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Abstract

The Arctic, as a unique area of our planet, has always attracted the interest of humanity. Despite its uniqueness, the Arctic is more difficult to preserve than other areas of our planet. The presence of ice makes this region particularly fragile and exposed to environmental degradation. The environmental threats that have recently increased their impact on the Arctic are: first, resource exploitation; second, shipping and tourist activities; and finally, climate change. Special protection seems to be required for the Arctic. The establishment of an effective international regime (like the Antarctic Treaty System) for the management of the Arctic should be a common aim of both the EU and US. However, regardless of the existence of a global regime for the Arctic, the EU and US may so far exercise their authority in an "environmentally responsible manner" in order to ensure the protection of the Arctic as a "common good" that must be managed in the interest of humankind.

Keywords

Arctic, environment, climate change, common concern of humankind, Antarctic Treaty system, EU Arctic policy, US Arctic policy

THE GOVERNANCE OF THE ARCTIC ENVIRONMENT: THE EU AND US CONTRIBUTION

Patrizia Vigni [*]

1. Introduction

The Arctic has always been considered as a unique area of our planet and has thus attracted the interest of scientists and adventurers, both of whom have attempted to reach this region in the past centuries. Despite its undeniable uniqueness, the Arctic environment is more difficult to preserve than other areas of our planet. The presence of ice makes this region particularly fragile and it is thus exposed to environmental degradation. As an example, one may mention the devastating effects that climate change can cause with respect to ice-covered regions due to ice melting. As a consequence, the level and temperature of the ice-covered seas increase and trigger an immediate impact on flora and fauna that cannot survive in warm ecosystems.[1]

Therefore, even at first glance, special protection seems to be required for the Arctic environment. In this regard, one must observe that the management of the Arctic has so far been left exclusively to the Arctic States, namely those States whose territories are located beyond the Arctic Circle. The Arctic States are: Canada, Denmark (because of its sovereign rights over Greenland), Finland, Iceland, Norway, Russia, Sweden, and the United States (hereinafter the US). These States have thus far considered the Arctic as an area subject to their sovereignty and, thus, suitable for exploitation for lucrative purposes. As a result, concern for the Arctic environment has often been set aside in order to satisfy interests of a different nature. Amongst Arctic States, until recently, the US had not shown a particular interest in the Arctic.

Some environmental threats have recently increased their impact on the polar ecosystem: first, the exploitation of living and mineral resources; second, the growing shipping and tourist activities; and finally, climate change. The emerging risk of degradation of the polar environment has contributed to enhancing the interest of the international community in the Arctic and to promoting the establishment of an effective regime for the management of this area. Amongst the most active supporters of an international environmental regime for the Arctic, the European Union (hereinafter the EU) is worth mentioning.

However, different environmental threats require diverse mechanisms of control. While polar resource exploitation and navigation might be regulated by the domestic legislation of Arctic States, climate change patently needs to be resolved at the global level. Therefore, one must identify an appropriate regime that can satisfy both the interests of States and the global concern for the preservation of the Arctic.

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[1]For the harmful impact of ice melting on the survival of polar bears see S. Kao-N. Pearre-J. 'Firestone, Adoption of the Arctic Search and Rescue Agreement: A Shift of the Arctic Regime toward a Hard Law Basis?', in *Marine Policy*, 2012, p. 832-838, p.834.

A specific regime for the Arctic already exists, namely the Arctic Council. It was created in 1996.[2] Although the Council does not have the power to enact binding measures, it has increasingly become the most important forum for the discussion of Arctic issues.[3] The Council's main task is to enhance the cooperation between Arctic States in order to resolve common problems relating to the Arctic. However, the most significant lacuna of the Arctic Council resides in the fact that it cannot establish common obligations vis-à-vis Arctic States.

In order to ascertain which characteristics pertain to an appropriate regime for the protection of the Arctic environment, this paper will first analyse the diverse approaches and policies that the EU and the US have adopted with regard to the Arctic. In the light of the comparison between the views of these two international actors, it will be possible to assess whether or not some forms of cooperation are possible between Arctic and non-Arctic States or organisations in order to ensure the conservation of the Arctic environment.

Second, this paper intends to examine other international regimes that are aimed at safeguarding similar interests, such as, for example, the legal system that originated from the Antarctic Treaty. This regime might provide some useful suggestions for the regulation of human activities and the protection of the environment in the Arctic.

Finally, existing international environmental regimes have shown some weaknesses, in particular with regard to the enforcement on the part of States parties of the general obligations that have been established by the regimes themselves. The analysis of the diverse international, regional, and domestic mechanisms regulating the protection of the environment can help us to find effective solutions to the problems which, at present, not only affect the Arctic, but also the global environment, the conservation of which can be considered as a common concern of the entire international community.

2. The Geographic and Legal Scope of the Arctic

In order to ascertain whether and to what extent the international management of the Arctic is practicable, one must first of all define the geographic and legal scope of the Arctic. This definition will help us to determine which legal status international law recognises vis-à-vis this area and, thus, which international norms may be applied therein.

A legal definition of the "Arctic area" does not seem to exist. With the exception of the boundaries of the States that exercise sovereign rights over some territories of the region, no legal delimitation of the area has been established. The Arctic Circle, which corresponds to 66°33'39" North Latitude, is merely a geographic indicator. From a political and legal point of view, the Circle is only relevant for defining the status of "Arctic States", which, as affirmed above, entails the countries whose territories are located beyond the Arctic Circle.

As already indicated, Arctic States are the members of the Arctic Council and, in fact, two other relevant, but non-legal, Arctic boundaries have been established within the Council's institutional framework. These are the boundaries that delimitate the competence of two groups of experts,[4] namely

[2] 1996 Ottawa Declaration on the Establishment of the Arctic Council, in *www.arctic-council.org/index.php/en/about/documents/category/4-founding -documents*. File 01ottawa_decl 1996-3.pdf.

[3] A first attempt of the institutionalisation of the Arctic Council consists in the very recent establishment of an Arctic Council Secretariat. The establishment of the Secretariat was agreed at the 2012 Deputy Ministers' Meeting and accomplished in January 2013. See the Final Report of the Deputy Ministers' Meeting, held in Stockholm on 15th May 2012 at *www.arctic-council.org/index-php/en/about/meetings-overview/deputy-ministers-meeting-2012/487-final-report-from-the-deputy-ministers-meeting*.

[4] The Arctic Council has created groups of experts that may provide qualified advisory opinions with regard to scientific or specific matters.

the Arctic Human Development Report (AHDR)[5] and the Arctic Monitoring and Assessment Programme (AMAP).[6] The areas of competence of these two groups do not correspond to the rigid line of the Arctic Circle. In fact, the AHDR and AMAP groups must analyse the human presence and environmental characteristics, respectively, of some regions that have common demographic and natural features and, thus, cannot be delimited on the basis of geometrical criteria.[7] Despite the importance of the research and assessment activities that these working groups carry out, AHDR and AMAP boundaries cannot be considered as legal delimitations, because an Arctic legal regime that is applicable to AHDR and AMAP areas does not yet exist. Although Arctic States have so far adopted national legislation that is inspired by the guidelines of the AHDR and AMAP working groups, such legislation does not seem to have the same effects as a homogeneous legal system, which can be uniformly applied to the entire AHDR and AMAP areas.

Finally, one cannot disregard the fact that the Arctic mainly consists of an ocean that is surrounded by land. Thus, the norms of the international law of the sea are relevant and even essential to govern and manage this peculiar marine area of our planet.

Patently, different Arctic areas must be taken into account when diverse matters are at issue. Within the system of the Arctic Council itself, different boundaries are applied when political, environmental, or demographic matters are dealt with.[8] Thus, even at first glance, the protection of the Arctic environment seems to raise considerable conflicts between the competent legal regimes and political entities that are active in the region.[9]

3. Emerging Threats to the Arctic Environment

3.1. General Remarks

The fragility of the Arctic represents its most obvious feature, which is due to the fact that this region is covered in ice. In fact, harmful agents appear to have a stronger impact on iced ecosystems than on other areas of our planet due to the fact that ice may more easily change its original state than land or atmosphere usually do.

First, amongst the emerging threats affecting the entire planet in general and the Arctic in particular, mention can be made of the massive exploitation of natural resources. Clearly, exploitation activities may dramatically modify both the external appearance and the internal natural equilibrium of the polar environment.

Second, the Arctic is inevitably threatened by the increasing presence of human beings, in particular, tourists. Ice-covered areas cannot generally sustain a large population. In addition, tourists are sometimes not adequately trained to move about in these fragile areas. Finally, polar tourist activities are generally carried out by means of ships, the passage of which increases both the possibility of ice melting and the risk of pollution of the polar environment.

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[5]The AHDR was established in accordance with the 2002 Arctic Council's Ministerial Declaration. It represents the first comprehensive assessment of human well-being in the Arctic region.

[6]Actually, the AMAP was established in 1991, before the creation of the Arctic Council, within the framework of the Arctic Environmental Protection Strategy (AEPS), a preliminary attempt of cooperation between Arctic States. For an overview, see T. Koivurova, 'Do the Continental Shelf Developments Challenge the Polar Regimes?', in *Yearbook of Polar Law*, 2009, pp. 477-497, at p. 482.

[7]For the different borders of AHDR and AMAP areas see the map at *www.arctic-council.org/images/maps/boundaries.pdf*.

[8]For the difficulty of identifying Arctic legal boundaries see C. M. Hall-J. Saarinen, 'Polar Tourism: Definitions and Dimensions', in *Scandinavian Journal of Hospitality and Tourism*, 2010, pp. 448-467, at p. 452.

[9]O. Stokke, 'Environmental Security in the Arctic', in *International Journal*, 2011, pp. 835-848, at p. 837.

Last but not least, climate change is probably the main threat to have affected the global environment in the last few decades. The alteration of the environmental conditions of this region entails a loss for the global environment and the international community itself.[10] This loss is twofold: on the one hand, the alteration of the polar climate certainly entails dangerous consequences for the global environment such as, for example, the rising sea level that is provoked by ice melting. Moreover, ice melting may facilitate and, thus, intensify some polluting activities in the Arctic, such as oil and gas exploitation and navigation through the polar ocean. Thus, environmental degradation may dramatically escalate.[11] On the other hand, the modification of climatic conditions is an environmental harm in itself because it irreparably changes the polar ecosystem.

Nevertheless, one cannot ignore the fact that in the Arctic, the rights of sovereign States, including State security, are also relevant. Moreover, the Arctic also sustains human population whose interests deserve to be protected, in particular, the rights of indigenous people. Although a balance between diverse interests appears to be necessary in the Arctic, one must consider that the serious and permanent alteration of the Arctic environment may also cause a negative impact on interests other than environmental ones. As an example, the major depletion of Arctic living resources may hamper indigenous people from carrying out their traditional ways of life and especially from procuring food.

Thus, the analysis of the several threats affecting this region will help us to ascertain whether and to what extent cooperation is necessary between the EU and US to satisfy interests of a different nature.

3.2. The Exploitation of Natural Resources

The exploitation of natural resources of the Arctic is an emerging problem due to the increasing need for resources on the part of the worldwide population. The required resources are both living and mineral. While the exploitation of living resources is harmful to the environment itself since the depletion of flora and fauna directly affects the ecosystems to which these resources belong, the excavation of mineral resources may both alter and damage the environment when it is carried out without taking necessary preventative measures for the protection of the environment.

The conservation of Arctic living resources is mainly regulated by individual Arctic States. Although general principles of international environmental law are globally recognised and other common obligations may arise from the participation of Arctic States in global agreements relating to the protection of natural resources, the absence of uniformity is quite possible between diverse sources of national legislation. Some common guidelines have also been suggested by the Arctic Council. For example, one can mention the 2006 Salekhard Declaration, in which the Council invites States to pay attention to the preservation of biodiversity for the protection of Arctic flora and fauna.[12]

On the one hand, natural resources must be preserved in the interest of the Arctic population; while on the other, these resources are instrumental for the very existence of these people. For this reason, the abovementioned Salekhard Declaration also mentions the need for sustainable development. As a consequence, an absolute ban upon resource exploitation cannot be a valid solution for the management of Arctic resources. For example, mention can be made of the negative impact that the US ban on polar bear products had on the sport hunting business.[13]

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[10]For this view see *ibidem*, p. 843

[11]This point is highlighted by Stokke, *ibidem*, p. 838.

[12]In *www.arctic-council.org/index.php/en/about/documents/category/5-declarations. File05_salekhard_decl_2006_ signed.pdf*.

[13]T. Pearce-J.D. Ford-A. Caron-B.P. Kudlak, 'Climate Change Adaptation Planning in Remote, Resource-Dependent Communities: an Arctic Example', in *Regional Environmental Change*, 2012, pp. 1-13, at p. 8 (in *www.springerlink.com/content/p57m1n5474776778*/).

The protection of Arctic flora and fauna clearly involves a balance between diverse interests which are equally important. The recognition of the priority of certain interests over others frequently depends on the internal political opinions and conditions of Arctic States. States may decide to sacrifice environmental issues during periods of economic crisis. In particular, undiscovered Arctic oil seems to be of crucial importance in the near future, due to the rapid exhaustion of continental mineral resources.[14]

Conversely, States in which environmentalist groups are quite powerful are less likely to ignore environmental matters. In addition, Arctic States must also protect the rights of indigenous peoples inhabiting their territories. At present, these rights have been recognised at international, regional, and State level.[15] Thus, Arctic living resources must also be preserved to allow indigenous groups to maintain their traditions.

The balance of environmental matters and interests of a different nature is also required with regard to Arctic marine resources. First of all, Arctic States' sovereignty is recognised over marine areas. Thus, the territorial sea, continental shelf, and exclusive economic zone (hereinafter EEZ) may be identified in the Arctic as corresponding to Arctic Ocean Coastal States.[16] Second, one must take into account that, under the international law of the sea and, in particular, the 1982 UN Law of the Sea Convention (hereinafter UNCLOS),[17] States enjoy sovereign or exclusive rights over the natural resources belonging to these marine areas. Thus, the exploitation of Arctic resources, especially mineral resources of the continental shelf, is entirely under State jurisdiction.[18]Although mining may cause serious harm to the marine environment, Arctic States may be encouraged to run the risk of carrying out mineral exploitation in the marine areas that are under their jurisdiction in order to counter the current shortage of energy sources.

A recent source of dispute relating to Arctic mineral resources has been provided by the proposal of Arctic coastal states of extending their continental shelf beyond the limit of 200 miles established by the UNCLOS. In fact, art. 76(7) of the Convention allows States to extend the outer boundary of their continental shelf in accordance with the recommendations of the Commission on the Limits of the Continental Shelf (hereinafter UNCLOS Commission).[19] In particular, the proposals of Russia and

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[14]L. Lindholt-S. Glomsrod, the Arctic: No Big Bonanza for the global Petroleum Industry, in *Energy Economics*, 2012, p. 1465-1474. at p. 1473.

[15]Several international regimes have so far recognised the rights of indigenous peoples. Within the UN framework, one must first of all mention art. 27 of the International Covenant on Civil and Political Rights. These rights have been recently stressed in the United Nations Declaration on the Rights of Indigenous Peoples, 13 September 2007, in *www.un.org/esa/socdev/unpfii/documents/DRIPS_en.pdf*. Moreover, the ILO adopted the Convention concerning Indigenous and Tribal Peoples in Independent Countries in 1989. Convention n. 169 in *www.ilo.org/dyn/normlex/en/f?p=1000:12100:0::NO::P12100_INSTRUMENT_ID:312314*. At the regional level, one cannot ignore the fact that three indigenous peoples organisations representing Inuit (Inuit Circumpolar Council), Saami (Saami Council), and Russian indigenous peoples (Russian Association of Indigenous Peoples of the North), respectively, are permanent participants in the Arctic Council. In addition, the Indigenous Peoples Secretariat was established to facilitate contributions from the permanent participants to the cooperation within the Arctic Council system and to assist the indigenous organisations in performing communicational tasks. Finally, the 2009 US National Security Presidential Directive/ /Homeland and Security Presidential Directive/ is worth-mentioning since it is the first act of the US official and active Arctic policy being pursued by the Obama administration and its departments. NSPD - 66/ HSPD - 25 in *www.nsf.gov/geo/plr/opp_advisory/briefings/may2009/nspd66_hspd25.pdf*. For an analysis of the status of the rights of Arctic indigenous peoples see S. Fallon, Don't Leave the Sami out in the Cold: The Arctic Region Needs a Binding Treaty that Recognises its Indigenous Peoples' Right to Self-Determination and Free, Prior and Informed Consent, in *Law and Sea Reports*, 2012, vol. 3(1), pp. 1-29.

[16]Arctic Ocean Coastal States are: Canada, Denmark, Norway, Russia, and the US.

[17]Signed at Montego Bay, 10 December 1982, *ILM* 21 (1982), p. 1261 ff.

[18]This point is highlighted with regard to the mineral petroleum existing in the seabed. See Stokke, cit., p. 847.

[19]States' proposals must be submitted to the UNCLOS Commission within 10 years from the date of ratification of the Convention. Thus, both Antarctic Claimant and Arctic coastal States have rushed to comply with this deadline in the last

Norway to extend their continental shelf in accordance with art. 76(7) of the UNCLOS have been strongly disputed, both by the Arctic States that do not have coastal territories, and by indigenous populations.[20] For example, the Inuit population reaffirmed its rights over the Arctic during the 2009 Meeting of the Arctic Council.[21] In contrast, Arctic Ocean Coastal States have repeatedly asserted their intention to deal with the issue of the outer limit of the continental shelf in accordance with existing international law, namely the UNCLOS.[22]

The extension of the outer limit of Arctic continental shelves is an important issue for the protection of the environment and conservation of resources of the polar region. First of all, if all Arctic coastal States extended their continental shelves in accordance with art. 76(7) of the UNCLOS, the Arctic sea bed and subsoil would be mainly under State jurisdiction and, thus, a limited area of deep seabed would remain.[23] In fact, while the deep-sea bed is declared by the UNCLOS as a common good that must be managed by the Authority, an international body, in the interest of humankind as a whole, the mineral resources of the continental shelf are subject to coastal State sovereignty. Thus, if the extension of the continental shelves of the Arctic States were allowed, the management of the areas of sea bed that are located 200 miles beyond the current outer boundary would be transferred from a global regime to the regulation of individual Arctic States.

In addition, if Arctic States carried out mineral exploitation activities on their continental shelves, as they are expected to do, the impact of mining would be devastating on the polar environment due to its fragility. Although the UNCLOS requires coastal States to perform activities in the marine areas under their jurisdiction in accordance with the general principles of international environmental law, the content of this obligation is too general to ensure that State interests are set aside to satisfy the concern of the international community for the conservation of the Arctic.

3.3. Arctic Shipping and Tourist Activities

Another serious threat affecting the polar environment consists in the increasing navigation, in particular, of tourist vessels in the Arctic. Moreover, and unsurprisingly, China has recently shown an interest in carrying out commercial shipping through the Arctic Ocean. In fact, this solution reduces both the length of nautical routes and the risks deriving from the actions of piracy that have increasingly occurred in the Arabian Sea.[24]

However, tourist activities have so far been the most frequent reason for Arctic navigation. Tourists are primarily attracted by the remoteness and wilderness of these areas.[25] However, significant human presence is precisely the main cause of the degradation of wilderness.

(Contd.)

decade. For an overview see E. Ridell-Dixon, Meeting the Deadline: Canada's Arctic Submission to the Commission on the Limits of the Continental Shelf', in *Ocean Development and International Law*, 2011, pp. 368-382.

[20]Russia and Norway submitted their proposals to the UNCLOS Commission in 2001 and 2006, respectively. See J.E. Fossum-S. Roussel, 'Moving Above and Below the State', in *International Journal*, 2011, pp. 781-791, at p. 783 and S. Kao-N. Pearre-J. Firestone, cit., p. 834.

[21]2009 Circumpolar Inuit Declaration on Arctic Sovereignty. For an overview, see T. Koivurova, 'The Actions of the Arctic States Respecting the Continental Shelf: a Reflective Essay,' in *Ocean Development and International Law*, 2011, pp. 211-226, at. p. 219.

[22]See Arctic Ocean Coastal States Declaration, done in Ilulissat (Greenland), on 28 May 2008, in and the Summary of the Chair of Arctic Ocean Coastal States Meeting, held in Chelsea (Canada), on 29 March 2010, in *www.arctic-report.net/uploads/2012/01/2010.3-Arctic-Ocean-Coastal-States-meeting-Chealsea-Canada-March-2010.pdf.*

[23]Koivurova, The Actions of the Arctic States, cit., p. 217.

[24]N. Hong, The Melting Arctic and its Impact on China's Maritime Transport, in *Research in Transportation Economic*, 2012, p. 50-57, at p. 52.

[25]For a thorough analysis of the reasons why tourists choose polar regions as preferred destination, see Hall-Saarinen, cit., p. 462.

Moreover, one must observe that tourist navigation has a more serious impact on the polar environment than on other areas of our planet. First of all, this is due to the high seasonality of polar tourism that causes a concentration of tourists in the short summer period.[26] Second, the crossing of ice-covered waters provokes greater carbon emissions because of the need to use the maximum power of vessels' engines.[27] Therefore, although polar tourism may be less significant in terms of the number of vessels and people involved compared to tourist activities that are carried out in other areas of our planet, its environmental impact is considerably greater.

In recent years, one of the most crucial issues relating to tourist navigation is the appropriateness of ships that are used for tourist cruises. In order to prevent further incidents, the Arctic Council[28] has invited States Parties to implement the IMO Guidelines for ships operating in the polar waters.[29] These guidelines establish safety and technical characteristics for vessels operating in polar regions. Moreover, the Agreement on Cooperation on Aeronautical and Maritime Search and Rescue in the Arctic was recently adopted within the Arctic Council framework, with the cooperation of the International Civil Aviation Organization (ICAO).[30] This agreement may be considered as the first legally binding instrument adopted by the Arctic Council. [31] Although the adoption of this agreement certainly marks a step forward with respect to the effectiveness of the legal regime of the Arctic Council, one must admit that the Agreement still leaves the management and control over maritime search and rescue activities in the hands of Arctic coastal States and, thus, fails to establish a real international regime concerning Arctic navigation.

Even though the use of safe vessels is certainly an important step for the prevention of environmental degradation of polar regions from tourist activities, one cannot ignore other aspects relating to this matter. For example, the distinctiveness of polar regions also requires specially trained personnel to be employed on tourist vessels. Moreover, tourists should be prepared in advance to face the fragility of the polar environment.[32]

Although tourism has become one of the main commercial activities carried out in polar regions, insufficient legislation has thus far been adopted relating to this matter within the legal systems of Arctic States. This is primarily due to the fact that tourism entails great economic interests both for tourist operators and for States. In fact, Arctic tourism represents the third largest State export after mining and petroleum products.[33]

In short, tourism is a lawful activity that cannot be banned in polar regions in absolute terms. In particular, State policies seem to favour the development of these types of activities that bring prosperity to their economies and populations. Nevertheless, one cannot ignore the significant

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[26] *Ibidem*, p. 454.

[27] P.T. Maher-M.E. Johnston-J.P. Dawson-J. Noakes, 'Risk and a Changing Environment for Antarctic Tourism,' in *Current Issues in Tourism*, 2010, pp. 387-399, at p. 391.

[28] See the 2009 Trømso Declaration in favour of the implementation of IMO guidelines for ship safety, in *www.arctic-council.org/index.php/en/about/documents/category/5-declarations*. File 06_tromso_declaration_2009_signed.pdf. Actually, IMO adopted Guidelines for Ships operating in Arctic Ice-covered Waters in 2002, MSC/Circ. 1056 MEPC/Circ. 399. The 2009 Trømso Declaration is the formal recognition of the 2009 guidelines which extended their scope to Antarctica as well.

[29] 2009 IMO Guidelines for Ships operating in Polar Waters (A26/Re. 1024). For the view that the IMO Guidelines are a valid instrument to control the appropriateness of tourist ships, see I.G. Brosnan, 'The Diminishing Age Gap between Polar Cruisers and their Ships: a New Reason to Codify the IMO Guidelines for Ships Operating in Polar Waters and Make Them Mandatory?', in *Marine Policy*, 2011, pp. 261-265, at p. 262.

[30] Done in Nuuk, on 12 May 2011, in *www.arctic-council/index-php/en/document-archive/category/20-main-documents-from-nuuk*.

[31] S. Kao-N. Pearre-J. Firestone, cit., p. 835.

[32] For this view see also Maher-Johnston-Dawson-Noakes, cit., p. 390.

[33] For this view see Hall-Saarinen, cit., p. 455.

environmental impact that these activities may have on the polar environment. Moreover, as affirmed above, while frequent navigation provokes ice melting, the reduction of ice facilitates the passage of ships. Thus, environmental degradation is inevitably going to escalate.

Therefore, when the conservation of polar regions is at risk, lawful activities must be regulated and, if necessary, restrained because of their noxious consequences. In fact, in the present author's view, State political and economic choices that do not take into account the need to preserve the polar ecosystem should be considered as inconsistent with the general principles of international environmental law.

3.4. Climate Change

Climate change has recently become one of the most frequently discussed issues in international fora and, in particular, in the Arctic Council. During the 2007-2009 International Polar Year, political and scientific dialogue mainly concerned climate change.[34] The interest in this matter is not surprising if one considers that climate change is one of the primary causes of the degradation of the polar environment.[35] The impact of climate change affects several elements of the polar environment, such as landscape, flora, and fauna.[36] As mentioned above, since polar regions are ice-covered areas, their aspect may be easily altered by rising temperatures that provoke ice melting. In addition, climate change may bring about the extinction of some species that only survive in cold temperatures. Finally, one must observe that, in the Arctic, the harmful effects of climate change also affect people living in this area. In particular, indigenous groups, such as the Inuit population, may lose the availability of species important for their subsistence.[37]

Climate change is not only a cause of the degradation of the polar flora and fauna. Climate change is also the negative consequence that some noxious substances and activities provoke in the Arctic. In fact, the change of the climatic conditions of ice-covered areas consists in the irreparable loss to an essential feature of these areas, namely their peculiar landscape. Increasing navigation and oil exploitation are some examples of harmful activities for ice-covered areas because they provoke ice melting.

Certainly, air pollution is the main reason for climate alterations.[38] In actual fact, the activities that provoke air pollution may most frequently occur outside the Arctic and, thus, of the area of applicability of the norms relating to the protection of this specific zone.

Therefore, legal and concrete measures must be taken in order to reduce the activities that are harmful for the polar climate. However, as has been repeatedly affirmed, climate change is a matter that may be only effectively addressed through measures that are agreed at global level and bind the international community as a whole.

[34]Hall-Saarinen, *ibidem*, p. 448.

[35]Stokke, Environmental Security, cit., p. 839.

[36]Pearce-Ford-Caron-Kudlak, cit., p. 4.

[37]*Ibidem*, p. 1.

[38]O. Stokke, 'Protecting the Arctic Environment. The Interplay of Global and Regional Regimes,' in *Yearbook of Polar Law*, 2009, pp. 349-369, at. p. 359.

4. EU and US Arctic Policies

4.1. EU Action in the Arctic

The initial interest of the EU relating to the Arctic was expressed by its determining role as "impartial mediator" in the resolution of the dispute relating to the Barents area.[39] Actually, the Barents Euro-Arctic cooperation was established in order to realise EU policy goals concerning economic cooperation and energy supply, as it is demonstrated by the early adoption of the 1994 EU-Russian Partnership and Cooperation Agreement.[40] Similarly, The EU played the role of "third party" in the Northern Passage dispute that occurred between the US and Canada.[41]

However, the accession of some Arctic States to the EU changed the EU approach as to Arctic issues.[42] In fact, the EU has attempted to affirm its competence to govern the Arctic. This EU attitude raised the scepticism of the Arctic States that are also EU members since they were afraid that the participation of the EU might entail a limitation of their sovereign rights over polar areas.[43]

Some EU political acts are worth mentioning in order to demonstrate the significant interest of the Union in Arctic issues. The first EU document making reference to the Arctic was the 2006 Green Paper that stressed the importance of the conservation of the environment of the "high North".[44] In 2008, the EU Parliament adopted a resolution highlighting the need for common rules relating to the protection of the Arctic environment.[45] As a consequence, the EU Commission and Council added the Arctic to the items of their agendas.[46] In particular, the 2008 EU Commission Communication, entitled "The European Union and the Arctic Region", raised some essential topics, such as the concern for the impact of climate change on the polar regions, sustainable use of Arctic resources, and some forms of multilateral governance of this area.[47]

One must admit that addressing global climate change is one of the main objectives of the EU.[48] In this regard, EU participation in global treaties, such as the 1992 Convention on Climate Change,[49] has increased the possibility of the Union being a primary actor in the regulation of environmental issues at the global level. Moreover, the EU Climate and Energy Package and the Emissions Trading Scheme (ETS) seem to constitute progressive policy measures.[50]

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[39]A. Myrjord, Governance beyond the Union: EU Boundaries in the Barents Euro-Arctic Region, in *European Foreign Affairs Review*, 2003, p. 239-257, at p. 256.

[40]K. Hossain, EU Energy Policy and the Arctic Region: a Balancing Interest between Environmental Responsibility and Resource Dependence, in *European Energy and Evironmental Law Review*, 2010, p. 295-305, at p. 303.

[41]The EU had a leading political role in the resolution of the Northern Passage dispute. The dispute concerned Canada's attempt to close the route from the Atlantic to the Pacific Ocean on the assumption that this area was included in Canadian internal waters. The EU supported the US view recognising the status of international strait of the passage, M. Pieper-M. Winter-A. Wirtz-H. Dijkstra, 'The European Union as an Actor in Arctic Governance', in *European Foreign Affairs Review*, 2011, p. 227-242, at p. 233.

[42]S. Weber-I. Romanyshyn, Breaking the Ice, in *International Journal*, 2011, p. 849-860, at p. 850.

[43]K. Offerdal, The EU in the Arctic, in *International Journal*, 2011, p. 861-877, at p. 868.

[44]K. Hossain, cit, p. 299.

[45]Resolution of 9 October 2008. For an overview see Koivurova, The Actions of the Arctic States, cit., p. 219.

[46]M. Pieper-M. Winter-A. Wirtz-H. Dijkstra, cit., p. 228.

[47] COM (2008) 763.

[48]K. Hossain, cit., p. 296 and S. Weber-I. Romanyshyn, cit., p. 851.

[49]Done at Rio de Janeiro, on 9 May 1992, in *ILM* 31 (1992), p. 849 ff..

[50]F. Francioni- Ch. Bakker, The Evolution of the Global Environmental System: Trends and Prospects, in *www.iai.it/pdf/Transworld/TW_WP_08.pdf*, p, 1-32, p. 14.

However, the role of the EU seems to be restricted with regard to the political issues concerning the Arctic. In fact, the EU Council has recognised States' competence with respect to the sensitive issue of the extension of the outer boundary of their Arctic continental shelves. Conversely, the EU Commission strongly sustains EU competence with respect to the protection of the Arctic environment, in particular, vis-à-vis EU Member States whose territories are located beyond the Arctic Circle.[51]

Moreover, one cannot ignore the EU's attempt at adopting specific norms for the protection of the Arctic environment and resources, namely the regulation banning seal products.[52] This regulation was not particularly welcomed by Arctic States. While Denmark, as an EU Member State, expressed its opposition to this regulation within the EU system, Canada[53] and Norway[54] submitted a complaint to the WTO Dispute Settlement Body (hereinafter DSB), arguing that the quantitative restrictions that had been applied by the EU were discriminatory under GATT norms. The final report of the panel is expected by October 2013, but it demonstrates that the role of the EU as "legitimate Arctic actor" has not yet achieved full recognition.

Finally, EU interests are not limited to the preservation of the Arctic environment. In fact, the EU's need for energy is satisfied by external sources, especially appertaining to Russia and Norway.[55] In this regard, the EU maritime policy shows all the conflicting interests relating to the Arctic. While, on the one hand, the 2008 EU Maritime Strategy Framework Directive[56] highlights the need to protect the polar environment, on the other hand, it stresses the importance of Arctic energy sources and polar routes for EU commercial policy.

In short, the EU has so far demonstrated itself to be one of the most active international actors as to the promotion of a global governance of the Arctic that is, in particular, aimed at preserving the polar environment. However, despite this clear "conservation" interest, the EU action still shows some inconsistencies with regard to the coordination of diverse policies. These inconsistencies are mainly due to the fact that, in order to reconcile conflicting interests, the EU should enjoy exclusive competence vis-à-vis all the legal and political matters relating to the Arctic. Some conflicts relating to the coexistence both of the aim of protecting the environment and the increasing need to take advantage of energy sources, may be resolved by the EU adopting legislation that promotes "green actions" such as, for example, investments in green energy sources and technology. However,[57] a uniform EU policy concerning the Arctic may only become possible if the Union achieves the full recognition of its competence with respect to all Arctic legal, political, and economic issues both at internal and at international level.[58]

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[51]The EU has so far financed several research projects aimed at ascertaining the conditions of the Arctic environment. For the view that the EU is more active in the organisation of non-binding activities, such as research funding, than in the binding regulation of Arctic matters, see M. Pieper-M. Winter-A. Wirtz-H. Dijkstra, cit., p. 240. For an overview on the EU's attempt at establishing common governance for environmental policy see F. Francioni, 'From Sovereignty to Common Governance: The E.C. Environmental Policy', in *The Gradual Convergence*, Nijhoff, Dordrecht, 1994, pp. 16-36.

[52]Regulation (EC) No. 1007/2009 of the European Parliament and of the EC Council of 16 September 2009 on trade in seal products.

[53]*www.wto.org/english/tratop_e/dispu_e/cases_e/ds400_e.htm.*

[54]*www.wto.org/english/tratop_e/dispu_e/cases_e/ds401_e.htm.*

[55]K. Hossain, cit, p. 299.

[56]Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive), *Official Journal*, 2008, L 164, p. 19.

[57]K. Hossain, cit, p. 305.

[58]S. Weber-I. Romanyshyn, cit., p. 859.

4.2. The US and the Arctic

The sovereignty over Alaska allows the US to enjoy the legitimate status of "Arctic Ocean Coastal State". Despite this political and legal title, the US interest relating to the Arctic was scarce in the past. For a long time, Arctic problems had been considered to affect the State of Alaska alone. Moreover, on the few occasions when the US federal government discussed this issue, it appeared to be quite sceptical with respect to the need for an institution, such as the Arctic Council, and the possibility of regulating Arctic matters by means of international norms.[59]

The change in US policy relating to the Arctic occurred in 2009 when the new government stressed the importance of the Arctic for the US as a whole and intensified its action within the Arctic Council framework.[60] This change was due both to the more environmentally-oriented views of the Obama administration and to the increasing interest in the commercial exploitation of Arctic resources. In fact, the first act of this new US Arctic policy is the 2009 Presidential Directive where the need for an international regime for the Arctic is emphasised.[61]

However, the US still remains sceptical with respect to an enhanced role of international institutions in the environmental field.[62] Therefore, current US policy relating to the Arctic is mainly aimed at consolidating US sovereign rights over this area.

Nevertheless, some authors are optimistic about the fact that the US intends to maintain the role of active participant in the international discussions concerning environmental matters, such as climate change and sustainable development. In particular, one can mention the Rio+20 conference, where the US delegation prominently contributed to the debate.[63]

In recent years, the US has also shown its interest in entering the UNCLOS in order to enjoy some rights that are sanctioned by the Convention. Among these rights, one can mention the right of access to the resources of the continental shelf that is located beyond 200 miles from the coast and the power of coastal States of control over their maritime areas in order to ensure State security.[64] Although the US government has not yet been authorised by the Congress to ratify the UNCLOS, it has recently promoted and financed drill activities in the Arctic. As an example, one can mention the drill program of Shell, the Royal Dutch oil company. Despite the recent suspension of this program due to technical difficulties and regardless of the strong opposition of environmentalist organisations, the US government has reaffirmed its intention to continue its cooperation with Shell.[65]

In short, the US interest in the Arctic is quite recent and is mainly justified by the need to preserve its sovereign rights over the area in opposition to other Arctic States' claims. Nevertheless, the increasing US participation in international negotiations concerning environmental issues and, in particular, in the "Arctic Council community" leads us to believe that, in the near future, the US may be favourable to the establishment of general common principles relating to the management and preservation of the Arctic.

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[59]D. Hitchins, An Alaskan Perspective, in *International Journal*, 2011, p. 971-977, at p. 973.

[60]*Ibidem*, p. 976.

[61]NSPD - 66/ HSPD – 25, cit.

[62]F. Francioni-Ch. Bakker, cit., p. 21.

[63]*Ibidem*, p. 14.

[64]D. Hitchins, cit., p. 977.

[65]C.Krauss-J.Broder, 'As Shell's Arctic Drilling Hopes Hit Snags, Its Rivals Watch', in *www.nytimes.com/2013/01/18/business/energy-environment/rivals-watch-travails-of-shell-arctic-drilling.html?pagewanted=all*.

5. Global Governance for the Arctic?

5.1. Preliminary Remarks

The Arctic has thus far been managed in accordance with a State-centred approach that recognises the powers and competences of sovereign States. The government of the Arctic region is in fact mainly carried out by the States enjoying sovereign rights over territories that are located beyond the Arctic Circle.

However, the protection of polar regions not only concerns the interests of the States and people that are geographically close to these areas. Polar regions are relevant for the international community as a whole and, thus, the conservation of its peculiarities and fragilities must be considered as a global environmental value. The global interest and attraction of polar regions is also demonstrated by the fact that tourist activities in these areas have dramatically increased in recent years.

If the conservation of the Arctic is a value in itself, its environment and resources should be considered as a common good and, thus, managed and protected in the interests of all of humanity.[66]

Even at first glace, it appears to be necessary to fix international common rules that are aimed at safeguarding the global interest in the Arctic. The first attempt at an international regime for this area is provided by the Arctic Council. However, as affirmed above, this regime reveals two critical characteristics. First, the Arctic Council is not an autonomous organism that can adopt binding acts as it is stated in its constitutive declaration. Second, as happens with regard to any regional treaty regime, the principles that are declared within the Council framework can only be applied with regard to Arctic States. This makes this regime ineffective, in particular, when third states are involved or when global threats are at issue.

Global governance of the Arctic is partially provided by some multilateral legal instruments that are applicable in the area, such as the UNCLOS.[67] As observed above, under this convention, Arctic coastal States must respect the environment when they exercise their sovereign or exclusive powers over marine areas.[68] Similarly, under Part XII of the UNCLOS, any State must ensure that the ships flying its flag exercise their freedom of navigation and fishing in the international seas in accordance with the general obligation to protect and preserve the Arctic marine environment. in the interest of the international community as a whole.

Notwithstanding the importance of global framework treaties, such as the UNCLOS and the Climate Change Convention, more specific common obligations are required in order to ensure the conservation of the Arctic. Therefore, a thorough analysis of international norms and practice is required in order to ascertain which legal regimes and political entities are most appropriate to govern and safeguard the Arctic, an area the uniqueness of which is globally recognised.

[66]F. Francioni-Ch. Bakker, cit., p. 5.

[67]S. Webber-I- Romanyshyn, cit., p. 853.

[68]See art. 193 of the UNCLOS relating to the duty of States to control that the activities that are carried out under state jurisdiction respect the environment and art. 208 concerning the duty of coastal states to prevent the environmental pollution that may arise from seabed activities subject to their jurisdiction. In particular, art. 234 of the UNCLOS dealing with the issue of the protection of ice-covered areas affirms that "(c)*oastal States have the right to adopt and enforce non-discriminatory laws and regulations for the prevention…marine pollution from vessels in ice-covered areas within the limits of the exclusive economic zone…, where…pollution of the marine environment could cause major harm to or irreversible disturbance of the ecological balance*".

5.2. The "Antarctic Model"

The Arctic region seems to be more difficult to preserve than other areas of our planet due to the presence of ice. However, the Arctic is not the only ice-covered area in the world. One must recall that there exists an entire continent that is permanently covered by ice, namely Antarctica.[69]

Therefore, a comparison seems to be useful between these two areas and the legal regimes that are applicable therein.

The differences that exist between the Arctic and Antarctic mainly affect their political and legal status. Unlike the Arctic, Antarctica has been governed by an international regime for five decades, namely the 1959 Antarctic Treaty (AT).[70] The AT gave origin to the Antarctic Treaty System (ATS), an international regime that includes several international legal instruments whose adoption was possible by the "freezing" of the national claims of States in order to safeguard an area of common concern.

One of the main features of this regime is the fact that under art. IV of the AT, the exercise of existing sovereignty claims[71] has been "frozen" in favour of the adoption of common rules for Antarctica. States claiming sovereign rights over some part of the Antarctic continent (hereinafter Claimant States) also declared the maritime areas, such as the territorial sea, continental shelf, and exclusive economic zone (EEZ) corresponding to these territories. In recent year, Claimant States have also submitted proposals to the UNCLOS Commission for the extension of their Antarctic continental shelf beyond 200 miles, as provided for in art. 76(7) of the UNCLOS.[72]

As to practical effects, the existence of the territorial sea, the continental shelf, and the EEZ, like claims over Antarctic territories, does not seem to have impeded the application of ATS norms. Claimant States, as parties to the AT, have renounced to exercise their sovereign rights sanctioned by international law. For example, they have abstained from exercising their power of control over foreign scientific expeditions which take place within claimed Antarctic territories,[73] in accordance with the ATS norms allowing the control over Antarctic operators on the basis of the criterion of nationality rather than under the principle of territorial sovereignty.

The same might be affirmed with regard to maritime claims. In fact, the proclamation of maritime zones within Antarctic waters has not been accompanied by the exercise of corresponding coastal state rights, which are recognized by the law of the sea. Thus, Claimant States seem to have accepted the

[69]Although the presence of ice is a common characteristic of both polar regions, each region has its own peculiarities. For example, climate change seems to have a stronger impact on the Arctic than on Antarctica since the northern polar area is mainly made of water and, thus, ice is thinner and easier to melt. By contrast, Antarctic ices have so far better resisted climate change since they mainly cover land and are therefore thicker.

[70]Washington, 1 December 1959, *UNTS* Vol. 402 No. 5778.

[71]The states claiming sovereign rights over Antarctica (Claimant States) are Argentina, Australia, Chile, France, New Zealand, Norway, and the UK. All of them are signatory parties to the AT.

[72]Amongst Claimant States, Australia, New Zealand, Argentina, and Norway submitted a proposal affecting the area below 60° South Latitude. France and the United Kingdom proposed the extension of their continental shelf corresponding to their sub-Antarctic islands that are located in the CCAMLR area. In *www.un.org/Depts/los/clcs_news/commission_submission.htm*. In its recommendation to Australia, the UNCLOS Commission stated that it would have set aside the delimitation of the continental shelf corresponding to the AT area since the issue of State sovereignty was controversial in this area.

[73]For example, Italian "Mario Zucchelli" station is located in the Antarctic sector claimed by New Zealand and Italian scientists often operate in the zone which should correspond to "New Zealand" territorial sea. However, these scientists have always been considered to be subject to Italian jurisdiction.

fact that claims over maritime zones have been frozen, like territorial claims, in order to render ATS norms effective.

However, claims of sovereignty that existed at the time of the adoption of the AT are still valid. For this reason, it has not been possible to declare Antarctica as a part of the common heritage of humankind. A new variant on the common heritage principle, which appears to be more suitable for the *sui generis* legal status of Antarctica, is the concept of the "common concern of humankind" which is included in some international agreements, such as the Convention on Biological Diversity.[74] Although it seems to be correct to consider the preservation of the Antarctic environment as an interest of all humankind, the "common concern" principle avoids the attribution to Antarctica of the status of *res communis omnium*. Such an interest requires states to behave consistently, so as to preserve areas of common interest such as the ozone layer, the climate and biodiversity, namely the so-called "common goods".[75]

The same approach might be also usefully applied to the Arctic. In fact, unlike Antarctica, the Northern polar area is subject to indisputable State sovereignty. However, the existence of sovereign States cannot hamper the establishment of an international regime that should be aimed at preserving the Arctic in the interest of the international community as a whole.

In order to achieve the goal of managing Antarctica in the interest of humankind, the AT States parties have adopted several legal instruments regulating different aspects relating to this area. Particular attention must be paid to the 1991 Protocol on Environmental Protection to the AT (PEPAT).[76]

First of all, the PEPAT reaffirms the importance of the interest of humankind in the conservation of Antarctica by declaring this area as "a natural reserve, devoted to peace and science". In this regard, the PEPAT adopts a comprehensive approach, which is expressed both by its purpose, namely the protection of the Antarctic environment as a whole, and by its scope, that is the regulation of all the activities that are carried out in the AT area. In the light of the above, the PEPAT bans the exploitation both of living and mineral resources of the Antarctic continent, except for scientific purposes.

Second, the Protocol sanctions some general principles of international environmental law, such as the precautionary approach. In fact, human activities are only permitted in Antarctica following an environmental impact assessment procedure.[77] In particular, this assessment must be supported by scientific evidence demonstrating the non-detrimental impact of human activities on the Antarctic environment.[78]

The same principles seem to be suitable for application to the Arctic. In fact, natural reserves also exist in the territories that are under State jurisdiction. The main aim of the designation of natural reserves is to ensure the preservation of some peculiar ecosystems. Nevertheless, States sometimes use their natural reserves to achieve financial benefits. As an example, one can mention the case in which the US management body of the Yellowstone National Park concluded a contract with a private firm to allow the commercial exploitation of park's natural resources. The contract was considered to be

[74]Rio de Janeiro, 5 June 1992, *ILM* 31 (1992), 822 ff.

[75]For the importance of the "common concern principle" see F. Francioni-Ch. Bakker, cit., p. 23, who affirms that "*the principle of "common concern of human kind" does not entail the establishment of a supra-national system of environmental governance, but rather … for a use of governmental powers that is aligned with the general interest of the international community to protect the global environment*".

[76]Done in Madrid on 4 October 1991, *ILM*, 1991, p. 1455 ff.

[77]F. Francioni-Ch. Bakker, cit., p. 7.

[78]For the view that scientific research is essential to the adoption of effective measures of protection of the environment see F. Francioni-Ch. Bakker, *ibidem*, p. 10.

consistent with the nature of "reserve" of Yellowstone Park since the financial revenue of the transaction was used by the US authorities to guarantee the conservation of the park.[79]

While this conduct of the US authorities would be inconsistent with the strict provisions of the PEPAT relating the exploitation of Antarctic continental resources, it could be justified in an area, such a the Arctic, where sovereign States have to combine both the obligation to preserve the environment in the interest of the humankind and the needs of Arctic population.

In this regard, another Antarctic legal instrument may provide the example of a successful regime for the management of goods of global concern: the 1980 Convention on the Conservation of Antarctic Marine Living Resources (hereinafter CCAMLR),[80] which is an agreement associated, but independent from the AT.

In fact, this convention presents some distinctive characteristics with respect to the AT and legal instruments originating from it. First, while the AT and PEPAT prohibit resource exploitation for anything other than scientific purposes, under art. 2 of CCAMLR, the "conservation" of marine species also entails their "rational use". The concept of "rational use" is clearly a compromise between the conflicting views of the States that are mainly interested in harvesting species and the countries, which are more environmentally concerned. However, "rational use" may be only carried out in accordance with the conservatory measures that the CCAMLR Commission, the political organ of the Convention, adopts following the advice of the Scientific Committee, the group of experts that assesses the sustainability of resource harvesting on the basis of scientific data. This approach may be also effectively applied to the Arctic where, as affirmed above, human presence does not allow for the exclusion of resource exploitation in absolute terms.

Moreover, CCAMLR's geographic scope is wider than the AT area of application. While the outer limit of the AT and PEPAT area is delimited by a fixed line, which is the parallel of 60° South Latitude, below which State sovereignty has been "frozen", the external boundary of the CCAMLR area is the Antarctic Convergence.[81] The extension of the CCAMLR outer limit beyond the 60° South Parallel area expands the effectiveness of the ATS to sub-Antarctic territorial and marine zones that, unlike the AT area, are subject to indisputable State sovereignty.[82] The legitimacy of the exercise of sovereign powers in this area is provided by a statement of the Chairman of the conference from

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[79]The case concerns the agreement that was concluded between the management body of Yellowstone Park, the National Parks Service, and Diversa Corporation, a biotechnology company, and that concerned the collection of biological tissues for potential financial sharing. The Edmonds Institute, a non-profit organisation, asked for the annulment of this commercial transaction due to its inconsistency with the aim of the US statute that established the Park. The court that judged this case affirmed that the products deriving from the collection of the biological tissues of Yellowstone Park could not be considered and sold as research products since such collection was not carried out for scientific reasons, but for commercial purposes. Further, the court pointed out that commercial activities have a different impact on the environment than scientific research. Thus, commercial activities cannot be allowed on the basis of the same conditions of scientific research. Notwithstanding these preliminary assumptions, the court concluded that Yellowstone Park could be considered a natural laboratory, which, under US law, may be used by private operators provided that such use is consistent with the purposes for which the laboratory was created. For this reason, the commercial agreement was declared to be consistent with the statute establishing the Park. For this case see M. Wood, "Are National Park Resources for Sale?: Edmonds Institute v. Babbitt", in *Public Land and Resources Law Review*, 2000, p. 201 ff.

[80]Done in Canberra on 20 May 1980, *ILM*, 1980, p. 837 ff.

[81]Antarctic Convergence consists in the maritime area "*where cold Antarctic waters which are moving northwards dip beneath the warmer southward-moving sub-tropical waters*". For this definition see A. Watts, *International Law and the Antarctic Treaty System*, Cambridge, 1992, p. 151. The choice of this external boundary is due to the fact that CCAMLR, which is mainly concerned with environmental issues, takes into account the natural characteristics of the area of its application.

[82]This area includes some sub-Antarctic islands over which state sovereignty is generally acknowledged. In fact, these islands do not fall within the scope of application of the AT. These islands are: McDonald and Heard Islands of Australia; Kerguelen and Crozet Islands of France; South Georgia and South Sandwich Islands, over which Argentina and the United Kingdom claim sovereignty; and Bouvet Island appertaining to Norway.

which CCAMLR originated. This statement affirms the priority of sovereign rights of coastal States over CCAMLR obligations. The recognition of this priority of State sovereign rights does not entail the abdication of CCAMLR with regard to the conservation of marine resources that are located in the marine areas subject to State jurisdiction. Conversely, the co-existence of State and international norms seems to be a positive element rather than a cause of conflicts between State and international interests. In fact, allowing coastal States to exercise sovereign rights within sub-Antarctic waters produces the useful effect that these states can apply CCAMLR norms, which have been incorporated into national legislation, vis-à-vis third States.

Thus, the traditional problems arising from the lack of enforcement powers of an international regime, such as CCAMLR, which only establishes general obligations, may be resolved by implementing these obligations through the sovereign powers of CCAMLR parties.

The same conclusion concerning the enforcement of international obligations is also valid for the AT and PEPAT. Although territorial sovereignty is not generally recognised, ATS common provisions require States parties to enforce these obligations vis-à-vis private persons who, under their jurisdiction, organise activities to be carried out in Antarctica. For example, the duty of tourist operators to adopt contingency plans, established by an ATS measure,[83] is regulated by the national legislation of the AT State party in the territory of which the operator organises his/her activities. Thus, even if the approach based on State sovereignty is not applicable in Antarctica, the control of sovereign States is fundamental for the enforcement of ATS norms.

Thus, this approach that is adopted both by the PEPAT and CCAMLR may be also applied in the Arctic. While the Arctic Council might establish common provisions, on the basis of a decision-making power that it has not so far achieved, Arctic States should ensure the concrete enforcement of these provisions.

Finally, one must recall that, unlike the AT, the CCAMLR admits the participation of international organisations. In fact, the EU is a party to the Convention.[84] It is therefore in this field that the cooperation is more frequent between the EU and US with respect to Antarctic issues. One can mention a recent case in which this cooperation appears evident. This case concerns the designation of a specially protected marine area in the Ross Sea. For almost one year, the EU and US have been attempting to formulate a proposal in this regard in order to establish common rules for the management of this area, which, in recent times, has been significantly affected by fishing activities. In fact, among CCAMLR parties, the EU and US have so far shown a stronger interest in the conservation rather than in their exploitation of marine resources. The EU-US effort has induced other CCAMLR parties, such as, for example, New Zealand, to contribute to the establishment of a specific regime for the Ross Sea.[85]

Thus, if the EU and US extended this type of cooperation in the Arctic, other Arctic States and countries that have interests in this area may be convinced to establish more serious common obligations for the management of the Arctic.

In spite of its undeniable success, the ATS regime has recently faced some new challenges, such as climate change. Although ATS norms have so far provided a high level of protection of the Antarctic environment, they appear to be totally ineffective with respect to the environmental threats occurring outside the area of application of the AT and PEPAT. In fact, the activities that provoke air pollution

[83]See Measure 4(2004). The legal acts that are adopted within the ATS regime are divided in three different categories: Measures (instruments with binding effects, which enter into force after the approval by the national Governments of the Consultative Parties); Decisions (operative instruments that are immediately effective); and Resolutions (hortatory acts).

[84]For the importance of the different participation in CCAMLR see B. Davis, The legitimacy of CCAMLR, in O. Stokke-D. Vidas (eds), *Governing the Antarctic*, Cambridge, 1996, pp. 233-245, at p. 235.

[85]This issue is going to be discussed at the Second Special Meeting of the CCAMLR Commission that will take place in Bremerhaven in July 2013. See *http://www.ccamlr.org/en/ccamlr-sm-ii*.

and, thus, climate modification most frequently occur outside Antarctica, since industrial and commercial activities are banned in the AT area. This peculiarity of the harmful causes of climate change is the primary reason why AT parties have not yet adopted specific provisions for the prevention of climate alterations. Therefore, global action limiting these activities is the only means to arrest environmental degradation.

In short, the ATS provides a good example of an international regional regime reconciling State sovereign interests and the need to preserve a common good, such as Antarctica, for the benefit of humankind. In spite of its positive results, this regime certainly requires cooperation at the global level to challenge common threats.

Although the Arctic presents different political and legal characteristics with respect to Antarctica, Arctic States may use the ATS, and in particular the CCAMLR, as a model to establish a binding international regime for the Arctic that takes into account both State and global interests.

5.3. Multilevel Governance

Environmental threats require effective means for the prevention and repair of environmental damage. International law traditionally recognises the competence of sovereign States to preserve the territory and resources that are under State jurisdiction. Although sovereign State powers are an effective instrument to manage territorial areas, they do not guarantee the uniform regulation of diverse zones. In fact, the different rules that are established by diverse States may conflict or, at least, overlap. This is the reason why the US Arctic policy has so far appeared rather ineffective.

The weight of State sovereignty also appears within the bilateral agreements that some States sign to resolve common problems. For example, mention can be made of the treaty that was concluded between Norway and Russia relating to the governance of the Barents Sea in 2010.[86] The agreement is in fact aimed at reconciling the separate rights of these two States rather than safeguarding the interests of the international community in the area. These forms of cooperation are preferred by the States, like Russia, which are quite sceptical with respect to any type of global governance.[87]

Sometimes, regional regimes may be effective for the management of a specific geographical area. The ATS and Arctic Council are two different examples of regional cooperation between States sharing interests in the same zone. The ATS is definitively more effective due to binding character of its precise provisions.

Despite their effectiveness, regional regimes nevertheless appear inadequate to deal with matters of a global nature.[88] Although the authoritativeness of the ATS has been generally recognised both at the internal and international level, one must admit that this regime cannot provide satisfactory solutions to some threats, such as climate change. As affirmed above, these kinds of environmental problems require action at a global level.

Therefore, global treaty regimes may appear the most appropriate instruments to deal with issues affecting the entire international community. The Climate Change Convention is an example of one of these regimes. Similarly, the UNCLOS seems appropriate to regulate the issues relating to the law of the sea and, in particular, the powers of coastal States over the marine areas under their jurisdiction.[89]

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[86]Koivurova, The Actions of the Arctic States, cit., p. 219.

[87]K. Offerdal, cit., p. 877.

[88]For the view that regional bodies have a modest role to combat global problems see Stokke, Environmental Security, cit., p. 843.

[89]*Ibidem*, p. 845.

Finally, IMO conventions and guidelines are acknowledged to be the most effective instruments to determine safety and technical characteristics of navigation.[90]

In short, the governance of polar regions cannot be either left in the hands of single States or dealt with by a regional treaty regime exclusively regulating the activities that are carried out in the area of application. Recent environmental threats can only be combated through multilevel action on behalf of the entire international community so as to preserve these regions as goods of common concern.

In this regard, some authors have invoked the concept of "responsible sovereignty", on the basis of which State behaviours, including the exercise of sovereign powers, should be performed in accordance with the interest of the entire international community in protecting the global environment. [91]

6. Conclusions

The vulnerability of the Arctic environment clearly requires special protection. Environmental threats cannot only harm the polar ecosystem, but they may even lead to the disappearance of this region. Thus, harms affecting the Arctic should be perceived as a threat to humankind as a whole. This perception does not yet seem to be generally accepted. Too many interests of differing natures are at issue in this area. On the one hand, human presence compels States to safeguard the environment to ensure the protection of human health; on the other, other human needs must be taken into account.

Although a balance appears to be necessary between the diverse interests at stake, one cannot disregard the fact that sustainable development is only possible if the survival of the polar environment is ensured. In fact, State, private, and indigenous interests exist as long as the object of their interest, i.e. the Arctic ecosystem, survives. Therefore, the conservation of the polar environment is not only a holistic aim, but also a practical necessity.

As observed above, a single regime does not appear to be able to deal with the difficult issue concerning the protection of the Arctic environment. A multilevel system of protection is required.[92] In this regard, the EU and US might provide some contribution. In particular, the EU can play the role both of single actor and regional regime. On the one hand, the EU may promote environmental goals within regional and international fora. On the other hand, it may coordinate its internal policies in order to facilitate the harmonisation of the national strategies both of Arctic and non-Arctic Member States relating to the protection of the polar environment. Certainly, as a matter of policy, the US could show a more positive attitude towards the possibility of undertaking binding commitments at the multilateral level than it has done thus far.[93]

Both the EU and US should ensure that global treaties and institutions, such as the Climate Change Convention and UNCLOS, deal with the problems entailing action on the part of the international community as a whole.[94] In particular, they should encourage the application of some general rules,

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[90]Brosnan, cit., p. 1.

[91]For this view see F. Francioni-Ch. Bakker, cit., p. 23 and, most thoroughly, F. Francioni, 'Realism, Utopia and the Future of International Environmental Law', in *EUI Working Papers*, Law 2012/11, pp. 1-16.

[92]Fossum-Roussel, cit., p. 786.

[93]F. Francioni-Ch. Bakker, cit., p. 4.

[94]For the need of a global institution regulating the protection of the environment see F. Francioni-F. Lenzerini-M. Montini, 'Establishing The United Nations Environmental Organization: The Best Institutional Option for Reforming International Environmental Governance', in Italian Ministry of Foreign Affairs (ed.), *International Conference on Environmental Governance*, Rome, 2010, pp. 63-67, *in http://www.isprambiente.gov.it/site/_contentfiles/00010300 /10340_icef2011.pdf*.

such as the "common concern" principle, to the Arctic in order to recognise its status of "common good" that must be managed in the interest of humankind.

Moreover, specific norms should be adopted by the regional regimes that better understand the peculiarities of this area. In this regard, the Arctic Council mechanism patently calls for institutional reorganization in order to make this regime more effective so as to establish common obligations vis-à-vis Arctic States.[95] The ATS may be a good example of a legal system where international decision-making power and State implementing authority work together.

With regard to the institutional reform of the Arctic Council, the contribution of the EU and US varies. While the former is just an external observer of the Arctic Council, the US, as a member of this organisation, might promote the reorganisation of the Council from inside. This reorganisation might, for example, entail the establishment of an international regime for the Arctic following the "ATS model" in which both State sovereignty and global interests are safeguarded.

Finally, as affirmed above, States have the most effective powers to enforce international, whether global or regional, obligations within the territories and vis-à-vis the persons that are under their jurisdiction. In this regard, the US may play a more decisive role than the EU. In fact, the EU can only rely upon the enforcement mechanisms existing in the domestic legal systems of its Members States.

It should be noted that a multilevel system of protection can only work if and when diverse regimes and entities involved fully cooperate for this purpose. Unfortunately, such cooperation does not occur very often in international law. Overlaps and conflicts are quite frequent between regimes dealing with different matters, as has been demonstrated by the abovementioned WTO dispute relating to the EU ban on seal products. In fact, when diverse interests are at hand, international regimes are inclined to consider the interests that they deal with to prevail over matters that are regulated by other legal systems. Although a formal hierarchy has not been established between the diverse international issues, one must admit that the conservation of the environment has achieved general recognition as a fundamental principle of international law. Thus, when the preservation of the environment is at risk, diverse interests should be set aside in order to avoid environmental degradation.[96]

This conclusion is also valid with regard to the protection of the Arctic environment. The shortage of goods, energy, and the search for profit may encourage public and private operators to seek new sources of prosperity that may affect the areas of the planet that have so far remained undisturbed, such as polar regions. Nevertheless, one must bear in mind that, if massive mining and navigation activities occurring in the Arctic provoke some serious alteration of the environment at a global level, such as, for example, a rise in sea levels, the survival of the international community as a whole will be at risk. Thus, although the sovereign rights of Arctic States are legitimately recognised both over territorial and maritime areas, the conservation of the Arctic environment is undeniably an aim of common concern, the achievement of which entails the "responsible behaviour" of both public and private actors.

[95] S. Kao-N. Pearre-J. Firestone, cit., p. 837.

[96] In order to resolve problems of overlap between regimes safeguarding diverse interests, one author has suggested a criterion of logical succession that should lead States parties to both trade and environmental agreements first to seek the solution of the environmental features of a dispute before the dispute settlement organs established by environmental treaties and, then, on the basis of its outcome, to resolve the trade-related aspects of the same dispute before the competent organs. See F. Francioni, 'La Tutela dell'Ambiente e la Disciplina del Commercio Internazionale', in Società Italiana di Diritto Internazionale (ed.), *Diritto e Organizzazione Internazionale dopo la Creazione dell'Organizzazione Mondiale del Commercio*, Naples, 1998, p. 168.

Regardless of the existence of a global regime for the management of the Arctic, both the EU and US may identify the primary obligation of exercising their authority in an "environmentally responsible manner" within the fundamental principles inspiring their constitutional systems.[97]

In short, although the EU and US suggest different approaches and mechanisms toward the management of the Arctic, there is still much room for cooperation between these two entities with the aim of ensuring the environmental protection – and indeed the existence – of this peculiar area of our planet.

[97]F. Francioni-Ch. Bakker, cit., p. 23.