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Effective policies combating global warming and incentivising reduction of greenhouse gases face fundamental collective action problems. States defending short term interests avoid international commitments and seek to benefit from measures combating global warming taken elsewhere. The paper explores the potential of Common Concern as an emerging principle of international law, in particular international environmental law, in addressing collective action problems and the global commons. It expounds the contours of the principle, its relationship to common heritage of mankind, to shared and differentiated responsibility and to public goods. It explores its potential to provide the foundations not only for international cooperation, but also to justify, and delimitate at the same time, unilateral action at home and deploying extraterritorial effects in addressing the challenges of global warming and climate change mitigation. As unilateral measures mainly translate into measures of trade policy, the principle of Common Concern is inherently linked and limited by existing legal disciplines in particular of the law of the World Trade Organization.

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I. Introduction

The international community has made a substantial effort to create awareness and foster research as well as developing inventories and methodologies to combat global warming. It has come a long way. The review and assessment of the most recent scientific, technical and socio-economic information by the Intergovernmental Panel on Climate Change (IPCC) amounts to one of the most comprehensive efforts at bridging gaps between scientific research and informed policy making.¹ Equally, the international agenda under the United Nations Framework Convention on Climate Change (UNFCCC) and its 1997 Kyoto Protocol have enhanced local and regional efforts at climate change mitigation.² These instruments established a framework for cooperation in combating climate change mitigation and in facilitating climate change adaptation, in particular in developing countries. They were based upon the principle of shared but differentiated responsibility and respective capabilities of States. The Kyoto Protocol mainly focuses on legally binding commitments of industrialised countries which are historically responsible for enhanced levels of greenhouse gas emissions. It also provides a mechanism incentivising developed countries to assist developing countries to reduce their emissions (Clean Development Mechanism, CDM).

Conferences of the Parties (COP) decisions under the UNFCCC have led more recently to the creation of new institutions which have assumed new functions in international cooperation. For instance, the Green Climate Fund has been established which is expected to channel climate finance from industrialised to developing countries. Yet, Parties to the UNFCCC have so far not been able to agree to more specific targets of abatement and the main achievements of recent conferences relate to an overall goal of limiting warming to not exceeding 2 °C and, most importantly, a respective political commitment by emerging economies. Although a decision has been adopted to extend the Kyoto Protocol until 2020 with a reduced number of industrialised countries agreeing to legally binding emission reduction targets, no consensus has so far emerged regarding the creation and implementation of new market mechanisms incentivising effective knowledge and technology transfer at the international level. The plan of governments is now to adopt by 2015 a new legal instrument defining the conditions for international climate action, covering both mitigation and adaptation, for the period after 2020.³ Despite these efforts, the shaping and operation of instruments for climate change mitigation is still and will most likely remain essentially a matter of domestic law. The same is essentially true for climate change adaptation. Both areas largely depend upon domestic action taken within the bounds of existing international law, in particular the law of the World Trade Organization (WTO) and other international agreements relevant to measures taken in climate and energy policies.

Indeed, contemporary international law, based upon the precepts of sovereignty and territoriality of nation states, is ill-prepared for the challenges of climate change mitigation and adaptation. Lack of cooperation among states, lack of appropriate international

¹ See T.F. Stocker et al. (eds.), *Climate Change 2013: The Physical Science Basis*, Working Group I Contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (Cambridge: Cambridge University Press 2014). For this and further reports of Working Groups II and III (not yet available in hard copy) see also <https://www.ipcc.ch/report/ar5/wg1/> (visited May 2014).

² <http://unfccc.int/2860.php> (visited 8 August 2013).

³ See M. Mehling and J. de S epibus (eds.), *Process, Principles and Architecture of the Post-2020 Climate Regime*, *Carbon and Climate Law Review (CCLR)* (2012) vol. 3.

institutions, a host of collective action problems, and free-riding all render concerted efforts difficult, if not impossible.

Climate change presents one of the biggest collective action problems in human history.⁴ These problems occurring in the process of globalisation are mainly caused by the lack of appropriate and effective global institutions to produce global public goods, either inside or outside the United Nations (UN) and the European Union (EU), and by the pronounced pursuit of national interests as defined by domestic political processes.⁵ Apart from being a global problem, it arises from a range of interrelated factors. First, there is a substantial problem of uncertainty regarding the costs of the problem, and the potential benefits of solving it. Despite some progress having been made in the valuation of impact and the costs of mitigation and adaptation, many uncertainties persist. One of the biggest problems is the difficulty of defining the appropriate costs of climate change and of opportunity costs thereof. Both are crucial for future cost–benefit analysis.⁶ As projection periods extend further into the future, small increases in the social discount rate can matter enormously for cost and benefits and hence for the appropriate level of resource allocation in the present. In the context of key uncertainties, the significant time lag between climate actions and their consequences create another layer of difficulty.

In addition to the uncertainties about benefits and costs, the diffusion of benefits is difficult to anticipate. The impact of climate change will not be uniform across countries (or even within countries). It therefore does not create a uniform incentive for actors to work together to solve the problem. While some countries, for example low-lying islands, are highly vulnerable to the likely impacts of climate change, others, such as those located in high latitudes, may even benefit from them. In a collective action setting, the behaviour of these actors differs according to their perceived interests, making cooperative action more difficult to achieve. As such, climate change thus represents a complex ‘collective action’ problem as it involves many actors with different interests and incentives against a background of key uncertainties and the inherent difficulties of making a cost–benefit analysis.

Given this situation, it may be worthwhile to explore why and how climate change was agreed to amount to a common concern of humankind. The preamble of the UNFCCC states that “change in the Earth's climate and its adverse effects are a common concern of humankind”. What is the meaning and scope of Common Concern? Is it a mere statement of fact? Or does

⁴ The term "collective action problem" describes a situation in which multiple individuals would all benefit from a certain action, which, however, has an associated cost that makes it implausible that any one individual can or will undertake and solve it alone. The rational choice is then to undertake the task as a collective action the cost of which is shared. In this case, the "collective action problem" denotes the situation in which everyone (in a given group) has a choice between two alternatives (to cooperate or to defect) and where, if everyone involved chooses to defect, the outcome will be worse for everyone in the group than it would be if they were all to choose to cooperate. The “tragedy of the commons” is a dilemma arising from the situation in which multiple individuals, acting independently and rationally in their own self-interest, ultimately deplete a shared limited resource, even when it is clear that it is not in anyone's long-term interest for this to happen. This dilemma was propounded by ecologist Garrett Hardin, G. Hardin, *The Tragedy of the Commons*. *Science* 162, 1243 (1968); see also *infra* note. 69.

⁵ See E. Brousseau et al. (eds.) *Global Environmental Commons: Analytical and Political Challenges in Building Governance Mechanisms* (Oxford University Press 2012); E. Brousseau et al. (eds.), *Reflexive Governance for Global Public Goods* (Cambridge: MIT Press 2012); I. Kaul, *Rethinking Public Goods and Global Public Goods*, in E. Brousseau, T. Dedeurwaerdere and B. Siebenhüner, *Reflexive Governance for Global Public Goods*, , 37–54 (Cambridge: MIT Press 2012); I Kaul, *Global Public Goods: Explaining their Underprovision*, *Journal of International Economic Law* 15 (2012) 729–750.

⁶ See N. Stern, *The Economics of Climate Change: The Stern Review* (Cambridge: Cambridge University Press 2007).

this statement in the agreement potentially entail normative elements, informing rights and obligations of states? How does it relate to permanent sovereignty over natural resources, and to the common heritage of mankind? How does it relate to public goods and common property? This paper takes stock, addresses issues and sketches out the potential contours of an emerging principle of Common Concern in public international law. We submit that by giving it more precise operational contours the principle of Common Concern could assist in overcoming existing collective action problems .

The principle, on the one hand, obliges states to cooperate with each other in solving common problems which cannot be solved independently. Yet, going beyond duties to cooperate, it has the potential to provide incentives to states to enhance collective efforts in combating climate change. It is submitted that a principle of Common Concern forms the normative foundation and the limits for States to take lawful unilateral action with extraterritorial effects within the bounds of international law where international cooperation and joint action remains absent. The principle of Common Concern thus has the potential to add an important dimension not only to the law of international cooperation, but also in shaping the contours and scope of unilateral action taken by states, on their own or as a group, in combating shared problems that are global in scale. Such action, in return, may trigger interest in international cooperation. This paper seeks to look at Common Concern as a principle instigating both cooperation and unilateral action in a dialectical process.

The paper focuses on the role of states in assessing the potential of a principle of Common Concern of Humankind, (below “Common Concern”. We recognise that climate policy is driven by a multitude of actors, including the private sector and non-government organisations (NGOs). These actors, from the point of view of international law, are not recognised subjects of international law and their potential role under a principle of Common Concern will inherently depend on the role primarily assigned to states in the first place.

II. Development and Scope of Common Concern of Humankind

In the international law discourse, Common Concern is generally discussed as distinct from the doctrine of common heritage of mankind,⁷ a concept seeking avoiding the allocation of property rights.⁸ Yet, its role and contents have not been clarified.⁹ It has been discussed as a potential foundation of a human right to the environment.¹⁰ While often limited to environmental law, the concept has also been put forward as a foundation for international

⁷ R. Wolfrum, *The Principle of Common Heritage of Mankind*, *ZaöRV* 43 (1983) 312–337; W. Stocker, *Das Prinzip des Common Heritage of Mankind als Ausdruck des Staatengemeinschaftsinteresses im Völkerrecht*, (Zürich: Schulthess 1993); K. Baslar, *The Concept of Common Heritage of Mankind in International Law* (Leiden: Brill 1998).

⁸ M. Tolba, *The Implications of the “Common Concern of Mankind Concept” on Global Environmental Issues*, *Revista IIDH* 13 (1991) 237–246; A. Kiss, *International Trade and the Common Concern of Humankind*, in B.J. Richardson, and K. Bosselmann (eds.), *Environmental Justice and Market Mechanisms: Key Challenges for Environmental Law and Policy* (Kluwer Law International 1999); J Brunnée, *Common Areas, Common Heritage and Common Concern*, in D. Bodansky, J. Brunnée and E. Hey (eds.) *The Oxford Handbook of International Environmental Law* 550–573 (Oxford University Press 2007).

⁹ F. Biermann, *Common Concern of Humankind: The Emergence of a New Concept of a New Concept of International Environmental Law*, *AVR* 34 (1996) 426–481; J. Murillo, *Common Concern of Humankind and its Implications in International Environmental Law*, *Macquarie Journal of International and Comparative Environmental Law* 5 (2008) 133–147; E. Brown Weiss, *The Coming Water Crisis: A Common Concern of Humankind*, *Transnational Environmental Law* 1 (2012) 153–168.

¹⁰ L. Horn, *The Implications of the Concept of Common Concern of a Human Kind on a Human Right to a Healthy Environment*, *Macquarie Journal of International and Comparative Environmental Law* 1 (2004) 233–269.

human rights protection in general¹¹ and has been suggested as relevant to the more concrete case of exchange rate policies.¹² To date, however, it remains unclear whether it goes beyond the concept of common interests, which dates back to the nineteenth century discussions on global commons, in particular those of the high seas.¹³ Beyond international cooperation, Common Concern has been discussed as a foundation for action *erga omnes* and standing of states in environmental affairs affecting all states.¹⁴ However, in none of these analytical exercises has the concept been sufficiently fleshed out. It should be stressed that the recent discourse on global public goods, as outlined below (ii), does not focus on Common Concern. The concept has therefore remained sketchy and often only related to one particular policy domain; its relationships to public goods and to other legal principles have not been explored; neither has there been an attempt to move towards a broader and admittedly more ambitious exercise of conceptualising Common Concern as a fundamental legal principle.

A. *Legal Evolution and Evidence*

In 1988, based on a proposal by Malta,¹⁵ the UN General Assembly adopted Resolution 43/53 on the "Protection of Global Climate for Present and Future Generations of Mankind", recognising "that climate change is a common concern of mankind, since climate is an essential condition which sustains life on earth".¹⁶ Yet, this was not an entirely new way of defining the shared and common character of a specific area which is of significant importance to the entire international community.¹⁷ The idea of Common Concern was referred to in international law prior to the debate on climate change, in the context of addressing shared problems relating to shared jurisdiction and resources.¹⁸ It has its roots in the proposition of common interest argued to exercise protective functions in the high seas (Seals Arbitration). As early as 1949, tuna and other fish were considered to be "of common concern" to the parties to certain treaties by reason of their continued use by those parties.¹⁹ Invoking mankind invokes the commonality and collective responsibility of states equally found in other areas of international law. Outer space and the moon, on the other hand, are the

¹¹ C. Beitz, Human Rights as a Common Concern, *American Political Science Review* 95/2 (2001) 269–281.

¹² Z. Kontolemis, Exchange Rates Are a Matter of Common Concern: Policies in the Run-up to the Euro?, *Directorate General Economic and Monetary Affairs Papers* 191 (2003).

¹³ M. Hoepfner, Behring Sea Arbitration, in R. Bernhardt (ed.) *Encyclopedia of Public International Law*, (North-Holland 1981); J. Brunnée, Common Interest – Echoes from an Empty Shell, *ZaöRV* 49 (1989) 791–808; A. Pardo, and C.Q. Christol, The Common Interest: Tension Between the Whole and the Parts, in R. Macdonald and D. Johnston, D. (eds.), *The Structure and Process of International Law* (The Hague: Nijhoff 1993).

¹⁴ F-L. Kirgis, Standing to Challenge Human Endeavours that Could Change the Climate, *AJIL* 84 (1990) 525–530; L. Horn, 'Globalisation, Sustainable Development and the Common Concern of Humankind', *Macquarie Law Journal* 7 (2007) 53–80.

¹⁵ Malta though insisted that conservation of climate should be considered as a part of the common heritage of mankind.

¹⁶ Protection of Global Climate for Present and Future Generations of Mankind, G.A. Res. 43/53, U.N. Doc. A/RES/43/53 (Dec. 6, 1988), available at <http://www.un.org/documents/ga/res/43/a43r053.htm>

¹⁷ P. Sands, Symposium: The Globalization of Law, Politics, and Markets: Implications For Domestic Law Reform The "Greening" of International Law: Emerging Principles and Rules, *Ind. J. Global Legal Stud* 1 (1994) 293.

¹⁸ The authors are indebted to Eva Köhler for insights into the historical development of Common Concern in her student paper entitled Common Concern of Mankind – Die historischen Entwicklungen des Konzepts und seine inhaltliche Bedeutung, 30 December 2012, Master Thesis, University of Bern, Switzerland (on file with authors).

¹⁹ Inter-American Tropical Tuna Convention, 31 May 1949, 80 U.N.T.S. 3, 3 (entered into force 1950).

“province of all mankind”;²⁰ waterfowl are regarded as “an international resource”;²¹ the natural and cultural heritage are “part of the world heritage of mankind as a whole”;²² the conservation of wild animals is “for the good of mankind”;²³ the resources of the seabed, ocean floor and sub-soil are “the common heritage of mankind”;²⁴ and plant genetic resources are “a heritage of mankind”.²⁵ These notions are not clearly distinguished. Some scholars suggest that other areas such as water²⁶ or rainforests²⁷ should be under the umbrella of either common heritage of mankind or Common Concern of mankind concepts.

Eventually, the concept of “Common Concern of Humankind” developed and was applied as a treaty-based notion: the 1992 United Nations Framework Convention on Climate Change (UNFCCC) states that “change in the earth's climate and its adverse effects are a common concern of humankind”²⁸ and the 1992 Biodiversity Convention affirms that “conservation of biological diversity is a common concern of humankind.”²⁹ The International Treaty on Plant Genetic Resources for Food and Agriculture states “that plant genetic resources for food and agriculture are a common concern of all countries, in that all countries depend very largely on plant genetic resources for food and agriculture that originated elsewhere”.³⁰ This term, however, is also used for cultural goods in a broad sense. In the preamble of the UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage, it is referred to as

²⁰ Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies, 27 January 1967, Art. 1, 610 U.N.T.S. 205, 207 (entered into force 10 October 1967).

²¹ Convention on Wetlands of International Importance Especially as Waterfowl Habitat, 2 February 1971, 996 U.N.T.S. 245, 246 (entered into force 21 December 1975).

²² UNESCO Convention on the Protection of the World Cultural and Natural Heritage, 16 November 1972, pmbl., 27 U.S.T. 37, 40, 11 I.L.M. 1358, 1358 (entered into force 15 July 1975).

²³ Convention on the Conservation of Migratory Species of Wild Animals, 23 June 1979, 19 I.L.M. 11, 15–16 (entered into force 1 November 1985).

²⁴ United Nations Convention on the Law of the Sea, adopted 10 December 1982, available at http://www.un.org/depts/los/convention_agreements/convention_overview_convention.htm (visited August 8, 2013).

²⁵ United Nations Food and Agriculture Organization Plant Genetics Undertaking, Art. 1, U.N. FAO, 37th Sess., U.N.Doc. C/83/Rep. (1983).

²⁶ P. Cullet, Water law in a globalised world: the need for a new conceptual framework, *J. Env. L.*, 23/2 (2011), 233–254, notes that at present, the proposal to consider water as part of the common heritage of humankind sounds like wishful thinking in a context where states have not even managed to agree on a progressive international treaty for transboundary watercourses. Yet, the idea has already progressed. This is confirmed, for instance, by recent developments in Québec where water is now legally considered common heritage.

²⁷ D. Humphreys, The Elusive Quest for a Global Forest Convention, 14 *Rev Eur Comm & Int'l Envtl L* (2005) 1; P. Mason, Inadequacies of the Amazon Fund: Evaluating Brazil's Sovereignty in the Context of Promising Market Mechanisms and the Need for International Oversight to Protect the Amazon Rainforest, *Touro Int'l L. Rev.* 13 (2010) 116.

²⁸ United Nations Framework Convention on Climate Change, 9 May 1992, 31 I.L.M. 849, 851.

²⁹ Convention on Biological Diversity, 5 June, 1992, in 31 I.L.M. 818, 822.

³⁰ International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) Preamble para. 3, adopted by consensus at the thirty-first Session of the Conference of the FAO 3 November 2001, available at <ftp://ftp.fao.org/docrep/fao/011/i0510e/i0510e.pdf>; The preceding instrument, the non-binding International Undertaking on Plant Genetic Resources for Food and Agriculture, supra note 24, proclaimed the “universally accepted principle that plant genetic resources are a heritage of mankind and consequently should be available without restriction”, M. Halewood, I. L pez Noreiga, S. Louafi (eds.), *Crop Genetic Resources as a Global Commons* 12 (Routledge: Oxon 2013).

follows: “Being aware of the universal will and the common concern to safeguard the intangible cultural heritage of humanity.”³¹

These are the four references to Common Concern that currently exist in international treaty language. In the field of climate change, the statement in the UNFCCC triggers a commitment to cooperate in climate change mitigation and adaptation, taking into account the shared but differentiated responsibility of industrialised and developing countries alike. This led to the 1997 Kyoto Protocol, which defined broad goals for reducing carbon emissions.³²

The initial commitment period of the Kyoto Protocol expired in 2012 and subsequent negotiations have had limited success. They have so far failed to bring about more precise terms and commitments beyond the target of limiting average increases of global temperature to no more than 2 degrees Celsius by the end of this century³³ – a goal perhaps already unachievable, even with aggressive mitigation measures.³⁴ Subsequently, the Conferences of Copenhagen, Cancún, Durban, Doha and Warsaw failed to make substantial progress except for long-term political commitments. Despite climate change being acknowledged as a Common Concern, this was not sufficient to solve the collective action problem.

Under the United Nations Convention on Biodiversity (CBD), the recognition and commitment to Common Concern led to the adoption of national policies on preserving biodiversity, and also to the Bonn Guidelines on access and benefit sharing, which resulted in the Nagoya Protocol on Access to Genetic Resources.³⁵ As with climate change mitigation, efforts at combating the loss of biodiversity have not yet yielded the expected results. Erosion continues despite the political endorsement of Common Concern, and benefit sharing is still in its infancy.

The International Treaty on Plant Genetic Resources for Food and Agriculture developed a sophisticated system of plant conservation, registration and open exchange for a list of crops. The treaty currently applies to only 64 crops and forages, while the majority of crops have been left under the permanent sovereignty over natural resources of states, at their free disposition in terms of trade and conservation.³⁶

The Convention for the Safeguarding of the Intangible Cultural Heritage essentially focuses on international cooperation to bring about transparency and in the identification of the heritage of intangible cultural goods. The Convention includes an international fund through

³¹ Convention for the Safeguarding of the Intangible Cultural Heritage adopted 17 October 2003, available at: http://portal.unesco.org/en/ev.php-RL_ID=17716&URL_DO=DO_TOPIC&URL_SECTION=201.html (visited 8 August 2013).

³² D. Bodansky, *The History of the Global Climate Regime*, in: U. Luterbacher and D. Sprinz (eds.) *International Relations and Global Climate Change* 23-40 (Cambridge: MIT Press 2001).

³³ UNEP, *The Emissions Gap Report: Are the Copenhagen Accord Pledges Sufficient to Limit Global Warming to 2°C or 1.5°C?*, United Nations Environmental Programme (2010).

³⁴ V. Ramanathan, and Y. Xu, *The Copenhagen Accord for Limiting Global Warming: Criteria, Constraints, and Available Avenues*, *Proceedings of the National Academy of Sciences* 107 (2010) 8055–8062.

³⁵ Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity, opened for signature 2 February 2011, XXVII.8.b UNTC (not yet in force); available at: <http://www.cbd.int/abs/text/default.shtml>; Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization, COP Dec VI/24, Item A, 6th mtg., UNEP Doc UNEP/CBD/COP/6/20 (7 – 19 April 2002), available at: <https://www.cbd.int/doc/decisions/COP-06-dec-en.pdf>.

³⁶ See M Halewood, I. L pez Noreiga, S. Louafi (eds.), *Crop Genetic Resources as a Global Commons*, (Routledge: Oxon 2013), interestingly not addressing the notion of common concern despite reference to it in the preamble of the Treaty.

which activities in Member States are supported. Common Concern is not used in an operational manner in the Convention and does not entail a normative dimension.

Recourse to Common Concern both in the literature and in treaty language suggests that it stands for the proposition of a shared problem and shared responsibility, and for an issue which reaches beyond the bounds of a single community and state as a subject of international law. This is expressed by the term “common”, which is inherently a shared concern. The term “concern” refers to what is commonly recognised as an unresolved problem, which States are called upon to address. Depicting a problem as a Common Concern implies an agreement to recognise the very existence of a shared problem. Such recognition does not yet entail per se an obligation to act upon the problem. Evidence shows that little action has been taken, or that the efforts made have to a large extent failed, to address and to properly solve the problem by recourse to international cooperation. This is true, albeit to different degrees, in all the fields which relate to Common Concern.

The reasons for such failures in addressing Common Concerns by means of international cooperation are manifold and most of them are well known.³⁷ Some are of an economic nature and some are political, but a prime culprit certainly relates to the predominant basic concepts of the Westphalian system, which are firmly centred on permanent sovereignty of the nation state over natural resources, as well as on the principle of territoriality. These inherent reasons prompt fierce competition between domestic industries on the world market, free-riding and beggar-thy-neighbour policies, and render governments largely unwilling to lose competitive advantages by adopting measures for climate change mitigation or the effective protection of biodiversity or by widely sharing plant genetic resources. One is therefore – perhaps too readily – tempted to put the idea and concept of Common Concern aside. Yet, Common Concern does have the potential to be further developed beyond a commitment to international obligations of cooperation within the United Nations and other international organisations. It may serve as a foundation to define, legitimise and assess domestic measures addressing Common Concerns, all with a view to creating incentives to international cooperation under the same principle of Common Concern.

The recent extension of emissions trading to all civil air traffic to and from the European Union is a case in point. The imposition of the measure was highly controversial, but was able, even upon withdrawal, to succeed in eventually bringing governments to the negotiating table under the International Civil Aviation Organization (ICAO). While justified by the Court of Justice of the European Union in terms of extraterritorial application,³⁸ a future legal principle of Common Concern may thus assist in defining the scope and the limitations of such actions in addressing not only climate change mitigation, but also other problems.

We can readily see that it implies enhanced commitments and obligations to international cooperation, reinforcing the shift of classical international law from co-existence to cooperation and ultimately to integration. Yet the normative impact of Common Concern failing cooperation remains unclear. The impact on state responsibility and liability remains to be explored. How does it relate to shared but differentiated responsibility? How does it relate to the principle of common heritage of humankind? Foremost, is the open question of the extent to which it goes beyond existing obligations to avoid transboundary harm in international

³⁷ For climate change mitigation see D.C. Esty and A.L.I. Moffa, *Why Climate Change Collective Action has Failed and What Needs to be Done Within and Without the Trade Regime*, *JIEL* 15 (2012) 777–79, for conservation through use of plant genetic resources, Halewood et al. note 35 16–17.

³⁸ C-366/10, *Air Transport Association of America and others v. Secretary of State for Energy and Climate Change*, judgment of 21 December 2011, OJ 3.2.2012, <http://curia.europa.eu/juris/documents.jsf?num=C-366/10>.

environmental law and to assume responsibilities for developments of potentially global impact, taking place in other jurisdictions.

Common Concern does not fundamentally alter the paradigms of permanent sovereignty over natural resources and of territoriality. But it may modify jurisdictional boundaries in assuming enhanced and shared responsibilities among states. The responsibility of each state to prevent harm, in particular by the adoption of national environmental standards and international environmental obligations, will also differ based on the extent of its development.³⁹ As reflected in the Rio Declaration, states will increasingly be required to take into account the needs of all members of the international community in developing and applying policies and laws previously thought to be solely a matter of domestic jurisdiction.

B. *Relationship to Common but Differentiated Responsibility*

Common Concern relates to the idea of shared but common responsibility of States which is further differentiated on the basis of unequal causation of the Common Concern in light of in historical differences and diverging levels of social and economic development. As Principle 7 of the Rio Declaration notes, “States have common but differentiated responsibilities. The developed countries acknowledge the responsibility that they bear in the international pursuit of sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command.”⁴⁰ Article 3 (1) of the UNFCCC provides that “[t]he Parties should protect the climate system ... on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities.” The Kyoto Protocol implemented the principle by establishing, in the first commitment period, abatement commitments for greenhouse gases (GHG) at least 5 per cent below 1990 levels for developed Parties in Annex I while developing countries did not have such obligations.

Common responsibility readily relates to the notion of Common Concern. Both express the notion that they deal with a shared responsibility for a shared concern. The problem is essentially assigned to more than one state and cannot be confined to a single one. As a normative concept it relies upon the obligation to avoid harm to others. Duncan French suggests that the notion of commonality is inevitably based on the customary obligation of all states to be responsible for ensuring that “activities within their jurisdiction or control” do not damage the environment beyond their own territory.⁴¹ The obligation applies to all States alike. As stated in Principle 21 of the 1972 Stockholm Declaration on the Human Environment and Principle 2 of the Rio Declaration, the text of the “no harm” obligation makes no reference to the socio-economic situation of states. In fact, this principle is apparently applicable to both North and South alike.⁴² This customary obligation to prevent and remedy harm within a State’s jurisdiction has, more recently, been supplemented by the environmental principles of “‘common good’, ‘common interest’ ... [and] ‘common concern

³⁹ See Ph. Sands, *Principles of International Environmental Law* (Cambridge: Cambridge University Press 2004).

⁴⁰ Rio Declaration on Environment and Development, UN Conference on Environment and Development, UN Doc. A/CONF.151/5 Rev (1992), 31 ILM 874.

⁴¹ D. French, *Developing states and international environmental law: the importance of differentiated responsibilities*, ICLQ 49/1 (2000) 35–60.

⁴² Nevertheless, the International Law Commission noted in a paper published in 1997: “[i]t is the view of the Commission that the economic level of States is one of the factors to be taken into account in determining whether a State has complied with its obligation of due diligence. But a State’s economic level cannot be used to discharge a State from its obligation under the present articles” (UN Doc A/CN.4/L.554 and Corr.1-2, Add.1 and Add.1/Corr.1-2, and Add.2 and Add.2/Corr.1, Art.3 commentary para.14).

of humankind”⁴³ Such principles are having a significant effect on both the nature and scope of international environmental law beyond borders.

Harald Hohmann observed the new trend in international environmental law of expanding the definition of what constitutes transboundary or global environmental harms. The shift from a “good neighbour” approach beyond spill-over effects to one based on a multitude of states which may be either polluters or “guardians” of global resources, perhaps located far away from the “victim states”, becomes evident. He notes that the emergence of concepts like Common Heritage or Common Concern of Humankind reflects a trusteeship obligation on the part of the state where the resource is located towards the world community, and an obligation on the part of other states to support this state.⁴⁴ One consequence of this shift is that more and more types of harm, which were previously considered to be domestic, have only now become fit subjects for international concern and regulation.⁴⁵

Not only is the international community becoming much more deeply involved in what were previously considered issues of domestic concern, but states are also beginning to accept that they are under an international obligation to protect and preserve their own “internal” environment. And even though such notions as Common Concern and “common interest” do not yet enjoy a “common interpretation”,⁴⁶ states in both the North and the South have recognised a common responsibility for resolving global environmental issues. As a UNEP report notes, it is the responsibility of all states, “individually and jointly”, to “protect ... the environment and promot[e] ... sustainable development”.⁴⁷ Interestingly, we observe the same trend in global protection of fundamental human rights. The emerging responsibility to protect (R2P) calls for intervention against violations of fundamental human rights irrespective of the traditional territorial or personal linkages of the intervening state. There is a close linkage to the concept of Common Concern establishing common grounds for such responsibilities beyond borders.⁴⁸

Shared and common responsibility beyond borders for tackling environmental harm in return begs the question as to how far such responsibility extends, given the different and divergent causes of the concern. It is here that the concept of equity and differentiated responsibility enters the stage in environmental law, most prominently expressed by the UNFCCC. Common responsibilities need not result in similar obligations if diverging causes and contributions to the concern are taken into account. As Sands makes very clear, whilst it is the commonality of obligations which ensures the participation of all states in international environmental law, it is the differentiation within such obligations which makes international environmental law politically acceptable.⁴⁹ Common responsibility may provide the basis for international action, but it is the concept of differentiation which it is hoped will promote the

⁴³ A. Timoshenko, *From Stockholm to Rio: The Institutionalization of Sustainable Development in:* W. Lang (ed.), *Sustainable Development and International Law* 154 (Graham & Trotman/Martinus Nijhoff 1995).

⁴⁴ H. Hohmann, *Precautionary Legal Duties and Principles of Modern International Environmental Law* 311–312 (Graham & Trotman/Martinus Nijhoff, 1994).

⁴⁵ N. Roht-Arriaza, *Book Review of Harold Hohmann*, *supra* note 43, 21 *Colum. J. Envtl. L.* 183, 1996.

⁴⁶ *Ibid.*

⁴⁷ 1996 UNEP Final Report of the Expert Group Workshop on International Environmental Law aiming at Sustainable Development, para. 43(a).

⁴⁸ See T. Cottier and K. Nadakavukaren, *Responsibility to Protect (R2P) and the Emerging Principle of Common Concern*, NCCR Trade Regulation Working Paper No. 2012/29.

⁴⁹ Ph. Sands, *International Law in the Field of Sustainable Development*, *BYIL* LXV (1994) 344.

efficacy of such action.⁵⁰ It is not merely a matter of political expedience, but of equity and justice. It is a matter of applying the principle of equality, calling for treating unlike what is unlike. Differing causation needs to be translated into differing responsibility. In the case of climate change mitigation, industrialised countries have made the largest contributions to the build-up of persistent GHGs. Such causation entails enhanced levels of responsibility for developed countries in addressing the Common Concern than are attributed to developing and least-developed countries commensurate with their low historical emission levels. The limitation of Annex I countries to industrialised countries and economies in transition in the former Kyoto Protocol was based upon an exclusively historical account and differentiates on the basis of past emissions responsible for contemporary climate change effects. Such differentiation, however, soon runs into problems as differentiated responsibility on the basis of historical performance is not in a position to address current levels of emission by newly emerging economies. Without taking into account current and future emissions, the overall Common Concern simply cannot be addressed. Common but differentiated responsibility therefore cannot be limited to historical conduct. The equation equally needs to take into account contemporary and future conduct. This inevitably reduces levels of differentiation. It is here that differentiated responsibility is controversial and lacks appropriate guidance in law. While different forms and versions of shared and differentiated responsibility are being discussed,⁵¹ little guidance has emerged in international law and policy beyond broad precepts of equity, equality and fairness.⁵² Negotiations for a second commitment period under the Kyoto Protocol failed to develop a new approach.⁵³ Parallel notions of Special and Differential Treatment (S&D) of developing countries in the trade field are increasingly considered to be ineffective and outdated.⁵⁴ They tend to increase long-term differences in competitiveness due to lower levels of commitment and thus of disciplines on potentially protectionist policies. Newer approaches are based upon the concept of graduation which seeks to introduce commitments commensurate with levels of competitiveness of countries, leaving notions of industrialised, emerging and developing countries behind, with the exception of a well-defined group of what are today some 35 least-developed countries.⁵⁵ This approach is particularly suitable for climate change. The UNFCCC refers to equity as the basis for shared responsibility. Equity, in the international law of natural resource allocation emerged as a succinct methodology, developed by the International Court of Justice and courts of arbitration over decades in maritime boundary delimitation. Equity provided the basis to develop a number of equitable principles, economic and non-economic factors which are taken into account in drawing boundaries. Equity stands for fact-intensive, topical jurisprudence.⁵⁶ A similar approach can be applied by specifying differentiated responsibility in addressing climate change. The responsibility of countries could be commensurate with its

⁵⁰ D. French, *Developing states and international environmental law: the importance of differentiated responsibilities*, I.C.L.Q. 49/1 (2000) 35–60.

⁵¹ See Ch. D. Stone, *Common but Differentiated Responsibilities in International Law*, AJIL 98 (2004) 276 [distinguishing rational bargaining CDR, equitable CDR, and inefficient CDR increasingly imposing redistribution favouring the poor].

⁵² Cf. L. Ringius, A. Torwanger, A. Underdal, *Burden Sharing and Fairness Principles in International Climate Change Policy*, 2 *International Environmental Agreements: Politics, Law and Economics* 1 (2002).

⁵³ Cf. T. Hotikonen, *The Principle of Common but Differentiated Responsibility in Post 2012 Climate Negotiations* RECIEL 18/3 (2009) 257.

⁵⁴ See J. Pauwelyn, *The End of Differential Treatment for Developing Countries? Lesson from the Trade and Climate Change Regime*, RECIEL 22/1 (2013) 29.

⁵⁵ T. Cottier, *From Progressive Liberalization to Progressive Regulation*, JIEL 9 (2006) 779.

⁵⁶ T. Cottier, *Equitable Principles of Maritime Boundary Delimitation in International Law: The Quest for Distributive Justice in International Law* (Cambridge: Cambridge University Press 2014, forthcoming).

level of competitiveness and its polluting sectors, and obligations should be incurred accordingly, irrespective of past performance. Additional factors could be taken into account, in particular levels of development. Equity and graduation combined would mean that obligations are not static but follow economic performance on the basis of a set of indicators yet to be defined. The approach leaves intact the idea that those most affected, but least responsible for the pollution in the first place should be less burdened than others.

In conclusion, common and shared responsibility addresses the share of responsibility states should take in addressing what has been found to be a Common Concern. To the extent that answers and solutions can be found, the common concern is dealt with in terms of shared but differentiated responsibility. To the extent that, as yet, no agreement within a broad range of options and variable degrees has been found, Common Concern may play a normative role in its own right. In the absence of concerted action, it may be relevant in determining the scope and limits of unilateral action that can be taken in the absence of agreed treaty terms on shared but differentiated responsibility.

C. *Relationship to Common Heritage of Humankind*

Under the concept of Common Concern the international interest in the conservation and use of the resource is legitimised without challenging the territorial sovereignty of the state where the resource is located.⁵⁷ Philippe Cullet explains the difficulties associated with moving away from a legal concept based on sovereignty in the context of biodiversity or climate change regimes because there is a lot at stake for states in terms of immediate control over natural resources and economic development.⁵⁸ In the context of the law of the sea, a qualitatively much bigger step was taken when states negotiated a new legal regime for resources of the ocean floor beyond 200–350 nautical miles; that is, beyond the boundaries of established continental shelf limits, which had never been previously claimed by any state.⁵⁹ The underlying philosophy was based upon common ownership and translated into the concept of the Area and a common enterprise. These institutions would secure shared and common terms of exploitation. While the concept was suspended and led to less interventionist changes to the UNCLOS Agreement, the concept of common heritage was firmly established next to the principle of permanent sovereignty over natural resources applicable within the bounds of national jurisdictions. The principle of common heritage of humankind is based on the idea that there should be no individual ownership claims over the matter covered. It recognises that all states have a stake in its conservation and sustainable use and seeks to ensure joint management to the broadest possible extent.⁶⁰

The terms of the original UNCLOS determine that the principle of common heritage refers to ensuring that exploitation is equitable. This principle is clearly different from Common Concern. The principle of common heritage entails shared ownership and control no longer subject to permanent sovereignty of nation states. The resource is “shared, under the control of no state, or under the sovereign control of a state, but subject to a common legal interest.”⁶¹ It primarily relates to the exploitation of natural resources. Common Concern, on the other

⁵⁷ J. Blake, On defining the cultural heritage, ICLQ 49/1 (2000) 61–85.

⁵⁸ Ph. Cullet, Water law in a globalised world: the need for a new conceptual framework, J. Env. L. 23/2 (2011) 233–254.

⁵⁹ See Agreement Relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea (adopted 28 July 1994, came into force 28 July 1996) UN Doc A/RES/48/263.

⁶⁰ Ph.Cullet, *supra* note 57.

⁶¹ Centre for International Sustainable Development Law, The Principle of Common but Differentiated Responsibilities: Origins and Scope 1 (Centre for International Sustainable Development Working Paper and Legal Brief Series, 2002), available at http://www.cisdsl.org/pdf/brief_common.pdf.

hand, operates within the principle of permanent sovereignty of states. Yet, as embedded in the UNFCCC and the CBD or the International Treaty on Plant Genetic Resources for Food and Agriculture, the principle of Common Concern of humankind is premised on a common responsibility to protect, and a legal interest in not harming, a particular environmental resource.⁶²

D. *Relationship to Public Goods*

The doctrine of ‘Common Concern’ is linked in many ways to the term ‘Global Public Good’ and the effective management of the global commons.⁶³ It represents the growing need in a globalised world, and expressed in international treaties, for a shift towards shared but differentiated responsibility in the efforts against climate change. Public goods and Common Concern, however, are not identical. They are in fact often confused.

Paul A. Samuelson⁶⁴ was the first economist to develop the theory of public goods. He defined a public good (or "collective consumption good" as he called it) in his classic 1954 paper ‘The Pure Theory of Public Expenditure’, as follows:

...[goods] which all enjoy in common in the sense that each individual's consumption of such a good leads to no subtractions from any other individual's consumption of that good...

This essentially is the property of non-rivalry. In addition, a *pure public good* exhibits a second property called non-excludability, defined as the impossibility to exclude any individual from consuming the good. The essential characteristic of a public good is that its consumption by one individual does not actually or potentially limit actual and potential consumption by others.⁶⁵

While the theoretical concept of public goods does not distinguish with regard to the geographical region in which a good may be produced or consumed, some theorists⁶⁶ use the term “global public good” to mean a public good which is non-rival and non-excludable throughout the whole world, as opposed to a public good which exists in just one national area. Knowledge can be cited as an example of a global public good. Other goods, however, are of a regional or continental, national, provincial or local dimension. Public goods in fact correlate with perceptions of multilevel governance seeking to appropriately allocate regulatory powers with a view to producing public goods commensurate with the level of governance.⁶⁷

Global public goods must meet two criteria: one, their benefits must possess strong qualities of “publicness” (i.e. be marked by non-rivalry in consumption and non-excludability); and two, their benefits must be quasi-universal in terms of countries, people and generations. This

⁶² See Ph. Sands, *Principles of International Environmental Law* 287 (Cambridge: Cambridge University Press 1995).

⁶³ I. Kaul, I. Grunberg, M.A. Stern (eds.) *Global Public Goods – International Cooperation in the 21st century*. Published for the United Nations Development Programme (New York, Oxford University Press 1999).

⁶⁴ P.A. Samuelson, *The Review of Economics and Statistics*, 36/4 (1954) 387–389.

⁶⁵ H. Gravelle & R. Rees. *Microeconomics*, 3rd ed. 326 (Essex: Pearson Education 2004).

⁶⁶ Kaul, Inge, Grunberg, Isabelle, and Marc A. Stern (eds) *Global Public Goods – International Cooperation in the 21st century*. Published for the United Nations Development Programme. New York, Oxford University Press, 1999.

⁶⁷ See Ernst Ulrich Petersmann (ed.), *Multilevel Governance of Interdependent Public Goods: Theories, Rules and Institutions for the Central Policy Challenge in the 21st Century*, EUI Working Papers RSCAS 2012/13, Robert Schuman Centre for Advanced Studies 18, Florence, 2012.

last property in particular makes humanity as a whole the beneficiary of a global public good. In keeping with this definition, sustainable climate change is clearly a global public good.

However, while climate change is undeniably a global concern, other concerns may be regional, national or even local, correlating to a regional, national or local public good. Common Concern and public goods therefore correlate with each other on different levels. They both contribute important building blocks to the doctrine of multilevel governance. As much as it is the essence of governance to produce appropriate public goods – local, national regional or global – common concerns relating to these different spheres call for appropriate responses by appropriate governance. It is important to keep in mind these layers and differences. Local common concerns call for different answers from global common concerns. What they share is that a problem exceeds a single community and it should ideally be addressed with a cooperative effort. In both cases the law needs to answer the question of what to do if such cooperation fails to materialise.

III. Climate Change as a Common Concern of Humankind

The term ‘public good’ is broadly defined as a ‘collective consumption good’, which creates inherent conceptual problems in relation to attributing public good features to climate. In the ordinary meaning of the term, climate is not a consumption good. The Intergovernmental Panel on Climate Change (IPCC)’s definition of climate is the following:

Climate in a narrow sense is usually defined as the "average weather," or more rigorously, as the statistical description in terms of the mean and variability of relevant quantities over a period ranging from months to thousands or millions of years. The classical period is 30 years, as defined by the World Meteorological Organization (WMO). These quantities are most often surface variables such as temperature, precipitation, and wind. Climate in a wider sense is the state, including a statistical description, of the climate system.

Based on the interpretations of Samuelson, Gravelle and Rees,⁶⁸ mentioned above, the two main properties of public goods, namely ‘non-rivalry’ and ‘non-excludability’ are not relevant here. The climate is not a good which is consumed. It is rather a ‘condition’ of the planet’s habitat which enables humans and other living species to exist. As such, it is an existential condition whose continuation within a certain range of changeability is essential for the future existence of the world’s inhabitants.

The climate sensitivity of species differs according to their survival capacities. Certain species are more sensitive to climate change than others. According to the IPCC’s Fourth Assessment Report on ‘Impacts, Adaptation and Vulnerability’, approximately 20% to 30% of plant and animal species are likely to be at increasingly high risk of extinction in the case of warming of more than 2 to 3°C (from pre-industrial levels) by 2100. In the case of *homo sapiens*, throughout thousands of years of adaptation and civilisation (e.g. socio-economic development, technological progress, knowledge accumulation), human beings’ sensitivity to climate change (in the historical sense) has improved. Yet it has not been tested for a situation with a more rapid deterioration of climate conditions than previously experienced. As such, the challenge of climate change is properly defined as a ‘Common Concern of humankind’.

In this context, although, climate may not be defined as ‘collective consumption good’, actions to prevent or to slow down climate change can be considered as “global public goods” which are non-rival and non-excludable. In conclusion, climate change might be defined as a “Common Concern of humankind”, and the maintenance of climate change at levels of natural climate variability observed over long time periods can be considered as a global public good.

⁶⁸ Supra notes 63 and 64.

IV. The Challenge of Applying Common Concern to Climate Change

A. *The Difficulties with Governing Global Commons*

The production of public goods and the protection of common property amount to a prime function of public authority and the state on different levels of governance. We recall that public goods may be local, regional, national, continental or global. The allocation of powers and jurisdictions to public authorities is strongly influenced by the need to produce and protect public goods and common property. It largely explains models of horizontal allocation of powers within federalism and, more recently, the doctrine of multilevel governance. Democracy and majority ruling in domestic affairs have addressed the collective action problems described above. The main institutional deficiencies relate to the continental and global levels. The question therefore arises of the extent to which strategies to produce and protect public goods and common property developed in a local context can be translated and put to use on a global scale.

The lack of effectiveness in combating climate change may be less related to the general absence of a sense of shared responsibility than to a lack of institutional incentives and proper decision-making structures for collective action beyond the environmental ministries involved and the NGOs that have shaped the climate change agenda over the past two decades. These stakeholders proved crucial in creating awareness of the global problem.⁶⁹ Their policies tend however to focus on sustainable resource management, which is based on the theory of common pool resources and “the tragedy of the commons”.⁷⁰ This theory has been very helpful in explaining overexploitation of common pool resources within small communities (e.g. overgrazing). Warnings of an impending “tragedy of the commons” as a consequence of adopting policies which restrict private property and espouse expansion of public property have frequently been heard. At the same time, controversy remains as to whether assigning private property rights would induce members of the community to manage their natural resources more efficiently and sustainably⁷¹ or whether informal evolving institutions and best collective practices within the community allow for the most efficient and sustainable management of common property.⁷²

Elinor Ostrom’s important empirical research in remote villages in the Swiss Alps (among other examples) indicates that the local commons can be governed sustainably thanks to informal rules that are based on fairness and reciprocity and a sense of shared but differentiated responsibility. These informal rules can be easily enforced because all the members of the communities know each other and free-riders are easily identifiable. Yet,

⁶⁹ Ph. Aerni, Lock-in situations in the global debates on climate change, biotechnology and international trade: Evidence from a global stakeholder survey. NCCR Trade Working Paper, 2011/21, World Trade Institute, University of Bern.

⁷⁰ G Hardin, The Tragedy of the Commons, *Science* (1968) 162, 1243. Central to Hardin's article is an example of a hypothetical and simplified situation based on medieval land tenure in Europe, of herders sharing a common parcel of land, on which they are each entitled to let their cows graze. In Hardin's example, it is in each herder's self-interest to put the next (and succeeding) cows he acquires onto the land, even if the quality of the commons is damaged for all as a result of this overgrazing. The herder receives all of the benefits from an additional cow, while the damage to the commons is shared by the entire group. If all herders make this individually rational economic decision, the commons would be depleted or even destroyed, to the detriment of all. Hardin's “Commons Theory” is frequently cited to support the notion of sustainable development, meshing economic growth and environmental protection, and has had an effect on numerous current issues, including the debate over climate change.

⁷¹ R.H. Coase, The Problem of Social Cost, *Journal of Law and Economics* 3/1 (1960) 1–44.

⁷² E. Ostrom, *Governing the Commons: The Evolution of Institutions for Collective Action* (Cambridge University Press, New York 1990).

these customary rules do not encourage community members to invest in improved techniques of sustainable resource management that would also enhance agricultural productivity and reduce food insecurity. They tended to foster conservative attitudes as other and external escape strategies for solving the problem were available. A sustainable equilibrium in the Swiss villages explored was only possible because the surplus population (the population that could not be fed with the available resources and traditional techniques) could be exported as mercenaries to foreign armies or as non-farm labourers to lowland industrial centres, or possibly overseas. The migrants eventually contributed to the viability of the village institutions through remittances. These remittances in return allowed the villagers to buy food from elsewhere during periods of scarcity.⁷³ In other words, maintenance and re-creation of local public goods and successful collective action in addressing Common Concerns depended upon externalities which went beyond the local realm. Success depended upon recourse to resources located outside the village and valleys. The production of local public goods therefore cannot be neatly isolated but remains part of a complex web of interactions.

It is tempting to extend these insights into local governance and local public goods to the regional or global sphere of global common concerns and global public goods. The doctrine of Common Concern in international law is indeed linked to the question of how nation states on the regional and global level (rather than individuals on the community level) could manage their common pool resources (the planet as a whole instead of just a village meadow for common use) in a sustainable way. It is felt that the problem could be solved in tandem on the basis of customary models, ignoring the difference between local and global public goods and the problems typical of the latter group, for which external solutions and compensation by other levels of governance are not sufficiently available. This is particularly true for climate change. The Common Concern of climate change is global by definition and efforts made to tackle it inherently benefit all, including those who make no appropriate efforts.

B. *Climate-related Collective Action Problems*

When it comes to global governance through Multilateral Environmental Agreements (MEAs) their effectiveness is generally considered to be limited for reasons set out in the introduction. In particular, the Kyoto Protocol has so far been unable to effectively address climate change as a Common Concern.⁷⁴ One example of a reasonably successful MEA is the Montreal Protocol on Substances that Deplete the Ozone Layer. There are several reasons why the Montreal Protocol worked: the urgent need for collective action was felt in the developing and the developed world alike, the technology to cope effectively with the challenge was available, the private sector, civil society and governments were able to agree on a joint strategy, the potential losers in the private sector small and insufficiently organised in politics, and the North–South divide was bridged through an effective technology transfer clause that clearly defined the technology and the terms of transfer.⁷⁵

In terms of rivalry and excludability, ozone-depleting substances were a pure global public bad (non-rival, non-excludable) that could be effectively addressed by mobilising innovative private goods (commercial products that did not emit ozone-depleting substances) in efforts to quickly replace old polluting products. In other words, thanks to non-rival and non-excludable

⁷³ P. Aerni, *Food Sovereignty and its Discontents*, ATDF Journal 8(1/2) (2011) 23–40.

⁷⁴ G. Prins, S. Rayner, *Ditch Kyoto*, Nature (2007) 449: 973–975; E. Diringer, *Climate Policy: Letting go Kyoto*, Nature (2011) 479, 291–292.

⁷⁵ R.E. Benedick, *Contrasting Approaches: The Ozone Layer, Climate Change, and Resolving the Kyoto Dilemma*, in: E.D. Schulze et al. (eds.) *Global Biogeochemical Cycles in the Climate System*. Max Planck Institute for Biogeochemistry (San Diego: Academic Press 2011).

ideas (e.g. detection of the depletion of the ozone layer and its impact on life by scientists) and partially-excludable ideas (e.g. design of CFC free products), the problem could be identified and effectively addressed by making the partially excludable technical solution more widely available and accessible through a public–private partnership (PPP). In other words, a global public good was created through a PPP to fight a global public bad, at least in a short-term perspective. Ozone depletion was perceived as a relatively simple problem compared to climate change. Ozone depletion could be prevented by controlling a small group of artificial gases, for which an affordable technical solution was available. In the meantime, other difficulties have been encountered. It has been established that the Protocol brought about recourse to substances which are also dangerous in their own way.⁷⁶

Climate change is not an isolated problem. It is most of all a symptom of a particular development path and its globally interlaced supply-system of fossil energy. As set out in the introduction, it has proven impossible to change the resulting complex systems in the desired ways by primarily focusing on binding reduction targets and the design of global policy institutions that are based on the assumption that nation states are (in analogy to the individual in the community) endowed with a sense of responsibility for the preservation of the common good.⁷⁷ Unlike in the case of ozone-depleting substances, there is also no clear-cut technological solution to the climate change problem. Finally, well-organised established industries that benefit from the existing unsustainable global economy are prepared to lobby together with some environmentalists who often fear risks resulting from the deployment of new technologies against revolutionary technological change to tackle the global problem.⁷⁸

For such reasons, the prospects of addressing the Common Concern of climate change and achieving appropriate goods through cooperation alone remain dismal. Diverging interests and the potential for free-riding while preserving competitive advantages induce countries to ignore a principle of Common Concern which is limited to the call for and duty of international cooperation in line with existing treaty language.

V. Towards a Principle of Common Concern

Upon establishing that climate change is a global Common Concern and that international cooperation on the basis of Common Concern alone, due to collective action problems, cannot bring about appropriate public goods for combating human-induced climatic changes, we need to explore whether a principle of Common Concerns potentially entails additional normative layers beyond co-operation and the existence of international agreement.⁷⁹

It is submitted that international law should recognise and develop the principle of Common Concern of Humankind as a responsibility of individual States. Responsibility entails the duty to address and respond to challenges in the realm of Common Concerns where cooperation fails. As a principle, it offers broad guidance while leaving details to further specifications which may vary from field to field. It complements the principles of self-determination and of permanent sovereignty over natural resources. It does not replace it as the principle of

⁷⁶ For global warming potentials of ODS substitutes see <http://www.epa.gov/ozone/geninfo/gwps.html> (visited 8 August 2013).

⁷⁷ R. Pielke, *The Climate Fix: What Scientists and Politicians Won't Tell You About Global Warming* (New York: Basic Books 2010).

⁷⁸ *Ibid.*

⁷⁹ This section draws on T. Cottier, Constitutional and legal problems of multilevel governance of citizen-driven international public goods – The emerging principle of Common Concern: a brief outline, in: E.U. Petersmann ed. *Multilevel Governance of Interdependent Public Goods: Theories, Rules and Institutions for the Central Policy Challenge in the 21st Century*, San Domenico di Fiesole, Italy: European University Institute, 2012, 185–193.

common heritage of mankind was intended to. The principle of Common Concern does not displace the fundamental precepts of sovereignty and territoriality of the nation state. It adds an additional layer defining additional and new responsibilities beyond the proper territorial realm of states. We mainly explore this principle in relation to climate change.

The concept of Common Concern is intended to cover situations that fall outside the traditional categorisation of state responsibility, such as a bilateral relationship between the state in breach of an international obligation and the state that is injured.⁸⁰ The concept covers situations of multiple state responsibilities, such as those in which states engage in concerted efforts or those in which states engage in independent actions, whether in breach of an international obligation or not, that cause damage to the environment.⁸¹ The problems are complex in cases of damage to aspects of the environment which are beyond the limits of national jurisdiction. An example of a complex case is the greenhouse effect, which results from the cumulative effect of ozone depletion, global air pollution, acid rain, deforestation, and land use patterns.⁸²

The *erga omnes* character of the global responsibility makes it different from the existing transboundary environmental law. As in human rights law, this responsibility is owed to the international community as a whole, and not merely to other injured states. The differentiation of the global responsibility in question based on the level of the state's development, under the auspices of the principle of common but differentiated responsibilities, contains strong elements of equitable balancing and is particularly evident in matters of Common Concern such as climate change.⁸³

The tension in international environmental law between the enduring significance of territorial sovereignty and the sense of global environmental responsibility is aptly captured in Principle 21 of the 1972 Stockholm Declaration, as slightly 'updated' by Principle 2 of the 1992 Rio Declaration:

"States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction."

Duncan French warns that sovereignty thus remains a cornerstone of environmental responsibility,⁸⁴ and while it is no longer presented purely in defensive terms as a process of exclusion, but also as a means of engaging the positive duties of the State,⁸⁵ its residual nature as a bulwark against enforced internationalism is not to be underestimated.

⁸⁰ See A. Cancado Trindade, D.J. Attard, Report on the Proceedings of the Meeting, in UNEP, The Meeting of the Group of Legal Experts to Examine the Concepts of the Common Concern of Mankind in Relation to Global Environmental Issues (1991).

⁸¹ Ibid.

⁸² Ibid.

⁸³ See P. Birnie, A. Boyle, C. Redgwell, International Law and the Environment, (New York: Oxford University Press 2009).

⁸⁴ See D French, A Reappraisal of Sovereignty in the Light of Global Environmental Concerns' 21 LS 376 (2001).

⁸⁵ See N Schrijver, Sovereignty over Natural Resources: Balancing Rights and Duties (Cambridge: Cambridge University Press: 1997), chapter 10 ('Duties: the other side of the coin').

A. *Duty to Cooperate*

The global nature of climate change and the challenges of collective action clearly imply that international cooperation is and remains key to addressing these issues by appropriate instruments of international law. It is the prime meaning in the context of current international agreements discussed at the beginning of this paper. International cooperation could take different forms, and a broader view of international assistance can be found in the texts of other environmental treaties.⁸⁶ In relation to climate change, capacity building is likely to play an ever-increasing role following the adoption of the Kyoto Protocol. Article 12 of the Protocol creates a Clean Development Mechanism, the purpose of which is to allow developed States to take action in developing States to reduce greenhouse gases, and thereby comply with their international commitments.⁸⁷

"In international law, one of the main hurdles to cooperation on global problems has been the perceived threat that cooperation entails with regard to sovereignty. One of the main 'visible' consequences of climate change being a Common Concern of humankind is that states now assert 'sovereign rights' rather full sovereignty. This does not per se change the legal status of the resources covered."⁸⁸

Hohmann advocates the obligation to cooperate in the use and protection of shared resources, including on exchange of information, timely notification and consultation, and emergency procedures. These duties usually lead to regional or global institutional structures, like commissions and secretariats, which are required to centralise and process informational and monitoring duties.⁸⁹ Moreover, he adds that developed states have additional duties: technology transfer and equal transboundary access to administrative and judicial proceedings for those harmed by transboundary pollution. Other possible duties, including guaranteeing a human right to a decent environment, a commitment to intergenerational equity, to treatment at source or provision of financial incentives, are not yet firmly established. Nonetheless, the list is considered an impressive one, encompassing far-ranging duties of prevention and abatement that even go beyond what the domestic law of many countries now contemplates. The breadth of duties is all the more extraordinary as he insists that these are general legal duties binding on all states, not just on participants in a particular treaty regime.

Duncan French discusses the need to adopt international legislation, binding on all, for the good of all. Though there are instances of majority voting, tacit amendment and global standard-setting, all which take place within the context of a pre-existing treaty, they are ultimately premised upon some form of prior consent by States. International legislation, on the other hand, moves beyond this and arguably represents the usurpation of traditional legal doctrine and, in particular, the right of a State not to consent to a legal rule. The notion of international legislation presupposes the ability of a legal regime to overrule the objections of the few either for the benefit of the many or for the attainment of certain global goods. The perceived benefits of such a system of law on a topic such as global environmental protection

⁸⁶ D. French, *Developing states and international environmental law: the importance of differentiated responsibilities*, I.C.L.Q. 49/1 (2000), 35–60, notes that the 1996 Dumping Protocol, for example, requires technical cooperation and assistance, including the "training of scientific and technical personnel ... with a view to strengthening national capabilities". In fact, following the Brundtland Report, this notion of national capacity building has become one of the central objectives of international assistance. Capacity building was defined in the 1994 Desertification Convention to include, "institution building, training and development of relevant local and national capacities".

⁸⁷ *Ibid.*

⁸⁸ Ph. Cullet, *Water law in a globalised world: the need for a new conceptual framework*, J. Env. L. 23/2 (2011) 233–254.

⁸⁹ H. Hohmann, *supra* note 43.

would seem obvious; recalcitrant States, potential free-riders, and those that are simply perennially at the rearguard of taking action, would not be permitted to undermine much-needed global efforts.⁹⁰

In conclusion, it is confirmed that the principle of Common Concern as applied to climate change primarily entails an obligation of States to engage in international cooperation. Short of specific treaty obligations establishing shared but differentiated responsibility, it amounts to a general obligation emanating from the principle of Common Concern. No individual state alone can assume responsibility for the environmental damage which results from the actions of many states. The concept of Common Concern calls for concerted international action for the equitable sharing of the burdens of environmental protection, rather than assigning responsibility and liability to individual states. All states must cooperate in addressing these matters because they are equally important to all nations.

B. *Responsibilities at Home*

Beyond international cooperation, Common Concern primarily entails responsibilities to act within a given jurisdiction. States are entitled, but also obliged, to primarily address Common Concerns as defined by the international community within their own boundaries. Given the nature of the problem, no state can claim full independence and autonomy under the principle of permanent sovereignty over natural resources. International law, through the principle of Common Concern, obliges States to take domestic action as a matter of international law. National efforts at abating global warming therefore emanate from this principle independently of treaty obligations, much as efforts to stop depletion of fisheries within their own territorial waters and the exclusive economic zone. In contrast to the principle of permanent sovereignty, the principle of Common Concern not only authorises, but obliges governments to take action in addressing the Common Concern within their own jurisdictions and territories.

C. *Responsibilities Abroad*

The principle, however, also authorises the taking of action in relation to facts relating to the Common Concern produced outside the proper jurisdiction of a State. At the same time, the principle is suitable for limiting the scope of extraterritorial action taken in regard to climate change mitigation.

Extraterritorial effects of domestic law in international law continue to be much contested despite a growing body of case law.⁹¹ Disciplines and rules in international law in that respect have remained vague on the basis of the doctrines developed in *Lotus*,⁹² and in *Nottebohm*,⁹³ which are also only applicable as a matter of exception and under specific circumstances justifying the “genuine link”. International criminal law practice and case law developed in the context of international antitrust litigation⁹⁴ have developed elements of extraterritorial application, but much more than in international law, balance is sought on the basis of constitutional law.⁹⁵ A recent paper discusses fairness concerns in extraterritorial jurisdiction

⁹⁰ D. French, Finding autonomy in international environmental law and governance, J. Env. L. 21/2 (2009) 255–289.

⁹¹ J. Ellis, ‘Extraterritorial Exercise of Jurisdiction for Environmental Protection: Addressing Fairness Concerns’, Leiden Journal of International Law 25 (2012) 397–414.

⁹² S.S. Lotus (Fr. v. Turk), 1927 P.C.I.J. (ser. A) No. 10 (Sept. 7).

⁹³ Liechtenstein v. Guatemala, 1955 I.C.J. 4 (Apr. 6).

⁹⁴ Wood Pulp, 85/202/EEC (1985) OJ L 85/1.

⁹⁵ International Shoe Co. v. Washington, 326 U.S. 310 (1945).

of US environmental law⁹⁶ in the context of a case concerning a complaint against the polluting activities of a Canadian company, but does not establish a linkage to Common Concern.⁹⁷

Extraterritorial jurisdiction of States, under traditional international law, as expounded in the 1927 *Lotus* rule and mainly expounded in competition law and policy, requires sufficient attachment to the territory of the State. Rights and obligations relating to Common Concerns go beyond the traditional precepts of territoriality. While today action can be defended if the nexus to the actor's own territory is sufficient, Common Concern does not require such linkages, but depends upon an examination as to whether the measure and action is able to support the attainment of a Common Concern. Territoriality often will be a matter of practical expediency, as states are largely dependent upon attachment to their territory one way or another in implementing laws and measures. The crucial point is not whether a foreign measure negatively affects persons and resources within a given jurisdiction, but whether it affects the attainment of the Common Concern. Common Concern thus goes beyond traditional precepts of international law and attachment to a particular jurisdiction. For example, anti-trust action against companies abroad can be taken to the extent that conduct of these companies negatively affects markets and prices within the jurisdiction. It is submitted that the principle of Common Concern transcends these limitations and allows, in principle, action to be taken if the conduct abroad has detrimental effects within the realm of the Common Concern as defined by the international community. For example, governments are authorised to take appropriate action against highly polluting means of production that blatantly ignore the Common Concern of global warming. Likewise, governments are authorised to take action in response to blatant and systematic neglect of the Common Concern of protecting fundamental human rights and lives.

While Common Concern provides the foundations of authorisation to act, the most difficult question relates to the problem of to what extent the principle also entails obligations to act. There is a fundamental difference between authorisation and obligation to act. While the former leaves the matter to the discretion of government, the latter compels engagement and taking of the necessary steps. Evidently, a principle of Common Concern entailing obligations to assume responsibility would be much stronger, but would also conflict with traditional foundations and precepts of international law and life. Such obligations are gradually emerging in one area which is of key importance to Common Concern.

The emerging responsibility to protect (R2P) civilians in civil strife has been increasingly accepted.⁹⁸ Unilateral air strikes by the US, unauthorised by the UN Security Council, preventing genocide were mainly considered unlawful in Kosovo in March 1999. The intervention in Libya from March to October 2011 by NATO Forces amounts to the first case applying the doctrine of R2P. This doctrine can and should be considered to be part of the emerging principle of Common Concern. The protection of fundamental rights, in particular the right to life of civilian population, amounts to a Common Concern which arguably not only authorises, but as a matter of principle obliges, States to intervene within the realm of the Common Concern. Obviously, the step to an obligation, as opposed to the right to intervene, is a major one. Intervention is notoriously controversial in politics, and an obligation to intervene facilitates decision-making at home in view of state responsibility assumed. It facilitates coordination among States in bringing about an international relief operation. The

⁹⁶ J. Ellis loc. cit. note 90.

⁹⁷ *Pakootas v. Teck Cominco Metals Ltd.*, (452 F.3d 1066 (9th Cir. 2006)).

⁹⁸ See K. Nadakavukaren, T. Cottier, Responsibility to Protect (R2P) and the Emerging Principle of Common Concern, NCCR Working Paper 2012/29, available at http://www.wti.org/fileadmin/user_upload/nccr-trade.ch/wp5/5.9b/Responsibility%20to%20Protect%20and%20Common%20Concern%20final.pdf

main challenge amounts to equal treatment of comparable constellations. It will be argued that an obligation to act needs to be applied consistently, and cannot be subject to opportunism and unequal treatment. Yet, the impossibility of saving lives in one instance should not imply that lives in other instances cannot be saved. It will be a matter of taking into account all pertinent factors in assessing the obligation and then making a determination on a case by case basis.

We are about to enter new frontiers of international law guided by the principle of Common Concern. To what extent obligations to act and address Common Concerns outside domestic jurisdiction can be extended to areas other than humanitarian intervention and the immediate protection of human lives requires a full debate and discussion. A uniform and single answer to this question is unlikely. This is true not only for the fundamental question of obligation, but also for the terms of authorisation for taking unilateral action. Common Concern as a principle therefore will depend upon further specification of rules and scope for action. These rules vary from field to field. They will partly be framed by existing treaty obligations. Partly they may be subject to the process of customary law. Today, the scope of Common Concern is still largely undefined and therefore depends upon positive law.

D. *Respecting Existing Obligations: Lessons from Trade Policy*

The principle of Common Concern, understood beyond co-operation, seeks then to delineate obligations to act, and rights to act beyond the scope of territorial application of laws of the nation states. The understanding is informed by the experience gained in trade policy, where unilateral action, or the threat of it, triggered co-operation, and permitted the institutionalisation of economic globalisation⁹⁹ and the building of the multilateral trading system of the General Agreement on Tariffs and Trade (GATT) and the WTO over decades, taking a bottom-up approach.¹⁰⁰

The extent to which trade measures can be taken in response to Common Concerns therefore depends on the remedies available in WTO law or bilateral agreements, unless other and different rules are defined. Assuming Common Concern responsibilities abroad typically works with and through trade instruments addressing the methods of production of a good or service.¹⁰¹ They are subject to most-favoured nation treatment outside customs unions and free trade agreements. They need to respect national treatment and thus the fundamental principles of non-discrimination and transparency. Labelling of products, both voluntary and mandatory is an important tool to allow consumer to make their own decisions in an informed manner. Products supporting and considering Common Concern may obtain preferential treatment in terms of tariffs and import regulation. This area may obtain support research and development assistance. The crucial point here is that States are not only authorised to use WTO rights, but are under an obligation to do so in addressing the Common Concern at stake. In the context of climate change, Members of the WTO thus would find themselves under an obligation to adopt appropriate measures for addressing polluting ways of production, or those degrading the biosphere, in terms of tariff and non-tariff policies within the bounds of WTO law. It will be argued that recourse to such measures having extraterritorial effect will amount to imperialism and protectionism in disguise, mainly in support of domestic industries competing in new technologies. Such motives cannot be excluded. There is a thin line

⁹⁹ J. Braithwaite, P. Drahos, *Global Business Regulation* (Cambridge University Press 2000).

¹⁰⁰ T. Cottier, *Confidence-Building for Global Challenges: The Experience of International Economic Law and Relations*, in R. Greenspan et al. (eds.) *Building International Climate Cooperation* 117-176 (World Resources Institute, Washington DC 2012).

¹⁰¹ See T. Cottier et al. (eds.) *International Trade Regulation and the Mitigation of Climate Change* (Cambridge: Cambridge University Press, 2009).

between the protection of Common Concerns and the protection of purely economic interests. There is little doubt that Common Concern will trigger economic protectionism, and it is a matter of assessing the merits of a claim. The difficulty of distinguishing between legitimate and illegitimate measures, however, does not mean that the concept of Common Concern can be refuted. Drawing a line is an ordinary operation that has to be undertaken in other constellations and is part of the normal business of the operation of international trade regulation. It is not unique to Common Concern but of a general nature. It can be properly handled by WTO dispute settlement if need be. Similar constraints to Common Concern policies may be operational under other existing treaty regimes in different fields of international law. The principle of Common Concern thus will be contained by treaty law. And this prospect in return, also provides an incentive to further develop appropriate structures of global governance.

VI. Conclusions

This paper takes stock of different aspects relating to the idea and emerging concept and principle of Common Concern in international law. It addresses these angles from the point of view of economics, political science and international law. Traditional precepts of international law – sovereignty and territoriality – are unable to successfully deal with global public goods and common property. These goods encompass a wide range of topics and need more specific rules in relevant areas. While neither a public good nor common property, climate change is part of these concerns and suffers the same global actions problems encountered in other areas of common goods due to the lack of global institutions able to make appropriate decisions.

Common Concern does not yet imply specific legal obligations beyond a general obligation to cooperate. It thus provides the conceptual framework for international treaty negotiations with respect to what would otherwise be activities or resources considered wholly within the sovereign control of individual states, but it provides little guidance as a rule of decision for resolving specific disputes between sovereign states.¹⁰²

But Common Concern as an idea has been influencing attitudes of governments. Legislators now think in terms of joint responsibilities and regional or global cooperation, rather than strict sovereignty. These changes have led to a precautionary, rather than reactive, approach to international environmental law.¹⁰³ Yet, if Common Concern is neither common property nor common heritage, and if it entails a reaffirmation of the existing sovereignty of states over their own resources, what legal content, if any, does this concept have?¹⁰⁴ Its main impact, so far, appears to be that it gives the international communities of states both a legitimate interest in resources of global significance and a common responsibility to assist in their sustainable development.¹⁰⁵ Also, it enhances awareness that the principle of permanent sovereignty over natural resources must now be exercised within the confines of the global responsibilities set out principally in the UNFCCC as well as in the Rio Declaration and other relevant instruments.¹⁰⁶ If the Common Concern of Humankind is to be effectively addressed, the veil

¹⁰² P. P. Marra; D. Hunter; A M. Perrault, *Migratory Connectivity and the Conservation of Migratory Animals*, *Envtl. L.* 41 (2011) 317.

¹⁰³ N.Roht-Arriaza, *supra* note 44.

¹⁰⁴ T. Cottier/S. Matteotti-Berkutova, *International Environmental Law and the Evolving Concept of Common Concern of Mankind* in: Thomas Cottier et al. (eds.) *International Trade Regulation and the Mitigation of Climate Change* (Cambridge: Cambridge University Press 2009).

¹⁰⁵ UNEP, Report 1990.

¹⁰⁶ See P. Birnie, A. Boyle, and C. Redgwell, *International Law and the Environment*, (New York: Oxford University Press 2009).

of sovereignty may have to be pierced for the protection of the environment and the welfare of all.¹⁰⁷ Beyond this point, specific rights and obligations, in particular relating to responsibilities, remain to be properly defined in international law.¹⁰⁸

Common Concern as a normative concept in international law seeks to address collective action problems and compensate for lack of appropriate global institutions by expounding enhanced obligations of States to cooperate, but also the obligation to take action at home and the right to address climate change mitigation even by measures having extraterritorial effect. This right is of particular importance failing the obligation for international cooperation, both as a means to advance effective emission reduction and a means to create incentives for non-discriminatory multilateral answers to the problem. Common Concern, however, as a principle does not operate outside the bounds of existing international law and States are obliged to respect existing treaty obligations in the pursuit of unilateral measures. The contours of Common Concern will thus vary from area to area. But what was found and suggested in addressing climate change may form the basis for an emerging general principle qualifying traditional precepts of national sovereignty. Obligations to cooperate, obligations to act at home and the right to take action even though this entails extraterritorial effect in addressing the Common Concern amount to the mainstay of an emerging principle in international law.

¹⁰⁷ F D. P. Situma, *The Efficacy of International Environmental Law: A Personal Reflection*, 2 *ILSA J. Int'l & Comp. L.* (1995) 61.

¹⁰⁸ T. Cottier/S. Matteotti-Berkutova, *International Environmental Law and the Evolving Concept of Common Concern of Mankind* in: T. Cottier et al. (eds.) *International Trade Regulation and the Mitigation of Climate Change* 21-47 (Cambridge: Cambridge University Press 2009).