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Borneo Sub-Region Partnership For Climate-Smart Trade and Investment

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Abstract

Trade and investment are cross-border phenomena. The evidence shows that trade and investment played a decisive role in the economic development success of many economies in the south east Asia region, particularly in sub-Borneo Region. On the other hand, trade and investment have an indirect effect on climate change. They indirectly contribute to GHG emissions while investment in natural resource exploitation can also lead to GHG emissions, particularly when it involves deforestation, as forests act as carbon sinks. Therefore, a trade and investment partnership is needed at the sub-regional level that is oriented towards economic growth and climate change. The main purpose of this article is to propose a sub-Borneo partnership (Brunei Darussalam, Indonesia, and Malaysia) that can

be support of climate-smart trade and investment. It aims to promote a better partnership at the sub-regional level. This paper concentrates primarily on the international law arguments, while acknowledging that economic and environment motivations may often be the primary driving force behind sub-Borneo partnership. This paper recommends establishing a comprehensive agreement and could include the following elements: (a) Harmonization of investment regulations and incentives for climate-smart investment; (b) Accord pre and post-establishment MFN and national treatment for climate-smart investment from sub-Borneo countries; (c) Establish a regional credit guarantee facility for high-risk climate-smart investment; (d) Undertake joint climate-smart investment promotion and targeting activities; (e) Exchange lists of promoted climate-smart sectors/industries where sub-Borneo countries could encourage investments from other partner countries and initiate promotional activities; (f) Establish a joint database for supporting industries and technology suppliers among sub-Borneo countries and a database to enhance the flow of investment data and information on investment opportunities in Borneo sub-regional; (h) Establish a joint climate-smart investment promotion

Keywords

Sub-Borneo Regional, Climate-Smart, Trade, Investment.

Introduction

The Southeast Asia island of Borneo is a treasure chest teeming with diversity of resources, one of the highest in the world. Borneo's tropical forest on this island plays a very important role as the "lungs of the earth" which functions to draw carbon dioxide from the atmosphere and produce oxygen. A large amount of carbon is also stored in large quantities in the natural environment of Borneo. As the largest island in Asia, Borneo has an area of 22 million hectares of Equatorial forests, of which around 12 million people, including indigenous peoples, depend on these forests.

The island is occupied by three developing countries in Southeast Asia, namely Brunei Darussalam, Indonesia and Malaysia. The island of Borneo, which is vast and rich in abundant natural resources, attracts the three countries to manage and benefit from it. As developing countries that are currently doing a lot of development for the sake of economic progress and the welfare of their people, one way that can be taken to make this happen is through direct investment and cross-border trade. This is none other than managing the resources stored on the island of Borneo. Some studies show findings related to the growth of trade and investment in the three countries that inhabit the Borneo Island.

Investment and trade are known to have a direct impact on the economic progress of these countries. FDI inflows and trade have driven the growth of developing countries on the island of Borneo, such as Brunei Darussalam, Indonesia, and Malaysia. However, in its development, the implications for environmental sustainability in the three countries have become serious concerns. This is because FDI inflows in some environmentally sensitive sectors can have

serious consequences (e.g. greenhouse gas emissions, permanent damage to the environment, and natural resources).¹

It is not surprising that multinational companies are aware of the huge potential of Borneo so that they come to this island to build a business. Exploitative economic activity has resulted in the decline of at least 30 percent of Borneo's tropical forests over the past 40 years, including a decline in the number of carbon-rich peatlands that can store twice as much carbon as forests. Logging, mining, and plantation development, especially from oil palm plantations have contributed to massive deforestation in Borneo's forests. The devastating fires that occurred in 2015 and 2019 left a traumatic experience for the people there as they burned nearly 4.4 million ha of forest and peatland. The plantation sector bears substantial responsibility for the fires that occurred between 2015 and 2019. 27 percent of the burned area mapped in 2019 was located in oil palm and pulpwood concessions.²

According to the report, climate change, coupled with reduced natural capital reserves due to sustainable deforestation, raises concerns for governments, industry, and local communities.³ Borneo's forests are of great importance to both local and global community well-being due to their potential for carbon sequestration and various other functions. This potential is related to food, water, and energy security. Conservation of Borneo's forests and ecosystems is one of the most urgent priorities that need to be urgently implemented in the region. Not responding and our little action to deal with these existing problems will only put us at great risk to the global economy, environment, and climate.⁴

WWF projections indicate that if the island of Borneo continues at its current rate of natural capital loss through deforestation, it will be severely affected by climate change through the increased risk of floods and forest fires, human health impacts, changes in agricultural yields and damages to infrastructure. Sea level rise is also projected to cause widespread damage to population centers, causing considerable economic damage and costs to local governments, communities and businesses. In addition, it can also lead to GHG emissions, particularly when it involves deforestation, as forests act as carbon sinks (Tej, Hegde, & Shetty, 2021).⁵

Some of the factors causing Borneo's natural decline are first, the business model of companies carrying out economic activities in Borneo only focuses on unlimited growth and prosperity, without paying attention to and preserving the environment. The second factor is the consequences of the "business as usual" paradigm. Businesses run within the "business as usual" paradigm reflect economic

¹ The United States Environmental Protection Agency, EPA.gov, report-environment/greenhouse-gases.

² See www.greenpeace.org/international/story/46328/environmental-crisis-borneo-flood-palm-oil-coal/

³ Report WWF, Climate Change and deforestation in the Heart of Borneo Could a deadly combination-new report warns, posted on 15 June 2012, See <https://wwf.panda.org/?unewsid=205220>

⁴ *Ibid.*

⁵ See www.FAO.org, Forest and Climate change, Carbon and the greenhouse effect, access on 20 June 2021

modeling which shows that the environmental costs of economic growth are higher than the revenues derived from the use of natural resources. According to an ADB report, if the world continues with business as usual, Indonesia, the Philippines, Thailand, and Viet Nam could experience combined damage equivalent to more than 6 percent of their countries' GDP every year by the end of this century, dwarfing the costs of the current financial crisis.⁶ The third factor is the government's ignorance. For example, the Indonesian government chooses to ignore the environmental crisis even though Borneo is very vulnerable to the impacts of climate change (Thriveni et al., 2020; You, Yoon, & Moon, 2021).⁷

Trade and investment are needed by countries that inhabit the island of Borneo for the economic progress of their people. But on the other hand, climate change and environmental sustainability cannot be ignored. If this happens, then both investment and trade as well as the environment will harm each other. Then, what needs to be done if the relationship between investment trade and the environment is like that? Trade-investment policy choices and environmental sustainability issues must go hand in hand. Furthermore, what kind of investment-trade policy should be implemented by the countries that inhabit the island of Borneo? This article will offer a climate-smart trade and investment policy to answer this question.

Different from trade and investment which is carried out in the "business as usual" paradigm, the Climate-Smart Trade and Investment paradigm focuses on low-carbon green growth so that policies shift. The policy referred to in this case is an investment and trade policy aimed at reducing the impact of GHG emissions. An example of a policy is trade focused on access to climate-friendly or climate-smart goods and technologies (CSGT), while investment is also required to develop and produce CSGT, including renewable energy technologies (RET). In the Climate-Smart Trade and Investment paradigm, more effective and efficient Climate-Smart Technology (CST) and RET trade and investment can be developed, produced, and disseminated.

The Climate-Smart Trade and Investment policy is a promising approach to reduce the effects of GHG emissions now and in the future. However, the implementation of this policy is still very small, it is evident that Global and regional trade in climate-smart goods and technologies is rising, but still only around 3 percent of total global and regional trade. The reason is because so far, the promotion of Climate-smart trade and investment has only focused on the national

⁶ ADB 2009. *The Economics of Climate Change in Southeast Asia: a Regional Review*. Manila. Available from www.adb.org/documents/books/economics-climate-change-sea/Economics-Climate-Change.pdf.

⁷ The relationship between deforestation and changes in local climate was most pronounced in watersheds in southeast Borneo, which have lost 40%–75% of their forests since 1973. These watersheds also had a significantly higher frequency of temperatures above 31 °C. Watersheds in the north and northwest Borneo, which have lost 5%–25% of their forest cover, maintained a more stable climate with a similar distribution of mean and extremely warm temperatures between forest and modified forest areas. Watersheds with >15% forest loss had a >15% reduction in rainfall. This situation concluded that the loss of forest in Borneo has increased local daily temperatures and temperature extremes, and reduced daily precipitation.

policy level. A breakthrough related to the basis for promoting an effective Climate-smart trade and investment policy is therefore urgently needed. This breakthrough is a sub-regional-based Climate-smart trade and investment.

The purpose of this research is motivated by the issue of environmental degradation as a result of exploitative trade and investment activities, as well as the significant role of the island of Borneo in sequestering carbon emissions and global climate change, namely to propose a sub-regional based Climate-smart trade and Borneo investment policy formulation. This research is of the view that there is an urgent need for a Climate-smart trade and investment policy based on the Borneo sub-regional⁸ partnership, namely A trilateral initiative between Brunei Darussalam, Indonesia, and Malaysia. The policy is none other than to promote Climate-smart trade and investment that will have an impact on local and global communities. The question that arises then is how to formulate a sub-regional Borneo partnership policy for the promotion of Climate-smart trade and investment? The answer will be described in this article.

RESEARCH METHOD

This study's research methodology is purely doctrinal, where library materials such as books, articles from journals, and online articles have been carefully selected and analyzed for this research. This study concentrates primarily on the international trade and investment law arguments, particularly under the AFTA and the international climate regime, while acknowledging that economic and environment motivations may often be the primary driving force behind sub-Borneo partnership for Climate-Smart Trade and Investment.

ANALYSIS AND DISCUSSION

Trade-Investment and Climate Change

Trade and investment are cross-border phenomena. The evidence shows that trade and investment played a decisive role in the economic development success of many economies of countries and regions. The classical economic theory on investment take the position that foreign investment is wholly beneficial to the developing country (host economy).⁹ Foreign direct investment (FDI) and trade are often seen as important catalysts for economic growth in the developing countries. FDI is an important vehicle of technology transfer from developed countries to developing countries. FDI also stimulates domestic investment and facilitates improvements in human capital and institutions in the host countries.

⁸ There is no standard definition of the sub-region of Borneo as this article defines the sub-region of Borneo by taking into account three aspects consisted of Region, geography, and economy. The Borneo sub-region is a trilateral initiative of developing economic countries (Brunei Darussalam, Indonesia, and Malaysia) as a smaller part of the South East Asia region that inhabits the same island or mainland.

⁹ Sornarajah M, 2010, "*The International Law On Foreign Investment*", Third Edition, Cambridge University Press, UK, Page. 48

International trade is also known to be an instrument of economic growth.¹⁰ Trade facilitates more efficient production of goods and services by shifting production to countries that have comparative advantage in producing them.

Although the trade and FDI inflow provides a growth impetus across recipient countries, their environmental sustainability implications are increasingly becoming an area of concern. Given the fact that FDI inflow in several environmentally sensitive sectors may lead to grave consequences (e.g. emission of greenhouse gases, irreversible damage to environment and natural resources). The deepening globalization waves may influence environmental sustainability of a country negatively through several channels.¹¹ (Chakraborty and Mukherjee, 2010). First, short run export orientation in developing countries may facilitate concentration of environmentally damaging industries within their territories (e.g. ship breaking, toxic chemical processing). Moreover, eagerness to benefit from strong global demand may result in overexploitation of natural resources (e.g. surge in fishing, forestry, and mining activities).

Second, the relatively less stringent environmental standard prevailing in the developing countries/LDCs may motivate firms from their developed counterparts to invest in polluting sectors of the former. The existence of such FDI-led 'Pollution Haven Hypothesis' (PHH) has been confirmed for several developing countries in the empirical literature.¹²

Third, the leasing of land and water resources in LDCs to the developed country Multinational Corporations (MNCs) or governments is on the rise.¹³ The emerging 'land grab' literature takes note of the rising concerns over the environmental repercussions from such arrangements.¹⁴

According to Copeland and Taylor there is a link between trade, investment and the environment, with a particular focus on the impact of trade and trade liberalization on climate change.¹⁵ ESCAP's Asia-Pacific Trade and Investment Report 2009 showed that the linkages between trade, investment, and economic growth and development were not straightforward and that a positive link could only be established under certain conditions.¹⁶ The evidence in the Asia-Pacific region, however, shows that trade and investment played a decisive role in the

¹⁰ Frankel, J.A., and D. Romer. "Does Trade Cause Growth?" American Economic Review 89(1999):379-99.

¹¹ Chakraborty and Mukherjee, 2010, "Application of Water Based - Ti)2 Nano-Fluid for Cooling of Hot Steel Plate", ISIINTERNATIONAL Volume 50 Issue 1 Page 124-127.

¹² Merican et al., 2007, "Foreign Direct Investment and the Pollution in Five ASEAN Nations, International Journal of Economics and Management Volume 1 (2) Page. 245-261

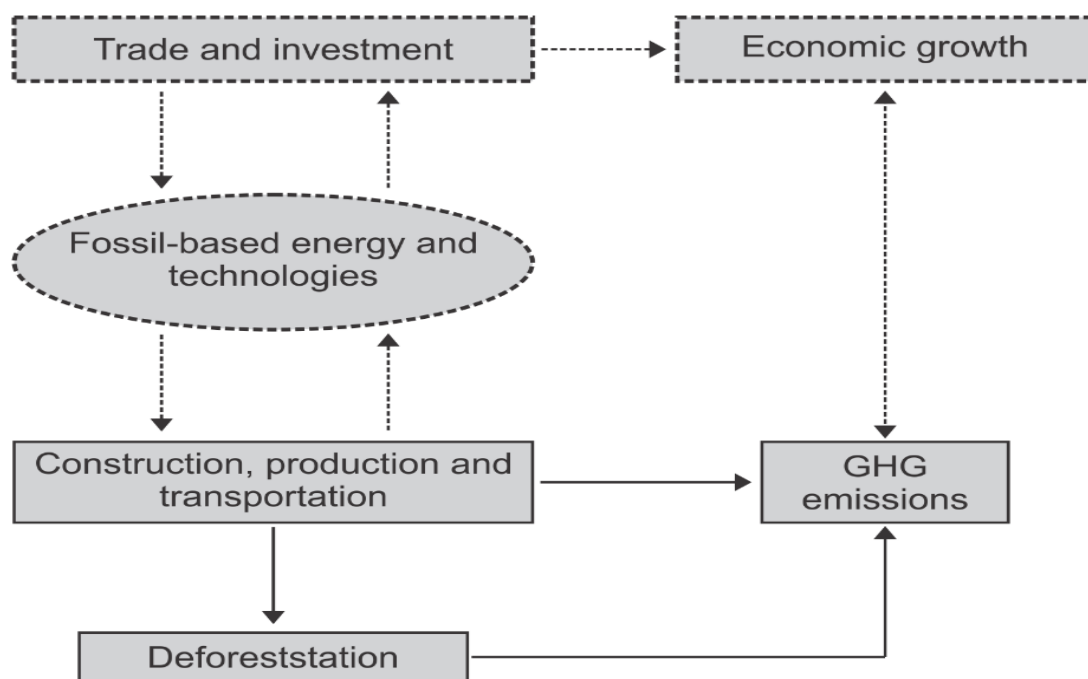
¹³ Borrás et al., 2012; Woodhouse, 2012, "Land Grabbing and Global Capitalist Accumulation: Key Features in Latin America, Canadian Journal of Development Studies, Page 402-416

¹⁴ Hallam, 2009, "An evaluation of the Social and Emotional Aspects of Learning (SEAL) programme: Promoting positive behaviour, effective learning and well-being in primary school children, Oxford Review of Education, Volume 35, Issue 3, Page 313-330.

¹⁵ WTO-UNEP See www.wto.org, trade, climate change, environment.

¹⁶ UN ESCAP.2011. Climate-Smart Trade and Investment in Asia and The Pacific: Towards A Triple-Win Outcome. Available on <https://www.unescap.org/sites/default/d8files/knowledge-products/Studies%20in%20Trade%20and%20Investment%20No.%2073.pdf>

economic development success of many economies in the region. Similarly, the linkages between trade, investment and climate change are not straightforward. Simply put, economic growth involves GHG emissions; since trade and investment are the principal drivers of economic growth, they also contribute to GHG emissions. However, trade and investment contribute to GHG emissions only indirectly through the way goods are produced and transported between producer and consumer. Investment also contributes to GHG emissions indirectly as it leads to the establishment of production capacity while investment in natural resource exploitation can also lead to GHG emissions, particularly when it involves deforestation, as forests act as carbon sinks. Trade and investment are intangible invisible processes. They are made tangible and visible through the actual construction, production and transportation processes they embody, as described in the figure 1.



Figur 1. Trade, investment and climate change linkages based on traditional energy

sources and technologies: the scale effect

Source: UN ESCAP (2011)

Effect of trade and investment on Climate Change

According to the Intergovernmental Panel on Climate Change (IPCC) Over the past 150 years, global average surface temperature has increased 0.76°C.¹⁷ This global warming has caused greater climatic volatility, such as changed precipitation patterns and increased frequency and intensity of extreme weather events including

¹⁷ IPCC. 2007. Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. M. L. Parry, O. F. Canziani, J. P. Palutikof, P. J. van der Linden and C. E. Hanson, eds. Cambridge: Cambridge University Press.

typhoons, heavy rainfall and flooding, and droughts; and has led to a rise in mean global sea levels. It is widely believed that climate change is largely a result of anthropogenic greenhouse gas (GHG) emissions. Under the most pessimistic emissions scenario developed in IPCC (2000), by the end of this century temperatures could rise to more than 4°C above 1980–1999 levels, ranging from 2.4–6.4°C.¹⁸ This would have serious consequences for the world's growth and development.

Climate change is already affecting the region, especially the Southeast Asia where the countries that inhabit the island of Borneo are in it. IPCC (2007) reports an increasing trend in mean surface air temperature in this region during the past several decades, with a 0.1–0.3°C increase per decade recorded between 1951 and 2000. Rainfall has been trending down and sea levels up (at the rate of 1–3 millimeters per year), and the frequency of extreme weather events has increased: heat waves are more frequent (an increase in the number of hot days and warm nights and decrease in the number of cold days and cold nights since 1950); heavy precipitation events rose significantly from 1900 - 2005; and the number of tropical cyclones was higher during 1990 - 2003. These climatic changes have led to massive flooding, landslides, and droughts in many parts of the region, causing extensive damage to property, assets, and human life. Climate change is also exacerbating water shortages in many areas, constraining agricultural production and threatening food security, causing forest fires and degradation, damaging coastal and marine resources, and increasing the risk of outbreaks of infectious diseases.¹⁹

The region also has an important role to play in contributing to global GHG mitigation efforts. In 2000, Southeast Asia contributed 12% of the world's GHG emissions, amounting to 5,187 MtCO₂-eq, an increase of 27% from 1990, faster than the global average. On a per capita basis, the region's emissions are considerably higher than the global average, although still relatively low when compared to developed countries. The land use change and forestry sector (LUCF) has been the major source of emissions from the region, contributing 75% of total regional GHG emissions in 2000. The other two key sources are the energy sector (at 15%) and the agriculture sector (at 8%), with emissions from the energy sector growing as much as 83% during 1990–2000, the fastest among the three sources. Southeast Asia needs to explore affordable and cost-effective mitigation measures and to pursue a low-carbon growth strategy.²⁰

Overexploitation Trade and investment on the island of Borneo impact on climate change. A study on the island of Borneo found a strong relationship between deforestation and increases in average monthly temperatures. They found that the changes in climate were extremely localized, with clear variation in temperature between forested and deforested parts of the island: on average, in

¹⁸ IPCC, 2000. Special Report on Emissions Scenarios. A Special Report of Intergovernmental Panel on Climate Change (IPCC) Working Group III, Cambridge University Press, Cambridge.

¹⁹ *Ibid.*

²⁰ ADB, 2009, The Economic of Climate Change in Southeast Asia: A Regional Review, available on <https://www.adb.org/sites/default/files/publication/29657/economics-climate-change-se-asia.pdf>

Borneo's lowlands, deforested areas were warmer by 1.7 degrees Celsius than those with forests still intact. The study also showed a particularly significant relationship between forest loss and rainfall reduction, with watersheds characterized by more than 15 percent forest loss experiencing rainfall reduction of more than 15 percent.²¹

Climate change is a global problem and requires a global solution. In recent years, addressing climate change has been high on the international, regional and sub-regional policy agenda. Yet, sub-Borneo is among the regions of the Southeast Asia with the greatest potential for mitigating carbon dioxide by reducing deforestation and improving land management practices. It also has vast, untapped opportunities for energy efficiency improvements and for increasing the use of renewable energy sources, including biomass, solar, wind, hydro and geothermal—all leading to GHG emission reductions. In order to achieve these goals, government of Brunei Darussalam, Indonesia and Malaysia to play their part in a global solution to climate change by introducing new policies in trade and investment. These countries must do more to shift the business-as-usual paradigm to a climate-friendly economy in response to climate Change.

The Urgency of a Paradigm Shift: From Business as Usual to Climate-Smart Trade and Investment

Climate change poses a serious and urgent threat to inclusive development and environmental sustainability. Surmounting this threat will necessitate a paradigm shift towards low-carbon or climate-smart development. Promoting increased trade and investment in CSGTs can work towards such an end. Experience has demonstrated, however, that the market alone has been unable to mobilize enough trade and investment in CSGTs or develop and commercialize climate-smart technologies to the extent necessary to limit the average global temperature rise to 2°C.²²

Trade and investment policies can contribute to mitigation of, and adaptation to climate change through the promotion and liberalization of trade and investment in climate-smart goods, services and technologies. Realizing climate-smart development will thus necessitate the engineering of a policy architecture that promotes energy efficiency and the deployment of CSTs over fossil fuel-based technologies. Currently there are several policies that promote trade and investment in CSGTs. Policies that indirectly affect trade and investment include: Nationally Appropriate Mitigation Actions (NAMAs),²³ National Adaptation Programs of Action

²¹ See <https://news.globallandscapesforum.org/27161/forest-loss-leads-to-local-climate-change-effect-in-borneo/>

²² UN ESCAP.2011, *Ibid*.

²³ NAMAs were first used in the Bali Action Plan as part of the Bali Road Map agreed on at the United Nations Climate Change Conference in Bali in December 2007, and also formed part of the Copenhagen Accord issued following the United Nations Climate Change Conference in Copenhagen (COP15) in December 2009.

(NAPAs),²⁴ Emission Trading Schemes or Systems (ETS), Reducing Emissions from Deforestation and Forest Degradation (REDD),²⁵ Sustainable public procurement,²⁶ non-tariff measures (NTMs), Trade policies that promote export and import of CSGTs, dan Investment policies comprise policies that promote domestic and foreign investment, particularly FDI, in the development and production of CSGTs.

In the last decade, trend promotion of trade and investment in climate-smart goods is rising, but is still only some 3 per cent of both global and regional trade, respectively. Except for the South-East Asia region, it accounts for the largest share of Asia-Pacific region's total CSGT trade, in terms of both exports and imports, and thus drive the CSGT trade of whole region. The trend of increasing promotion in the field of renewable energy (RE), Wind energy technologies, Solar energy technologies, Geothermal technologies, Ocean power technologies, Clean coal technologies, and Biofuels. The various IEA studies and McKinsey (2009) estimated that approximately half of the globally-required investments will be needed in the Asia-Pacific region. Particularly for the Southeast Asia region, Another study by the World Bank covering six major East Asian middle income economies include Indonesia dan Malaysia, the study estimated that the combined additional required investments for that countries to reach a Sustainable Energy Development (SED) path.²⁷ This would imply required additional investments of \$120 billion per year, of which \$85 billion would be invested in energy efficiency in the power, industry and transport sectors, and another \$35 billion in low-carbon technologies (\$25 billion for RE and \$10 billion for nuclear power).²⁸ The study further estimated that such investments could halve environmental damage costs in the six countries from \$127 billion (under the reference scenario) to \$66 billion (under the SED scenario) as well as drastically improve energy security by reducing reliance on foreign energy imports by \$1.106 trillion in 2030.²⁹

Most climate change-related studies highlight that any delay in climate-smart investments will drastically increase the total cost of overall required investments. Thus, quick action is imperative; the quicker that action is taken, the lower the costs will be over time. The mitigation of climate change requires a comprehensive approach combining various policies that promote trade and investment in CSGTs.

²⁴ The Seventh Conference of the Parties (COP) of UNFCCC, held in Marrakech in 2001, acknowledged the specific situations of least developed countries (LDCs) in that they do not have the means to deal with problems associated with adaptation to climate change, and established an LDC work programme including NAPAs as well as other supporting activities.

²⁵ REDD is a mechanism which uses market/financial incentives to reduce GHG emissions from deforestation and forest degradation. Such actions offset carbon emissions and contribute to carbon credits. Actions involve reforestation and afforestation.

²⁶ Sustainable public procurement is a tool that allows governments to leverage public spending in order to promote the country's social, environmental and economic policies.

²⁷ The Sustainable Energy Development path is a scenario for the stabilization of emissions by 2025, reaching 9.2 Gt by 2030, i.e. implying somewhat higher levels of emissions from the concerned countries than their levels in 2005.

²⁸ World Bank 2010b

²⁹ *Ibid.*

These policies need to be consistent and carefully coordinated at the national and regional levels. Regional actions are clearly preferable to unilateral ones.

International Legal and Regulatory Framework for Climate Change

International Legal and Regulatory Framework

United Nations Framework Convention on Climate Change (UNFCCC)

United Nations Framework Convention on Climate Change UNFCCC is an international legal framework for global climate change solutions. The international community is now working toward an international climate regime under UNFCCC that aims to stabilize GHG atmospheric concentration and provide a long-term solution to the climate change problem through international cooperation based on the principle of common but differentiated responsibility. While the responses of the largest current and future GHG-emitting economies under UNFCCC hold the key, a successful global solution requires the participation of all countries, developed and developing.

The UNFCCC includes the principle of “common but differentiated responsibilities.” Under the principle, as stipulated in Article 3, paragraph 1, of the UNFCCC, the parties agreed that (1) the largest share of historical and current global emissions of greenhouse gases has originated in developed countries; (2) per capita emissions in developing countries are still relatively low; and (3) the share of global emissions originating in developing countries will grow to meet their social and development needs.

The Kyoto Protocol

The Kyoto Protocol to the United Nations Framework Convention on Climate Change (UNFCCC) entered into force on February 16, 2005, following ratification by Russia. As of May 11, 2007, 172 countries and the regional economic integration organization (European Economic Community) have ratified, accepted, approved, or acceded to the Kyoto Protocol. Under the Kyoto Protocol, industrialized countries have to reduce their combined emissions to 5 percent below 1990 levels in the first commitment period of 2008–12. Countries that have accepted greenhouse gas emissions reduction obligations must submit an annual greenhouse gas inventory. Developing countries that have ratified the Protocol do not have to commit to specific targets because they face potential technical and economic constraints. Nevertheless, they have to report their emissions levels and develop national climate change mitigation programs.

The Kyoto Protocol is an important first step toward international cooperation to deal with the challenge of climate change. However, the Protocol is weakened because not all countries with obligations to reduce their emissions have ratified the agreement, and because, at least at this stage, it does not impose commitments to reduce emissions on the major developing-country emitters. In response to their historical responsibility and financial and technological capabilities, only developed countries were required to adopt fixed emission targets

under the Kyoto Protocol.³⁰ As signatories to the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol and as part of their commitment to the convention process, Domestic Policies and Measures constitute the fundamental basis for an “internationalization” of climate change externalities into national economies around the globe.

The Paris Agreement

The 2015 Paris Agreement aims to limit global warming to “well below” 2°C above pre-industrial levels and, if possible, to below 1.5°C.¹ At the heart of the agreement is the concept of Nationally Determined Contributions (NDCs), which set out each country’s policies and targets to mitigate and adapt to climate change. While not legally binding, NDCs aim to boost transparency and build positive momentum through constructive “peer pressure”.

Regional Legal and Regulatory Framework

Countries in Southeast Asia have several agreements that support the policy related to GHG emissions or other areas related to climate change, *inter alia*:

The Singapore Declaration on Climate Change, Energy and Environment.

The 2007 Singapore Declaration on Climate Change, Energy and the Environment commits ASEAN member countries to “the common goal of stabilizing atmospheric greenhouse gas concentrations in the long term, at a level that would prevent dangerous anthropogenic interference with the climate system”. During this summit, ASEAN reaffirmed the need to tackle climate change based on the principles set out by the UNFCCC. It also commits ASEAN members to the implementation of appropriate mitigation and adaptation measures, including, *inter alia*, encouraging the deployment of clean technology in the ASEAN subregion through various means, such as investment, technical and financial assistance, and technology transfer.

ASEAN Climate Change Initiative (ACCI)

In November 2007, ASEAN leaders endorsed the development of an ASEAN Climate Change Initiative (ACCI). ACCI is a consultative platform for further strengthening regional coordination and cooperation in addressing climate change; in addition, undertaking concrete actions in response to its adverse impacts is envisaged. The scope of collaboration

through the ACCI will include: (a) policy and strategy formulation; (b) information sharing;

(c) capacity building; and (d) technology transfer.

ASEAN was also instrumental in launching ASEAN Haze Action Plan, ASEAN Agreement on Trans-boundary Haze, ASEAN Disaster Response Program, ASEAN Peat Land Management Initiative, European Union–ASEAN agreements, ASEAN+3 cooperation, and others. ASEAN has a well-functioning institutional structure to

³⁰ World Bank, (2008), International Trade and Climate Change: Economic, Legal and Institutional Perspective, available on <https://openknowledge.worldbank.org/bitstream/handle/10986/6831/41453optmzd0PA101OFFICIAL0USE0ONLY1.pdf?sequence=1&isAllowed=y>

promote energy cooperation among its members, including mechanisms for the promotion of energy efficiency and for exchanging information on policies, technical information, projects and plans for RE.³¹

However, the policies of ASEAN countries to respond to global efforts related to GHG emissions or other fields related to climate change are still indirect and have not issued legally binding commitments. It is evident that there are no ASEAN-wide obligations and standards regarding GHG emissions or other areas related to climate change. For Example, cooperation in energy has no immediate links with cooperation in the mitigation of, and adaptation to climate change, energy cooperation falls under the ASEAN Economic Community while environmental cooperation falls under the ASEAN Socio-Cultural Community. Therefore, what is needed now is a partnership where the agreement is directly related to climate change mitigation and legally binding commitments among ASEAN countries.

Borneo Sub-Regional Partnership for Climate-Smart Trade and Investment

As discussed above, Climate change is a global problem and requires a global solution. In recent years, addressing climate change has been high on the international, regional and sub-regional policy agenda. UNCTAD (2010) advocates a global partnership to further low-carbon investment for sustainable development. Given the difficulties in achieving a consensus on a global agreement on mitigation of climate change in general, such a partnership may perhaps run into similar difficulties. It is therefore proposed that smaller-scale partnerships, covering both trade and investment, are explored at the regional or sub-regional level. The purpose of such partnerships would be to reduce or eliminate barriers to trade and investment in CSGTs and climate-smart services, and to forge cooperation in a variety of areas.³² Any form of regional partnership will probably be more successful if it involves developing countries only, particularly given the potential for enhanced Borneo sub-regional trade and investment in CSGTs.

The Borneo sub-regional has an important role to play in contributing to global GHG mitigation efforts. Yet, sub-Borneo is among the regions of the Southeast Asia with the greatest potential for mitigating carbon dioxide by reducing deforestation and improving land management practices. It also has vast, untapped opportunities for energy efficiency improvements and for increasing the use of renewable energy sources, including biomass, solar, wind, hydro and geothermal—all leading to GHG emission reductions.

In addition to these important roles, the three countries have common interests and experiences to serve as a reference for a lasting partnership in the future, including (a) Brunei Darussalam, Indonesia and Malaysia experiencing similar climate hazards (b) The three countries have experienced cooperation in the Heart of Borneo (HoB) Initiative. (c) These three countries are both developing

³¹ ESCAP

³² UNCTAD (2010)

countries which are currently working to reduce poverty, promote faster economic growth, but at the same time consider the need for a balance between opposing development interests and environmental protection and resilience to climate change and, respectively, trading and investing.

Global climate change cannot be tackled without the participation of Borneo Island. In the coming decades, GHG emissions will grow and the Borneo sub-regional country hold significant potential for cost-effective emissions reductions. The three countries that share the island must recognized the importance of sub-regional partnership to protect the island as a "life support system" by committing to work together to promote Climate-Smart Trade and Investment.

Based on this interest and experience, Borneo's sub-regional partnership in Climate Smart Trade and Investment is a necessity for a sustainable economic and environmental strategy, as sub-regional strategies tend to be more effective in dealing with many cross-borders, such as Climate Smart trade and investment. Sub-regional partnership is also effective in pursuing some mitigation measures, for example: promoting power trade; using different peak times among neighboring countries to minimize the need for building new generation capacity in each country; developing renewable energy sources; promoting clean energy and technology transfer; and sub-regional benchmarking of clean energy practices and performance. In the longer term, a sub-regional voluntary emissions trading system could also be considered.

Trade and Investment is a cross-border phenomenon, Climate Change and GHG emission reduction and mitigation is also a cross-border issue, Therefore, the promotion of Climate Smart Trade and Investment is also treated in cross-border issues at regional and sub-regional levels. While there would be no political consensus or support for a region-wide legal agreement, ideally a sub-region partnership could be forged that covers all possible areas of cooperation in climate-smart trade and investment.

The Borneo sub-region does not have a specific mechanism for the promotion of "Climate Smart Trade and Investment". The governments of Brunei Darussalam, Indonesia and Malaysia follow the mechanism of free trade agreements between ASEAN countries (ASEAN Free Trade Agreement/AFTA) and the mechanism of liberalization of investment cooperation between ASEAN countries (ACIA). However, neither AFTA nor ACIA include specific standards and provisions related to GHG emissions or other areas related to climate change. There are no regional or bilateral agreements that directly relate to climate change, or the reduction and mitigation of GHG emissions. Even the 2002 ASEAN Agreement on Transboundary Haze Pollution and the 2007 ASEAN Declaration on Environmental Sustainability, both of which are not directly related to climate change mitigation and adaptation, but only contain actions that have implications for that goal.

There is a need to implement a special mechanism related to the Borneo sub-regional partnership in promoting trade and investment in CSGTs and climate-

smart services. This study propose a Sub Regional partnership focus on increased cooperation in the promotion of trade and investment in CSGTs and climate-smart services. Here are some suggestions for this purpose: First, In the early stages, provisions on cooperation, liberalization and facilitation of trade and investment in CSGTs and climate-smart services could be incorporated within the framework of existing RTAs and economic partnership agreements (e.g. AFTA and large-scale bilateral FTAs such as the ASEAN China FTA).

Second, a sub-regional partnership cooperation in the area of Trade, could including the establishment of an emissions trading scheme (ETS). ETS is relatively successful in the European Union. A few countries in Asia have voluntary and limited (pilot) ETS or are studying the feasibility of introducing one, including Japan, Republic of Korea, China, Hong Kong and Indonesia. Bilateral ETS between Japan and Indonesia as well as Japan and Republic of Korea have also been proposed. From previous experience with such schemes, as a long-term strategy, ETS is relevant in the Borneo sub-region to promote trade and investment in CSGTs. As such, establishing a regional ETS in the Borneo sub-region may still be feasible in the long term, in the short-to-medium term, it is suggested that developing countries consider a combination of large-scale investments and active policy interventions with strong political and multilateral support by developed country governments, especially with regard to financial and technological transfers.³³ (United Nations, 2009).

Third, A sub-regional partnership cooperation in the area of investment in CSGTs and climate-smart services follows framework AFTA as existing RTAs and economic partnership agreements among South East Asia countries. No separate provisions on CSGTs or EGS would have to be made. As it will take time to arrive at a meaningful consolidation at the sub-regional level. For long-term goal, Borneo sub-region could establishing a comprehensive agreement and could include liberalize and facilitate investment in CSGTs and climate-smart services with the following elements: (a) Harmonization of investment regulations and incentives for climate-smart investment; (b) Accord pre and post-establishment MFN and national treatment for climate-smart investment from sub-Borneo countries; (c) Establish a regional credit guarantee facility for high-risk climate-smart investment; (d) Undertake joint climate-smart investment promotion and targeting activities; (e) Exchange lists of promoted climate-smart sectors/industries where sub-Borneo countries could encourage investments from other partner countries and initiate promotional activities; (f) Establish a joint database for supporting industries and technology suppliers among sub-Borneo countries and a database to enhance the flow of investment data and information on investment opportunities in Borneo sub-regional; (h) Establish a joint climate-smart investment promotion.³⁴

³³ UN (2009). World Economic and Social Survey: Promoting Development, Saving the Planet. Sales No. E.09.II.C.1. Available from www.un.org/en/development/desa/policy/wess/wess_archive/2009wess.pdf.

³⁴ ESCAP

Conclusion

Trade and investment played a decisive role in the economic development success of many economies in the south east Asia region, particularly in Borneo sub-region. Trade and investment are needed by these countries for the economic progress and welfare of their people. On the other hand, trade and investment have an indirect effect on climate change. They indirectly contribute to GHG emissions while investment in natural resource exploitation can also lead to GHG emissions, particularly when it involves deforestation, as forests act as carbon sinks. In this respect, we take into consideration the need of balancing between the opposing interests of economic development and environmental protection, and, respectively, those of trade and investment liberalization and sub region regulation.

Borneo's tropical forests have seen a decline of at least 30 percent over the past 40 years, including a decline in the number of carbon-rich peatlands that can store twice as much carbon as forests. Many factors have contributed to the problem, most notably are (a) overexploitation and the "business as usual" model; (b) mitigation efforts are domestic, and (3) The existing agreements between countries that are indirectly related to GHG emissions or climate change mitigation and are non-binding legal commitments.

Borneo's forests are of great importance to both local and global community well-being due to their potential for carbon sequestration and various other functions. Conservation of Borneo's forests and ecosystems is one of the most urgent priorities that need to be urgently implemented in the region. Not responding and our little action to deal with these existing problems will only put us at great risk to the global economy, environment, and climate.

In order to achieve these goals, the government of Brunei Darussalam, Indonesia and Malaysia to play their part in a global solution to climate change by introducing new policies in trade and investment. These countries must do more to shift the business-as-usual paradigm to a climate-smart Trade and Investment policies at the sub-regional level.

From the findings and discussions, this paper recommends as follow: First, In the early stages, provisions on cooperation, liberalization and facilitation of trade and investment in CSGTs and climate-smart services could be incorporated within the framework of existing RTAs and economic partnership agreements (e.g. AFTA and large-scale bilateral FTAs such as the ASEAN-China FTA). Second, a sub-regional partnership cooperation in the area of Trade, could including the establishment of an emissions trading scheme (ETS). Third, A sub-regional partnership cooperation in the area of investment in CSGTs and climate-smart services follows framework AFTA as existing RTAs and economic partnership agreements among South East Asia countries. For long-term goal, Borneo sub-region could establishing a comprehensive agreement and could include liberalize and facilitate investment in CSGTs and climate-smart services with the following elements: (a) Harmonization of investment regulations and incentives for climate-

smart investment; (b) Accord pre and post-establishment MFN and national treatment for climate-smart investment from sub-Borneo countries; (c) Establish a regional credit guarantee facility for high-risk climate-smart investment; (d) Undertake joint climate-smart investment promotion and targeting activities; (e) Exchange lists of promoted climate-smart sectors/industries where sub-Borneo countries could encourage investments from other partner countries and initiate promotional activities; (f) Establish a joint database for supporting industries and technology suppliers among sub-Borneo countries and a database to enhance the flow of investment data and information on investment opportunities in Borneo sub-regional; (h) Establish a joint climate-smart investment promotion.

References

- ADB, 2009, *The Economic of Climate Change in Southeast Asia: A Regional Review*, available on <https://www.adb.org/sites/default/files/publication/29657/economics-climate-change-se-asia.pdf>
- Borras et al., 2012; Woodhouse, 2012, "Land Grabbing and Global Capitalist Accumulation: Key Features in Latin America, *Canadian Journal of Development Studies*, Page 402-416
- Chakraborty and Mukherjee, 2010, "Application of Water Based - Ti)2 Nano-Fluid for Cooling of Hot Steel Plate", *ISIINTERNATIONAL* Volume 50 Issue 1 Page 124-127.
- Frankel, J.A., and D. Romer. "Does Trade Cause Growth?" *American Economic Review* 89(1999):379-99
- Hallam, 2009, "An evaluation of the Social and Emotional Aspects of Learning (SEAL) programmed: Promoting positive behavior, effective learning and well-being in primary school children, *Oxford Review of Education*, Volume 35, Issue 3, Page 313-330.
- IPCC, 2000. *Special Report on Emissions Scenarios*. A Special Report of Intergovernmental Panel on Climate Change (IPCC) Working Group III, Cambridge University Press, Cambridge.
- IPCC. 2007. *Climate Change 2007: Impacts, Adaptation and Vulnerability*. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. M. L. Parry, O. F. Canziani, J. P. Palutikof, P. J. van der Linden and C. E. Hanson, eds. Cambridge: Cambridge University Press.
- Merican et al., 2007, "Foreign Direct Investment and the Pollution in Five ASEAN Nations, *International Journal of Economics and Management* Volume 1 (2) Page. 245-261
- Sornarajah M, 2010, *"The International Law on Foreign Investment"*, Third Edition, Cambridge University Press, UK, Page. 48
- Tej, Y., Hegde, A., & Shetty, C. (2021). Functional and radiological outcome of single-stage surgical treatment of late presenting developmental dysplasia

- of the hip. *Journal of Natural Science, Biology and Medicine*, 12(2), 198-202. <https://doi.org/10.4103/jnsbm.jnsbm-13-21>
- Thriveni, R., Rukhsar, I., Ramesh, D. V., Patil, S., Byatnal, A., & Nair, D. (2020). Development and clinical evaluation of transmucosal mucoadhesive patch of lornoxicam for the odontogenic pain management: A preliminary study. *Journal of Natural Science, Biology and Medicine*, 11(1), 12-16. https://doi.org/10.4103/jnsbm.JNSBM_224_18
- UN ESCAP.2011. Climate-Smart Trade and Investment in Asia and The Pacific: Towards A Triple-Win Outcome. Available on <https://www.unescap.org/sites/default/d8files/knowledge-products/Studies%20in%20Trade%20and%20Investment%20No.%2073.pdf>
- World Bank, (2008), International Trade and Climate Change: Economic, Legal and Institutional Perspective, available on <https://openknowledge.worldbank.org/bitstream/handle/10986/6831/41453optmzd0PA101OFFICIAL0USE0ONLY1.pdf?sequence=1&isAllowed=y>
- You, S.-H., Yoon, M.-Y., & Moon, J.-S. (2021). Antioxidant and anti-inflammatory activity study of fulvic acid. *Journal of Natural Science, Biology and Medicine*, 12(3), 285-289. https://doi.org/10.4103/jnsbm.JNSBM_12_3_3