



CRIMES AGAINST FUTURE GENERATIONS CRIMES CONTRA AS GERAÇÕES FUTURAS

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CRIMES AGAINST FUTURE GENERATIONS

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EMILIE GAILLARD¹ UFR Droit et sciences politiques Université de Caen Normandie Espl. de la Paix, 14000 Caen, France emilie.gaillard@unicaen.fr

Abstract: The proliferation of harmful incidents affecting humanity's future calls for increased effectiveness in international law. Events causing real or hypothetical harm, also trans-generational harm, constitute new realities which must be taken into account. These incidents are both complex and extremely serious. At present several possibilities are opening up to strengthen the process of recognising crimes against future generation. The environmental aspect of human rights, as well as the prevalence of social initiatives, will doubtless contribute to the support of this emerging process. Nevertheless it remains essential to weigh up the "pros and cons". Other approaches are also possible such as: the defence of common global assets, reinforcing international law about catastrophic events or again invoking international law relating to future generations. One thing remains certain: international law is now entering a new era of deep and far-reaching transformation.

Keywords: Transgenerational Responsibility- Precautionary Principle - Citizen's Initiative for the Future – Legal Imperative of Anticipation of major risks "Because our actions can have apocalyptic consequences (...) our epoch, which is crying out for an ethical theory, seems suspect to many by appearing to want to reach for the moon. But we have no other solution apart from trying to act"

Palavras-chave: Responsabilidade Transgeracional- Princípio da precaução - Iniciativa dos Cidadãos pelo o Futuro - imperativo legal da antecipação de grandes riscos

"Because our actions can have apocalyptic consequences (...) our epoch, which is crying out for an ethical theory, seems suspect to many by appearing to want to reach for the moon. But we have no other solution apart from trying to act"

 $(H.JONAS)^2$

Associated Professor at the University of Caen, France

Member of the Demolombe Institute (EA 967- Normandie University), the Risk network (MRSH Caen) and of the Western Institute of Law and European Studies at the Faculty of law of Rennes (UMR CNRS 6262).

emilie.gaillard@unicaen.fr

^{1.} Emilie Gaillard

^{2.} H. JONAS, « Technologie et responsabilité. Pour une nouvelle éthique », *Esprit*, sept.1974, p.183 (Translation by Sheila Brown).

Introduction

At the end of the twentieth century the philosopher Hans Jonas clearly demonstrated that entry into the technological civilisation demanded an ethical theory capable of instituting respect for the future³. This ethic has been necessitated because of the acquisition of unprecedented power over humanity's future, affecting either their intrinsically human characteristics or conditions essential for life on earth4. This new vulnerability of humankind in the future requires us to think out and transpose a new obligatory ethical framework: respect for future generations and holistic means of preserving their future. In other words, the fact of placing the future under authority requires a new utopia (in the full sense of the term) enabling future horizons to remain open. Why should such a responsibility towards future generations be instituted? This philosopher believes that "humanity has no right to suicide" and that "the existence of man should not be gambled with"6. He continues: "the future existence of humanity is an obligation laid upon us, and also the maintenance of human nature as it is"7. Jonas's thought, far from pointing the way towards a new dictatorship by a "superman", is an authentic plea aimed at preserving the life of future generations. The merit of this major current of philosophical thought, which is left to us as a heritage, consists in de-compartmentalising the paradigm of responsibility: this should now henceforth also be considered in trans-generational mode8.

It is at least historical to state that this intellectual tendency is in process of spreading out into the contemporary juridical field⁹. Several processes are now being worked out, both in international juridical systems (universal and regional) and in national ones. In my doctoral thesis I was able to show to what extent the progress in international environmental law involves historical transformations in how law is thought out and formulated so that the future may be held in respect. The arrival of concepts such as the "Common heritage of humanity", "sustainable development", and more particularly that of "Future generations", has come to confirm that. This dynamic also leads to transformations and surely heralds an emergence of a "law of the Future" both in international and within

^{3.} H. JONAS, *The Imperative of Responsibility: In Search of Ethics for the Technological Age*, University of Chicago Press, 1984, 255p.

^{4. &}quot;The work of technology includes possible effects which, taken cumulatively, have all-encompassing scope and depth, to an extent that they can endanger either the whole of existence or the entire essence of humankind in the future", (trad. S.B.), H. JONAS, *Le Principe Responsabilité*. éd. Champs Flammarion, 1990, p.83

^{5.} H. JONAS, op. cit., p.84 (translated by Sheila Brown).

^{6.} *Id*.

^{7.} Ibid, p.90.

^{8.} E. GAILLARD, "Equité transgénérationnelle: perspectives de justice pour les générations futures", *Equité et Environnement*, dir. A. Michelot, préf. D. Shelton, éd. Larcier, 2012, pp. 51-69.

^{9.} For a thesis specially dedicated to the analysis of those dynamics: E. GAILLARD, *Générations futures et droit privé. Vers un droit des générations futures*, préf. M. Delmas-Marty, éd. LGDJ, 2011, 673p., (thesis defended in 2008, University of Orléans); E. BROWN-WEISS, *In fairness to Future Generations: International Law, Common Patrimony and Intergenerational Equity*, Transnational Publishers, 1989, 385p.

See P. GODE, "Le droit de l'avenir (un droit en devenir)", in L'avenir du droit,

national and regional juridical systems. Other expressions of this law relating to the vulnerability of humanity still need to be researched in international law regarding human rights. There exist domino effects in international law which may be clarified through the lens of a new juridical imperative: that of juridical preservation of the future. It is possible to identify epistemological leaps approaching juridical alchemy. By way of illustration, human rights are no longer necessarily and exclusively understood as individual rights to be invoked simply for the benefit of people now alive. Thus, the right to health, or again the right to a healthy environment, benefit both those now alive as well as future generations, by a systemic relationship of respect for life and the environment¹¹. From now on it is possible to apply the concept of human rights in transgenerational terms in relation to respect for the environment and for life. It is then particularly important to raise and study the question of how to invoke it. However it is important to be clear now that this dynamic can only be described and proposed by taking careful account of diversities in cultures and legal systems. In other words, the emergence of a Law of the Future cannot be fully achieved without respecting the plurality of juridical and cultural norms¹². It therefore follows that other intellectual routes may be preferred by peoples with a different cosmogony or with a different culture of respect for social transgenerational relationships. As an illustration, the way of recognising the laws of Nature for indigenous peoples¹³ is not necessarily synonymous with a movement such as deep ecology for some westerners. The respect for cultural and juridical fields, closely connected to the history of peoples, is just as much an imperative which must be dominant in the research and development of any law of the future. That is where it becomes evident that we need to have recourse to complex thought, which is capable of combining and overcoming contradictions¹⁴.

A new juridical Utopia is now moving on, specifically aimed at protecting the future. It takes account of the finitude of human existence, the essential transmission of conditions and possibilities for life of future generations (understood as being in a systemic relationship with the environment and all living things). It presupposes an upsurge of conscientious awareness of our common life and destiny. It can only serve to encourage reinforced links of solidarity with our

Mélanges en hommage à François Terré, éd. Dalloz, PUF, Juris-classeur, pp.61-78.

^{11.} E. GAILLARD, "Pour une approche systémique, complexe et prospective des droits de l'homme", *Changements environnementaux globaux et droits de l'homme*, dir. C. Cournil, C. Fabregoule, préf. O. de Schutter, pp.45-67; E. AGIUS, "From Individual to Collective Rights, to Rights of Mankind. The Historical Evolution of Human Rights", *in Our Responsibilities Towards Future Generations*, A programme of UNESCO and the International Environment Institute, ed. by S. Busuttil, E. Agius, P. Serracino Inglott & T. Macelly, publ. by the Foundation for International Studies Malta, 1990, pp.27-48.

^{12.} See M. DELMAS-MARTY, Les forces imaginantes du droit : Tome 2, Le pluralisme ordonné, éd. Seuil, 2006, 303p.

^{13.} Article 71 of the Ecuadorian Constitution and the Bolivian Law on Mother Earth (Law071 of the Plurinational State) have recognised the Rights of Nature; P. DESCOLA, L'écologie des autres: l'anthropologie et la question de la nature: conferences-débats, INRA, éd. Quae, 2011, 110p.

^{14.} E. MORIN, *Introduction à la pensée complexe*, ESF éd., 1990, 158p. This way of thinking can enrich our analysis: without a binary logic, it becomes possible to reconcile various approaches without arriving at a state of mutual exclusion.

contemporaries and peoples alive on earth today. It represents real progress that it is now a matter of making humanity's conscience effective in law, and international law seems destined to play a major part in this. It is at least striking, if not historic, to notice that more and more voices are being raised wishing for the day when crimes against future generations are recognised in international law. Why should crimes against future generations be recognised? What voices are raised in support of such a move? Which concrete examples enable us to distinguish sense from nonsense? What powers are involved in imagining and mobilizing all this? Lastly, how can one transpose and deal with such crimes when they go beyond temporal and spatial limits? Should we fear risks of diversions or of going adrift?

It is certain that one must first seek to establish the reality of crimes against future generations. If we intend to undertake a new study about this, it is because many voices now converge, particularly in civil society, leading us to believe this is a very strong aspiration today. At a later stage it will be possible to identify the conceptual, theoretical and practical difficulties involved over the eventual establishment in law of crimes against future generations. After having researched the reasons which may govern the recognition of crimes against future generations (1), we intend to set out possible means of achieving this in international law (2).

1. Why Recognise Crimes Against Future Generations?

Is there really any meaning in this expression "crimes against future generations"? Why is it interesting to define them in international law? It is important to respond to a question specifically aimed at the origins of this concept. Recognising crimes against future generations makes it possible to create a legal category so that certain particularly serious actions cannot happen (1.1). It is also a conceptual response specifically called for by the wishes of civil society, universities and some States (1.2).

1.1 « crimes against future generations »: sense or nonsense?

Is there really any meaning in the expression "crimes against future generations?" What is the interest of formulating these in international law? It is really important to focus our attention on the origins of this concept. The recognition of crimes against future generations makes it possible to establish a juridical category so that certain particularly harmful actions may not take place (a). This aspiration is all the more urgent and necessary in that transgenerational harm is already a widespread reality in our time (b).

a) A new juridical indicator: putting words on unimaginable transgenerational harm

The existence of a paradigm of juridical reciprocity. Traditionally, the vocation of law excluded the protection of future generations: it was "naturally" up to tomorrow's law to be concerned with the future. There is therefore a temporal

matrix in law which limits it in relation to the timing of interpersonal relationships. Within such a vision of universal law, it follows that the protection of future generations is "out of bounds". In a completely orthodox way, the notion of crime has naturally evolved as applicable to harm caused to persons now living. This vision of law, and of the legitimate fields of law, belongs within a paradigm of juridical reciprocity. It is through the arrival of the notion of crime against Humanity that a major practical and theoretical shift has come about. This notion adds a very strong symbolical and historical dimension: unimaginable, unqualifiable harm becomes a norm.

A quest at the limits of ethics and law. This then becomes a quest at the limits of ethics and law which needs to become effective as we seek to establish in law the notion of crimes against future generations. It is a matter of extending the legitimate field of penal and international law. Recognising crimes against future generations is to start a quest for a new juridical indicator, that is to say a new conceptual category to define particularly serious types of harm. If this aspiration is now acknowledged, it is precisely because the scope of crimes against future generations is plural in nature: our actions have acquired a hitherto unknown dimension whose effects can endanger our whole future. Crimes against future generations are among those going beyond the traditional conceptual, temporal and spatial limits of law.

Avoiding a future durably endangered. In Jonas's modes of thought, it is by representing "that which we hold essential" that we can mobilise our action. In regard to future generations, "that which we hold essential" would consist of a future without lasting danger. Thus the introduction of the concept of durability in the field of human rights makes it possible to imagine the idea of a right to lasting human health, the right of durable peace, the right to a healthy environment without lasting contamination.... the list could obviously go on! Studied from this angle, we can easily identify the case of putting human health in lasting danger, throughout generations, across the environment and beyond national boundaries. The reality of transgenerational harm turns out to be a particularly vertiginous prospect.

b) The vertiginous reality of transgenerational harm

The reality of the harms which occur, through and beyond human generations, is plural in nature. To clarify, they may be presented using the expression "heritage of transgenerational harms". Some have already happened, others are now taking place. One thing is certain: "man has become a geophysical force" capable of modifying the vast balancing mechanisms of Earth, but also a force effecting apocalyptic transformation of the future.

The heritage of durable harm to the future: choices of the past.

In respect of the heritage of durable harm to the future, it is possible to look backwards. The first situation endangering the future came to us from choices made by the generations emerging from the Second World War over the burial of

^{15.} V. VERNADSKY, La biosphère, éd. F. Alcan, 1929, 231p.

chemical weapons under the seas and oceans. Chemical weapons of an estimated weight of more than 1.5 million tons containing mustard gas, sarin gas or even arsenic are inexorably disintegrating at the bottom of the seas¹⁶. The pollution of living things, and consequently of the food chain, is an insidious and continuing silent reality. This burial is partly linked to a claim of its being innocuous, now proved unjustified: the floor of the seas and oceans is living, interconnected and a future resource for feeding humanity. A second major illustration consists in the entry into the nuclear age, which is nothing less than an age of total menace for the whole of humanity¹⁷. Added to this risk of total destruction is the silent and equally dangerous entry for future generations into the age of nuclear pollution. Whether the latter is linked to nuclear trials, to the extraction or use of civil nuclear power or again to nuclear catastrophes: there is surely here a juridical field as yet unformulated in respect of future generations. Indeed, the case of managing nuclear waste is a major illustration of the lack of forethought as regards the menace to genetic integrity of living beings (human and non-human), throughout unimaginable lengths of time! What reasonable person would choose a technology without even knowing how to manage the highly dangerous waste matter which would inevitably result from its use?

The heritage of lasting danger to the future: choices of the present. As regards the heritage of lasting danger to the future, it is also possible to look forward. In our opinion, abandoning nuclear is a necessity in view of the complex, systemic and transgenerational implications connected with this technology. There are other domains in which transgenerational harm is now taking place and where international law should come into play. This applies also to the large scale diffusion of products whose toxicity and even their carcinogenic, mutagenic and repro-toxic properties are well known. Having recourse to pesticides is already described by many scientists as a crime against humanity¹⁸. Some also denounce using truncated or biased epidemiological studies in the absence of systemic or global analyses¹⁹. It is now recognised that many cases of infertility and cancer are directly linked to excessive exposure to pesticides²⁰. A

^{16. &}lt;a href="http://www.arte.tv/guide/fr/048909-000/armes-chimiques-sous-la-mer">http://www.arte.tv/guide/fr/048909-000/armes-chimiques-sous-la-mer; some speak today of discharging chemical weapons in the sea; This reminds us of the issue of nuclear submarines cemeteries.

^{17.} The philosopher Günther Anders has clearly denounced the reality of a total catastrophe: "we have become accustomed in the most terrifying way to the actual fact of the menace (....) so we are not just blind to the apocalypse (...) we are also deaf", G. ANDERS, , *La menace nucléaire*, éd. Du Rocher, 2006, p. 11 (translated by S.B).

^{18.} According to Prof. D. Belpomme, "Pesticides are synonymous of crimes against Humanity", Ces maladies créées par l'homme: comment la dégradation de l'environnement met en péril notre santé, Albin Michel, 1994, 378p. – Prof. G-E. SÉRALINI, Tous cobayes! OGM, pesticides, produits chimiques, Flammarion, 2012, 270p.

^{19.} G-E. SÉRALINI, *op. cit*. See also the researches of whistle-blowers such as professor A. Cicolella and the need to take low doses into consideration in toxicological datas, notably: "Use of Epidemiological findings in Regulatory Pesticide Risk Assessment", Workshop EF-SA-ANSES, February 18t, 2015:

http://www.efsa.europa.eu/fr/events/documents/150218-p20.pdf

^{20.} See also: H. Levine, S. H. Swan, "Is dietary pesticide exposure related to semen quality? Positive evidence from men attending a fertility clinic", *Human Reproduction*, vol. 30, Issue 6 June 2015.

"cocktail effect" has been clearly highlighted by some scientists in designating toxicity which is greatly increased by repeated exposure to chemical substances. According to some scientists, it seems that the same logic, quite apart from any responsibility towards the future, may lie behind GMO seed designed to resist herbicides. It is at the very least surprising that no long term epidemiological studies have been made about fundamentally modified foodstuffs due for cultivation on a global scale²².

Transmitting a culture of anticipating trans-generational risks.

In this respect it is a logic of anticipation, based on the principle of precaution, which will prove best suited to preserve the future of the future, to accompany and support independent international research in order to guarantee the absence of lasting harm to present and future generations. This dynamic is also critically absent in the field of nanotechnologies. There is a yawning gap between investments devoted to research and development and those designed to evaluate nano-toxicity. Large quantities of nanoparticles and nanotubes are dispersed into everyday articles of consumption even without sufficient delay for research²³. No measures are undertaken to supervise their after-life. Finally the present rush towards fracking without regard for the integrity of environment is only due to applying the historic profit motive. When actions endangering the environment are taken in a context of certainty, a crime against future generations becomes a glaring reality which cannot be passed over in silence. In this respect, the scandal of asbestos can serve as a case in point. The historically cynical attitude of some multinationals in particular would justify, according to some points of view, the introduction of a concept of crime against future generations²⁴. It is hard to tolerate that multinationals are able to place the future at risk in order to satisfy their own and others' cupidity in the short term. That was the case in many scandals related to health and the environment such as those of asbestos, Diethylstilbestrol or Chloredecone... In each instance prohibitions imposed in one State have not made it possible to prevent the occurrence of lasting damage in other States. When the lasting transgenerational harm is identified by one State, the multinational still carry on trading in full knowledge of the transgenerational risk to health and environment. This behaviour can be described as criminal: there is a deliberate process of endangering the lives of other people and of life. The lasting pollution of the environment ought henceforth to be taken into consideration, since it is the source and support of all life.

^{21.} For a presentation on the European Commission Official Website: http://ec.europa.eu/environment/chemicals/effects/effects_en.htm

^{22.} G-E. Séralini, op.cit.; A. Hilbeck & alii, « No scientific consensus on GMO safety », Environmental Sciences Europe, 2015, 27:4.

^{23.} R. LENGLET, *Nanotoxiques- Une enquête*, Actes Sud, 2014, 232p.; The French Institute in the area of occupational risk prevention is currently aware of the needs to anticipating needs and raising awareness on this topic: http://en.inrs.fr/

^{24.} S. SEELOW, "Monsanto, un demi-siècle de scandales sanitaires", *Le Monde fr*, 16.02.2012; M-M. ROBIN, *Le monde selon Monsanto : de la dioxine aux OGM, une multinationale qui vous veut du bien*, éd. La Découverte, Arte éd., 2008, 370p.

1.2. The Convergence Of International Aspirations Aiming To Protect Future Generations From Great Harm

One cannot avoid noticing how this subject obviously arouses great and growing interest today, and this is very important. It is appropriate to emphasise how very topical and relevant are the various projects now aiming to establish the idea of crimes against future generations. Some of these are initiated by civil society, some are thought out or promoted by lawyers. It is particularly important to emphasize the vast movement of convergence of all these aspirations. Two processes are currently at work. The first tends to the recognition of Human rights for Future generations (a) and the second one to the establishment of crimes against future generations (b).

a) Towards the recognition of Human rights for future generations?

From citizens' spontaneous initiatives (...)

The Cousteau Foundation deserves much honour for having launched the important idea of proclaiming human rights specifically for future humanity. This was formally expressed in a Charter or Declaration of Rights of future generations in 1979 and was undeniably a decisive step forward giving rise to new thinking in the social and juridical fields. The text consists of five articles. The first formulates the idea "of a right of future generations to an unharmed and uncontaminated Earth"25, the second reiterates the Anglo-Saxon concept of trust, whereby each generation receives the Earth as a heritage. Consequently there is a responsibility towards future generations "to preserve the rights of future generations, to oversee with constant attentiveness the consequences of technical progress likely to harm life on Earth and the balance and evolution of humanity"26. To establish and give effect to the rights of future generations, article 5 of the Charter calls for the mobilisation of collective imagination. This initiative will surely remind people of a call by the Club of Rome in the seventies which played a decisive role in promoting hitherto inconceivable concepts of ecological harm even before these were enshrined in international environmental laws. Since then several civic initiatives have promoted the idea of recognising the rights of future generations. By way of illustration, one acting on a national level is the "Movement for the rights and respect of future generations", now known as "Future Generations" directed by François Veillerette²⁷. This is a legally constituted association, whose object is to act in defence of the environment and health, specifically focussing on harmful pesticides. It remains well informed and denounces their "impact on health and environment, including workplaces and in the juridical field". In this way there is effective supervision, so as to warn both citizens and public authorities about the presence of residual quantities of forbidden pesticides or traces of endocrine in food. This, and other similar

^{25.} Article 1: Future generations have a right to an undamaged and uncontaminated earth (...).

^{26.} Article 3, Declaration Cousteau. "The petition gathered more than nine millions signatures", E. Brown-Weiss, "Implementing Intergenerational Equity", *Research Handbook on International Environmental Law*, 2010, p.109.

^{27.} http://www.generations-futures.fr/

initiatives based on recognition of a right to food safety, all contribute to the recognition of human rights formulated and lived out for the benefit of humanity now and in the future.

(\ldots) towards human rights becoming recognised as applicable to future generations

Although theoretical obstacles have long been raised in various forms against any proposal to define human rights in a trans-generational manner²⁸, it is now becoming possible to do this for the protection of future generations. By means of a prospective, systemic and complex approach²⁹, human rights can be worked out in trans-generational terms that would also protect the environment. The concept of a right to a healthy environment inaugurates a new era in the domain of human rights: this becomes at once a right for the individual, for peoples and for humanity. In its wake it brings recognition of two juridical principles that are foundational for the rights of future generations.

Foundational principles for a renewed legal matrix ensuring the protection of future generations. In my thesis I formulated two principles for reinforcing the law of the Future. First, that of temporal non-discrimination makes it possible to draw into the legitimate field of law the ethical imperative of protection of the future. By virtue of this principle, the non-existence of future generations can no longer be synonymous with an absence of juridical protection. This principle enables a stand to be taken against a real abuse of power by present generations over the future, based on prioritising their temporal existence. It may be applied, as we shall see, differently according to the state of scientific knowledge (in a context of certainties or uncertainties of trans-generational harm). The second principle, of the dignity of future generations, is at the same time both descriptive and normative. Descriptive, for this principle corresponds to an evolution already recognised in international law and also in national law concerning the protection of future generations. This is particularly evident in law relating to the environment and human rights. Normative, because this principle is formulated as the matrix of a law granting respect to future generations. It can become the cornerstone of a system of human rights open to protecting the future. Here we must state that the substance of the principle of temporal discrimination proposed by us in 2008 is taken up in the report by UN Secretary-General Ban Ki Moon entitled "Intergenerational Solidarity and the Needs of Future Generations"30. The progress of the paradigm of juridical asymmetry is increasingly evident through the publication of "duties" in respect of the environment or towards future generations, whether in texts or following decisions in court cases. The Charter for the Environment adopted in 2005 by France is a relevant example. Article 2 stipulates that: "Each individual has a duty to take part in the preserva-

^{28.} E. GAILLARD, Générations futures et droit privé. Vers un droit des générations futures, préf. M. Delmas-Marty, éd. LGDJ, 2011, n°293-297.

^{29.} E. GAILLARD, « Pour une approche systémique, complexe et prospective des droits de l'homme », in Changement environnementaux globaux et droits de l'homme, dir. C. COURNIL & C. FABREGOULE, éd. Bruylant, préf. O. de Schutter, 2012, pp.45-67.

^{30.} https://sustainabledevelopment.un.org/content/documents/2006future.pdf

tion and amelioration of the environment." If the progress from the proclamation of the rights of man in 1789 needed nearly a century and a half before becoming directly applicable in law, particularly in France, it seems that the right to a healthy environment may well be more widely recognised in a shorter period. Whether this decision remains effective or is reversed, it is a historic marker indicating a convergence of civic consciences in favour of respecting human rights across ecological time scales. Let us imagine a coin: if human rights for future generations represent "heads", then trans-generational crimes constitute "tails".

b) Towards recognising crimes against future generations?

Growing citizens' spontaneous expressions of support

Civil society is also demanding that harm caused to the environment should be criminalised. From now on many conflicts arise out of environmental inequalities or again from new forms of environmental discrimination. Some voices are raised, particularly in South America, denouncing a phenomenon of "colonisation using the concept of sustainable development" ³¹. If this expression seems inappropriate, inasmuch as sustainable development claims to be part of a renewed humanism actually respecting the future, it nevertheless describes a new reality: people are being removed from their lands, sometimes so that investors can make a profit out of ecotourism. There are demonstrations by small farmers protesting against exploitative schemes for mega-farms, whether in Africa³² or elsewhere, and these protesters have worldwide public support³³. These calls for fairness must be heard.

A growing convergence of civic movements in favour of protecting future generations

European Deputy Corinne Lepage proposed, using a Brussels Charter enacted on January 30th, 2014 at the EU Parliament combining various social, political and legal movements already in existence. The main proposal consists in an appeal to create a European penal tribunal and an International Criminal Court for environment and health. This development is particularly interesting since several initiatives have come together. They concern both those active in international civil or regional society as well as groups of men and women in politics and magistrates. The signatories who gave momentum to this Brussels Charter include ex-politicians formerly active in environmental rights, magistrates, civilians and researchers³⁴.

^{31.} A.P. Noguera De Echeverri, "Decolonizar la Bio-ética y el Ambiente: una tarea prioritaria del Pensamiento Ambiental Sur, en tiempos de penuria", IV Forum Franco Latrinoamericano de Bioética, 23 de Abril 2015, Universidad de Mendoza.

 $^{32. \}qquad \underline{ https://www.grain.org/fr/article/entries/5127-dominion-farms-accapare-des-terres-au-nigeria}$

^{33.} For example, there has been a worldwide gathering of peasant movement in Buenos Aires on April, 17th 2015. Their aim is to invoke and preserve food sovereignty and to protest against free-trade treaties which make profit their top priority to the detriment of any other fundamental rights or any other concern, See: http://viacampesina.org/en/index.php/actions-and-events-mainmenu-26?start=4.

^{34.} Were associated to elaborate a common document: End Ecocide in Europe, Jo Leinen, EU Parliamentarian supporting the Charter, Antonino Abrami, president of the Foundation

In the present year 2015, it is at least of special interest to underline the fact that several public initiatives exist with the aim of criminalising major damage to the environment, using expressions such as environmental crimes or even ecocide. This concept, already often evoked and studied³⁵, is now topical and we see that civil society has entered into the debate. In 2013, Prisca Merz initiated the first public movement in Europe gaining 185 500 signatures. Her first objective was to encourage the European Commission to study a proposed directive aiming to criminalise damage to the environment known as "ecocides". Prisca Merz was heard on February 26st, 2015 by the European Parliament. The project is currently being studied by four commissions: energy, law, fishing and environment. In fact, the public movement "End Ecocide in Europe" has become a global public movement sui generis and is now "End Ecocide on Earth". Faced with the lack of any similar public initiative on the part of the UN, such as the European public movement instituted by the Treaty of Lisbon in 2007, End Ecocide in Europe is becoming a vast public movement on a global scale with many ramifications, working in the hope of some national support so that their amendment to the Statute of the International Criminal Court may be proposed. Their new objective is: recognising ecocide as a new international crime against the environment, peace and future generations. An amendment to the statute of Rome has been drawn up by lawyers who support this initiative with the aim of widening the scope of the ICC to include ecocides³⁶. This amendment aims at protecting global communal assets with the specific aim of incriminating the causing of major damage where even now such events rank as unthinkable and thus inhabit an international legal void. It is important to mention that many other public initiatives are now also taking place³⁷. It is of particular interest to stress that such movements are also affecting and included in legal doctrine. This is characteristic of a movement in which ideas and commitment are converging worldwide. We can see there a historic expression of public will at supranational level to control the way of how norms are defined in the case of major damage to the environment.

for international environmental Justice (SEJF), The International Academy of Environmental Sciences (Venice), International Tribunal of awareness of crimes against Natureo, Association AME-DIE –Ex-Ministers of the Environment and international environmental directors, Latin American movement for defence of human rights (SERPAJ), Basso Foundation, Globe EU, European Headmasters network for the environment, SELVAS (SERPAJ) headmasters network for environment, the observatory for independent information (Selvas) and Basso foundation, Globe EU. See: http://www.corinnelepage.eu/wp-content/uploads/2014/01/Dossier-presse-30-01-2014-FR1.pdf

^{35.} For a special report: M. GARIN, B. GLASENHARDT, R. HOUSTON, J. PHAM, *Report on the ecocide project*, Law Clinic- Sciences Po Paris, 7 December 2013: http://www.sciencespo.fr/ecole-de-droit/sites/sciencespo.fr/ecole-de-droit/files/rapport_ecocide_project.pdf

^{36.} A. CHERSON, K. DOGBEVI & V. CABANES has written down an amendment of the ICJ Rome's Statutes: https://www.endecocide.org/

^{37.} P. HIGGINS, Eradicating Ecocide, The missing Fifth Crime against Peace: http://eradicatingecocide.com/2012/08/14/un-ecocide-was-the-5th-crime-against-peace/; According to some points of view, there is currently an Earth law in emergence. This latest concept recognizes the interdependence between man and nature. It follows a multiplicity of approaches and legal proposals are part of a new socio-ecosystem perspective. It recognizes that human beings are inalienable parts of nature and that their actions have consequences, not only on their environment but also their own future.

Progress in recognising crimes relevant to future generations' human rights

Many influential writers of doctrine are now militating in favour of recognising ecocide in international law as a means of penal defence against violent ecological harm³⁸. Others envisage this as a way of rendering human rights operational. According to these articles, sometimes it is a matter of recognising ecocide as a new international crime against the environment, peace or future generations. Sometimes considering only the harm inflicted in wartime, or by carrying out a collective and focused plan against the whole or part of a population (such as a crime against humanity). Above all, the question of the extent of responsibility is regularly raised: if, for some writers crimes against the environment are the responsibility of the State, it is clear that for others that actions by private individuals and particularly by multinational bodies must be taken into account. It seems fairly obvious that ecocide cannot be only a matter of law relating to war. Four years ago, Sebastian Jodoin presented a project initiated under the World Future Council aiming to establish the legal concept of crimes against future generations. For various reasons, particularly the risk of confusion, these researchers rephrased their title to "economic, social and environmental crimes". The great merit of the project lies in the transposition of trans-generational equity into international penal law. This affects how we read about the harm across generations caused to the economy (for example by corruption on the part of some States depriving future generations of the real economic development to which they would have been entitled). Damage to the environment is also taken into account. With such incrimination becoming possible, arrogation of rights to water or some unpolluted natural resources might also come into play. Four years ago I said that in my opinion these crimes lacked any mention of damage by humanity to Humanity. Notably this would apply in the case of the creation of a hybrid being (half-human/half-animal), of a clone, or of any human being either augmented or diminished (which can now be envisaged with the NBIC convergence)³⁹.

In a letter dated June 4th 2015, the President of the French Republic tasked Madame Corinne Lepage with drawing up a declaration of human rights, « that is to say the right for all inhabitants of the earth to live in a world where the future is not compromised by irresponsibility in the present ». One objective could be to celebrate the anniversary of December 10th 1948, the day when the Universal Declaration of Human Rights was adopted. If such a declaration were to be celebrated, it would mark a new stage in the evolution of human rights. This would highlight the trans-temporal dimension in a new way.

Now there is a need to explore ways of defining criminal harmful acts affecting future generations.

^{38.} L. WESTRA, Ecoviolence and the Law: Supranational Normative Foundation of Ecocrime, Brill, Nijhoff, 2004, 450p.; S. FREELAND, Adressing the Intentional Destruction of the Environment during Warfare under the Rome Statute of the International Criminal Court, Supranational Criminal Law, vol.18, June 2015, 346p.; L. Neyret (dir.), Des écocrimes à l'écocide. Le droit pénal au secours de l'environnement, préf. M. Delmas-Marty Bruylant, 2015, 482p.; See C. COURTAIGNE, L'adéquation du droit pénal à la protection de l'environnement, Doctorate, Public law, University of Paris II (Panthéon-Assas), 15 septembre 2010, 709p.

^{39.} For a commentary: https://www.mcgill.ca/jsdlp/files/jsdlp/jsdlp_volume7_issue2_181_202.pdf

2. How To Define These Crimes Against Future Generations

The task of defining crimes against future generations can be viewed from various aspects, but it is also possible to foresee a number of risks. It is essential to spend time on questions arising: What are the possible pros and cons of such a concept (2.1)? Are there any other relevant paths to ensure trans-generational protection (2.2)?

2.1 Pros and cons of the recognition of such a concept

Having presented reality of these transgenerational dangers, we can now lay stress on the maïeutic effect of recourse to the notion of "crimes against future generations" in international law (a). The recognition of crimes against future generations would reflect an increased level of awareness on our part of responsibility for the future⁴⁰ (b).

a) The maïeutic effect of crimes against future generations

Just to pronounce the name: "crime against future generations" surely has a maieutic effect: that of introducing into law a new consciousness of responsibility in the choice of our technologies with regard to their future implications. In the end it is a matter of granting (in the sense of adapting) international law a status equipping it to cope with the harmful transgenerational consequences inherent in certain new substances or technologies. It is certain that evoking the notion of "crimes against future generations" is a clear indicator of the development of a new awareness regarding accountability for the future of human, other living species and the environment.

The leap of States into the absolute

It is important to remind ourselves that silent transformations having been taking place since the Second World War. According to the philosopher Günther Anders, the leap into the atomic era arose out of a metamorphosis of the State consisting in a "leap into the absolute". The writer continues: "each State is not only all-powerful and totally powerless (....). Totally all-powerful, because it is at the same time totally powerless; this is an absurdity"⁴¹. He concludes from this: "nuclear power is to foreign policy what terror inflicted on its citizens by the totalitarian State is to national policy". One may add that this terror has an unprecedented transgenerational dimension, inviting people to imagine a threat and hence also to envisage crimes against future generations. This metamorphosis in the power of States was not accompanied by any wakeup call to international lawyers to bring about stronger measures for protecting future generations⁴². History will enable us to see clearly how the vast gulf between the reality and seriousness of the transgenerational threat and its treatment in international law

^{40.} As Hans JONAS used to state: we are accountable for the existence of humanity and for its perpetuation

^{41.} G. ANDERS, La menace nucléaire, op. cit., pp.43-44. Translation by S. Brown.

^{42.} This is precisely raised and discussed in the advisory opinion, ICJ Legality of the threat or use of nuclear weapons, July 8th 1996.

came silently into place. How can we reasonably continue along the road of nuclear energy when we already have several examples of nuclear disasters such as Fukushima still in process? How can we fail to acknowledge man's failure to master an energy which places us beyond the limits of our own technology⁴³?

Reminder of transgenerational protections in International Law

There are already many juridical arrangements in international law dealing with direct or indirect protection of future generations. In a certain way this is already a sign that consciences are awakening to the fact of this leap by states into the absolute and to the necessity of safeguarding the horizons of the future.

Crimes against humanity, a notion formalised in the London Agreement of August 8th 1945, gave rise to a juridical revolution on a grand scale. There are crimes which, because they degrade human dignity to such an extent that they disfigure the very humanness of Humanity, must therefore be utterly forbidden. It is in this very dimension of "exceptional crimes" that we must necessarily place crimes against future generations⁴⁴. The inventory of texts, declarations, reports or frameworks of jurisprudence dealing with Human Rights and/or those of future generations are legion⁴⁵. Progress towards the assemblage of these rights and hence of fresh criminal sanctions in law concerning future generations has begun well. A number of procedures to this effect can now be identified in international law⁴⁶.

Thus from 1889 to 1972, concepts relating to the interests of humanity, to laws about humanity and to humanity's shared heritage were often mentioned. Since 1972, several changes began to emerge in the concept of humanity, precisely in connection with protecting the environment and future generations. New environmental vulnerabilities, new risks of destruction (either total or gradual) were the object of international conventions or declarations of a new kind. During the decade in which international law relating to the environment really began to take shape (1982-1992), the theory of intergenerational justice and the concept of a human right to a healthy environment spread throughout international law⁴⁷. Early in this century, the concept of humanity changed again owing to the protection of biodiversity, cultural heritage and the human genome. The protection of humanity's condition in the future and of the environment in the long term are now established as objectives in international law.

^{43.} F. Lemarchand, "De Tchernobyl à Fukushima (...)", D. BOURG, A. PAPAUX (dir.), Dictionnaire de la pensée écologique, éd. PUF, under press.

^{44.} E. Gaillard, "Des crimes contre l'humanité aux crimes contre les générations futures: Vers une transposition du concept éthique de responsabilité transgénérationnelle en droit pénal international? », Mc Gill, JSDLP-RDPDD, 2012, Vol.7:2, pp.181-202.

^{45.} E. GAILLARD, Générations futures et droit privé. Vers un droit des générations futures, éd. LGDJ, 2011, 666p; C. LE BRIS, L'Humanité saisie par le droit international public, LGDJ, 2012, 661p.; F. ABIKHZER, La notion juridique d'humanité, PUAM, 2005, 2 vol. 620p.

^{46.} Ce rappel est inspiré d'un document de travail collectif réalisé pour le compte de Madame Lepage par H. DELZANGLES, E. GAILLARD, C. LE BRIS, J-M. LAVIEILLE, M. PRIEUR.

^{47.} Conventions de Montego Bay ou encore dans la Convention-cadre des Nations-Unies sur les changements climatiques, Déclaration de Stockholm 1972

Risks of conflicts between legal systems at the international level?

It is possible to imagine a new balance between fundamental group interests, especially between freedom for international trade and protection of the environment. Environmental protection should increasingly be viewed as a fundamental value. It is hard to accept that, according to some arguments now presented to the WTO, this protection can be an obstacle to the freedom of international trade. Nevertheless, an attentive reading of conventional texts adopted under the WTO enables us to affirm that international economic law must come to terms with new safety imperatives. The same applies firstly to regulations over sanitation based on the SPS agreement⁴⁸. Secondly, a precautionary approach and the necessity of pursuing the aim of sustainable development form part of the Cartagena Protocol adopted on January 19th 2000⁴⁹ et and in the Nagoya – Kuala Lumpur Supplementary Protocol on Liability and Redress to the Cartagena Protocol on Biosafety. The study of cases raised under the WTO quasi-juridical system clearly reveals the existence of a cultural abyss on behalf of the public understanding of the principle of precaution, needed in anticipation of very serious risks relating specifically to future generations. According to some authors, application of this principle in international economic law can certainly be envisaged⁵⁰. The concept of food security has already been raised in this branch of law. As the reality of international crimes against the environment progresses, this could bring about the emergence of new tensions in international juridical order between the vital importance of protecting the safety of the planet⁵¹ and the necessity of free-trade.

These preoccupations are increasingly exacerbated today, at a time of possible negotiation between the UE and the USA over a Trans-Atlantic free Trade Agreement (TAFTA). Voices are being raised denouncing the risks of a domino effect in regressions engendered by such a treaty. Regressions in laws for the protection of society and the environment, abdication of national sovereignties for the benefit of multinationals: the project seems unrealistic, for in so many ways it poses a fundamental threat to decades of constructing legal protections in Europe, and above all privileges the interests of multinationals over against the common interests of States, peoples and future generations. Therefore, the recognition of

^{48.} J. CAZALA, « Sécurité alimentaire et échanges internationaux, quelles places pour le principe de précaution ? », REDC, 2009, p.67; M-A. Ngo, La conciliation entre les impératifs de sécurité alimentaire et la liberté du commerce dans l'accord SPS », RID éco. 2007, p.27.

^{49.} Préambule, considérants 3 et 9.

^{50.} C. NOIVILLE, Principe de précaution et Organisation mondiale du commerce. Le cas du commerce alimentaire », JDI, 2000, doctr. P.269.

^{51. «} Au nom de ce devoir [de prendre part à la préservation et à l'amélioration de l'environnement], une nouvelle branche du droit international pénal pourrait incriminer les atteintes les plus graves à la sûreté de la planète ou à l'écosystème, à condition qu'elles aient été commises dans le cadre d'une action massive et systématique qui compromette gravement et durablement l'équilibre de la planète », M. DELMAS-MARTY, *Résister, Responsabiliser, Anticiper*, éd. Seuil, 2013, p. 137.

crimes against future generations gains in "pros".

b) Systemic pros

The systemic recognition of a principle of Future Generations' dignity

The recognition of crimes against future generations would ipso facto establish a principle for dignity for future generations, even conferring human rights on them. It would give momentum to a system of protection for the essential condition of the future and the environment. This concept of dignity tends precisely to protect the very humanity of human beings and beyond it. It is an open concept that may permit the mobilization of consciousness. In comparative law, one cannot fail to notice that the dignity principle tends to be extended to future generations in constitutions⁵². It would initiate a reshaping of the human rights landscape. Various projects of declaring future generations' human rights tend to confirm the increasing power of the Future Generations' Dignity Principle. It would integrate into the system the four human rights generations and also "transgenerationalise" them. The influence of international human rights in law also clearly confirms the existence of a tendency to grant such rights to humanity. The Future Generations Dignity Principle would then constitute a new rampart protecting individual liberty. In conformity with the definition stated at article 4 of the 1789 French Declaration of Human and Citizens' Rights of 1789: "Freedom consists in being able to do anything which does no harm to others: thus the existence of natural rights for each person has no limits except those which ensure that other Members of Society enjoy these same rights". In other words, put in trans-generational terms, it becomes possible to imagine that henceforth the only limits to our freedoms are those ensuring that no future harm will irreversibly affect others' futures. A concrete illustration is provided by the very slight commitment by national States to setting up a realistic international legal regime regarding climate change. If the dignity of future generations consists in protecting their ability to exercise their natural rights, then it is right to conclude that legal action is perfectly appropriate to safeguard these rights⁵³.

The defence of civilizational values

On reflexion, asking how to protect the future condition of humanity and the integrity of the environment through time amounts in the end to considering the basics of civilizing values which cannot fail to be universally recognised. Indeed, it is a matter of protecting the humanity of Humanity, the durable integrity of the environment and of health for both humans and all living beings.

^{52.} Constitution of Japan Art. 11 and Art. 97; Art. 20 A, German Fundamental Law; Article 141 of the Bavarian Constitution. See, J. M. Rojo Sanz (1992): "Los derechos humanos de la futuras generaciones", *in Derechos humanos : Concepto, Fundamentos, Sujetos*, coord. J. Ballesteros Llompart, ed. Tecnos.

^{53.} In relation to this, a historic decision has just been made by Dutch judges on June 24th 2015: the Dutch government has been condemned by a judge to reduce the emission of greenhouse gases on the grounds that human rights are being violated. The exact wording is that the State "must do more to combat the imminent danger caused by climate change given its obligation to protect the environment», http://www.lemonde.fr/planete/article/2015/06/24/l-etat-neer-landais-condamne-en-justice-a-reduire-ses-emissions-de-gaz-a-effet-de-serre 4660674 3244. https://www.lemonde.fr/planete/article/2015/06/24/l-etat-neer-landais-condamne-en-justice-a-reduire-ses-emissions-de-gaz-a-effet-de-serre 4660674 3244. https://www.lemonde.fr/planete/article/2015/06/24/l-etat-neer-landais-condamne-en-justice-a-reduire-ses-emissions-de-gaz-a-effet-de-serre 4660674 3244. https://www.lemonde.fr/planete/article/2015/06/24/l-etat-neer-landais-condamne-en-justice-a-reduire-ses-emissions-de-gaz-a-effet-de-serre 4660674 3244.

Rational thought about crimes against future generation involves more than ever before imposing limits to civilisation in respect of any development liable to close possible future horizons. Put otherwise, not establishing crimes against future generations in cases where actions particularly harmful to civilisation take place, amounts in the long term to consenting to the Tragedy of Human Rights⁵⁴. Wherever a return to the previous *status quo* is impossible, where even conditions for life are adversely affected, the very concept of Human rights becomes downgraded into obsolescence.

c) Difficulties to be overcome

Crimes affecting future generations must be clearly defined in their entirety. Beccaria has alerted jurists on the particular dangers implicit in opened incrimination

A number of problems need to be identified and overcome: to what extent can one limit or define a crime against the environment? Is an element of intentionality essential? Can ecological terrorism be established at an international level? For instance, when GMO's seeds are imported and cultivated completely against the Brazilian Constitution provisions, would there not be room for a concept of ecological and economic terrorism?

These are major problems and can only be formulated as questions. The will to criminalise come behaviours seems, in many ways, legitimate. The major sanitary and environmental scandal represented by the diffusion of asbestos with full knowledge of its toxicity is an example of criminal behaviours towards future generations. Just one exposure to a fibre of asbestos is enough to place a sword of Damocles over each of them and our descendants: a sword which will fall (or not) thirty years after that exposure. Today the aspiration to recognise crimes against future generations is all the more legitimate and necessary in order to face up to the explosion of organised environmental criminality. Trafficking of humans, of toxic substances, of radioactive and electronic rubbish illustrate this point⁵⁵. In these particular cases, it clearly is a matter of intentional actions⁵⁶. But ecocide can also apply to other situations such as technologies or extractive procedures causing irreversible pollution to the environment and to the health of local populations. Such a case is the diffusion of mercury which led to the conclusion of the Convention of Minamata on October 10th 2013. This should be the case for any lack of obligatory vigilance towards the environment and transgenerational health. But this involves stepping out onto other relevant paths towards ensuring transgenerational protection.

^{54.} The question of the failure of the system of Human rights was used by Amnesty International to denounce half a century of petroleum pollution in the Niger Delta: this is a relevant case. Amnesty International report 2009, See Press Releases: http://www.amnesty.org/en/for-media/press-releases/nigeria-amnesty-international-says-pollution-has-created-human-rights-tr

 $^{55. \}quad \underline{http://www.lemonde.fr/planete/article/2015/01/24/sur-la-piste-des-mafias-de-l-environnement_4562779_3244.html}$

^{56.} L. NEYRET (dir), Des écocrimes à l'écocide. Le droit pénal au secours de l'environnement, éd. Bruylant 2015, 465p.; See also C. COURTAIGNE-DESLANDES, L'adéquation du droit pénal à la protection de l'environnement, Thèse Paris II, 15 septembre 2010.

2.2 Other relevant paths to ensure transgenerational protections?

a) Towards a convergence between the Intergenerational Trust and The Global Commons theories?

From planetary trust to the global common heritage

There are many paths to transgenerational protection. The emergence of the concept of Hunanity's common heritage represents a historic step towards taking account of "shared equity" on an international scale. This concept carries a future trend within itself and lends support to the construction of a juridical regime of transgenerational protection. From the viewpoint of juridical epistemology, this concept set in train a veritable legal revolution inasmuch as it gives new intellectual support to the idea of collective ownership⁵⁷.

It fell to Professor Edith Brown Weiss to hasten the process of metamorphosis by supporting the thesis of planetary trust⁵⁸. This is mainly a matter of imagining and placing limits upon various human activities. This idea will not fail to recall that of "fideicommis in the name of Humanity" which was formulated in 1893 in the Bering Sea sealskin fur affair⁵⁹.

From public goods to global commons

A new stage of development of this new conception of collective property is currently being implemented through the dissemination of concepts such as « global commons » or « global public goods ». According to the UNEP, these could be defined as « refers to resource domains or areas that lie outside of the political reach of any one nation State. Thus international law identifies four global commons namely: the High Seas, the Atmosphere, Antarctica and, Outer

^{57.} E. GAILLARD, « Le patrimoine commun de l'Humanité. Trust intergénérationnel et « biens communs », Repenser les biens communs, CNRS éditions, 2014, p.131

^{58.} E. BROWN-WEISS, *In Fairness to Future Generations: international law, common patrimony and intergenerational equity*, Transnational publishers, 1989, 385 p.; Same author, «The planetary trust: conservation and intergenerational equity», in *Ecology Law Quaterly*, 1984, vol. 11, n° 4, p. 495

^{59.} According to professor Sands: « The US based its claim on its jurisdiction over the Bering Sea and on a right of protection and property in the fur seals found oustide the ordinary three mile limit "based upon the established principles of the common ad the civil law, upon the practice of nations, upon the law of natural history, and upon the common interests of mankind". The US argued that property rights entitled it to preserve the fur seals from destruction by the use of 'such reasonable force as may be necessary', and that even if it did not have property rights it had an interest in the 'legitimate and proper use of the seal herd on its territory' which it was entitled to protect against wanton destruction. In terms not dissimilar to its position underlying the yellow-fin tuna case nearly one hundred years later, the US argued that no part of the high sea was open to individuals for the purpose of destroying national interests of such a character and importance. Moreover, it argued that it alone possessed the power of preserving seals and that it was acting as the trustee 'for the benefit of mankind and should be permitted to discharge their trust without hindrance'. The property argument was based upon the belief that the dominion conferred upon particular nations over things of the earth was limited since nations 'are not made the absolute owners. Their title is coupled with a trust for the benefit of mankind. The human race is entitled to participate in the enjoyment", Sands Ph, Principles of international environmental law, Vol. 1, Frameworks, standards and implementation, Manchester University Press, 1995, pp. 417-418.

Space »⁶⁰. This concept arose in economic thought: it concerns goods or services with two characteristics: "no competing ownership; consumption/enjoyment of a good by one individual does not preclude its consumption/enjoyment by another individual; no-one is excluded from the enjoyment of this good which is available to all"⁶¹. One of the contributions by economic thought consists here in adding logical elements outside the world of law, such as: hypotheses of non-rivality and non-exclusion. Transposed into juridical terms, global public assets « represent the totality of objective goods which call for specific protection so as to preserve the public liberties of world citizens (...) they suppose they may claim the means to discipline economic liberalisation and to regulate increasing issues of interdependence »⁶².

Nevertheless, according to Professor Delmas-Marty, « economic vision does not take into account the exigencies of equity, hence the reference to the criterion of common good(s), which would make it possible, in the singular or the plural case, to ensure protection not limited to that of human generations either present or future" 63.

Another relevant path could be the reinforcement of International Law in order to face disasters.

b) Reinforcing International Law dedicated to disasters

Another relevant path could be found by reinforcing international, regional and national laws in order to anticipate major risks and disasters. One should mention that from a philosophical and anthropological point of view, a Disaster is synonymous of a reverse of the concept of History⁶⁴. In that particular case, the precautionary principle, which could be also called "principle of anticipating the risk of disasters" is of a major importance.

International law must establish limitations to this trend towards dehumanisation of our condition whether by new technologies or by new kinds of transgenerational pollutions. These limits may be elaborated *via* complexity logics (of juridical systems and of problems as they arise). On the one hand, in a context of the known certainties of disastrous effects on the environment and health for future generations, it is finally unnecessary to reframe the juridical notion of crime completely. It is a matter of extending this into a transgenerational

^{60.} http://www.unep.org/delc/GlobalCommons/tabid/54404/

^{61.} J-J. GABAS, P. HUGON, « Les biens publics mondiaux et la coopération internationale », L'économie politique 4/2001 (n°12), p.19.

^{62.} A. SUY, *La théorie des biens publics mondiaux. Une solution à la crise*, préf. C. Fabregoule, éd. l'Harmattan, 2009, p.86

^{63.} M. DELMAS-MARTY, Résister, Responsabiliser, Anticiper, éd. Seuil, 2013, pp.135-136

^{64. &}quot;Catastrophes are characterized by this temporality that is in some sense inverted. As an event bursting forth out of nothing, the catastrophe becomes possible only by "possibilizing" itself and that is precisely the source of our problem. For it one is to prevent a catastrophe, one needs to believe in its possibility before it occurs. If, on the other hand, one succeeds in preventing it, its non-realization maintains it in the realm of the impossible, and as a result, prevention efforts will appear useless in retrospect", J-P. DUPUY, *Pour un catastrophisme éclairé*, éd. Seuil, 2013, p.13; F. LEMARCHAND, "Catastrophe", *Dictionnaire des risques*, (dir.) Y. DUPONT, éd. Armand Colin, 2007.

temporal frame. On the other hand, in a context of risks of harm, even where the application of the principle of precaution is needed, it is a matter of deploying a range of thought and risk management strategies relating to transgenerational catastrophes. Even where reliable knowledge is lacking, it is important to remain aware of the risk of catastrophe. The ability to imagine catastrophic risks must be kept alive and should lead to encouraging reasonable scientific research. Once catastrophic risks are suspected by independent expert researchers at international level (the UN should certainly play a leading role here), compulsory vigilance must be exercised regarding the environment, health and sanitation, leading on to such legal obligations as labelling. The development of scientific knowledge can do no more in the long run than clear the horizons of uncertainty. If the risk of transgenerational catastrophe lessens, then milder measures could be adopted. But should these risks be confirmed, then stronger precautionary measures should be used (such as embargos, moratoria, removal of licences to market produce). It is certain that where risks of catastrophe are justifiably suspected, it becomes irresponsible and criminal to endanger the future for a cynical desire for profit, causing lasting harm to human health and the environment.

The sense (or meaning) of crime against future generations forms part of the quest for a new system of future management in this new era of absolutist attitudes towards that future. Its lack of sense (or non-sense) is to be found in our heritage of lasting harm to the future we have already inherited from the past. Nevertheless, even in the face of limitations or lack of responsibility, action to care for the future remains possible and well worth pursuing.

In Japan, the Third UN World Conference on Disaster Risk Reduction⁶⁵, has been a historical moment for seeking for a international cooperation in case of disasters and mega disasters. In a statement we pointed out the topic of the tragedy of human rights, "i.e. the tragedy of human rights not being made available to everybody, in particular to people coming after us.

The main idea of this concept is the following: whenever a return to the status quo is impossible i.e. whenever conditions for life are adversely affected, the very concept of Human Rights makes no more sense. There is an urgent necessity to give respect for a future legal framework and implement it. That would mean, that if we want to enforce a meaningful DRR we also need to enrich our legal framework by anticipatory rules. As an example: the Precautionary principle, which asks among other things for further research, due to new technologies, is very valuable in the situation of DRR. Finally, I would like to focus on the particular situation of nuclear disasters. Unfortunately, this is a model where the Human Right to life of the Future Generations is infringed upon. May the persons who disrespect the long term and the rights of future generations, be it by ignorance or greed, face their historic responsibilities"66.

^{65.} http://www.wcdrr.org/

^{66.} E. GAILLARD, "Future Generations, Human Rights & Disaster Risk Reduction", Statement March 17, 2015, Sendaï, Japan.

c) Promoting an international obligation of due vigilance concerning environmental and public health?

Finally, it is impossible to overstress how urgent it is to transcribe the need for preserving future horizons into the legal field with a new anticipatory matrix. Many interconnected laws could help prevent disasters and transgenerational harm. An obligation of due vigilance over environment and health would strengthen laws relating to the future. What is at stake is a culture of awareness of the future aiming to preclude the risk of serious harm⁶⁷.

Recent historic events encourage support for managing urgent action on climate change

In a recent historic decision, a Dutch court condemned the State authorities to reduce the nation's emissions of greenhouse gases to a considerable extent⁶⁸. This case mobilised 886 citizens and a Dutch NGO entitled Urgenda⁶⁹. The court concluded: "a worldwide reduction of emissions is necessary in order to prevent irreversible climate change". It is essential to underline that the court decided that Urgenda could sue the State by virtue of a very specific Dutch provision that of "the open norm" open norm", but not by virtue of article 2 or 8 of the European Convention of Human Rights. It is particularly interesting to underline that the method of the open norm, enables the Dutch judges to integrate "international obligations of the State, other treaty provisions and guidelines by the European Union and the principles that lay at its foundation" because they can fulfil the open norm. By virtue of the principle of endangerment, the Dutch State has an obligation to avoid the impending danger (of climate change). It is historical to assist to the application of three principles: the equity principle (which integrates the one of equity towards future generations⁷¹), the precautionary principle and the sustainability principle⁷². On the grounds of the article 21 of the Dutch Constitution, the State has a duty to safeguard the protection of the environment and the improvement of the living environment. In other words, it is a duty to protect

^{67. &}quot;C'est une culture de l'anticipation qu'il nous faudrait acquérir, car la globalisation, en étendant ses effets dans l'espace incite à remonter plus haut dans le temps : du risque avéré au risque potentiel, la prise de décision doit intégrer non seulement les probabilités mais les incertitudes, au nom de cette nouvelle forme de sagesse pratique qu'on nomme principe de précaution » M. DELMAS-MARTY, *Le relatif et l'universel*, Seuil, p.358.

^{68.} http://www.lemonde.fr/planete/article/2015/06/24/1-etat-neerlandais-condamne-enjustice-a-reduire-ses-emissions-de-gaz-a-effet-de-serre 4660674_3244.html

^{69.} For a presentation of this case by F. Wijdekop: http://gnhre.org/2015/04/15/unique-court-action-on-climate-change-failures/; A video of the verdict is available on: http://gnhre.org/2015/04/15/unique-court-action-on-climate-change-failures/; A video of the verdict is available on: http://www.theguardian.com/global-development-professionals-network/2015/jun/25/hague-climate-change-verdict-marjan-minnesma

^{70.} Application for instance of the open norm of article 162 from Book 6 of the Civil code.

^{71.} For the Dutch judges, it is clear for them that future generations should be taken into account. This is particularly a historical statement. This case can be put into perspective with a decision ruled by the Philippines Supreme Court, July 30 1993, *Oposa v. Factoran*, see T. ALLEN, « The Philippine Children's Case: Recognizing Legal Standing for the Future Generations », *Georgetown International Law Review*, vol.6, 1994, p.713.

^{72.} By virtue of article 191 Treaty on the Functioning of the European Union (TFUE).

which is stated here⁷³. "It is also within the power of the State to effectively exert control over the Dutch emission levels. The State therefore plays a crucial role in the transition to a sustainable society". It is also stated that: " after all, all emissions contribute to the total increase of CO2 concentration and not a single country, small or large can hide behind the argument that their efforts alone, will not determine whether climate change is to be averted. According to the judges: "Prevention is better than cure". Finally, the decision insisted on the importance of independency of judges and stated that it is of their office to offer judicial protection against imminent unlawful behaviour, also in cases against the government. During the verdict, it is said that "it is here also the case that, since the severity of the dangers increases the legal duty of the government". It concludes that the trias politica is not a decisive counterargument to exclude the judge's jurisdiction. The judges ordered the State to reduce the collective volume of the annual Dutch greenhouse gas emissions, or have them reduced in such a way that by the end of 2020, this volume will be reduced by at least 25 %, compared to 1990 levels. Other supporters for this cause are being mobilised in the USA and other foreign countries by "Our Children's Trust" (USA) ¹⁴.

Towards a renewed juridical humanism: tensions between urgency and due process

This decision, contextualised in a global movement of constitutional recognition of the duty to protect the environment, is an expression of a new juridical humanism which incorporates defending the future in law. This would be a Utopia in the full sense as a civilising project. There is a great risk of desynchronisation of the processes of evolution of future generations rights if the project falls between competing solutions. One of the dangers could be modifying state law on the pretext of possessing ultimate truth about safeguarding Humanity's future. Involving civic movements is important as a guarantee of legitimacy.

^{73.} A. KISS, « Le devoir de protéger l'environnement », *Droit international et coopération internationale*, Hommage à J. A. Touscoz, France Europe éditions, 2007, p.1239.

^{74.} http://ourchildrenstrust.org/