environment?*, *American Journal of International Law*, 1990;

DE LEONARDIS F., *L'ambiente tra i principi fondamentali della Costituzione*, *Federalismi.it*;

DE SADELEER N., *Enforcing EUCHR Principles and Fundamental Rights in Environmental Cases*, *Nordic Journal of International Law*, 2012, 81;

DEMPSEY B. W., *Ability to pay*, *Review Of Social Economy*, Vol. LXIII, No. 3, September 2005;

DI PACE M., *La valutazione del danno ambientale*, *Rivista di Diritto Tributario Internazionale*, 2004;

DIAS SOARES C., *The design features of environmental taxes*, MPhil thesis, The London School of Economics and Political Science, 2011, available at <http://etheses.lse.ac.uk/368/>;

DOMINGUES J. M., *Tax system and environmental taxes in Brazil: the case of the electric vehicles in a comparative perspective with Japan*, *Osaka University Law Review*, No. 59, February 2012;

DUFF D. G., *Tax fairness and the tax mix*, November 2008, available at [http://taxprof.typepad.com/taxprof\\_blog/files/tax\\_fairness.pdf](http://taxprof.typepad.com/taxprof_blog/files/tax_fairness.pdf);

DUFF D.G., *Benefit Taxes and User Fees*, Theory and Practice Research Paper Submitted to Ontario Role of Government Panel, 2003;



- DUPUY P. M., *Soft law and the international law of the environment*, 12 *Mich. J. Int'l*, L. 420, 1990-1991;
- EKINS P., *European environmental taxes and charges: recent experience, issues and trends*, in *Ecological Economics*, 31, 1999;
- EKINS P., SPECK S., *Competitiveness and Exemptions from Environmental Taxes in Europe*, *Environmental and Resource Economics*, Vol.13 (4), 1999;
- ENGELEN F., *State Aid and Restrictions on Free Movement: Two Sides of the Same Coin?*, *European Taxation*, May 2012;
- FALSITTA G., *I principi di capacità contributiva e di eguaglianza tributaria nel diritto comunitario e nel diritto italiano tra "ragioni del fisco" e diritti fondamentali della persona*, *Riv. Dir. Trib.*, I, 2011;
- FEDELE A., *Tassa*, Enc. Giur., Vol. XXX, Roma, 1993;
- FICARI V., *Sviluppo del turismo, ambiente e tassazione locale*, *Rassegna Tributaria*, 4, 2008;
- FIELD K., *Should the ability to pay principle be re-examined*, *Taxes – The tax magazine*, 1942;
- FRANKE S. F., *Umweltabgaben und Finanzverfassung*, *Steuer und Wirtschaft*, vol. 71, no. 1, 1994;
- FRANKMAN M. J., *International Taxation: the trajectory of an idea from Lorimer to Brandt*, *World Development*, Vol. 24, No. 5, 1996;
- GALIZZI P., *From Stockholm to New York, via Rio and Johannesburg: has the environment lost its way on the global agenda?*, *Fordham International Law Journal*, 29, 2005;
- GALLO F., *Disuguaglianze, giustizia distributiva e principio di progressività*, *Rass. Trib.*, 2. 2012;
- GALLO F., *L'autonomia tributaria degli enti locali e l'imposta sui cespiti immobiliari*, *Riv. dir. fin.*, I, 1982;
- GALLO F., MARCHETTI F., *I presupposti della tassazione ambientale*, *Rassegna Tributaria*, no.1, 1999;

GALLO F., MELIS G., *The Italian tax system: International and EU obligations and the realization of fiscal federalism*, *Bulletin for International Taxation*, 2010;

GALLO F., *Ordinamento comunitario e principi costituzionali tributari*, *Rass. Trib.*, 2006;

GALLO F., *Ratio e struttura dell'IRAP*, *Rassegna Tributaria*, 1998;

GASSNER W., LANG M., *Das Leistungsfähigkeitsprinzip im Einkommen- und Körperschaftsteuerrecht: dogmatische Grundfragen – rechtspolitischer Stellenwert*", 14. Österreichischer Juristentag, 2000, Vol. III/1;

GIOVANNINI A., *Capacità contributiva e imposizione patrimoniale: discriminazione qualitativa e limite quantitativo*, *Rass. trib.*, 2012;

GIOVANNINI A., *Capacità contributiva*, *Enciclopedia Treccani, Diritto Online*, 2013, available at [http://www.treccani.it/enciclopedia/capacita-contributiva\\_\(Diritto\\_on\\_line\)/](http://www.treccani.it/enciclopedia/capacita-contributiva_(Diritto_on_line)/);

GLERIA L., *Le imposte ambientali: profili costituzionali nell'ordinamento tedesco*, in *Riv. dir. trib.*, 2003, nn. 7-8, I;

GORMELEY W. P., *The Legal Obligation of the International Community to Guarantee a Pure and Decent Environment: the Expansion of human Rights Norms*, *Georgetown International Environmental Law Review*, 1990;

GRAINGER C. A., KOLSTAD C., *Who pays a price on carbon?*, 2010, available at <http://fiesta.bren.ucsb.edu/~kolstad/HmPg/papers/CarbonTaxIncidence.pdf>;

GREEN R. M., *Ethics and Taxation: A Theoretical Framework*, *Journal of Religious Ethics*, Vol. 12, No. 2, 1984;

HEIJ G., *The definition of tax*, *Asia Pacific Tax Bulletin*, April 2001;

HERRERA MOLINA P. M., *El principio "quien contamina, paga" desde la perspectiva jurídica*, *Noticias de la Unión Europea*, 1995;

HINES JR J. R., *Taxing consumption and other sins*, *The Journal of economic perspective*, vol. 21, no. 1, 2007;

HODKOVA I., *Is there a right to a healthy environment in the international legal order?*, *Connecticut Journal of Int'l Law*, 1991-1992;

HOWARD M. W., *Environmental justice: sharing the burdens of climate change*, Philosophy at the Edge 2009: Ethics in Today's Policy Choices, Camden Philosophical Society, 24 July 2009,

JADOT B., *Les taxes environnementales: objectifs et principes*, Fiscalité de l'environnement, Bruylant, 1994;

KAUL I., CONCEIÇÃO P., LE GOULVEN K., MENDOZA R. U., *Why do global public goods matter today?*, 2003, available at <http://web.undp.org/globalpublicgoods/globalization/pdfs/Overviews.pdf>;

KETTLEWELL U., *The answer to global pollution? A critical examination of problems and potential of polluter-pays principle*, Colo. J. Int'l Envtl. L. & Pol'y, 1992;

KIRCHHOF P., *Gutachen über die Finanzierung des öffentlich-rechtlichen Rundfunks*, erstattet im Auftrag der ARD, des ZDF und D Radio, Heidelberg, April 2010;

KLABBERS J., *The Undesirability of Soft Law*, Nordic Journal of International Law, vol. 67, 1998;

KOHLHAAS M., *Ecological tax reform in Germany. From theory to policy*, Economics studies program series, volume 6, Washington D.C., 2000; OECD, *Environmental fiscal reform for poverty reduction*, Paris, 2005;

KRISTL K.T., *Diminishing the Divine: climate change and the act of God defence*, 15 *Widener Law Review*, 325, 2009-2010;

KULCSAR T., *International Tax Aspects of Climate Change*, IFA research paper, 2011;

LA SCALA A.E., *Il carattere ambientale di un tributo non prevale sul divieto di introdurre tasse ad effetto equivalente ai dazi doganali*, Rass. Trib., 4, 2007;

LEICESTER A., WINDMEIJER F., *The "Fat Tax": economic incentives to reduce obesity*, The Institute for Fiscal studies, Briefing Note n. 49;

LEWIS B., *Environmental rights or a right to the environment? Exploring the nexus between human rights and environmental protection*, *Macquarie J. Int'l & Comp. Env'tl.*, 8, 2012;

LONDON C., *Droit Communautaire de l'environnement*, *Revue Trimestrielle de Droit Européen*, 3, 1997;

MACDONALD K., *A right to a healthful environment – humans and habitats: rethinking rights in an age of climate change*, *European Energy and Environmental Law Review*, 2008, 17;

MANISTY H., SCHOFIELD M., *Time arrives for coordination on green taxes*, in *International tax review*, June 2009;

MANK B. C., *Standing and Future Generations: Does Massachusetts v. EPA Open Standing for Generations to Come?*, *Columbia Journal on Environmental Law*, 2009, 34;

MARCHETTI F., *Ambiente (Dir. Trib.)*, in *Dizionario di Diritto Pubblico*, Milano, 2006;

MELIS G., *Coordinamento fiscale nell'Unione Europea*, *Enciclopedia del diritto*, Annali, I, Milano, 2007;

MELIS G., PERSIANI A., *Trattato di Lisbona e sistemi fiscali*, *Diritto e Pratica Tributaria*, 2, 2013,

MELIS G., PITRONE F., *Coordinating Tax Strategies at the EU Level as a Solution to the Economic and Financial Crisis*, *Intertax*, September 2011;

MESSERSCHMIDT K., *Umweltabgaben als rechtsproblem*, *Schriften zum Umweltrecht*, Berlin, 1986;

METCALF G. E., *Paying for greenhouse gas reductions: what role for fairness?*, *Lewis & Clarck Law Review*, 15:2, 2011;

MILNE J. E., *The U. S. Supreme Court Opens a Door: Expanded Opportunities for environmental taxes*, *Environmental law reporter*, 5, 2013;

MILNE J.E., *Environmental taxation in the United States: the long view*, 15 *Lewis & Clark L. Rev*, 2011;

MOHR E., *Environmental taxes and charges and EC Fiscal Harmonisation: Theory and Policy*, *Kieler Diskussionsbeiträge*, 161, 1990;

MOSCHETTI F., *Capacità contributiva* in *Enc. giur.*, Roma, 1988;

MOSCHETTI F., *I principi di giustizia fiscale della Costituzione italiana, per "l'ordinamento giuridico in cammino" dell'Unione Europea*, *Riv. dir. tributario*, 2010, I;

NAESS E. M., SMITH T., *Environmentally related taxes in Norway. Totals and divided by industry*, *Statistics Norway*, 5, 2009;

PAUL J. A., WAHLBERG K., *Global taxes for Global property*, *Global Policy Forum*, 2002, available at [http://www.globalpolicy.org/component/content/article/216/46027.html#\\_edn8](http://www.globalpolicy.org/component/content/article/216/46027.html#_edn8);

PEARCE D., *The polluter pays principle*, Briefing Papers on key issues in environmental economics, Gatekeeper series no. LEEC 89-03, 2003, available at <http://www.mekonginfo.org/assets/midocs/0002714-economy-the-polluter-pays-principle.pdf> ;

PEARCE D., *The role of carbon taxes in adjusting to global warming*, *The economic journal*, July 1991;

PEVERINI L., *Presupposto, soggettività passiva e capacità contributiva nelle accise: riflessioni a margine di una recente sentenza della Corte Costituzionale*, *Riv. Dir. Trib.*, 2011, I;

PISTONE P., *Exchange of Information and Rubik Agreements: The Perspective of an EU Academic*, *Bulletin for international taxation*, April/May 2013;

QUIGLEY C., *Direct taxation and State Aid: recent developments concerning the notion of selectivity*, *Intertax*, Vol. 40, 2;

RING D., *Who is Making International Tax Policy? International Organizations as Power Players in a High Stakes World*, *Fordham International Law Journal*, vol. 33, no. 3;

ROBEYNS I., *The capability approach*, *Stanford Encyclopedia of philosophy*, 2011, available at <http://plato.stanford.edu/entries/capability-approach/>;

ROSEMBUJ T., *El tributo ambiental. Primeras reflexiones en torno al los principios comunitarios y constitucionales*, Impuestos, 1994, 4;

ROSEMBUJ T., *La capacità contributiva del 'non fare'. Il concetto di imposta. A proposito di un'importante sentenza della Corte Suprema degli Usa*, Dir. prat. trib., 2012, I;

SACKSOFSKY U., *Verfolgung ökologischer und anderer öffentlicher Zwecke durch Instrumente des Abgabenrechts*, NJW 2000;

SALVINI L., *Questioni attuali sulla fiscalità del settore energetico*, Rassegna tributaria, 2007;

SANDEL M. J., *It's immoral to buy the right to pollute*, New York Times, December 17, 1997;

SCHARFF E. A., *Taxes As Regulatory Tools: An Argument For Expanding New York City's Taxing Authority*, New York University Law Review, Vol. 86, 2011;

SCHOENBLUM J. A., *Tax Fairness or Unfairness. Consideration of the Philosophical Bases for Unequal Taxation of Individuals*, The American Journal of Tax Policy, Vol. 12:2, 1995;

SCHÖN W., *International tax coordination for a second-best world (Part I)*, World Tax Journal, Vol. 1, No. 1, October 2009;

SCHWARCZ S. L., *Systemic Risk*, The Georgetown Law Journal, Vol. 97, 2008;

SELICATO P., *Imposizione fiscale e principio "chi inquina paga"*, Rassegna tributaria, 2005;

SELICATO P., *La tassazione ambientale: nuovi indici di ricchezza, razionalità del prelievo e principi dell'ordinamento comunitario*, Riv. dir. trib. internaz., 2004, 3-4;

SERRANÒ M.V., DE MARCO S., *Le criticità della tassazione ambientale. Brevi riflessioni a proposito della Tares e della Carbon Tax*, Boll. Trib., 13, 2013;

SHELTON D., *Human Rights, Environmental Rights and the Right to Environment*, Stanford Journal of International Law, 1992, 28;

SHERIDAN P., MYLREA K., QUAID O., KEYS V., DAMES S., *HM Treasury Defines “Environmental Tax”*, 27 July, 2012, available at <http://www.lexology.com/library/detail.aspx?g=37d6e372-25aa-4c67-94da-2317d504732c>.

SINDEN A., *Climate change and Human Rights*, 27 *J. Land Resources & Env'tl. L.* 255, 2007;

SLADE KENDRICK M., *The Ability-to-Pay Theory of Taxation*, *The American Economic Review*, Vol. 29, No. 1, 1939;

SMITH S., *Taxation and the Environment: A survey*, *Fiscal studies*, 1992, vol. 13, n. 4;

SOHN L. B., *The Stockholm Declaration on the Human Environment*, *The Harvard International Law Journal*, 1973, 14;

STRNAD J., *Conceptualizing The “Fat Tax”*: *The Role Of Food Taxes In Developed Economies*, *Southern California Law Review*, Vol. 78, 2005;

SUHR W., *Zur Wirksamkeit von Umweltsteuern – Erfahrungen im In-und Ausland*, *Die Welwirtschaft*, 1989;

SUMMERS L. H., *The case for corrective taxation*, *National Tax Journal*, Vol. 44, Issue 3, 1991;

TURNER S., *The human right to a good environment – the sword in the stone*, *Non-State Actors and International Law*, 2004, 4;

UTZ S., *Ability to pay*, *Whittier L. Rev.*, Vol. 23, 2002;

VANISTENDAEL F., *Is Fiscal Justice Progressing?*, *Bulletin for International Taxation*, Vol. 64, No. 10, 2010;

VASAK K., *Human Rights: A Thirty-Year Struggle: the Sustained Efforts to give Force of law to the Universal Declaration of Human Rights*, *UNESCO Courier* 30:11, November 1977;

VERRIGNI C., *La rilevanza del principio comunitario “chi inquina paga” nei tributi ambientali*, *Rass. Trib.*, 5, 2003;

VILLAR EZCURRA M., *Cambio climático, desarrollo sostenible y fiscalidad ambiental*, *Cronica Tributaria*, 135, 2010;

VILLAR EZCURRA M., *Cuestiones de eficiencia, eficacia y legalidad comunitaria Europa en el proceso hacia un modelo de fiscalidad de la energía*, *Revista Aranzadi Quincena Fiscal*, 5, 2013;

VILLAR EZCURRA M., *Desarrollo sostenible y fiscalidad ambiental*, in *International tax law review*, January/December, 2010;

VILLAR EZCURRA M., *Fiscalidad ambiental*, *Diccionario de Derecho Ambiental*, Madrid, 2006;

VILLAR EZCURRA M., *State Aids and Energy Taxes: Towards a Coherent Reference Framework*, *Intertax*, Issue 6/7, 2013;

VITALETTI G., *Principi fiscali ed economia globale*, *Riv. Dir. Fin.*, 2, 2010.

WAHL P., *International Taxation. Regulating Globalisation – Financing Development*, *World Economy, Ecology and Development*, Berlin, 2005;

WASMEIER M., *The integration of environmental protection as a general rule for interpreting community law*, *Common Market Law Review*, 2001, 38;

WATES J., *The Aarhus Convention: a Driving Force for Environmental Democracy*, *JEEPL*, 1, 2005;

WEBER R. H., *New Sovereignty Concepts in the Age of Internet*, *Journal of International Law*, Vol. 8, 2010;

WEISS B., *Our rights and obligations to future generations for the environment*, *The American Journal of International Law*, 1990, 84;

WESTIN R. A., *Understanding Environmental Taxes*, in *Tax Lawyer*, 1992-1993, vol. 46, No. 2;

WESTON BROWN E., *A common morality: toward a framework for designing fiscal instruments to respond to global climate change*, *15 Widener Law Review*, 391, 2009-2010;



ZATTI A., *La tassazione ambientale come strumento di finanziamento degli enti locali: alcune considerazioni preliminari*, *Riv. Di dir. Finanziario e scienza delle finanze*, LXX, 1, I, 2011.

#### **BOOKS AND BOOK SECTIONS**

ALFANO R., *Tributi Ambientali. Profili interni ed europei*, Torino, 2012;

AMARO L., *Direito Tributário Brasileiro*, São Paulo, 2011;

ANTONINI L. (ed.), *L'imposizione ambientale nel quadro del nuovo federalismo fiscale*, Napoli, 2010;

ANTONINI L., *Dovere tributario, interesse fiscale e diritti costituzionali*, Milano, 1996;

BAKKER A. (ED.), *Tax and the environment. A world of possibilities*, Amsterdam, 2009;

BECKER A. A., *Teoria Geral Do Direito Tributario*, São Paulo, 2010;

BIRK D., *Diritto Tributario Tedesco*, (traduzione a cura di Enrico De Mita), Milano, 2006;

BNA, *Environmental taxes: a global perspective*, London, 2008;

BORIA P., *Diritto tributario europeo*, Milano, 2010;

BUGGE H. C., *The polluter pays principle: dilemma of justice in national and international contexts*, in J. EBBESSON, P. OKOWA (eds.), *Environmental Law and Justice in Context*, New York, 2009;

BUGGE H. C., *The Principles of "Polluter Pays" in Economics and Law*, in E. EIDE AND R. VAN DEN BERGH (eds.), *Law and Economics of the Environment*, Oslo, 1996;

CASADO OLLERO G., *Los fines no fiscales de los tributos*, in *Comentarios a la Ley General Tributaria y líneas para su reforma. Libro-homenaje al Profesor F. Sainz de Bujanda*, vol. I, I.E.F., Madrid, 1991;

- CASTELLUCCI L., MARKANDYA A. (eds), *Environmental Taxes and Fiscal Reform*, UK, 2012;
- CASTELLUCCI L., MIGNOLLI A., *Ambiente*, Enciclopedia Treccani, 2000, available at [http://www.treccani.it/enciclopedia/ambiente\\_\(Enciclopedia\\_Italiana\)/](http://www.treccani.it/enciclopedia/ambiente_(Enciclopedia_Italiana)/);
- CESARINO PESSÔA L., *O principio da capacidade contributiva na jurisprudencia do Supremo Tribunal Federal*, *Revista Direito GV*, 2009;
- CORDINI G., FOIS P., MARCHISIO S., *Diritto ambientale – Profili internazionali, europei e comparati*, Turin, 2008;
- CROSETTI A., FERRARA R., FRACCHIA F., OLIVETTI RASON N., *Diritto dell'ambiente*, Roma, 2008;
- DE MITA E. (ed.), *Interesse fiscale e tutela del contribuente*, Milano, 2006;
- DE MOOIJ R. A., M. KEEN, I. W. H. PARRY, E. WESTON (EDS.), *Fiscal Policy to mitigate climate change: a guide for policymakers*, International Monetary fund, September 2012;
- DE SADELEER N., *Environmental Principles: From Political Slogans to Legal Rules*, Oxford New York, 2002;
- DE SADELEER N., *The Polluter-pays Principle in EU Law – Bold Case Law and Poor Harmonisation*, in *Teischrift Hans-Christian Bugge*, Oslo, 2012;
- DE WITTE B., *The Use of the ECHR and Convention Case Law by the European Court of Justice*, in P. POPELIER, C. VAN DE HEYINING, P. VAN NUFFEL (eds.), *Human rights protection in the European legal order: The interaction between the European and the national courts*, Cambridge, Antwerp, Portland, 2011;
- DEL FEDERICO L., *Tasse, tributi paracommutativi e prezzi pubblici*, Torino, 2000;
- DELL'ANNO P., PICOZZA E. (eds.), *Trattato di diritto dell'ambiente*, Vol. 1, Padova, 2012;
- DIAS SOARES C., MILNE J. E., ASHIABOR H., KREISER L., DEKETELAERE K. (eds.), *Critical Issues in Environmental Taxation. International and Comparative Perspectives*, Vol. VIII, Oxford New York, 2010;

- EISENSTEIN L., *The ideologies of taxation*, Cambridge, Massachusetts and London, 2010;
- EKINS P., SPECK S., *Environmental taxes and ETRs in Europe: The current situation and a review of the modelling literature*, Oxford New York, 2011;
- ELIA A., *La carbon tax e la sua applicazione proporzionale al potere inquinante dei combustibili: il criterio della proporzionalità adeguata nella tassazione ambientale*, *Diritto e Pratica Tributaria*, 1, 2012;
- FALSITTA G., *Giustizia tributaria e tirannia fiscale*, Milano, 2008;
- FALSITTA G., *Manuale di diritto tributario. Parte generale*, Padova, 2010;
- FANTOZZI A. (ed.), *Il diritto tributario*, Torino, 2012;
- FAUCHALD O.K., *Environmental Taxes and Trade Discrimination*, The Netherlands 1998;
- FEDELE A., *Appunti dalle lezioni di diritto tributario*, Torino, 2005;
- FICARI V., SCANU G. (eds.), *"Tourism taxation". Sostenibilità ambientale e turismo fra fiscalità locale e competitività*, Torino, 2013;
- FREESTONE D., STRECK C., *Legal Aspects of Carbon Trading: Kyoto, Copenhagen, and beyond*, New York, 2009;
- GAFFURI G., *Il senso della capacità contributiva*, in L. PERRONE, C. BERLIRI (eds.), *Diritto tributario e Corte costituzionale*, Napoli, 2006;
- GAINES S. E., WESTIN R. A. (eds.), *Taxation for Environmental Protection. A Multinational Legal Study*, Westport, 1991;
- GALLO F., *L'uguaglianza tributaria*, Napoli, 2012;
- GALLO F., *Le ragioni del fisco. Etica e giustizia nella tassazione*, Bologna, 2007;
- GARCÍA FRÍAS M.A., *Los fines no fiscales en las tasas*, in *Tasas y precios publicos en el ordenamiento jurídico español*, Institutos de estudios Fiscales, Madrid, 1991;
- GILJUM S., LUTZ C., POLZIN C., *Global implications of a European environmental tax reform*, Vienna, 2010;

- GIARDINA E., *Le basi teoriche del principio della capacità contributiva*, Milano, 1961;
- GORE A., *Earth in the balance*, London, 1992;
- HAYWARD T., *Constitutional Environmental Rights*, Oxford, 2004
- HERDEGEN M., SCHÖN W., *Ökologische Steuerreform, Verfassungsrecht und Verkehrsgewerbe*, Köln, 2000;
- HERRERA P. M., *Derecho Tributario Ambiental* (La introducción del interés ambiental en el ordenamiento tributario), Madrid, 2000;
- HOLMES K., *The Concept of Income: A Multidisciplinary Analysis*, Amsterdam, 2001;
- IFA, *Environmental taxes and charges*, Proceedings of a Seminar held in Florence, Italy, in 1993 during the 47<sup>th</sup> Congress of the International Fiscal Association, vol. 18d, The Hague-London-Boston, 1993;
- JANS J. H., VEDDER H. H. B., *European Environmental Law. After Lisbon*. 4th Edition, Groningen, 2012;
- JORDAN A. (ed.), *Environmental policy in the European Union: actors, institutions and processes*, UK and USA, 2005;
- KIRCHHOF P., *Umweltschutz im Abgaben- und Steuerrecht*, Köln, 1993;
- KISS A., *Environmental and Consumer Protection*, in S. PEERS AND A. WARD (eds.), *The EU Charter of Fundamental Rights: politics, law and policy*, Oxford, 2004;
- KISS A., SHELTON D., *Guide to International Environmental Law*, Leiden, 2007;
- KNIGGE M., GÖRLACH B., *Effects of Germany's Ecological tax reforms on the Environment, Employment, and Technological Innovation*, Berlin, August 2005;
- KOPLER G., POIARES MADURO M., PISTONE P. (eds.), *Human rights and Taxation in Europe and the World*, The Netherlands, 2011;
- KRÄMER L., *EC Environmental Law*, Sixth Edition, London, 2007;
- KRÄMER L., *EU Environmental Law*, London, 2011;

KREISER L., SIRISOM J., ASHIABOR H., MILNE J. (eds.), *Environmental taxation and climate change. Achieving Environmental Sustainability through Fiscal Policy*, Cheltenham, 2011;

LANG J., ENGLISCH J., *A European Legal tax order based on Ability to Pay*, in A. AMATUCCI (ed.), *International Tax Law*, The Netherlands, 2012;

LANG M., *The Concept of a Multilateral Tax Treaty*, in M. LANG, H. LOUKOTA, A. J. RÄDLER, J. SCHUCH, G. TOIFL, C. URTZ, F. WASSERMEYER (eds.), *Multilateral Tax Treaties*, London - The Hague - Boston, 1997;

LAROMA JEZZI P., *I tributi ambientali*, in P. RUSSO, *Manuale di diritto tributario. Parte speciale*, Milano, 2002;

LENARTS K., VAN NUFFEL P., *Constitutional Law of the European Union*, London, 2005;

LOMBARDO M., *The Charter of Fundamental Rights and the Environmental Policy Integration Principle*, in DI FEDERICO G. (ed.), *The EU Charter of Fundamental Rights. From Declaration to Binding Instruments*, London, New York, 2011;

LYE L.H., J. MILNE, H. ASHIABOR, K. DEKETELAERE, L. KREISER, *Critical Issues in Environmental Taxation. International and Comparative Perspectives*, Vol. VII, Oxford New York, 2009;

MÄÄTTÄ K., *Environmental taxes. An Introductory Analysis*, Cheltenham-Northampton, 2006;

MAFFEZZONI F., *Il principio di capacità contributiva nel diritto italiano*, Torino, 1970;

MANZONI I., *Il principio della capacità contributiva nell'ordinamento costituzionale italiano*, Torino, 1965;

MANZONI I., VANZ G., *Il diritto tributario. Profili teorici e sistematici*, Milano, 2007;

MARÍN DURÁN G., MORGERA E., *Commentary on Article 37 of the EU Charter of Fundamental Rights – Environmental Protection*, *Edinburgh School of Law Research Paper Series*, 2013/20;

- MARTUL-ORTEGA Y., *I fini extrafiscali dell'imposta*, in A. AMATUCCI (ed.), *Trattato di Diritto Tributario*, Padova, 1994, vol. I.
- MATHIJSEN P.S.R.F., *A guide to European Union Law*, London, 1999;
- MCKIBBEN B., *The end of Nature*, New York, 1989;
- MELIS G., *Lezioni di diritto tributario*, Torino, 2013;
- MILNE J. E., SKOU ANDERSEN M. (eds.), *Handbook Of Research On Environmental Taxation*, Cheltenham/Massachussets, 2012;
- MILNE J.E., DETELAERE K., KREISER L., ASHIABOR H. (eds.), *Critical Issues in Environmental Taxation. International and Comparative Perspectives*, Vol. I, Oxford, New York, 2003;
- MORTELMAS K.J.M., *Horizontal and Flanking Policies*, in KAPTEYN & VERLOREN VAN THEMAAT, *The Law of the European Union and the European Communities*, The Netherlands, 2008.;
- MOSCHETTI F., *“Interesse fiscale” e “Ragioni del fisco” nel prisma della capacità contributiva*, in BEGHIN M., MOSCHETTI F., SCHIAVOLIN R., TOSI L., ZIZZO G. (eds.), *Atti della Giornata di studi in onore di Gaspare Falsitta. Per un ordinamento tributario non confiscatorio e non rinunciatario: alla ricerca di criteri costituzionali di giustizia tributaria*, Padova, 2012,
- MOSCHETTI F., *La capacità contributiva*, in A. AMATUCCI (ed.), *Trattato di diritto tributario*, Padova, 1994, vol. I;
- MUSGRAVE R. A., MUSGRAVE P. B., *Public finance in theory and practice*, United States, 1989;
- MUSGRAVE R.A., *The Future of Fiscal Policy*, Leuven, 1978;
- NOLLKAEMPER A., *Three Conceptions of the Integration Principle in International Environmental Law*, in A. LENSCHOW (ed.), *Environmental Policy Integration: Greening Sectoral Policies in Europe*, London, 2001;
- NUSSBAUM M., *Creating capabilities. The Human Development approach*, United States of America, 2011;

- PAUWELYN J., *Carbon leakage measures and border tax adjustment under WTO law*, in PREVOST D., VAN CALSTER G. (eds.), *Research Handbook on Environment, Health and the WTO*, Cheltenham, 2013;
- PEETERS B. (ed.), *The concept of tax*, 2005 EATLP Congress, Naples (Caserta), 27-29 May 2005;
- PERRONE CAPANO R., *L'imposizione e l'ambiente*, in A. AMATUCCI (ed.), *Trattato di Diritto Tributario*, annuario, Padova, 2001;
- PEVERINI L., *I tributi ambientali*, in L. SALVINI, G. MELIS (eds.), *Atti delle Giornate di Studio su L'evoluzione del sistema fiscale e il principio di capacità contributiva*, 2014, forthcoming;
- PICCIAREDDA F., SELICATO P., *I tributi e l'ambiente*, Milano, 1996;
- POPELIER P., VAN DE HEYINING C., VAN NUFFEL P. (eds.), *Human rights protection in the European legal order: The interaction between the European and the national courts*, Cambridge, Antwerp, Portland, 2011;
- ROSEMBUJ T., *El impuesto ambiental*, Barcelona, 2009;
- RUSSO P., *Manuale di diritto tributario. Parte generale*. Milano, 2007;
- SALVINI L., *Agevolazioni IVA per energia da fonti rinnovabili e forniture di calore-energia*, in BONARDI G., PATRIGNANI C. (eds.), *Energie alternative e rinnovabili*, Milano, 2010;
- SELIGMAN E. R. A., *Progressive Taxation in Theory and Practice*, Princeton University Press, 1908;
- SEN A., *La diseguaglianza. Un riesame critico*, Bologna, 2010;
- SEN A., *The idea of Justice*, United States of America, 2009;
- SOLER ROCH M. T., *El principio de capacidad económica y la tributación medioambiental*, in F. BECKER ZUAZUA, L. M. CAZORLA PRIETO, J. MARTÍNEZ-SIMANCAS SÁNCHEZ (eds.), *Tratado de Tributación medioambiental*, Navarra, 2008;
- STAVINS R., *Economics of the Environment: Selected Readings*, New York, 2000;

STEINBERG E.B.; YAGER J.A., *New Means of Financing International Needs*, Washington, DC, 1978;

STRANGE T., BAYLEY A., *Sustainable development. Linking economy, society, environment*, Paris, 2008;

TAVEIRA TORRES H., *Direito Constitucional Tributário e Segurança Jurídica*, São Paulo, 2012;

THURONYI V., *Comparative tax law*, The Hague, 2003;

TIETENBERG T., LEWIS L., *Environmental & Natural Resource Economics*, New Jersey, 2009;

TIPKE K., *Die Steuerrechtsordnung*, Vol. 2, Cologne, 2003;

URICCHIO A. F. (ed.), *Imposizione di scopo e federalismo fiscale*, Sartancangelo di Romagna, 2013.

VANISTENDAEL F., *Legal Framework for Taxation*, in V. THURONYI (ed.), *Tax Law Design and Drafting* International Monetary Fund, vol. 1, 1996, available at <http://www.imf.org/external/pubs/nft/1998/tlaw/eng/>;

VARONA ALABERN J.E., *Los tributos extrafiscales. Extrafiscalidad regular e irregular*, in A. BAEZA MORENO, D.JH. JIMÉNEZ-VALLADOLID, *Tratado sobre la Ley General Tributaria*, Pamplona, 2010;

VON HOMEYER I., *The Evolution of EU Environmental Governance*, in J. SCOTT (ed.), *Environmental Protection: European Law and Governance*, Oxford, 2009;

WENNERÅS P., *The enforcement of EC Environmental Law*, New York, 2007;

WESTIN A., *Environmental Tax Initiatives and Multilateral Trade Agreements: Dangerous Collisions*, Cambridge, 1997.



## CASE LAW

EUROPEAN COURT OF JUSTICE, Case C-169/08 *Presidente del Consiglio dei Ministri v. Regione Sardegna*, 17 November 2009.

EUROPEAN COURT OF JUSTICE, *Air Transport Association of America and Others vs. Secretary of State for Energy and Climate Change*, C-366/10, 21 December 2011

EUROPEAN COURT OF JUSTICE, C- 173/05 *Commission of the European Communities vs. Italian Republic*, 21 June 2007

EUROPEAN COURT OF JUSTICE, C-293/97 *Standley and Others*, 1999;

EUROPEAN COURT OF JUSTICE, C-188/07 *Commune de Mesquer*, 2008;

EUROPEAN COURT OF JUSTICE, C-378/08, *Raffinerie Mediterranee (ERG) SpA, Polimeri Europa SpA and Syndial SpA v Ministero dello Sviluppo economico and Others*,

EUROPEAN COURT OF JUSTICE, C-379/92, *Matteo Peralta*, 14 July 1994

EUROPEAN COURT OF JUSTICE, Case C-293/97, *Standley and Others*, 1999;

EUROPEAN COURT OF JUSTICE, Case C-72/03, *Carbonati Apuani*, 2004;

EUROPEAN COURT OF JUSTICE, *Procureur de la République v. Association défense des brûleurs d'huiles usages*, Case C-240/83, 7 February 1985

EUROPEAN COURT OF JUSTICE, *Spain v. Commission*, C-409/00, 13 February 2003;

EUROPEAN COURT OF JUSTICE, *British Aggregates Association v. Commission of the European Commissions*, C-487/06 P, 22 December 2008;

EUROPEAN COURT OF JUSTICE, *Commission v. Kingdom of the Netherlands*, C-279/08 P, 8 September 2011;

EUROPEAN COURT OF JUSTICE, *United Kingdom of Great Britain and Northern Ireland vs. Kingdom of Denmark*, Cause C-302/86, 20 September 1988;

FRENCH CONSTITUTIONAL COURT, decision n. 2009-599 DC, 29 December 2009;

ITALIAN CONSTITUTIONAL COURT, n. 64/1997, 17-30 December 1997;

*Minors Oposa v. Sec'y of Dep't Env't and Natural Res.*, 30 July 1993;

OPINION OF THE ADVOCATE GENERAL KOKOTT, Case C- 254/08, *Futura Immobiliare srl Hotel Futura, Meeting Hotel, Hotel Blanc, Hotel Clyton, Business srl vs. Comune di Casoria*, 23 April 2009;

OPINION OF THE ADVOCATE GENERAL KOKOTT, Case C- 254/08, *Raffinerie Mediterranee SpA (ERG), Polimeri Europa SpA, Syndial SpA vs. Ministero dello Sviluppo Economico and Others* and Cases C-379/08 and C-380/08, *Raffinerie Mediterranee SpA (ERG), Polimeri Europa SpA, Syndial SpA V Ministero dello Sviluppo Economico and Others*;

SPANISH CONSTITUTIONAL COURT, 122/2012, 5 June 2012;

SPANISH CONSTITUTIONAL COURT, 197/1992, 19 November 1992;

SPANISH CONSTITUTIONAL COURT, 37/1987, 26 March 1987;

SPANISH CONSTITUTIONAL COURT, Case 194/2000, 19 July 2000;

SPANISH CONSTITUTIONAL COURT, Case 296/1994, 30 November 1994;

U.S. SUPREME COURT, *National Federation Of Independent Business V. Sebelius*, 567 U.S., 2012;

U.S. SUPREME COURT, *Sonzinsky v. United States*, 300 U.S. 506, 513, 1937;

#### **DOCUMENTS (FROM INTERNATIONAL INSTITUTIONS) AND LEGISLATION**

Charter of Fundamental Rights of the European Union, C 364/01, 2000;

COMETR, *Competitiveness effects of environmental tax reforms*, Denmark, December 2007;

COMMISSION REGULATION (EC) No 800/2008, declaring certain categories of aid compatible with the common market in application of Articles 87 and 88 of the Treaty, 6 August 2008;

COUNCIL DIRECTIVE 2003/96/EC of 27 October 2003 restructuring the Community framework for the taxation of energy products and electricity;

COUNCIL OF EUROPE, *Declaration of the Council of the European Communities and of the representatives of the Governments of the Member States meeting in the Council of 22 November 1973 on the programme of action of the European Communities on the environment*, C 112, 22 December 1973;

COUNCIL OF EUROPE, *Manual on Human Rights and the Environment*, Strasbourg, 2012;

COUNCIL OF EUROPE, *Resolution of the Council and the Representatives of the Governments of the Member States, meeting within the Council of 1 February 1993 on a Community programme of policy and action in relation to the environment and sustainable development*, C 138, 17 May 1993;

Council Regulation (EC) No 2223/96 of 25 June 1996 on the European system of national and regional accounts in the Community;

Directive 2004/35/CE of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage;

Directive 2006/12/EC of the European Parliament and of the Council of 5 April 2006 on waste;

Directive 2008/101/EC of the European Parliament and of The Council of 19 November 2008 amending Directive 2003/87/EC so as to include aviation activities in the scheme for greenhouse gas emission allowance trading within the Community;

ECOTEC, *Study on the economic and environmental implications of the use of environmental taxes and charges in the European Union and its Member States*, April 2001;

EEC, *Council Recommendation regarding cost allocation and action by public authorities on environmental matters*, 75/436/Euratom, 3 March 1975;

EUROPEAN COMMISSION, *Communication from the Commission to the Council, the European Parliament, the European Economic and Social committee and the Committee of the Regions - Reducing the Climate Change Impact of Aviation*, SEC(2005) 1184, 2005;

EUROPEAN COMMISSION, *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions Rio+20: towards the green economy and better governance*, COM (2011) 363 final, 20 June 2011;

EUROPEAN COMMISSION, *Community Guidelines on State aid for Environmental Protection*, 2008/C 82/01;

EUROPEAN COMMISSION, *Environmental taxes and charges in the Single Market*, COM(97) 9 final, 26 March 1997;

EUROPEAN COMMISSION, *Europe 2020. A strategy for smart, sustainable and inclusive growth*, COM(2010) 2020 final, 3 March 2010;

EUROPEAN COMMISSION, *European Community programme of policy and action in relation to the environment and sustainable development "Towards sustainability"*, 18 March 1992;

EUROPEAN COMMISSION, *Green Paper A 2030 framework for climate and energy policies*, COM/2013/0169 final;

EUROPEAN COMMISSION, *Green Paper on Market-Based Instruments for Environment and Related Policy Purposes*, COM (2007) 140 Final;

EUROPEAN COMMISSION, *Manual: Statistics on Environmental taxes*, version 3.0, 1996;

EUROPEAN COMMISSION, *Pricing carbon emissions from international maritime and aviation transport available, 2010, available at [http://ec.europa.eu/taxation\\_customs/resources/documents/taxation/gen\\_info/economic\\_analysis/tax\\_papers/taxation\\_paper\\_23\\_en.pdf](http://ec.europa.eu/taxation_customs/resources/documents/taxation/gen_info/economic_analysis/tax_papers/taxation_paper_23_en.pdf)*;

EUROPEAN COMMISSION, *Proposal for a Council Directive amending Directive 2003/96/CE restructuring the Community framework for the taxation of energy products and electricity*, COM (2011) 169/3, 2011;

EUROPEAN COMMISSION, *Roadmap to a Resource Efficient Europe*, COM (2011) 571/3;

EUROPEAN COMMISSION, *Smarter energy taxation for the EU: proposal for a revision of the Energy Taxation Directive*, COM (2011) 168/3;

EUROPEAN COMMISSION, *Summary of the impact assessment. Accompanying document to the Proposal for a Council Directive amending Directive 2003/96/EC restructuring the Community framework for the taxation of energy products and electricity*, SEC(2011) 410;

EUROPEAN COMMISSION, *Tax reforms in EU Member States*, 2011, available at [http://ec.europa.eu/economy\\_finance/publications/european\\_economy/2011/ee5\\_en.htm](http://ec.europa.eu/economy_finance/publications/european_economy/2011/ee5_en.htm);

EUROPEAN COMMISSION, *Taxation Trends in the EU*, 2011, available at [http://epp.eurostat.ec.europa.eu/cache/ITY\\_OFFPUB/KS-DU-11-001/EN/KS-DU-11-001-EN.PDF](http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-DU-11-001/EN/KS-DU-11-001-EN.PDF);

EUROPEAN COMMISSION, *Taxation trends in the European Union, Data for the EU Member States, Iceland and Norway, Belgium*, 2013;

EUROPEAN COMMISSION, *Towards Tax-Coordination in the European Union – A Package to tackle harmful Tax Competition*, 5 Nov 1997, COM (97)564 final;

EUROPEAN COMMISSION, *White Paper on Growth, Competitiveness and Employment*, COM (93) 700, 1993;

EUROPEAN COUNCIL, *Conclusions*, Euco 75/1/13, 23 May 2013;

EUROPEAN ENVIRONMENT AGENCY, *Environmental policy integration in Europe: looking back, thinking ahead*, 2004;

EUROPEAN ENVIRONMENT AGENCY, *Environmental policy integration in Europe. State of play and an evaluation framework*, 2005;

EUROPEAN ENVIRONMENT AGENCY, *Environmental tax in Europe: implications for income distribution*, Copenhagen, 16, 2011;

EUROPEAN ENVIRONMENT AGENCY, *The European Environment: State and Outlook 2005*, Copenhagen, 2005;

EUROSTAT, *Environmental taxes – revised statistical guide 2013*, 20-21 March 2013, ENV/EXP/WG/5.2(2013);

G 20, *Cannes summit final declaration “building our common future: renewed collective action for the benefit of all”*, 4 November 2011;

GROUPE DE TRAVAIL SUR LE NOUVELLES CONTRIBUTION FINANCIÈRES INTERNATIONALES, *Rapport à Monsieur Jacques Chirac Président de la République, English version*, December 2004, available at <http://www.diplomatie.gouv.fr/en/IMG/pdf/LandauENG1.pdf>;

HOUSE OF COMMONS, Environmental Audit Committee, *Budget 2011 and Environmental Taxes, Sixth Report of Session 2010-12*, 2011;

INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *Climate Change 2007: Summary for policy makers*, 2007, available at <http://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wg1-spm.pdf>;

INTERNATIONAL CIVIL AVIATION ORGANIZATION, *Assembly – 38th Session, Market Based Measures (MBMs)*, A38-WP/29, EX/24, 2013.

INTERNATIONAL MONETARY FUND/WORLD BANK, *Market-Based Instruments for International Aviation and Shipping as a Source of Climate Finance Background Paper for the Report to the G20 on —Mobilizing Sources of Climate Finance*, November 2011, available at <http://www.imf.org/external/np/g20/pdf/110411a.pdf>;

INTER-SECRETARIAT WORKING GROUP ON NATIONAL ACCOUNTS, *System of National Account 2008*, New York, 2009;

M. MONTI, *A new strategy for the single market – At the service of Europe's economy and society*, Report to the President of the European Commission José Manuel Barroso, 2010;

OECD, *Carbon taxes and emissions trading are cheapest ways of reducing CO<sub>2</sub>*, *OECD says*, November 2013, available at <http://www.oecd.org/newsroom/carbon-taxes-and-emissions-trading-are-cheapest-ways-of-reducing-co2.htm>;

OECD, *Economic instruments for pollution control and natural resources management in OECD Countries: a survey*, Paris, 1999;

OECD, *Environmental principles and concepts*, Ocde/GD(95)124, Paris, 1995;

OECD, *Environmental Taxation: A Guide for Policy Makers*, September 2011;

OECD, *Implementation Strategies for Environmental Taxes*, Paris, 1996;

OECD, *Instruments mixes for Environmental policy*, Paris, 2007;

OECD, *Recommendation of the Council on Guiding Principles concerning International Economic Aspects of Environmental Policies*, C (72)128, 26 May 1972;

OECD, *Taxing Energy Use: A graphical analysis*, Paris, 2013;

OECD, *Sustainable Development. Critical Issues*, Paris, 2001;

OECD, *Taxation, Innovation and the Environment*, Paris, 2010;

OECD, *Taxation, Innovation and Environment: A Policy Brief*, available at <http://www.oecd.org/env/tools-evaluation/48178034.pdf>, September 2011;

OECD, *The Implementation of the Polluter-Pays Principle*, 14 November 1974, C (74)223;

OECD, *The Political Economy of Environmentally Related Taxes*, Paris, 2006;

OECD, *The Polluter Pays Principle*, Paris, 1975;

OECD, *The Polluter Pays Principle. OECD analysis and Recommendations*, Paris, 1992

THE INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT/THE WORLD BANK, *Environmental fiscal reform. What should be done and how to achieve it*, Washington DC, 2005, available at [http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/1999/06/03/000094946\\_99040905052283/Rendered/PDF/multi0page.pdf](http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/1999/06/03/000094946_99040905052283/Rendered/PDF/multi0page.pdf);

THE INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT/THE WORLD BANK, *Pollution Prevention and Abatement Handbook 1998. Toward Cleaner Production*, Washington, 1999;

UNEP, *Additional Measures and Means of Financing for the Implementation of the Plan of Action to Combat Desertification*, UNEP/GC.6/9/Add.1, 1978;

UNITED NATIONS DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS, *Review of implementation of Agenda 21 and the Rio principles. Synthesis*, January 2012, available at [http://sustainabledevelopment.un.org/content/documents/641Synthesis\\_report\\_Web.pdf](http://sustainabledevelopment.un.org/content/documents/641Synthesis_report_Web.pdf);

UNITED NATIONS DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS, *Review of implementation of Agenda 21 and the Rio Principles. Synthesis*, January 2012;

UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE, *Convention on access to information, public participation in decision-making and access to justice in environmental matters*, Aarhus, Denmark, 25 June 1998;

UNITED NATIONS ENVIRONMENT PROGRAMME, *Nairobi Declaration on the state of worldwide environment*, UNEP/GC.10/INF.5, 19 May 1982;

UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE, *Essential Background – Feeling the Heat, Climate Change Science*, available at <http://unfccc.int/2860.php>;

UNITED NATIONS HIGH COMMISSIONER FOR HUMAN RIGHTS, *Analytical study on the relationship between human rights and the environment*, A/HRC/19/34, 16 December 2011;

UNITED NATIONS HUMAN RIGHTS COUNCIL, *Report of the Office of the United Nations High Commissioner for Human Rights on the relationship between climate change and human rights*, A/HRC/10/61, 15 January 2009;

UNITED NATIONS, *Agenda 21*, United Nations Conference on Environment & Development Rio de Janeiro, Brazil, 3 to 14 June 1992;



UNITED NATIONS, *Declaration of the United Nations Conference on the Human Environment*, Stockholm, 16 June 1972;

UNITED NATIONS, *Development and environment*, A/Res. 2849 (XXVI), 20 December 1971;

UNITED NATIONS, *Executive summary of the report of the High-level Panel on Financing for Development*, A/55/1000, 2001, available at <http://www.un.org/esa/ffd/a55-1000.pdf>;

UNITED NATIONS, *Glossary of Environment Statistics, Studies in Methods*, Series F, No. 67, New York, 1997;

UNITED NATIONS, *Innovative financing for development the I-8 group Leading Innovative Financing for Equity [L.I.F.E.]*, General Assembly, 64<sup>th</sup> Session, December 2009, available at <http://www.un.org/esa/ffd/documents/InnovativeFinForDev.pdf>;

UNITED NATIONS, *Protection of Global Climate for Present and Future Generations of Mankind*, A/Res./43/53, 1989;

UNITED NATIONS, *Report of the Conference on Sustainable Development*, Rio de Janeiro, Brazil 20 – 22 June 2012;

UNITED NATIONS, *Report of the United Nations conference on Environment and Development*, Rio de Janeiro, A/CONF.151/26 (Vol. I), 3-14 June 1992;

UNITED NATIONS, *Report on Human Rights, prepared by the Special Representative of the Secretary-General*, UN Doc. A/HRC/4/35, Feb. 19, 2007;

UNITED NATIONS, *Review of implementation of Agenda 21 and the Rio Principles. Synthesis*, January 2012;

UNITED NATIONS, *Study on Financing the United Nations Plan of Action to Combat Desertification: report of the Secretary-General*, General Assembly document A/35/396, 1980;

UNITED NATIONS, *United Nation conference on Environment and Development. Agenda 21*, Rio de Janeiro, 3-14 June 1992;

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY available at  
<http://www.epa.gov/>;

US Senate Bill 1519, 104th Congress, 2nd Session, 22 January 1996; H.R. 2159  
Foreign Operations, Export Financing, and Related Programs Appropriations Act,  
1998; H.R. 312 IH, 105th Congress, 1st Session, 1997;

WORLD BANK GROUP, *Pollution prevention and abatement handbook 1998:  
toward cleaner production*, 1998;

WORLD BANK, *Turn Down the Heat: Why a 4°C Warmer World Must be Avoided*,  
November 1992, available at  
[http://climatechange.worldbank.org/sites/default/files/Turn\\_Down\\_the\\_heat\\_Why\\_a\\_4\\_degree\\_centrigrade\\_warmer\\_world\\_must\\_be\\_avoided.pdf](http://climatechange.worldbank.org/sites/default/files/Turn_Down_the_heat_Why_a_4_degree_centrigrade_warmer_world_must_be_avoided.pdf);

WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, *Our Common Future*,  
*Annex to document A/42/427*, 20 March 1987;

WORLD HEALTH ORGANIZATION, *Johannesburg Declaration on Health and  
Sustainable Development*, Johannesburg, 2002, available at  
[http://www.who.int/mediacentre/events/HSD\\_Plaq\\_02.8\\_def1.pdf](http://www.who.int/mediacentre/events/HSD_Plaq_02.8_def1.pdf);

WORLD TRADE ORGANIZATION, *The interface between the trade and climate  
change regimes: scoping the issue*, Staff Working Paper ERSD-2011-1, 12  
January 2011;

WTO PUBLIC FORUM 2009, *Global problems, global solutions: toward better  
global governance*, Switzerland, 2010, available at  
[http://www.wto.org/english/res\\_e/booksp\\_e/public\\_forum09\\_e.pdf](http://www.wto.org/english/res_e/booksp_e/public_forum09_e.pdf);

WTO-UNEP, *Trade and Climate Change*, 2009, available at  
[http://www.wto.org/english/res\\_e/booksp\\_e/trade\\_climate\\_change\\_e.pdf](http://www.wto.org/english/res_e/booksp_e/trade_climate_change_e.pdf).