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Thailand's "Green Transition"

Implications of the EU Green Deal and improving
EU-Thailand Trade Relations

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Abstract

In terms of “Green transition” Thailand has become a leader in ASEAN. The country managed to keep up with demanding environmental and commercial international objectives by enhancing its energy efficiency, investing in renewables, and upgrading its electricity grid. Implemented in 2019, the EU Green Deal put forward additional legislation to ensure products on the EU market follow strict sustainability regulations through programs such as the Circular Economy Action Plan, or the Carbon Border Adjustment Mechanism. In order to deepen its economic ties with Brussels, Bangkok will therefore need to shift towards even greener production means. This remains particularly relevant in order to resume the signing of the 2013 EU-Thailand Partnership Cooperation Agreement and negotiations around a Free-Trade Agreement. This is to strengthen their respective economic, political, and trade ties, as well as to enhance cooperation in the areas of circular economy, plastic waste management, and the international bio-economy.

Keywords: *Green Transition, FTA, PCA, Thailand, smart grid, energy efficiency, renewables, Carbon Border Adjustment Mechanism, circular economy.*

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Thailand’s “Green Transition” and the implications of the EU Green Deal

In 2021 [Thailand exported](#) over 15.5 billion EUR worth of goods to the European Union (EU), accounting for 7.5% of the country's total trade volume. Exports mostly concern machinery, electronics, transport equipment, manufactured goods, and food products. While Thailand and the EU finalized a Partnership and Cooperation Agreement (PCA) in November 2013, its signature, as well as further EU-Thailand Free Trade Agreement (FTA) negotiations, were put on hold in 2014 following the country’s military take-over. Despite the two economies’ common project to strengthen their commercial ties, future trade agreements will no longer be concluded without taking into consideration issues such as circularity, decarbonization, or transitioning to a green economy. This is in line with the 2019 EU Green Deal, which advocates for Europe to become the first climate-neutral continent by 2050. Notably, the EU’s [Circular Economy Action Plan](#) (CEAP), and its [Carbon Border Adjustment Mechanism](#) (CBAM) intend to stimulate a green and sustainable EU economy. Green Deal initiatives will put forward additional legislation to ensure products on the EU market to be more durable, reusable, repairable, and energy-efficient, thereby introducing new eco-design requirements to create a new EU standard for sustainable products. Should Thailand wish to further its trade relations with the EU it will need to shift towards a greener economy, especially in view of potentially concluding mutually beneficial PCA and FTA agreements.

I. Shifting towards greener production

The pressing climate change effect

According to the [Global Climate Risk Index](#), Thailand is among the top 10 countries suffering from climate change, both in casualties and economic loss, accounting for about 0.89% loss per unit of GDP between 2000 and 2019. In 2050, even if the temperature would rise only 3.2 degrees Celsius, the Thai economy [could shrink](#) by nearly 44%. To address such challenges, Thailand has produced a “[Mid-century, Long-term Low Greenhouse Gas Emission Development Strategy](#)” under the Paris Agreement. Following this document, the country aims to peak its greenhouse gas (GHG) emissions in 2030, with the ambition to move towards net-zero greenhouse gas emissions as early as possible within the second half of the century, and towards carbon neutrality by 2065. This shift is ever more necessary when considering the Thai economy’s heavy export dependency, with exports accounting for more than one-third of GDP. Like many others, the country also suffers from the steep rise in energy prices enhanced by the war in Ukraine. As a net energy importer, it is difficult for Thailand to suppress such high prices, which is why it is focusing on [making progress](#) in

transitioning to cleaner forms of energy consumption. The current bout of high oil prices will likely [accelerate that trend](#), reinforcing the strategic necessity of moving even faster.

Green Transition

Bangkok did not wait to respond to this urgent need to transition to a green economy. Currently, [Thailand's economic development](#) follows the country's [12th National Economic and Social Development Plan \(2017-2021\)](#), extended to 2022. It is thereby adhering to the [National Strategy \(2018-2037\)](#), to the UN Sustainable Development Goals (SDGs), to a “sufficiency economy” philosophy, and to the [Thailand 4.0 policy](#) that aims to make the Thai industry create higher value-added products through high-technologies and innovation. The most important policy framework for climate change and green transition in Thailand at the moment remains the [Climate Change Master Plan \(2015-2050\)](#), which aims to set a long-term direction for industries to guide the development of sustainable plans of action. Further than that, the Thai government promotes a “bio-circular-green economic model”, also called “[BCG](#)”, aiming for inclusive and sustainable growth by capitalizing on the country's assets of biological diversity and cultural richness. Currently, this BCG program has a combined value of 3.4 trillion THB, accounting for 21% of GDP, and is expected to reach 24% of GDP in the coming five years. Based on structural and technical innovation, this BCG program tackles Thailand's ability to analyze the potential risks and future challenges of the ecological transition and to allow for “[comprehensive security](#)” in key industries, such as agriculture, tourism, and bioenergy. Concretely, this strengthens the capacity of local communities and optimizes the use of new technologies, as seen in the development of the [Thai Eastern Industrial Zone](#) in Chonburi in October 2020. This first bio-industrial zone, part of the Eastern Economic Corridor (EEC), helped farmers develop quality products, creating stable incomes while providing innovation in the bioindustry. By developing a national vision for Green Transition and following up on relevant projects in key industries, Thailand has thus proved its will to shift towards a more sustainable and ecological production.

EU-Thailand climate cooperation

The potential for climate cooperation between the EU and Thailand is extensive and already present in a number of fields. For instance, in 2019, the EU's “[Thailand Specific Initiatives Allocation](#)” represented a budget of 37.2 million EUR. In 2020 the European Commission launched a project of International Partnerships for Thailand called “[the Trade Related Technical Assistance Programme](#)”, with a budget of 3 million EUR, aiming to support inclusive and sustainable trade growth in Thailand while contributing to economic integration in the ASEAN region. Another project, for [Consumers and Retailers Driving Sustainable Food Market in Thailand](#) (with a budget of 2.0 million EUR) was also

implemented between 2018 and 2021 to increase consumers' demand for food produced with high environmental and social standard systems. Besides this, the EU and Thailand work together in the [International Urban and Regional Cooperation](#) (IURC), a program promoting multi-city cooperation on sustainable urban development. EU-supported projects are numerous and implemented [all across Thailand](#). They are primarily focused on the environment, climate change, trade, private sector development, as well as sustainable consumption and production. Nonetheless, climate cooperation often operates at the [EU-ASEAN level](#), notably through the 2020 PCA and the [Green Initiative in South East Asia](#) led by the Team Europe initiative (TEI). Extensive trade and partnership EU-Thailand agreements having specific requirements towards climate cooperation are yet to be implemented, and existing initiatives still remain connected to specific issues, lacking a global vision when it comes to climate change.

II. Leading Thailand's Green Transition

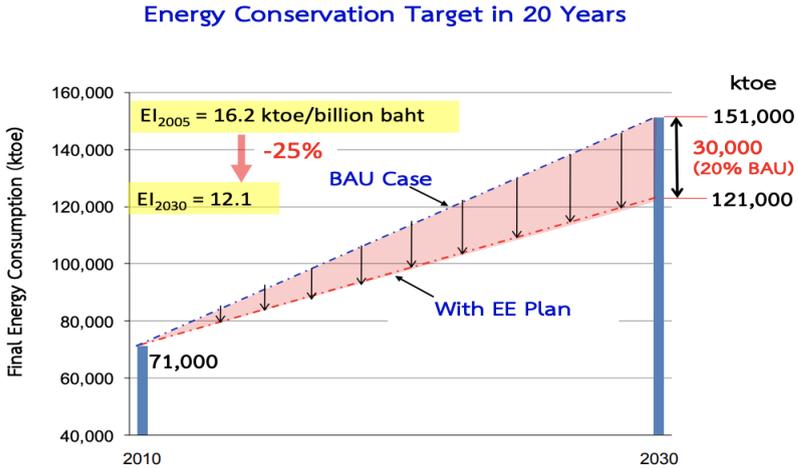
Thailand's paradox

Deputy Prime Minister and Minister of Energy Supattanapong [reaffirmed the commitment](#) to shift Thailand toward greener sources of energy to continue trading with its strategic partners. However, Thailand is currently facing a major paradox. Endeavoring to embark on a major energy transition, its fossil fuel consumption is still on the rise. The country's energy needs are growing faster than the creation of renewables such as wind, photovoltaic, or hydraulic power plants, causing a constant increase in greenhouse gas (GHG) emissions. According to the International Renewable Energy Agency (IRENA) report by the ASEAN Energy Center, Thailand has a massive demand for energy, projected to increase by 78% by 2036, with a GDP increase of 126%. The main sector responsible for this development is the transportation sector, which contributes to 38.40% of the final share of energy consumption today. It is closely followed by manufacturing, commerce, agriculture, construction, and mining. In 2020, most of the energy consumption consisted of "commercial energies" (energy sources exchanged in the marketplace with a specific price, for electricity production), amounting to 86.40% of total energy consumed. Of these, petroleum products accounted for the most significant proportion of consumption (48.00%), followed by electricity (21.67%), natural gas (6.40%), and coal and coal products (10.32%). Thus, if Thailand aims to succeed in its energy transition while also securing its energy supply, [the country must invest on three fronts](#): improve the country's energy efficiency to limit the increase in consumption, develop renewable energies to green its electricity mix, and equip itself with smart grids to receive more renewables and avoid wasting electricity.

Energy efficiency

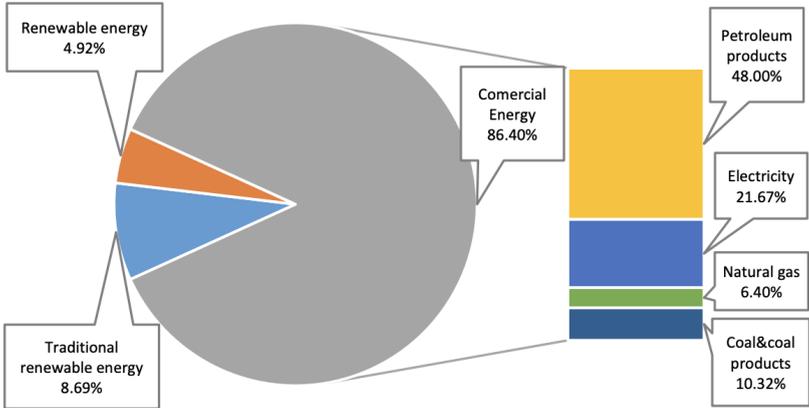
Energy efficiency (EE) is recognized as the lowest cost option to deal with energy-related challenges like economic growth, energy security, and climate change. Through the [Energy Efficiency Development Plan](#) (EEDP) and the Energy Conservation Act (ECA) target to reduce the energy intensity by 30% by 2036 (compared with 2010), Thailand aims to reduce its energy intensity and consumption. Transportation (13,400 kilotonnes of oil equivalent (ktoe) in 2030) and the industrial sector (11,300 ktoe in 2030) are the most important ones where energy conservation is tackled. The EEDP is aimed at reducing energy elasticity (meaning the percentage change in energy consumption to achieve a 1% change in national GDP) from an average of 0.98 in the past 20 years to 0.7 in the next 20 years. Its implementation will reduce cumulative CO2 emissions at an average of 49 million tons/year.

The Department of Alternative Energy Development and Energy Efficiency (DEDE) is the main organ implementing EE promotion policies, in order to provide financial incentives for clean energy investments. [The three different funds](#) called the Energy Efficiency Revolving Fund (EERF), Energy Service Company Revolving Fund (ESCO Fund), and DEDE Demand Side Management Bidding (DSM Bidding), deal with the modernization of buildings, infrastructures, and businesses in order to enhance EE. Thailand’s main objective when it comes to EE resides in promoting low carbon electricity generation and suppressing barriers to access financing. Through the EE Plan, Thailand hopes to diminish its final energy consumption by 20% in 20 years.



Renewable energy

Thailand’s alternative energy consumption has continued to increase since 2016. In 2018, it reached an increase of 10.78% from the previous year. In 2020, 13,61% of Thailand’s energy balance was composed of renewables, which is anticipated to meet Thailand’s rising demand in the coming years. The Thai Government has already revised its renewable energy targets in the Power Development Plan. As it stands, the proportion of renewable energy is set to increase to 50 percent of the fuels used for the country’s electricity production within 2040, up from the previous 37 percent goal. Furthermore, many corporations in Thailand [are already engaging in green business opportunities](#). For example, SPCG, BanpuNEXT, and B.GRIMM Power have invested in clean energy production businesses. PTT and Foxconn are also working together in their electric car industry, while Gracz is one of the leaders in the environmentally-friendly packaging sector. For the clean energy sector, the government will need to [overhaul currently outdated rules](#), notably on power selling and buying, in order to facilitate power trading, as well as to modernize and decentralize the grid system. The government should also invest more in research and development to reduce costs and increase public access to renewable energy, in particular by supporting green businesses through green procurements. Working more closely together with the corporate sphere and the local communities will be beneficial to enhance public-private partnerships, and thus embrace the full potential of Thailand’s green transition capacities.



Source: Energy Balance of Thailand 2020, Department of Alternative Energy Development and Efficiency

Improving the electricity grid

When it comes to the power sector, the Electricity Supply Industry (ESI) in Thailand is operated by three state-owned enterprises (SOE), creating centralized monopolies. With more clear rules and regulations of competition, the promotion of green post-pandemic recovery could be more viable. In the past, many attempts to pursue structural reforms in the electricity sector have failed. [Through restructuring](#) the electricity sector, new and more

efficient technologies, especially electric vehicles, smart grid, and smart meters, could be incorporated into the grid.

[According to the International Energy Agency](#) (IEA), Thailand's power sector has two main avenues of improvement to increase its flexibility and shift towards greener production. First of all, enhancing its technical flexibility through investment in flexible power plants, storage and distribution of energy resources, and its electricity network. Secondly, reforming its commercial and contractual structures, like power purchase agreements and fuel supply contracts by reformed legislation, will allow current flowing assets to be more flexible. Overall, investment in structural reform and qualitative infrastructures will therefore help support more efficient energy innovation projects.

Regional coordination with ASEAN countries

Further than developing its own energy policies, Thailand will need to work more closely with other ASEAN countries to turn its Green Transition into a success. Southeast Asia has a unique opportunity to advance its economy and establish its global leadership, notably by [constructing a regional low-carbon electricity grid](#). ASEAN countries can match extensive solar energy resources with advanced manufacturing capability for battery energy storage and electric vehicles, making them prime candidates to lead the global transition to clean energy. Yet, they will need to coordinate regionally and build further trust and dialogue. Multiple international organizations, such as the World Bank (WB) or the International Monetary Fund (IMF), have called for regional ASEAN green fiscal stimuli to ensure that the recovery from the COVID-19 pandemic aligns with international climate targets. Yet, the limited post-pandemic stimulus for green transition has been declared “[alarming](#)”, as meaningful structural reforms have failed to be implemented, meaning that ASEAN might miss this opportunity to sustainably rebuild their economy.

In this context, Thailand could be a leading power in the green transition. With its new [Energy Hub 4.0 Strategy](#), it has the potential to expand transmission interconnections throughout Southeast Asia and facilitate more efficient and low-carbon trade in electricity across countries, nonetheless tackling challenges such as substantial investments in qualitative infrastructure in order to do so. This could also be the case through the [Asian Cities Climate Change Resilience Network](#) (ACCRN). At the regional level, 18 cities in Indonesia, the Philippines, Thailand, and Viet Nam are investing in infrastructure to adopt clean, viable, and economical alternatives. The share of official development assistance (ODA) committed to green objectives is more significant on average in Southeast Asia than in the rest of the world. Thailand is leading among ASEAN countries when it comes to ODA, accounting for almost 40% of total aid to environmental investments, [notably through](#) the leverage of the private sector in renewable energy and energy efficiency. Thus, by relying on infrastructures and energy innovation programs implemented by ASEAN and the national

policies of its neighbors, [notably Viet Nam](#), Thailand could be at the origin of innovative energy policies, particularly in a context of opportunities opened up by the resumption of the post-pandemic crisis.

III. Implications for EU-Thailand trade relations

In what follows we will elaborate on [three important initiatives that should be taken into account](#) in order for Thailand to carry out business with the EU within the framework of the Green Deal – the legislative proposal for deforestation-free products, the Carbon Border Adjustment Mechanism, and mandatory social and environmental due diligence across supply chains.

On deforestation

The 2021 EU [regulation to minimize EU-driven deforestation and forest degradation](#) under the Green Deal, as well as the [proposition for a regulation](#) on deforestation free-products [imposes a duty of care](#) on operators who place specific goods or products on the EU market. This to ensure that the goods produced on land are not subject to deforestation or forest degradation after 31 December 2020 and have been produced in accordance with the laws of the country of production. This regulation becomes particularly relevant in Thailand, where deforestation is among the most intense in ASEAN. Between 1945 and 1975, forests decreased from 61% to 34% of the country's surface. In the following 11 years, Thailand lost 28% of the remaining forests, a loss of more than 3% per year. This deforestation is mainly due to agriculture, as well as the traffic of precious woods such as [rosewood](#). Forests are thus increasingly threatened by illegal deforestation, with a steep rise in China's expansive demand for precious wood since 2007. Notably, between 2017 and 2021, the EU Delegation to Thailand incorporated a 5 million EUR "[Global & Regional Projects Managed to Strengthen the Communities Voices for Improved Forest Governance in the Mekong Region](#)". The 5-year project aims to strengthen the voice of civil society in order to improve forest governance and sustainable forest management.

Even if the EU regulation on deforestation-free products is successfully implemented in the following years, Thai exports related to agriculture (rice, fruits, manioc, starches) and wood-based manufactured products, could still suffer from its consequences, notably by suffering from compliance costs linked to the establishment and operation of the diligence system and cost linked to transitioning to deforestation-free sourcing. This will lead Thailand

to enhance its supply chain traceability systems if it wants to reduce the impact of such legislation.

On managing the Carbon Border Adjustment Mechanism

As the Green deal provides for a reduction of [EU carbon emissions by 55%](#) in the next 10 years, carbon prices are likely to increase, leading to carbon leakage and relocation of industrial activity. To compensate, the Carbon Border Adjustment Mechanism (CBAM) is planning to put a levy on carbon-intensive imports, encouraging cleaner industrial production. Moreover, by implementing CBAM, [the EU deviates](#) from the “self-determined contribution framework” to an approach that features coercive pressures toward other nations. The implementation of a fully efficient CBAM would lead to significant logistical, legal, and political challenges. While developing countries under the General Scheme of Preference (GSP) benefit from [certain advantages](#) in order to trade under CBAM, Thailand, by becoming an upper middle-income economy, lost its GSP privileges in 2015 and will not be benefiting from it. Other large emerging economies like China, Brazil, and India have called it “discriminatory and [against the principles of equity and \[differentiated responsibilities and respective capabilities\]](#)”.

If fully implemented by 2023, [CBAM will have concrete implications for Thai exports](#), especially in steel, aluminum, plastics in primary forms, pulp, and paper sectors. In preliminary studies, when using Thailand-specific carbon intensities, CBAM costs amount to a total of 109 million EUR for the three sectors of steel, cement, and aluminum. When pulp and paper, and plastics in primary forms are also taken into account, the total CBAM cost amounts to 111 million EUR. Thus, in order to prepare for the legislation ahead, Thailand should comply with a stricter green transition, so as to prevent its carbon-intensive exports to the EU to be heavily impacted by the reform. To do so, Thailand can have two levers of action: either reduce the carbon consumption needed for its current exports or increase exports of low-carbon products to the EU. In both cases, building on the country's overall green transition will be essential to support its trade balance.

Social and environmental rules across supply chains

Last but not least, the EU will be imposing specific requirements on businesses to provide information on their social and environmental standards for sustainable production. Although Thailand has transitioned to a circular economy and already advanced cooperation with the EU on the Circular Economy Action Plan (CEAP) by sharing know-how, best practices, policies, regulations, and actions, it will be subject to the Sustainable Product Initiative (SPI). This initiative installs new eco-design requirements, like an improvement of

the [EU Product Environmental Footprint method](#) (PEF), as well as a new methodology for eco-design of energy-related products (MEErP), in order to measure the ecological impact of production. It also creates [new legislation](#), tracking recycled material in production, limiting single use, and banning the destruction of unsold durable goods. The CEAP has strong implications, notably for the electronics and ICT sector, accounting for [14% of Thai exports](#), as the CEAP plans new legislation enhancing the “[Right to Repair](#)”, and reviewing the directive on the [restriction of the use of certain hazardous substances](#) in electrical and electronic equipment.

If Thailand shifts rapidly toward a greener economy, it could lead to [increased opportunities for businesses and trade under the CEAP](#), and a leadership position in ASEAN when it comes to promoting sustainability. Indeed, as businesses will need to justify how sustainable their production is, by abiding by the EU rule, Thailand could become a major strategic trade partner in the region. Furthermore, Thailand would benefit from technological progress, as the EU is ready to support the country in terms of technical assistance toward green, innovative, and digital transition. This support can be provided through the [European Association for Business and Commerce](#) (EABC) in Thailand, supporting European initiatives on the ground, but also by providing the necessary resources on trade with the EU and the expected prerogatives.

Further implications for trade and partnership agreements with Thailand

The EU’s implementation of the Green Deal has put more and more incentives towards an ecological transition in Thailand by urging the country to submit to more demanding environmental and commercial objectives and conduct sustainable trade. Since 2019, Brussels and Bangkok have been trying to resume the signing process of the [already-prepared PCA](#), as well as negotiations around an FTA to strengthen their economic, political, and trade ties. This notably enhances cooperation in the areas of circular economy, plastic waste management, and the international bio-economy.

Nonetheless, in order to do so, Thailand and the EU will need to tackle a variety of issues before reaching an agreement. The EU is still reluctant to increase market access for agricultural and fishing products and beware of Thailand’s opaque government procurement procedures. If Thailand wishes to benefit from an FTA with the EU, largely reducing and eliminating tariffs as well as removing barriers to the movement of goods and services, Thailand will need to meet the EU’s higher regulatory standards. Indeed, the EU-Thailand FTA has gained [major criticism](#) from members of the European institutions, as well as international and Thai NGOs, trade unions, and companies (Human Rights Watch, Oxfam, Thai Labour Solidarity Committee) since 2019 and the beginning of the preparations for its

resumption. Especially, issues around [labor and environmental topics](#) are topical. In order to tackle this, ratification will be required of the ILO Convention No. 87 on Freedom of Association and Protection of the Right to Organise, and Convention No. 98 on the Right to Organise and Collective Bargaining, while bringing domestic labor laws in compliance with international conventions has been mandated. For the FTA negotiations between Thailand and the EU to be successful, it will be necessary to also ensure that sustainability provisions are well established, and that [sustainability impact assessments](#) (SIA) have been followed through the FTA to evaluate the potential economic, environmental, social, as well as human rights effects of a possible agreement.

That being said, an FTA agreement would grandly benefit Thailand's economy, boosting its exports by as much as 3.43 % per year and its [GDP by up to 1.63%](#). Yet, Thailand's booming industries include electronics, chemicals, rubber, plastic, and machinery, all of which will be severely impacted by further discussed measures of the Green Deal. Due to the high international demand, other Thai sectors might become more viable, like the [semiconductor](#) (where Thailand is the 10th largest exporter) or the [integrated circuits](#) industry (12th largest exporter). Innovation in the agricultural sector related to the previously mentioned "BCG" might also benefit Thai exports, as food exports are [expected to grow by 8.4%](#) in 2022, after an 11.8% increase in 2021. With trade prospects with the EU boosted by such an agreement, public and private sector leverage in the field of renewable energy, energy efficiency, or smart grid development will be increased by the private and public partners. This will emerge from a strengthening of trade links between the two entities, sustaining a virtuous circle of sustainable innovation.

The future of EU-Thailand trade relations is therefore substantially influenced by whether Bangkok continues its initiatives toward its Green Transition. On 20 June 2022, European Free Trade Agreement Association (EFTA) and Thailand formally [announced the resumption of negotiations](#) for an FTA between the parties, which were initially launched in October 2005 and put on hold since 2006. However, negotiations on a free trade agreement must take into account the impetus of the Green Deal and related new EU regulations. The preparatory documents for the drafting of an FTA clearly encourage the parties to further promote trade and investment for sustainable development. Both entities also commit to sustainable management of natural resources through specific provisions in areas such as forestry, biodiversity, fisheries and aquaculture, agriculture and food systems, and related trade. The EU-Thailand partnership will benefit greatly from this FTA, as it will give additional impetus to building a comprehensive trade vision between Brussels and Bangkok, and specific normative requirements around climate cooperation. In addition, it will also give incentives to Thailand to become a leader in "Green Transition" in ASEAN, thus allowing for greater coordination at the regional level, and strengthening trust and dialogue within the region..

Under the current conditions, it goes without saying that the signing of an FTA and a PCA is conditioned by the establishment of normative criteria, whether in the sector of the environment or in terms of labor and human rights. Thus, elements concerning the signature of international ILO conventions by the Thai regime also seem necessary to bring the negotiations to a successful conclusion. In order to sign an effective trade agreement, the EU must also engage internationally and find common ground to work with the political structures in Thailand. Nonetheless, it goes without saying that the future of EU-Thailand trade relations will be tinged with green, the question is how this will be leveraged.

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