

REDD Alert for developing countries? Are their forests in risk of internationalisation with the recent developments within the UN climate change regime?¹

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1. Introduction

There is an increasing awareness of the role that forests play in the global carbon cycle and the negative impact that deforestation has on global warming². Deforestation accounts for nearly 17 percent of the total annual Greenhouse Gas (GHG) emissions³. Forested developing countries, particularly those from South America and Africa, are the main contributors to that amount⁴. This situation has boosted the perception that the new global climate change deal following the Kyoto Protocol commitments, ending in 2011, must include financial incentives to reward forested developing countries that succeed in reducing the rate of deforestation. Although discussed at the Kyoto Conference, payments for Reducing Emissions from Deforestation and Forest Degradation (REDD) were not included in the Protocol for a series of political and technical reasons. Currently the UN framework only allows reforestation and afforestation projects as part of the Clean Development Mechanism (CDM),

¹ REDD is a mechanism that aims to contribute to tackle climate change by creating a financial value for the carbon stored in the trees. In this scheme, developing countries accept the commitment to keep their forest standing in exchange for international financial compensation for the cost of opportunity of not using forest for an extractive activity.

² Forests sequester the CO₂ from the atmosphere in a phenomenon called photosynthesis that is the natural process by which carbon dioxide is converted into organic matter as trees and plants grow. Through this sequestration process, forests become natural storages of carbon, contributing to reduce the amount of GHG in the atmosphere and to limit the rise of temperatures. Some of the carbon is kept in the trees' and plants' biomass but a significant amount is transferred to the soil through the roots and fallen leaves (note 8 below, p. 445).

³ IPCC. *Climate Change 2007, Synthesis Report*. Geneva: IPCC, 2007, p. 36. This represents more than the whole transport sector and comparable to the annual emissions of the US or China (note 7 below, p. 6).

⁴ FAO. *Global Forest Resources Assessment*. Rome: FAO, 2010, pp. xiii–xx.

therefore, only one part of the equation required to effectively tackle the problem of forest loss has been considered.

However, new scientific and technological developments are making it possible to overcome some of the obstacles that REDD faced ten years ago, and its implementation has become feasible. Moreover, developing forested States, traditionally anxious with foreign intervention in the administration of their natural resources, are willing to accept commitments to reduce deforestation and developed countries seem keen to compensate them for the opportunity cost of those actions. As a result, the interest in the protection of the world's forests, especially tropical forests, has grown to unprecedented heights. 2011 has been declared by the Food and Agricultural Organisation (FAO) 'The International Year of Forest' and the Cancun Agreements (2010) ratified the intention to include REDD as part of the international efforts to tackle climate change.

It seems timely to evaluate the potential impact that the eventual implementation of REDD within the United Nations climate change regime will have, over the legal status of tropical forests. Attempts by developed countries to 'internationalise' forests had so far been unsuccessful in legal terms; forests, particularly, tropical forests, have been carefully guarded by developing countries as part of their national patrimony⁵. However, if REDD becomes a popular mechanism, it will impose a series of restrictions over the freedom of developing States in the management of these resources. It has even been suggested that "...bringing forest into an international climate regime will increase the pressure for a de facto internationalisation of tropical forests"⁶. Thus, my purpose with this dissertation is to assess whether REDD could threaten the sovereignty of developing States over their forests.

To that end I will first discuss how the relation between international efforts to tackle climate change and global concerns about deforestation has evolved, and how the latter has been integrated into the former's strategy. I will also present a brief description of REDD as it has been developed so far by the UN Framework Convention on Climate Change's Conferences of the Parties (COPs). I will continue by describing the current legal status of the forest and the role of the principle of Permanent Sovereignty over Natural Resources in the reaffirmation of States' sovereignty in the management of their forests. Restrictions to this principle will be discussed in order to contextualise and present the existing international regimes governing the global commons, which constitute the clearest exceptions to national

⁵ SANDS, P. *Principles of International Law*. Cambridge: CUP, 2nd Edition, 2003, pp. 546-547.

⁶ BOYD, W. 'Ways of Seeing in Environmental Law: How Deforestation Became an Object of Climate Change'. 37 *Ecology Law Quarterly* (2010), p. 880, fn. 144.

sovereignty. I will review key concepts such as Common Heritage of Mankind, Common Concern of Humankind and World Heritage.

Based on all these elements, I will determine those restrictions that the mechanism will impose over the sovereign States and assess whether they could amount to a de facto internationalisation of forest. As will be made evident, my conclusion is that as REDD stands today, there are not enough legal elements to put forward such a case. Moreover, I will argue that since legally it is not possible to speak about the internationalisation of forests, it is not convenient and can even be harmful for REDD that internationalisation suggestions are brought into the debate. It can exalt nationalist and anti-colonial feelings in developing countries' population, giving ammunition to those that have a particular interest in continuing to deforest, such as illegal loggers or miners, and placing the implementation of REDD by national governments at risk.

2. Deforestation and climate change

In the last century, global temperatures have risen alarmingly by 0.7°C⁷. The high level of greenhouse gases emitted to the atmosphere since the Industrial Revolution is responsible for this situation⁸. The rising temperature's effect is already evident in many parts of the world: The arctic sea's ice and glaciers are melting at a very rapid speed; sea levels are rising; the changes in rainfall patterns are leading to floods and droughts; there is an increase in the number of climate events such as hurricanes and cyclones, etc. Climate change has become, more than ever, a global threat. The four main contributors to global warming are: energy supply (25.9 percent), industrial activity (19.4 percent), land use (17.4 percent) and transport (13.1 percent)⁹. The UN climate change regime has developed agreements that include mitigation policies in the energy, industrial and transport sectors, however, deforestation, which is the main driver of emissions in the land use field, is not yet part of this scheme¹⁰.

⁷ ELIASCH, Johan. *The Eliasch Review*. Surrey: Crown Copyright, 2008, p. 2.

⁸ STERN, Sir Nicholas. *Stern Review on the Economic of Climate Change*. Cambridge: CUP, 2006, p. iii. It is estimated that before the Industrial Revolution, the level of CO₂ in the atmosphere was 280 parts per million (ppm); the current stock is around 430 ppm CO₂. Policies that aim to tackle climate change, set at 2°C the maximum temperature increase that can be allowed. This has become a benchmark for climate change modelling. According to the Stern Review, to avoid exceeding this target, the CO₂ in the atmosphere should not exceed 500-550 ppm (twice the quantity that existed at the time of the Industrial Revolution). As fast-growing economies invest in high-carbon infrastructure and as the world's demands for energy and transport are amplified, the review estimates that in the business as usual (BAU) scenario the proposed limit could be reached by as early as 2035.

⁹ Note 3 above, p. 36.

¹⁰ *Ibid.*

As a consequence of global warming concerns, the role of the forest as a stabiliser of the global climate is becoming more important than ever.

The world forest extension is just over 4 billion hectares, which is equivalent to 31 percent of the world's land area and represents an average of 0.6 hectare per capita¹¹. Within this extensive area, there is a rich storage of natural wealth. Forests provide a diverse range of socio-economic and environmental goods and services for mankind¹². It is estimated that the world's forests contain approximately 652 gigatonnes (Gt.) of carbon. From this amount, 289 Gt. are in its biomass, 79 Gt. in wood and litter, and 292Gt. in the soil¹³. However, the continuous losses are reducing the natural capacity of forests to sequester and store CO₂. Forest loss occurs through natural disasters but mainly through deforestation¹⁴. Deforestation is actually turning forests into providers of global public 'bads'¹⁵. When forests are cleared, trees are cut and soils removed, the CO₂ storage in their biomass, wood, litter and soil is emitted into the atmosphere. These negative effects are felt globally.

Although the FAO's 'Global Forest Resource Assessment 2010' found that the rate of forest loss has slowed down at the global level in the last decade, it also reported

¹¹ Note 4 above, p. xiii.

¹² HUMPHREYS, D. *Log Jam*. London: Earthscan, 2006, pp. 1-21; KAUL, Inge, Isabelle GRUNBERG, and Marc A. STERN (eds.). *Global public goods: international cooperation in the 21st century*. Oxford: OUP, 1999, pp. 3-4. The stabilization of the global climate provided by forests is a global public good (or service). Economists explain the nature of public goods by the impossibility to exclude others from enjoying these and the fact that their use does not exhaust or deplete them. These two characteristics are known as the 'non exclusive' and 'nonrivalrous in consumption' conditions of public goods, which are responsible for their lack of market value, as opposed to that of private goods. Their global condition is defined by the universality of their reach. Due to these characteristics, it is possible that everyone in the world, no matter how far they may live from forested areas, is benefited by a stable climate at no individual cost. Not having to pay for such benefit is good as far as its provision is continuous, spontaneous and sufficient. However, when this provision stops or diminishes for natural or artificial reasons, correcting this problem is not as easy as buying a replacement in the supermarket. This is the problem that we are currently facing: the continuous losses are reducing the natural capacity of forests to sequester and store CO₂. Some other public goods produced by forest are: storage of genetic information, watershed and soil protection, provision of recreation facilities, preservation of profound spiritual and cultural value for indigenous peoples, etc. Examples of private goods are: wood, fruits, nuts, oils, rattan, rubber, medicines, game, etc.

¹³ Note 4 above, p. 11.

¹⁴ *Ibid.*, p. xv. The most common way to clear forested areas for agricultural land is by burning it. This method allows the ashes to enrich the soil for agricultural purposes. However, it is also the most harmful for the environment because it releases all the CO₂ contained in the soil, litter and even in the tree's roots. Unsustainable logging is another main driver: industrial round wood remains, by far, the most precious output from forest. Nevertheless, it is interesting to see that logging itself need not be a major driver if single trees with commercial value are cut. In fact, the timber used in long-life wooden products conserves carbon during the product's lifetime. The problems with logging are the traces that the activity leaves behind. The extraction and transport of the product requires the construction of roads and paths, which open new areas for the expansion of agricultural land (note 8 above, pp. 539-540).

¹⁵ Note 12 above, Humphreys, p. 6 & Kaul *et al.*, pp. 3-4.

that the rate is still alarming in many countries¹⁶. South America has the largest net loss in the world with about 4.0 million hectares per year and Africa is the second with approximately 3.4 million hectares. Oceania has also reported significant rates of forest loss in its forests in recent years due to the destruction of large areas by severe drought and forest fires in Australia¹⁷. Forest losses have reduced the carbon stocks in the world forests by an estimated 0.5 Gt. per year in the last ten years¹⁸. Deforestation is driven mainly by the purpose to turn the forest into something valuable in economic terms (private goods) mainly agricultural products and timber.

No matter how important intangible public goods produced by forests are for the well being of local populations and the whole of mankind, such as through carbon storage, watershed and soil protection, or storage of genetic information, private goods continue to be the most popular benefits from forests and their exploitation is the main consideration behind forest management. This situation is exacerbated by the growth of the world's population, which increases the size of the market's demand. The problem with reducing deforestation is that, while everyone benefits from curbing deforestation, only forested countries, and especially forest inhabitants which make their living from activities related to forest exploitation, bear the opportunity costs of this action. Therefore, it is required the cooperation of all the international community to effectively tackle this issue.

3. Deforestation and the UN climate change regime

The global regime that aims to stabilise climate change is the United Nations Framework Convention on Climate Change (UNFCCC). However, as mentioned in the introduction, it does not include any mechanism to reduce deforestation and forest degradation. Under the Clean Development Mechanism (CDM), only afforestation and reforestation are considered. They generate temporary (tCERs) and long-term (ICERs) certified emissions reductions (CERs)¹⁹. The tCERs expire at the end of the commitment period following the one in which they were issued and the ICERs, at the end of the crediting period of the project activity under the CDM for

¹⁶ Note 4 above, p. xi.

¹⁷ *Ibid.*, xvi. Deforestation in Brazil rose by 27 percent between August 2010 and April 2011 compared to the same period last year: REDD Monitor Organisation 'Brazil's deforestation rate soars. What now for REDD.', <http://www.redd-monitor.org/2011/05/27/brazils-deforestation-rate-soars-what-now-for-redd/> (last visited 20 August 2011).

¹⁸ *Ibid.*, p. 11.

¹⁹ UN Framework Convention on Climate Change (UNFCCC), 'Modalities and procedures for afforestation and reforestation project activities under the clean development mechanism in the first commitment period of the Kyoto Protocol' (FCCC/KP/CMP/2005/8/Add.1, 62, parag. 1(g)).

which they were issued²⁰. The Eliasch review points out that the market aspect of the CDM seems to be a success so far²¹. In 2010 the World Bank reported that more than 2,800 projects had been registered, and an additional 2,500 projects were in the validation or registration process. By that time over 500 million CERs had been issued from registered CDM projects²².

The problem with the CDM is that afforestation and reforestation are just part of what should be the scheme to curve the emissions in the land use, land-use change, and forestry field (LULUCF). These activities are a good long-term policy but do not resolve the problem immediately; trees take many years to grow (100 years to reach maturity, depending on the tree), therefore, to sequester the amount of carbon emitted by a deforested area, afforestation and reforestation projects need to cover a larger area²³. As it is, the current climate change framework is a long way from reducing the amount of emissions from forest loss required to stabilize the global climate²⁴. Reducing deforestation is an indispensable element within any global mitigation framework to tackle climate change and the inclusion of forested developing countries in these efforts is a priority.

In recent years, avoided deforestation and avoided degradation has been included within the UNFCCC discussions and some steps have been taken towards its implementation in the new deal after 2012. It has taken around thirty years for the international community to start agreeing in what could be an effective measure to curve deforestation and turn forests into key objects of global climate governance. The significant development of satellite-based remote sensing techniques, and land and accounting frameworks for translating forest carbon into compliance carbon, have allowed the reframing of the issue from forests as a carbon sink into forests as a source of emissions, "...putting the problem in the same regulatory lexicon as fossil fuel emissions and smoothing the way for an integration into climate policy"²⁵. In this part of the dissertation, I will present an overview of the evolution of international concerns with deforestation and the way in which deforestation came to be seen as part of the global warming problem and REDD as a strategy to tackle climate change.

²⁰ *Ibid.*, p. 62, parag. 1(h).

²¹ Note 7 above, 114.

²² WORLD BANK. *Carbon Finance for Sustainable Development*. Washington DC: World Bank, 2010, p. 86.

²³ Note 8 above, p. 538.

²⁴ Note 7 above, p. 101.

²⁵ Note 6 above, p. 846.

3.1. Development of public and political interest (1980-1990)

Although scientific concerns about climate change emerged as early as the late Eighteenth Century, reassessments of historical temperature records, which took place in the early 1980s allowed greater scientific consensus that the global average temperature had indeed been increasing since the middle of that century²⁶. In parallel, some major and alarming findings of deforestation in developing tropical countries were reported in the 1980 Global Forest Resources Assessment²⁷. These scientific pronouncements pointed to both deforestation and climate change as major international issues, accompanying other emerging global environmental problems such as ozone depletion, marine pollution and desertification. International media, grass-root groups and NGO campaigns were instrumental in the development of public and political interest in both issues²⁸. As a consequence, in the late 1980s climate change emerged as a major public policy issue and Governments became heavily involved in the process of negotiating an agreement to combat it²⁹. In the forestry field, deforestation was firmly established as an issue of global concern and NGO's and international media pointed to Brazil as their main target of concern. As a result, international loans for the development of infrastructure in the Brazilian Amazon were cancelled and suggestions regarding the convenience of implementing an international governance regime for the Amazon were commonplace³⁰.

3.2. Forests in the Rio de Janeiro agreements (1992)

Following the announcement that the United Nations Conference on Environment and Development (UNCED) would take place in Rio de Janeiro 1992, several proposals for a General Forest Instrument (GFI) were presented by intergovernmental and non-governmental organizations. Four of them were designed as instruments linked to a major binding agreement on climate change³¹. Although the proposed GFI was not agreed, the United Nations Conference on Environment and Development (UNCED), also known as the Earth Summit, adopted the United Nations Framework Convention on Climate Change and a series of documents, which established the importance of addressing deforestation as part of the climate

²⁶ BODANSKY, D. 'The History of the Global Climate Change Regime'. In Luterbacher, U. & D. Sprinz (eds.). *International Relations and Global Climate Change*. Massachusetts: MIT, 2001, pp. 24-26.

²⁷ HUMPHREYS, D. *Forest politics: the evolution of international cooperation*. London: Earthscan, 1996, pp. 19-20.

²⁸ *Ibid.*, pp. 18-19.

²⁹ Note 26 above, p. 37.

³⁰ FRANCK, T. 'Soviet Initiatives: U.S. Responses – New Opportunities for reviving the United Nations System'. 83 *American Society of International Law* (1989), p. 541.

³¹ Note 27 above, pp. 84-103.

change efforts. The treaty recognised forestry as one of the relevant sectors in which anthropogenic emissions of greenhouse gases needed to be controlled³².

A second outcome was the ‘Non-legally Binding Authoritative Statement of Principles for a Global Consensus of the Management, Conservation and Sustainable Development of all Types of Forest’, commonly known as the Forest Principles. This document was the first global consensus on forests, which looks for the examination of forestry issues and opportunities in a holistic and balanced manner³³. These principles touch upon subjects of sovereignty, duties of forested States, international cooperation, forest management, and reforestation and market strategies³⁴.

Another of the documents agreed was the ‘Convention on Biological Diversity’, which seeks the conservation of biological diversity, sustainable use of its components and fair and equitable sharing of benefits arising from genetic resources³⁵. Since forests are rich containers of biological diversity, the ratification of this instrument was highly relevant. The fourth outcome was Agenda 21, which was a comprehensive plan of action to tackle the effect of human impact over the environment until the year 2000. Chapter 11 was dedicated to combating deforestation and included actions geared to sustaining the multiple roles and functions of all types of forests³⁶.

3.3. Pre Kyoto period (1992-1997)

This phase covers the period of the elaboration and implementation of the UNFCCC, and the initiation of negotiations on additional commitments leading to Kyoto. Chapter 38 of Agenda 21 created the United Nations Commission on Sustainable Development (UNCSD), a functional institution of the UN Economic and Social Council (ECOSOC), in charge of ensuring the effective follow-up of the Conference and implementation of the Agenda at the national, regional and international level³⁷. During this period different intergovernmental bodies were created for the development of international forest policies, being the latest the UN Forest Forum (UNFF), which promoted the adoption of GA. Res. 62/98, the ‘Non-Legally Binding Instruments on All Types of Forest’ in 2007. This document seeks to strengthen political commitment and action at all levels so as to effectively implement sustainable management of forests and enhance the contribution of

³² UNFCCC, Article 4, 1c.

³³ ‘Non-legally Binding Authoritative Statement of Principles for a Global Consensus of the Management, Conservation and Sustainable Development of all Types of Forest’ (1992).

³⁴ *Ibid.*

³⁵ ‘Convention on Biological Diversity’ (1992), art. 1.

³⁶ Agenda 21, Chapter 11.

³⁷ *Ibid.*, Chapter 38.

forests to the achievement of the internationally agreed development goals, including the Millennium Development Goals³⁸.

3.4. The Kyoto Protocol (1997)

Although the preceding years to Kyoto addressed the importance of deforestation as part of the climate change efforts, they could not lead to an agreement that included in the Protocol effective measures to curb deforestation in developing countries. References to the land use, land-use change, and forestry sector (LULUCF) were introduced at a very late stage of the discussion, with a serious lack of understanding of the subject and without enough figures in relation to the existing potential emissions from deforestation and forest degradation. As a result, the agreement in this area was vague and inconsistent and did not address the central problem³⁹. The Kyoto Protocol commits a reduction of GHG emissions by at least 5 percent from 1990 levels through its five-year commitment period (2008-2012) and applies only to developed countries. Moreover, although net changes in GHG emission from LULUCF must be accounted for meeting developed countries commitments, carbon stock changes in these activities only need to be included if developed countries choose to do so for this first period⁴⁰.

The Protocol allowed mechanisms that help developed countries to achieve their caps. Article 6 provided that for the purpose of meeting its commitments, any developed country may transfer to, or acquire from, any other developed party emission reduction units resulting from projects aimed at reducing anthropogenic emissions by sources, or an enhancement of removals by sinks that is additional to any that would otherwise occur (meaning that the LULUCF project was included in the scheme)⁴¹. It also included a mechanism that allows developed countries to certify emission reduction from project activities in developing countries to help developed countries comply with part of their quantified emission limitation and reduction commitments: the Clean Development Mechanism (CDM)⁴². The CDM is intended to lower the cost of abating GHG emissions while facilitating a wide range of socioeconomic benefits⁴³. However, at this stage it was not specified whether LULUCF was included in this developed-developing country mechanism.

³⁸ GA. Res. 62/98 (2007). 'Non-Legally Binding Instruments on All Types of Forest'.

³⁹ STRECK, C. *et al.* (eds.). *Climate Change and Forest: Emerging Policy and Market Opportunities*. London: Chatham House, 2010, p. 33.

⁴⁰ Note 7 above, p. 107.

⁴¹ Kyoto Protocol, Article 6.

⁴² *Ibid.*, Article 12.

⁴³ Note 22 above, p. 86.

3.5. The exclusion of REDD from the CDM (2001)

The Seventh Conference of the Parties (COP 7), which took place in 2001 in Marrakesh (the Marrakech Accords) set out a basic regulatory framework for the protocol and its “flexibility mechanism” including the CDM. It was agreed that, whilst developed countries were able to trade among themselves sovereign sequestration credits (Removal Units —RMUs—), generated from afforestation, reforestation, avoided deforestation and forest degradation; developing countries could only undertake afforestation and reforestation projects as part of the CDM⁴⁴. The reasons to not include REDD were diverse: there was not enough information on costs of reducing deforestation; it was thought that efforts to address the combustion of fossil fuels could be diverted; it was argued that creating a large number of cheap forestry credits could flood the carbon market thereby decreasing incentives to invest in energy-related emission abatement⁴⁵; there were concerns about the lack of institutional capacity and widespread corruption in forested developing countries; etc. In addition to these, there were also more technical arguments⁴⁶:

- a) *The non permanence risk.*- while the emission reductions in the fossil-fuel consumption from a fuel switch project or an energy efficiency measure have a permanent effect, it has been argued that there is the risk that trees are burned or logged at some stage, releasing the CO₂ storage.
- b) *Carbon Leakage.*- Curbed deforestation in one place can cause deforestation elsewhere, either by the displacement of agricultural or logging activities to other areas (activity shifting) or by generating an increase in the price of the goods (wood, crops) that stimulates a more intensive activity somewhere else.
- c) *Perverse Incentives.*- Since the baselines would only be defined at some future stage, there were fears that this could motivate countries to increase their deforestation to take their baseline emissions to a higher level so as to reap greater profits before the scheme started.

3.6. Reconsidering the proposal (2005-2007)

The omission of REDD from the CDM generated a response in the subsequent years from the forested developing countries and the research conducted by policy makers. In 2005, in the Montreal Conference (COP 11), the document “Reducing emissions from deforestation in developing countries: approaches to stimulate

⁴⁴ Marrakesh Accords, Modalities and procedures for a clean development mechanism as defined in Article 12 of the Kyoto Protocol (Decision -/CP.7, art.12).

⁴⁵ Note 39 above, p. 44.

⁴⁶ *Ibid.*, pp. 44-53.

action”⁴⁷ was presented by Papua Nueva Guinea (PNG), Costa Rica, and a group of nations from the Coalition for Rain Forest Nations. This document addressed some of the criticisms to include deforestation as part of the CDM, arguing that technology and methodology had improved. It also expressed that the lack of a mandate or incentive in the UNFCCC did not contribute to reduce emissions from deforestation in developing countries. Furthermore, in 2006, the Stern Review on the Economics of Climate Change, a 700-page report on the effect of climate change on the world economy developed by economist Nicholas Stern on request of the British Government, declared that curbing deforestation is a highly cost-effective way of reducing greenhouse gas emissions and therefore, action to preserve the remaining areas of natural forest was needed urgently⁴⁸. In 2007 the Intergovernmental Panel on Climate Change (IPCC) published its Fourth Assessment Report, which argued that it was important to include financial incentives to reduce deforestation, such as environmentally effective mitigation technologies that also help to alleviate poverty⁴⁹.

3.7. Towards the new Agenda (2007-2012)

In December 2007 the parties to the UNFCCC meeting in Bali, Indonesia, in addressing the findings of the IPCC Fourth Assessment, decided to launch a comprehensive approach that included “...policy approaches and positive incentives on issues relating to reducing emissions from deforestation and forest degradation in developing countries; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries”⁵⁰. ‘The Bali Action Plan’ (BAP) became the road map for negotiations that aimed to develop a legal instrument to replace the 1997 Kyoto Protocol, due to expire in 2012. The BAP included in this way mitigation actions for all parties, including developing countries. These mitigation actions by developing country Parties had to be supported and enabled by technology, financing and capacity-building resorting to various approaches, including opportunities for using markets⁵¹.

COP 15 in Copenhagen (2009) explicitly included REDD for the first time in a UNFCCC resolution. The Copenhagen Accord recognized the need to provide positive incentives to the crucial role of reducing emissions from deforestation and forest degradation through the immediate establishment of a mechanism including

⁴⁷ Papua Nueva Guinea *et al.* ‘Reducing emissions from deforestation in developing countries: approaches to stimulate action’ (2005).

⁴⁸ Note 8 above, p. xxv.

⁴⁹ Note 3 above, p. 60.

⁵⁰ Bali Plan (Decision -/CP.13, 2007, parag.,1biii).

⁵¹ *Ibid.*, art. 1.

REDD plus (REDD+)⁵². This would enable the mobilization of financial resources from developed countries. The Copenhagen Green Climate Fund was established as an operating entity of the financial mechanism of the Convention to support REDD+'s projects. It was provided that Sates should use the most recent IPCC guidance and guidelines as a basis for estimating anthropogenic forest-related greenhouse gas emissions⁵³.

COP 16 in Cancun (2010) continued reaffirming the intentions of the parties to include REDD+ as part of the new climate change deal. The agreements encourage all Parties to find effective ways to reduce the human pressure on forests⁵⁴. With the decisions in Copenhagen and Cancun to allow REDD+, it seems that finally the climate change framework will have a more efficient mechanism to correct all the bads produced by deforestation. On the other hand, REDD+ has the advantage over other mitigation actions in that, in addition to carbon sequestration, it will also benefit the local inhabitants of forests.

4. Features of the mechanism after the Cancun agreements

The Cancun agreements contain the most complete prescription in relation to REDD+ and its configuration under the UNFCCC. Its practical implementation involves a measurement, reporting and verification process (MRV). So far, a series of guidelines and safeguards have been set. It has also been established that countries aiming to undertake REDD+ must develop a number of elements needed to allow the implementation of the mechanism: a national strategy or action plan, a national (or if appropriate, as an interim measure, sub national) forest reference emission level and/or forest reference level, a national (or if appropriate, as an interim measure, sub national) monitoring system, and a safeguard information system⁵⁵. According to the Guidelines, it has been established that REDD+ is a "country driven" mechanism. It must be consistent with environmental integrity and the multiple functions of forests. It is also provided that it must consider national development priorities and sovereignty, although consistent with sustainable development; the mechanism must be results-based and must be supported by adequately financial and technological support and contributions from developed countries⁵⁶.

⁵² Copenhagen Accord (Decision -/Cp. 15, 2009, parag., 6). REDD+ is a mechanism that besides deforestation and forest degradation, emphasise the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in reducing emissions.

⁵³ *Ibid.*, art. 8.

⁵⁴ Cancun Agreements (Decision -/Cp. 16, 2010, parag. C72).

⁵⁵ *Ibid.*, part C, annex I and annex II.

⁵⁶ *Ibid.*, annex I, parag. 1.

There are also a number of safeguards that apply⁵⁷:

- It must complement or be consistent with national forest programs and relevant international agreements;
- It must support transparent and effective national forest governance structures, taking into account national legislation and sovereignty;
- It must promote the respect for knowledge and rights of indigenous peoples and local communities; and the participation of relevant stakeholders, in particular indigenous peoples;
- It must be consistent with the conservation of natural forest and biological diversity;
- And it must address the risk of reversals and displacement of emissions.

It has been stated that REDD+ must be undertaken in three phases which depend on national circumstances, capacities and capabilities of each developing country and the level of support received⁵⁸:

Phase I: Development of national strategies and capacity building

Phase II: Implementation of strategies and investment in demonstration activities

Phase III: Evolution into result-based actions that should be fully measured reported and verified

Phase I and Phase II will be financed through additional public bilateral or existing multilateral assistance, such as under Norway's International Climate and Forest Initiative, the Forest Carbon Partnership Facility (FCPF) and the REDD+ Partnership, or the UN-REDD Programme⁵⁹. The Ad Hoc Working Group on Long-term Cooperative Action (AWG-LCA) has a mandate to explore options to finance Phase III and will report to the Durban Conference (COP 17)⁶⁰. It is likely that a mix of government assistance and carbon markets will be proposed⁶¹. The agreements have determined that when national mitigation actions by developing countries are financed internationally, they will be subject to international measurement, reporting and verification⁶². The Subsidiary Body on Scientific and Technological Advice (SBSTA) is expected to develop modalities on the setting of Reference Emission Levels and the design of measurement, reporting, and verification systems (MRV)

⁵⁷ *Ibid.*, annex I, parag. 2.

⁵⁸ *Ibid.*, parag. C71.

⁵⁹ WORLD BANK. *States and Trends of the Carbon Market 2011*. Washington: World Bank, 2011, p. 58).

⁶⁰ Note 54 above, parag. C77.

⁶¹ Note 59 above, 58.

⁶² Note 54 above, parag. B 61.

and to propose guidance on the establishment of information systems by developing countries to report on safeguards⁶³.

The UNFCCC is not the only potential source of market creation for REDD+. In the voluntary markets, a number of REDD+ projects are being developed by private and public entities. The most advanced regulatory framework that could create demand for REDD+ is the California's cap-and-trade system, which is expected to become operational on January 1, 2012. As a result of this and other considerations, the interest in the world's forests, especially tropical forests, has grown to unprecedented heights. These perceptions make it timely to evaluate the relation between REDD+ and the sovereignty of States over their forests.

5. State's sovereignty over their forests and international areas

Traditionally, States have reaffirmed their sovereignty over their forests. This position has been ratified by the Cancun agreements and other documents addressing the issue in the context of UNFCCC discussions for the implementation of REDD+. However, as we have seen, it has been suggested that the eventual inclusion of the REDD+ "...will increase the pressure for a de facto internationalisation of tropical forests"⁶⁴. As I envisage the suggested situation, this would imply that the restrictions' effect would entail a severe limitation on forests national sovereignty that would make forest management resemble (not formally but in practice), some of the existing regimes governing the global commons. In this part of the dissertation, I will review the features of the existing global commons' regimes aiming to determine their essential constitutional elements in order to use them as a model for my later assessment of the impact of REDD+. Key concepts such as Common Heritage of Mankind, Common Concern of Humankind and World Heritage will be discussed in this review but firstly, I will start by presenting an overview of the current status of forests and the role of the principle of Permanent Sovereignty over Natural Resources in the reaffirmation of States' sovereignty in their management.

5.1. Current legal status of world forests

Before the emergence of the Nation-State, the world's forests were either, common property resources or open access regimes⁶⁵. Once the societies started to organise into Nation-States, they claimed possession of the forest located within its territory under

⁶³ *Ibid.*, Appendix II.

⁶⁴ Note 6 above, p. 880, fn.144.

⁶⁵ Note 12 above, p. 9.

the concept of sovereignty. Sovereignty has two fundamental aspects: external and internal⁶⁶. The first makes reference to the freedom of the State to freely determine its relation with other subjects of international law and implies a series of rights and duties such as the principle of equality among States and the reciprocal duty of non-intervention in another State's domestic affairs. Internal sovereignty, on the other hand, implies that the State is the ultimate legal authority within a national legal system; therefore, it has exclusive competence to determine its own legal system and the right to enforce it⁶⁷. This internal sovereignty covers fully its territory and the population living within it.

The concept of sovereignty extends as well to the resources located in the State's territory. According to international law, countries have a sovereign right to exploit their natural resources and wealth (such as forests). This right, known as the principle of 'Permanent Sovereignty over Natural Resources' (PSONR), includes the right to determine the domestic legal regime for their ownership and management⁶⁸. This principle originated in the 1950s as a deviation of the right of self-determination and stemmed from perceptions of unfairness from the newly independent countries and other developing States (particularly Latin American States) towards the legal arrangements for the exploitation of natural resources that existed with the former colonial powers⁶⁹. The General Assembly had a protagonist role in the development of this concept through its resolution 1803 (1962) and, by the late 1970s, some international tribunals recognised this principle as reflecting customary law⁷⁰.

The UN Framework Convention on Climate Change adopted this principle in its preamble and in the 'Non-legally Binding Authoritative Statement of Principles for a Global Consensus of the Management, Conservation and Sustainable Development of all Types of Forests', also known as 'The Forest Principles'. According to the latter, States have sovereign and inalienable rights to utilize, manage and develop their forests in accordance with their development needs and levels of socio-economic development, as well as on the basis of national policies consistent with sustainable development and legislation⁷¹. Expressions of sovereignty were similarly included in the 'Convention on Biological Diversity', due to concerns of "biopiracy" and "bioroyalties"⁷².

⁶⁶ EVANS, M. (ed.). *International Law*. Oxford: Oxford University Press, 2nd ed., 2006, p. 219.

⁶⁷ SORENSEN, M. *Manual de Derecho Internacional Público*. México DF: FCE, 7th ed., 2000, p. 64.

⁶⁸ A. Resolution 1803 (1962) 'Permanent sovereignty over natural resources'.

⁶⁹ HOSSAIN, K. & S. CHOWDHURY (eds.), *Permanent Sovereignty Over Natural Resources in International Law*. London: Frances Pinter, 1984, p. 1.

⁷⁰ Note 5 above, p. 237.

⁷¹ Note 33 above, art. 2.a.

⁷² Note 35 above, art. 3.

Based on these sovereign rights, States have developed domestic regulations to determine the ownership of forests located in each State's jurisdiction. According to the last FRA 2010, eighty percent of the world's forests are publicly owned. Private ownership of forests is roughly divided among corporations (10 percent), indigenous communities (7 percent) and the remaining between individuals, NGOs or other private parties. The publicly owned forests are managed by States, communities, individuals or the private sector. Most of the public forests are controlled by Government agencies.

5.2. Restrictions to the principle of PSONR

Although, the principle of PSONR is a guarantee for developing countries against foreign intervention in the management of their resources, including their forests; international pressure over this principle has led to the emergence of certain basic restrictions on the States' freedom in carrying out these activities. These restrictions seek to avoid overexploitation of resources and their negative impact on the environment. It is important to clarify that the PSONR principle never meant to be an unlimited right; since its adoption it did have limits. GA Resolution 1803 provides that States have the duty to exercise this principle for the well-being of their populations; therefore, they cannot undertake activities that harm their own citizens⁷³.

Furthermore, in 1972, Principle 21 of the 'Stockholm Declaration', while introducing the PSONR principle to the environmental field, provided that, in its exercise, States had 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"⁷⁴ (the expression areas beyond the limits of national jurisdiction make reference to international areas). This duty, also known as the old roman principle of 'good neighbourliness', was also adopted in subsequent international environmental declarations and agreements such as the preamble of 'The United Nations Framework Convention on Climate Change' (1992) and 'The Forest Principles'. Some scholars have argued that this restriction could include as well limitations over activities that may have adverse effects on the State's own environment⁷⁵.

Another limit that has emerged is the duty of the State to exploit natural resources in a sustainable way and considering the future generations. The term sustainable

⁷³ Note 68 above, art. 1.

⁷⁴ 'Declaration of the United Nations Conference on the Human Environment' (1972), Principle 21.

⁷⁵ Note 5 above, p. 237.

development was allegedly coined in 1987, in the Brundtland Report. As reflected in international agreements, it has various meanings. It can refer to the duty to exploit natural resources in a 'prudent', 'rational', 'appropriate' or 'wise' manner (this principle is particularly valid for the exploitation of renewable natural resources such as marine life and forests)⁷⁶. It can also refer to the intergenerational equity concept: the duty to preserve natural resource for future generations⁷⁷. The concept is widely included in international economic law and policy texts such as in the preamble of the 1994 World Trade Organization (WTO) agreement.

Finally, since many indigenous peoples' lands are located in areas that are rich in resources (particularly forested areas), indigenous rights have become an increasing limitation to the principle of PSONR. The International Labour Organisation's 'Convention N° 169' and the UN 'Declaration on the Rights of Indigenous Peoples' are inspired by the spirit of consultation and participation. Indigenous and tribal peoples must be taken into consideration when the State wishes to exercise its sovereign right in the exploitation of resources located within indigenous lands.

5.3. Global commons

Global commons are areas or resources that by their very nature do not or cannot fall under sovereign jurisdiction and to which no single decision-making unit hold an exclusive title⁷⁸. As international areas, they are subject to special regimes of sovereignty and jurisdiction agreed by national States. The areas commonly referred to as global commons are the high seas, the Antarctic, outer space, the Moon and other celestial bodies, and the deep seabed. No other global common has been recognised so far. Although there is a considerable number of academic works that argue that forests, especially the Brazilian Amazon, should be included as a global commons⁷⁹. State practice has denied that possibility⁸⁰. In this part I will present a chronological overview of the international regimes. I have chosen this scheme in order to draw attention to the combination of factors (especially technological⁸¹)

⁷⁶ *Ibid.*, p. 254.

⁷⁷ *Ibid.*

⁷⁸ VOGLER, J. *The Global Commons: Environmental and Ecological Governance*. West Sussex: Wiley, 2nd ed., 2000, pp. 1-3.

⁷⁹ HOOKER, A. 'The International Law of Forests'. 34 *Natural Resources Journal* (1994). pp. 855-856; TARLOCK, A. Dan. 'Exclusive Sovereignty Versus Sustainable Development of a Shared Resource: The Dilemma of Latin American rainforest Management'. 32 *Texas International Law Journal* (1997), pp. 37-66.

⁸⁰ MGBEOJI, I. 'Beyond Rhetoric: State Sovereignty, Common Concern, and the Inapplicability of the Common Heritage Concept to Plant Genetic Resources'. 16 *Leiden Journal of International Law* (2003), p. 835.

⁸¹ SCHACKELFORD, S. 'The Tragedy of the Common Heritage of Mankind'. 28 *Stanford Environmental Law Journal* (2009), p. 112.

that drove the evolution of these regimes and the concepts and mechanisms developed for its recognition and implementation. Emphasis will also be given to the aspects related to the exploitation of the natural resources located in these areas.

A. The High Seas (1958)

The High Seas is the area of the sea that begins where the jurisdiction of the National State ends. According to article 87 of the 'UN Convention on the Law of the Sea' (UNCLOS), the high seas are open to all States and no State may validly purport to subject any part of it to its sovereignty⁸². The 'Convention of the High Seas', one of the four 'Geneva Conventions on the Law of the Sea' of 1958, was the first universal instrument to enshrine the navigation, fishing, overflight and cable laying freedoms of this area. When the UNCLOS came into force in 1994, it added the freedoms of construction of artificial islands and the marine scientific research⁸³. However, it is important to point out that these freedoms are not unlimited. Any activity carried out in the area must follow certain rules provided by the Conventions, such as the duty to reserve the high seas for peaceful purposes⁸⁴.

The jurisdiction and enforcement of the rules in this area depends on the State where the ship has been registered and with which country's flag it is flying. That State must ensure that this vessel respects the duties attached to the freedoms recognised when undertaking any activity or simply sailing in the high seas. Exceptions to this concept are cases of piracy, drug trafficking, hot pursuit, unauthorised radio broadcasting, etc.⁸⁵ In the case of the fishing of living resources, the UNCLOS provides that States must adopt measures for their conservation with respect to the activities carried out by their nationals and that there is a duty of Cooperation of States in the conservation and management of such resources⁸⁶. This concern is particularly high in the cases of straddling stocks moving between sovereign water and the high seas and for cases of pollution⁸⁷. Seeking to foster sustainable fishing, food security, and the preservation of the maritime environment, the International Community has developed a series of regional agreements and organisations⁸⁸.

⁸² 'UN Convention on the Law of the Sea' (1982), art. 89.

⁸³ *Ibid.*, art. 87.

⁸⁴ *Ibid.*

⁸⁵ Note 66 above, p. 636.

⁸⁶ Note 82 above, art. 117 & 118.

⁸⁷ SHAW, M. *International Law*. Cambridge: CUP, 6th ed. 2008, pp. 620-623.

⁸⁸ HART, A. 'Marco Jurídico y Normativo de la ordenación de los recursos marinos a nivel global'. LVIII *Revista Peruana de Derecho Internacional* (2008), p. 45.

B. The Antarctic (1959)

The Antarctic region is an ice-covered landmass in the form of an island. Seven States have made sovereignty claims over parts of it: Argentina, Australia, Chile, France, New Zealand, Norway and the United Kingdom⁸⁹. The Antarctic Treaty Regime, of which the main agreement is 'The Antarctic Treaty' (1959), regulates the Antarctic's current international status. The Antarctic Treaty was promoted by the seven claimant Governments and five more States that at the time of the signature, had an active participation in the exploration and scientific research in the region: Belgium, Chile, Japan, the Union of South Africa, the Union of Soviet Socialist Republics and the United States of America. Although established by a few countries, it has been argued that since "all interested parties" were included, the Treaty created an international regime binding on all⁹⁰. It recognises that it "...is in the interest of all mankind that Antarctica shall continue forever to be used exclusively for peaceful purposes and shall not become the scene or object of international discord; ..."⁹¹. To that end, it provides that there should be freedom of scientific investigation and cooperation⁹². One of the Treaty's main outcomes is that it "freezes" national claims to sovereignty in the continent⁹³. While it does not imply a renunciation by any Contracting Party of previously asserted rights or claims, it denies any assertion of a new claim or the enlargement of the existing ones⁹⁴.

The Antarctic is administered by periodic meetings that formulate recommendations to party's Governments in furtherance of the principles and objectives of the Treaty. The Treaty is open for accession by any State but, to have participative status in the meetings, countries must demonstrate substantial scientific research activity in the region. Only 28 from the 48 treaty parties have participative status⁹⁵. The exploitation of mineral resources is prohibited since the ratification of the Protocol of Environmental Protection to the Antarctic Treaty (1998). Article 2 of the Protocol designated the Antarctic as a 'natural reserve, devoted to peace and science', and adopted a moratorium in any mineral activities in the Antarctic area for fifty years. One of the Protocol's annex contains the most comprehensive and stringent environmental regime ever established in international law⁹⁶.

⁸⁹ Note 87 above, pp. 535-536.

⁹⁰ *Ibid.*, p. 536.

⁹¹ The Antarctic Treaty (1959), art. 1.

⁹² *Ibid.*, art. 3.

⁹³ Note 5 above, p. 712.

⁹⁴ Note 91 above, art. 4.

⁹⁵ Secretariat of the Antarctic Treaty at http://www.ats.aq/devAS/ats_parties.aspx?lang=e (last visited 20 August 2011).

⁹⁶ Note 5 above, p. 720.

C. Outer space, the Moon and other celestial bodies (1966-1970)

The status of outer space is determined in the ‘Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies’ (1966), also known as Outer Space Treaty. Article 1 provides that all States without discrimination of any kind, irrespective of their degree of economic or scientific development, shall be free to access, explore and use outer space, including the Moon and other celestial bodies. The Outer Space Treaty was the first steppingstone in the creation of what later came to be known as the concept of Common Heritage of Mankind, the notion that proclaims that all humankind are sovereigns over the international commons⁹⁷. Although it does not expressly mention the concept, it does incorporate certain elements. It provides that the activities undertaken in outer space shall be carried out for the benefit and in the interests of all countries, and shall be the province of all mankind. It also points out that the Moon and other celestial bodies are not subject to national appropriation. The treaty provides a series of freedoms such as scientific investigation. However, all activity must be carried out in the interest of maintaining international peace and security. Although the treaty does not suggest the creation of any regulatory authority, it states that, Parties conducting activities must inform the Secretary-General of the United Nations as well as the public and the international scientific community of such activities.

The ‘Agreement Governing the Activities of States on the Moon and Other Celestial Bodies’ (1979), also known as the Moon Treaty, continued with these developments and expressly stated that the Moon and its natural resources are the Common Heritage of Mankind –CHM– (Article 11). The General Assembly had already applied this concept to the deep seabed as will be seen in the following section. Article 1 extends the character of CHM to “...other celestial bodies within the solar system, other than the Earth...”. The treaty provides the impossibility of national appropriation by any claim of sovereignty, use or occupation (art. 11.2) and the necessity to undertake activities in the interest of maintaining international peace and security (art. 2). The exploitation of the natural resources of the Moon and other celestial bodies has not been proposed yet but the Treaty includes certain provisions: it shall be the province of all mankind and shall be carried out for the benefit and in the interests of all countries (4.1.); it shall be paid to the interests of present and future generations (art. 4) and prevent the disruption of the existing balance of its environment (7.1). There is mention as well of the intention to create an international authority to govern the exploitation of resources on the Moon when it becomes feasible, replicating the scheme of the Sea Bed Authority, that will be seen below.

⁹⁷ Note 81 above, p. 110.

D. The deep seabed (1970)

The deep seabed is the soil and subsoil under the high seas. Estimations of the mineral wealth contained in the high seas came to the world spotlight in the late 1960s⁹⁸. While it represented an important potential source of minerals for developed countries in better technological conditions to exploit these mineral deposits, it represents a threat to those developing countries highly dependent on high prices for their mineral products and without the technology needed to compete in the race for the exploitation of these areas outside any national jurisdiction⁹⁹. In 1969, the UN General Assembly, sponsored by developing countries, approved resolution 2574 (XXIV), that called for a moratorium on the activities of the deep seabed¹⁰⁰. This step was followed by 'The Declaration of Principles Governing the Seabed and the Ocean Floor and the Subsoil Thereof, Beyond the Limits of National Jurisdiction' (1970), which provided that 'the Area' (as the deep seabed was denominated) and its resources, are the Common Heritage of Mankind (CHM). This was the official birth of a concept which has come to be used to refer to those international areas or resources that have the global commons character, even those whose regimes do not expressly adopt the term.

The CHM character of the deep seabed and its resources became hard law with its inclusion in part XI of the Law of the Sea Convention (1982). The agreement contains "the most detailed formulation" of the CHM concept¹⁰¹. It includes a special body in the treaty to administrate the exploitation of the Area's resources: the International Seabed Authority –ISA– (140.2). The procedures established were a matter of disagreement between developed and developing nations and did not encourage developed countries to ratify the agreement. While the former wanted a more loose structure, the latter demanded a strong international mechanism that would itself engage mining activities and distribute the benefits taking into consideration the needs of developing countries and developed land-based producers¹⁰². Aware of the need to seek a more flexible system that addresses some of the issues posed by the developed countries, in order to get their support for the ratification of the Convention, the UN Secretary-General undertook consultations. An agreement was reached in 1994 and a new system of procedures replaced the original one. In the new text more space was left for the activities of investors. These changes allowed the Convention to enter into force and therefore, the ISA came into existence in 1994 with its headquarters located in Kingston Jamaica.

⁹⁸ CASSESE, A. *International Law*. Oxford: OUP, 2nd ed. 2005, p. 92.

⁹⁹ Note 80 above, p. 628.

¹⁰⁰ Note 98 above, p. 92.

¹⁰¹ KISS, A. 'Conserving the Common Heritage of Mankind'. 59 *Revista Juridica U.P.R.* (1990), p. 775.

¹⁰² Note 66 above, 644; and note 87 above, p. 631.

5.4. Common characteristics of these regimes

From a review of the existing international regimes it is evident that there is not one single formula for the administration of these areas and their resources, and that there are large variations in their features. They emerged in this way in response to the different moments in which they were conceived, the different geographical proximities to national jurisdictions, the kind of resources located in each area, the kind of technology required to reach these resources, the different economic agendas among developed and developing countries, among others. Nevertheless, there appear to be coinciding aspects that suggest the existence of some constitutive element at the core of each international regime:

- a) A written agreement that formally establishes the regime
- b) All the discussed global commons are located outside any national territory
- c) They foster the protection of the area's environment
- d) Activities in the area are limited to peaceful purposes only
- e) There is cooperation among countries in relation to the area and its resources
- f) States have limited or no sovereign rights. No exclusive jurisdiction is recognized
- g) There is no public or private appropriation
- h) The area is recognized as holder of a particular importance for mankind
- i) Certain freedoms are recognized, mainly scientific. There is also freedom of access
- j) The exploitation of resources is subject to restrictions or even prohibitions. If exploitation of resources takes place, it must benefit all mankind
- k) Some level of Common management (one with global scope or regional agencies)

Some sceptical arguments have been put forward with regard to the duty to exploit the resources to benefit all mankind and the requirement of an agency that undertakes the common management. Some authors have argued that after the modifications in the procedures to exploit the resources in the deep seabed that allowed the UNCLOS to enter into force (1994), the major implications for developing countries have watered down¹⁰³. Moreover, as seen when discussing the Moon Treaty, the regime has not had a real effect yet due to the fact that it has not been ratified by any of the space faring powers. Notwithstanding this, I believe that this list renders a useful model for my later assessment of the impact of REDD+. To consider the emergence of a de facto international regime over forest, the implementation of REDD+ would have to entail at least some of the main elements of the above mentioned list.

¹⁰³ FRAKES, J. 'The common heritage of mankind principle and the deep seabed, outer space, and Antarctica: will developed and developing countries reach a compromise'. 21, *Wisconsin International Law Journal* (2003), p. 419; and note 98 above, p. 94.

5.5. Common Heritage of Mankind

In addition to the aforementioned list of constitutive elements of the international regimes, this review lead us to confirm that the concept of Common Heritage of Mankind has emerged as the notion that contains the most sophisticated features of a regime for an international area. In this sense, the CHM has come to be employed as a concept to refer to those international areas or resources that have the global commons character, even those whose regimes do not expressly adopt the term. However, the CHM has been specifically recognised only in the cases of the deep seabed and the Moon and other celestial bodies. Although the Antarctic Treaty was the first to suggest explicitly mankind's interest and contains some of the elements of the concept of CHM¹⁰⁴, the fact that the seven claimant States have not renounced their asserted claims means that there is not full agreement on that vision¹⁰⁵. Moreover, the lack of universal and equal participation in the governance of this regime does not support the idea either¹⁰⁶. At this point the Antarctic cannot be considered a true CHM regime¹⁰⁷.

Although scholars have considered the CHM a principle¹⁰⁸, the concept is far from established¹⁰⁹. Its definition is not clear and its application is a source of controversy and scholarly debate¹¹⁰. As a result, nations differ in their interpretation of it; as Avril Pardo accurately predicted: "...the manner in which the CHM principle will be used will depend on different perceptions of reality..."¹¹¹. Mgbeoji argues that ideologically, the notion is a political and rhetorical tool of convenience¹¹². Developed nations argue that the concept allows the common use of the areas¹¹³. Developing nations consider that it does not permit developed nations with high technology to monopolise the resources of these areas and allows them to participate in the decision making of the management and receive benefits (it is important to mention that they are not promoting the conservation of these areas)¹¹⁴.

¹⁰⁴ Note 101 above, p. 774.

¹⁰⁵ Note 5 above, p. 712, fn. 7.

¹⁰⁶ NICHOLSON, G. 'The Common Heritage of Mankind and Mining: An Analysis of the Law as to the High Seas, Outer Space, the Antarctic and World Heritage'. 182 *New Zealand Journal of International Law* (2002), p. 191.

¹⁰⁷ Note 81 above, p. 110.

¹⁰⁸ Note 87 above, p. 409; note 81 above, p. 113; note 80 above, p. 830.

¹⁰⁹ Nicholson call it an "emerging international concept". Note 106 above, p. 177.

¹¹⁰ Note 103 above, pp. 409-410.

¹¹¹ *Ibid.*, p. 414.

¹¹² Note 80 above, p. 826.

¹¹³ Note 81 above, p. 110.

¹¹⁴ Note 103 above, p. 415.

A. Forest as a Common Heritage of Mankind?

From the early 1980s the CHM has also been applied to the protection of the global environment and natural resources which are subject to national jurisdiction such as biodiversity resources, endangered species, genetic resources and tropical rainforest¹¹⁵. The use of the concept in these contexts is misleading. In the case of forests, there is no international agreement or declaration that supports an interpretation that forests are part of Global Commons or that the CHM results applicable to them. State practice denies this argument as well, as will be seen with the Brazilian Amazon case. Furthermore, there are formidable difficulties in applying a concept that emerged in the context of minerals beyond national jurisdiction to a natural resource that is subject to established claims of numerous sovereign States¹¹⁶. It has been observed that, instead of a prohibition on appropriation of areas or resources, the CHM, in the context of resources located within national jurisdiction, is seen as a manifestation of stewardship and fiduciary responsibilities and implies a duty to take into account the interest of the rest of the international community.¹¹⁷ However, such inaccurate uses could lead forested developing States to misinterpretations of international threats to their national resources.

In its intervention in the International Conference on Major Forest Areas which took place in Paris in March 2010, the French President, Nicolas Sarkozy, expressed: "...the countries home to the major forest areas can't maintain this common heritage of mankind. [...] every country must contribute to the funding"¹¹⁸. Although the French President may not have been suggesting that forests are international areas or resources, the liberty that he is taking by referring to them as CHM, is one that lawyers cannot afford. As Baslar rightly points out, politicians, environmentalists or archaeologists may use the concept freely but lawyers should be very restrictive¹¹⁹. There is no need to resort to the CHM concept to refer to forests or other areas or resources located within national jurisdiction. There are other legal concepts such as common concern of mankind and cultural heritage that have emerged to express international interest or concern without making developing countries fear an international threat to their sovereignty.

¹¹⁵ BASLAR, K. *The Concept of the Common Heritage of Mankind in International Law*. The Hague: Martinus Nijhoff Publishers, 1998, pp. 277-279.

¹¹⁶ *Ibid.*

¹¹⁷ *Ibid.*

¹¹⁸ SARKOZY, N. 'Speech for the International Conference on Major Forest Areas'. Paris, 11 March 2010, <http://www.ambafrance-uk.org/President-Sarkozy-opens.html> (last visited 20 August 2011).

¹¹⁹ Note 115 above, p. 285. In fact, he notes that most of the law articles in the subject limit the application of the CHM concept to the global commons.

B. The Brazilian Amazon case

Although international actors might not have officially presented a proposal, it is evident that they have often stopped short of asserting that forests are global commons¹²⁰. This approach has been applied particularly to the case of the Brazilian Amazon, which has been seen for many years as a strategic region. Brazil's tropical forest is the largest in the world and covers approximately 60 percent of the South American Amazon. As previously mentioned, tropical forests have the biggest growing stock, carbon stock and biodiversity. Brazil has also been the country with the highest rate of deforestation, especially during the years of the military dictatorship (1964-1985), in which Brazil was trying to reaffirm its sovereignty over its dense forested territory. This period was driven by the ideals of science, development, and industry as keys to bring progress to these lands and to protect them from foreign invasion: "Integrar para não entregar," (Integrate in order not to lose)¹²¹. For part of the developed world, the Brazilian Amazon is a symbol of what the world's forests mean in terms of natural wealth, concerns and hopes; it is a CHM. However, for Brazilians, their forests are a matter of national pride and patrimony and they reaffirm this condition permanently.

Apparently, the interest in the Brazilian Amazon as a strategic region originated after the Second World War, with the birth of a new international community agenda. The 'internationalisation' idea started to emerge in the 1960s, prompted by considerations of the Amazon as a shelter to escape from an eventual nuclear war and the proposal by the US Hudson Institute to create a series of lakes and dams that would ensure the world's water supply¹²². Although these were not official proposals, they were considered by the Brazilian authorities as part of the US's geopolitical objectives in the context of its usual interventionism in Latin America¹²³. The Lungs of the World concept (1970s) and the discussed large concerns about deforestation (1980s) boosted perceptions regarding the convenience of internationalisation of the Brazilian Amazon rainforest, as discussed in various academic works¹²⁴. Brazil's response has always been the strong reaffirmation of the PSONR principle in international forums. As a result, its sovereignty and the sovereignty of all forested

¹²⁰ Note 27 above, p. 90.

¹²¹ BITENCOURT, L. 'The importance of the Amazon Basin in Brazil's evolving security agenda'. In Joseph S. Tulchin and Heather A. Golding (eds.). *Environment and security in the Amazon Basin*. Washington DC: Woodrow Wilson Centre, 2002, p. 58.

¹²² NABAIS DA FURRIELA, M. 'The Internationalisation of the Amazon'. 17 *International and comparative Environmental Law* (2000), p. 17.

¹²³ KOLK, A. *Forest in International Environmental Politics: International Organisations, NGO's and the Brazilian Amazon*. Utrecht: International Books, 1996, p. 87.

¹²⁴ Note 79 above, p. 48.

States over their forests, has been enshrined in various international documents, some of which were mentioned in part 4.1. However, this triumph has not been achieved without cost for its national development goals. Along the process, Brazil has been forced to align itself with higher environmental standards.

In 1989 Brazil was obliged to reconsider its development policies in the Amazon when the US Congress promoted the cancellation of World Bank and Inter-American Development Bank loans to support major energy and road-building projects¹²⁵. This decision was the result of the rising international influence of environmental NGO's. The cancellation took place in the worst moment of the debt crises and constituted a real economic blow to Brazil by the same international financial institutions that had financed much of its expansion over the Amazon¹²⁶. Thereafter, Brazil realised that if it wanted to overcome the crises it had to reengage the renovated international economic system, which now called for a more sustainable path to development. With the return to democracy, some environmental measures were adopted and the country hosted the United Nations' Earth Summit in Rio de Janeiro (1992) as part of its strategy to showcase its improved record. In this meeting, Brazil, and other forested developing countries, managed to include the reiteration of their sovereignty in various documents.

C. Other concepts that acknowledge the interest of mankind

The frictions between international calls for responsible management and State affirmation of sovereignty, has generated new concepts that allow expressions of concern for areas, sites and resources subject to national jurisdiction but of particular interest to mankind, without these being perceived by the State as an international threat or interference in its sovereign affairs.

World Heritage

The World Heritage Convention, adopted by UNESCO in 1972, endeavours to protect and conserve sites of cultural and natural heritage that are areas of "outstanding universal value", which are located within the boundaries of a particular State¹²⁷. The convention states that "it fully respects the sovereignty of the State on whose territory the world heritage is situated, but it also recognises that such heritage constitutes world heritage"¹²⁸. "The term "world heritage" was deliberately used in the Convention in preference of "common heritage", in defence of sovereign rights of States that wished

¹²⁵ ESPACH, R. 'The Brazilian Amazon in strategic perspective'. In Tulchin and Golding (eds). *Op. cit.*, p. 7.

¹²⁶ *Ibid.*, p. 7.

¹²⁷ Note 101 above, p. 776.

¹²⁸ Note 106 above, p. 194.

to retain ultimate control over the world heritage sites within their boundaries¹²⁹. The drafting was balanced so as to provide a regime for the protection of those sites without placing excessive burdens on the State¹³⁰. Although, it employs conservative language to placate national sensitivities, it “is still fair to say that the convention goes some way in recognising that world heritage properties are not solely a matter of State concern, but are matter of concern for the whole international community, that is, for all humanity, including for future generations.¹³¹”

Common Concern of Humankind

This concept had its first formal expression in the UN General Assembly Resolution 43/53 (December 1988): “Protection of global climate for present and future generations of mankind”. It recognised “...that climate change is a common concern of mankind, since climate is an essential condition which sustains life on earth”. There are various interpretations of this concept. Baslar argues that it is oriented specifically against ecological dangers threatening human survival¹³². Areas, sites or resources such as the ozone layer, the global climate, tropical forests, or world heritage areas are the CCM. Although the elements of the CCM need to be developed in State practice and jurisprudence, it is still possible to establish a difference between this and the CHM, in which the “...ecological protection is subordinated to allocation rights of use to State-free areas, or traditional global commons”¹³³.

6. Could REDD imply a de facto internationalization of the tropical forest?

In part 3, I provided an overview of the main features that countries have developed for an eventual implementation of REDD+. Most of their aspects still need to be defined and the UNFCCC technical bodies, such as the Subsidiary Body for Scientific and Technological Advice and the Ad Hoc Working Group on Long-term Cooperative Action, have been specifically requested to work on this. It seems that the conclusion of this task is not going to be easy and that the implementation of the mechanism is going to take time and demand large amounts of investment before it becomes a reality. Nevertheless, things appear to be moving in the right direction. In this final part of the dissertation I intend to reflect, in the light of the considerations discussed in relation to the international regimes that govern the

¹²⁹ *Ibid.*, p. 195.

¹³⁰ *Ibid.*

¹³¹ *Ibid.*

¹³² Note 115 above, p. 295.

¹³³ *Ibid.*

global commons, whether the eventual implementation of REDD+ could imply the emergence of severe international restrictions over the sovereignty of developing forest-rich States, and whether these could constitute a *de facto* internationalization of the tropical forests.

6.1. Considerations for the assessment

The main obstacles for my assessment are the uncertainties that arise for many aspects of the mechanism. REDD+ is still in the making and, therefore, there are many questions around its structure, procedures, funding, etc. Nevertheless, I still believe that in the core idea of the mechanism and the features already developed, there are some valuable elements that can give us an idea of the direction towards which it seems to be moving. From a review of the existing features, it is possible to conclude that, at least formally, REDD+ reaffirms the national sovereignty over forests. The guidelines provide that the mechanism is “country driven”, which means that it must be based on the country’s national priorities and endorsed by the recipient government. It also provides that the mechanism must consider national development priorities and sovereignty, which is an express recognition of the principle of Permanent Sovereignty Over Natural Resources. In addition, the safeguards provide that REDD+ must complement or be consistent with national forest programs, which must support transparent and effective national forest governance structures, taking into account national legislation and sovereignty¹³⁴.

Notwithstanding this, REDD+ will undoubtedly have some influential international elements. The essential idea of implementing REDD+ over forests implies keeping trees and plants standing in exchange for financial payments from mainly developed countries. To allow this to happen, the area must be controlled and administered under very particular conditions and restrictions that guarantee that the carbon stored in this area is not reduced. Hence, it could be argued that REDD+ creates a scheme of strict standards of control and management that, if directed by an international agent, could create a regime that, although formally subject to State sovereignty, could be excluded from national jurisdiction in practice. Thus, the Cancun agreements have established the participation of international agents as part of the scheme in certain cases. They provide that when national mitigation actions by developing countries are financed internationally, which will probably constitute the majority of cases, they will be subject to international measurement, reporting and verification (MVR). No international structure has been defined yet but it is

¹³⁴ Note 54 above, parag. C, annex I and II.

likely that REDD+ will be influenced by the scheme developed for the afforestation and reforestation projects under the Clean Development Mechanism (CDM).

In the CDM, afforestation and reforestation projects are subject to review by an expert panel and approval of the CDM board, which relies on authorized third parties called Designated Operational Entities (DOEs) to assess the project eligibility and performance. Projects go through a validation stage which aims to confirm that a project meets eligibility requirements. Then, once the project is registered and underway, an ongoing verification takes place at periodic intervals. Finally, when the project's actual emission reduction or removals are verified, the CDM Executive Board certifies it and grants credits¹³⁵. It is likely that REDD+ will adopt similar structures and consider some of these procedures. Hence, a sort of REDD+ executive board that relies on a designated entity (the DOEs) will manage the mechanism. This structure would undertake: 1) the measurement of the GHG stored in the forest and changes on it, 2) the reporting of this information and other events 3) the verification of accuracy and reliability of reported information. It is also likely that these activities will take place through a combination of: 1) on-site inspections and monitoring (GPS, landowner's interviews and questionnaires) and 2) remote sensing techniques (aerial photographs, satellite images in visible and near infrared wavelengths, and radar imagery).

6.2. Assessing REDD

The key question is whether beyond the formal recognition of sovereignty that Cancun and other COP documents have provided, the international structure that would conform the REDD+ governing framework and their strict standards of control and management, could severely detriment State sovereignty and create areas that, in practice, fall outside the exclusive jurisdiction of the hosting State and resemble the existing international regimes governing the Global Commons. To reach a conclusion I will reflect on this question taking into consideration the eleven characteristics identified as essential for the discussed international regimes. From that list, two can be dropped immediately: the written agreement that formally establishes the regime; and the fact that all the discussed global commons are located outside any national territory (as mentioned, REDD+ documents reaffirm that forests are subject to national sovereignty and all forested areas are located within national territories). Three can be accepted without reservations as applicable to REDD+: regimes governing international areas foster the protection of the area's

¹³⁵ BREIDENICH, C. *Measurement, Reporting and Verification in a Post-2012 Climate Change Agreement*. Georgia: Pew Centre on Global Climate Change, 2009, p. 17.

environment; activities in these areas are limited to peaceful purposes only; and there is cooperation among countries in relation to these areas and their resources.

However, the remaining six essential elements deserve more reflection and may prove useful for our conclusions:

A. In an international area States have limited or no sovereign rights. No exclusive jurisdiction is recognized

As mentioned above, it is likely that REDD+ will be managed by a sort of international Executive Board, which will act through designated authorities. This, undoubtedly, will give some rights to this structure over the area comprised by a project. The question is: how much sovereignty and jurisdiction of the hosting State will be absorbed by this authority or the REDD+ board? Furthermore, who will in fact have the ultimate legal authority to interpret, apply and enforce the law within the area?

It is likely that the designated authority will have jurisdiction in issues related to the eligibility and performance of the project and that there will be some international presence in the area for the monitoring, measurement, reporting and verification activities. However, I have some doubts in regard to the possibility that this competence will go beyond issues strictly related to the project. It is difficult to assess without all the elements on the table but I am inclined to believe that State sovereignty will continue dominating in all the remaining aspects attached to the area as in other parts of its territory. It appears to me that although the State's exercise of full sovereignty will be less evident than in other parts of its territory, it will nonetheless remain essentially intact. For example:

- It is likely that its law and tribunals will remain competent in case an offence or crime takes place within the project's area.
- For REDD+ projects taking place in forested areas of private ownership, a State's taxation system will probably continue having effect over the incomes perceived by the private participants of the project.
- No foreign power will have the right to intervene in the area.

B. There is no public or private appropriation in an international area

Appropriation seems to be one of the conditions that allow REDD+ to exist. It has been determined that one of the obstacles for the implementation of REDD+ is the lack of certainty about land ownership and tenure in forests¹³⁶. Ownership allows

¹³⁶ WESTHOLM, L., R. BIDDULPH, I. HELLMARK, and A. EKBOM. *REDD+ and Tenure: A Review of the Latest Developments in Research, Implementation and Debate*. Gothenburg: SIDA, 2011, p. 1.

the owner (public or private) to use forested areas according to his own interest; this includes the possibility to turn his property into a REDD+ project that can deliver an economic benefit. This has become a potential income for indigenous communities and private initiatives¹³⁷. On the other hand, I do not think that the commitments with REDD+ will affect the owner's title over the land and his inherent faculties. With REDD+ the owner assumes a commitment to not deforest indefinitely. However, if during the development of a project, for any reason, the owner changes his mind and decides to use the area for another activity or to sell it, I cannot see how the mechanism could stop him from doing so, in so far as the owner does not pretend to claim for the agreed payment and assumes what will probably be a penalty for not respecting the agreement. Hence, it seems to me that the faculties of use and disposition, key components of the right of ownership, will not be affected by REDD+.

C. International areas are recognized as holders of a particular importance for mankind

Since forests are recognized as providers of global public goods, it is fair to say that they have a particular relevance to all mankind. There is no formal recognition of this character but the fact that REDD+ is being considered as a mechanism that will be part of the climate change regime, implies this premise. However, although the recognition of a particular importance for mankind is an essential element of the discussed international regimes, it is not an exclusive characteristic and is shared by some areas that fall within the territory of the States. We mentioned how some legal language has emerged to refer to those areas and resources that, although within the State's jurisdiction, have an outstanding universal value (World Heritages) or an ecological role for the present and future generations (Common Concern of Humankind).

These concepts, as has been previously asserted, are different to the Common Heritage of Mankind. Hence, I do not think that the fact that forests have been implicitly recognized as holders of a particular importance for mankind constitutes them into de facto international areas. Furthermore, I believe it is possible to recognize the importance of forests for mankind while, at the same time, affirming full national sovereignty.

¹³⁷ ROOSEVELT, M. 'Companies fund projects to preserve the Amazon rainforest'. *Los Angeles Times*, 21 February 2010, <http://articles.latimes.com/2010/feb/21/business/la-fi-cover-side21-2010feb21> (last visited 20 August 2011).

D. Certain freedoms are recognized within the areas, mainly scientific. There is also freedom of access

It seems that under REDD+ there will not be any recognition of the kind of freedoms characteristic in global commons international regimes. Conversely, the essence of the mechanism implies that activities within the project's area will be limited to those that foster the preservation of the GHG sinks. In fact, it is likely that most of the activities undertaken in REDD+ areas will be limited to MVR processes. Therefore, access will be exclusively restricted to people undertaking these activities and, when pertinent, indigenous inhabitants. It is also likely that if other kinds of scientific activities take place they will be highly restricted.

E. The exploitation of resources is subject to restrictions or even prohibitions in international areas. In any case, if there is exploitation of resources, it must benefit all mankind

There can be two approaches towards assessing this element. It can be said that by its own nature, REDD+ prohibits the exploitation of tangible resources such as wood, fruits, oil, minerals (private goods). In this interpretation, the actual object of REDD+ is to avoid these activities or to enhance the public services provided naturally. A second approach can be that REDD+ fosters the exploitation of forest intangible resources. In this reading, REDD+ promotes the exploitation of environmental services, which are resources that will be demanded by a future carbon market. After all, when the owners of an area, public or private, will decide to apply REDD+ to their property, they will do so seeking to preserve the forest but also inspired by the economic compensation that they will receive for keeping the forest standing. As in the exploitation of private goods there are still elements of profit-seeking. With any of the two approaches it is evident that the global and public nature of the services provided by forests guarantee that their benefits reach all mankind.

F. Common management implemented by an agency (one with global scope or regional agencies)

As previously discussed, it seems that if REDD+ adopts a similar structure to the afforestation and reforestation projects under the CDM, there will be an international agency (a "REDD+ board") to direct the mechanism. It can also be argued that since this board would be part of the UNFCCC, it would be inspired by common management principles. However, as previously mentioned, I have doubts that such international management will restrict State sovereignty enough to consider that it will govern the area. I favour an interpretation that its competence will be restricted to aspects strictly related to REDD+ projects and that the State will continue to have full jurisdiction in the major aspects related to the area.

7. Conclusions and final reflections: adding a new obstacle to REDD+?

The interest in the world's forests, especially tropical forests, has grown to unprecedented heights. With the decisions in Copenhagen and Cancun to include REDD+ as part of the discussions towards the new climate change deal, it seems that finally the climate change framework will have a more efficient mechanism to correct all the 'bads' produced by deforestation. This situation makes it timely to assess the likely relationship that REDD+ and the State's sovereignty will have. After reflecting on the current shape of the mechanism and the probable restrictions that it would impose over national sovereignty, it is difficult for me to conceive that REDD+ could lead to a de facto internationalisation of tropical forest. Of course the situation might change and deeper restrictions to those here projected could arise. In such a scenario, a different conclusion could be reached. However, given the current circumstances, no such de facto internationalisation seems likely.

By the same token, it seems unnecessary to bring the 'internationalisation' question into the climate change discussions. REDD+'s debate has been dominated by a conflict between actors and discourses that have delayed the implementation of the mechanism at the national and international levels¹³⁸. There are enough uncertainties and concerns around the mechanism and we do not need to add an extra concern when it seems unlikely that an internationalisation, as I argued, will take place. On the other hand, it seems inconvenient to spread unmotivated concerns. REDD+ is a mechanism that must be applied, mainly, in areas that fall within the territory of developing States with a background of colonialism. These populations are sensitive to any suggestion of international interference and if they perceive REDD+ as a new form of imperialist intervention masqueraded by an environmental discourse, it is likely that the implementation of the mechanism will be blocked.

Forested developing State's central governments seem receptive to implement REDD+. However, countries are not a single cohesive entity and the decision-making process is composed of different layers of interest. In each forest-rich country, there are agents such as illegal miners or loggers, interested in continuing to deforest, that could be willing to spread the idea of internationalisation in order to manipulate anti-colonial feelings and obstruct REDD+'s implementation¹³⁹. In this sense, lawyers

¹³⁸ CRONIN, T. & L. SANTOSO. *REDD+ politics in the media. A case study from Indonesia*. Bogor: CIFOR, 2010, p. 21; and MAY, Peter H., Bruno CALIXTO and Maria Fernanda GEBARA. *REDD+ politics in the media. A case study from Brazil*. Bogor: CIFOR, 2011, p. 21.

¹³⁹ There are already cases of misleading communication promoted by groups of this kind: Rau-Rau Amaru, T. (Press Secretary of the Peruvian Confederation of Small Miners and Artisanal Miners) "La verdad detrás del bosque" (The truth behind the forest) <http://dglocal10.blogspot.com/2011/02/madre-de-dios-para-el-brasil-la-verdad.html> (last visited 20 August 2011).

should avoid creating a new myth around REDD. We should be restrictive in the application of concepts and categories. We should avoid referring to forests as global commons or common heritage of mankind. In this context, the use of these concepts is inaccurate. We should resort to other legal concepts such as common concern of mankind that have emerged to express international interest or concern without making developing countries fear an international threat to their sovereignty, which may obstruct the necessary implementation of REDD+.