THE PROSPECT FOR REDD+ IN A POST FIRST COMMITMENT PERIOD OF THE KYOTO PROTOCOL[1]

PROSPEK REDD+ PASCA PERIODE PERTAMA KOMITMEN TERHADAP PROTOKOL KYOTO

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Abstrak

Skema pengurangan emisi dari deforestasi dan degradasi hutan plus (REDD+) diadopsi pada COP ke-13 di Bali tahun 2007 sebagai instrumen mitigasi secara global. Sejauh ini tidak ada persetujuan formal terkait skema ini baik secara metodologis, politis dan aspek-aspek teknis lainnya. Namun demikian, skema ini terus mendapatkan perhatian politis. Jika tidak ada terobosan politik dalam negosiasi perubahan iklim global, kemungkinan untuk menjadikan REDD+ sebagai komitmen yang mengikat pasca Protokol Kyoto menjadi tidak pasti. Tulisan ini bertujuan untuk mengkaji prospek masuknya mekanisme REDD+ dalam periode komitmen kedua Protokol Kyoto. Kajian yang sifatnya kualitatif ini disarikan dari sejumlah dokumen terkait dan wawancara dengan sejumlah narasumber terkait dan dengan ruang lingkup analisis sampai dengan keputusan terakhir COP-17 di Durban pada akhir tahun 2012.

Kata kunci: *REDD, REDD+, Protokol Kyoto, emisi gas rumah kaca.*

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Abstract

The REDD+ scheme was adopted at the COP-13 in 2007 as a global climate mitigation policy instrument. Since then, no formal agreement has been reached on methodological, political, and any other technical issues relating to REDD+, and it continues to draw significant political attention. If there is no political breakthrough in the global climate change negotiations supported by major countries, the course for a possible REDD+ inclusion into a binding post-Kyoto Protocol commitment period remains uncertain. This paper investigates the prospects of the KP post-2012 as well as the inclusion of the REDD+ mechanism into a post 2012 KP. Its qualitative study is based on in-depth interviews with scholars and experts in relevant institutions and official documents of the institutions. Its scope of analysis is limited to the latest decisions taken at the COP-17 in 2012, in Durban.

Keywords: REDD, REDD+, Kyoto Protocol, GHG emission

I. Introduction

A. Issue Background

Forests play an important role in the climate system. As a carbon sink, the world's forests store more than 650 billion tonnes (t) of carbon (C). While forest absorbs carbon from the atmosphere, through deforestation and forest degradation, forests can also become a source of greenhouse gases (GHG) emissions. Deforestation releases between 800 million and 2.4 billion tC annually, making it the second largest source of CO_2. For the world as a whole, carbon stock in the forest biomass decreased by an estimated 0.5 Gt annually during 2005-2010. Thus, it is not surprising that deforestation in developing countries contributes up to 18% of the global CO_2 emissions. A reduction of emissions from deforestation and forest degradation (REDD+) scheme has been adopted at the UNFCCC COP-13 in 2007. The existence of REDD+ can be traced to the growing recognition since the 1990s of the importance of forests as GHG sinks and CO2 reservoirs. REDD+, was first proposed by the initiation of the Coalition for Rainforest Nations (CRN), and now is becoming an important climate change mitigation policy instrument.

On behalf of the CRN, an agenda item was proposed on: 'Reducing emissions from deforestation in developing countries' (REDD, to achieve the objective of Article 2 of the KP. The Parties at COP-11 agreed in 2005 to operationalize the REDD initiative. Its initial scope was rather narrow as it only addressed reducing emissions from deforestation, or of how to avoid deforestation as it was referred to at the time. In the meantime, it has expanded to include activities as documented in the *Bali Plan of Action* of COP-13 such as those related to conservation, sustainable management of forests and enhancement of forest carbon stocks.[1] Some have even proposed a REDD++ to include carbon reducing agricultural activities.[2]

Table 1:
Developments related to REDD+

Year	REDD-Related Carbon Credit Projects/Agenda	Location/Status/Remarks
1989	The American Electric Utility, Applied Energy Services	Forestry carbon project/ voluntary
1997	(a) Jan.: The Noel Kempff Mercado Climate Action Project. The 1st REDD style project is initiated; (b) Scolel Té (the tree that grows) carbon sequestration project; (c) Dec.: COP-3, KP. The seeds for REDD are planted under LULUCF	(a) Bolivia (voluntary) , aimed at avoiding deforestation and deforestation; (b) Mexico (voluntary), aimed for reforestation and avoided deforestation; (c) KP was adopted
2001	Dec.: COP-7, The Marrakesh Accords, REDD is removed from LULUCF	The Marrakesh Accords is seen as the "rulebook" of the Protocol
2002	N'hambita community carbon project;	Mozambique (voluntary), aimed for reforestation and avoided deforestation.
2005	(a) May: The CRN is formed and proposed RED agenda (b) Nov.: The European Commission advises for incentives for developing nations, and halting deforestation; (c) Dec.: COP-11 (Montreal). REDD was put back on the agenda.	(a) Led by Papua New Guinea and Costa Rica referred to Art.2 (ii), KP; (b) KP came into force.
2006	May: Bonn - SBSTA began considering REDD	
2007	Dec.: COP-13. The Bali Plan of Action adopted REDD. The concept of REDD-Plus is introduced	Political breakthrough for RED
2008	(a) Sept.: UNREDD Programme was established; (b) Dec.: SBSTA 29 and COP-14 and adopted REDD+	Denmark, Norway, and Spain, among others, are bigger REDD+ donors
2009	(a) June: 2nd Bonn meeting - A negotiating text is presented; (b) Sept.: 7th Session of the AWG-LCA; (c) Nov.: AWG-LCA Non Paper 39 (Barcelona); (d) Dec.: COP-15 Copenhagen Accords, funding commitments for REDD (and for adaptation); (e) Green Climate Fund was also set; (f) REDD+ inclusion discourse into a post-2012; (g) REDD-DA and REDD-RA projects in almost all continents.	(a) US$30 billion p.a. 2010-12; (b) US$100 billion p.a. for 2020; (c) 79 REDD REDD-RA and 100 REDD-DA were conducted. The largest shares implemented in Indonesia and Brazil respectively.
2010	Dec.: COP-16, Cancun, political endorsements for REDD+ inclusion discourse in a-post 2012 (as there shall not be long between 1st and 2nd commitment gap.	As mandated there shall not be a long gap between 1st and 2nd Commitment
2011	(a) Oct.: AWG-KP Prior to COP-17; (b) Dec.: COP-17, Durban, REDD+ discourse to be included into a post-Kyoto Scheme?	Panama City, a divide between parties remained; 2nd commitment of the KP has not adopted the REDD+

[1]See Remi D'Annunzio, et.al., 2012. *State of the World's Forests 2011,* Rome: FAO, p. 61.
[2] See Tim Cronin and Levania Santoso, 2010. *REDD+ politics in the media, a case study from Indonesia*, Working Paper 49, Bogor: Center for International Forestry Research,p. 2.

Though REDD+ was institutionally adopted at COP-13 (Dec.1/ and 2/ CP.13 UNFCCC, 2007), its normative message can be traced back to Article 2, point 1. (a), (ii), (iii) and Article 3.3. of the KP.[3] In addition, activities similar to REDD+ had also been implemented before 1997.[4] Looking back to the negotiations in the run-up to the institutionalisation of REDD+, the REDD+ policy initiative can be traced back to the following developments (see also Table 1). The Marrakesh Accord of COP-7 in 2001 incorporated a clause relating to land use, land-use change and forestry (LULUCF) for the implementation of Article 12 of the KP on the Clean Development Mechanism (CDM). However, the implementation of the eligibility of LULUCF project activities for the Annex-1 Parties under this mechanism was limited to afforestation and reforestation (AR) (Dec.-/CP.7, UNFCCC, 2001). The limitation of LULUCF project activities to AR for non-Annex 1 Parties was, in part, related to the debate on the issue of emission increases outside of project areas (leakage). Hence, the concern about leakage is seen as a reason for not allowing REDD activities to generate carbon credits under CDM.[5]

In the run up to the COP-11, growing indication of the political will of developed countries to commit on incentives to reduce GHG emission had eventually enabled REDD to be a global mitigation policy agenda. At the COP-11 in 2005, two developing countries, PNG and Costa Rica, representing the CRN, proposed to include a provisional agenda to reassure the fulfilment of the objective of Article 2 (ii) of the KP relating to industrial countries' commitment to protect and enhance GHG sinks and reservoirs not controlled by the Montreal Protocol, and to promote sustainable forest management (SFM) practices and AR.[6] This proposal received political consideration and was agreed by the parties to be considered in the 24th session of the Subsidiary Body for Scientific and Technological Advice (SBSTA) in 2006.[7] There was an increasing

[3]See Farhana Yamin and Joanna Depledge. *The International Climate Change Regime, A Guided to Rules, Institutions and Rules*, UK: Cambridge University Press, 2004, p. 82. Also Carbon Planet White Paper, "The History of REDD Policy", in *http://unfccc.int/files/ methods_science/redd/application/pdf/the_history_of_redd_carbon_planet.pdf;* accessed 28 September 2011.

[4]Carbon Planet, *op.cit.* Also See Susan Caplow, et al., "Evaluating land use and livelihood impacts of early forest carbon projects: Lessons for learning about REDD+", *Environmental Science & Policy*, 14 (2011): 162.

[5]Carbon Planet, *op.cit.* Also Daniel Murdiyarso, 2003. *Protokol Kyoto, Implikasinya bagi Negara Berkembang*, Jakarta: Penerbit Buku Kompas, pp. 27-28.

[6]Item 6 of the provisional Agenda of the COP-11: "Reducing emissions from deforestation in developing countries: approaches to stimulate action".

[7]The COP-11 Report (2005). There was an increasing awareness that RED in the developing nations is an integral part of mitigation measures to the accomplishment of the final objectives of the convention. Through this SBSTA session, a set of issues regarding to the REDD matters was discussed in the context of scientific, socio-economic, technical and methodological, and policy approach.

awareness that REDD should be an integral part of mitigation measures to accomplishment the objectives of the convention. At COP-13, an additional scope of REDD agreed to include the conservation and enhancement of forest carbon stocks, and SFM.[8]

At COP-14, in Poland in 2008, the conception of REDD was coined as REDD+ to also include SFM, forest conservation, and enhancement of forest carbon stocks.[9] Under the Copenhagen Accords, adopted in 2009 in Denmark, the Parties also agreed that REDD+ would have to become part of the mitigation measures that would be given more serious political attention.[10] Under this decision, REDD+ may also receive a funding allocation through the Green Climate Fund established as an operating entity of the financial mechanism of the UNFCCC to support projects, programmes, policies and other activities in developing countries.[11] While the Parties reached consensus on REDD+, there was no formal agreement yet on methodological and any other technical issues until the COP-16 in Cancun, Mexico in 2010.[12] However, what becomes an important aspect for the REDD+ is that there has been appeal that more political attention needs to be paid to REDD+ as a low cost-effective mechanism to climate change mitigation.[13] At COP-16 in Cancun, Mexico in 2010, also agreed on a framework for an instrument to incentivize REDD+ under a future Kyoto Protocol agreement. Nowadays due to the fact that forests and forestry sector are politically significant in the climate negotiation, the REDD+ mechanism has drawn the attention of the highest levels of government from around the world.[14]

B. Problem Setting

The talk about REDD+ has meanwhile been followed up with a significant number of preliminary trial projects. This paper, therefore, aims to answer the question: What are the prospects of the KP after 2012 and assess the prospect of the REDD+ scheme's inclusion into a second commitment of the post 2012 KP? Considering the considerable contribution of deforestation to global GHG

[9]D'Annunzio, et al., *op.cit.*, p. 61.
[10]Dec.2/CP.15 on Copenhagen Accord, in *http://unfccc.int/resource/docs/2009/cop15/eng/ 11 a01.pdf#page=4;* accessed 30 September 2011.
[11]*Ibid.*
[12]Dec. 4/CP. 15 on Methodological guidance for activities relating to REDD+ in developing countries in *http://unfccc.int/resource/docs/2009/cop15/eng/11a01.pdf#page=4.* Also Dec. 1/CP. 16 on the Cancun Agreements: Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention, in *http://unfccc.int/resource/docs/ 2010/cop16/eng/ 07a01.pdf#page=2*; both accessed 5 October 2011.
[13] See footnote 10.
[14]D'Annunzio, et al., *op.cit.*

emissions and that the KP is the only global legally binding treaty mandating cuts in GHG, integrating REDD+ into a post 2012 KP appears most relevant to anticipate its future scope and impact.

C. Research Goal and Use

This research paper is aimed to assess the prospect of the REDD+ scheme's inclusion to a 2nd commitment of the Kyoto Protocol. Meanwhile, this research paper is expected to be able to give an input to any concerned parliamentary committee in the Indonesian House of Representatives in overseeing the REDD+ policy the Indonesian government has taken. In addition, this paper can also be an alternative menu for the academic community regarding the REDD+ issue in Indonesia.

D. Materials and Methods

I used secondary data sources for the descriptive analysis of this paper and in addition interviewed key informants. I reviewed newspaper articles, journal papers and institutional reports. I interviewed a selected group of scholars and/or policy experts, who I asked unstructured questions,[15] to capture opinions on the research question. More specifically I inquired on: (a) what is the prospect for full implementation for REDD+ mechanism as a legally binding agreement under the KP; (b) what should the global climate regime do after the end of the first commitment of the KP; (c) what is the interviewees view on the discourse of REDD+ to be considered in the post-Kyoto mechanism after 2012; and (d) what is the interviewees view on REDD pilot projects being carried out in developing countries and on the role of global emitters? To support the analysis, data collected from key informants were used to triangulate the findings from the literature review. A qualitative analysis was conducted to describe prospects of the KP after 2012 and assess the prospect of the REDD+ scheme's inclusion into a 2nd commitment of the post 2012 KP.

[15]Interviews were done in Norway, 11 November 2011 with Andreas Dahl-Jorgensen, Norway's International Climate and Forest Initiative, Norwegian Ministry of the Environment and Anja Lillegraven, Project Coordinator Southeast Asia, Rainforest Foundation Norway, and in FAO office, Italy 25 November 2011 with Danilo Mollicone, MRV Specialist, UN-REDD Programme, FAO Forestry Department, Focal Point Indonesia, and R.M. Martin, Director Forest Economics, Policy and Products Division, FAO Forestry Department. The interviews were also done with EEA staffs sometime in October and November 2011 with, among others, Andre Jol, Head of Group of Vulnerability and Adaptation, and David Stanners, Head of International Cooperation.

While issues related to REDD+ continue to develop within the UNFCCC, this paper limits its analysis to the latest developments agreed at COP-17, in Durban, South Africa in 2011.

E. Thinking Perspective

To analyse a prospect for the inclusion of REDD+ scheme into a Post First Commitment Period of the Kyoto Protocol, we will use five conceptions which are likely occuring in global governance or what Thomas Kuhn calls the "pockets of apparent disorder", namely 'knowledge gaps', 'policy gaps', 'normativa gaps', 'policy gaps', 'institutional gaps', and 'compliance gaps'.[16] Before elaborating these conceptions, it is worth to introduce the conception of global governance as a basic foundation for the analysis of this issue. Weiss and Thakur define governance as the sum of laws, norms, policies, and institutions that define, constitute, and mediate relations among citizens, society markets, and the state in the international arena—the wielders and objects of international public power.[17]

Normatively, international organisations help states to cooperate in the pursuit of shared goals and manage competition and rivalry in order to avoid conflict and violence. Thus, states are trying to establish institutions in the face of common challenges. However, the fact that the evolution of intergovernmental institutions to faciliate robust international responses lags behind the emergence of collective problems with transborder, especially global, dimensions. In addition, few institutions have also developed too late. It is therefore understandable then if there has been always disagreements on the nature, causes, and magnitude of the transboundary issue remain. As such, disagreements over the best solution also prevail. Kuhn calls this situation as knowledge gaps. In the global warming issue which was not known when the UN Charter was signed, the severity and causes of global warming remain both in political and scientific debates.

Debates on the prospect for the inclusion of REDD+ scheme into a post first commitment period of the Kyoto Protocol can also be seen from the normative gaps, a situation where the international community will find extremely difficult to reach concensus about universally acceptable norms. In the context of climate change issue, for example, though the norms of environmental protection has become firmly established in the decades since

[16]Weiss, Thomas G. and Ramesh Thakur. *Global Governance and the UN, an Unfinished Journey,* Bloomington and Indianapolis: Indiana Univ. Press, 2010.
[17]*Ibid.*

1945, political and scientific debates cast doubts upon the universality of any norms states through relevant international organizations codify in the forms of soft law and hard law.

Through a policy gap canon, when any important global governance may be made in the absence of institutions, it takes on an ad hoc character. Such an approach can lead to fragmented and incompatible policies that can become incoherent over time. As such, implementing it will be extremely difficult. Using policy gaps, there will be a dual challenge. First, who are the actors, the relevant policy makers? Is 'international' policy made and implemented by international organisations or by national authorites meeting and interacting in international organisational forums? Second, there is disconnect between the numbers and types of actors who play ever-expanding roles in civil, political, and economic affairs within and among nations and the concentration of decision-making authority in intergovernmental institutions.

The fourth gap is the institutional gap. To make policy free from being trapped of being ad hoc, judgmental, and idiosyncratic, it must be taken within an institution that has resources and authonomy. The UN system is seen as neither powerful global institutions with overarching authority over members nor even flimsy ones with resources commensurate with the size of the transborder problems they are supposed to address exist. The last gap is compliance gap. Compliance measures must include mechanisms to identify defections and defectors from agreed-upon norms and commitments in the realm of international governance as well as incentives that reward cooperation and disincentives that punish defection (including the use of force to bring those who have not complied back into line). This gap has three facets: implementation, monitoring and enforcement. Recalcitrant or fragile actors may be unwilling or unable to implement agreed-upon elements of international policy. The failure of the first commitment of the Kyoto Protocol to requires Annex-1 states reflects this issue. By using this approach to analyse the global governance, we can also note that the debates on global climate justice do not likely seem bridgeable. A climate justice is seen as something taken for granted to enforce as the global emission should be cut significantly by 50-85% of 2000 levels by 2050. Accordingly, such a level of stabilization requires huge sacrifices particularly from countries having historical and projected contributions to the global emission. As we have been knowing that overall 'the richest 20% of the world population is responsible for over 60% of its current emission and over 80% if past contributions are added.[18] Developing

[18]See Chukwumerije Okereke, "Climate Justice and the international regime", in *WIREs Climate Change*, Vol. 1, May/June (2010), p. 464, citing Betsill MM., et al., (eds), *International Environmental Politics*, Macmillan, 2006.

countries argue that the rich nations should be in the *avant garde* in cutting emissions due to their historical GHGs emission. By contrast, developed countries, are for instance, of the argument that since the climate change implications and negative effects of carbon emissions were not clearly known in the past, the present generations can not be made responsible for their predecessors' sins. Thus, the share shall be based on current emissions.[19]

II. Results and Discussion

Analysis of the data shows that REDD readiness and demonstration activities under different funding schemes have been implemented in almost all continents around the world engaging multiple agencies (Figure 1). As of 2009, there were at least 79 REDD readiness activities (REDD-RA) and 100 REDD demonstration activities (REDD-DA). Of these, the largest shares of REDD-RA and REDD-DA by region were implemented in Indonesia (7 and 15 respectively), and Brazil (4 and 13 respectively), countries widely agreed to have the greatest potential for reducing forest-based emissions (Figure 2).[20] To give a flashback view, since COP-13, as many as 150 projects has been planned for REDD+ activities particularly in Brazil, Peru and Indonesia.[21] This promotes the REDD+ reputation as the low cost effective mechanism to slow down the climate change. REDD+ is also seen to have potentials to generate funding sources for tropical forest conservation which is rich in biodiversity and may give a new income scheme for poor people living near the forests.[22] However, it seems that prospects for the REDD+ inclusion into a post-KP will not be the most important agenda in the near future.

The KP is the only global legally binding treaty mandating cuts in GHG. An extension for an improved binding 2nd commitment of the KP is thus critical. Developing countries and the EU reiterated that a possible binding 2nd commitment period could only be considered in a broader perspective, i.e. a mandate for a new legal framework and improved rules under the KP.[23] Some developed countries held the position that it would be impossible to enforce a binding emission reduction. With regard to REDD+ issues, the CRN, led by PNG proposed a new market-based REDD+ mechanism.[24] Until the

[19]Murdiyarso, *op.cit.*

[20]See Gillian A. Cerbu, (et.als.), "Locating REDD: A global survey and analysis of REDD readiness and demonstration activities", *Environmental Science & Policy*, 14 (2011): 173.

[21]Angelsen et al, (eds.), 2009.

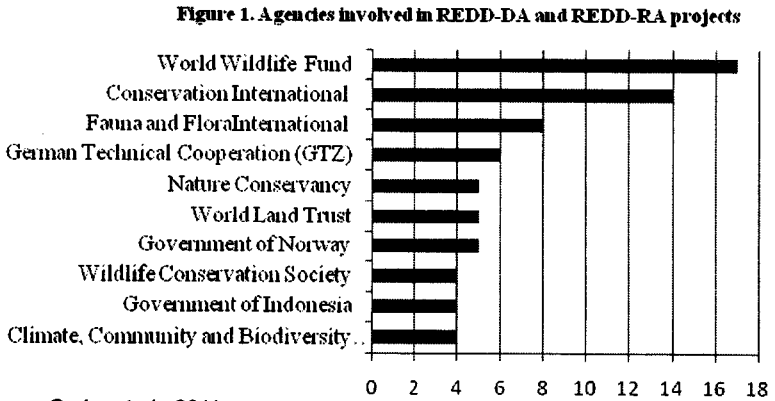
[22]See Pamela Jagger et al. *Pedoman untuk Mempelajari Berbagai Dampak Proyek REDD+ bagi Mata Pencaharian*, Occassional Paper 67, Bogor, Indonesia: CIFOR, 2011: 1-133.

[23]EEA internal report, 2011.

[24]DG-CLIMA. Report of the AWG-KP 16 and AWG-CLA 14 meetings, 1-7 October 2011, Brussels: DG-CLIMA, 2011.

latest AWG-KP session, China was of the same view with the CRN though it preferred that this market mechanism should focus more on how to mobilise private financial sources than on financial resource distribution.[25] Norway was of the opinion that for REDD+ successful implementation, strong and transformative policies and measures are required.[26] The 2nd commitment period to the KP has been politically endorsed. As a policy instrument, the same case also happened to REDD+ as indicated by a decision taken at COP-16 in 2010 agreeing on a framework for an instrument to incentivize REDD+ under a future KP agreement. However, it does not mean that in the near future, REDD+ could be possibly included in a post 2012 KP. Problems related to possible risks arising from the REDD+ implementation on the ground such as socio-economic, ecological, fundings and other technical/scientific issues can be constraining factors why REDD+ inclusion in a post 2012 KP might not happen.

Figure 1
Agencies in volved in REDD-DA and RED-RA projects

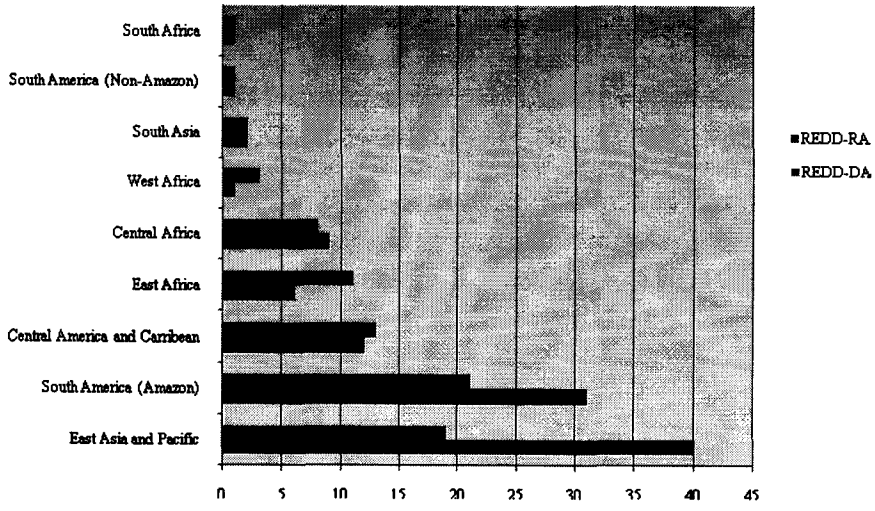


Source: Cerbu et.al., 2011.

[25]Chunfeng Wang. "Lessons Learned from Global Forestry Projects in the Carbon Market", in *Pathways for Implementing REDD+, Experiences from Carbon Markets and Communities,* Perspectives Series 2010,Copenhagen: UNEP Riso Centre, 2011, p. 25.

[26]Ambassador Hans Brattskar, *the Norwegian Cimate and Forest Initiative: Some Key Observation,* presented in 2011 The International Year of Forests—European and Global Forests—Which Way for the Future?", Brussels, 7 September 2011. See also Alain Karsenty and Symphorien Ongolo, "Can 'fragile states' decide to reduce their deforestation? The inappropriate use of the theory of incentives with respect to the REDD mechanism", *Forest Policy and Economics xxx* (2011): 1-8.

Figure 2.
REDD-DA and REDD-RA by Region



Source: Cerbu et.al., 2011.

A. The REDD+ Scheme and the Completion of KP 1st Commitment

The completion of the KP's 1st commitment period in 2012 poses the question of what is the legal meaning of a treaty in the absence of a binding commitment. As the KP is the only global legally binding treaty mandating cuts in GHG, addressing deforestation for developing countries is unquestionably important for the KP to be successful. As REDD+ scheme is seen as the low cost-effective mechanism in the climate change mitigation, an initiative to institutionalise it into a global legally binding treaty will lead to a central part of any discussion on the possible inclusion of the scheme into the Post 2012 KP. The Bali Action Plan summarises REDD+ as a policy approach and positive incentives on issues relating to reducing emissions from deforestation and forest degradation in developing countries.[27] The main idea of the scheme is to compensate developing countries for their efforts in avoding deforestation and forest degradation. The COP-15 in Copenhagen, Denmark in 2009 and the COP-16 in Cancun, Mexico in 2010 have further agreed on a performance-based REDD+ mechanism, but modalities, regulations and implementation procedures are yet clear.[28] Regardless of the fact, the scientific

[27]See footnote 8.
[28]Luttrell, et.al. *Lessons for REDD+ from measures to control illegal logging in Indonesia*. Jakarta and Bogor: UNODC and CIFOR, 2011.

fact shows that deforestation in developing countries contributes approximately to 18 per cent of the global emission.

In some respects, REDD+ scheme has abandoned radically several approaches implemented to avoid deforestation in developing countries and integrates some of the approaches with any new particular innovation into the scheme. Under this scheme, forest is seen as an asset which has to be saved, making forest carbon as a commodity, generating perfomance-based carbon payment and the huge finance money possibly disbursed.[29] In the meantime, the COP-16 has agreed on a framework for an instrument to incentivize REDD+ under a future Kyoto Protocol agreement. While forests and forestry sector are now politically significant in the climate negotiation, the REDD+ mechanism has drawn the attention of the highest levels of government from around the world.[30] Thus, a legally binding inclusion of REDD+ into a second commitment of the KP will also be significant for achieving global mitigation. Yet, because of the withdrawal of Canada from the KP, and Russian and Japanese option not to join the second commitment of the KP agreed at COP-17, it seems to be far harder to engage participation from key developing countries to emission reduction activities. The EU's position, which is committed to save the KP, is quite clear. It will not support new legally binding commitments if the US, China, Japan, Russia, and other big emitters do not commit to restrain their emissions in a reasonable timeframe.[31]

The Durban Platform for Enhanced Action adopted at COP-17, whereby the Parties decided to launch a process to develop a protocol, another legal instrument or an agreed outcome with legal force under the Climate Convention applicable to all parties reflects this assessment. For the EU, the Durban Platform opens a possible room for establishing a legally binding emission reduction mechanism that covers all big emitters. The agreement on the KP's second commitment, by contrast, also accommodates the demand of major developing emitters such as China, India, Brazil, South Africa and other large developing countries that developed countries should commit first. The question that might come up is whether there will be any guarantee that a new binding protocol or an agreed outcome with legal force under the UNFCCC applicable to all, in particular to the US and other big developing emitters, will be established in 2015. This pessimism partly relates to the difficulties faced by any country amid a most likely changing situation in very short time due to economic issues, political differences and conflicting priorities and strategies for responding to climate change.[32]

[29]Angelsen et. al., *op.cit.*
[30]D'Annunzio et. al., *op.cit.*
[31]*The Guardian*, 8 December 2011.
[32]*Ibid.*

In general, decisions adopted at the Durban summit may still underline the importance of a binding global regime as the essence of the global climate change governance mechanism. At least, the decisions reflect a widening and deepening formal process of the mechanism.[33] However, from a viewpoint of the interest of REDD+ inclusion into a binding scheme, the Durban decisions are likely moderate. It has been known that the Parties are committed politically to continue a second commitment period of the KP. The Decision 11/CP.7 on LULUCF has portrayed such a commitment. More important, COP-16 also agreed on a framework for an instrument to incentivize REDD+ under the future Protocol agreement. The last CMP in Cancun (2010) also mandated the AWG-KP to prepare the same mission.[34] A possible inclusion signal of REDD+ to be integrated in a post-KP regime is also supported by the UN-REDD Programme and the Norwegian government though they admitted that several issues such as legal status of a new commitment, distribution of incentives, and methodological aspects still need to be decided.

The legal status issue will relate to whether REDD+ is still additional, not a substitute, for deep cuts in developed countries' emission.[35] In the run-up to the Durban COP-17, the 16th session of the AWG-KP meeting in Panama 2011 noted that the issue of a fully-fledged 2nd commitment period as ground laying for the Durban outcome was quite clear for developing countries. Progressive developing countries and the EU reiterated that a possible 2nd commitment period could only be considered in a broader perspective, i.e. mandate for a new legal framework and improved rules under the KP.[36] By contrast, since the COP-15 developed countries take a position that it would be impossible to enforce a binding emission reduction merely imposed on them.[37] Political decisions will also need to be taken with respect to market mechanisms, especially new market-based mechanisms. At the Durban summit, there were no specific references that can be made regarding the issue of whether REDD+ possibly becomes a new mitigation policy instrument under the KP's 2nd commitment. The only positive indication that can be found is that in the context of the importance of ensuring continuity in the mitigation action, the CMP-7 mandated the 17th session of AWG-KP in 2012 to decide

[33]See Ashwani Kumar and Dirk Messner, "Introduction Global Governance: Issues, Trends and Challenges", in Ashwani Kumar and Dirk Messner (eds.). *Power Shifts and Global Governance, Challenges form South and North,* London: Routledge, 2011, p. 10.

[34]Dec.2/CMP.6 on the Cancun Agreements: Land use, land-use change and forestry in *http://unfccc.int/resource/docs/2010/cmp6/eng/12a01.pdf#page=5*; accessed 4 October 2011.

[35]*UN-REDD Programme Indonesia* in *http://www.un-redd.org/UNREDD Programme/..... /Indonesia/...../Default.aspx,* accessed 1 November 2011.

[36]DG-CLIMA report, *op.cit.*

[37]Econ P. *China, India, South Africa, Brazil (BASIC): Crucial for the Global Environment.* Report for the Norwegian Ministry of the Environment, 2011, pp.1-82..

that the KP's 2nd commitment period shall begin without delay on 1 January 2013. Another related issue concluded in the summit related to the agreement on procedures to incorporate carbon capture and sequestration projects into the CDM and to guide projects that seek to reduce deforestation.[38]

Referring to the global aim to reduce aggregate GHG emissions by at least 25-40 per cent below 1990 level by 2020 and the recognition of the KP's role in the mitigation efforts of Annex I countries, can also become a modality of how an international REDD+ scheme should look like in the future. In a study by Wang,[39] the REDD+ actions were considered as cost-effective and competitive mitigation options for developing countries in the future. The potential would be higher if REDD+ actions are not limited to deforestation. If polices and positive incentives are executed effectively, REDD+ actions can be expected to achieve up to 30% cost-effective global mitigation potentials by 2020. This argument is not without credit as the 2007 Stern report reminds us of the economic benefits of strong and early action to reduce emission globally.[40] However, as indicated at COP-17 in Durban, there has not been any decision agreed to include the REDD+ as a new legal binding scheme resuming the KP's 1st commitment. As the post 2012 KP itself seemed to have not received any political support from the industrialised emitters, the prospect for REDD+ inclusion into a second commitment of the KP warrants pessimisms.

B. Prospect for a legally binding REDD+ into a post-KP

Since COP-11, REDD+ agenda is one of the more advanced sectors in global climate negotiations.[41] Some voluntary market based-REDD schemes have also been practically implemented. Ecosystem Marketplace and Bloomberg New Energy Finance, for instance, indicate that with respect to existing voluntary carbon market AFOLU projects, of the 50 million tCO_2 of over-the-counter transactions in 2009, 20% are for REDD+ activities.[42] In addition, funding commitments for REDD+ preparatory projects seems to be relatively promising. The World Bank FCPF, UN-REDD Programme (2009-2011) funding for REDD-RA projects, capacity building and methodology establishment, and REDD-DA in Indonesia, for instance are equivalent to US$

[38]"The Durban Platform ", in *http://www.brookings.edu/global.aspx;* accessed 10 February 2012.
[39] Wang, *op.cit.*
[40]See Des Gasper. *The Human Security Approach as a Frame for Considering Ethics of Global Environmental Change*. IHDP Update Issue 2, 2009, pp.14-18.
[41]See Sebastian Hetsch and Juan Chang, "Key Concepts for Carbon Accounting of REDD+ Projects", in UNEP Riso Centre, *op.cit.*, p.31.
[42]See Timothy R.H. Pearson, (et.als.), "Methodological Barriers to the Development of REDD+ Carbon Markets", in UNEP RISO Centre, *op.cit.*, p. 42.

5.6 million, and the contribution from Norway (2010-2020) accounts for US$ 1 billion.[43] As many as 20 REDD-RA projects and 34 REDD-DA initiatives are under development in Indonesia, which puts Indonesia in the most advanced position among countries with on-the-ground development of REDD+, but also increases the country's stake in the continuation of such activities into a more institutionalised binding mechanism.[44] These activities strengthened the Indonesian initiative related to REDD+, launched at the G-20 summit in 2009, to reduce national emission by 26%, or by as much as 41% by 2020 with international support. To achieve this, the government has backed up this pledge with the establishment of the National Council for Climate Change. This council, engaging 16 cabinet ministries with the Minister for Environment as the executive chairperson, coordinates and observes the implementation of national plans of action to combat climate change and manage the climate fund, including cooperation funds from developed countries to help Indonesia reduce GHG[45]

Considering all those REDD activities, a policy agenda-setting question emerged: How likely is the prospect for REDD+ to be included into a second commitment of the KP? While the second commitment period of the KP has been politically endorsed, the Durban Platform has not clearly agreed on any number and form of the KP's second commitment, for instance on how to approach countries that have not yet ratified the protocol, and on contributions of developing countries to mitigation effort. Thus, a binding mechanism for REDD+ attached to the KP still faces political constraints in the near future. One reason for this could be due to problems relating to possible risks arising from the REDD+ implementation and other technical issues on the ground. In addition, forestry sector issues under the CDM mechanism alone have not been convincingly solved. Since 2005, both compliance and voluntary carbon markets under CDM have grown significantly. Somehow, as of August 2010, of 2379 registered projects, there were only 17 projects under the AR-CDM scheme.[46] In the meantime, apart from political constraints, problems relating to possible risks arising from the REDD+ implementation and other technical issues on the ground hindering the degree to which possible REDD+ inclusion in a post 2012 KP are as follows:

1. The establishment of baseline scenarios. The baseline scenario assumes a high carbon stock in the beginning which continues to decline,

[43]See Naomi Swickard and Kim Carnahan, "Integrating Project and National REDD+: the Importance of the Private Sector, in UNEP RISO Centre, *op.cit.*, p. 73.
[44]*Ibid.*, pp. 81-83.
[45]Dewan Nasional Perubahan Iklim, in *http://www.dnpi.go.id/index.php?option=com_content&view=article&id=33&Itemid=3; accessed* 14 October 2011.
[46]Wang, *op.cit.*, pp. 17-18.

while the project scenario assumes a steady state or slower decline in carbon stock in the project area. While the baseline scenario is only hypothetical, the carbon credits generated cannot be measured directly. As such any REDD+ project requires transparency. Transparency is also a major challenge as the establishment of this scenario is not merely a technical but also a political issue.[47] Host countries will be tempted to exaggerate the baseline trends and thus set low targets in order to maximise the potential output of carbon credits. Besides, a challenge might come up with the relevant information required for reassessing the baseline, which is not often updated frequently or systematically archived. The same may also happen when quantifying carbon emissions in project scenarios, since reliable data for measuring and monitoring carbon stocks and their changes is not always available. In addition, the establishment of baseline scenarios also needs to take leakage into account. Leakage is the displacement of carbon emitting activities from REDD+ project areas to other areas. Carbon emitting activities, like slashing forest for agriculture, but also logging and subsequent forest degradation, are relocated elsewhere, often because in other locations law enforcement is poor.[48]

2. Socio-economic and ecological impacts. One of the requirements for the acceptability REDD+ is that it will not negatively affect forests 'contributions to the livelihoods of local communities. Yet this requirement is good on paper but often difficult to comply with in practice (Larson, 2011), because of poor governance in REDD+ host countries, for instance, in Indonesia.[49] In REDD+ project areas, customary rights might be jeopardized because of competing interests fostered by the projects. Equally, the inclusiveness issue for affected forest community likely prevails in the REDD+ project initiatives.[50] A successful implementation of REDD+ requires strong political leadership to enforce strong and transformative policies and measures.[51]

[47]See Arcidiacono-Bársonya, C. (et.al.), "REDD Mitigation", *Procedia Environmental Sciences,* 46 (2011): 50–59..

[48]Hetsch and Juan Chang, "Key Concepts for Carbon Accounting of REDD+ Projects", *op.cit.*, pp.35-36.

[49]For the Indonesian case, for instance, see, Ahmad Dermawan et al., *Mencegah Risiko Korupsi pada REDD+ di Indonesia*, Laporan Singkat, UNODC and CIFOR, 2011, p. 3. Also see Cecilia Luttrell, et al., *Lessons for REDD+ from measures to control illegal logging in Indonesia*, Working Paper, UNODC and CIFOR, 2011, p. 7.

[50]See Charlotte Streck, "Financing REDD+ and the Role of Carbon Markets, p.68 in UNEP RISO Centre, *op.cit.*, p. 67.

[51]See footnote 26.

A poorly designed REDD+ mechanism could tempt host governments and market forces to replace primary forest and other diverse ecosystems with plantations that are rich in carbon but poor in biodiversity. Limited human and financial resources and poor governance may likely strengthen this scenario.[52] Furthermore, biofuel projects could also be a serious threat to REDD+ as they may lead to forest conversion and replacement with biofuel crops. Increasing demands for food, land fertility, rising market prices for commodities, and a lack of clear and enforceable ownership rights to forest land result in agriculture are the major cause of deforestation.[53]

Data show that, for instance, oil palm oil may produce around 17 t fruit or even 25 t per hectare, using 'best practices'. In Indonesia, oil palm estate development has drastically increased since the 1960s. For nearly five decades, the total area covered by oil palm has increased from around 110,000 to nearly 8 million hectares and a total production of nearly 20 million t in 2010.[54] Of the estimated 23.5 million t palm oil in 2011, 16.5 million t is for export. At the average international trade price of US$ 1,100/t, exports revenues will exceed US$ 18 billion. By contrast,Indonesia's Papua Province, for example, aims to retain 4.3 million hectares of forest that are legally designated for conversion, but that under community forest management and agro-forestry will save potential nearly 38 million t of CO_2 emissions a year. At US$5/t, this would yield US$ 190 million/year in carbon revenues over 25 years, starting in 2015.[55] However, this option requires a well functioning global carbon market. The decisions agreed at COP-17 (the Durban summit) showed that there has been slow progress for emission reduction commitments from industrialised countries. Rising potential global economic uncertainties, political differences, and conflicting priorities and strategies for responding to climate change among countries make the REDD+ agenda likely difficult to push forward legally.

3. Carbon credit demand and supply uncertainties. The REDD+ scheme is still in the making and more importantly this is not the only option to acquire or trade carbon credits. Given the lack of its legal endorsement, the greater possible complexity for its implementation, both demand and supply for REDD+

[52]See Charlotte Streck, *op.cit.*, p. 68. .

[53]See UNEP, FAO and UNFF, "Forests under threat as agricultural commodities take over", *Vital Forest Graphics* (2009): 21-22.

[54]Indonesian Ministry of Agriculture, in *http://ditjenbun.deptan.go.id/budtanan/ index.php?option=com_content&view=article&id=92:peresmian-peremajaan-pertama-kebun-plasma-kelapa-sawit-di-sei-tapung-propinsi-riau-tanggal-3-pebruari-2012&catid=15:home;* accessed 21 March 2012.

[55]See Barnabas Suebu. *A Global Solution, Building a Low Carbon Economy for Papua Province, Indonesia, 2009.*

are not easy to estimate. Estimates of the mitigation potential of REDD+ range from 2.6 to 3.3. Gt CO_2 per year by 2030 to 3.5 Gt CO_2 by 2050. This potential is, however, not always in line with the generation of tradable REDD+ credits. On paper REDD+ projects would, as low cost-effective mechanism, be easily put on the markets. Due to the complexity of methodological issues, the ability of host countries to meet market criteria, and due to other legal or policy gaps, it will be difficult to spur robust carbon credit demands. It is thus understandable that current emission reduction pledges would be unable to create sufficient demand for REDD+ credit.[56] Thus, a binding legal framework either under Kyoto or any other regime could possibly cope with this issue.

4. AR-CDM projects. Funding for AR-CDM projects constitutes a potential problem for the implementation of REDD+. Though emissions from LULUCF contribute to roughly a fifth of the global emission, the impact of AR-CDM projects on carbon markets and carbon finance is still not promising. While being comparatively cost-effective, the resources required to reduce deforestation are also high. Estimates to stop emissions from deforestation range from US$15-33 billion per year. The Eliasch Review Report (2008) states that approximately US$ 18-26 billion a year will be needed to reduce deforestation by 50% by 2020. Ironically, official funding is not inadequate. For example, between 2000-2005 global official development assistance (ODA) to the forestry sector amounted to less than €600 million annually.[57] Under the Copenhagen Accords, developed countries pledged a new additional funding to support mitigation efforts approaching US$ 30 billion for 2010–2012. They also committed to jointly mobilize US$ 100 billion a year by 2020. This amount has doubled several times, yet it remains a third of the lowest estimation. The scenario would be worse if we consider a likely volatile and highly cyclical ODA and its vulnerability to any political, economic, and perceived global financial stability.[58] Bridging this gap, voluntary carbon markets can be an option. However, though it may get support, its effectiveness for forest preservation, protection of indigenous peoples and sustainable community development remains questionable.[59]

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[56]Wang, *op.cit.*, p. 26. Also Streck, *op.cit.*, p. 65.

[57]Streck, *op.cit.*, pp. 59, 61. Swickard and Carnahan, *op.cit.*, p. 73. Adapted from Meridian Institute (2009), Boucher, and European Commission, and Simula (2008).

[58]Swickard and Carnahan, *op.cit.*, p.73.

[59]See Chukwumerije Okereke and Kate Dooley, "Principles of justice in proposals and policy approaches to avoided deforestation: Towards a post-Kyoto climate agreement", *Global Environmental Change,* 20 (2010): 82–95.

The voluntary market of the CDM scheme has enjoyed significant growth for the past few years. At least 387 million t of carbon credits were traded in voluntary markets in 2009 and 143,897 million t were traded in regulatory markets.[60] Nevertheless, these still reflect a very small portion of the finance required. Problems in methodology and legal framework are considered reasons for why voluntary markets under AR-CDM projects performed poorly. What is now at stake is the scaling-up of adequate funding from both sources for a successful implementation of REDD+ activities in the future. Once this is achieved, and a legally binding mechanism at hand, financial constraints will be likely resolved. What becomes the pressing problem, thus, is a political decision to legally back up REDD+.[61]

The EU role in funding is quite important. Under the UN-REDD programme scheme, for instance, the European Commission has pledged approximately US$14 million. In addition, funding initiatives pledged by the individual EU member countries are also significant. Denmark emerged as the biggest donor to join the UN-REDD Programme, committing US$ 2 million in 2009 and another US$ 6 million in 2010. In 2009, Spain also announced its pledge of US$ 20.2 million over a three-years period, and confirmed US$ 1.4 million for 2010. Funding commitments also come from other non-EU member countries. Norway, for instance, continues to be the UN-REDD Programme's first and largest donor.[62] Since 2008, Norway has committed US$ 52.2 million for 2008-2009, and another US$ 31 million for 2010. Norway has also pledged US$ 1 billion in return for a performance-based REDD partnership cooperation in Indonesia and Brazil. Some EU member countries also have committed bilaterally and voluntary contributions. In 2011, for instance, Germany agreed to contribute €23 million for several projects for REDD+ in Indonesia.[63]

The main message from the above is that a successful inclusion of REDD+ into a post-2012 KP commitment does not seem to be hindered by a lack of political support from major global political players. However, EU role in funding commitment only represents a little scope of the funding needed to make REDD+ successful. Therefore, global political decision is needed not only in the policy agenda-setting itself but also for further efforts to solve several issues for the effective implementation of REDD+ on the ground and the funding commitment as well. All these should become the main message in the global

[60]Streck, *loc.cit.*, p. 63; adapted from Hamilton (2010).
[61]Wang, *op.cit.*
[62]*UN-REDD Programme Indonesia* in *http://www.un-redd.org/UNREDD/Programme/...../Indonesia/...../Default.aspx,* accessed 1 November 2011.
[63]Okezone Economy (website), 2011. 'Jerman Hibahkan RI 166,5 Juta Euro untuk Green Energy', in *http://economy.okezone.com/read/2011/10/22/19/518881/jerman-hibahkan-ri-166-5-juta-euro-untuk-green-energy*; accessed 1 November 2011.

mitigation effort in the future. The latest developments agreed at the Durban summit suggest he momentum has not been conducive enough, not even from EU.

C. Prospect for REDD+ as a non-binding policy instrument

Debates on whether REDD+ is a feasible policy approach in the global climate change mitigation or not remain crucial. While ensuring that past policy failures will not continue to happen when applying REDD+ , an expert has advocated three solutive elements to make REDD+ successful as policy instrument.[64] REDD+ designers must learn from the past failures in the forest management and forest conservation. *Firstly,* climate experts who have deeply been involved in the decision making process on REDD+ should also take a role to learn from the past experience in the forest management and forest conservation; *Secondly*, Less political will to reduce deforestations contributes to the past policy failures and possibly to REDD+ implementation in the future. Therefore, a political will remains crucial. The success or failure of REDD+ will be determined by the results of interaction of various conflicting interests. *Thirdly*, the importance of public support. As political will may not be as strong as needed to tackle deforestation, public pressures often become an important factor to change a policy agenda setting of the policy makers.[65]

Empirically REDD-RA and REDD-DA under different funding schemes have been implemented in almost all continents around the world engaging multiple agencies. as of 2009, there were at least 79 REDD-RA and 100 REDD-DA particularly implemented in Indonesia (7 and 15 respectively), and Brazil (4 and 13 respectively).[66] In addition, since COP-13, as many as 150 projects has been planned for REDD+ activities particularly in Brazil, Peru and Indonesia.[67] In Indonesian case, another new data shows that recently at least 44 REDD+ project initiatives are underway, not all of these are official government-approved REDD-DA; projects directly aimed at reducing emissions from deforestation and forest degradation, those identified by their proponents as REDD+, and those operated under official agreements with some level of government.[68] In addition, as a policy approach itself, REDD+ scheme has abandoned radically several approaches implemented to avoid deforestation in developing countries and integrates some of the approaches

[64]Angelsen et al., *op.cit.*
[65]*Ibid.*
[66]Cerbu et.al., *op.cit.*
[67]Angelsen et al, *op.cit.*
[68]Luttrel, *op.cit.*

with any new particular innovation into the scheme. Under this scheme, forest is seen as an asset which has to be saved, making forest carbon as a commodity, generating perfomance-based carbon payment and the huge finance money possibly mobilised.[69]

These facts further promotes the REDD+ reputation as the low cost-effective mechanism to keep the climate change moderate. As a voluntary instrument, REDD+ remains significant. Political attention, a growing recognition as a low cost-effective mechanism for climate change mitigation and the scientific fact showing that deforestations contribute to significant global GHG emission, will therefore, keep the REDD+ as non-legally binding mechanism feasible in several years to come.

III. Conclusion

As a low cost-effective mechanism in the global climate change mitigation, REDD+ has the potential to be a forceful policy instrument. Though there is no formal agreement yet on REDD+, it remains to receive political support as a robust alternative mitigation scheme in a post-KP first commitment. While REDD+ was formally adopted at COP-13, its empirical and legal seeds had existed long before the KP. was adopted. Pioneering REDD+ projects have been implemented under compliance and market carbon credit schemes. However, looking back at the empirical discourse, if there is no progressive political breakthrough in the global change negotiation, it seems that possible inclusion of REDD+ into a second commitment of the KP remains uncertain.

Several determinants affect why REDD+ has not been included as a binding scheme in a post 2012 KP second commitment. *First*, the agreement on the second commitment of the Protocol and other decisions adopted in the last UNFCCC summit have not provided a conducive room for REDD+ to be a binding mechanism. *Second*, due to the complexity for the implementation of REDD+ on the ground, and a huge fund requirements, the REDD+ scheme will be at most under a loose agreement in the global climate change negotiations, not even under a market mechanism. *Third*, in coming years, for meaningful implementation of the REDD+ scheme, the global decisions on crosscutting issues relating to technical/scientific, socio-economic and ecological aspects as well as funding have not yet been taken. Keeping view of these shortcomings, a supportive role of major global political actors is essential. *Fourth*, the role of European countries is significant in climate change

[69]Angelsen et al., *op.cit.*

mitigation as shown by their political commitment and sound policies to achieve its emission reduction target under the KP in 2012. Conversely, the European countries do not extend their full support towards REDD+ as indicated in the Durban Platform. This also means that European countries will show commitment for the REDD+ inclusion under a second commitment of the KP only if other major emitters will commit to cut their emissions in a reasonable time period. The recalcitrant behaviour of major emitters has converted REDD+ into a voluntary instrument, but a significant scheme. With the political backing of major emitters, a recognition of REDD+ as a low cost-effective mechanism for the climate change mitigation and a significant tool for the reduction in deforestations will likely assure that REDD+ will remain as a vital, but non-binding mechanism for years to come.

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