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**REDD+ as an International Cooperation Strategy**  
**under the Global Climate Change Regime**

**Mi Sun Park\***

*Research Institute for Agriculture and Life Sciences, Seoul National University, Seoul,  
Republic of Korea*

Research Institute for Agriculture and Life Sciences, Room 7215, Building 200,  
College of Agriculture and Life Science, Seoul National University  
599 Gwanak-ro, Gwanak-gu, Seoul, 151-921, Republic of Korea

Tel: +82 2 880 4718, Fax: +82 2 875 4763

Email: mpark@snu.ac.kr

**Esther Sekyoung Choi**

*Sustainable Development Network, The World Bank Group, Washington D.C., United States*

Sustainable Development Network, The World Bank Group  
1818 H Street N.W., Washington D.C. 20433, United States

Email: esther.sk.choi@gmail.com

**Yeo-Chang Youn**

*Department of Forest Sciences, Seoul National University, Seoul, Republic of Korea*

Room 7219, Building 200, College of Agriculture and Life Science, Seoul National  
University

599 Gwanak-ro, Gwanak-gu, Seoul 151-921, Republic of Korea

Tel: +82 2 880 4754, Fax: +82 2 875 4763

Email: youn@snu.ac.kr

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\* Corresponding Author

## **REDD+ as an International Cooperation Strategy under the Global Climate Change Regime**

### Abstract

Under the global climate negotiations, a REDD+ (Reducing Emissions from Deforestation and Forest Degradation and enhancing conservation, sustainable management of forests, and forest carbon stocks) regime is established by multi-stakeholders such as transnational organizations, states, and non-governmental organizations (NGOs). However, several developed countries have strategically exerted their leadership in forming and implementing a REDD+ regime in the international community. This paper attempts to investigate national REDD+ strategies of Norway, Germany, Australia, the United States, and Japan which have contributed to forming a global REDD+ regime. National REDD+ strategies of the five countries were analyzed using three categories: pledge, type of supporting, and approach. These five countries have commonalities in that they pledged their commitment to establishing a REDD+ architecture through non-binding agreements such as the Copenhagen Accord and the REDD+ Partnership. Furthermore, they have been providing developing countries with financial and technical assistance through multi- and bilateral schemes using their own international initiatives on climate and forest. Nevertheless, they have different approaches and scoping for REDD+. The results from this study indicate that developed countries contribute to building a global regime on REDD+ with different strategies based on their interests and perspectives. These can be elucidated as leadership in forming REDD+ regime. Analysis on activities to support REDD+ as international cooperation strategies by developed countries will help understand the dynamics of a global regime of REDD+.

Keywords: climate change, REDD+, strategy, regime, leadership

## **Introduction: Global Trends of REDD+**

Deforestation in developing countries is not striking news in the global society. From 1990 to 2005, the world lost three percent of its total forest area, which is an average decrease of some 0.2 percent per year (FAO, 2007). Most of the forest loss took place in tropical countries such as the Democratic Republic of the Congo, Sudan, and Tanzania in Africa, Indonesia and Myanmar in Asia, and Brazil in South America. Therefore, statistics exclusively on tropical forests reveal a striking fact; the world lost half of its tropical forests in fifty years from 1950 to 1999 (Vajpeyi, 2001). This rate presents a significant challenge in addressing climate change, because tropical forests have particularly high carbon stocks with on average fifty percent more carbon per hectare than forests in temperate and boreal areas (Grieg-Gran, 2006). Therefore, deforestation in the tropical region is one of the major causes of global climate change.

During the negotiation process of the United Nations Framework Convention on Climate Change (UNFCCC), avoiding deforestation and forest degradation in developing countries was discussed as a climate change mitigation activity. The Convention parties agreed on a REDD-plus (REDD+) mechanism, which aims to reduce emissions from deforestation and forest degradation through conservation, sustainable management of forests, and enhancement of forest carbon stocks (UNFCCC, 2008).

Research on REDD+ has been steadily increasing since 2007. REDD+ related research with institutional approach covers various topics, including the rights and livelihoods of communities (Palmer, 2010; Larson, 2011; Lyster, 2011; Lawlor et al. 2010; Caplow et al., 2011), governance (Phelps et al., 2010; Kanowski et al., 2011; Thompson et al., 2011), finance (Johns et al., 2008), and regime (Levin et al., 2008). However, analytical research on REDD+ activities and strategies designed and implemented by developed countries have yet to be conducted. Therefore, this study aims to investigate national strategies of major

developed countries that are actively participating in the REDD+ regime. Analysis of national strategies in this study will be useful to both developed and developing countries for successful implementation of REDD+. In particular, this study can provide developing countries with valuable information on developed countries' REDD+ strategies; developing countries can refer to this study in making efforts to receive financial and technical support from developed countries. Ultimately, this study can highlight strategic activities of developed countries revealed through REDD+ mechanisms and enhance understanding of the REDD+ regime as a global climate change regime based on the relationship between developed and developing countries.

This study starts with history of REDD+ and brief overview of the theories of leadership, global regime, and strategy as a theoretical background, followed by research method and analysis of national REDD+ strategies of Norway, Germany, Australia, the United States, and Japan. The study then concludes with findings on the development of a global regime on REDD+.

### **History of REDD+**

According to the Intergovernmental Panel on Climate Change (IPCC)'s Fourth Assessment Report released in 2007, 17.4 percent of the world's total greenhouse gas (GHG) emissions were emitted from land-use change including forestry. Therefore, it can be deduced that employing strategies related to land use, land-use change, and forest activities have the potential to significantly reduce GHG emissions. This Report was not the first to recognize GHG emissions related to forest activities; ten years prior to the Report, the Kyoto Protocol listed forests as one of the GHG sinks, allowing Parties in Annex I to use the net changes in GHG emissions by sources and removals by sinks resulting from anthropogenic land-use change and forestry activities—limited to afforestation, reforestation, and deforestation since

1990—to meet the commitments (United Nations, 1998). For the first commitment period, Annex I countries could develop Afforestation/Reforestation Clean Development Mechanism (A/R CDM) project activities in non-Annex I countries and use the amount of GHG reduction to meet their targets under the Kyoto Protocol. However, despite the acknowledgment of forests as major carbon sinks and as a means to help countries to achieve their targets under the Kyoto Protocol, the conditions for A/R CDM approval were so strict that as of December 2010, only nineteen forest projects, out of 2,597 projects, had been registered through the CDM since its initiation in 2006 (Norad, 2011)

Nevertheless, continued discussions on climate change and the role of forests in addressing it have led to dialogues on reducing emissions from deforestation and forest degradation, commonly known as REDD. As a set of steps and guidelines designed to use market incentives to mitigate deforestation and decline of forest accumulation and forest services, REDD aims to prevent carbons stored in forests from being released into the atmosphere. Discussions on REDD at the international level were officially initiated when Papua New Guinea and Costa Rica, supported by eight other Parties, proposed REDD as a formal agenda at Conference of the Parties (COP) 11 of the UNFCCC in 2005. A year later, the Subsidiary Body for Scientific and Technological Advice (SBSTA) of the UNFCCC selected REDD as a key issue for the discussions on the Post-Kyoto regime after the year 2012 (UNFCCC, 2006). The scope of the original REDD concept is limited to deforestation and forest degradation; REDD-plus (REDD+) goes beyond and includes the role of conservation, sustainable management of forests, and enhancement of forest carbon stocks (UNFCCC, 2008). REDD+ was well-received by the international community as an effective scheme between developed and developing countries to combat climate change. After four years since REDD was formally proposed at COP 11, the Copenhagen Accord was reached at COP 15 in 2009 to define the need to provide incentives for REDD+ by enabling the mobilization of financial

resources from developed countries. As the Copenhagen Accord called for the “immediate establishment of a mechanism”, six countries<sup>1</sup> pledged a total of USD 3.5 billion as a fast-start financing package for REDD+ (REDD+ Partnership, 2010). To further substantiate the efforts on REDD+, fifty-eight countries formed the REDD+ Partnership at the Oslo Climate and Forest Conference in May 2010. Here, six more countries<sup>2</sup> pledged an additional USD 500 million; by 2012, the funding available to support taking action on REDD+ increased to over USD 4 billion (DCCEE, 2012; REDD+ Partnership, 2010). As a continued effort, the Cancun Agreements adopted in December 2010 at COP 16 formally committed developed countries to collectively provide resources of USD 30 billion for the period 2010-2012 as “fast-start financing” to support enhanced action on mitigation, including REDD+ (UNFCCC, 2010). In addition, the Cancun Agreement clearly defines the scope of REDD+ activities and requests that developing countries undertake activities such as establishing national strategy or action plan, forest reference levels, monitoring system, and system for providing information on how the safeguards are being addressed throughout the implementation (UNFCCC, 2010). Thus, international negotiations and discussions on REDD+ are gradually yet unquestionably expanding in their size and importance.

On the basis of international negotiations and discussions, a number of international initiatives and some developed countries are participating in supporting and implementing REDD+ activities in developing countries. Until the year 2009, seventy-nine REDD+ readiness activities and one hundred demonstration activities have been implemented in forty developing countries, including Mexico and Indonesia (Cerbu et al., 2010). REDD+ demonstration activities and capacity building programs in various developing countries are being driven by international initiatives such as the Forest Carbon Partnership Facility (FCPF)

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<sup>1</sup>Australia, France, Japan, Norway, the United Kingdom, and the United States

<sup>2</sup>Denmark, Finland, Germany, Slovenia, Spain, and Sweden

of the World Bank, the Forest Investment Program (FIP) of the Climate Investment Funds, and the UN-REDD Programme jointly led by the Food and Agriculture Organization (FAO), the United Nations Development Programme (UNDP), and the United Nations Environment Programme (UNEP). Developed countries are supporting and utilizing multilateral schemes like these to design and implement REDD+ activities in developing countries, in addition to their bilateral support.

### **Leadership, Regime, and Strategy in the Context of REDD+**

#### *Leadership and Regime*

The world politics today lacks an authoritative governmental institution to address trans-boundary environmental problems. Nevertheless, it is necessary to form mutually beneficial agreements among governments to reduce global conflicts and the risk thereof (Keohane, 1982). Based on this framework, the regime theory emerged in the political studies in the early 1980s (Smouts, 2008). Regimes are “social institutions that consist of informal and formalized principles, norms, rules, decision-making procedures, and programs that influence the behavior of states and individuals in specific issue areas” (Levy et al., 1995). In this context, environmental regimes that operate at the international and transnational levels are a part of global governance systems in environmental world politics (Stokke, 1997). Particular issue-areas covered by the environmental regime include biodiversity, ozone depletion, and climate change.

In the late 1980s and early 1990s, the concept of leadership was introduced in the study of international regimes to describe the role of negotiating parties (Skodvin and Andresen, 2006). Leadership is defined as “the actions of individuals who endeavor to solve or circumvent the collective action problems that plague the efforts of parties seeking to reap joint gains in

processes of institutional bargaining” (Young, 1991) and as “an asymmetrical relationship of influence, where one actor guides or directs the behavior of others towards a certain goal over a certain period time” (Underdal, 1994). Leadership is regarded as an important element of multilateral negotiation and can be conceptualized by cooperative efforts by individuals, institutions, and nation-states in forming global regimes. Scholars have differentiated leadership into several forms, and in this study three types of leadership identified by Andresen and Agrawala (2002) are employed in the context of international regime: intellectual leadership, instrumental leadership, and directional leadership. Intellectual leadership is exerted by individuals with “intellectual capital and generative system of thought that shape the perspectives of those who participate in institutional bargaining” in a deliberative or reflective process for making regimes (Young, 1991). Therefore, intellectual leadership is often demonstrated in the agenda setting phase of international negotiations. Instrumental leadership is exercised by individuals who seek the means, using their skills and status, to achieve common ends and persuade others about the merits of a particular problem (Underdal, 1994). Lastly, directional leadership refers to the way an issue is dealt with. It is exercised by influencing other parties’ incentives by making the first move and by demonstrating the pre-eminence of particular solution alternatives (Skodvin and Andresen, 2006).

These types of leadership can be found in the REDD+ regime. A REDD+ regime emerged during the process of the global climate change negotiations at the UNFCCC. Two scientific publications contributed to setting agenda on REDD+. One is Sir Nicholas Stern’s ‘the Economics of Climate Change’, which identified deforestation as one cause of climate change and argued that reducing deforestation is a highly cost-effective way of reducing GHG emissions (Stern, 2006); the other one is the IPCC’s ‘Mitigation of Climate Change: Fourth Assessment Report’, the aforementioned Report that emphasizes GHG emissions from land-

use change including forestry (Metz et al., 2007). Both publications offered powerful reasons for REDD+ mechanism to be an important instrument to mitigate climate change. Therefore, Stern and the scientists of the IPCC exerted their intellectual leadership in setting agenda on REDD+ mechanism in forming the climate change regime.

Although constructing a REDD+ mechanism is still ongoing, two major global initiatives, the UN-REDD Programme and the FCPF of the World Bank have contributed to forming and implementing future REDD+ mechanism in developing countries (Johns et al., 2008). Based on their political and technical skills and coalition with other actors, these initiatives conducted pilot projects which function as a means to analyze situations in developing countries and enhance their capacities to implement REDD+ projects. Therefore, these initiatives play a key role as instrumental leaders in advancing the REDD policy process.

Ambitious developed countries took part in climate change negotiations and provided developing countries their resources for REDD+ readiness and demonstration projects under the climate change regime. Their contributions vary depending on their interests and resources such as finance, knowledge, and technology. The allocation of resources led to differences in power to influence the process of forming a REDD+ mechanism. The power from their material resources is converted to bargaining leverage as stemming from the existence of asymmetries among participants or stakeholders in processes of institutional bargaining (Young, 1991). The developed countries are shaping perceptions on the issue of REDD+. This research focuses on the directional leadership by five developed countries in a REDD+ regime.

### ***Strategy***

Leadership of certain nations in the process of forming a REDD+ regime can be reflected by national strategies on REDD+. In this study, the concept of strategy is applied as an analysis

unit for different nations' REDD+ approaches. The concept of policy instrument can also be relevant to research of this nature because policies have been implemented as the means of instruments to induce social changes. Using the concept of policy instrument in policy analysis can especially be useful because it offers various types of political approaches to issues or problems; regulatory, financial or economic, and informational instruments (Bemelmans-Videc et al., 1998; de Bruijn and Hufen, 1998; Krott, 2005). However, the concept of policy instruments does not explain the pattern and perspective of policies, whereas the concept of strategies does. In other words, although both policy instruments and strategies are defined as a means to achieve the purpose or goal of policies, the latter can better elucidate governments' different positions in formulating and implementing REDD+ mechanism. Therefore, instead of the concept of policy instruments, the concept of strategy is applied in this study in order to interpret policies.

In the field of management sciences, several definitions of strategies have been proposed. In this study, five definitions of strategy proposed by Mintzberg (1987) are applied: plan, ploy, pattern, position, and perspective. First, strategy is a plan to a degree a consciously intended course of action. By this definition, strategies play the role of guidelines for actions, and are formulated in advance to the actions that are developed consciously and purposefully. Second, strategy is a ploy as a specific maneuver intended to outwit an opponent or competitor. Here, strategy is formulated in respect to other nations or organizations. Third, strategy is a pattern as consistency in a set of actions. Fourth, strategy is a position as a means of locating an organization. In ecological terms, strategy is the mediating force and a niche between organizations and the environment. Fifth, strategy is a perspective as an ingrained way of perceiving the world. This definition is also related to paradigm as "a community's shared belief, rule, or assumption during a certain period in society" (Kuhn, 1996). The paradigm influences a rise in problems and their construction, interpretation, and solution.

## **Methodology**

This study analyzes national REDD+ strategies using case studies of major countries that have exerted leadership in forming and implementing a REDD+ regime—Norway, Germany, Australia, the United States, and Japan. All these countries are Annex I Parties with targets to achieve under the Kyoto Protocol.

Official national and international documents related to REDD+ were collected and used as primary data for analysis (Table 1). In addition, the Voluntary REDD+ Database website<sup>3</sup>, where countries under the REDD+ Partnership provide country-by-country data on REDD+ financing and activities, was referred to cross-check the data for accuracy.

[Please insert Table 1.]

Using Mintzberg's five definitions of strategy based on the collected data and available information, three categories for analysis (Table 2) were established to describe REDD+ strategies: pledge, type of supporting, and approach. National pledges on REDD+ belong to Mintzberg's 'plan' and they are official announcements and signed agreements to support REDD+ activities in developing countries. Type of supporting belongs to 'ploy' and 'pattern' and is identified by allocated budget and initiatives responsible for REDD+ activities. A country's role and contribution in the process of establishing the international REDD+ scheme, together with its intention of using forest carbon credits to achieve national GHG reduction goal, are the 'position' and 'perspective'. The 'perspective' can also be defined by the scope and emphasis of a country's REDD+ activities because each country has its unique emphasis in REDD+ depending on the national context and interests. With these three

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<sup>3</sup> <http://reddpluspartnership.org/en/>

categories, this study analyzes national REDD+ strategies of the five countries.

**[Please insert Table 2.]**

## **Results**

### ***Pledge for REDD+ finance***

During the climate change negotiations in Bali in December 2007, the Norwegian Prime Minister Jens Stoltenberg made an announcement that Norway would pledge up to USD 500 million (NOK 3 billion)<sup>4</sup> per year to reduce emissions from deforestation and forest degradation in developing countries. A year later, at the International Climate Change Conference in Poznań, the German Federal Environment Minister Sigmar Gabriel announced that Germany would provide more than USD 52 million (EUR 73 million) to undertake early action on REDD (BMU, 2008).

In June 2010, Australia announced that it would contribute USD 668 million (AUD 599 million) to fast-start financing for climate change, with twenty-four percent of the total fast-start package directed to REDD+ activities (Australian Government, 2010). By December 2010, Australia allocated seventy-eight percent of its fast-start package (USD 527 million). Additionally, new funding allocations of USD 263 million (AUD 236 million) were announced in Cancun in 2010. Out of this new funding commitment, USD 35 million (AUD 32 million) were allocated as additional allocations for REDD+.

In December 2009 at the Copenhagen climate summit, the Obama Administration made an announcement to dedicate USD 1 billion over the 2010-2012 timeframe to REDD+ activities that help countries to slow, halt, and eventually reverse deforestation (USAID, 2010b). This

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<sup>4</sup>When the currency was not presented in USD, exchange rate for January ([http://www.imf.org/external/np/fin/data/param\\_rms\\_mth.aspx](http://www.imf.org/external/np/fin/data/param_rms_mth.aspx)) in the year when the financial pledge was made was used to calculate the approximate estimate in USD.

commitment is an important part of the commitment of the U.S. to fast-start financing in the Copenhagen Accord.

Japan, together with Australia, France, Norway, the United Kingdom, and the U.S., announced the pledge of USD 3.5 billion as initial public finance for REDD+ in developing countries over the three years (2010-2012) (United States Department of State, 2009).

In conclusion, Norway, Germany, Australia, the U.S., and Japan pledged to finance at least USD 1 billion, USD 438 million, USD 120 million, USD 1 billion, and USD 500 million, respectively, for supporting implementation of REDD+ plans and actions until May 27, 2010 (REDD+ Partnership, 2010).

### ***Type of Supporting for REDD+***

#### *Special initiatives or organizations on climate and forest at the national level*

*Norway and the NICFI.* Norway implements REDD+ strategies through the Norway's International Climate and Forest Initiative (NICFI), which was established in 2007. The NICFI has three goals: the inclusion of emissions from deforestation and forest degradation in a new international climate regime after the Kyoto regime; early action to achieve cost-effective and verifiable reductions in GHG emissions; and conservation of natural forests to maintain their carbon capacity. Overall responsibility for the NICFI is held by its secretariat within the Ministry of the Environment. The Ministry of Foreign Affairs is responsible for the NICFI related foreign and development policy and disbursement of funds. The Norwegian Agency for Development Cooperation (Norad) provides technical advice and manages funds for civil society support and scientific institutions.

*Germany and the ICI.* The German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) established the International Climate Initiative (ICI)

in 2008 to finance projects in developing and newly industrializing countries for emissions reduction and climate change adaptation. The focus of the ICI is in the areas of climate-friendly economies, adaptation to the impacts of climate change, and conservation and sustainable use of natural carbon reservoirs/REDD+. One of the unique mechanisms for the ICI is that it receives funding from emissions trading. Based on a decision taken by the German parliament, EUR 120 million per year is available from the auctioning of emission allowances for use by the ICI, of which about twenty-eight percent is allocated to projects in the field of carbon reservoirs and REDD+ (BMU, 2011).

Similar to the functions of Norway's Ministry of Foreign Affairs and Norad, Germany's Federal Ministry for Economic Cooperation and Development (BMZ) is responsible for financing, planning and coordinating development cooperation activities and for designing matching policies and programs. Other German agencies that are collaborating with the ICI to support REDD+ projects in developing countries include KfW Entwicklungsbank (development bank), which is responsible for financial cooperation by financing investments and consulting services in developing countries, and the German International Cooperation (GIZ) GmbH, which is the main organization responsible for technical cooperation, especially regarding complex development and reform processes.

*Australia and the IFCI.* In March 2007, the previous Australian government proposed a five-year initiative under the name of the Global Initiative on Forests and Climate. A year later, the current government re-introduced the initiative, under the new name of the International Forest Carbon Initiative (IFCI). The aim of the IFCI is to help build capacity and provide momentum to support inclusion of REDD+ in a future global climate change agreement. The IFCI is jointly administered by the Australian Department of Climate Change and Energy Efficiency (DCCEE) and the Australian Agency for International Development (AusAID).

Through the IFCI, Australia seeks to assist developing countries with strengthening their human, institutional, and technical capacity for implementing REDD+ activities to enable participation in a future REDD+ mechanism, as well as to promote sustainable market-based approaches to REDD+. To date, total funding allocated for the IFCI is USD 265 million (AUD 273 million).<sup>5</sup>

*United States and the GCCI.* In the U.S., the Global Climate Change Initiative (GCCCI) was launched in 2010 as part of the Obama Administration's Presidential Policy Directive on Global Environment. The GCCCI aims to foster low-carbon growth, promote sustainable and resilient societies, and reduce emissions from deforestation and land degradation through the full range of bilateral, multilateral, and private mechanisms (White House, 2010). In order to achieve these goals, the GCCCI seeks to mobilize financing from all sources, particularly focusing on bilateral assistance mechanism for countries and regions where the U.S. has a comparative advantage. For multilateral efforts, the GCCCI aims to ensure that, collectively, they achieve scale and impact (White House, 2010). Other federal agencies including the United States Agency for International Development (USAID) are supporting developing countries with preparations for REDD+ and collaboration for sharing of science, technology, and expertise between developing countries and the U.S.

*Japan and the Hatoyama Initiative.* In 2009, Japan announced Hatoyama Initiative as a new initiative on climate change to provide financial and technical support to projects in developing countries for emission reduction and climate change adaptation (Government of Japan, 2011). The Hatoyama Initiative is coordinated by the Ministry of Finance, and governed by a five ministerial council, composed of the Chief Cabinet Secretary, Minister of

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<sup>5</sup>AusAID, 2012, Climate Change Mitigation [available at <http://www.ausaid.gov.au/aidissues/climatechange/pages/mitigation.aspx>]

Foreign Affairs, Minister for Economy, Trade and Industry (METI), Minister for Environment, and Minister for Finance (Climate Finance Options, 2012). The Japan International Cooperation Agency (JICA) provides developing countries with technical and financial assistance for capacity development for REDD+ (JICA, 2010).

[Please insert Table 3.]

#### *Type of REDD+ Financing*

REDD+ financing methods from developed to developing countries can largely be divided into two: first is where developed countries finance international organizations or a third party agency, which support REDD+ activities in developing countries; and second is a bilateral support from developed to developing countries through collaboration (Han and Youn, 2010). Financial support can take place in various forms, such as grants, subsidies, and loans.

*Norway.* Out of the USD 4 billion pledged to REDD+ globally thus far, Norway is responsible for USD 1 billion (Norad, 2011), making Norway the biggest donor country in supporting REDD+ projects in developing countries. Out of Norway's financial allocation for REDD+, multilateral financing amounts to USD 235 million (NOK 1.4 billion) and bilateral financing with developing countries amounts to, in the form of grants, USD 336 million (NOK 2 billion) (Norad, 2011). Civil society and research organizations are supported through a grant scheme administered by Norad, with total funding of USD 81 million (NOK 484.8 million) from 2008 to 2010. Although the amounts allocated to multilateral and bilateral channels are comparable, the number of countries that Norway is directly supporting is small compared to the other four countries in this study, hence making each bilateral contribution significantly large.

As of 2010, countries that are bilaterally supported by Norway are Brazil and Tanzania. The majority of financial support is channeled through multilateral entities such as the UN-REDD Program, the FCPF, the FIP, and the Guyana REDD+ Investment Fund, and the African Development Bank's Congo Basin Forest Fund. Mexico and Indonesia received financial support from Norway relatively recently through multilateral routes.

*Germany.* The German government is contributing a total of USD 969 million (EUR 1.26 billion) to its fast start pledge, which is additional to the climate related support already provided. Germany's ICI is an important part of the country's fast start commitment. The financing trend of Germany is evidently different from that of Norway because Germany prefers to support REDD+ projects more through bilateral cooperation with developing countries rather than through multilateral channels. Until 2010, Germany committed approximately USD 14 million to the World Bank's FIP REDD+ projects and USD 48 million to the FCPF (BMU, 2011). On the contrary, Germany allocated USD 261 million through bilateral projects with over twenty developing countries<sup>6</sup> in the form of grants, with the estimated financing allocated to bilateral REDD+ collaboration until 2012 to be USD 459 million. Therefore, the majority of the German funds go into bilateral projects and programs implemented with individual countries or regional organizations. Nonetheless, funding allocated to each country and organization is relatively small compared to Norway's support because of the large number of countries and projects under the bilateral commitments.

*Australia.* As for Australia, the IFCI is allocating a higher budget to bilateral financing through international programs and agencies rather than multilateral financing (DCCEE,

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<sup>6</sup>Armenia, the Azerbaijani Republic, Bolivia, Brazil, Cameroon, the Central African Republic, China, Congo, the Dominican Republic, Ecuador, Ethiopia, Guyana, India, Indonesia, Laos, Mexico, Papua New Guinea, Peru, the Philippines, Russia, Tanzania, and Zambia.

2012). More specifically, through the IFCI, Australia has contributed to the World Bank's FCPF and FIP, over USD 29 million (AUD 30 million) each. Additionally, Australia aims to provide support to countries including Guyana, Tanzania, Kenya and Cambodia with developing their national systems through the Clinton Climate Initiative. On the other hand, the Australian government allocated its financial and technical resources to a few neighboring bilateral partnerships, including the Indonesia-Australia Forest Carbon Partnership (USD 97 million; AUD 100 million), the Kalimantan Forests and Climate Partnerships (USD 97 million; AUD 100 million), Sumatra Forest Carbon Partnership (USD 29 million; AUD 30 million), and Papua New Guinea-Australia Forest Carbon Partnership (initial USD 2.9 million; AUD 3 million) (DCCEE, 2012).

*United States.* The U.S. support for REDD+ started from 2009 in the form of grants, with a modest amount of USD 5 million. Within a year, the funding increased by more than forty times, resulting in USD 208 million in 2010. The U.S. multilateral assistance, which accounts for twenty percent of total financing for climate change mitigation are executed through the FCPF, the FIP, and the Global Environmental Facility (GEF). The U.S. government supports the FCPF's readiness activities and Carbon Funds, as well as FIP's financing for public and private investments that build on national REDD+ strategies.

A part of the Fifth GEF replenishment package is a major program supporting sustainable forest management (SFM) and REDD+. The U.S. government expects that this program will provide incentives for developing countries to develop SFM and REDD+ projects, and thus pressures on forests will be reduced. The objective of U.S. REDD+ support is to generate sustainable flows of forest ecosystem services and strengthen the enabling environment to reduce GHG emissions from deforestation and forest degradation. The U.S. seems to favor bilateral assistance mechanism, as it has been financing REDD+ projects in several countries

such as Brazil, Cambodia, Columbia, Guatemala, Guyana, India, Indonesia, Mexico, Uganda, and Zambia since 2010.

*Japan.* Until July 2011, Japan has been financing REDD+ activities with USD 490 million, mainly through bilateral partnerships with countries in Asia (JICA, 2011). Japan's financing amount through multilateral mechanism is markedly smaller than the amount through bilateral mechanism, similar to the financing method that Germany and the United States employ. For example, the Japanese government provided a financial contribution of only USD 3 million to the UN-REDD Programme in March, 2011 (UN-REDD, 2012). Japan's form of financing is unique in that it includes loans, whereas other countries offered mostly grants. As an example, Japan International Cooperation Agency (JICA) signed loan agreements of low carbon program including REDD+ with Indonesia and Vietnam (JICA, 2011). Loan is a typical type of Japan's official development assistance (ODA) to Southeast Asia (Trinidad, 2007).

### ***Approaches to REDD+***

*Norway.* Norway is the leading country in terms of large-scale investment in REDD+ projects, and is likely to maintain that position in near future. According to Norad's assessment, the NICFI's financing for REDD has promoted REDD-related discussions at international climate change negotiations, and significantly contributed to the establishment and operation of REDD-related international framework such as the World Bank's FCPF and UN-REDD program (Norad, 2011). Therefore, Norway has a leading role in establishing REDD+ mechanism in the international climate regime.

Regarding Norway's position on forest carbon credit, Hanne Bjurstrøm, the then-Minister of Environment and Norway's chief negotiator, announced that Norway signed up for a thirty to

forty percent reduction by 2020 and that Norway will become carbon neutral in 2030 if an ambitious global climate agreement is achieved.

Nonetheless, the Norwegian government indicated that all efforts under the NICFI to reduce GHG emissions are additional to Norway's commitments under the Kyoto Protocol, and will not be counted towards Norway's commitments under a new climate agreement (Royal Norwegian Embassy, 2010). Therefore, the goal of Norway's REDD+ strategy is not to secure carbon credit through REDD+ but to promote an international framework for REDD+ and capacity building of developing countries.

*Germany.* As one of the main donor countries in the forestry sector (OECD-DAC, 2008), Germany has been implementing REDD+ projects as an extension of the German development cooperation efforts in developing countries. Since forest credit is not tradable in the EU carbon market, Germany, like Norway, does not seek to secure carbon credit through REDD+ as its REDD+ national strategies. Instead, Germany is actively participating in fast-start financing for climate change response of developing countries and contributing to the establishment of international climate regime. Germany is putting a special effort on capacity building of developing countries, with an emphasis on methodology and technology. Germany is supporting various projects on the monitoring, reporting, and verification (MRV) system in developing countries such as Brazil, India, and South Africa.

Furthermore, Germany is exploring mechanisms to promote high biodiversity REDD+ scheme that addresses biodiversity protection, climate change, and local communities; the ICI is supporting projects that integrate REDD+ with biodiversity conservation in countries like Vietnam, Indonesia, Peru, Brazil, and Ukraine (BMU, 2011). The composition of ICI projects reveals Germany's focus on biodiversity; the ICI projects consist of categories such as renewable energy, energy efficiency, adaptation, and the category of "climate-relevant

biodiversity with REDD+ aspects” accounts for thirteen percent, which is the largest portion. On the other hand, REDD+ projects unrelated to biodiversity conservation accounts for approximately eight percent. Given that biodiversity has been a limited feature of the current set of REDD+ agreements in the Norwegian case (Norad, 2011), Germany’s emphasis on biodiversity is especially notable.

*Australia.* Similar to Norway and Germany, Australia is working to help build capacity and provide momentum to support the inclusion of REDD+ in a post-Kyoto global climate change outcome. Therefore, IFCI activities involve promoting conservation and sustainable management of forest and developing national forest carbon measurement systems in developing countries.

In addition, the IFCI supports international efforts to develop market-based approaches to REDD+. Australia explicitly states that markets are ultimately “the only mechanism capable of providing the financial incentives necessary to reduce forest carbon emissions at scale” (DCCEE, 2012). Therefore, the IFCI is trialing a range of approaches to demonstrate how investment in REDD+ can achieve emission reductions, assisting developing countries with development of regulatory, governance, and law enforcement frameworks for REDD+. Australia is playing an active role in international climate change forums and negotiations to promote the development of market-based approaches to REDD+.

Australia is expected to utilize REDD+ projects to secure carbon credits to meet its own emissions reduction target, with appropriate examination by the soon to be established Australian Climate Change Authority. On November 11 2011, the Australian parliament passed a landmark legislation that puts a price on carbon and prepares Australia to enter global emissions trading markets to help the country cut its emissions by five percent below 2000 levels by 2010 (The Jakarta Post, 2011). The legislation allows fifty percent of carbon

credits to be sourced from overseas, and according to the Climate Change and Energy Efficiency Minister Greg Combet, efforts to prevent the deforestation and degradation of Indonesia's forests could yield carbon credits that Australia will be looking to purchase (The Jakarta Post, 2011). The Indonesia-Australia Roadmap for Access to International Carbon Market (DCCEE, 2008) is a great example of Australia's intention to prepare for the future international carbon markets for REDD. However, REDD+ offsets of sufficient quality to be considered compliance-grade in the Australian Carbon Pricing Mechanism (CPM) are not yet being produced, and no specific exclusion on forestry generated credits applies under the CPM. The Australian government is currently establishing the Australian Climate Change Authority, which will be responsible for the carbon pricing mechanism. Therefore, whether REDD+ credits will become valid international units under the CPM is yet to be decided.

*United States.* In 2011, the USAID and the State Department jointly launched the Low Emissions Development Strategies (LEDS) in order to support host countries' development of REDD+ strategies. The LEDS approach aims to strengthen developing countries' REDD+ strategies by bringing a macro-economic, cross-sectoral development lens to the drivers of land use change and forest emissions and sequestration (Ghazoul et al., 2010).

Whether the United States plans to utilize carbon credits from REDD+ activities to meet its own reduction target can be deduced by a recently proposed climate-related legislation. The American Clean Energy and Security Act of 2009 (ACES), the so-called Waxman-Markey cap and trade bill, sets forth provisions concerning the establishment of an economy-wide cap and trade program and other incentives and standards for increasing energy efficiency and low carbon energy consumption. As in other climate change legislatures, ACES proposes offsetting as a plan for GHG reduction, and allows international trading of carbon offset. According to Section 772(d)(1)(a) of ACES, offset credits can be used to demonstrate

compliance for up to a maximum of 2 billion tons of GHG emissions annually (U.S. Congress, 2009). Moreover, the offset system allows trading of overseas credit by linking the domestic and international actions. Therefore, if ACES is passed and becomes the first nation-wide climate law, the United States is expected to utilize carbon credit from REDD+ projects in developing countries in order to meet its own target of GHG reduction.

The California's Global Warming Solutions Act of 2006 created state's cap-and-trade system allowing offset credits issued from U.S. forest projects (Cosslett, 2011). The regulation implementing the Act's cap-and-trade mechanism provides a framework for REDD+ credits including REDD+ plan, inventory, reference level, crediting baseline, nested accounting, public participation and participatory management mechanism and protection against reversals. REDD+ offset credits from the California's Air Resources Board-approved program might enter the California market later.

*Japan.* As the largest contributor in the international forestry ODA with its 2005-2006 contribution accounting for more than half of the OECD DAC members' aid (OECD-DAC, 2008), Japan has been implementing cooperative activities with many countries, especially in Asia (Trinidad, 2007). Based on the principle of respecting ownership of developing countries and partnership of supporting countries, Japan's REDD+ policy emphasizes the necessity of discussions among the Japanese Government through JICA, the Government of recipient countries, local communities, and other stakeholders, so that the projects are placed appropriately in the recipients' national REDD+ strategy.

In REDD+ projects, capacity building for monitoring through techniques such as satellite data analysis, GIS, and mapping is essential to ensure the accuracy of estimating emission reduction (Fry, 2011). Japan's support is largely focusing on methodological development and research and capacity building in monitoring started relatively earlier than other countries.

In particular, Japan provided developing countries including India, Indonesia, Vietnam and Cambodia with capacity building programs for REDD+ (JICA, 2011).

In September 2009 at the UN Summit on Climate Change in New York, Prime Minister Yukio Hatoyama pledged to reduce Japan's own emissions by twenty-five percent by 2020. To meet this target, Japan is in the process of establishing the Bilateral Offset Credit Mechanism to utilize potential offset credits. The Ministry of Environment and the METI are working on this mechanism, and they are currently conducting feasibility studies (MOEJ, 2011). Therefore, we speculate that Japan aims to utilize REDD+ credits for meeting Japan's GHG reduction target.

The Japanese approach has to overcome international watchers' concerns to the extent and manner in which REDD finance may be linked to comply with emission reduction targets under a climate change agreement. Many developing countries and civil society organizations have expressed concerns that allowing developed countries to achieve a large part of any obligatory emission reductions through REDD+ actions in developing countries may undermine progress with reducing GHG emissions from developed countries. There are also concerns that trading of REDD+ units between countries or sub-national entities may lead to the distortion of forest governance and management (Phelps et al., 2010), to the detriment of broader sustainability or social development agendas (Norad, 2011).

## **Discussion and Conclusion**

REDD+ is forming as a regime to mitigate and adapt to climate change in the global society. Under the UNFCCC, developed and developing countries have negotiated on building a global regime on REDD+. Several developed countries have exercised their leadership in forming a global regime on REDD+ through their national strategies. Therefore, this research attempts to describe and compare the strategies employed by Norway, Germany, Australia,

the U.S., and Japan to examine their leadership in forming a global regime on REDD+. Based on the definitions of strategies proposed by Mintzberg (1987), national pledge, type of supporting and approach to REDD+ of the national strategies were investigated (Table 4). All five countries have pledged their commitments through announcements and agreements to build a global REDD+ mechanism in the process of negotiating international convention on climate change. The Copenhagen Accord of 2009 and the REDD+ partnership of 2010 are a clear indication of voluntary commitment by developed countries to mitigate the impact of global climate change. Such agreements and partnerships demonstrate that some developed countries have shared values and interests in REDD+ as a common purpose of mitigating climate change. Successful implementation of REDD+ projects and activities would provide lessons to guide others in forming and implementing a global REDD+ mechanism. Therefore, the REDD+ regime has been formed and operated by non-binding but authoritative arrangements (Smouts, 2008).

In order to implement REDD+ activities, all five countries investigated in this study allocated their financial resources to establish and manage national initiatives on climate and forest. These specialized initiatives play a central role in designing and implementing national strategies on REDD+. They are being conducted various cooperative activities between developed and developing countries multi- and bilaterally. The initiatives are based on interactions among several ministries of environment, international cooperation, economic development and others. This design for REDD+ administration is the form of a horizontal policy integration. These initiatives make the countries to lead negotiations rules and norms on REDD+ in the international arena.

The five countries exercise their power with different strategies of resource allocation for REDD+ (Table 4). Norway has offered the largest scale of financing in forming and implementing a global REDD+ regime. It has significantly contributed to stabilizing REDD+

readiness and demonstration programs by the United Nations and FCPF. Norway as a pusher (Andresen and Agrawala, 2002) induced subsequent participation by other countries in forming a REDD+ regime. Germany prefers bilateral cooperation with the largest number of developing countries, continuing to provide financial and technical support for sustainable forest management. In particular, Germany focuses on linking REDD+ with biodiversity conservation (BMZ, 2011). This position reflects the interplay between the climate change and biodiversity regimes (Kim, 2004). With regard to carbon credits from REDD+, because the EU carbon markets do not allow forest carbon credits to be traded, Norway and Germany are committing their financial and technical resources to establish a global REDD+ regime rather than attempting to benefit from potential carbon credit created by REDD+ activities.

On the other hand, Australia, the U.S. and Japan, which also contributed to forming a REDD+ regime, have explicit interests in utilizing REDD+ carbon credits to achieve their national target of reducing GHGs. Australia committed its finance to construct a REDD+ mechanism in preparation for the future carbon markets, which may allow the trading of REDD+ credits created in neighboring countries such as Indonesia and Papua New Guinea. For the U.S., REDD+ credits will be traded in the domestic carbon market if the U.S. Climate Act (ACES) gets passed. According to the California's Global Warming Solutions Act of 2006 and the related regulation, REDD+ offset credits will be traded in the California's cap-and-trade system later. For Japan, the Bilateral Offset Credit Mechanism that is currently being established is considered to make Japan to utilize REDD+ credits to meet its reduction goal.

With respect to strategies, the three countries in the latter group concentrated their resources with different perspectives from those in the former group. The U.S., which joined later in supporting REDD+ activities during the fast-start financing period (2010-2012), is focusing on the integration of economic development strategy and REDD+ strategy through LEDS in the context of global development policy. Just as the establishment of climate change

initiatives, this approach also indicates a horizontal policy integration between sectors—the environment and economy (Lafferty and Hovden, 2003). REDD+ projects can generate benefits derived from sustainable forest use including non-timber product commercialization and ecotourism. Therefore, REDD+ projects are regarded as the means forward in recognizing the importance of forestry for the economies and development strategies of tropical forest communities and nations (Ghazoul et al., 2010). Japan is unique in that it emphasizes technical assistance such as monitoring system for REDD+ projects based on its past collaboration with various developing countries in forestry area for the last several decades. Also, in contrast with other countries, Japan provides developing countries with REDD+ finance through loans. In the debate of grants versus loans, several scholars (Bulow and Rogoff, 2005; Meltzer, 2004) have argued that outright grants rather than loans provide a realistic vehicle for poverty alleviation for poor countries. Currently, most bilateral ODA takes the form of grants (Cohen et al., 2005), although more than half gross ODA by Japan is in the form of loans. This tendency is still reflected by the Japanese support for REDD+ activities.

In conclusion, the five developed countries with different interests in and perspectives on REDD+ have contributed to forming a REDD+ regime. Allocation strategy of financial and technical resources produced different types of leadership for a REDD+ regime at the international level.

[Please insert Table 4.]

This research recognizes certain limitations on research structure and interpretation of the research results. There was a lack of sufficient information on national strategies for REDD+ by developed countries; only few country reports on REDD+ have been published. Various

tools for sharing information on REDD+ such as national reports, online databases and workshops will contribute to communications on REDD+ with multi-actors at multi-levels. Further interviews with negotiators and REDD+ project managers can provide us with more practical information and experiences in the process of forming and implementing a REDD+ regime. Other challenge comes from the lack of information on practical process of supporting and implementing REDD+ activities in developing countries, such as political and social relationships and communications between developed and developing countries. In spite of these challenges, this research will contribute to understanding of supporting activities for REDD+ as international cooperation strategies by developed countries. REDD+ strategies by the five developed countries as leaders in the REDD+ regime provide a platform for other countries to become followers. Based on the findings in this study, further studies on the detailed dynamics of a global regime on REDD+ can be developed. Contribution of non-state actors to forming and implementing a global regime on REDD+ can also be examined

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**Table 1. Data for analyzing national REDD+ strategies**

<b>Countries/Organization</b>	<b>Title</b>
REDD+ Partnership	Voluntary REDD+ Database (web)
UNFCCC	Reports of the Conference of the Parties (UNFCCC, 2008-2011)
Norway	Real-time evaluation of Norway's International Climate and Forest Initiative (Norad, 2011)
Germany	The International Climate Initiative: Innovative financing for climate protection (BMU, 2011) Ready for REDD (BMZ, 2011)
Australia	Australia's fast-start financing progress report (Australian Government, 2010)
United States	Strategic Choices for United States Fast Start Financing for REDD+ (USAID, 2010a) US REDD+ Programs: Addressing Climate Change by Conserving and Restoring the World's Forests (USAID, 2010b)
Japan	JICA's Cooperation for Climate Change (JICA, 2011)

**Table 2. Analysis categories by definitions of strategy**

<b>Strategies</b>	<b>Analytic tools</b>
Consciously intended plan	National pledge
Consistent pattern of actions	Type of support - National special initiatives on climate and forest - Multi-/bilateral - Grant/loan
Ploy to outwit a competitor	
Positioning means	Approach to REDD+
Perspective to the world	- Use of REDD+ credits - Scope of REDD+ activities

**Table 3. Initiatives on climate and forest by country**

<b>Country</b>	<b>Organizations on Climate and Forest</b>	<b>Established Year</b>
Norway	International Climate and Forest Initiative (NICFI)	2007
Germany	International Climate Initiative (ICI)	2008
Australia	International Forest Carbon Initiative (IFCI)	2007
United States	Global Climate Change Initiative (GCCCI)	2010
Japan	Hatoyama Initiative	2009

**Table 4. Strategies on REDD+ by country**

<b>Strategy</b>	<b>Country</b>	<b>Contribution to a REDD+ regime</b>
National pledge	All countries	Non-binding & voluntary commitment
Type of support	All countries	Bi- and multilateral cooperation for REDD+ through new initiatives on climate change and forest
Approach to REDD+	Norway	Large-scale financing
	Germany	Link between REDD+ and biodiversity regime
	Australia	Forest carbon markets through cooperation with neighboring developing countries
	United States	Link between environmental sector and low emissions development sector
	Japan	Transfer of REDD+ technology and methodology for capacity building