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The Politics of Green Capitalism: Formulating the Low Carbon Growth Partnership between Japan and Indonesia

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Abstract

Green capitalism is a term that emerged as capitalists' response to the ecological crisis in which capitalist system can continue to grow by creating sustainability and applying market efficiency in nature commodities. Despite the fact that Japan has no longer committed to the Kyoto Protocol, Japan has been involved in green capitalism by establishing the East Asia Low Carbon Growth Partnership (LCGP) since 2011. Through the LCGP, Japan has proposed proposals which review emissions target of Greenhouse Gas Emission (GHG) from a zero base and developed bilateral offset mechanism referred as the Joint Credit Mechanism (JCM) to evaluate the contribution of CO_2 emissions reduction from energy outside the country. This paper explains the cooperation between Japan and Indonesia in implementing JCM. By utilizing domestic politics analysis, this paper argues that even though the implementation of green capitalism reflects the interests of trade and investment between Indonesia and Japan, however, it also highly influenced by the interaction between domestic political groups (executive and legislative) and domestic societal interest groups in Japan's domestic politics. The implementation of LCGP between Japan and Indonesia, therefore, does not only display mutual interest on trade and investment of both parties but also reflects a compromise between different domestic political actors' position on climate change issue in Japan. The cooperation also indicates the green capitalism is possible in the form of government cooperation to deal with the environmental issue yet it is still acceptable from business community's point of view.

Keywords: Green Capitalism, Low Carbon Growth Partnership, Domestic Politics Analysis

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Received: 2 April 2018
Accepted: 17 April 2018
Published: 23 May 2018

Publishing services provided by Knowledge E

Selection and Peer-review under the responsibility of the 1st ICSEAS 2016 Conference Committee.

1. Introduction

As an industrial country, Japan had been known for having the highest environmental problem during 1950 until the 1960s. The increase of Greenhouse Gas Emission (GHG) produced by Japan keeps rocketing throughout the period. The significant increase depicted even after the adoption of Kyoto Protocol that took place in 1997, ratified in 2002 and implemented in 2005. Then, in 2006, there was an increase of GHG by 6.2 % from the basic year of 1990 [1]. The main factor of this rapid increase was due to the industrial activities as a result of Meiji restoration and post-world war II economic reform. The policy reformation has not only successfully turned Japan to be a country with fast economic growth, but also it created environmental problems. The massive industrialization which caused pollution in Japan poses the serious threat to human health specifically in disaster areas. Minamata disease, Niigata Minamata disease (food chain affected by mercury) and Yokkaichi asthma (air pollution) are three famous illness caused by acute pollution [2]. The condition was getting worse since Japan has low petroleum reserve which makes the country to be a net importer. Japan petroleum import began in 1950 when the government changed its energy security policy from domestic coal production to petroleum import. The importation of petroleum is needed to support economic growth. Japan's development policy also has changed after the first oil crisis, which based on three pillars: energy security, environmental protection, and economic efficiency [3].

Japan's domestic environmental policy has constantly been changed since late 1980. The awareness of environmental aspect appears since Government of Japan (GOJ) and business affiliates gave more attention to the global environmental issue. The two groups realize that by giving attention to the environmental issue, it does not only mean preserving the environment but also maintaining Japanese industry itself. The principle is known as "*Sekainisuru Kokenkokka*", a country that contributes to the world. The shift in Japan's domestic policy is viewed as a strategy to overcome the recent challenge. The Japanese government has been very critical on the global environmental issue such as climate change. In this case, Japan's commitment to the environmental policies was reflected on White Paper released in 1988. The paper briefly explains Japan's status as a country with the mature economy and also its contribution to preserving environmental aspect by implementing technology capabilities and experience. GOJ sets out some rules and laws to overcome domestic environmental problems and reduce environmental pollution significantly. Between 1945 and 2005, GOJ had imposed about 100 environmental laws. The realization of legal basis shows

rapid move considering that 32 laws had been implemented during 1989 until 2005 with the purpose of protecting the domestic and global environment. GOJ sees the environmental law as an efficient and effective strategy to adjust with latest the environmental problem [4].

Japan is also an active participant of the United Nation Framework Convention on Climate Change (UNFCCC) which has focus on GHG implementation as a stepping stone to Kyoto Protocol (KP) which regulated stricter regulation and requiring time table for 37 industrialized countries including those within the EU. The Kyoto Protocol did not succeed since United States chooses to not ratify the agreement and hence established another forum in July 2006 which is known as the Asia-Pacific Partnership on Clean Development and Climate (AAP). The existence of APP has attracted GOJ to become an active participant. However, after the nuclear Fukushima Daichi disaster struck in March 2011, Japan then created a new initiative on climate change by establishing "East Asia Low Carbon Growth Partnership" (LCGP). Through this LCGP, Japan has offered policy proposals to review the GHG emissions targets from a zero base and developed bilateral offset mechanism (BOM) [5].

The BOM initiated by Japan is known as "Joint Credit Mechanism" (JCM) with the purpose to evaluate the contribution of CO_2 from overseas countries. The countries that have been the target of the programs are Indonesia, Vietnam, Malaysia, Thailand, Myanmar, Cambodia, Mongolia, Bangladesh, Palau, Samoa, Fiji, Tonga, Vanuatu, Kiribati, and Tuvalu. In Indonesia, JCM projects cover some big cities located in Surabaya, Bandung, Jakarta, and Medan [6]. In this context, the bilateral cooperation on carbon trade between Japan and Indonesia began in 2010 under the National Action Plan for Addressing Climate Change program. Also, the low-carbon growth partnership between Japan and Indonesia under the JCM has started since 2013. This cooperation is based on the interests of trade and investment between Indonesia and Japan by implementing low-carbon projects where Japan commits to lower Greenhouse Gas Emissions (GHG) up to 25 % below 1990 by 2020 [7].

This study uses qualitative and descriptive methods through literature study and existing statistics as the resources to apply domestic politics theory and concept of green capitalism. This study aims to analyze the influence of Japan's domestic politics, including the preferences and values of its domestic politics actors. By adopting domestic politics theory in the context of the implementation of green capitalism in Japan, it is expected to understand bilateral relations between Japan and Indonesia in formulating the low-carbon growth partnership to implement JCM scheme.

2. Joint Crediting Mechanism Cooperation between Japan and Indonesia

Japan is not participating in the second commitment period of Kyoto Protocol which started in 2013, and thus not allowed to trade emission credits internationally. The balance between demand and supply of credits is severely affected, and the carbon price is falling drastically to under one euro. Many problems of CDM (Clean Development Mechanism) as one of the flexible measures of Kyoto mechanism, are the reason for Japan not to participate. One of the major obstacles in developing CDM projects is the satisfaction of strict "additionality" criteria. Besides that, another obstacle which limits the wider use of the mechanism is the difficulty of applying CDM to projects in the transportation sector and the energy conservation sector. To give solutions to these problems and to promote further mitigation measures in the future, Japan proposed new mechanism which is called Joint Crediting Mechanism (JCM)/Bilateral Offset Credit Mechanism (BOCM) [8].

Japan already signed bilateral agreements of JCM with Indonesia in August 2013. The JCM encourages cooperation between Japanese and Indonesian institutions to promote implementation of low carbon development activities in Indonesia. This scheme (see Fig. 1) encourages GHG emissions reduction activities on a large scale which is targeting emission reduction more than 100 000 t CO_2/yr. Japanese local governments, research institutes, private companies and universities are co-operated and adjust the advanced low carbon technologies and systems to fit the local conditions to establish sustainable operation and maintenance systems in Indonesia [9].

The main feature of the JCM is that it promotes climate change mitigation actions through bilateral agreements mainly between developing and developed countries. Firs, the JCM was non-tradable credit, and then, it is developed as tradable credit type mechanism. Credits are issued based on quantified amount of GHG emission reductions or removals achieved by the contribution of project participants in the implementation of GHG emission reductions or removals project activities under the JCM (here in after referred to as "JCM projects"). In the JCM, emission reductions to be credited are defined as the difference between reference emissions and project emissions. The reference emissions are calculated below Business As Usual (BAU) emissions to ensure a net decrease and/or avoidance of GHG emissions. BAU emissions represent plausible emissions in providing the same outputs or service level of the proposed JCM project in the host country. In order to calculate reference emissions below BAU emissions,

crediting threshold must be established ex-ante in the methodology applicable for the same project type in the host country [10].

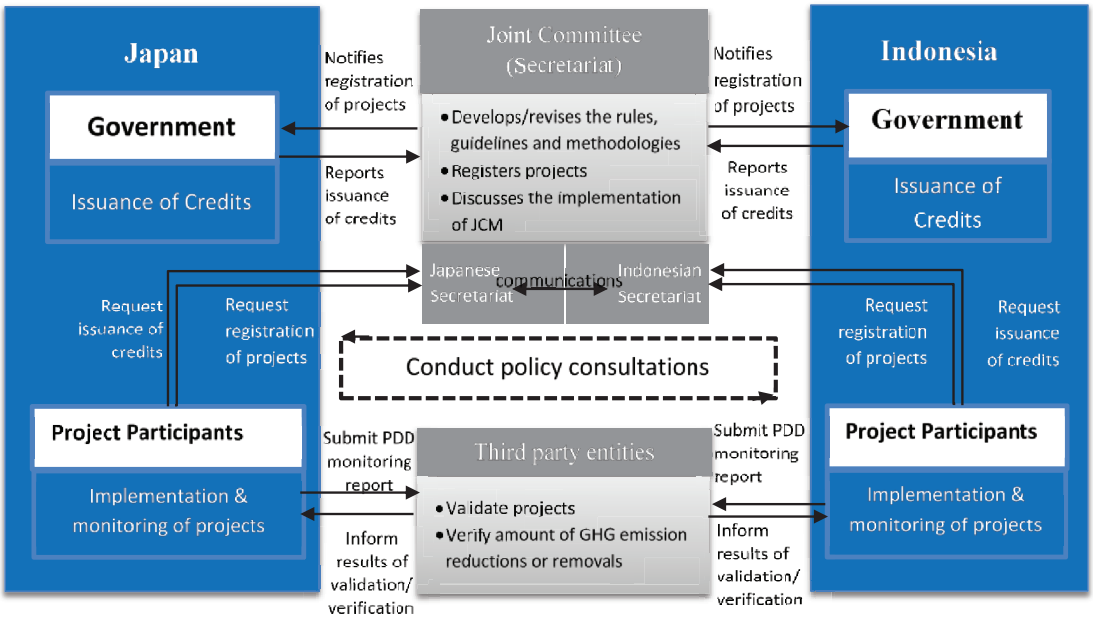

Figure 1: The JCM cooperation scheme [14].

The main types of JCM activities include a feasibility study (FS) and projects with incentives from GOJ. If it is considered as a feasible project to be implemented and approved by both countries, the FS can be continued into the project implementation. So, the participant can continue to register the project. Since 2010 until 2013, Japanese industries were performed 75 FS in Indonesia funded by MOEJ, and increased to 96 FS in 2014. As part of the low-carbon development, the JCM project includes the facility of capacity building and transfer of technology in various sectors; manufacturing, business development, human resources, or others. It is requested to provide value added on the benefits of green investment activities undertaken by both parties [11]. From various studies that have been done, the Joint Committee will select some pilot projects and it must be approved to be acknowledged under the JCM scheme after going through the validation process. After passing the process, it will be registered under JCM scheme (see Table 1) [12]. The purpose of running this pilot project is to test the methodology and project cycle JCM [13]. The initiative project can be proposed by the entity from Indonesia and Japan. If an Indonesian entity has an initiative but does not have Japanese partners yet, the Indonesia JCM Secretariat may consider informing the proposed initiative to the Government of Japan to be disseminated to the Japanese institutions (including companies) whom may be interested [9].

Then, financing program to implement JCM is funded not only by MOEJ and METIJ, but also the collaboration projects supported by JICA and other financial government agency. MOEJ is responsible for financing model projects (see Table 2) includes facilities, equipment, vehicle, etc. which reduce CO_2 from fossil fuel combustion as well as construction cost for installing those facilities. Meanwhile METI Japan is responsible for financing JCM demonstration projects that will be implemented by NEDO (New Energy and Industrial Technology Development Organization), which supports the project costs necessary to verify the amount of GHG emission reduction in line with JCM rules and guidelines. So, there are some model for funding the programme, namely JCM model projects-REDD plus, JCM demonstration projects, ADB Trust Fund and JCM special financing scheme [14, 15].

The credit will be distributed by the JCM registry system which is developed and maintained to ensure the accurate accounting of the issuance, transfer, acquisition, cancellation and retirement of the JCM credits. The system to manage all the data, with the primary task is to operate a database for collecting, verifying and tracking data from the project participants. This is similar to the way that bank records balances and movements in money using accounts allocated to individuals or other entities. Issued credits in each issuance by the JCM Joint Committee are described based on the year of emission reduction [16].

3. Domestic Politics of Green Capitalism in Japan

Green capitalism is a term referred to the capitalists' response to the ecological crisis in which capitalist system can continue to grow by creating a 'sustainable'and bringing market efficiency in nature commodities [17]. Therefore, the vision of a green capitalism is associated with activities that can directly apply green commodities such as renewable energy sources, avoid toxic chemicals and reuse or recycle product [18]. Green capitalism has three variants, namely green new deal, green stimulus and green economy [19]. The implementation of the green new deal in Japan provoked the debate when it was launched in April 2009 by Japanese Ministry of Environmental (MoE). The contradiction appears since green new deal is also related to social overhead capital, green consumption, and green investment [20]. The most debatable issue is related to green investment that requires to limit domestic and trade as the market form of carbon market and establish a green tax in Japan.

Table 1: Registered projects under JCM in Indonesia 2014 until 2016 [12].

Project Title	Registration Date	Project Participant (Japan)	Project Participant (host country)	Third Party Entity for Validation	Location
Energy Saving for Air- Conditioning and Process Cooling by Introducing High-efficiency Centrifugal Chiller	31/10/2014	Nippon Koei Co., Ltd. (Focal Point), Ebara Refrigeration Equipment & Systems Co., Ltd.	PT. Primatexco Indonesia	Lloyd's Register Quality Assurance Limited (LRQA)	Batang, Central Java
Project of Introducing High Efficiency Refrigerator to a Food Industry Cold Storage in Indonesia	29/03/2015	MAYEKAWA MFG. CO., LTD.	PT. Adib Global Food Supplies, PT. Mayekawa Indonesia	Japan Quality Assurance Organization (JQA)	Bantargebang, Bekasi, West Java
Project of Introducing High Efficiency Refrigerator to a Frozen Food Processing Plant in Indonesia	29/03/2015	MAYEKAWA MFG. CO., LTD.	PT. Adib Global Food Supplies, PT. Mayekawa Indonesia	Japan Quality Assurance Organization (JQA)	Cilebar, Karawang, West Java
Energy Saving for Air- Conditioning at Textile Factory by Introducing High efficiency Centrifugal Chiller in Karawang West Java	24/03/2016	Nippon Koei Co., Ltd. (Focal Point), Ebara Refrigeration Equipment & Systems Co., Ltd.	PT. Nikawa Textile Industry	PT. MUTUAGUNG LESTARI	Karawang Regency, West Java
Energy Saving for Air- Conditioning at Textile Factory by Introducing High efficiency Centrifugal Chiller in Batang, Central Java (Phase 2)	24/03/2016	Nippon Koei Co., Ltd. (Focal Point), Ebara Refrigeration Equipment & Systems Co., Ltd.	PT. Primatexco Indonesia	Lloyd's Register Quality Assurance Limited (LRQA)	Batang, Central Java

Table 2: Model project funded by MOEJ 2013 until 2016 [14].

Project Title	Year	Project Participant (Japan)	Project Participant (host country)
Energy Saving by Installation of Double Bundle-type Heat Pump	Model Project (JFY 2013)	Toyota Tsusho Corporation	PT. TTL Residences PT Toyota Tsusho Indonesia
Power Generation by Waste heat Recovery in Cement Industry	Model Project (JFY 2014)	JFE Engineering Corporation	PT. Semen Indonesia Tbk

Project Title	Year	Project Participant (Japan)	Project Participant (host country)
Installation of solar power hybrid system	Model Project (JFY 2014)	ITOCHU Corporation	TBA
Reducing GHG Emission at Textile Factories by Upgrading to Air-saving Loom	Model Project (JFY 2014)	Toray Industries, Inc. Toray International, Inc.	PT. Indonesia Synthetic-Textile Mills (ISTEM), PT. Easterntex, PT. Century Textile Industry (CENTEX), PT Toyota Tsusho Indonesia
Introduction of High Efficient Old Corrugated Cartons Process at Paper Factory	Model Project (JFY 2014)	Kanematsu Corporation	PT Fajar Surya Wisesa Tbk.
Energy Saving for Air-Conditioning at Shopping Mall with High-Efficiency Centrifugal Chiller	Model Project (JFY 2015)	NTT Facilities, INC.	PT Pakuwon Jati, Tbk.
Energy Saving for Industrial Park with Smart LED Street Lighting System	Model Project (JFY 2015)	NTT Facilities, INC.	PT. Maligi Permata Industrial Estate, PT. Harapan Anang Bakri & Sons, PT Karawang Tatabina Industrial Estate
Introduction of High-efficiency Once-through Boiler System in Film Factory	Model Project (JFY 2015)	Mitsubishi Plastics Inc.	PT. MC Pet Film Indonesia
Installation of Gas Co-generation System for Automobile Manufacturing Plant	Model Project (JFY 2015)	Toyota Tsusho Corporation	Toyota Motor Manufacturing Indonesia
Introduction of High-Efficiency Once-through Boiler and RO Pure Water System in Golf Ball Factory	Model Project (JFY 2015)	Sumitomo Rubber Industries, Ltd	PT. Sumi Rubber Indonesia
Jakabaring Sports City Mega Solar Power Plant Project	Model Project (JFY 2015)	Sharp Corp.	Perusahaan Daerah Pertambangan dan Energi (PDPDE) Sumatera Selatan
Introduction of high-efficiency looms in weaving mill	Model Project (JFY 2016)	Nisshinbo Textile Inc	PT. Nikawa Textile Industries
Energy saving for industrial wastewater treatment system for rubber industry	Model Project (JFY 2016)	EMATEC, Suzuki Sangyo Co. Ltd., Mitsubishi UFJ Research and Consulting Co., Ltd,	PT. Anela Bumi Pratama
10 MW Mini Hydro Power Plant Project in North Sumatera	Model Project (JFY 2016)	Toyo Energy Farm Co., Ltd	PT. Citra Multi Energi

Project Title	Year	Project Participant (Japan)	Project Participant (host country)
Introduction of LED Lighting to Sales Stores	Model Project (JFY 2016)	Fast Retailing Co., Ltd.	PT. Fast Retailing Indonesia
Energy saving for air-conditioning utility system in the airport terminal by introducing high-efficiency operating system	Model Project (JFY 2016)	iFORCOM Tokyo Co., Ltd.	Batam Indonesia Free Zone Authority
REDD+ Project in Boalemo District	REDD+ Model Project (JFY 2015 & 2016)	Kanematsu Corporation	Gobel group DKM (PT. Dharma Karyatama Mulia, Boalemo District)

This paper explains the debate on the implementation of green capitalism among domestic actors in Japan. The theory used to analyze the context is domestic politics theory. Domestic politics theory claims that state is not considered as a unitary actor. Furthermore, a foreign policy of a state is mainly directed by the interaction of domestic actors [21]. In order to assess the role of domestic actors, there are two distinct groups which can be identified: domestic political group, namely the executive (bureaucracy in various departments or ministries) and legislative; domestic societal interest groups [22]. Meanwhile, domestic actors behave according to the preferences, interests, values and roles played [23].

The establishment of a bilateral agreement between Japan and Indonesia under JCM for Low Carbon Growth Partnership cannot be separated from domestic politics regarding the climate change policy of Japan. It is influenced by domestic political groups (executive and legislative) and domestic societal interest groups. In this case, the role of legislative is limited since the elites do not get significant feedback from parliament and Japanese Prime Minister. As for the executive elites, the move is more aggressive that focused on Ministry of Economy, Trade, and Industry (METI), Ministry of Environment (MoE) and the Ministry of Foreign Affairs (MoFA) [24]. Meanwhile, domestic societal interest groups consist of *shingikai* (climate policy experts and interest groups such as environmental scientists, business representatives, electric utility companies, consumer advocates, non-governmental organizations and environmental activists) as an instrument to provide the input for environment and energy policy making in Japan [24].

The Japanese ministries are fully aware of the potential friction that might appear. As a way to respond the competition, the Japanese ministries act fairly towards any related ministry. Climate change issue is the example of policy competition in Japan. In this case METI, MoE, MoFA stand on different sides. METI considered climate change

issue as an energy problem, in which agenda setting should be discussed under the Agency on Natural Resources and Energy and allied with Japanese business association such as Nippon Keidanren. On the other side, MoE has created institutional alliances with NGOs focused on climate change, and MoFA also shares this view, and often dependent on public opinion as well as the pressure from abroad to compete METI [26]. In term of political affiliates, each ministry also has its preferences, MoE has closer relations with the Democratic Party of Japan (DPJ) than the Liberal Democrat Party (LDP). In this case, the LDP maintains its intimate relations with METI and Nippon Keidanren which is known as "iron triangle" [27].

In the mid of May 2009, several business affiliates posed serious notification from the Minister of Environment. Minister Tetsuo Saito who comes from Clean Government Party (Komeito) is known for its reputation as persistence individual who keeps advocating the progressive agenda on climate change. Minister Tetsuo Saito criticized business affiliates and claimed them as "retrograde". His decision significantly affected Japanese politics though certain political limitation applied. In viewing climate change issue, the DPJ is also a progressive actor who has no tolerance on bureaucratic interference. The DPJ works together with other stakeholders by combining advice from the environmental group and then adjusting the policy recommendation to the party platform. The DPJ's progressive action is reflected on its previous policy by announcing a mid-term target of reducing 25 % GHG emission on the Copenhagen negotiation as a pledge for the election to the House of Representatives of Japan in 2009 [26].

Furthermore, Democratic Party of Japan (DPJ), as the majority party in the upper house of Japan, proposed a bill to introduce Emission Trading Scheme (ETS) in 2010 as a way to implement cap and trade. Then, DPJ continued to set out a medium target of reducing 25 % GHG emission by 2020, and also long target of reducing 60 % by 2050. The targets are supposed to meet the below level of the basic year in 1990. The bill also includes the introduction of the carbon tax and enhancement of renewable energy up to 10 % of the total energy by 2020 [28]. The implementation of the series program hopes to lead successful outcome such as effective domestic emission market by using cap and trade formula. It means that by implementing cap and trade strategy, voluntarily reduction is no longer accepted. Under the Global Warming Countermeasure Basic Bill, the DPJ also emphasizes that domestic ETS is starting on 2011 [29].

As a response to Japanese reshuffle in 2009, the preparation of ETS is being intensified. On its report, GOJ shows several mechanisms for a mandatory scheme that begins on 2013 and Japan's commitment to reducing 25 % GHG by 2020. However, in December

2010, the DPJ cancelled the implementation of ETS primarily because of the opposition from Japan iron triangle (LDP-METIJ-Keidanren). Nevertheless, instead proposed ETS, previously, DPJ also proposed the implementation of the carbon tax and feed-in tariffs (FIT), especially to overcome the opposition from Japan's iron triangle to meet the target based on Japan's commitment to reduce greenhouse gas emissions and dependency on nuclear power plant. Therefore, for controlling CO_2 emissions related to energy, the implementation of green capitalism through carbon tax to mitigate climate change was introduced in 2012 [30]. The proposal of the carbon tax by DPJ has been supported by Social Democratic Party (SDP) of Japan, which put forward the efforts to mitigate climate change [31].

Meanwhile, in analyzing climate change issue, Japanese organization with its various characteristic takes an important part of the process. The organizations give continuous support to GOJ to minimizes climate change impact. The organizations also support GOJ to reduce 2 °C of global emission. To realize and implement a low carbon society and an achieving target reduction in global emissions by 2 °C, environmental organizations in Japan have requested ambitious effort. When Hatoyama Cabinet from DPJ gained political power, Greenpeace proposed the medium-term target of 25 % by 2020 and Kiko Network lobbied by 30 %. Other NGOs supporting Hatoyama Cabinet is WWF by proposing the target for 2050 amounted to 80 % reduction of carbon emissions [31]. Environmental organizations in Japan also shows support for the government on ETS [32]. It can be seen from the proposals submitted by the Japan Center for a Sustainable Environment and Society (JACSES) in support of the role of the MOE to implement the green capitalism in Japan by domestic cap and trade, carbon tax and energy efficiency [33].

In contrast, the business federation in Japan such as Keidanren (Nippon Keidanren) supporting the climate change mitigation efforts by the sectoral approach. In this regard, Japanese industries can put their performance to implement high-level efficiency of technology, low-cost option and avoid burdensome policies, by applying Voluntary Action Trade Scheme (VATS) to reduce GHG emission [27]. According to Keidanren, the significant achievement of Japan in energy conservation have been leaving little space for reducing emissions. It is caused by a policy that limits the production or other economic activity such as domestic emission trading that might give impact on social welfare, employment, and industry competitiveness. Other possible implication that might appear is carbon leakage, which means other countries will produce a high level of emission since the country does not commit to the rules. So that, it becomes

strenuous efforts to control greenhouse gas emissions globally. The situation seems true after Kyoto Protocol, gas emission keeps increasing [34].

In Japan, any new national laws to reduce GHG emissions must pass the National Diet, which comprises the House of Councillors (Upper House) and the House of Representatives (Lower House). A bill is drafted by the ministry with jurisdiction. All legislative bills to be introduced by the Cabinet are first examined by the Cabinet Legislation Bureau, then approved by the Cabinet for submission to the Diet. The major policy measures proposed in the bill included provisions for fiscal and market-based measures such as a carbon tax, a domestic Emissions Trading Scheme (ETS) and increased renewable energy production. The GW Basic Act could have made climate policy of the pillars of Japan's policy-making, equivalence with the energy policy underpinned by the Basic Act on Energy Policy. The bill of the GW Basic Act passed the Lower House of the Diet but never passed the Upper House, largely as a result of the DPJ's unstable handling of the government [35]. Besides that, as a result of LDP gains upper-house elections in the July 2010, made harder for the DPJ government to pass legislation [36]. Meanwhile, on March 30, 2012, Special Provisions for Carbon Dioxide Tax of Global Warming Measures, and the Japanese FY2012 Tax Reform Revision passed the House of Councilors (Upper House) [37].

The global situation on gas emission that is still far from the objective makes Keidanren suggests the GOJ to consider taking proactive initiatives aimed at achieving low carbon society on the global scale. This initiative can be done for example by proposing an international framework to take advantage of the advanced Japan technology to reduce greenhouse gas emissions worldwide. Furthermore, GOJ should also propose the use of Japan's technology for the refining of energy-saving and the world-class low-carbon technologies. Also, the business community will promote the initiative through the international forum of business association such as the Major Economies Business Forum on Energy Security and Climate Change (BizMEF) and take the further concrete action aimed to reduce emissions at the global scale. Keidanren considers that to achieve the reduction of emissions based on the circumstances of each country, there is a need for a new mechanism to cover shortcoming of Clean Development Mechanism (CDM) by establishing Bilateral Offset Mechanism (BOM) (name tentative) to address carbon emissions that are simplified objectively and practically. Keidanren also mentioned that Japan needs to examine potential methodologies and other details related to the bilateral relationship through the establishment of a joint committee, to create a mechanism that will actually contribute to mitigating climate change, where

the Japanese industry will take a leading role in implementing projects individually [34].

4. Formulating Low Carbon Growth Partnership (LCGP) between Japan and Indonesia

The establishment of the LCGP was first proposed by Japan at the East Asia Summit (EAS) Foreign Ministers' Consultation on July 22, 2011. Before that, the influential Japan's Business Federation (Keidanren) made a policy proposal on July 14, 2011, to review Japan's GHG emission targets "from a zero base" and developed a bilateral offset mechanism (BOM). At the sixth EAS on November 19, 2011, Japan once again expressed its desire for the LCGP initiative. Additionally, MOFAJ released Japan's vision and actions toward Low Carbon Growth and a Climate-Resilient World during the conference of the parties (COP) 17, which essentially entailed the gist of the LCGP. The following activities to introduce the LCGP can be seen when the Ambassador for Global Environmental Affairs of MOFAJ, Masahiko Horie, mentioned four working mechanisms of the LCGP: networking, technology, finance, and a market mechanism at the open symposium held on March 3, 2012. Then, on April 15, 2012, Japan held the East Asia LCGP Dialogue and three essential elements that comprise the LCGP were explicated: first, field-based low carbon growth strategies; second, technology and market mechanism incentivizing investments with an emphasis on the Bilateral Offset Credit Mechanism (BOCM); and (3) knowledge networks among national governments, international organizations, local governments, research institutions, private companies, and non-governmental organizations (NGOs) in East Asia. At the accompanying side event of the Dialogue on April 14, 2012, the operating entity of the technology mechanism launched and the BOCM was explained [5].

Japan has reached joint bilateral statements under the flagship of the LCGP with several East Asian countries such as India, Vietnam, Indonesia, and Thailand as well as with countries in the Mekong Region and held consultations on the new bilateral carbon trading mechanism [5]. As a solid effort to realize "East Asia Low-Carbon Growth Partnership", Japan was acted as host an international conference in Tokyo in April 2012 to take on the vision. Japan discussed concrete cooperation to achieve low-carbon growth in respective countries as well as the direction for forming flexible cross-border networks between public and private sector. As to bilateral initiatives, Japan discussed with relevant nations, including Indonesia and other emerging countries, the launching of the Bilateral Offset Credit Mechanism (BOCM) or Joint Credit Mechanism

(JCM). This means that Japan can use credits earned from providing energy-efficient technologies to other countries for reducing their greenhouse gas emissions as a part of international greenhouse gases mitigation efforts of each country. Indonesia is one of the members in ASEAN country after Vietnam and Laos that approved the establishment of low-carbon growth partnership with Japan to implement BOCM or JCM to encourage low carbon economic development in Indonesia through incentives from the Government of Japan, which began in 2013 and implementation continues [40].

Indonesia was less affected by the global financial crisis of 2008 until 2009 than many other developing nations, and economic growth was returning to pre-crisis levels by 2010 when the programmatic series of Climate Change Development Policy Loans (CC DPL) was approved. The Government of Indonesia (GOI) nonetheless still needed budget support from other development partners concerning climate change [41]. Recognizing both Indonesia's growing contribution and increasing vulnerability to global climate change, the GOI established a National Action Plan for Addressing Climate Change in 2007 and hosted the 13^{th} Conference of the Parties (COP) for UNFCCC in Bali in December of that year. GOI join the Japanese Governments in using development policy lending, among other forms of assistance, to support these efforts. More recently, a National Priority Action Plan issued by the incoming administration in 2010 confirmed climate change and environmental management among the Government's core development challenges. This was reiterated in the National Mid-Term Development Plan for 2010 until 2014, which established priorities about energy–including greater use of renewable sources–the environment and disaster risk management, the latter partly in response to the growing impacts of extreme weather events that were likely exacerbated by climate change [41].

Previously, before implementing JCM, in mid-2007, the Japanese and Indonesian Governments agreed on a bilateral framework to help the latter address climate change. After that, in early 2008, Japan established a new financial mechanism to help developing nations mitigate and adapt to climate change. Indonesia became the first country to use resources from this fund to help implement the bilateral agreement in part through what was denominated the Climate Change Program Loan (CCPL). The first phase of this program (2007 until 2009) was based on a policy matrix agreed by the two Governments derived from the National Climate Change Action Plan [41]. This agreement based on the fact that Indonesia is the third largest emitter of carbon, with more than 80 % of national emissions come from land use changes, especially deforestation. Other sectors such as energy, including electricity generation and transport, also contributed to GHG are quite large with a tendency to rise sharply

from year to year. GHG emissions from the transportation sector in 2009, reaching about 67,000,000 t of CO_2 annually and growing at a rate of approximately 8 % to 12 % [45].

The government of Indonesia realizes the importance of the carbon market in the form of green growth strategy which part of the low-carbon development plan. The government shows that the program provides various benefit such as the increasing sustainable development, job, level of technology, maintain the quality of the environment. The implementation of carbon market mechanism through bilateral and regional mechanism is meant to foster low carbon development. The new mechanism is needed considering that since the end of Kyoto Protocol there is no multilateral forum that provides flexible mechanism for all countries [7]. Indonesia hopes that Japan will provide constant assistance on developing six economic sectors covering Metropolitan Priority Area (MAP). The main supportnce that Indonesia need is regarding technical limitation that is why the government hopes that Japan advanced technology such as power generation, geothermal power, water supply and sewerage system, railways, urban transportation, food security, and energy security will provide a compact solution. In this context, Keidanren suggested that moving forward with such large-scale infrastructure projects would require: (i) the introduction of flexible bilateral offset mechanisms enabling CO_2 emission reductions to be exchanged for carbon credits and (ii) the formulation and utilization of PPP schemes were fundamental elements of the project are financed by ODA and commercially viable elements are funded by private investments. Both sides agreed on the need for these two types of mechanisms [47]. According to [48], Japan provides foreign aid to Indonesia through ODA because Indonesia holds an important position in Japan. The reason is due to Indonesia position as the largest natural resource exporter. Besides that Indonesia has potential economic sector [48].

The bilateral agreement under JCM processed through consultation among countries and among relevant institutions in Indonesia. In May 2012, the Minister of Ministry of Coordinating Economic Affairs established a Coordinating Team of Friendlies Carbon Trade Negotiations (Tim Koordinasi Perundingan Perdagangan Karbon Antarnegara/TKPPKA) as a counterpart in the discussions and negotiations JCM with GOJ. The team consists of the Steering Committee, chaired by the Minister of Ministry of Coordinating Economic Affairs and Executive Talks Team, chaired by the Deputy for International Economic Cooperation, Ministry of Coordinating Economic Affairs. The team also involves the National Council on Climate Change (NCCC/DNPI) which is the focal point of climate change talks in Indonesia, as well as the technical ministries and relevant

government agencies. The team is also several times hosted a workshop to solicit views and input from non-governmental organizations, including companies [13]. After that, Japan and Indonesia have designed some ground rules for the implementation of JCM in low-carbon growth partnership agreed in August 2013. As part of these preparations, the Government of Japan through some ministries has provided grants to Japanese companies to conduct feasibility studies for the implementation projects under the scheme of JCM in Indonesia [7].

5. Conclusion

Political debate on the implementation of green capitalism appears within Japanese domestic politics. The pros and cons reveal precisely on the realization of carbon market mechanism, feed-in tariff, and the carbon tax. The debate indicates that there is a difference among domestic political groups and domestic interest group. The condition triggers Nippon Keidanren to search for other solution for reducing emission by submitting a proposal to Japan Government. Keidanren suggests that Japan Government must apply Bilateral Offset Mechanism (BOM). The mechanism points out that Japan business affiliates need financial support from the Japanese government as well as other government so that the industry can cooperate with other foreign companies. Indonesia is considered as an important partner for Japan on the implementation of low carbon growth partnership. The cooperation among Indonesia and Japan is based on historical interest in which Japan has been invested in Indonesia for a long time. Indonesia's status as developing countries is also another benefit for Japan. As the follow-up action, Keidanren suggest that Japanese Government needs to formulate bilateral cooperation by implementing low carbon energy project and applying renewable energy. As developing country, Indonesia needs financial assistance from other countries to implement green capitalism successfully. The bilateral cooperation has developed dynamically starting from Bilateral Offset Mechanism (BOM) and Joint Credit Mechanism (JCM). To conclude, the implementation of LCGP between Japan and Indonesia displays not only mutual interest on trade and investment of both parties but also reflects a compromise between different domestic political actors' position on climate change issue in Japan. The cooperation also indicates that the green capitalism is possible in the form of government cooperation, initiated by the Japanese government with foreign countries in dealing with the environmental issue, yet it is still acceptable from business community's point of view.

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