

Synergising Growth Role of Regional Interconnectedness for Resilient Energy Security in Southeast Asia

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Abstract:

The Southeast Asian nations are confronted with a rapidly evolving energy landscape, characterised by increasing demand due to a rapidly growing population, vulnerability to external disruptions and several actors, and the imperative for sustainable development. This paper underscores the pressing need for resilient energy security within the Southeast Asian region. Addressing the multifaceted challenges of energy security requires a comprehensive approach that integrates technological advancements, policy frameworks, and collaborative efforts among the states in the region. The analysis delves into the diverse energy sources prevalent in Southeast Asia, emphasising the importance of diversification to enhance resilience. Emphasising on the need for regional interdependencies on the geopolitical, economic, and environmental dimensions that underscore the urgency for robust energy security strategies the paper explores the significance of regional integration theories making the above possible. Drawing upon case studies and current trends, the research underscores the significance of regional cooperation, information sharing, and infrastructure development as pivotal components in fostering tenacity. In conclusion, the paper tries to advocate for a collective commitment to building a resilient energy ecosystem in Southeast Asia through the regional organisation ASEAN, ensuring the region's sustained economic growth, environmental sustainability, and overall security in the face of evolving global energy dynamics.

Keywords: Southeast Asia, ASEAN, Regional Integration, Energy Security

Objectives:

1. To justify the scopus of regional integration and interdependency in ensuring a resilient regional co-operation and trust in Southeast Asia.
2. To analyse the need for persistent policies to ensure energy security in the face of challenges viz., domestic turbulence, policy shifts, technological and infrastructural developments and above all, environmental risks or threats.
3. To examine the paradigm of regional integration amongst the uncertainties of the challenges in Southeast Asia.

Introduction:

“By working together to transcend their differences, ASEAN member states have become a unique examp-

le of how different nations can come together to weave a shared vision.

External Affairs Minister Dr. S. Jaishankar, India (Keynote Address, ASEAN-India Partnership)ⁱ

Regionalism can be explained as the process that focuses on a pattern of mutual interdependencies of integration, cooperation, collaboration and convergence over matters of similar concerns and demands within a geographical region or cross-national boundaries. This process aims to set the wheels of regionalisation in motion. To understand the empirical reasonings of regionness, one has to trace back the conception of the core idea of the developmental regionalism given by prominent economic analysts like Viner, Meade, Asante and Inuma who connected the dots between the need for unionised economic relations with the motivation for integration in Africa, Europe and Southeast Asia respectively.ⁱⁱ We need to understand that these theories are no more static; even though advocating the dynamic building blocks of these theories such as, creation of unions for trade, barrier-less transaction, welfare-embellishing schemes etc. remain constant, the true nature of reasonability, sustainability and warranty of these blocks to remain in the harmonious regional relationship change with the changing international politics.ⁱⁱⁱ In the countries Europe, Africa and Southeast Asia, the paramount aim was and is to promote and petition for a peaceful regional economic development and cooperation by eliminating obstacles and identifying loopholes to the barrier free movement of goods and services and above all, factors of manufacturing production. Therefore this chapter will firstly, deal in justifying the scopus of regional integration theories given by prominent economic and political analysts of international relations through the lenses of Southeast Asia. Secondly, it will analyse the challenges the region faces in accomplishing its task to ensure energy security and sustainability in the face of the changing dynamics of regional politics. Lastly, this chapter will investigate the tenacity of the regional paradigm models established which has the capability to change the current regional power system.

Defining Region, Regionness and Regionalism:

Before delving into the theories of regional integration, one must briefly understand the nomenclature of region, regionness and regionalism. Joseph Nye has defined an international region as a limited number of states linked by a geographical relationship and by a degree of mutual interdependence. Regions are frequently understood as clusters of countries located in the same geographical space. Furthermore, most researchers have come to a consensus that a region claims to be more than just physical proximity; among some of the best-known research studies on geographical regions, for example, Russett (1967) defined a region based on geographic proximity, social and cultural homogeneity, shared political attitudes and political institutions, and economic interdependence.^{iv} Deutsch perceived the reason behind a comprehensive interdependence across multiple dimensions which included economic undertakings, divulgence, and certain political commonalities—as determining whether a group of countries composes a region.^v Thompson argued that regions included states that are geographically contiguous, interact comprehensively, and have a shared past and present over matters of various phenomena.^{vi} Hence, geography lies in the heart of these definitions. As per the tradition of linking economics and region-ness with the European Union, Hettne and Söderbaum having taken their inspiration from the theory of social constructivism, developed the concept which is frequently used in academia—‘regionness’.^{vii} This word was defined and advocated by Hettne and Söderbaum to justify a degree of sense of belonging from the people to the region that they lived in – in layman language, they claimed that regionness is what nationness is to the building of a nation. Hettne and Söderbaum then argued that ‘regionness’ is the most

essential variable to further regionalism and transform a nation-state into a regional state. The arbitrary nature of state boundaries, as underscored by numerous studies, extends its influence to the delineation of regional borders, prompting inquiries into their viability and legitimacy. When considering the intrinsic characteristics defining a region, the crucial aspect of interdependency poses a challenge in terms of both defining and quantifying its level. Effectively articulating and measuring the degree of interdependency becomes a significant yet creating an intricate undertaking in the discourse surrounding regional delineation. From the lens of international relations, Yoshimatsu (2008) has chosen to define regional integration pointing to the characteristics of the state behaviours in it, as “voluntary collective actions among states to resolve common regional problems that have the possibility of affecting the states’ sovereignty.”^{viii} Therefore, Nye’s definition of the term regionalism to be a/the formation of interstate associations or groupings on the basis of regions stands as a blueprint for the contemporary regional groupings since the end of the World War II and the beginning of a new globalised era.^{ix}

Countries in a region create a mutual interrelatedness and interdependencies to fulfil their socio-economic needs and demands. The leaders through the determinants of foreign policy create a medium of communication by establishing regional organisations to ensure a cordial government-to-government, business-to-business and people-to-people relations economically, socially, and politically. This is where the theoretical and practical stances of regionalism, regionness and regional integration expel its varied purposes through a prism. With the ever growing population, the demand for energy resources have brought countries to depend upon domestic and international cradles for consumption in various modes. Energy security has become a monumental theme in the contemporary energy discourse, with varying definitions reflecting its complexity. While there is no universally agreed-upon explanation, consensus acknowledges that the concept holds diverse meanings for different countries and energy systems. Numerous international institutions and development agencies have produced extensive research on energy security. One definition of energy security emphasises the “uninterrupted availability of energy sources at affordable prices,” providing a succinct interpretation accessible to the layperson.^x In contrast, another, more comprehensive definition, views energy security as the “ability of an economy to ensure sustainable and timely access to energy resources, with prices that will not adversely impact economic performance.”^{xi} The modern perspective advocates a holistic understanding of energy security, recognising its multifaceted connections to the economy on a national or regional scale.

Critical Theories of Regional Integration and its Discourse:

Among some of the noteworthy economic theorists who have written extensively on the nature and elements of regional economic integration, Jacob Viner in his book, *The Customs Union Issue* (1950) wrote in determination that trade creation leads to an increase in countries’ welfare, while trade diversion leads to a decrease.^{xii} However, Vinerian analysis was brought into a world where trade agreements were not considered to be “deep” enough as it dealt with only bilateral tariff liberalisation because the world was recovering from World War II. Today, these trade agreements have become significantly vast as it covers policy areas bilaterally and multilaterally with other regulatory bases. Another economist, Prof. J.E. Meade (1955), came to a conclusion that the benefits of regional integration among countries are expected to be higher when the initial tariff rates between these countries entering an integration agreement are higher.^{xiii} This implies that the more significant the trade barriers initially, the greater the potential gains from integrating their economies. Meade also acknowledges that the Regional Integration Theory (RIT) aims to explain the formation and development of regional international organisations (RIOs).

According to him, RIT outlines two primary approaches; the first being, the Intergovernmentalism Theory, under this perspective RIOs are established through intergovernmental agreements, where member states play a central role in the integration process. It emphasises the cooperation and coordination of national governments in achieving common goals. The second, Neofunctionalism Theory, posits that RIOs can be established through transnational bodies endowed with supranational powers. In this approach, there is a transfer of authority from individual nations to a higher, regional level. This process is driven by functional cooperation in specific areas, leading to increased integration. Prof. Meade insinuates that regional integration is a complex process where sovereign nations collaboratively create shared political, legal, economic, and social institutions for collective governance. By fostering collaboration and unity, regional integration aims to enhance overall economic and social cooperation among participating nations.

The postulators of the term regionness, in “Theorising the Rise of Regionness”, Hettne and Söderbaum (2000) critique traditional regionalism studies for being overly focused on creating a regionalist world order, neglecting the empirical aspect as a process leading to cooperation and integration within a cross-national geographical space.^{xiv} They argue that scholars often prioritise elite perceptions of regionalism over grassroots perspectives, hindering the understanding of why some regionalism efforts succeed while others fail.

The authors introduce the concept of “regionness” as a way to theorise regionalisation processes. Departing from global social theory, they move away from state-centrism and view regionalism as an independent phenomenon. Social constructivism helps conceptualise regions as continuously evolving, emphasising the role of non-state actors in regionalisation. This challenges the notion that the state alone drives regional integration. Furthermore, Hettne and Söderbaum propose “five phases of regionalism”, namely, regional space, regional complex, regional society, regional community, and region-state to understand the varying degrees of regionness in a regionalisation process. This innovative approach provides a comprehensive framework that considers the evolving nature of regions and the diverse actors involved, offering scholars a valuable tool for analysing and understanding regionalism beyond traditional state-centric perspectives

Samuel K.B. Asante in his chapter in the book, *Region-Building in Africa* advocated that the concepts of region-building and regional integration are not new and have been present in various forms throughout the 20th and 21st centuries within the international system.^{xv} Taking Africa as a testimony, he declared that these processes involve states coming together through agreements with the aim of fostering regional cooperation, often facilitated by the creation of institutions and adherence to shared rules. These agreements can have diverse objectives spanning economic, political, and environmental dimensions. However, regional integration, historically, has often taken the shape of a political economy initiative. In this context, the primary focus is on advancing commercial interests, where economic collaboration becomes a central means to achieve broader socio-political and security objectives, as outlined by the participating national governments. This regional integration, with its emphasis on economic cooperation, extends beyond mere economic considerations. It becomes a strategic tool for enhancing socio-political ties and addressing security concerns within a specific geographic region. As a result, issues that have international economic implications, such as the utilisation of shared natural resources, may become subordinate to the broader pursuit of regional economic associations among geographically proximate areas. In essence, region-building and regional integration represent dynamic processes where nations collaborate to create frameworks that foster not only economic development but also contribute to achieving wider political and security goals within a specific regional context.

Delving into the complexity of defining the concept of “region” in Southeast Asia, highlighting the historical and geopolitical factors that have shaped its understanding Takeko Inuma delineated the term “Southeast Asia” as a spatial unit which is a product of 20th-century world political history.^{xvi} During World War II, the Allies established the South East Asia Command (SEAC) for strategic purposes, marking the first time this geographical unit was recognised as a distinct entity. However, various names like “Southern Seas” from China and Japan, or “Further India” and the “Indies” from Europe, indicate that the perception of this area varied based on different perspectives. The ambiguity in defining Southeast Asia is evident in both historical and contemporary contexts. While the spatial demarcation may seem clear, there are practical signs of ambiguity. For instance, early in its formation, the Association of Southeast Asian Nations (ASEAN) rejected membership applications from Papua New Guinea and Sri Lanka, showcasing that regional identification is influenced more by international political relations than a geographically straightforward classification. Moreover, Southeast Asia is sometimes considered part of East Asia, adding another layer of complexity. Discussions on East Asian integration often encompass Southeast Asia, and ASEAN-related initiatives are integral to regional achievements. Inuma suggested that Southeast Asia’s categorisation and identification are not solely determined by geographical boundaries but are influenced by historical events, geopolitical relations, and the intricacies of regional politics. The ambiguity is further exemplified by the inclusion of Southeast Asia in discussions on East Asian integration and regional economic ties, emphasising the multifaceted nature of the region’s identity.

Correlating the Theories of Regional Integration with Energy Resilience in Southeast Asia:

“ASEAN occupies the pride of place in Asia’s institutional architecture and this centrality of ASEAN serves as a counter balance to the various great power concerts and rivalries that get played out in the region.”

-External Affairs Minister Dr. S. Jaishankar, India (Keynote Address, ASEAN-India Partnership)^{xvii}

As a foundation has already been laid on the technicalities, intricacies and norms of regionalism and at large, the process of regionalisation; affiliation and association on simpler to complex matters make a region unique, due to its demands. The success of Southeast Asia’s regional integration can be understood through the testimonies of the Association of Southeast Asian Nations. The Association of Southeast Asian Nations (ASEAN) consists of 10 countries namely Cambodia, Laos, Myanmar, Thailand, Vietnam, Brunei Darussalam, Malaysia, Indonesia, Philippines, and Singapore.^{xviii} ASEAN’s evolution almost six decades ago through the Bangkok Declaration, showcased a significant transformation from its origins as a loosely connected diplomatic alliance to a fully engaged regional entity with a strong focus on economic relations and integration. Initially established in 1967 with minimal institutional structure and a primary emphasis on peace and security in Southeast Asia, ASEAN’s early years were marked by political and security-related concerns, reflected in agreements such as the Declaration of ASEAN Concord and the Treaty of Amity and Cooperation (TAC). In the 1980s, ASEAN’s involvement in economic matters was limited, and intra-ASEAN economic cooperation was at a low-level equilibrium. However, the end of the Cold War in 1991 brought about a significant shift. ASEAN, adapting to the changing geopolitical landscape, transitioned from a politically-oriented coalition to an association with a strong economic imperative. This period saw the inclusion of new member states, including Vietnam, Laos, Myanmar, and Cambodia, covering the entire geographical area of Southeast Asia.

The 1990s marked a rapid move towards trade liberalisation, culminating in the establishment of the ASEAN Free Trade Area (AFTA) in 1992.^{xix} AFTA aimed at tariff reduction among ASEAN-6 and was completed ahead of schedule in 2003. The newer member states (CLMV) were expected to follow suit by 2015. ASEAN further strengthened its commitment to regional integration with the signing of the ASEAN Charter in 2007, which entered into force in 2008. In 2008, ASEAN adopted the AEC Blueprint, outlining the community's characteristics and goals. The AEC goes beyond trade and investment liberalisation, incorporating social equity aspects. Agreements such as the ASEAN Trade in Goods Agreement (ATIGA), enacted in 2010, reinforce initiatives for tariff reduction and contribute to the realisation of free flows of goods, services, capital, and skilled labour within the region. ASEAN's approach to cooperation has evolved from its earlier informal understandings, known as the "ASEAN Way", to more formalised agreements and schemes, reflecting a comprehensive and transformative process that has shaped the organisation's role in regional affairs. The economic development levels vary significantly among ASEAN countries, leading to diverse patterns of energy supply and demand. While the region is generally rich in various energy resources, their distribution is uneven. As population growth and energy demand rise, coupled with the depletion of existing fuel supplies, ASEAN nations must address the challenge of ensuring energy security within their individual contexts.

The ten countries of Southeast Asia have yet to achieve a compelling force to transform the global energy landscape as their gross energy demand is predicted to grow by two-thirds in the next 15 years. The paper released "ASEAN 2030: Toward a Borderless Economic Community", by the Asian Development Bank (ADB) Institute discussed a blueprint which visualised the mentality of "RICH ASEAN", meaning: to become assuredly the fourth largest economy by 2030.^{xx} With a sharp increase in population, the need for energy resources is essential. This demand can only be met with the appropriate policy guidelines, technological and infrastructural developments, and capacity building programs. Southeast Asia being one of the largest recipients of Foreign Direct Investments has seen around \$232-242 billion pouring in Vietnam and Indonesia, and an estimated \$153-164 billion in Malaysia and Singapore specifically into the green sector. The International Energy Agency (IEA) estimated that the FDI will see a rise of two-thirds by 2040.^{xxi} The ASEAN countries share the common obstacle of ensuring a sustaining energy security in light of complimenting the growing demand in a steady, cost-effective and resilient manner. The ASEAN region understands the three pillars- reinforcing regional energy trade, ensuring investment in renewable energy supply, and improving energy efficiency can aid them in ensuring energy security in these emerging economies.

ASEAN's Initiatives for Energy Cooperation and its Security:

"I believe it is important that ASEAN should continue to give key priorities to what I consider as the "Six P's... third, focusing on the PLANET, especially the environment, climate change and the green economy, which has gained great momentum in recent years, remains necessary to ASEAN."

H.E. Dr. Kao Kim Hourn (Secretary General, Association of Southeast Asian Nations)^{xxii}

To ensure a smooth supply of energy in Southeast Asia which includes both energy-exporting and energy-importing countries, ASEAN in 1997 had developed a framework known as Vision 2020 which aimed at ensuring energy cooperation through a dynamic economic relationship which would manifest into forging a close-knit developed region.^{xxiii} The vision emphasised for an improved energy collaboration through interconnected electric grids and gas pipelines in the region, placing a greater emphasis on renewable

energy and advancing energy efficiency. Consequently, the ASEAN Plan of Action for Energy Cooperation (APAEC) was established for the periods 1999–2004, 2004–2009, 2010–2015, and 2016–2025, with the current focus directed by APAEC 2016–2025. The APAEC is a comprehensive set of policy documents aimed at fostering multilateral energy collaboration to achieve the goals of the ASEAN Economic Community (AEC). This Community acts as a platform for cooperation within ASEAN, as well as builds a shared collaboration with Dialogue Partners (DPs) and International Organisations (IOs), to strive for energy security, accessibility, affordability, and sustainability in coherence with the AEC framework.

APAEC Phases:

1. **APAEC 1999-2004:** Aligned with the ASEAN Vision 2020, as a major component of the Hanoi Plan of Action it introduced six Programme Areas, namely: ASEAN Power Grid, Trans ASEAN-Gas Pipeline, Coal, Energy Efficiency and Conservation, New and Renewable Sources of Energy and Regional Energy Outlook, Energy Policy and Environmental Analysis; laying the foundation for robust policy frameworks and cooperative partnerships with DPs and IOs.^{xxiv}
2. **APAEC 2004-2009:** Aligned with the 2004 Vientiane Action Plan, notable achievements included the signing of the MOU for the ASEAN Power Grid and the introduction of the annual ASEAN Energy Awards. The Programme Area titled “Regional Energy Outlook, Energy Policy, and Environmental Analysis” transitioned into “Regional Energy Policy and Planning (REPP)”.^{xxv}
3. **APAEC 2010-2015:** Aligned with the AEC Blueprint 2015, achievements included the MOU between ASEAN and the International Energy Agency, extending the Trans-ASEAN Gas Pipeline (TAGP), and surpassing aspirational targets for energy intensity reduction and renewable energy share.^{xxvi}
4. **APAEC 2016-2025:** centered on short- to medium-term strategies under the theme “Enhancing Energy Connectivity and Market Integration in ASEAN.” Phase II (2021-2025) builds on this foundation with more ambitious goals and a new focus on “Accelerating Energy Transition and Strengthening Energy Resilience through Greater Innovation and Cooperation.” This phase takes into account the effects of the COVID-19 pandemic, global economic shifts, climate change, energy investments, and advancements in emerging technologies.^{xxvii}

This plan represents a strategic and evolving framework for ASEAN's collaborative efforts in the energy sector, adapting to contemporary challenges and fostering innovation and resilience for a sustainable energy future to achieve^{xxviii}:

- **Energy Security:** Southeast Asia is rich in natural resources and as per the 6th ASEAN Energy Outlook, the region is projected to heavily rely on fossil fuels despite a predicted rise in 768 million people by 2040. Therefore, for a secure energy supply, ASEAN must embrace various alternative resource options to levy the burden on non-renewable energy resources.
- **Energy Accessibility:** There have been continuous efforts by ASEAN Member States to achieve a 100% electrification ratio. Having proper access to energy is vital for economic and social development and clean cooking remains a challenge for ASEAN as they strive to achieve a transformation from traditional smoke stoves towards those which function on electricity, biogas, LPG etc.
- **Energy Affordability:** For the inhabitants of Southeast Asian countries, affordability is a key factor in ensuring a desirable quality of life. While fossil fuels currently dominate the energy supply, the

decreasing cost of renewable energy technologies provides an opportunity for a transition to cleaner energy at an affordable cost.

- **Energy Sustainability:** Sustainability, particularly in relation to climate change, plays a vital role in driving economic development. The electricity and transport sectors are significant contributors to CO₂ emissions, and without reductions, the region could face serious climate change impacts.

Some of the key achievements under the ASEAN Power Grid (APG) as part of the APAEC, was the Lao PDR-Thailand-Malaysia-Singapore Power Integration Project (LTMS-PIP) which facilitated the first successful multilateral power trade.^{xxix} The three countries agreed to increase committed energy capacity trading from 100 MW to 300 MW, with discussions ongoing for further expansion. Another successful project which advocated regional economic integration was the Trans-ASEAN Gas Pipeline (TAGP) program, wherein 13 interconnection pipelines with a total length of 3,631 km and nine LNG regasification terminals with 38.75 MTPA capacity links six ASEAN Member States. Prominent research efforts for this project include the Model LNG Sales and Purchase Agreement (SPA), the Gas Advocacy White Paper (GAWP), and analyses on small-scale LNG (ssLNG) and LNG bunkering. The Coal and Clean Coal Technology (CCT) initiative, the third successful project under the APAEC framework, focuses on expanding the use of cleaner coal technologies. By 2019, it achieved a total installed capacity of 10,021 MW through supercritical and ultra-supercritical coal-fired power plants. In Energy Efficiency and Conservation (EE&C), ASEAN achieved a 21% Energy Intensity reduction by 2018, surpassing the aspirational 20% target by 2020. Policy documents on harmonisation of Minimum Energy Performance Standards (MEPS) and guidelines for integrating energy efficiency into ASEAN Electrical and Electronic Equipment Mutual Recognition Arrangement (MRA) were endorsed. Initiatives on green building codes, zero energy building awards, and EE financing were promoted, along with publications like ASEAN Regional Efficient Lighting Market Assessment and ASEAN ESCO Report.

Within the framework of Regional Energy Policy and Planning (REPP), the ASEAN Energy Outlooks (AEO5 and AEO6) identified significant trends, and a Memorandum of Understanding (MoU) was established with the International Renewable Energy Agency (IRENA).^{xxx} The first ASEAN Energy Cooperation Report (AECR) showcased achievements, and a Capacity Building Roadmap on Energy Investments and Financing for ASEAN was developed. The Civilian Nuclear Energy (CNE) program emphasised capacity building in policy, technology, and regulatory frameworks. Publications include Pre-Feasibility Study on Establishment of Nuclear Power Plant and Study on Nuclear Legal and Regulatory Framework. Capacity-building seminars were conducted, and the ASEAN Nuclear Energy Portal was developed in 2020.

The APAEC 2016-2025 serves as a dynamic and evolving document designed to provide guidance for the effective implementation of outcome-based strategies and action plans. It aims to expedite the energy transition and bolster energy resilience within ASEAN, aligning with the overarching goals of achieving energy security, accessibility, affordability, and sustainability for all under the framework of the AEC. Building upon the foundation laid by APAEC Phase I: 2016-2020, the second phase, APAEC Phase II: 2021-2025, encompasses comprehensive strategies tailored to address the challenges presented by the evolving global energy landscape.

Challenges faced by the Southeast Asia in ensuring Energy Security:

Energy demand in the ASEAN region is expected to rise substantially, with the total primary energy supply anticipated to grow 2.5 times, from 621 Mtoe in 2015 to 1,544 Mtoe by 2050, at an average annual growth

rate of 2.6%.^{xxxix} The extensive reliance on fossil fuels is anticipated to remain high, as much as constituting around 80% of the total primary energy supply by 2050. This heavy dependence on fossil fuels, coupled with diminishing domestic reserves, may lead to increased imports at volatile market prices, raising serious concerns about energy security.^{xxxix} Furthermore, depleting domestic fossil fuel resources are expected to result in a growing reliance on energy imports among ASEAN member countries. The trend is particularly alarming for oil, as countries like Indonesia, Malaysia, Thailand, and Vietnam are expected to see significant increases in net oil imports. This heightened dependency on fossil fuel imports poses challenges to energy security, compounded by the inherent volatility of the oil market and contracts.

Internally, the energy issue presents a multifaceted challenge for ASEAN because it could either foster stronger regional unity and integration or potentially strain relationships among member countries. Externally, the rising energy demand from countries like China may exert competitive pressure on ASEAN unity, potentially leading some nations to favour trading outside the ASEAN bloc.

There are concerns regarding the threat to sovereignty related due to unresolved border disputes, especially in areas with potential energy sources like Philippines, Malaysia, Vietnam etc., kakistocratic leaders in Myanmar and its vulnerable domestic governance as well as a growing refugee crises with its neighbours, other environmental concerns such as energy efficiency, conservation, sustainability, and energy trade could benefit from enhanced ASEAN cooperation but may also become sources of disagreement and rivalry. Governments in Southeast Asia have committed to reducing dependence on fossil fuels and transitioning towards carbon neutrality. However, the International Energy Agency (IEA) warns that current policies may fall short of achieving these targets. Energy demand in the region has been growing, and three-quarters of this demand is expected to be met by fossil fuels, leading to a significant increase in CO₂ emissions in the environment.^{xxxix} The IEA emphasises the need for a transition to clean energy to address rising oil and gas prices, though short-term challenges which include increased energy costs and the need for greater fossil fuel stockpiles.

The IEA also recommends a substantial increase in investment in renewables, estimating a requirement of \$190 billion per year by 2030 for solar and wind capacity and grid improvements in Southeast Asia as there is a solar, wind, hydro and geothermal capabilities which needs to be harnessed. However, unpredictable regulations and restrictions on foreign direct investment are identified as impediments to private-sector investment. Additionally, there is a need for more flexible contracts with power generators to accommodate the variable nature of renewable energy generation. In Indonesia, for instance, solar energy costs could be substantially reduced with comparable investment and financing risks to those in advanced economies.

Suggestions and Conclusion:

The intricate dynamics of regionalism, regional integration theories, and their practical implications in the context of Southeast Asia reveal the multifaceted nature of collaboration among nations. As the region navigates through the complexities of energy security, sustainability, and resilience, the ASEAN countries stand at a critical juncture where concerted efforts are required to address the concerns presented by rapidly increasing energy demand. The theoretical foundations of regional integration, as discussed by scholars such as Viner, Meade, Asante, and Inuma, have provided a basis for understanding how economic relationships, political motivations, and geographic proximity contribute to the creation and development of regional entities. The concept of “regionness”, introduced by Hettne and Söderbaum, adds a layer of social constructivism, emphasising the evolving nature of regions and the role of actors in regionalisation.

Southeast Asia's journey towards regional integration, exemplified by the ASEAN community, reflects a transformative process from a politically-oriented coalition to an economically-driven association. The ASEAN Plan of Action for Energy Cooperation (APAEC) serves as a guiding framework, highlighting the region's commitment to achieving energy security, accessibility, affordability, and sustainability. The ASEAN countries have made strides in energy cooperation, exemplified by projects such as the ASEAN Power Grid (APG), Trans-ASEAN Gas Pipeline (TAGP), and efforts towards cleaner coal technology. The APAEC 2016-2025, with its focus on accelerating energy transition and strengthening resilience, represents a dynamic response to the evolving global energy landscape. However, the region faces significant challenges in ensuring energy security, given the projected increase in energy demand, over-dependence on fossil fuels, and the volatility of global energy markets. The need for diversification, adoption of renewable energy sources, and greater collaboration in energy trade are critical components of ASEAN's energy resilience strategy. Furthermore, unresolved border disputes, geopolitical tensions, and the imperative to balance economic growth with environmental sustainability cannot be overlooked. The reports released by the International Energy Agency (IEA) emphasise the urgency of transitioning to clean energy to mitigate the impact of rising oil and gas prices and meet carbon neutrality targets. Increased investment in renewables, flexible contracts, and regulatory reforms are identified as crucial steps in achieving a sustainable energy future.

As Southeast Asia grapples with the intricate tapestry of regionalism and energy security, the region's success lies in its ability to navigate these challenges collaboratively. ASEAN's role as a regional organisation becomes pivotal in fostering unity, innovation, and resilience to ensure a sustainable and secure energy landscape for the diverse nations it encompasses. The journey towards energy transition and regional integration in Southeast Asia is not only a strategic imperative but a shared commitment towards a future that balances economic development with environmental stewardship.

“ASEAN has always been at its very best when it works together collectively in the spirit of unity and solidarity, whether that be among its Member States or with its external partners. I am confident that if we stand united, act collectively and positively, and look after one another in the true spirit of amity and cooperation, there is nothing that ASEAN cannot achieve.”

-H.E. Dr. Kao Kim Hourn (Secretary General, Association of Southeast Asian Nations)^{xxxiv}

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