P11 / Just energy transitions in Southeast Asia: How to put “justice” into policy- and regulatory frameworks?

Topic : ENVIRONMENT, SDGs, ENERGY

Chair : Stefan Boessner (Stockholm Environment Institute)

Second Chair : Daniel Horn-Phathanothai (Chiang Mai University School of Public Policy)

GENERAL OBJECTIVES, RESEARCH QUESTIONS AND SCIENTIFIC RELEVANCE

Even though the “just” element of energy transition research and practice has increased in popularity recently, definition of what constitutes a just transition are still being debated (Heffron et al. 2024). Indeed, stakeholders in the Southeast Asian region often have diverging visions about how to implement energy transitions (Bößner, Fauzi, and Rimal 2023) and sometimes lack a good understanding about the “just” element of energy transitions (IESR 2024). Moreover, it is unclear how elements of justice and equity are reflected in current ASEAN energy policy and regulatory frameworks.

This panel’s objective is to bring clarity to the conceptual ambiguity of just energy transition and investigate how elements of justice and equity are reflected (or not) in current ASEAN energy policies. As a second objective, this panel will discuss how energy transition policies and regulatory frameworks can be made more robust and effective by integrating justice and equity considerations, with a view to identifying policy provisions that would be needed to facilitate a truly just energy transition. In doing so, the panel will assemble a variety of stakeholders including the private sector in order to discuss both policy needs but also showcase local, bottom-up solutions for just energy transitions.

The research questions are therefore as follows

1) What are the necessary ‘just’ elements of energy transitions in the Southeast Asian region?

2) Do current policies adequately reflect those elements of justice and equity in energy transition pathways? If not, what is missing?

3) And if not, how can elements of justice be mainstreamed into regional policy- and regulatory frameworks to facilitate a truly just energy transition?

4) What kind of success stories can we tell, of localized, bottom-up just energy solutions?

The fossil fuel-based energy sector is by far the largest emitter of greenhouse gases (GHG) and arguably the most important sector to decarbonize in order to meet the objectives enshrined in international law such as the Paris Agreement. However, decarbonizing the energy sector is only possible if a large coalition of stakeholders, including the private sector and civic society organizations (CSOs),is brought on board due to the decentralized nature of low-carbon alternatives. This can only be done with just and equitable approaches to energy transitions but understanding those approaches is still in its infancy. Therefore, bringing conceptual clarity to the issue of just energy transitions and designing policy and regulatory frameworks that support such a just and equitable approach is of utmost importance thus making this panel highly relevant not only from a scientific perspective but also from an implementation perspective.

CALL FOR PAPERS

We invite researchers, practitioners, private sector players, CSOs and development professionals to submit papers and/or abstracts of their work, responding to between one and all four research questions listed above. This description should contain the contact details of the corresponding author as well as the key messages and key insights of the paper and/or the research field the author(s) is/are exploring (min. 300 but max 600 words). Selected participants are expected to give a 10-20 minutes, in person presentation about their paper and/or their work during a moderated panel discussion in Jul 2024 in Chiang Mai, Thailand. People outside of academia like those working for CSOs, NGOs, International Organizations or the private sector are especially encouraged to submit a paper and/or abstract of their work. The panel selection will ensure a diversity of viewpoints will be presented.

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Session 1

Wednesday, July 2nd 16:00 to 18:00 (SME-F3)

Advancing Malaysia’s Electric Vehicle Ecosystem: A Critical Analysis of Current Policy Issues and a Strategic Roadmap to Address Societal and Environmental Challenges

Kogila Balakrishnan (University of Warwick)

Thirunaukarasu Subramaniam (Universiti Malaya)

Authors:

Hamid Moradlou[1], Thirunaukarasu Subramaniam[2], Marini Nurbanum Mohamad[2], Zakiah Syamra' Suhaimi[3] and Kogila Balakrishnan[1]

WMG, University of Warwick[1], Universiti Malaya[2] and National Defence

University of Malaysia[3]

The global transition toward electric vehicles (EVs) has become a pivotal strategy in mitigating societal and environmental challenges stemming from climate change, air pollution, and energy insecurity. For emerging economies such as Malaysia, this transition offers both significant opportunities—such as technological advancement, job creation, and emissions reduction—and complex barriers, including policy fragmentation and limited public charging infrastructure. Drawing upon the Sustainable Development Goals (SDGs), specifically SDG 7 on affordable and clean energy, SDG 9 on industry, innovation, and infrastructure, and SDG 11 on sustainable cities and communities, this paper examines Malaysia’s EV ecosystem through a socio-technical lens, integrating issues of societal equity, industrial competitiveness, and ecological stewardship.

This interdisciplinary research is to address a real-world problem in addressing the challenges with EV adoption in developing countries. This research will employ a pragmatic philosophical approach employing a multi-theoretical framework that includes technology management and developmental economics study relating to national innovation systems, Innovation Systems Theory, Technology Push vs. Demand Pull, Absorptive Capacity Theory, National Innovation Systems (NIS), Open Innovation, and Sustainability Theory, aims to diagnose the key policy gaps that hinder EV adoption in Malaysia. The research methodology combines document analysis, expert interviews, in-focus workshops, and comparative case studies, comparing Malaysia’s EV policies to best practices in the United Kingdom, China, and Norway. Findings emphasize the vital need for coordinated policy initiatives, public awareness campaigns, and industryacademia collaboration in strengthening infrastructure, capacity-building, and consumer engagement.

The paper aims to address the following research questions and objectives :

Research Questions

1. What is the current state of Malaysia’s EV ecosystem, including policies, infrastructure readiness and market dynamics?

2. What are the critical gaps in the EV adoption in Malaysia, particularly in terms of consumer awareness, financial incentives, infrastructure readiness and local manufacturing?

3. How do Malaysia’s policies compare top global best practises, and what lessons can be extracted to enhance Malaysia’s EV policy framework?

Research Objectives

1. To assess the current state of Malaysia’s EV ecosystem, including policy frameworks, infrastructure readiness, and market dynamics.

2. To identify critical gaps in EV adoption in Malaysia, particularly in terms of consumer awareness, financial incentives, infrastructure readiness and local manufacturing.

3. To benchmark Malaysia’s EV policies against global best practices and extract relevant lessons.

In response, a strategic roadmap is proposed, divided into short, medium, and longterm phases. This roadmap aims to bolster Malaysia’s absorptive capacity, cultivate open innovation partnerships, and develop inclusive policy measures that address both societal and environmental challenges. Ultimately, the paper offers targeted policy recommendations, urging policymakers, industry stakeholders, and communities to commit to a holistic approach in advancing Malaysia’s EV transition.

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Integrating Just Transition Principles into Private Financing Regulation: Insight from Assessing Indonesia Green Taxonomy 1.0

Sita Primadevi (Gnarly Tree Sustainability Institute)

Indonesia estimates the country's financing needs at an average of USD 27.3 billion annually through 2050 to fund its climate target. While public funding is limited to cover such needs, the country targets private investment to fill the gap. Although private sector investment has proven to contribute significantly to reducing emissions at the global level, studies show that private sector contribution still needs to be improved in addressing the Just Transition efforts. Some scholars argue that relying on private investment threatens just and equitable transitions due to the limited interpretation of just transitions in various private investment compliances. Therefore, this study examines the extent to which private investment regulations in Indonesia incorporate the narrative of Just Transition. This study focuses on Indonesia Green Taxonomy 1.0 as the only private investment regulation established to promote the Indonesia Sustainable Finance Roadmap developed by the Financial Services Authority.

This study offers three key contributions. First, it seeks to define the concept of a "Just Transition" in the context of financing regulation, as understanding its definition is crucial for integrating the concept into the green taxonomy framework. While scholars have proposed varying interpretations and definitions of Just Transition (Filipovi? et al., 2022; Bainton et al., 2021; Wang & Lo, 2021), this study develops a suitable literature framework to structure these definitions into three essential elements of a green taxonomy: targeted sustainability objectives, policy principles, and screening criteria for financing regulations (World Bank, 2022). The framework is constructed by reviewing two types of sources: 1) academic articles and books to build a conceptual understanding of the Just Transition definition, and 2) official documents on framework, policy, and regulation related to sustainability financing, which is crucial for drawing a more practical definition within regulatory and implementation frameworks.

Second, this study develops an analytical framework incorporating Just Transition financing principles to assess their clarity and integration within the Green Taxonomy. This paper established two scopes: (i) a

general scope that outlines the overall boundaries of our analysis, following the conceptual definitions of the just Transition; and (ii) a specific scope that focuses on operationalizing the general scope. The specific scope follows the essential elements defined in World Bank Guidelines for Developing National Green Taxonomy (See Hussain, 2020). These criteria guide the assessment of Indonesia's Green Taxonomy 1.0.

Third, the study assesses the Indonesia Green Taxonomy 1.0 and discusses the implications of its findings for advancing a Just Transition in Indonesia. While the findings suggest that Indonesia's Green Taxonomy 1.0 has not fully reflected the main principles of Just Transition, this study also highlights challenges in aligning private investment regulations with Just Transition principles. Given the critical role of green taxonomies in attracting investment and ensuring funding aligns with Just Transition goals, this study concludes with recommendations for operationalizing Just Transition definitions to optimize the private sector's role in supporting equitable transitions.

Achieving Just Energy Transition in Southeast Asia: Lessons from Thailand

Hataichanok Phongam (Salforest)

Siwat Auampradit (Thammasat University)

Itchaya Sengmee (Prince of Songkla University)

Achieving a sustainable energy transition in Southeast Asia requires not only technological and financial considerations but also the integration of justice and equity into policies and regulatory frameworks. This study explores the necessary elements of a just energy transition, evaluates whether current policies adequately reflect these principles, and proposes actionable pathways to mainstream justice into regional energy transition frameworks. Using Thailand as a case study, the research provides insights that can be extended to the Southeast Asian region.

The study adopts a mixed-methods approach, combining a literature review of just energy transition frameworks with in-depth interviews conducted with 22 stakeholders, including government representatives, energy operators, labor groups, financial institutions, NGOs, and energy experts. The analysis identifies four critical dimensions of justice—distributional, procedural, recognition, and restorative justice—as essential components of a just energy transition.

Results indicate that while current policies in Thailand fall short in addressing justice and equity comprehensively, several gaps emerge. These include (1) inadequate compensation mechanisms for workers affected by the transition, (2) limited participation of marginalized groups in decision-making processes, and (3) insufficient safeguards to ensure socially responsible renewable energy projects. Procedural and recognition justice remain underrepresented in policy frameworks, leaving vulnerable communities at risk of exclusion or disproportionate burdens.

To address these deficiencies, the study recommends mainstreaming justice into policy and regulatory frameworks by establishing participatory platforms to incorporate diverse stakeholder input, strengthening social safeguards for vulnerable groups, and embedding justice dimensions into the design and evaluation of renewable energy projects. The research also highlights the potential of community-driven renewable energy initiatives as models for integrating equity into energy transition policies, particularly when aligned with local needs and contexts in Southeast Asia.

This research underscores the importance of embedding justice principles into energy transition policies, demonstrating that it is both necessary and feasible. By addressing distributional, procedural, recognition, and restorative justice, Thailand and other countries in Southeast Asia can ensure that energy transitions are not only environmentally sustainable but also socially inclusive. These findings provide policymakers with practical recommendations to bridge existing gaps and create frameworks that enable a truly just energy transition, ensuring no one is left behind.

Energy Transition Policies in Southeast Asia and China: Scoping out the ‘just’ aspect

Stefan Boessner (Stockholm Environment Institute)

Huiling Zhu (stockholm environment institute)

Authors: Stefan Bößner; Huiling Zhu; Carly Deitsch; William Babis

The rapid adoption of renewable energy, driven by the urgent need to address climate change and meet the 2030 SGD targets, has recently spurred debates about how “just” those energy transitions are (and need to be) to ensure that the transition is not only combating climate change but is also benefitting the most

amount of people. Despite the growing focus on justice in energy transitions, there is no universally accepted definition of what constitutes "justice" in this context. Furthermore, it remains unclear whether national policies and development plans explicitly address the need for a just energy transition. This paper seeks fill this gap by answering two key questions: 1) How can we assess the element of justice in energy transitions? And 2) how are those elements of justice reflected in national policies?

Based on desk research and a scoping literature review, this study attempts to address the first questions by providing an indicator framework, encompassing 18 indicators categorized in eight key themes: 1) Labour justice, 2) Energy justice, 3) Environmental justice, 4) Procedural justice, 5) Recognition justice, 6) Restorative justice, 7) Distributional justice, and 8) Structural reform justice. Then, to answer the second question, we use an AI powered tool to perform a policy analysis based on a multi-criteria assessment (MCA) approach to investigate, how those 18 indicators are reflected in policies of selected ASEAN countries plus China. With the initial framework provided for measuring the justice elements in energy transitions, the paper aims to be a reference for policy makers, international organizations to unpack the dimensions on “justice” energy transition and adopt this framework to explore countries’ performance in achieving a fair and equitable energy transition.

Our initial findings indicate that 1) all the countries acknowledge justice elements across the 8 themes in one form or another 2) However, while each country has one or two better performing policies, overall scores remain rather low. For instance, each country falls significantly short of reaching even 50% of the maximum possible score. 3) We therefore conclude that based on our scoping study, elements of justice on energy transition pathways could be strengthened in ASEAN and Chinese policies.