REFGOV

Reflexive Governance in the Public Interest

Global Public Services

Managing Global Risks Through "Proportionate" Precaution: Collective Preferences and State Sovereignty in the Balance

By Olivier Godard

Working paper series : REFGOV-GPS-6

This working paper can be cited as follows:

Olivier Godard, 2009. Managing Global Risks Through "Proportionate" Precaution: Collective Preferences and tate Sovereignty in the Balance.
REFGOV Working Paper Series GPS-6, Centre for Philosophy of Law, Université catholique de Louvain (final version submitted to MIT Press).

This working paper can be cited as follows:

Olivier Godard, 2009. Managing Global Risks Through "Proportionate" Precaution: Collective Preferences and tate Sovereignty in the Balance.
REFGOV Working Paper Series GPS-6, Centre for Philosophy of Law, Université catholique de Louvain (final version submitted to MIT Press).

Managing Global Risks Through "Proportionate" Precaution: Collective Preferences and State Sovereignty in the Balance

Olivier Godard[i]
Senior Research Fellow, CNRS,
Professor at Ecole Polytechnique, Paris

Abstract

This paper aims to study the meaning of the "precautionary principle" concept in the context of international relations. It highlights the ambivalence that characterizes uses of this concept when applied to international coordination of the protection of global public goods. It argues that this ambivalence stems from an inherent contradiction between, on the one hand, the necessary sovereignty and legitimacy of institutions politically responsible for the prevention of collective risks (i.e., Nation States), and on the other hand, the need for global regulation of supranational risks that affect global public goods such as climate and biodiversity. Trade among private economic partners from various countries, under pressure from concerned consumers and environmental NGOs, plays a useful role in complementing inter-State relations: in this context, provided this remains true in the future, the coupling of environmental and trade issues under the precautionary principle will provoke a differentiation of rules of trades according to classes of goods. Critical in this respect will be the reliability of information as well as guarantees regarding respect of environmental and social norms at all stages of the production chain. The cornerstone in this process will be the development of a broader concept of "quality of goods" that will be relevant for consumers and public authorities alike.

Introduction

Among the risk management concepts that the 21st Century inherited from the last two decades of the 20th, the precautionary principle (PP) has been an especially critical breakthrough. The concept was first introduced in the 1980s, and has been built incrementally into environmental law ever since. Notable years along the way were 1992, with the Earth Summit in Rio de Janeiro[ii] and the Maastricht Treaty that created the European Union; and 2000, when several EU bodies made crucial doctrinal contributions to the effort, e.g. with a Communication on the PP by the

European Commission, and a Resolution on the PP adopted by the European Council held in Nice in December 2000.

Inclusion of the concept in domestic law has varied among regions worldwide. The European Union clearly has been at the forefront of efforts to incorporate the PP into law, for instance turning the PP into a legal norm for environmental protection as early as 1992. Later on, EU regulation of food safety in 2002 confirmed the relevance of the PP in the field of public health and food safety, following 1998 EU legal decisions in the specific context of the BSE crisis. In October 2003 the European Court of Justice enshrined the PP as a general principle of European law (Solvay case). France underwent a similar process from *ad hoc* to general recognition of the concept. In an initial phase, the PP was first acknowledged by Law # 95-101, aimed at enhancing environmental protection; but it was endowed with general constitutional validity in 2005, when it was written into a major article[iii] of the new Environmental Charter that laid out rights and duties of the public and government in this respect.

By contrast, international law has been slower at recognizing the PP (Kiss and Shelton, 2000). Outside Europe, many countries still appear reluctant to give it legal force, although core ideas in the PP are reflected in the SPS agreement[iv] as well as the current implementation of WTO rules (Noiville, 2000; McDonald, 2006). Therefore, in the international arena, the PP has been watered down into a "Precautionary Approach" (PA). This in fact shares the PP's conceptual thrust, but without the legal strength implied by the word "principle." The PA formed the intellectual framework for the two main international conventions agreed upon at the Earth Summit in 1992. In some instances the PA is backed up by strong legal language reminiscent of the PP, as in the Cartagena Protocol on Biosafety: yet even in this case drafters were careful to retain and confirm national sovereignty on the management of risks incurred through international trade of living modified organisms (LMOs).

In spite of these undeniable achievements, the status of the PP as a tool for tackling major environmental issues of global scope remains surprisingly weak. This is due in part to the temptation by many to rely on the less demanding PA; but more fundamental and problematic explanations are also involved. In fact, the meaning of the PP has been critically ambivalent: as we have just seen, even when it has gained recognition in the international arena, it has often been called upon as a means to reinforce sovereign unilateral decisions of states and claim exceptions from previously agreed international rules. This is a far cry from the expectation that the PP instead would enhance coordination of international action in the spirit of the conventions adopted in Rio in 1992 regarding climate change and biodiversity.

This evolution points to the fact that in the international arena, the PP exhibits the contradiction inherent in the current status of international governance – between, on the one hand, international regulations called for by global and urgent environmental issues, and on the other hand, institutions that bear political responsibility for managing risks and ensuring the safety of their citizens, i.e. Nation States. As risks turn ever more threatening, while science cannot fully ascertain their

scope, origins or consequences, States increasingly resort to their sovereign authority in order to confront them, and prove reluctant to commit to binding international agreements, in spite of apparent pronouncements to the contrary. Thus the PA-PP, though conceived in the initial phase as a means to promote early collective action even in the absence of scientific certainty, paradoxically tends to hinder progress in international efforts towards global regulations. If anything, in the current phase, the concept contributes to collective failure in the face of global threats: in an economist's jargon, a very inefficient "Nash equilibrium."

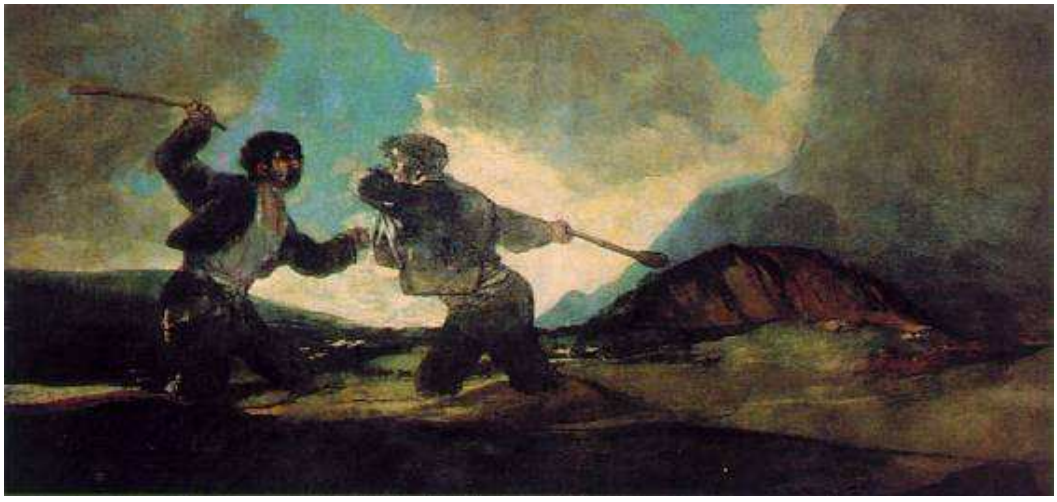
This paper aims to explore ways in which we can break through this impasse, and bring about a "third phase" in the history of the PP concept. We can envisage two main routes that would enable us to do so. The first is to strengthen global environmental governance, i.e. increase legal enforcement mechanisms and the democratic legitimacy of dedicated international organizations; alternatively, we could bet on the transformation of international market mechanisms, on the premise that business and NGOs will push for new environmental standards regarding the quality of goods, and will regard their implementation as a precondition for inclusion in trade flows. These two options are not mutually exclusive, and progress will likely jointly occur in both directions. Indeed the two are closely linked: while market pressures can usefully complement inter-State relations, they can only be deeply effective provided States come to agree on new rules of the game[v].

Thus we can outline an evolution of the PA-PP concept as a governance tool through four stages, in the course of which the national v. international dichotomy has fluctuated: born initially from a movement toward international cooperation for the protection of global public goods, the notion was instead forced back into a framework of unilateral action by Nations States concerned with the rise of considerable and poorly understood new threats, aiming to ensure the safety of their own citizens as well as to respond to their specific preferences. However, a third phase would see the concerns of consumer-citizens expanding beyond purely domestic issues, leading to market-induced shifts in quality standards for traded goods; finally, completing the loop, this could lead to enhanced international regulation, reflecting the heightened global concerns of the "collective citizenry."

In this paper, I propose to explore the inherent contradiction at the heart of the PP concept, and describe the components of the second and third stages of the "loop" in its evolution. After a foreword commenting a painting by Goya that exemplifies Humankind's position in the context of global threats to the environment, the first section lays out the EU doctrine of the PP in order to prevent common confusions between the PP and the principle of abstention (Godard, 1997, 2006; Godard et al., 2002). The latter seems to result from key developments supported by the Wingspread Declaration, which will ne familiar to US readers (Raffensperger and Ticknell, 1999). This deviation of the PP, which is sometimes inaccurately referred to as the 'strong interpretation of the PP', has been rightly rejected by the US administration or by scholars like Cass Sunstein (2005); it is at odds with EU

doctrine. The second section goes back to the basic contradiction that we have identified in the PP concept. The third lays out a tentative reappraisal of the issue of sovereignty in relation to the emergence of references to "the interests of Humankind" in international law. The fourth explores the implications of national collective preferences for the implementation of international trade laws, and explains why the PP is affected by collective preferences. Before concluding, the fifth section considers recent trends that have expanded the meaning of "quality of commodities" in commercial transactions, to include social conditions of production and environmental impacts at all stages of the production chain. This evolution has challenged the traditional distinction between processes and products which used to restrain the legitimate perimeter of State intervention under WTO rules, thereby affecting traditional limits of direct interstate relations. The conclusion underlines the need to develop a new, balanced notion of sovereignty, combining bottom-up and top-down sources of legitimacy, such as will promote the development of new forms of public concern and political accountability with respect to the management of global environmental public goods.

Foreword: Contemporary Comments on Goya's painting
Fight with Cudgels - 1820-23. Prado, Madrid



I have selected this painting in light of the comments that it elicited from Michel Serres, professor of history of sciences at Stanford in his book the *Natural Contract* (1995). It shows two men fighting with cudgels, even as they are bogged down knee-high in sand pits. Focused solely on their rivalry, they seem oblivious to the fact that they are stuck, or that their predicament can only worsen as they expend more energy fighting. Only we, the outside observers of the scene, fully realize what the final outcome must be: death for both men, as they become unable to extirpate themselves from the mortal trap that they are busy ignoring. This is because they, unlike us, are in no position to heed the peril they find themselves in: while engaged

in the fight, diverting their attention, even for the slightest moment, from the more immediate danger posed by their rival's weapon would grant him a decisive opportunity to strike a mortal blow – making longer-term concerns of escaping the sandpit irrelevant. The immediate narrative of their situation (the fight) is causing them to disregard the perils posed by their physical, global environment. It prevents them from realizing that their common interest in fact lies in stopping the fight and finding a way out of the pit. As their attention is focused on immediate survival, they do not make a reflexive and conscious appraisal of other global and equally lethal threats, let alone make decisions upon it, in other words exhibit "reflexive governance" to salvage their vital interests.

The point, of course, is that the same metaphor applies to the present situation of Humankind as a whole: rivalries and conflicts lead us to ignore the pressing and universal threats that global environmental disruption pose for the common future of humanity and the planet it shares.

Of course, some claim that economic competitiveness, and the yearning of the masses for immediate improvements in their welfare, precludes any serious efforts from economic and political leaders to tend to the common, long-term interests of Humankind. The argument that "this would endanger economic growth" remains the same mantra today as it was thirty-five years ago when debates about the drawbacks of unfettered growth first arose (Meadows et al., 1972). Going back to the painting's metaphor, today a great many observers are desperately trying to alert the "fighters" to the global impending peril, but without much success so far – in spite of encouraging international events and diplomatic achievements over the past 20 years. The fighters' incapacity to exhibit reflexive and conscious appraisals of global threats in their common environment certainly is not due to lack of knowledge about it: but from a refusal to take this knowledge into consideration – just as addicts cannot turn away from their lethal habits even when made aware of the dangers involved. To be fair, this apparent "mental block" also results from the basic economic and power relations through which Humankind has organized itself – just as a question of "honor," perhaps, compels the men depicted by Goya to engage in their fight.

The concept of sustainable development, as well as the precautionary principle, were created precisely as a means to find our way out of this impasse. However, they have not resolved the "inbuilt" incapacity of inter-State relations seriously to act on the warning. Changing the economic patterns that underlie these relations may in fact be the only way to elicit genuine progress from international governance.

The true meaning of the precautionary principle

Europe, for one, has gone a long way toward developing a precise doctrine of what the PP is and what it is not. Specifically, the PP does not preclude use of technology whose potential environmental impact is merely unclear. It does not reverse the

burden of proof, meaning that it does not require that the absence of any short or long term risk be established before a technology can be approved.

What the PP is not: a principle of abstention

This in fact is the crucial difference between the PP and the "principle of abstention" with which it is sometimes mistakenly confused. It is the principle of abstention, rather than the PP, that reverses the burden of proof, by requiring that a product be proven entirely devoid of any harmful effects whatsoever on health or the environment before it may be authorized. Arguments in favor of this concept are often adduced from the work of the German philosopher Hans Jonas (1984), who talked of an "Imperative of Responsibility" that impels present generations to preserve the ultimate possibility of maintaining physically and morally a human life on Earth. Although many premises of Jonas' thinking are undeniably relevant, the conclusion he reached with respect to judicious management of risks suffers from logical inconsistency (Godard, 2002). As science is a permanent work in progress, whose momentary conclusions are always at risk of being invalidated by the vagaries of emerging knowledge, it is logically impossible to prove of anything that it will not cause *any* "apocalyptic" or even "harmful" effects whatsoever now or in the future; it is equally impossible to draw practically at an early stage a clear-cut distinction between "apocalyptic" and "non-apocalyptic" kinds of risks[vi]. Due in part to the scarcity of public resources, the principle of abstention as a universally valid requirement would be not only very costly in terms of welfare but more to the point, one could not in fact abide by it. Indeed, in complex systems such as ours, ensuring that a particular technology or activity poses *no* risk whatsoever would have the unfortunate knock-on effect of heightening the risk posed by other human activities or products[vii]. Therefore, the inescapable result would be an arbitrarily selective use of the rule, eliciting untenable direct- or opportunity costs.

The PP: timeliness and proportionality

The PP calls upon authorities to take potential hazards into account as early as possible: but it does not proscribe any product , substance, technology or project simply because they have not been proven to be absolutely devoid of *any* such potential hazard. According to the PP, the

crucial concept that must inform all precautionary measures is *proportionality*: European and French doctrine share this idea, namely that the PP requires early and proportionate reaction to emerging hazards, even in the absence of scientific consensus. Proportionality involves an assessment of four sorts of variables (a) the level of safety that should be reached by technologies and products according to stated collective values and policy goals; (b) the extent of potential damage that can be anticipated through various scenarios in the present state of our incomplete knowledge, which leaves room for lingering uncertainty; (c) the direct and opportunity costs of the various precautionary measures that can be envisaged, including the option to do nothing; (d) the scientific consistency or plausibility of hypotheses supporting the assumption that there may indeed be significant risks.

The main originality of the PP is to shift the moment when a threat should be addressed by public authorities. Before the PP emerged, public reaction would only be triggered when the existence of a given hazard had been beyond doubt established and objective distribution of probabilities have been evaluated through risk analysis. The PP now calls for preventive action at an earlier stage. This shift in timing, in turn, affects the nature of what preventive actions are on the table in the first place. In fact authorities can choose among a large range of measures, from specific research programmes and information dissemination to economic incentives (taxes or emission trading), partial restrictions of use, suspension of an authorization, and ultimately pure and simple bans. In contrast to the abstention principle, therefore, placing even a temporary ban on field of activity is just one possibility among others: in addition, the PP recognizes that this radical course of action can have major consequences, and should only be followed based on the strongest and most specific justifications.

Clearly the PP does not apply to situations of "informed ignorance", i.e. when our best scientific knowledge remains insufficient to make even an educated guess as to the existence of a potential hazard. The PP only arises when such hazards have been flagged as relevant hypotheses on a scientific basis (though absolute certainty might not yet be attainable).

While the PP calls for early intervention, this is balanced by the notion that initial decisions must be seen as temporary and flexible, so they can be revised as new evidence and information comes to light. In other words, although a paradigm of the PP is that final scientific proof need not be available for a decision to be made, it does not undercut, but rather

strengthen, the dynamic links between public decision-making and scientific research. Specifically, the PP calls for sustained scientific monitoring of technologies and products that it has provisionally authorized based on the current state of scientific knowledge, when suspicions remain that further research might prove them in fact to be dangerous to human health or the environment. Experience-based information feed-back is therefore a crucial component in the implementation of the PP.

To summarize, the PP provides a guideline for response when facing scientifically uncertain threats. It lays out a new concept for action, one that is flexible, incremental, reversible, and open to new scientific information. It bears some resemblance to the economic concept of "quasi-option value" in "uncertain contexts" exposed to possible irreversibility, e.g. open-ended information jointly with different levels of reversibility of actions and their consequences, and the prospect of improving information on key variables (Henry, 1974).

The use of the precautionary principle and approach in international affairs

Use of the PP in international relations has been strangely ambivalent. On the one hand, it has been instrumental in major advances in international cooperation, such as the main agreements (Framework Convention on Climate Change) and texts (Agenda 21 and Declaration of Rio) adopted by the international community at the Earth Summit held in Rio de Janeiro in June 1992. On that occasion, in the specific case of climate change, States jointly acknowledged the necessity to take cost-effective preventive action in spite of remaining uncertainties, and agreed upon a common framework of action, which formed the basis of the Kyoto Protocol (1997)[viii].
On the other hand, the PP has also been used to suspend previously agreed international rules, specifically trade rules.
In the case of the EU, a typical example is the "mad cow disease" crisis that erupted in March 1996: national governments and the European Commission both decided to put UK beef exports under embargo, a measure that flew in the face of the principle of free circulation of goods within the European space. Notably, this embargo applied to beef otherwise cleared for consumption by British sanitary authorities. The UK government responded by bringing a lawsuit before the European Court of justice: to no avail, however, as in May 1998 it confirmed that Member States and the Commission were entitled to take unilateral measures aiming to protect human health, in spite of lingering scientific uncertainties as to the exact causal chain involved in the development of the disease, and the extent its impact. Another typical case is the dispute that opposed the EU to the United States and other countries regarding imports into the EU of beef produced with growth-enhancing

hormones. Such measures have been justified by potential threats to human or animal health, even though science had yet to reach a final verdict on the nature and scale of these threats at the time the decisions were initially made.. In these cases, the PP has been used as a means to justify sovereign unilateral judgments, i.e. to claim exemption from agreed international trade rules. In fact, in both examples, the disputing parties initiated legal procedures, which makes clear that no internationally agreed framework for use of the PP as a risk management tool was actually in existence, views on appropriate conditions of risk management were not shared internationally, and that the PP, rather than bringing about more harmonious international governance, can actually turn into a wedge that splits international relations asunder.

In this context, the Cartagena Protocol on Biosafety (January 2000) is especially interesting, as it combines both uses of the PP. The Protocol develops organizational means to improve international exchange of information regarding LMO-related risks: it does so, on the one hand, by bringing about enhanced coordination; but it also aims to define agreed procedures and conditions under which States can protect their border through unilateral measures that derogate from ordinary rules of trade for this specific class of goods. Some have claimed this agreement as a victory for the PA, as the protocol enables a country to block imports of specific LMOs on the basis of alleged potential risks that are not yet confirmed by scientific investigations. However, in many respects this approach rather reflects a distorted version of the PP, and is not necessarily a step in the right direction. It is doubtful whether this is in fact the best way to preserve biodiversity on Earth - which is one of the stated goals of the Convention that produced the Protocol: its language is perhaps better explained, more prosaically, as an acknowledgement that no agreement would have been attainable without concessions to sovereign national preferences within the system ruling international trade. It is difficult to argue that a system based on the autonomous judgment of every Nation State as to what can be imported on its sovereign territory is indeed the best global strategy at hand to ensure biodiversity conservation. Therefore, the solution adopted at Cartagena in fact underlines the overarching preoccupation of States to safeguard or restore their national sovereignty on politically sensitive issues, in a context when different regions adopt different perspectives on the matter. Given the PP-PA's inherent ambivalence, it could (in principle) just as well have been called upon to create a new, integrated regime for preserving biodiversity hot spots and a common management of the issue of LMOs: for instance through the development of an international body of expertise analogous to the IPCC for climate change, or a multilateral decision-making framework that would enable the international community to determine which products should or should not be authorized, along the line of the Montreal Protocol (1986) on CFCs (Benedict, 1991).

The same tendency toward using the PP as a means to restore the prevalence of State sovereignty was already evident in the final stages of the 1992 Convention on

biodiversity: while preparatory works had explored tentative foundations for a new legal regime of genetic resources based on the concept of the 'common patrimony of Humankind' (Brown Weiss, 1989), the final proceedings of the convention ended up simply reaffirming State sovereignty on these resources…
It is clear, then, that the counterintuitive tendency for Nation States to use the PP to enhance or reaffirm their right to sovereign unilateral measures is not a one-off aberration, but a trend. If we are to salvage the initial purpose of the PP as a means to promote concerted multilateral action, it is urgent that we understand why this is so. Clearly risk management, in the present state of international governance, is still first and foremost the remit of politically legitimate sovereign bodies, i.e. Nation-State governments. Sovereignty and paradoxically the PA-PP itself (to the extent that it is linked to it), hinder the emergence of an appropriate framework for the management of global environmental risks. Exploring this state of affairs in more detail requires that we make an excursion into the foundation of international law.

Sovereignty and the foundations of international law

Sovereignty is a complex and evolving (Nagan and Hammer, 2005) multi-dimensional, multi-level[ix] concept. Sovereignty of the Nation State does not exist in isolation. In the Western tradition it merely derives from the sovereignty of the people (a community of citizens), which in turn ultimately stems from the fundamental rights of individuals. The sovereignty of a State is only legitimate if the latter abides by its obligations towards its citizens. Personal safety as a *sine qua non* of personal freedom ranks among the first of these obligations. The State has the duty to protect its citizens against various threats: conversely, it behoves them to organize it in such a way that it can effectively do so without imposing them an arbitrary and excessive power in the name of safety.

The bottom-up emergence of international law

Sovereignty of Nation States has been the standard principle in the development of modern international law. This differs crucially from the foundation of domestic law, as international law results from conventions freely negotiated among parties on the basis of their mutual interest (Kiss and Shelton, 2000). No "world government" can legally impose measures and actions against the wishes of sovereign states, even in the name of the common benefit of Humankind. Prior agreement and commitment from Nation-States is necessary. Clearly even the United Nations does not amount to a world government: it was not designed as such, and lacks critical means of power to claim otherwise.

The birth pangs of an alternative foundation of international law

In the 1980s, an alternative foundation of international law began to emerge, initially

with respect to environmental protection and natural resources management. It centered on the notion of a Common Patrimony of Humankind, modelled after the UNESCO's concept of World Cultural Heritage, and the Law of the Sea (LOST) that organizes access to deep marine resources[x]. This change potentially heralded a theoretical revolution in international law: Humankind was now defined as a collective person, whose interests ought to be defended, and indeed should rank supreme among competing interests, including those of Nation States. This paradigm shift reversed the traditional "bottom-up" perception of states' duties and rights: individual states now were entrusted with safeguarding the global interests of Humankind; they were accountable for their practices and achievements before the community of all states. Based on this new foundation, asymmetric and uncompensated obligations can bear on States whenever their external or domestic actions affect the main interests of Humankind – which is the case for global environmental issues.

As already noted, the development of this alternative foundation of law was paradoxically set back in 1992 by the Convention on biodiversity, at the very moment when one might have expected its consecration: the convention dropped the concept of Common Patrimony and affirmed the sovereignty of States on the genetic resources present on their territory. The reason for this lays in part in a perception by less-developed countries that the concept of a common patrimony in fact was a political ploy pulled on them by developed countries under the cover of lofty philosophical statements: access to biotechnologies produced by industrialised countries would have remained costly and subjected to intellectual property rules (patents and other protection means), whereas their own natural resources would have been available freely to anyone as part of a "common patrimony"!

This contretemps did not entirely pull the plug on the process toward a "top-down" definition of international law. Progress has been evident in terms of human rights (negotiations on new economic and social rights within the United Nations, creation in 1998 by 104 countries of the International Criminal Court for genocides, crimes against humanity and war crimes), or with the emergence of a doctrine of humanitarian interference in domestic situations. It is also sustained by the action of major NGOs, whose pronouncements systematically refer to the rights of all citizens of the world, called 'cosmopolitan rights' by Ferry (2005), and to the survival of Humankind.

As a consequence, "sovereignty as State absolutism is no longer a tenable precept in international law and international relations. Sovereignty based on the authority of people's expectations is a vital and critical element in promoting international peace and security, enhancing human rights and is a basic element in the foundations and possibilities of good governance as well as transparent and responsible authority." (Nagan and Hammer, 2005, p.187)

Towards a new hybrid concept of sovereignty

Were this rethinking of states' role and obligations to obtain extended influence in the future, much would change in international coordination mechanisms aiming to address global issues such as climate change. At present, the conventional bottom-up concept of sovereignty forces international efforts into an impasse that combines free-riding for outsiders, and a "prisoner's dilemma" for insiders. The more states are included in a coalition, the more non-participants are incited to remain out of it, since they may hope to get the best of both worlds: access to a public good paid by others, combined with an economic edge on competitive international markets. The alternative, top-down foundation of sovereignty would give a coalition of "benevolent States concerned with Humankind's fate"[xi] the right to actively put into question the behavior of such free-riding "rogue" states that eschew their share of the burden of caring for the global environment. States working for the common good of Humankind would be endowed with the right not to be penalized for it in the international marketplace. For instance they would be entitled to economic protection at their borders aimed at imports from free-riding rogue states that fail to shoulder the collective burden of controlling greenhouse gas emissions (Ismer and Neuhoff, 2004; Godard, 2007). This new right[xii] would be inherently reciprocal: every State would have to accept that others may hold it accountable insofar its actions affect common interest. According to this scheme, while all countries of the world could legitimately hold Brazil accountable for its management of the Amazon region based on its impacts of the global climate, Brazil symmetrically would be entitled to hold the US or Europe to account for their industrial or transportation-induced greenhouse gas emissions.

Though this concept of collective responsibility might be on the rise, it is unlikely to replace the "bottom-up principle" altogether, or to force State sovereignty out of the picture any time soon. Therefore, what is needed is a pragmatic future-oriented synthesis of between the two. In this arrangement, it would be acknowledged that two different types of obligations apply to states, each with its own enforcement procedures. First they must ensure the safety of their people or their citizens (in the case of politically accountable democratic polities). Taken in isolation, this first obligation would understandably trump any international rule of trade that came into conflict with it, whatever treaties had been signed by the state in question. However, a second type of obligation sees states as the guardians of Humankind's common interests: in which capacity, they can be held accountable before the whole human community – rather than merely other States - for their domestic policies regarding human rights or the management of common resources and life-supporting conditions on Earth.

Since we cannot expect that this combined regime will be formalized and settled in the near future, we have to consider the management of environmental risks in a context where the first type of obligations takes precedence. This suggests that we

should look in more details at the links between State sovereignty and the implementation of the PP. The issue in turn provides a notional context for the concept of national collective preferences.

The links between collective preferences and the precautionary principle

Collective preferences, an emergent issue in the context of globalization

In the last two decades, as global risks have become a major issue in international affairs, requiring increased international cooperation, a growing demand has emerged that national collective preferences be acknowledged in the implementation of various international agreements. This dual-track, contradictory movement has been observed in several contexts, but most notably for trade agreements, to the extent that Pascal Lamy, before becoming the Director of WTO, outlined potential mechanisms aiming to increase awareness of "certified" collective preferences in international trade rules, and to compensate affected third countries when it proved impossible to find a voluntary agreement with them (Lamy, 2004).

Lamy argued in favor of showing increased consideration for the opinions and preferences of a country's people and citizens regarding major trade-off between health safety, local and global environmental protection, free trade, and improvements in welfare. He saw this "decent respect to the opinions" of citizens as critical to the democratic processes of political communities, and to prevent a deleterious conflict between an ever-expanding free trade and democracy. This proposal from an influential figure of the international scene shows that we have only just begun thinking through mechanisms that would allow a better equilibrium between "one-size-fits-all" international rules and a diversity of collective preferences expressed at the national level and fixed in national institutions and procedures.

Many observers already have expressed their scepticism regarding the introduction of an explicit status for collective preferences (Charnowitz, 2005). However, in what follows I accept the premise that collective preferences remain an open-ended issue for international trade, as I focus on the links between them and the implementation of the PP.

The PP is a norm and a benchmark that aims to address situations of scientific uncertainty when potential damage to health and the environment is at stake. At first glance, it is a rather technical and limited device that primarily applies to specific situations where scientific expertise is of the essence. However, it also exhibits subtle but strong links with the issue of collective preferences. Some of its features are especially notable in this respect. First, the PP does not apply in a vacuum and is not by itself a criterion for decision-making. It calls for a case by case judgment on complex matters under imperfect and piecemeal information. Consequently implementing the PP requires not only scientific expertise, but also consultation with the many stakeholders involved, as well as public deliberation. Proportionality is another feature of the PP that raises the question of collective preferences:

precautionary measures ought to be proportionate (see below). In a European context, discussions of trade and public health risks often refer to so-called "other legitimate factors" mentioned for instance in Article 7 of Regulation 178/2002 relative to food safety (EU Parliament et al., 2002; Belvèze, 2003). On the whole, "it is generally agreed that defining the level of acceptable risk is a decision that belongs to the democratically elected and accountable institutions of a state" (Christoforou, 2002, p. 216). It is difficult to underscore more clearly that the PP relates to democracy, sovereignty and ultimately national collective preferences, in relation to the management of collective risks.

Opening the "black box" of collective preferences

We cannot go any further without examining in more detail the notion of collective preferences, in order to identify what is relevant to the PP and what is not. This is because the notion of "collective preferences" seems to encapsulate a great variety of issues. Let us consider several ambivalent topics among those.

Preferences *for* specific goods or *for* national rules, or *against* international rule? Collective rules belong to the realm of politics and sovereignty, provided the latter has not been delegated to supra-national entities. Autonomy in the setting of rule lies at the core of democratic polities, and this holds true also of rules that concern the management of risks: in other words, there is *a priori* no basis for objecting to a country's choice of its rules as long as those do not violate previous commitments and basic human rights. In case sovereignty in some respects has been transferred to supra-national bodies, new democratic procedures must also be put into place at this higher level. The accusation most often heard against the present state of affairs is that transfers of power and sovereignty to international bodies have not been offset by a commensurate expansion of democratic control on these new institutions. In such circumstances, rising claims on behalf of collective preferences simply express frustration at the insufficient democratic legitimacy of international organisations such as WTO, whose governing bodies represent States rather than peoples.
The situation of preferences for goods is quite different and opens on two main sub-cases.

Private v. public goods. Private goods absolutely independent of any public-sector intervention or oversight are only subject to the rules of competitive markets: in which context so-called collective preferences are no more than a statistical aggregate of market equilibriums. They offer no basis for state intervention at the borders, and only bear tenuous connections with the PP. Not so with public goods produced or maintained by public authorities. Although they are subject to economic analysis aiming to set optimal levels of production or protection, such goods, by virtue of their dependency on public institutions, inevitably enter a public arena where political discourse rules, and decisions must be justified before the greater public

(Boltanski and Thévenot, 2006). In this context, procedures and institutions tasked in each country with providing those goods inevitably reflect collective preferences regarding the most prominent social values, for instance in favour of a consensus-based decision-making, or standards ensuring the equitable (re)distribution of goods and risks. Illustrations can be found in the field of access to education or electricity in rural areas as exceptions to pure market rationale that would impose payments reflecting marginal costs of supply; or in the field of insurance against natural hazards, with specific combinations of public compulsory insurance and private contracts with companies on the market.
Whether provided through publicly-owned companies, public-private partnerships, or public delegation to private firms, institutional forms of supplying public goods may belong to the block of a country's sovereignty, although choices of a given regime can alter conditions of competition on the market.

Aggregation of individual preferences of consumers, or preferences of the political community as such? "Preferences" vis-a-vis goods might refer either to consumers as such, or to a polity's citizens: the normative background for these two types of judgment is not identical. In the former case, trade relations and market equilibriums are devoid of political meaning. There is no reason justified by collective preferences why States should interfere with trade rules as long as they ensure open choice on competitive markets. Distributive issues can be addressed through purely technical, ad hoc responses without altering markets. However, preferences expressed by citizens, rather than consumers, are more genuinely "collective"; they involve democratic and political processes, and therefore issues of representation and deliberation. Seen in this light, international trade does not operate in isolation, but must acknowledge and respect the role of democratic processes and the public institutions that embody them, insofar as they respect the basic rights of individuals and economic agents.
These few alternatives show that the crucial distinction that must be drawn in order to refine our understanding of collective preferences lies between the economic and the political realms. Considerable differences between the two belie the superficial overlap implied by the common use of the word "preferences" in both cases. These differences are evident for instance with regard to the processes involved: market on the one hand; deliberation, representation, vote, and arbitration on the other. More fundamentally, only when used in a "political" rather than a "consumer" setting does the expression "collective preferences" have any analytical substance. There is nothing surprising in the fact that individual consumers exhibit "preferences." These choices only concern available goods, and traditionally stem from personal taste. On the other hand, collective preferences expressed by citizens within a polity define, among others, the rules regulating political compacts and allocations of tasks within democratic systems; the future orientations of a political community; or the procurement of public goods aiming to ensure equity in satisfying a population's

basic needs. Both types of preferences imply a process in which collective choices result from the aggregation of individual choices. Yet among "consumers," what is thus aggregated is simply contingent personal tastes aiming to fulfill self-centered needs. By contrast, among "citizens," it is individual, reflexive views on the common good, which they can only develop by thinking above and beyond their personal circumstances and local attachments (e.g. family links, geographical origin, vested interest, etc.). This is why Rousseau, in his analysis of the general interest, called for the downgrading of all intermediate communities and guilds, perceived as obstacles that hindered the expression of a common will by the national community taken as a whole. Rawls' "veil of ignorance" aimed to achieve the same result, namely to transcend individual peculiarities (Rawls, 1971).
The conclusion is straightforward: the only collective preferences truly relevant to our analysis are those that are expressed in the political realm, and affect the choice of collective rules and the provision of public goods when the latter embodies some community values beyond the satisfaction of consumers' tastes.

The PP and collective preferences

Clearly, the PP is affected by collective preferences so defined. However, when analyzed in detail, some of these links turn out to be problematic, and should be flagged as such. Collective preferences exert "built-in" influence on the PP because of two of its defining features: first, and most obviously, the fact that case-by-case reliance on the PP calls not only for scientific expertise, but also for public deliberations; and second, because of the notion of proportionality. Four criteria define whether precautionary measures are indeed "proportionate": possible damage, safety goals, direct and opportunity costs of the proposed measures, and last but not least, the scientific plausibility of the hypothesis that damage will in fact occur – as the legitimacy of stringent precautionary measures is necessarily commensurate with the degree to which underlying hypotheses are backed up by science, all things being equal (Godard, 2003, 2006; Godard et al. 2002). The first three among these variables ultimately depend on collective preferences, though on slightly different aspects of the concept. Thus, "damage" will be anticipated based on the aggregation of individual (dis)utilities, but also of social values aiming to ensure an equitable sharing of damage and benefits. Desirable "safety goals" will be defined based both on individual choices and collective preferences, which brings to bear important political considerations such as the acceptable distribution of exposure to hazards among social groups (Beck, 1992). Finally, "costs" will include private but also collective expenditures, for instance those incurred by democratically-managed public funds. There is no reason why different countries should share the same relative values, or come to identical results when rating these three variables or making trade-offs among them, given unavoidable differences in their respective goals and political circumstances. An especially striking example is the uneven value accorded to human life in different polities.

Turning to the fourth variable, conclusions as to the credibility of a given hypothetical risk will vary according to the scenario that is chosen as a framework of reference in assessing its likelihood and seriousness. For instance, depending on whether LMOs are set over against modern intensive agricultural practices or only organic culture, a different impression will ensue as to their own dangerousness. In addition, however, processes that determine the scientific credibility of a risk will also reflect national specificities with regard to the organization of expertise, and the patterns of interaction among experts, stakeholders and decision-makers (Judd et al, 2005; Stirling et al. 2006). While science is supposed to rely on universal procedures aiming to develop universal knowledge, expertise inescapably is influenced by its circumstances. This "framing effect" in turn depends on the specific features of public life in the country (or in the national or international arena) in which experts operate (Fisher et al. 2006).

Therefore, all four determinants of "proportionality" are to some extent affected by political processes that involve collective preferences; they cannot be abstracted from the realm of State sovereignty. The PP vary from one country to the next: and these differences emphatically do not imply that some are right and others wrong. They simply illustrate the fact that the PP is affected by contingent political circumstances and national collective preferences. This is precisely the reason why, as we have seen, the PP fits uneasily with (and indeed often runs counter to) monolithic and binding international rules.

Meanwhile the dependency of the PP on collective preferences should be given strict limits that are those of risk management. In particular, the impact of collective preferences upon it would be clearly excessive if it would ultimately prevent assessments of environmental and health hazards from abiding by the principle of proportionality, or if it would compromise the coherence of measures adopted to confront similar risks. Collective preferences cannot possibly justify a differentiated treatment of products generating identical risks, merely depending on whether they are produced abroad or at home (McDonald, 2006). This is the "red line" beyond which the influence of collective preferences on the PP is unwelcome. It should be a matter of concern that European and international pronouncements on the PP acknowledged the reference to "other legitimate considerations": this ambiguous expression may embrace values or concerns far distant from issues of risk management in the fields of public health and environmental protection. Excessive influence of national collective preferences on the PP could cause it to become a cheap excuse for protectionism. But other risks may also be at stake. With this inappropriate extension, the PP could well be used as a smokescreen obscuring a deficient scientific grounding in the rationale behind a decision; it could disguise a welter of motivations or preferences that had nothing to do with risk management – racial discrimination for instance –. Therefore, it is imperative that we anchor the PP on a specific set of normative procedures regarding the assessment of risks and the allocation of roles and responsibilities in the implementation of the resulting policies.

Concluding his disquisition of the appropriate influence that collective preferences should wield upon trade rules, Pascal Lamy (2004) argued that while they should be acknowledged and granted legitimate standing, they should still be held to reasonable limits; he suggested that States mobilizing their collective preference to take measures at their borders against imports should pay compensations to affected States. With respect to implementation of the PP, I suggest taking a different track. When considering collective preferences, a distinction should be made between those that apply to domestic issues, and those that concern the management of global common resources and the interests of Humankind as such. By now, the implications of the former are well known: but the meaning of the latter, and its incorporation into international rules and behavior, are still being worked out. The dichotomy between these two types of collective preferences can be boiled down to two conflicting philosophies of international relations: the "sanctity" of national preferences ("this is nobody else's business but mine") v. the more proactive approach ("your business is also my concern") that results from the PP insofar as it is informed by "globally-minded" collective preferences. This second perspective in fact has already begun gaining ground, though not in the setting that might have been expected.

Environmental and health risks, factors of change for trade rules

Two parallel developments of international law

Over the past thirty years, health and environmental protection policies, on the one hand, and competition and international trade rules, on the other, have developed along largely separate lines, in spite of the formulation of principles such as the polluter-pays principle (OECD, 1975). This period saw two parallel developments: first, the emergence of global environmental problems, such as the depletion of the stratospheric ozone layer, deteriorating biodiversity, and the risk induced by major climate change; and second, a gradual liberalization of world trade framed by GATT-WTO rules, and growing financial and economic interdependency of activities worldwide. These two trends have been accompanied by new institutional developments, particularly on the international scene, including the Montreal Protocol, the UNFCCC, the UN Biodiversity Convention and Agenda 21, on the one hand; and the conclusions of the Uruguay Round, notably the SPS Agreement and the creation of the WTO, on the other.

These two issues imply different equilibriums between state sovereignty and international coordination. This led to growing frictions, which the PP-PA only amplified. New questions arose, as to which objective should come first, and consequently, which branch of international law should prevail. In less black-and-white terms, the resulting challenge was how to integrate these two fundamental developments into a coherent and balanced overall regime.

Although development of world trade are not intrinsically incompatible with health and environmental protection, under modern technological conditions, with the

huge dependency of transportation on fossil fuels, they inevitably modify the conditions under which it may be ensured: in a market economy with environmental externalities, growing opportunities for the valorization of local resources on world markets increase pressure on non-marketable goods and services provided by ecosystems – for instance the expansion of land superficies dedicated to sugarcane in view of the new market of alcohol contributes to tropical deforestation -, while the rapid growth of worldwide transportation flows also increase the level of unpaid external environmental costs of this activity –local urban pollution in one side, global climate change on the other.

Among current circumstances, some impede a convergence between the two objectives of increasing welfare through the expansion of trade and enhancing a demanding environmental protection. Ensuring health protection traditionally has prompted governments to impose restrictions on the circulation of animals, agricultural products and foods. Governments see ample justification for limiting imports of goods in the name of safety standards that they believe should be maintained in the interest of local consumers and citizens. Such measures frequently trigger commercial tension, since exporters often deem them inappropriate, and suspect that they aim primarily to protect domestic commercial interests. This true even though some of traditional grudges – most notably the notion that industrialized countries exhibit an exclusive propensity to protect their markets with the help of various regulatory constraints – are not supported by available data: in fact, environmental non-tariff barriers to trade have also been imposed in numerous cases by less-developed or emergent countries (Fontagné et al., 2005).

Basic economic distinctions

It is worthwhile, at the onset of a discussion of the "trade v. environment" dilemma, to introduce a few basic distinctions based on which layer of government shoulders the burden of managing which environmental problems (Godard, 2001). Some are essentially local (most cases of water pollution initially have local effects); others are regional (Europe, Asia, Africa); still others are global (climate change). Another relevant distinction must be made depending on the economic processes at the origin of the problems: some arise because of production processes, while others stem from consumption and waste.

From a standard economic standpoint, the management of environmental local environmental problems generated by production activities must take into account preferences of affected local groups and populations. In this case imposing worldwide, uniform standards are beside the point, except insofar as global economies of scale can facilitate production of green equipment. When problems are generated by national consumption, arguments suggests that it behoves public authorities of the State where consumption or waste management are at issue to take measures in accordance with the preferences of their consumers: there is no economic reason why these States should renounce their own authentic collective

preferences and align on those of exporting countries. The only incentive that could prevent a splitting of standards across consumer countries would be the mutual benefits brought about by a standardization of requirements – again due to economies of scale in the production and distribution of internationally traded goods. For instance, with respect to the design of an appropriate regime for the treatment of packaging waste (selective collection and sorting to facilitate recycling, reduction at the source, disposal in landfills), it is perfectly legitimate that the preferences of the consumer country should determine incentives, requirements and standards about packaging, regardless of the difficulties this might cause for exporters wishing to enter the market with packaged products, as long as the approach remains non-discriminatory (Buclet & Godard, 2000; Buclet, 2002).

However, for a global public good such as global climate, the issue is framed differently: ideally, a global institutional framework is needed to set-up a unified economic regime that can neutralize the temptation of individual "free-riding", and that can allocate responsibilities to reduce net emissions worldwide in a cost-effective manner. However not all countries will be affected by climate change in the same way; not will share identical priorities and trade-offs between immediate consumption and protection of the public good. This makes it especially difficult to ensure that effectiveness and equity are not achieved at one another's expense, which in turn increases the level of cooperation required in order to set up an operational regime. Simply setting a single price for carbon on the world market would not suffice to maximize global welfare in the face of climate change; cooperation should also extend to the initial allocation of obligations and rights in order to take into account varying expositions to climatic hazards, and diverging priorities between immediate consumption, saving for investment, and environmental protection (Chichilnisky and Heal, 2000)[xiii].

Environmental globalization at work

These analytical distinctions are useful, but it must be acknowledged that real-world phenomena restrict the validity of this overly neat framework. Most notably, the distinction between "local" and "global" problems has become increasingly blurred, as globalization has spread to our perception of main environmental issues. Two concomitant evolutions are evident in this respect. One of the principles underlying action by NGOs devoted to environmental protection is to give the largest possible scope and meaning to local crises and events by connecting them with issues of planetary significance, be it the preservation of biodiversity, the prevention of climate-related risks, the fight against desertification, or the growing global scarcity of critical natural resources (e.g. agricultural land, water, oil, etc.). They also strive to give the greatest possible publicity worldwide to local practices of international business which they believe run afoul of the requirements of sustainable development or environmental protection. In response, multinational companies, in order to safeguard their reputation and legitimacy, now increasingly take notice of

the extra-local implications of accidents for which they might be held liable, and strive to root out of environmental carelessness in their production units, even when their behavior in fact abides by the local regulations of the host country. For various reasons, most transnational companies have decided to work toward achieving convergence of their environmental management rules at their industrial facilities worldwide. In this context, environmental policies tend to broaden, and transcend local contexts. This contributes to expanding the relevance of global international efforts towards the definition of common or at least harmonized environmental rules, flying in the face of the standard economic principle that attributes rational decisions exclusively to local individual preferences.

New concerns lead to a broader "quality of goods" concept

Consumers, NGOs, and major retailers (most notably in Europe) have expressed growing concern vis-à-vis the health risks incurred through consumption of certain foods, as well as the environmental impact brought about by the industrial world's inordinate use of natural resources and mass importations from developing countries. This had resulted in a new approach towards the notion of "quality of goods." Criteria that define quality have been considerably extended. For instance, suppliers now must certify that the wood used in furnishings comes from forests managed according to the rules of sustainability; they must offer indirect guarantees that beef does not contain pathogenic prions, by certifying that the cattle was raised at a given farm in a given region, where the animals' diet demonstrably did not include recycled beef waste; they must certify that peas were grown in fields that have not been fertilized with liquid or urban manure over a period of at least five years, etc. The distinction between process and product in relation to trade rules is especially challenged in two distinct set of circumstances. First this is the case whenever the quality of goods at the border is in doubt, and can only be ascertained by scrutinizing the entire production chain in the country of origin. Second, consumers increasingly exhibit "ethical awareness" in their purchasing behavior, taking into account social and environmental conditions in producing countries. In both respects, the ability to certify the quality of production chains according to safety and environmental criteria becomes critical.

Because of this new approach towards quality of goods, information flows underlying trade relations have increased and become more complex. In the dawning "age of precaution," sensitive products can only be traded internationally if large amounts of corresponding information are also available: e.g. analyses of life cycles, proof that components meet various threshold standards, disquisition of what is or is not included in the product, environmental certificates, and traceability indicators enabling identification of economic and geographical origins. Similar demands for detailed information have also emerged with respect to ethical norms and working conditions in producing countries.

As an economic institution, the marketplace had often been hailed as an efficient platform with minimum informational requirements, based on the notion that prices synthesize all the data that buyers might need to know, since they reflect all facets of production costs without any sort of external costs, including environmental ones. Seen in this light, however, standard markets come across as "amnesiac" institutions, as they draw a veil on the exact nature of conditions of productions in distant lands. This is precisely what is being put into question by the emergence of "consumer-citizens" exhibiting concerns with respect to health hazards, environmental problems, and human rights records.

The gradual inclusion of the PP in international law will necessarily modify the technical and political foundations of trade, since each region of the world will most likely come up with a different evaluation of acceptable risks, different standards for credible expertise, or even different definitions of the scientific data that legitimate expertise should take into account. Today, therefore, we are facing the prospect of a split of trade rules into various regimes specific to different classes of goods. This in turn will contribute to the dynamics that today hinder the homogeneous expansion of free-trade.

A projected differentiation of trade rules

This leads us to a counter-intuitive conjecture. Contrary to what is often forecast – namely that we are heading towards a massive process of convergence, resulting in "one-size-fits-all" liberal trade rules and a single world market –, the future in fact will bring about a differentiation among several regimes for the international circulation of goods. There is one condition for this to happen: environmental and health issues continue to catch huge interest of consumers, and the latter increasingly cast a citizen's look on consumer choices. Consumers' and governments' concern for environmental and health issues will add to other obstacles that restrict trading of certain goods, such as national-security considerations for defense-sensitive technologies.

For products carrying a health risk or resulting from an environmentally sensitive manufacturing process, trade networks will be called upon to abide by new information requirements, and to accept a basic alternative: either they can find ways to provide the information required to certify quality without compromising a mass manufacturing approach based on interconnected and far-reaching trade channels, or they will have to move towards shorter and specialized production and distribution chains with precise specifications. If the latter, the scope of trade channels will become commensurate with the producer's capacity to exhibit environmental and health certifications acceptable in a greater or smaller number of importing countries. Based on these premises, we may identify three "ideal-typical" regimes in relation to health and environmental safety:

- Ordinary goods of undoubted quality, which pose no health or environmental issue; they will be subjected to free trade rules provided that they meet commonly agreed technical standards (computers, books, clothes[xiv]…),
- Specific goods characterized by obvious dangerousness or problematic environmental impact, e.g. toxic waste or individuals belonging to protected natural species: stringent limitations and control on trade flows will inevitably come into effect.; for instance, for toxic waste a principle of geographical proximity of treatment has been adopted by the EU law,
- Finally, goods of undetermined but potentially problematic quality regarding health and environmental impacts of production will be subject to the new, broader concept of quality described above. Their circulation will depend on the producers' ability to produce all required information and guarantees with respect to the health and environmental characteristics of the entire production chain. Because of potential risks, precautionary requirements will apply, reflecting consumers' concerns. Varying views on "acceptable" levels of risks will circumscribe circulation areas in which all agree on a common assessment in this regard, just as commercialization of LMOs today is subjected to a distinction between areas in which their cultivation is permitted, and those where that is not the case. In some cases, new opportunities for alternative trade patterns will develop through the emergence of short chains of distribution that ensure that producers and consumers know and trust each other. This third category of goods will elicit new information requirements, as well as changes in production and distribution techniques: most notably, it will challenge the mass, undifferentiated pooling of raw materials, as this compromises the quality of information available on a product, which will prove crucial for its commercialization.

Such a differentiation of trade rules would fit well into the synthesis now emerging between, on the one hand, strong global coordination aiming to tackle environmental risks and maintain the order of international trade, and, on the other hand, the sustained sovereignty of Nation States, derived from their status as the most appropriate and natural context for democratic expression and implementation of collective preferences.

The overall context of this new equilibrium is one in which issues of risks management take on increasing importance, as the world is characterized by growing and multi-faceted uncertainty vis-à-vis e.g. access to natural resources, the impact of new technologies, human migration flows, financial stability, or geopolitical balance.

Conclusion

Ambivalence, "inward-looking" use of the PP in international relations can be attributed to the strong link that exist within democracies between the concept of risk and the responsibility of Nation-States' governments to ensure the safety of their people. Therefore, although the "risk society" described by Beck (1992) is also an international society in which trade rules are affected by concerns for global safety and environmental protection, States all the same remain reluctant to set up strong international regimes aiming to coordinate their actions, as this would limit their sovereignty. Therefore, the "risk society" is inherently contradictory: the emergence of concerns for environmental risks at once calls for improved global governance, and creates the obstacles that impede it.

However, therein lies a counter-intuitive and surprising way out. States might reject any curtailment of their sovereignty; they might wish to retain control over the management of poorly understood and controversial risks, and most notably use the PP as a means to impose inward-looking, unilateral approaches: yet, the link between the PP and collective preferences, together with governments' need to ensure extended societal "buy-in" in order to confront these complex risks, has paved the way for a dramatic increase in the direct implication of civil society in risk management. Though initially this might have resulted in more inward-looking, defensive reactions vis-à-vis threats and dangers from abroad, this civil involvement has now expanded to include heightened concern for global, rather than merely domestic issues. As a result, through this "raising of consciousness," the limits of interstate relations are in fact circumvented by collective action and initiatives of consumer-citizens, environmental NGOs, as well as retailers and producers that take anticipatory action to prevent future crises and consumer disaffection. For instance, specifications imposed by Wal-Mart or Carrefour on their suppliers abroad may turn out to be just as significant as what states may (or rather may not) decide on the issue of ecological dumping in the context of the Doha cycle.

We are seeing the dawn of a new era in which "reflexive governance" implies that the greater public be granted the right to take into account the behavior of foreign producers – and States, the right to hold one another accountable for their respective impact on the global commons. This latter development has stoked fears of a curtailment of sovereignty, but can just as well be described as its expansion, since a State's sovereignty now *de facto* extends, in a sense, to other States' internal affairs to the extent that they have international effects through commercial relations. After an initial phase when it was mostly used to justify unilateral measures, the PP now tends to revert to its original purpose, as it confers upon States a right to cross-examine one another's activities insofar as they touch universal values or have a global dimension.

Being reciprocal, such an extension can also be seen as a restriction of traditional concept of sovereignty: a concern for Humankind and basic "cosmopolitan" rights erode absolute concepts of sovereignty at the same time when it opens new fields of action to national governments.

International governance of global public goods are unlikely to make progress as long as states fail to reform their conception of sovereignty towards a more balanced and hybrid concept of rights and obligations. Only by acknowledging the transnational concerns of civil society, NGOs and foreign governments can States lay the ground for a new regime in which more issues could be managed in common.

Judging by the experience of the last two decades, these evolutions will not exclusively or even primarily stem from interstate negotiations, be it the Doha cycle or the project to create a World Environment Organization, but rather come about through commercial relationship among consumers, retailers, and producers worldwide. Recent progress in this regard remains fragile: the PP can only complete its dialectical loop back to its original, "globally-minded" purpose, and global environmental governance can only become a reality, provided that consumers and civil society sustain and expand their concern for the common interest of Humankind, beyond short-term consumerism. This process cannot be prodded by Adam Smith's invisible hand: it must be anchored in adequate support from national institutions, and international rules regarding socio-economic and legal rights. In addition, we who (as John F. Kennedy famously put it) "all inhabit the same planet" and "all breathe the same air" will have to exhibit considerable wisdom and restraint to defuse the tensions that are sure to arise, as States' assertion of their right to examine one another's internal affairs is sure to be condemned in some instances as excessively intrusive or aggressive interference, or even as a poor smokescreen for new forms of domination and colonialism.

References

Beck, Ulrich. *The Risk Society – Towards a New Modernity*. Thousand Oaks (CA): Sage publications, 1992.

Benedick, Richard. *Ozone Diplomacy: New Directions in Safeguarding the Planet*. Cambridge (MA): Harvard University Press, 1991.

Brown Weiss, Edith. *In Fairness to Future Generations: International Law, Common Patrimony and Intergenerational Equity*. Dobbs Ferry (NY): Transnational Publishers and Tokyo: United Nations University, 1989.

Boltanski, Luc and Laurent Thévenot. *On Justification – Economies of Worth*. Princeton: Princeton University Press, 2006.

Buclet, Nicolas (ed.). *Municipal Waste Management in Europe. European Policy Between Harmonisation and Subsidiarity*. Dordrecht: Kluwer, (Series 'Environment & Management, Vol. 11'), 2002.

Buclet, Nicolas and Olivier Godard (eds). *Municipal Waste Management in Europe. A Comparative Study in Building Regimes*. Dordrecht: Kluwer, (Series 'Environment & Management, Vol. 10'), 2000.

Charnovitz, Steve. "An Analysis of Pascal Lamy's Proposal on Collective Preferences." *Journal of International Economic Law* 8, no 2, (2005): 449-472.

Chichilnisky, Graciela and Geoffrey Heal (eds.). *Environmental Markets - Equity and efficiency*. New-York: Columbia University Press, 2000.

Christoforou, Theofanis. "The origins, content and role of the precautionary principle in European Community Law", In *Le principe de précaution – Aspects de droit international et communautaire* edited by Charles Leben and Joe Verhoeven, pp. 205-230. Paris: Ed. Panthéon-Assas, 2002.

Commission of European Communities. *Communication on the Precautionary Principle*, Brussels, COM(2000)1, 2 February 2000.

European Parliament and European Council. "Regulation (EC) No 178/2002 of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety", *Official Journal of the European Communities*, L31 (1-02-2002): 1-24.

European Council. *Resolution on the Precautionary Principle*, Annex III of Conclusions of Presidency, European Council of Nice, 7-9 December 2000.

Ferry, Jean-Marc. *Europe, la voie kantienne : essai sur l'identité post-nationale*. Paris: Cerf, 2005.

Fisher, Elizabeth, Judith Jones and René von Schomberg (eds.). *Implementing the Precautionary Principle – Perspectives and Prospects*. Cheltenham (UK): Edward Elgar, 2006.

Fontagné Lionel, Friedrich von Kirchbach, and Mondher Mimouni. "An Assessment of Environmentally-Related Non-Tariff Measures." *The World Economy* 28, no 10 (2005): 1417-1439.

Godard, Olivier (dir.). *Le principe de précaution dans la conduite des affaires humaines*. Paris: Éditions de la Maison des sciences de l'Homme and Inra-Éditions, 1997.

Godard, Olivier. "Environnement et commerce international. Le principe de précaution sur la ligne de fracture." *Futuribles* no. 262 (March 2001): 37-62.

Godard, Olivier. "L'impasse de l'approche apocalyptique de la précaution. De Hans Jonas à la vache folle." *Éthique Publique* 4, no. 2 (Montréal) (October 2002): 7-23.

Godard, Olivier. "Le principe de précaution comme norme de l'action publique, ou la proportionnalité en question." *Revue économique* 54, no 6 (2003): 1245-1276.

Godard, Olivier. "'The precautionary principle and catastrophism on tenterhooks: lessons from a constitutional reform in France." In *Implementing the Precautionary Principle – Perspectives and Prospects*, edited by Elizabeth Fisher, Judith Jones and René von Schomberg, pp. 63-87. Cheltenham (UK): Edward Elgar, 2006.

Godard, Olivier. *Unilateral European Post-Kyoto Climate Policy and Economic Adjustment at EU Borders*. Paris: Department of Humanities and Social Sciences of Ecole polytechnique, October 2007, mimeo, 32 p.

Godard, Olivier, Claude Henry, Patrick Lagadec and Erwann Michel-Kerjan. *Traité des nouveaux risques. Précaution, crise, assurance*. Paris: Gallimard (Series Folio-Actuel no. 100), 2002.

Graham, John D. and Jonathan B. Wiener (eds.). *Risk versus Risk – Tradeoffs in Protecting Health and the Environment*. Cambridge (MA): Harvard University Press, 1995.

Henry, Claude. "Investment Decisions Under Uncertainty: The 'Irreversibility Effect'." *American Economic Review* 64, no. 6, (1974): 1006-12.

Ismer, Roland and Karl Neuhoff. *Border Tax Adjustments: A Feasible Way to Address Nonparticipation in Emission Trading*. The Cambridge-MIT Institute, Cambridge Working Papers in Economics CWPE 0409, 2004.

Jonas, Hans. *The Imperative of Responsibility. In Search of an Ethics for the Technological Age*. Chicago: The University of Chicago Press, 1984.

Judd, Nancy L., Christina H. Drew, Chetana Acharya, Marine Resources for Future Generations, Todd A. Mitchell, Jamie L. Donatuto, Gary W. Burns, Thomas M. Burbacher, and Elaine M. Faustman. "Framing Scientific Analyses for Risk Management of Environmental Hazards by Communities: Case Studies with Seafood Safety Issues". *Environmental Health Perspectives* 113, no 11 (November 2005): 1502-1508.

Kiss, Alexandre and Dinah Shelton. *International Environmental Law*. Ardsley (NY): Transnational Publishers, 2nd ed., 2000.
Lamy, Pascal. "The Emergence of collective preferences in international trade: implications for regulating globalisation", *Conference on Collective preferences and global governance: what future for the multilateral trading system*? Brussels, 15 September 2004.
Le Prestre, Philippe. *Protection de l'environnement et relations internationales. Les défis de l'écopolitique mondiale*. Paris : Armand Collin (Series U-science politique), 2005.

McDonald, Jan. "Tr(e)ading cautiously : precaution in WTO decision making." In *Implementing the Precautionary Principle – Perspectives and Prospects*, edited by Elizabeth Fisher, Judith Jones and René von Schomberg, pp. 160-181. Cheltenham (UK): Edward Elgar, 2006.

Meadows, Donella H., Dennis L. Meadows, Jorgen Randers, William W. Behrens III. *The Limits to Growth. A Report to the Club of Rome*. New-York: Universe Books, 1972.
Nagan, Winston P. and Craig Hammer. "The changing character of sovereignty in international law and international relations." *Columbia Journal of Transnational Law* 43, no. 1 (2004): 141-187.

Noiville, Christine. "Principe de précaution et Organisation mondiale du commerce. Le cas du commerce alimentaire." *Journal du Droit International* 127, no. 2 (2000): 263-297.

OECD. *The Polluter Pays Principle: Definition, analysis, implementation*. Paris : OECD Publ., 1975.

Raffensperger Carolyn and Joel Tickner (eds). *Protecting Public Health and the Environment. Implementing the Precautionary Principle*. Washington DC: Island Press, 1999.

Rawls, John. *A Theory of Justice*. Cambridge (Mass.): Harvard University Press, 1971.

Serres, Michel. *The Natural Contract*. Ann Arbor: the University of Michigan Press, 1995.

Stirling, Andy, Ortwin Renn and Patrick van Zwanenberg. "A framework for the precautionary governance of food safety: integrating science and participation in the social appraisal of risk." In *Implementing the Precautionary Principle – Perspectives and Prospects*, edited by Elizabeth Fisher, Judith Jones and René von Schomberg, pp. 284-315. Cheltenham (UK): Edward Elgar, 2006.

Sunstein, Cass. *Laws of Fear – Beyond the Precautionary Principle*. Cambridge (UK): Cambridge University Press, 2005.

[i] Olivier.godard@shs.polytechnique.fr. The author thanks Erwan Lagadec, Foreign Policy Institute Fellow, School of Advanced International Studies, Johns Hopkins University, for precious assistance during the preparation of the English manuscript. All mistakes remain mine.

[ii] For instance, Principle 15 of the Rio Declaration, which is not legally binding, reads: "*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*."

[iii] Article 5 of the French Charter of the Environment: "*If a potential damage is liable to affect the environment in a serious and irreversible manner, even in the absence of scientific certainty, public authorities, by applying the precautionary principle and within the limits of their attributions, should make sure that procedures for the evaluation of the risks are followed, and that provisional and proportionate measures are taken in order to ward off the damage.*" (unofficial translation).

[iv] This is one of the main agreements adopted at the creation of the World Trade Organization in 1994. It covers sanitary and phyto-sanitary dimensions of international trade, and defines the conditions under which national state authorities are allowed to subject trade to restrictive measures in order to ensure satisfactory protection of the health of humans, animals and plants.

[v] Climate change is a case in point: voluntary commitments from business community have been triggered by the prospect of a new international regime for the carbon economy; when interstate cooperation reaches an impasse, initiatives from business and NGOs provide a way out and put additional pressure on governments. But voluntary action and sectoral business agreements cannot become the primary channel to achieve appropriate worldwide regulation of global public goods: private initiatives will have difficulties to overcome limitations raised by incompleteness and poor enforcement of commitments or agreements.

[vi] For Jonas, an action (new technology, new product…) must be absolutely excluded as long as *all* suspicions that it might generate an apocalyptic outcome at any point in the future have not been proven wrong – regardless of its potential benefits, and of the actual probability of such an outcome. Jonas concedes that this imperative does not apply for "ordinary" risks. The relevance of this proposal is strictly dependent upon the practical capacity to establish a clear-cut, sure practical distinction between actions entailing ordinary risks and those that could lead to apocalyptic outcome. This, however, cannot be achieved in the conceptual framework developed by Jonas: his heuristics of fear, supposed to overcome limits of a science of hypothetical predictions, prevent certainty in this matter.

[vii] This argument was developed by John Graham and Jonathan B. Wiener in their book *Risk versus risk* (1995).

[viii] This Protocol entered into force in February 2005, though without the participation of Australia and the United States.

[ix] See the insightful analysis put forward by Jean-Marc Ferry (2005). Examining the foundations of the European Union as a community of democratic states, he articulates three levels of rights and law: civil rights, law of peoples, and cosmopolitan law.

[x] On this emergence, see Kiss and Shelton (2000). See also the historical development of international eco-politics described by Le Prestre (2005).

[xi] Certainly cautious procedural rules and conditions would be needed to ensure that initiatives genuinely benefit the common good of Humankind: for instance, by referring to an enforceable multilateral convention (for instance the Kyoto protocol as linked to the UNFCCC); or by gathering a sufficient quorum of participating states, etc. However, requiring international unanimity would be impractical.

[xii] In the UN context, there is nothing revolutionary in the proposition that a state should be held legally accountable if it causes environmental damage that affects other nations. But this principle to this day has lacked appropriate enforcement mechanisms.

[xiii] This lack of separability between efficiency and equity results from the fact that the public good 'climate' is produced by decentralized agents as external effects of their economic choices. Due to different preference functions and very heterogeneous distributions of income across countries, to say nothing of the heterogeneous geographical distribution of climate events, each agent is willing to pay a different price to ensure a certain level of greenhouse gas concentration, mirroring the

standard "Lindahl equilibrium" for the optimal production of a public good. Consequently, the Pareto-efficient equilibrium can be reached by equalizing marginal abatement costs worldwide if and only if a certain initial allocation of emissions rights is achieved in order to compensate different levels of willingness to pay.

[xiv] As shown by these examples, concern for social conditions in producing countries may also make acceptation of trade conditional upon informational requirements. Think of production processes putting children or prisoners at compulsory work, in violation of the UN Global Compact's principles.