ASIA NETWORK FOR PEOPLE'S ENERGY

OXFAM

Just Transition in Southeast Asia:

Advancing People-centered and Equitable Transformation in the Agriculture and Transportation Sector

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About the Asia Network for People's Energy

ASIA NETWORK
FOR PEOPLE'S ENERGY

The **Asia Network for People's Energy (ANPE)** is a network that aims to convene civil society organizations (CSOs) from the Southeast Asian Region to address just energy transition (JET) gaps and challenges at the country level with perspective and purposeful actions at the region.

The Network adheres to its three main pillars of (a) Network Building, (b) Learning and Campaigning, and (c) Resource Mobilization. These main pillars shall be the overarching basis of the work to be done by the Network and specifically on the following objectives:

- Influencing member states of the ASEAN and other relevant regional bodies on JET.
- Changing and influencing narrative(s) on energy transition towards social, economic, and ecological justice.
- Expanding civic spaces and the role of CSOs, particularly women's and gender equality rights, youth, indigenous peoples, people with disabilities, etc., towards inclusive, sensitive, and accountable public and private processes on JET.
- Increasing capacity and knowledge of CSOs, communities, and other stakeholders on climate justice, renewable energy, and just energy transition.
- Pooling of resources to support grassroots-led campaigns and initiatives towards JET.

Executive Summary

Southeast Asia is a significant emitter of greenhouse gases, necessitating a shift towards sustainable and less carbon-intensive practices to combat climate change. The region faces formidable challenges in transitioning economies away from fossil fuels while promoting economic development and reducing emissions. A fast, just, and transformative transition strategy is imperative to ensure that the transition does not exacerbate existing inequities and environmental issues.

This report delved into the challenges and opportunities for just transition in Southeast Asia's transport and agricultural subsectors, given that together, these sectors contribute twenty four percent (24%) of total emissions in the region, and interventions to decarbonize these subsectors are beginning to take shape. This study: (1) assessed the extent to which current policies, practices, and initiatives in the region related to transport and agricultural subsectors incorporate transition principles, and (2) proposed recommendations for a more inclusive and transformative transition.

Through a qualitative study design involving desk reviews, key informant interviews, case studies, and thematic analysis, the report emphasizes the need for concrete mechanisms to operationalize transition principles, as most policies are deemed narrow and incremental rather than transformative. While some initiatives mention aspects of social inclusion, there is a lack of comprehensive provisions for distributional impacts and transformative intent. Women and other marginal groups in the region encounter structural barriers that hinder their participation in just transition decision-making processes. Addressing gender-specific challenges and promoting inclusivity are essential to a just transition strategy to ensure equitable outcomes for all impacted stakeholders.

Recommendations include the need for more specific measures to empower marginalized groups, promote community-led initiatives, and ensure broader stakeholder engagement. These include:

- In the agriculture subsector,
  - recognize unique perspectives, traditional knowledge and sustainable practices, and actively engage marginalized stakeholders
  - provide comprehensive and proactive support mechanisms (e.g. financial support, subsidies, technical assistance) for anticipated economic losses that the shift in agricultural practices or reliance on carbon-intensive inputs may pose
  - design strategies that address cross-cutting issues—addressing both food security and rural development and just transition and sustainable development

- In the transportation subsector,
  - engage public transportation stakeholders in designing environmentally sustainable and socially equitable policies to promote sense of ownership
  - provide comprehensive and proactive support mechanisms (e.g. retraining, reskilling and upskilling programs, transitional assistance) to minimize negative economic impacts and foster skilled workforce
  - develop transformative systems that prioritize public transportation, active mobility (such

as walking and cycling), and electrification of vehicles while ensuring accessibility and affordability

Policymakers are urged to prioritize transformative intent, social inclusion, and distributional impacts in energy transition policies to achieve a just transition in the region, in particular:

- Regional-level actors, including regional multilateral development banks, should promote cooperation and incorporate just transition and feminist principles in its existing regional frameworks, initiatives and financial interventions.
- National and local governments should lead in setting clear plans incorporating just and feminist principles, ensuring effective consultations and meaningful engagements and participation with the private sector, civil society and local communities. These should also be coupled with capacity-building and information dissemination interventions for civil society actors.

Non-government stakeholders should be able to identify alignment with respective agenda and priorities, which is possible once universal definition or principles of just transition are established, championed and institutionalized across various levels. Towards this end:

- Regional civil society groups and networks should utilize its resources, convene, influence and facilitate knowledge exchanges and dialogue on just transition issues, and extend constituency beyond the usual stakeholders in the power sector.
- Civil society organizations (CSOs) should continue to actively advocate for fairness, equity, and gender-transformative approaches in energy transition policies, initiatives of state and non-state actors, and monitoring and evaluation.
- CSOs should also provide capacity strengthening initiatives, including emerging topics related to just transition, to impacted communities, empowering them to understand and assert their rights, improve decision making capacities, engage in decision-making processes, and champion just transition in their localities.

Abbreviations and Acronyms

ADB	Asian Development Bank
AFOLU	agriculture, forestry and other land use
AIIB	Asian Infrastructure Investment Bank
ANPE	Asia Network for People's Energy
ASEAN	Association of Southeast Asian Nations
AMS	ASEAN member states
AP	Asia and the Pacific
APEC	Asia-Pacific Economic Cooperation
BCA	biological control agents
CGIAR	Consortium of International Agricultural Research Centers
CIPP	Comprehensive Investment and Policy Plan
CO2	carbon dioxide
COP	Conference of Parties
CPWF	Challenge Program on Water and Food
CSA	climate-smart agriculture
CSOs	civil society organizations
EIA	environmental impact assessment
EITI	Extractive Industries Transparency Initiative
EV	electric vehicles
GDP	gross domestic product
GHG	greenhouse gases
GGKP	Green Growth Knowledge Partnership
ICE	internal combustion engines
ILO	International Labour Organization

IP	Indigenous Peoples
IRID	Indonesia Research Institute for Decarbonization
JET	just energy transition
JETP	Just Energy Transition Partnership
JT	just transition
JTI	Just Transition Initiative
JTF	Just Transition Framework
KI	key informants
KII	key informant interviews
LBP	Landbank of the Philippines
LGU	local government units
NCCAP	National Climate Change Action Plan
NDC	Nationally Determined Contributions
NGA	national government agencies
OGP	Open Government Partnership
OPH	Oxfam Pilipinas
PUV	public utility vehicles
PUVMP	Public Utility Vehicle Modernization Program
RE	renewable energy
SEA	Southeast Asia
tCO2e	tons of carbon dioxide equivalent
UNFCCC	United Nations Framework Convention on Climate Change
UP-CIDS	University of the Philippines – Center for Integrative and Development Studies

Introduction

Southeast Asia is arguably one of the world's most economically, socially, and politically dynamic regions. Members of the Association of Southeast Asian Nations (ASEAN) have a combined gross domestic product of $3.7 trillion (World Bank, 2022) –the 5th largest economy in the world and are projected to be the 4th by 2030 (Allurentis, 2022). It has a population of 670 million and trails only behind India and China. This newfound economic prosperity and growing population comes at a cost. Southeast Asia is a major emitter of greenhouse gases (GHG) and is among the world's top contributors[1]. In 2020 alone, the region released 3.6 billion metric tons of carbon dioxide (Climate Watch, 2023), led by Indonesia, and Thailand, as shown in Figure 1.

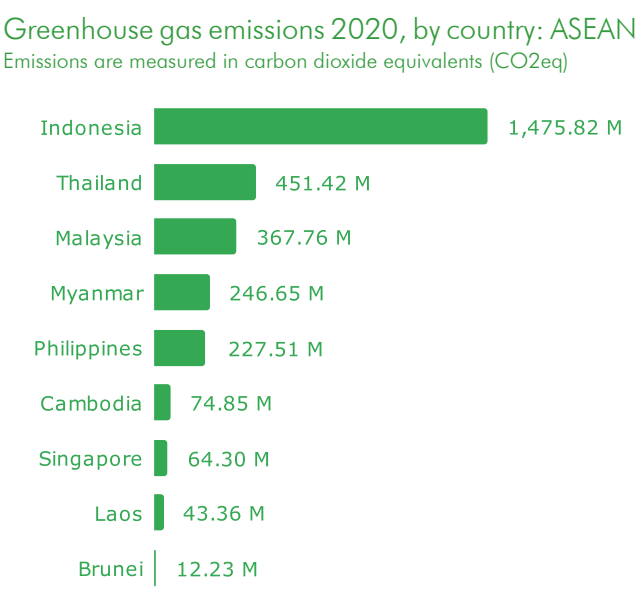


Figure 1. Greenhouse gas emissions 2020, by country

ASEAN faces significant challenges in transitioning its economies away from fossil fuels. Despite the region's stellar economic growth over the last two decades, the average gross domestic product (GDP) per capita income in the region in 2021 was USD 4,392, excluding small, high-income ASEAN Member States (AMS) Singapore and Brunei. This figure is lower than the global average of USD 12,364. The average debt-to-GDP ratio among the governments in the region is 61% (International Monetary Fund, 2023). A higher rate means that debt repayment has a higher share of the government's annual budget. This vulnerability is further compounded by the fact that countries in the region are among the most vulnerable to climate change impacts.

According to the Global Climate Risk Index 2019, Myanmar, the Philippines, and Thailand are among the ten countries in the world that have suffered the most in human and material terms from climate-related weather events over the last 20 years (Eckstein et al., 2018). Women in the region face numerous structural obstacles that impede their full potential. As cited in an International Labour Organization (ILO) and Asian Development Bank (ADB) (2023) research, women in Asia and the Pacific (AP) work longer hours than women in other regions, when both paid and unpaid work are considered.

[1] Around seven percent (7%) of the world's total emissions in 2020 comes from the ASEAN region. In terms of per capita emissions, compared to the world's 6.07 tons of CO2 equivalent (tCO2e), the ASEAN region averages to 8.30 tCO2e—Brunei with the highest (27.31), followed by Singapore (11.30), Malaysia (10.97), Thailand (6.32), Laos (6.0), Cambodia (4.67), Myanmar (4.16), Indonesia (5.45) and Philippines (2.02).

Southeast Asia is facing a critical juncture with its rapidly growing economy and population. Given this context, a transition and low-carbon growth strategy that promotes economic development while prioritizing sustainability and reducing greenhouse gas emissions and environmental impact is needed. This demands a transition that ensures equitable and inclusive development and addresses the needs of all stakeholders including workers, women, communities, and businesses.

Just Transition

The literature review examines existing studies, with a specific emphasis on decarbonization efforts in the transportation and agriculture sectors, mostly in Southeast Asia. It also includes relevant international studies beyond the region.

Building on the work of ILO and as cited in Oxfam's research report (2022), there are four justice principles needed to be applied towards an economically and socially just transition between countries and social groups, as shown in the table below.

In a systematic review of just transition (JT) by Stark et al. (2021), it was found that the literature strongly emphasizes the distributional justice dimension of transitions compared to other forms, such as recognitional and procedural justice. The same study highlights the need for more research on the mechanisms, drivers, and governance components of JT that facilitate broader participation, stakeholder engagement, policy development, and policy implementation, which have received comparatively little attention so far. Furthermore, this study emphasizes the need for policy interventions to address worker redundancy, reskilling, education, and regional development.

Table 1. Four Justice Principles to ensure an "economically and socially just transition". Source: Oxfam, 2022.

Recognition-based justice	requires that the rights, concerns of, and injustices experienced by, affected marginalized economic and social groups are recognized and addressed.
Procedural justice	requires that affected people have a meaningful say in the design and implementation of transition policies and projects, including the right to Free and Prior Informed Consent, to freedom of association, to organize and to protest, among others.
Distributional justice	requires a fair distribution of the responsibilities, costs and benefits of climate/energy action across different economic and social groups and protects the right to life, right to land, decent work, a healthy and clean environment and health and safety, among others.
Remedial justice	requires that people and communities negatively affected by the energy transition are fairly compensated. These issues are critical to workers, communities, and all people affected by the climate crisis and energy transition but often neglected or ignored.

Just transition in Southeast Asia

Bosello et al. (2016) provided an in-depth analysis of the economic implications of policy options for low-carbon growth in Southeast Asia, focusing on five developing countries: Indonesia, Malaysia, the Philippines, and Thailand. The study found that achieving low-carbon growth in Southeast Asia will require significant policy changes, economic transformations, and a combination of carbon pricing, renewable energy (RE) policies, and energy efficiency measures. These recommendations are followed by a report published by Oxfam International (2023), which emphasizes the urgency for AMS to break their dependency on coal and accelerate decarbonization by 2030 to align with global climate goals. Oxfam also highlights the need for market reforms to enable fair and open competition for energy generation, and stresses the importance of a human-centered energy transition that ensures equal sharing of benefits and risks while empowering community-owned energy systems.

At the national level, the Country Climate and Development Report of the World Bank Group for Indonesia and the Philippines provides an in-depth analysis of the challenges and opportunities these two countries face in decarbonizing their economies. The Indonesia Country Climate and Development Report highlights key challenges, such as the intertwined nature of climate issues with the country's growth and development trajectories, and emphasizes the urgent need to address city planning, fiscal policy distortions, underinvestment in green projects, and the remaining gaps in forest and land use policies and finance (World Bank, 2023). Meanwhile, the Philippine Country Climate and Development Report identifies key challenges, such as the limited coordination and implementation of climate actions at various levels of government, as well as the need to strengthen the financial sector's capacity to offer green financing and protect itself from climate and disaster risks (World Bank, 2022). Recommendations from the report include improving the coordination of climate actions at all levels of government, strengthening the capacity of financial sector regulators to integrate climate risks, and mainstreaming climate considerations in public expenditures to ensure that they contribute to climate action.

Decarbonization in the agriculture sector

In the agriculture sector, Svensson's (2021) framework for low-GHG development pathways in agriculture, forestry, and land use (AFOLU) tackles a critical gap in the existing literature by introducing a comprehensive approach that not only addresses emission mitigation strategies but also incorporates a driver-oriented perspective[2]. Concurrently, Gonocruz et al.'s (2023) study of agrivoltaics in the Philippines sheds light on the impact of integrating solar energy with agricultural practices. This study models the potential of agrivoltaics and batteries to enhance rural electrification and reduce carbon emissions. At the regional level, Panda and Yamano's (2023) exploration of Asia's transition to net-zero emissions in agriculture identifies key challenges and opportunities in decarbonizing the sector and highlights the importance of developing strategies that are pro-growth, pro-poor, and capitalize on the region's progress in sustainable development. Finally, Zhou, Chen, and Chen's (2021) study underscores the vulnerability of East and Southeast Asia food systems to climate change, highlighting climate-induced losses on rice and crop yields, aquaculture

[2] A driver-oriented perspective is an approach that identifies the key factors that drive GHG emissions including socioeconomic and technological factors with the aim of developing targeted strategies to mitigate emissions.

and marine production (among others) due to extreme weather events. Value chain vulnerabilities, including disruptions in trade flows, challenges in rural infrastructure, energy networks and telecommunications, and food access that leads to food poverty and income reductions were also identified. The study further recognized the role of climate-smart agriculture and public financing in building climate resilience.

Decarbonization in the transport sector

Studies in the transportation sector have highlighted the importance of a comprehensive and coordinated approach involving multiple stakeholders to achieve meaningful and sustainable changes in the transport sector. Emodi et al. (2022) conducted a systematic literature review on decarbonization in the Global South and found that decarbonizing the transport sector faces challenges associated with government revenues reduction from petroleum and fuel taxes and funding of transition policies, such as electric vehicle (EV) subsidies.

Similarly, Dixon et al. (2022) recommend innovative financing, integrated governance for better coordination between the transport and electricity sectors, and long-term policy planning to create an enabling environment for a low-carbon transport sector. Zhang and Zhang (2021) analyzed long-term deep decarbonization pathways in the transportation sector and developed a model that reflects the dynamics of travel demand, energy consumption, and emissions in an urban setting. This study found that working from home, online shopping and a bike-friendly infrastructure can reduce energy consumption and carbon dioxide emissions.

Gota and Huizenga (2023) further argues that decarbonization of the transport sector in Asia *"requires systemic transformation"*, which should be initiated through actions towards efficient land use planning towards "compact cities", growth reduction of vehicle ownership, capitalizing on digitalization, shift towards active and shared mobility, public transport, and rail, phasing-out of fossil fuels, and transitioning to zero emission transport technologies.

Gender and just transition

Studies have also linked the importance of gender to energy transition processes. A synthesis of the reviewed literature on this topic underscores the interconnectedness of feminist principles[3], the just transition to a low-carbon economy, gender mainstreaming in transport policies, and gender-responsive green growth strategies.

Fernandes (2021) emphasizes the disproportionate impact of the current energy system on women and the need to integrate feminist perspectives in the energy transition and to shift from extractivist economic models to more sustainable and circular models. A discussion paper by Acha (2016) elaborates on this and highlights the need for gender quotas for the RE sector, inclusive work environments, and gender-just solutions to promote gender balance and support female workers.

[3] Some of the references on feminist principles available at Oxfam's platform are: Feminist Principles; and Oxfam's Guide to Feminist Influencing.

Similarly, a working paper by Ngum and Kim (2023) provided guidance for practitioners and policymakers to assess, identify, and implement interventions to achieve a gender-just energy transition, including the need for gender-transformative energy policy and regulation, and the generation and dissemination of data and knowledge for gender-transformative solutions. Ng and Bassan (2022) emphasized the need for gender mainstreaming in transport policies and decision-making processes to ensure that women's unique needs and perspectives are considered. It recommends increasing awareness of the intersection between gender, transport, and climate change policies, conducting gender-based analysis in designing policies related to decarbonizing the transport sector, and creating collaborative platforms for stakeholders to share knowledge and best practices.

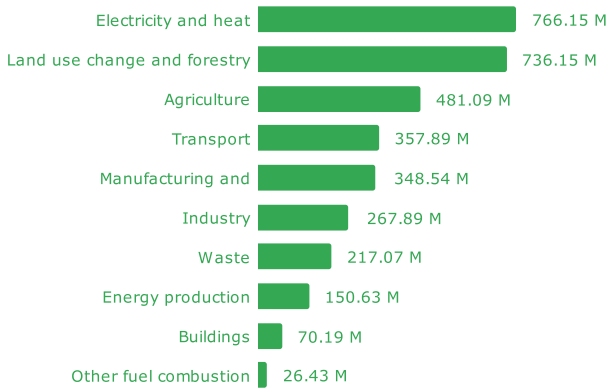
The Asia Feminist Coalition (2023) emphasized the need for a feminist just energy transition that addresses gender issues in public transportation planning, care-sensitive policy frameworks, participation in governance and accountability mechanisms for RE projects and transition investments, scaling-up of international climate finance with gender equality as a deliberate objective and advancing debt cancellation to enable fiscal space for gender-transformative initiatives on JET. In the agriculture sector, rural-to-urban migration creates "feminization" of agriculture in some countries (Bacud et. al, 2021; as cited by Yi-Chen et. al, 2022) which leaves double burden to women as they navigate between their domestic work and wage-earning activities.

Overall, the literature reveals a rich and diverse research landscape, highlighting challenges and recommending solutions to a just and fair pathway for effectively decarbonizing economies in the region and beyond. The interconnectedness of justice, gender considerations, policy interventions, and stakeholder engagement is crucial for achieving a sustainable and equitable transition towards a low-carbon future.

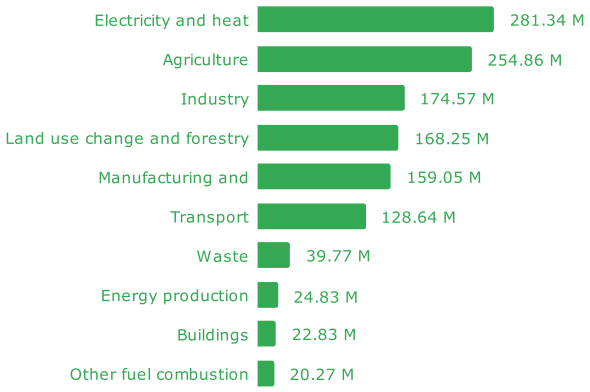
Challenges in Decarbonization

The region's need for a fairer and more just transition is underlined by the growing recognition that addressing climate change and achieving sustainable development requires a fast, comprehensive, and inclusive approach to decarbonizing the economy. However, current transition discussions are predominantly on decarbonizing the electricity and power sectors. This is understandable given that this sector contributes significantly to the world's and region's GHG emissions, as shown in Figure 2. However, to achieve the region's climate goals, other major contributors to GHG emissions must be considered and transportation and agriculture subsectors, in particular, are major contributors to GHG emissions in the region.

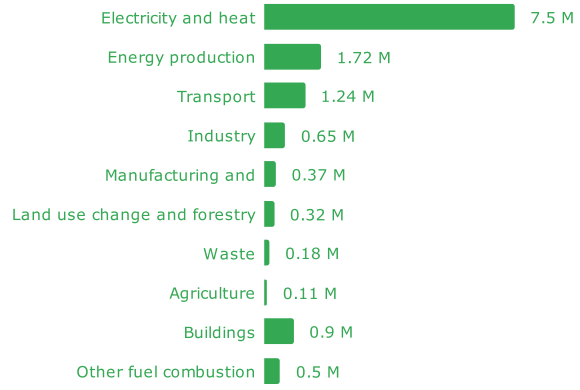
Greenhouse gas emissions 2020, by sector: ASEAN



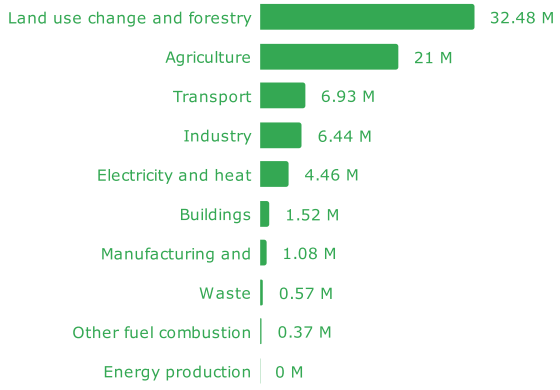
Greenhouse gas emissions 2020, by sector: Mekong Region



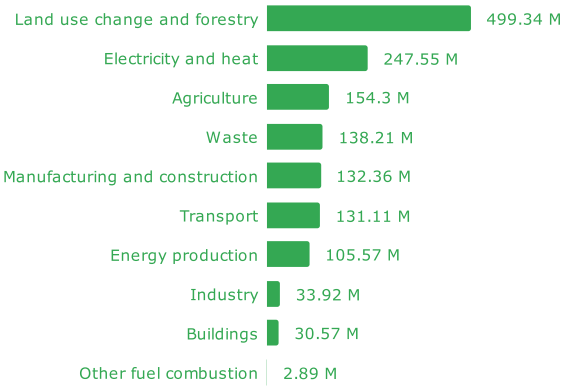
Greenhouse gas emissions 2020, by sector: Brunei



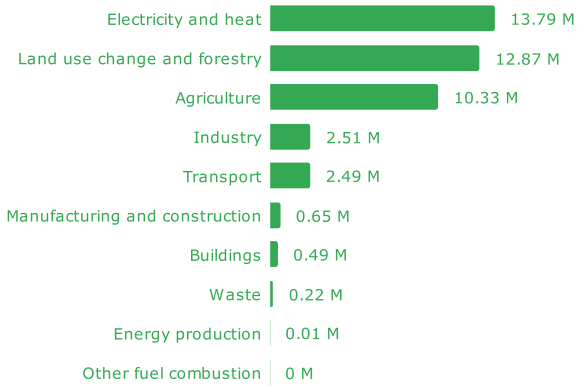
Greenhouse gas emissions 2020, by sector: Cambodia



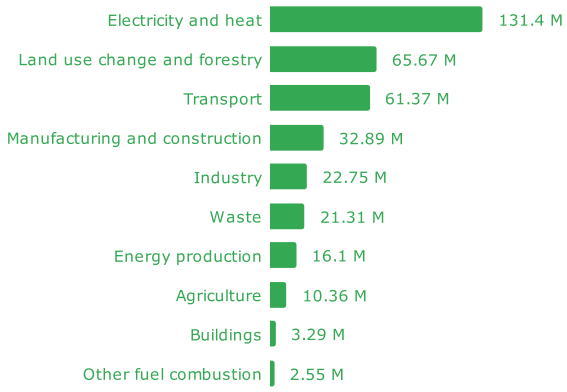
Greenhouse gas emissions 2020, by sector: Indonesia



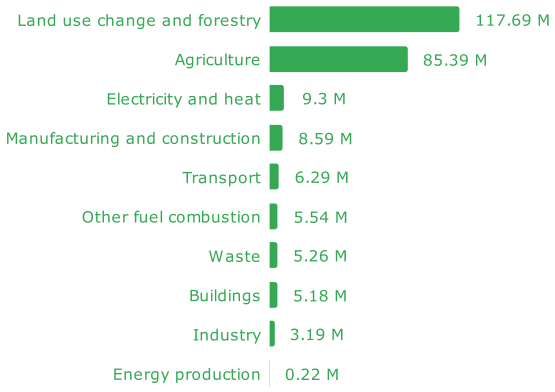
Greenhouse gas emissions 2020, by sector: Laos



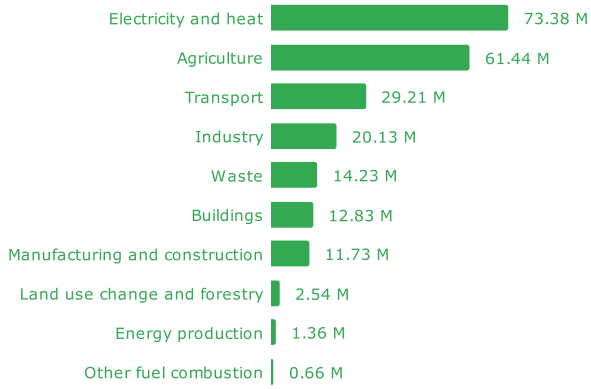
Greenhouse gas emissions 2020, by sector: Malaysia



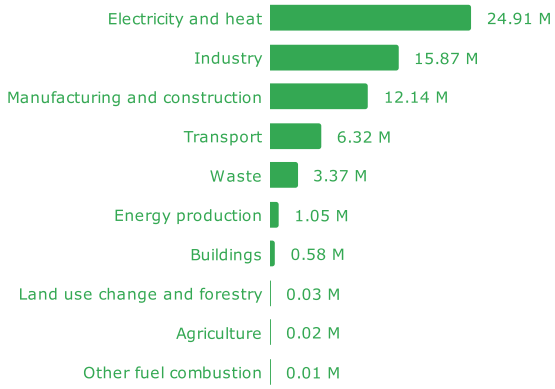
Greenhouse gas emissions 2020, by sector: Myanmar



Greenhouse gas emissions 2020, by sector: Philippines



Greenhouse gas emissions 2020, by sector: Singapore



Greenhouse gas emissions 2020, by sector: Thailand

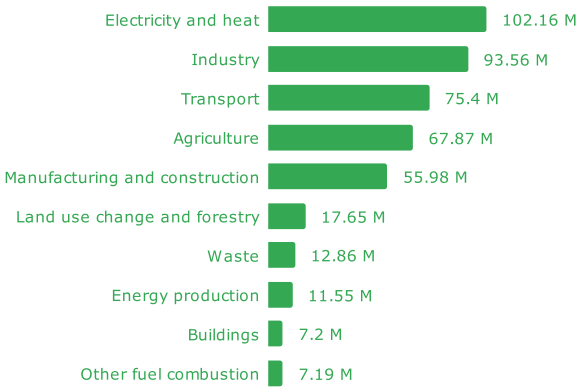


Figure 2. Greenhouse gas emissions 2020, by sector across ASEAN member states.
Source: Climate Watch, Historical Emissions (2023), https://ourworldindata.org/grapher/ghg-emissions-by-sector

The agriculture sector is one of the leading contributors of GHG in the region, accounting for 14% of the total GHG emissions (Climate Watch, 2023), mainly from livestock production and rice cultivation. Livestock, particularly methane-producing ruminants, such as cattle, contribute significantly to GHG emissions through enteric fermentation and manure decomposition. In addition, rice cultivation, which involves flooded fields conducive to anaerobic conditions, releases methane, a potent greenhouse gas. In the Mekong Region and in countries such as the Philippines and Indonesia, it is one of the largest emitters of GHGs.

The transportation sector accounts for 10% of the total GHG emissions in the region, making it the fourth largest contributor among the subsectors (Climate Watch, 2023). These GHG emissions mainly originate from three sources, road transport, aviation, and maritime transport, owing to their shared reliance on fossil fuels. In road transport, both personal and commercial vehicles with internal combustion engines (ICEs) substantially contribute to carbon dioxide (CO2) emissions and other pollutants. Similarly, the aviation sector relies heavily on fossil fuels, generating not only CO2 emissions but also non-CO2 effects, particularly at high altitudes. On top of transportation sector share in total world emissions, maritime transport, which is crucial for global trade, faces challenges linked to emissions from shipping vessels, including sulfur dioxide, nitrogen oxides, and carbon emissions resulting from the combustion of traditional bunker fuels.

Southeast Asia's Nationally Determined Contribution (NDC)

Interventions to decarbonize the agriculture and transportation subsectors are starting to take shape in the region. All countries in the region submitted their NDC in 2021 to the United Nations Framework Convention on Climate Change (UNFCCC) Secretariat as part of their obligations to the Paris Agreement. Table 2 provides an overview of the unconditional[4] and conditional[5] GHG emission reduction commitments of the ASEAN countries, as specified in their NDC. There is significant variation in the level of commitment among AMS, with unconditional reduction percentages ranging from 2.71% (the Philippines) to 60% (Laos). Several countries have goals beyond emission reduction percentages, such as targets related to emission intensity and achieving net zero emissions by a specific year.

Table 2. Summary of NDC 2021 Commitments of ASEAN member states

Country	Commitments by 2030
Indonesia	29% unconditional reduction and 41% conditional reduction in GHG emissions from the business-as-usual case.
Malaysia	45% unconditional reduction in emission intensity compared to 2005 level.
Thailand	20% unconditional reduction and a 25% conditional reduction in GHG emissions from the business-as-usual case.
Philippines	2.71% unconditional reduction in and a 72% conditional reduction in GHG emissions from the business-as-usual case by 2030.

[4] Unconditional refers to commitments that are pledged by countries sourced from its own domestic resources/ budgets.

[5] Conditional refers to commitments dependent on the provision of resources and/or financial support from external sources (e.g. international financial support, etc).

Country	Commitments by 2030
Singapore	36% unconditional reduction in emission intensity based on 2005 level and peak CO2e emission at 65 Mtpa or less. By 2050, plan to achieve net-zero.
Myanmar	50% conditional reduction in GHG emissions from the business-as-usual case.
Laos	60% unconditional reduction in GHG emissions from the business-as-usual case.
Cambodia	42% unconditional reduction in GHG emissions from the business-as-usual case.
Brunei	20% unconditional reduction in GHG emissions from the business-as-usual case.

Sectoral coverage has slightly increased compared with previous NDC submissions (Yurnaidi, 2021). Energy and agriculture are covered by all countries, whereas only two countries, the Philippines and Myanmar, include transportation in their NDCs. Sectoral coverage of NDCs is crucial for developing more targeted and effective decarbonization targets and interventions. However, decarbonizing these subsectors comes with a unique set of considerations and challenges.

Table 3. Sectoral coverage of NDCs of Association of Southeast Asian Nations (ASEAN) members states (AMS). Source: Yurnaidi et al., ASEAN Climate Action: A Review of NDCs Updated in 2020 (2021)

Sector	Previous NDCs	Latest NDCs	Change
Waste	8	9	1
Land Use, Land-Use Change and Forestry	9	8	-1
Agriculture	6	10	4
Industrial Processes and Product Use	4	9	5
Transport	4	2	-2
Energy	10	10	0

Country	Previous NDCs	Latest NDCs	Change
Thailand	4	4	0
Singapore	5	5	0
Philippines	5	5	0
Myanmar	5	4	-1
Malaysia	5	5	0
Lao PDR	3	5	2
Indonesia	5	5	0
Cambodia	5	5	0
Brunei Darussalam	2	5	3

The Risk of Unjust Transitions

In decarbonizing the agriculture sector, there is a push for new and advanced technologies and mechanization to make food production more efficient and less carbon-intensive. However, mechanization and automation could lead to job losses across the supply chain, whereas capital-intensive technologies will most likely be accessible only to large-scale and wealthy farmers. Women, who comprise an estimated 43% of the agricultural workforce globally (Food and Agriculture Organization, n.d.), still experience disparities in workforce entry and a lack of access to agricultural resources such as inputs, technologies, credit, and land (Verschuur, 2019). While the above-mentioned innovations can potentially reduce GHG emissions from agriculture, they run the risk of exacerbating existing inequalities without a gendered and equitable approach to decarbonization. Additionally, small-scale farmers are also vulnerable to large-scale RE projects, such as solar power plants, which may result in massive land acquisition that displaces farmers and threatens their main source of livelihood.

Decarbonization efforts in the transportation sector, on the other hand, focus primarily on the phase-out of fossil fuel-intensive ICEs public transport vehicles, the mainstreaming of electric vehicles (EVs), and the promotion of green public transportation. The phase-out of ICEs and the introduction of EVs comes at a high cost, especially for formal and informal workers in the public transportation sector, and could lead to loss of livelihoods among those who rely on producing and maintaining traditional vehicles. In cities across Asia, more women commute during non-peak hours than men do as women possess fewer private vehicles than their male counterparts. Women also express concerns about safety when using public transportation (Chiang & Khan, 2022). These considerations are critical in decarbonizing the transportation sector where interventions that reduce GHG emissions are fair and equitable to those impacted.

Without carefully analyzing and considering the social cost to communities versus the benefits of this shift to a greener economy, climate actions may have unintended negative impacts on the most vulnerable and marginalized members of society. Policymakers risk perpetuating existing inequities where the transition only benefits a few and, worse, leaves behind marginalized groups and stakeholders–women, youth, indigenous peoples (IPs), farmers, fisherfolks, persons with disabilities, and sexual, gender and ethnic minorities, among others. Therefore, a fairer and more inclusive approach to the transition is imperative for policymakers and other duty bearers to identify the potential impacts of mitigation and adaptation actions on people's livelihoods, health, and overall quality of life.

Research Objectives

This study aimed to identify gaps and experiences, analyze policies, and formulate recommendations to promote a fairer and more just transition in the region based on existing studies and policies both at the region and country levels (particularly Indonesia and the Philippines), focusing on the transportation and agriculture subsectors. More specifically, this study aimed to:

1. Surface policies of governments on decarbonizing transportation and agriculture subsectors.
    - What are the policies of governments in Southeast Asian countries related to just transitions in transportation and agriculture subsectors?
2. Assess gaps in policies, practices, and implementation processes in terms of just (energy) transition values and goals vis-à-vis plans and current policies in transportation and agriculture subsectors.
    - To what extent do the values and goals of just transition align with the current policies and plans in the transportation and agriculture subsectors in Southeast Asia?
    - What are the barriers that contribute to or hinder the realization of just transition values and goals in these sectors
3. Analyze how the values of feminist just energy transition, if any, are reflected in current policies related to the affected subsectors mentioned above.
    - What gender-specific challenges and opportunities can be observed in the context of just energy transition within these subsectors?
    - Are gender-responsive policies and programs in place and how effective have they been in achieving feminist just energy transition goals?
    - What are the best practices for promoting gender equality and inclusivity during the energy transition process in the region and elsewhere?

This research focuses on the agriculture and transport sectors not only because of their carbon emission reduction potential but also because of their significant role in shaping socioeconomic dynamics in the region, particularly to poverty and social inequality. Agriculture, for instance, serves as a crucial livelihood source for millions of people worldwide, yet its vulnerability to climate change exacerbates food insecurity and livelihood instability. Similarly, the transport sector, which is vital for economic development because of logistics, movement and social mobility, can either facilitate or hinder access to essential services and opportunities, thus perpetuating or alleviating inequality. By examining these sectors through the lens of just transition, this study seeks to explore how interventions can simultaneously address carbon emissions while promoting social equity and inclusion. Furthermore, Oxfam's longstanding work[6] to address climate change impacts highlights the relevance of this research within Oxfam's broader agenda and efforts to advance transformative policies and practices that prioritize both environmental sustainability and social justice.

[6] Refers to Oxfam's role as the current Convener and Secretariat of the Asia Network for People's Energy (ANPE).

Key Findings

Finding 1: Energy transition initiatives at regional and national levels are mostly narrow and incremental.

Southeast Asia is growing aware of the importance of just transition. Indonesia was among the first countries in the world to develop their respective agreements within the Just Energy Transition Partnership (JETP) framework, a financing scheme that supports coal-dependent nations in shifting to cleaner forms of energy. Additionally, Indonesia's long-term strategy includes a just transition section. While some policy initiatives mention just transition and its elements, concrete mechanisms are still needed to operationalize these principles.

The analysis utilized the Just Transition Framework (JTF)[7], further categorizing and assessing each policy document, plan or initiative according to the quadrant (Figure 3).

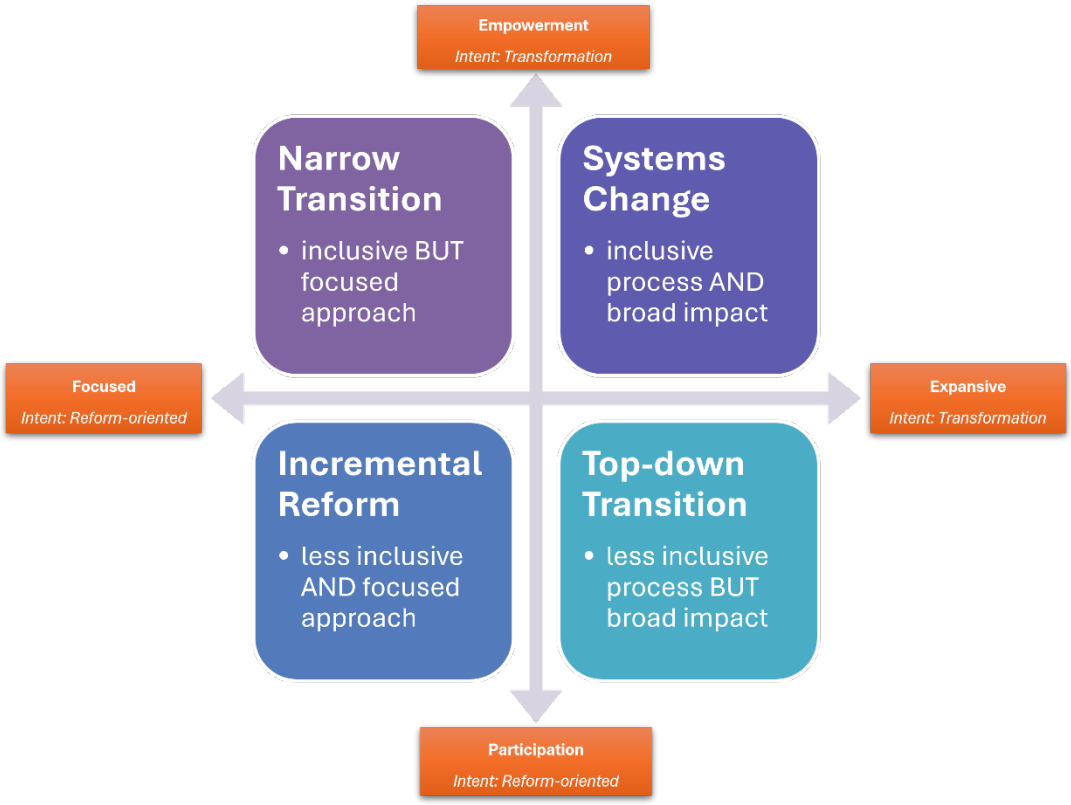


Figure 3. Features of the JT Framework (modified). Refer to Annex for the full framework details.

[7] More details on the framework can be found in the Research Framework Annex.

The desk review found that most of the energy transition policies in the transportation and agriculture subsectors reviewed have some social inclusion aspects but lack comprehensive provisions for distributional impacts and transformative intent.

Table 4. Assessment of Policy Documents, Initiatives or Plan based on the JTF, per subsector.

Sectoral focus	Policy document or initiative plan	Assessment
Regional		
Agriculture	ASEAN Regional Guidelines for Sustainable Agriculture in ASEAN	Inclusive process, broad impact, transformative
Agriculture	Guidelines on Promotion of Climate Smart Agriculture Practices	Less inclusive, broad impact, reform-oriented
Transport	Regional Strategy on Sustainable Land Transport	Less inclusive, focused approach, reform-oriented
Indonesia		
Agriculture	Indonesia Nationally Determined Contribution 2021	Inclusive process, broad impact, reform-oriented
Agriculture and Transport	Long-term Strategy for Low Carbon & Climate Resilience 2050	Inclusive process, broad impact, reform-oriented
Philippines		
Agriculture and Transport	Philippines Nationally Determined Contribution 2021	Less inclusive, focused approach, reform-oriented
Agriculture and Transport	National Climate Change Action Plan	Less inclusive, broad impact, reform-oriented
Transport	Public Utility Vehicle Modernization Program	Less inclusive, focused approach, reform-oriented

Most policies and plans recognize the vulnerabilities and impacts of climate change on marginalized groups, such as women, Indigenous Peoples, and the urban poor, indicating some efforts towards social inclusion. However, there is a need for more specific provisions to actively involve and empower marginalized groups in decision-making processes. For example, the PUVMP in the Philippines is characterized by limited engagement of impacted stakeholders and a lack of assistance to those negatively affected, despite its intent to reduce GHG emissions in the transport sub-sector. To date, massive public protests and strikes among transportation workers have been prevalent in opposition to these measures.

To some extent, these policies address the fair allocation of the benefits and the harms associated with transitions. Most acknowledge the need for capacity building, technology transfer, and the development of domestic industry towards sustainable practices, as well as providing incentives and access to capital for local businesses. Indonesia's Long-term Strategy for Low Carbon and Climate Resilience 2050, for example, cites programs related to the "skilling-upskilling-reskilling" of its workforce in recognition of the impact of the energy transition on certain domestic industries. However, most policies lack detailed considerations of historical injustices and assessments of the future potential impacts of the energy transition to comprehensively address economic, social, and environmental justice concerns.

These policies show a strong commitment to driving positive social, environmental, and economic changes by transitioning to sustainable practices and reducing carbon emissions. However, these policies are mostly reform-oriented rather than transformative. They lack explicit provisions that aim to overhaul legacy systems that only perpetuate current economic systems, largely favoring large-scale projects that mostly benefit economic and political elites. This means that there is a need for more specific measures to ensure that marginalized groups are empowered to challenge unequal power relations.

Indonesia's Long-term Strategy for Low Carbon and Climate Resilience 2050, for example, incentivizes large-scale businesses in the agriculture and forestry subsectors to increase their commitment to more sustainable practices which may dominate and impact the promotion of small-scale, community-led initiatives and/or social enterprises. The one exception among the policies reviewed is the ASEAN Regional Guidelines for Sustainable Agriculture in ASEAN, which advocates for the proliferation of farmer cooperatives, circular economy practices, and improving biodiversity, which is a departure from mainstream economic systems that rely heavily on chemical inputs and large-scale plantations. If operationalized at the national level with concrete policies, financial support, and rules, the program can potentially set a path towards a just transition in the agricultural sector.

Key informants (KIs) and experts in the field agree, to a large extent, with the desk review findings, as most describe the extent of just transition principles in climate change and transition initiatives as either "absent" or "moderate." While they acknowledge some elements of just transition principles in current policies in their respective countries, they face challenges including a lack of understanding of just transition and climate sciences and limited community engagement due to top-to-bottom decision-making approaches. In the Philippines, KIs point out vested interests in large-scale RE projects and a lack of understanding of just transition principles among government bodies and leaders as leading causes of this problem. Some KIs also raised the issue of vested interests when referring to the energy transition initiatives in the Mekong Region. They highlighted the political nature of energy transition, which is often defined by governments and the private sector and has serious implications for inclusion and who gets to be included in discussions and consultation processes.

According to a KI from the Philippines working in the agriculture sector, the lack of just transition principles in the country could be attributed to the lack of policy when it comes to compensating vulnerable agricultural communities and farmers when large-scale RE projects acquire land for energy production. This KI gave the mining industry as an example where companies are mandated by law to spend a percentage of their operating costs on the social development of their host communities. In contrast, while some companies prioritize locals for employment in these projects to compensate for potential job and income losses, the lack of policies allows for a situation in which large-scale RE companies may not be compelled to employ locals.

The desk review findings were further elaborated upon by the participants in the sensemaking workshop[8] who hail from different countries in the region. They emphasized the varying levels of interest among governments in the region in embracing clean energy alternatives and notable inclination towards coal, gas, large hydropower projects, and other large-scale RE endeavors as leading causes of the weak adoption of just transition principles in the region. This is also partly due to the perceived exorbitant technology costs and the lack of availability of financial resources for other RE projects. The discussions also underscored the limited public awareness, contributing to the weak pressure and demand actions to governments to prioritize a just approach to the transition.

In response to these challenges, workshop participants suggested engaging regional and global platforms such as ASEAN, Asia-Pacific Economic Cooperation (APEC), Conference of the Parties (COP), and Vulnerable 20 (V20) Forum to increase the flow of climate finance into the region. The participants emphasized the need to organize alliances among CSOs at regional and national levels to champion JET advocacy. Setting a clear agenda among CSOs and establishing a formal, regular caucus or platform for discussions between CSOs and the government at various levels have been proposed to facilitate constructive dialogue and collaboration. The participants also highlighted the importance of strengthening CSO monitoring to ensure the incorporation of just transition principles into energy transition policies.

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[8] Refer to the "Study Design" subsection under Annexes for more information on the sensemaking workshop.

Photo by Wenzel Andrei Bolo from Pexels

Case study 1: Public Utility Vehicle Modernization Program (PUVMP) in the Philippines and the need for genuine participation and support for stakeholders

The PUVMP in the Philippines aims to revolutionize the public land transportation sector through the reduction of air pollution from mobile sources and the introduction of more fuel-efficient vehicles. Since its inception in 2017, the program has been met with criticisms and protests from various stakeholders including the jeepney drivers, legislators, and other transport advocacy groups, on the grounds of unintentional unemployment, rigorous requirements and anticipated corporate takeover, which is perceived to lead to higher prices and poor services (Bautista & Moya, 2023; Roces, 2023; as cited in Biona et. al 2023). While the intent of the program to reduce carbon emissions is aligned with the country's Paris Accord Commitments, the chief concerns among impacted stakeholders are the lack of genuine stakeholder participation in the development of the program, high costs of the vehicles that could bury drivers and operators in debt, and the insufficient government subsidy and support to lower the acquisition cost for drivers and operators.

The said program is expected to impact at least 300,000 jeepney drivers. While nationwide consultations have been conducted by the government with concerned stakeholders, the successive nationwide transport strikes by drivers and operators are a clear manifestation of their discontent and minimal influence and voice in the decision-making process which could greatly affect their lives and livelihood. Moreover, a paper by Mendoza (2021) estimated the cost of the program to be P540 billion for the acquisition of modern jeepneys alone. As of early 2024, the state-owned Landbank of the Philippines (LBP) has released a total of P8.15 billion in loans to finance the purchase of 3,738 modern public utility vehicles (PUVs) nationwide (The Philippine Star, 2024). This is less than 2% of the estimated total cost of the program and total number of traditional jeepneys. These insufficient financial incentives and subsidies hinder compliance with the program among drivers and operators who are still reeling from negative economic impacts brought about by the covid-19 pandemic.

A just transition should ensure that all stakeholders concerned are able to genuinely participate and influence decision-making processes while also being supported in various forms by the government. A separate paper by the University of the Philippines – Center for Integrative and Development Studies (UP-CIDS) forwarded several proposals to improve the PUV Modernization Program and achieve a worker-led and pro-people just transition (Dimalanta et al., 2023). The list includes (1) genuine participation of transport workers, commuters, and affected communities through participatory processes in the design and implementation of public transport modernization programs and national transportation plans, (2) genuine cooperativization involves collaborating with drivers and small operator cooperatives for collective bargaining, management, and operation of the industry, leading to potential nationalization of public transit, and (3) anchoring the public transport modernization program on a comprehensive national transportation plan that promotes national industrialization, economic growth, and rural development.

Finding No. 2: Energy transition initiatives are still generally gender sensitive at best, and responsive at least.

Women comprise half of the world's population and are among the most heavily affected by climate change and energy transition initiatives. The desk review of energy transition policy documents and plans in the region revealed that some are gender-blind and gender-responsive. Of the eight (8) policies and plans reviewed, most had specific provisions for or mentions of gender considerations while two (2) policies lacked gender considerations, both in the transportation and agriculture subsectors. In the Philippine NDC and Indonesia's Long-Term Development Plan, there were some gender considerations, such as recognition of the impacts of climate change on women and the inclusion of women in the consultation process.

Similarly, the ASEAN Cooperation in Food, Agriculture, and Forestry (FAF) Strategic Plan integrates gender issues into sustainable agriculture and forestry practices. However, these policies and plans lack gender-transformative components that tackle the root causes of gender-based inequalities, and address harmful gender roles, norms, and power relations.

To promote gender equality objectives in the just transition agenda, a working paper by the Green Growth Knowledge Partnership (GGKP, 2023) developed the Gender-Just Energy Transition Outcomes Framework, which includes a spectrum of how gender considerations are incorporated into just transition definitions, approaches, and initiatives. The spectrum has three stages: (1) gender sensitivity, which involves approaches that acknowledge gender norms, roles, and relations without directly addressing the inequalities stemming from these norms; (2) gender-responsive strategies that consider how gender norms impact access to resources for women, men, and marginalized groups, aiming to meet specific needs and achieve policy goals; and (3) gender-transformative

initiatives that address harmful gender norms and roles, and implement strategies to bring about progressive changes in power dynamics among women, men, and marginalized groups.

Some key informants noted progress in gender mainstreaming but also emphasized the need for a shift from tokenistic representation and compliance to more meaningful participation of women and other marginalized groups. While gender-sensitive policies exist, there is a common theme among key informants regarding the challenge of assessing their effectiveness in achieving feminist just transition goals and the limited participation of women in the energy transition. A key informant raised that this could be due to the male dominance of the energy, transportation, and agriculture subsectors while also pointing out that this concern is not exclusive to public spaces but also within CSOs. Key informants pointed out that current gender-responsive measures are limited to sex-disaggregated data collection for compliance without comprehensive approaches that address power dynamics and gender-specific concerns.

For example, in the Philippines' NCCAP, there is a lack of comprehensive mechanisms for gender mainstreaming, with gender considerations grouped with other issues. Furthermore, the demand side of gender representation is lacking because of the economic barriers faced by women, which hinder their active participation in public consultations, training, and other voluntary movements. One recurring issue among key informants is the need for a more genuine representation of women in climate action and just transition discussions. Key informants highlighted the need to shift the current narrative around women's role in the transition, with one informant saying that the current narrative *"lacks the recognition of women as change agents, often portraying them solely as a vulnerable sector. While efforts include women, Indigenous Peoples (IPs), and other marginalized groups, the disproportionate impact is emphasized more than their role as solution providers."*

Furthermore, some KII participants pointed out that policymakers often see gender, social inclusion, and just transition as standalone concerns, not as cross-cutting issues, missing their intersectionality and interrelatedness. This is evident in most energy transition policies and plans, where women and gender components are given a separate section, without clearly defining how these components are interrelated. To illustrate this point, one key informant shared that economic empowerment, decarbonization, and social inclusion could be addressed all at once if only policies were more encompassing, comprehensive, and gender transformative. This may redound to undeliberate application of systems thinking perspective and approaches in viewing the elements of just transition, gender and social inclusion.

During the sensemaking workshop, participants identified cultural biases, prejudices, stigmas, lack of gender mainstreaming in existing government policies and private sector practices, and shallow views on gender considerations in the planning and execution processes as the leading causes of this problem. They also attributed these challenges to policymakers' lack of understanding and capacity to integrate gender into energy transition policies and initiatives. Furthermore, the KIs underscored the need to distribute the burden of women's empowerment in energy transition implementation, noting that this should be a joint and shared effort among all the stakeholders

involved to break free from the token representation that generally describes their participation in decision-making processes. Lest it is forgotten, other marginalized groups, including IPs, young people, senior citizens/ elderly, persons with disabilities, and sexual, gender and ethnic minorities, are also overlooked in the literature and current just transition discussions and discourse, despite their significant role as champions, implementers, and leaders in decarbonization initiatives[9].

In mainstreaming gender-transformative policies, key informants highlighted the need to increase awareness among the public and decision-makers and demand for representation among women and other sexual, gender and ethnic minorities. To address tokenistic representation, resources for community-level organizations, capacity building, and inclusive platforms for engagement are crucial. In addition, sensemaking workshop participants highlighted the importance of fostering and sustaining the ecosystems of support providers (including CSOs, youth, and local governments), conducting policy research on how women are uniquely affected by energy transition, and establishing mechanisms for private sector accountability against sexual harassment, exploitation, and abuse.

Photo by VISHWANATH from Pexels

Case Study 2: Hydropower Dam Development and its impact on women and agriculture in the Mekong Region

The Mekong region, encompassing ASEAN countries such as Laos, Cambodia, and Thailand, is characterized by its rich river systems that play a vital role in sustaining livelihoods and food security for millions of people, including women and indigenous peoples. However, the construction of large-scale RE projects, including hydropower projects, pose a threat to the Mekong River and its tributaries, impacting the diverse ecosystems and fisheries that are crucial for local communities. Women in the Mekong region are particularly affected by these developments, facing challenges in their participation in decision-making processes and access to water resources for agriculture, a key economic sector in the region.

[9] There are a number of CSO-led initiatives for each organization part of the ANPE that involve marginalized groups as change agents representing their sectors in climate and energy discourses.

A 2016 map developed under the Consortium of International Agricultural Research Centers (CGIAR) Challenge Program on Water and Food (CPWF) tracked about 755 dam projects in the region at various stages where 537 were completed, 152 were planned/proposed, 52 were under construction, and 14 were canceled/suspended (CGIAR Research Program on Water, Land and Ecosystems, 2016). In terms of purpose, 392 are for hydropower, 337 are for irrigation, and 26 for 'other' types. The construction of hydropower dams in the region has a disproportionate impact on women who rely on the rivers for agriculture, fisheries, and water resources, leading to loss of income and food insecurity. A report published by International Rivers (Delfau and Yeophantong, 2020) found that spaces for the participation of women in processes related to water governance in the Mekong Region are lacking, which hinders their ability to influence policies and decisions that affect their lives. A review of environmental impact assessments (EIAs) of hydropower dams in the region also found the lack of disaggregated data on key issues and the failure to distinguish between women of different ethnic, cultural, and economic backgrounds, which then lead to inadequate representation and consideration of diverse perspectives (Harris, 2018).

To achieve a just transition, addressing gender disparities and promoting women's participation in decision-making processes related to water governance and agriculture is essential for sustainable development in the Mekong region. Moreover, the costs and benefits related to hydropower dam development must be fully accounted for and be fairly allocated among impacted communities. As such, impact assessments must ensure that issues of access and concerns over economic, social, and environmental justice are addressed.

Finding No. 3: There is lack of meaningful civil society participation in energy transition policy and decision-making with some patches of spaces for participation.

One of the core principles of just transition is ensuring that those most impacted by climate action and energy transition initiatives have at least a seat at the table. This means that they are involved in the inception, planning, implementation, and evaluation of relevant policies and programs. While a top-down approach is needed in the energy transition, a bottoms-up approach is equally important to ensure the perspective of grassroots and local stakeholders—those who will be at the receiving end of these policies and plans are included. This should not only be limited to decision-making process, but also in ensuring that economic development brought about by these policies and plans are truly cascaded to and in the communities.

One recurring theme in the desk review was the lack of meaningful participation by CSOs in the process. While most policies and initiatives in the region mention civil society participation in the process, the extent of participation varies – from tokenism to meaningful. Some policies and initiatives involve working directly with the public throughout the process, ensuring that public concerns and aspirations are considered, and partnering with the public in each aspect of the decision-

making process. Other policies merely provide information to the public without actively involving them in decision-making. In the ASEAN Regional Strategy on Sustainable Land Transportation, civil society participation was not mentioned in the guidelines despite recognizing the significant role of CSOs in the Philippines and Indonesia. Similarly, the ASEAN Regional Guidelines for Promoting Climate Smart Agriculture (CSA) Practices explicitly excluded CSOs and sectoral groups under these guidelines' policy and governance principles.

Key informants at the regional level underscored the absence of spaces for genuine civil society and community engagement in autocratic countries. Some even mentioned that CSOs in these countries rarely voice concerns about large RE projects due to fear of reprisals from government officials. One key informant pointed out that the region has different types of government systems with varying degrees of tolerance for democratic principles, such as citizen participation and freedom of expression. A study by Civicus (n.d.), an international NGO, found that there are still challenges to civic freedom in the Asia-Pacific region, with four countries in the region rated as closed, 11 as repressed, seven as obstructed, and three as narrowed, with Taiwan being the only country rated as open.

Participants in KII believe that civil society participation in their countries, particularly in just transition discussions, is limited and lacks inclusivity. They criticize the lack of attention to justice aspects, such as the inclusion of communities and indigenous people's groups. While the rights and representation of CSOs are guaranteed in most cases, they point to limited financial resources and technical capacities and resources as often lacking among CSOs to meaningfully engage in the process. They emphasize the need for the government to improve inclusivity and foster genuine platforms for CSOs participation. They also recognized that while CSOs at the national level see the importance of just transition as an emerging field to engage in, most key informants working in the space pointed to the lack of technical expertise in the subject matter and competing priorities as among the leading causes of their limitations.

In the Philippines and Indonesia, key informants recognized that there was relatively more tolerance for civic engagement in energy transition discussions. This is supported by these two countries' membership in the Open Government Partnership (OGP) and the Extractive Industries Transparency Initiative (EITI), which are multilateral initiatives that promote good governance. However, they cautioned that in some spaces, CSO consultations tend to be tokenistic. A key informant from Indonesia used the JETP as an example, noting that only one public consultation at the national level was organized, and none at the local level.

In the worst cases, key informants also mentioned anecdotal examples of governments and companies failing to engage with affected communities in the development of energy transition plans and projects. For example, in the Philippines, it highlighted the lack of awareness among mining-affected communities about the growing demand for energy transition minerals, and how this impacts their livelihood and environment. Similarly, a key informant representing the transport sector in the Philippines underscored how highly technical just transition discussions are that even college graduates with whom they have engaged with, have found the discussions difficult.

During the sensemaking workshop, participants were asked why there was limited CSO participation in energy transition policy and decision-making. They identified the lack of common understanding among CSOs of what just transition means, attributing this to insufficient information from the government and that just transition is still an emerging field. The group also expressed concerns about threats to personal safety and restrictions faced by CSOs in the region and the need for collective action to ensure that human rights and environmental defenders are unified, united and protected.

To address these challenges, the group proposed conducting research and case studies on just transition, developing a centralized platform or information center for energy transition data, and creating an energy transition playbook that incorporates change stories and narratives to serve as a valuable tool for advocacy, education, and inspiration within civil society and beyond. They also highlighted the need to leverage existing spaces such as the EITI and OGP to help forward the just transition agenda.

Photo by Geraldine Hoggang, Oxfam Pilipinas

Case study 3: Civil Society Participation in the Just Energy Transition Partnership in Indonesia

Indonesia's Just Energy Transition Partnership (JETP) is an initiative aimed at advancing the country's transition to clean and sustainable energy sources. It represents a significant commitment to advancing clean energy initiatives with a substantial fund of up to $20 billion allocated for clean energy investments over the next few years. The JETP focuses not only on transitioning Indonesia's on-grid power sector to green energy but also ensuring a just transition that considers social equity and economic justice. The JETP's Comprehensive Investment and Policy Plan (CIPP) outlines key investment focus areas, such as RE acceleration, transmission network development, and the phased retirement of coal-fired power plants. While inclusion is one of the key drivers of the program as outlined in the initiative's roadmap, the role and participation of CSOs remain limited.

An article by the Indonesia Research Institute for Decarbonization (IRID, 2023) raised a key issue among CSOs regarding the lack of clear guidelines on how they would be involved and their role in the drafting, planning, implementing, monitoring, and implementing the JETP. Moreover, IRID also mentioned the country's lack of consideration of labor-related issues in national commitments to low-carbon development and the absence of consistent data on labor, especially in the coal sector, which could hinder the just and fair transition of these communities as envisioned under the JETP.

As an initiative, the JETP is an innovative form of financing that redistributes funds from highly industrialized nations to countries in the Global South to help them accelerate their transition away from carbon intensive energy production. However, genuine CSO participation has yet to be realized in the initiative's implementation. IRID forwards three proposals to CSOs to make sure that the initiative achieves its intended outcomes. These are the: (1) institutionalization of policies that ensure community impact assessment, (2) transparency in the monitoring of funding plans (an agreed definition of scope for just energy transition), and (3) the establishment of a platform that ensures sharing of information and broad participation in the JETP.

Conclusions and Way Forward

Conclusion

The just transition movement in Southeast Asia has been gaining traction in recent years. While the ongoing discourse on the transition agenda primarily revolves around the need to phase out fossil fuels and decarbonize the power sector, it is crucial to broaden these perspectives and intensify efforts to address other significant contributors to greenhouse gas emissions, particularly in the domains of transportation and agriculture. These sectors, which are often overshadowed by energy-focused discussions, play pivotal roles in the overall climate change landscape and require more comprehensive attention in just transition strategies because these are the ones that directly impact communities and day-to-day living of individuals.

While key principles such as just transition, feminism, gender equality, and robust civil society participation remain inadequately represented in regional and national policies and initiatives, increasing awareness of their importance is encouraging with substantial support from international and regional actors (from both public, private and non-government/ CSOs) who are actively championing this cause. To ensure that the transition is not only environmentally sustainable but also socially and economically equitable, these principles must be integrated into the core frameworks of transition strategies at all levels of governance. A more holistic and inclusive approach is essential to address the intersectionality of challenges and opportunities associated with climate change, fostering a transition that is not only green but also fair and socially just. By elevating the importance of these principles in policies, a way can be paved for a transition that leaves no community or sector behind, thus fostering a sustainable and equitable future.

Finally, for the just transition to be truly effective, there is an urgent need to shift from broad global discussions to more localized approaches that consider the diverse and nuanced challenges faced by different countries and their communities in the region. The one-size-fits-all approach is insufficient and adapting the principles of a just transition to local contexts is critical for relevance to local stakeholders. The finding that energy transition initiatives in the two sectors are currently "narrow and incremental" suggests that, while interventions and policies may have some forms of inclusion and participation, they are not designed for transformative changes that address distributional impacts.

This discrepancy stems from the inadequacy of inclusive policies and financial support, capacity gaps across sectors, and active resistance from key actors with vested interests in maintaining the status quo. To address these challenges, it is essential to enhance the capacity of advocates at the regional, national, and local levels to articulate and push for more transformative solutions; engage in targeted advocacy efforts to overcome resistance from other key players; and foster genuine collaboration and dialogue among stakeholders to advance more comprehensive and equitable just transition initiatives.

Recommendations

Recommendations for Subsectors

The successful decarbonization of the agriculture and transport subsectors and the broader power subsector in Southeast Asia necessitates a comprehensive, people-centric and human-centered approaches that proactively includes concerns of marginalized voices and groups, addressing needs and distributional impacts, aligning strategies with broader socioeconomic goals, and most importantly, enabling benefits to individuals. Tailored strategies can be designed to leverage sector-specific technologies, policies, and practices to maximize the impact of climate action. Below are recommendations for the two subsectors specific to the three key principles underlined in the just transition framework: social inclusion, distributional impacts, and intention.

Agriculture subsector:

Social Inclusion: It is crucial to actively engage marginalized stakeholders such as small-scale farmers, women, sexual, gender and ethnic minorities, youth groups, persons with disabilities, rural communities, and ethnic/ indigenous peoples in the decision-making processes related to agricultural decarbonization strategies at the regional and national levels. Recognizing their unique perspectives, traditional knowledge and sustainable practices are not only a matter of equity, but also a strategic imperative. This inclusivity can ensure that the transition is culturally sensitive, socially just, and attuned to the specific needs and challenges faced by the diverse agricultural stakeholders and communities in the region.

Distributional Impacts: The transition towards decarbonized agriculture may entail economic costs and challenges for certain farmers who may be unable to adopt newer technologies. Comprehensive support mechanisms and compensation frameworks are required to mitigate these negative impacts. Recognizing that shifts in agricultural practices or reduced reliance on carbon-intensive inputs may result in economic losses, proactive approaches such as financial support and/or subsidies and technical assistance should be provided to affected farmers following a careful assessment by policymakers.

Intention: The overarching intention behind agricultural decarbonization strategies should not just be about a reduction in carbon emissions. These strategies should be designed to address cross-cutting issues like promotion of sustainable food systems and circular economy practices. Emphasizing food security and rural development ensures that the transition not only achieves environmental goals but also contributes positively to the economic well-being of farming communities and the larger communities that these farming communities support. This integrated approach recognizes the interconnectedness of environmental sustainability and socioeconomic prosperity, promoting a more just transition and sustainable development.

Transportation subsector

Social Inclusion: To ensure that the benefits of sustainable transportation are equitably distributed, it is important to engage public transportation stakeholders such as workers, commuters, bimodal transportation groups (e.g., bikers), youth groups, women, sexual, gender and ethnic minorities,

persons with disabilities, and labor unions. By actively incorporating their insights, needs, and concerns, policymakers can design transportation policies that are environmentally sustainable and socially equitable. This approach promotes a sense of ownership among these stakeholders and ensures that the transportation infrastructure and policies meet the diverse needs of different groups and communities.

Distributional Impacts: The transition to sustainable transportation may result in job displacement, especially among informal workers and in sectors reliant on fossil fuel-powered transportation. To address this, comprehensive and proactive interventions should be developed and implemented to provide support, retraining programs, and transitional assistance to those greatly affected by these changes. By facilitating the transition of workers to new green jobs within the evolving transportation industry, policymakers can minimize negative economic impacts and foster a skilled workforce aligned with the demands of a more sustainable future.

Intention: In decarbonizing the transport sector, emphasis should be placed on developing transformative systems that prioritize public transportation, active mobility (such as walking and cycling), and electrification of vehicles while ensuring accessibility and affordability for all stakeholders. This inclusive approach recognizes that sustainable transportation is not just an environmental necessity, but also a social equity concern.

Recommendations for Stakeholders

Achieving a just transition relies on the collaborative efforts of all stakeholders. By fostering universal principles of just transition, enhancing financial and technical support, providing leadership, and actively engaging a broad range of actors, stakeholders in the region can pave the way for just transition. Below are stakeholder-specific recommendations for key actions that can contribute to this vision.

All stakeholders

To ensure that stakeholders and their respective agendas and priorities are aligned, it is necessary to establish a universal definition or principles of just transition. This definition should be championed and institutionalized across various levels[10], including plans, policies, programs, activities, and advocacy strategies. By embedding these principles into foundational frameworks, stakeholders can collectively contribute toward achieving a just transition in the region.

Regional actors

Regional actors hold a unique position in driving transition initiatives forward. The ASEAN and its regional bodies should promote cooperation and incorporate just transition and feminist principles in its existing regional frameworks and initiatives. To further catalyze progress, regional multilateral development banks such as the ADB and the Asian Infrastructure Investment Bank (AIIB) should

[10] With CSO networks (e.g. ANPE) facilitating discussions and taking the lead

allocate funding and provide technical assistance to stakeholders not just in government but also non-state actors to scale up community-led interventions. This financial leverage can be strategically utilized to forward the just transition agenda at the regional and national levels.

Furthermore, regional actors, such as the Asian Network for People's Energy (ANPE), should utilize its resources, and convening and influencing power to facilitate knowledge exchanges and dialogue on just transition issues. For a more holistic approach to the just transition, there is also a need to extend its constituency beyond those that primarily operate in the power sector. This expansion of perspective and constituency (to include transportation and agriculture as a start) ensures a more holistic strategy and understanding of the challenges and opportunities associated with just transition.

Government

Governments in the region play a critical role in incorporating just transition principles into the energy transition process, and the overall climate adaptation and mitigation strategies (e.g. NDCs, other climate plans, etc), which should be anchored from just transition perspectives from marginalized groups and sectors. National and local governments should lead in setting clear plans encompassing various sectors and incorporating just transition and feminist principles, ensuring effective consultations and engagements with the private sector and local communities. Capacitating different sectors and disseminating information on just transition should be coupled with civic empowerment initiatives, and should further enable co-learning and co-creation for just transition roadmap and strategy development led by governments. As such, the government must provide open and safe spaces and resources for civil society organizations to meaningfully participate in shaping just transition plans and policies.

Civil society organizations

CSOs are vital to the formulation, implementation, awareness-raising and capacity-building, monitoring, and evaluation of just transition policies. Their role should entail actively advocating for fairness, equity, and gender-transformative approaches in energy transition policies and initiatives of state and non-state actors and monitoring and evaluating their actual implementation. To be effective in this role, CSOs must also consider enhancing technical knowledge and capacities, and learning exchanges[11] on emerging topics related to just transition, such as climate science, GHG reporting, RE technologies and climate and sustainable finance access, among others. This enables them to hold governments and companies accountable by using evidence-based approaches.

CSOs should also provide capacity strengthening initiatives to impacted communities, empowering them to understand and assert their rights, to improve decision making capacities, to engage in decision-making processes, and to champion just transition in their localities. CSOs can also act as enablers when scaling up existing just transition initiatives by linking project implementers with funders, technical partners, and government agencies to secure financing and the broader implementation of their initiatives.

[11] May be facilitated by activities organized by regional-level CSO networks (e.g. ANPE, among others)

Annexes

Purpose of the Study

This study is primarily intended for internal and external stakeholders of Oxfam Pilipinas (OPH) to help inform campaigns and formulate advocacy strategies on just energy transition (JET). At the policy level, this study serves as a resource for decision-makers at the international, regional, and national levels by providing insights into the level of alignment of existing policies with the principles of just transition. Additionally, this study provides civil society organizations (CSOs) and advocacy groups in the region, including the Asia Network for People's Energy (ANPE), Oxfam, and its partners' campaign, with an understanding of sector-specific challenges and opportunities, enabling them to strategically engage stakeholders and contribute to discussions in and within these sectors.

Moreover, this study's focus on feminist just transition provides added insights into gender-transformative policymaking and advocacy in the region, contributing to efforts toward mainstreaming gender considerations in energy transition initiatives. Some of the outputs may also be used by OPH and partners to design knowledge products that can be adapted by other stakeholders, such as the academe, national government agencies (NGAs), and local government units (LGUs).

Scope and Limitations

The study focused on the agricultural and transportation subsectors, given their significant contributions to greenhouse gas (GHG) emissions at the regional and national levels. The study has intentionally excluded the industry, residential or households, and other subsectors, to focus the analysis and review to subsectors with "significant emission contributions" and emerging just transition values and issues.

The review of the literature focused on mapping existing research studies on just transitions beyond the power or electricity sector. A keyword search query was executed using Google Scholar focusing on articles published from January 2010 to 2024. The search yielded 19 articles–studies, policies, and initiatives at the regional and national levels – specifically, Indonesia and the Philippines – which was covered and analyzed in this research. The policies and initiatives covered were sourced from a comprehensive list provided in the Association of Southeast Asian Nations (ASEAN) Strategy for Carbon Neutrality (Boston Consulting Group, 2023), which was co-developed with the ASEAN Secretariat. The policies and initiatives covered and analyzed in this study are as follows:

Table 5. List of policy documents, initiatives, and plans in the agriculture and transport subsectors

Sectoral focus	Policy document or initiative plan	Short description
Regional		
Agriculture	ASEAN Regional Guidelines for Promoting Climate-Smart Agriculture (CSA) Practices Vol. 3	The ASEAN Regional Guidelines for Promoting CSA Practices Vol. 3 is a comprehensive policy initiative to promote climate-smart agriculture practices in the ASEAN region. It emphasizes decarbonization efforts in the agriculture sector by providing guidance on implementing sustainable technology, reducing greenhouse gas emissions from agricultural activities, and enhancing resilience to the impacts of climate change. The initiative also focuses on inclusive and participatory policymaking, strengthening partnerships, and monitoring and evaluating the progress of implementation to effectively guide the transition to sound climate-smart agriculture programs
Agriculture	ASEAN Regional Guidelines for Sustainable Agriculture in ASEAN	The ASEAN Regional Guidelines for Sustainable Agriculture in ASEAN, adopted at the 44th Meeting of the ASEAN Ministers on Agriculture and Forestry (AMAF), emphasize decarbonization efforts in the agriculture sector through supporting projects aimed at reducing greenhouse gases, promoting the use of RE, and advocating for soil health initiatives. The guidelines also highlight the importance of developing appropriate policies and regulations for sustainable and circular agriculture, including the deployment of Biological Control Agents (BCA) in agriculture, aquaculture, and animal husbandry
Transport	ASEAN Regional Strategy on Sustainable Land Transport	The ASEAN Regional Strategy on Sustainable Land Transport aims to guide ASEAN member states in achieving sustainable development goals by addressing challenges such as greenhouse gas emissions, air pollution, and oil consumption in the transport sector. The strategy emphasizes the need for decarbonization efforts, including the development and implementation of fuel economy policies, cleaner fuels, and energy-efficient transport modes. It also encourages a shift towards more sustainable modes of transport and the improvement of transport sustainability through increased energy efficiency and reduced emissions.
Indonesia		
Agriculture	Indonesia Nationally Determined Contribution 2021	Indonesia's Updated NDC and Long-term Strategy on Low Carbon and Climate Resilience 2050 emphasize decarbonization efforts in the agriculture sector by integrating mitigation and adaptation policies into national development planning. The country is committed to enhancing capacity for climate action and creating an enabling environment for wider stakeholder engagement in decarbonization efforts, particularly in the agriculture sector. Indonesia's strategic approach is predicated on employing a landscape approach, highlighting existing best practices, and promoting climate resilience in food production and natural resource management, in compliance with principles of good governance

Sectoral focus	Policy document or initiative plan	Short description
Agriculture and Transport	Long-term Strategy for Low Carbon & Climate Resilience 2050	The Indonesia Long-Term Strategy for Low Carbon and Climate Resilience 2050 includes targeted initiatives to decarbonize the agriculture sector, such as promoting climate-smart agricultural practices, enhancing soil carbon sequestration, and reducing emissions from livestock and rice production. Additionally, the strategy emphasizes the importance of sustainable land use and forest management to mitigate greenhouse gas emissions from the agriculture sector while ensuring food security and rural development
Philippines		
Agriculture and Transport	Philippines Nationally Determined Contribution 2021	The Nationally Determined Contribution (NDC) of the Philippines includes a commitment to reduce greenhouse gas emissions through the implementation of measures that promote sustainable practices, including climate-smart agriculture and transport policies. The NDC also emphasizes the importance of adaptation measures in these sectors to preempt, reduce, and address residual loss and damage caused by climate change.
Agriculture and Transport	National Climate Change Action Plan	The NCCAP in the Philippines aims to promote decarbonization efforts in the agriculture and transportation sectors by implementing specific measures, including adopting sustainable farming practices, such as agroforestry, conservation agriculture, and organic farming, to reduce greenhouse gas emissions and enhance carbon sequestration. The plan also encourages the use of low-carbon transport modes, such as walking, cycling, and public transport, and the promotion of EVs and other alternative fuels to reduce emissions from the transportation sector
Transport	Public Utility Vehicle Modernization Program	The Department of Transportation's Omnibus Guidelines on the Planning and Identification of Public Road Transportation Services and Franchise Issuance in the Philippines prioritizes the use of low-emission public transport vehicles, including those compliant with EURO IV emission standards or better, and those using electric drives and alternative fuels such as electric and solar. This initiative underscores the commitment to reducing carbon emissions in the transport sector by promoting environmentally friendly and sustainable modes of public transportation, aligning with broader decarbonization efforts in the transportation sector.

A key limitation of this study's assessment is that many of these energy transition policies and initiatives have been recently published and/or adopted, and some have not yet been fully implemented. As such, the assessment is limited to how these policy documents and initiative plans were designed and worded, and not how they are operationalized.

Research Framework

During this research, and even in the literature, the following concepts are often used interchangeably: energy transition, just energy transition, and just transition. Energy transition refers to the shift from one energy system to another with the goal of reducing dependence on fossil fuels and promoting RE sources. Just energy transition, on the one hand, incorporates social justice and equity dimensions in the energy transition to ensure that benefits and costs are distributed fairly and that vulnerable groups such as coal workers and historically marginalized communities are not disproportionately affected. The concept of just transition takes a similar yet broader perspective beyond energy systems, and involves managing the social and economic impacts of the transition to a low-carbon economy. According to the International Labour Organization (ILO), a just transition involves greening the economy in a way that is equitable and inclusive, generating decent work opportunities, and ensuring that no one is left behind (United Nations Development Programme, 2022). While these concepts are interrelated and have decarbonization as one of their core components, the term and concept just transition will be used most frequently in this research, given that the sectoral focus of this study is on the agriculture and transportation subsectors and goes beyond the power or energy sector.

To operationalize its research objectives, particularly in assessing the extent to which the principles of just transition align with the current policies and plans in the transportation and agriculture subsectors in the region, this study utilized a framework developed by the Just Transition Initiative (JTI) (2021) called the Just Transition Framework (JTF). The JTF is fairly straightforward and has two critical dimensions: social inclusion and distributional impacts and one cross-cutting dimension, which is intent.

The social inclusion dimension emphasizes the recognition and participation of diverse stakeholders, particularly marginalized and vulnerable groups, in decision-making processes related to the transition. It aims to ensure that their perspectives are included and that they have some degree of influence, empowering them to challenge and overcome unequal power relations. The distributional impact dimension concerns the fair allocation of the benefits and harms associated with transitions. It encompasses issues of access; historical injustices; the current allocation of transition outcomes; and consideration of future impacts, addressing concerns over economic, social, and environmental justice. The intent–the cross-cutting dimension–captures the range of perspectives and approaches to driving social, political, and economic change that can be realized through just transitions. This involves assessing the underlying motives and goals of transition planning and action, ranging from incremental reform within existing systems to the transformation or overhaul of institutions and governance.

While there are other and similar just transition frameworks including Oxfam's fast, just, and transformative transition framework[12], the JTI's framework is less technical to explain to a broad range of stakeholders and simpler to apply in policy analysis given its use of quadrants. Moreover, the JTI includes the most common JT principles such as inclusion, distributional impact, and transformative transition.

[12] Link to the summary of the Oxfam just transition framework: https://policy-practice.oxfam.org/resources/towards-a-just-energy-transition-implications-for-communities-in-lower-and-mid-621455/

Figure 4. Just transition framework quadrant

Study Design

The qualitative study uses multiple data collection methods to ensure that the findings are substantiated and triangulated. The three data collection procedures used by the researcher were as follows:

1. A desk review of energy transition policies and initiatives in Southeast Asia involved an assessment of recently enacted or implemented policies and initiatives specific to the transportation and agriculture subsectors. This process includes reviewing policy documents and how their approach aligns with just the transition principles following the JTF.

2. Key informant interviews (virtual interviews). The study utilized key informant interviews with experts in the field to gain a deeper understanding of just transition issues and identify the root causes of the associated problems. To ensure a gendered perspective in these key informant interviews, the researcher ensured that the selected experts represented diverse gender perspectives to gain a comprehensive understanding of gender-related issues. Semi-structured interviews also included questions that specifically addressed the gender dimensions of just transition. Prior to the call, participants were sent a list of open-ended questions.
    - To what extent are the principles and goals of just transition put into action within existing policies and practices in the transport and agriculture subsectors in your country/region?
    - What do you see as the greatest barrier to implementing just transition principles in policies and practices in these sub-sectors? What do you see as the greatest enabler for overcoming these barriers and challenges?

- Are gender-responsive policies and programs for implementing energy transition policies and programs in your country/region? How effective have they been in achieving feminist just transition goals and what are best practices for fostering gender equality and inclusivity in decarbonizing these sub-sector/s?
- What should be the role of the government - national and subnational, civil society organizations, and regional actors (e.g., ANPE, ASEAN, ADB, and others) – in promoting a just transition in Southeast Asia?

3. Sensemaking Workshop. A sensemaking workshop with Oxfam Pilipinas and their partners (which is part of the annual general membership meeting and learning review of the ANPE) was conducted to gain further insight and validate the initial research findings. The workshop included participants from Indonesia, the Philippines, Cambodia, and Laos. The workshop ensured inclusive participation and dedicated a specific group to analyzing the gender implications of just transition issues. During the workshop, the participants from different countries were divided into three groups: just transition, gender, and civil society participation. The groups were asked to discuss among themselves and perform a root cause analysis using the "five whys" technique, following the initial findings of the desk review and key informant interviews. To elicit recommendations on addressing the barriers that surfaced during the discussions, participants were asked to use the "how might we" technique to reframe the challenges and enable them to identify solutions.

The researcher used thematic analysis to provide the study with a structured approach to analyzing the qualitative data. This allowed for the identification and/or surfacing of recurring themes, including gender-related ones, and revealed patterns and trends in the respondents' views on how just transition principles are incorporated in energy transition policies and initiatives in the region and their respective countries.

Ethical Considerations

The researcher followed Oxfam's Ethical & Environmental Policy, the Confidentiality and Non-Disclosure Agreement, and the Non-Staff Code of Conduct throughout the research project to meet the highest ethical standard in conducting studies and researches. Data collection was conducted in a manner that ensured the confidentiality and privacy of all respondents during the key informant interviews and sensemaking workshop. Informed consent was obtained from respondents prior to their participation in the study.

References

Acha, M.R. (2016). Discussion Paper: Gender Equality & Just Transition. Retrieved 29 September 2023, from https://wedo.org/wp-content/uploads/2016/08/gjtransition.pdf

ASEAN. (2023). ASEAN Strategy for Carbon Neutrality. Retrieved 29 September 2023, from https://asean.org/wp-content/uploads/2023/08/ASEAN-Strategy-for-Carbon-Neutrality_ASEANSummit43.pdf

ASEAN. (2015). Vision and Strategic Plan for ASEAN Cooperation in Food, Agriculture and Forestry (2016-2025). Retrieved 29 September 2023, from https://asean.org/wp-content/uploads/2021/08/08Sept_Vision-and-SP-FAF-final.pdf

ASEAN Climate Resilience Network (ASEAN-CRN). (11 October 2022). ASEAN-CRN embarks on defining net zero and low carbon emission pathways. Retrieved 29 September 2023, from https://asean-crn.org/asean-crn-embarks-on-defining-net-zero-and-low-carbon-emission-pathways/

ASEAN-CRN. (2019). Climate-Smart Land Use in ASEAN 2019. Retrieved 29 September 2023, from https://asean-crn.org/brochure-climate-smart-land-use-in-asean-2019/

ASEAN Secretariat. (21 February 2023). ASEAN highlights decarbonisation for agriculture, forestry sectors. Retrieved 29 September 2023, from https://asean.org/asean-highlights-decarbonisation-for-agriculture-forestry-sectors/

ASEAN Secretariat and Boston Consulting Group. (2023). ASEAN strategy for carbon neutrality: A pathway to sustainable and inclusive growth. ASEAN Secretariat. Retrieved 29 September 2023, from https://asean.org/wp-content/uploads/2023/08/Brochure-ASEAN-Strategy-for-Carbon-Neutrality-Public-Summary-1.pdf

Asia Feminist Coalition. (2023). Towards a Feminist Just Energy Transition in Asia: Key Principles and Barriers. Policy brief. Retrieved 22 August 2024, from https://asia.oxfam.org/latest/publications/towards-feminist-just-energy-transition-asia

Asian Development Bank (ADB). (2023). ASEAN needs to green global value chains amid climate risks. SEADS Solutions. Retrieved 29 September 2023, from https://seads.adb.org/solutions/asean-needs-green-global-value-chains-amid-climate-risks

ADB. (2023). 2022 Joint Report on Multilateral Development Bank's Climate Finance. Retrieved 29 September 2023, from https://www.adb.org/sites/default/files/related/635561/2023-0128-MDB-Report-2022-V12.pdf

ADB. (2020). Achieving Nationally Determined Contributions through Market Mechanisms in Asia and the Pacific. Retrieved 29 September 2023 from https://www.adb.org/publications/achieving-ndcs-asia-pacific

Allurentis. (2022). Economic forecasts and projections for ASEAN. Retrieved 29 September 2023 from https://www.allurentis.com/_files/ugd/ff7369_4b1e54515fcf416fbc7237d0a78fbfe3.pdf?index=true

Asif, F., M. Marschke, and C. Ngin. (2017). Assessing the potential of a low-carbon future for Cambodia. Journal of Renewable and Sustainable Energy, 9(2), 021404. Retrieved 29 September 2023, from https://pubs.aip.org/aip/jrse/article-abstract/9/2/021404/153075/Assessing-the-potential-of-a-low-carbon-future-for

Biona, J.B.M., N.S. Lopez, I.J. Hecita, and M.J. Vivo. (2023). Re-calibrating the Jeepney Modernization Program: Policy Issues and Recommendations. Policy Brief. Retrieved August 22, 2024 from https://static1.squarespace.com/static/58ff0e1fa5790aa37e3fa35a/t/6573e30e1699a85076b2e893/1702093603206/Recalibrating+the+Jeepney+Modernization+Program.pdf

Bolo, W.A. February 2024. Man Crossing Street against Jeepney in Manila. Retrieved from Pexels: https://www.pexels.com/photo/man-crossing-street-against-jeepney-in-manila-20517280/

Bosello, F., C. Orecchia, and D. Raitzer. (06 December 2016). Decarbonization Pathways in Southeast Asia: New Results for Indonesia, Malaysia, Philippines, Thailand and Viet Nam. FEEM Working Paper No. 75.2016, Available at SSRN: https://ssrn.com/abstract=2881223 or http://dx.doi.org/10.2139/ssrn.2881223

Bosello, F. and G. Marangoni, C. Orecchia, D. Raitzer, and M. Tavoni, Massimo. (2016). The Cost of Climate Stabilization in Southeast Asia, a Joint Assessment with Dynamic Optimization and CGE Models. CMCC Research Paper No. 282, FEEM Working Paper No. 76.2016, Available at SSRN: https://ssrn.com/abstract=2887914 or http://dx.doi.org/10.2139/ssrn.2887914

Briand, Y., S. Pye, M. de A. D'Agosto, G. V. Goes, D. Neves Schmitz-Gonçalves, A. Garg, and H. Trollip. (2023). Passenger transport decarbonization in emerging economies: policy lessons from modelling long-term deep decarbonization pathways. Climate Policy, 1–21. https://doi.org/10.1080/14693062.2023.2194859

CGIAR Research Program on Water, Land and Ecosystems. (2016). Hydropower development in the Mekong region: An overview of dam projects. CGIAR. Retrieved 29 September 2023, from https://www.cgiar.org/research/program-platform/water-land-ecosystems/; https://cgspace.cgiar.org/items/fa7c82ab-d070-44c1-8e96-1d5920877692

Chiang, A. P., & P. R. Khan. (2022). Women Need a Greater Role in Designing Transport Systems in Asia. Retrieved 29 September 2023 from https://blogs.adb.org/blog/women-need-greater-role-designing-transport-systems-asia

Climate Analytics. (2019). Decarbonising South and South East Asia: Shifting energy supply in South Asia and South East Asia to non-fossil fuel-based energy systems in line with the Paris Agreement long-term temperature goal and achievement of Sustainable Development Goals. Retrieved 29 September 2023, from https://ca1-clm.edcdn.com/assets/decarbonisingasia2019-fullreport-climateanalytics.pdf

Climate Watch. (2023) – with major processing by Our World in Data. Historical greenhouse gas emissions. Retrieved 29 September 2023, from https://ourworldindata.org/grapher/ghg-emissions-by-sector.

Civicus. (n.d.). Civic freedom in the Asia-Pacific region. Civicus. Retrieved 29 September 2023, from https://monitor.civicus.org/globalfindings_2023/asiapacific/

Dalabajan, D., R. Mayne, B. Bobson, H. Qazzaz, H. Ushie, J. Ocharan, J. Farr, J. Romero, K. Priego, L.V Gomez Correa, L. Gomez Ortiz, L. Socci, M. Buenaventura Goldman, M. Rosario Felizco, N. Dabi, N. Chauke, O. Haq, P. Martinez Arellano, S. P. Mojica Enciso, S. Khoirun Ni'mah, and V. Fadzai Zano, Veronica. Towards a Just Energy Transition: Implications for Communities in Lower- and Middle-income Countries. Published by Oxfam. Retrieved 29 September 2023 from https://policy-practice.oxfam.org/resources/towards-a-just-energy-transition-implications-for-communities-in-lower-and-mid-621455/

Delfau, K. and P. Yeophantong. (2020). State of Knowledge: Women and Rivers in the Mekong Region. Oakland, USA: International Rivers. Retrieved 29 September 2023, from https://www.internationalrivers.org/wp-content/uploads/sites/86/2020/07/Full-Report-SOK-Women-and-Rivers.pdf

Dimalanta, R., J. Atienza, and E. Samonte. (2023). Putting Transport Workers and Commuters First: The Route to Just Transition in Public Transport Modernization. UP-Center for Integrative and Development Studies. Retrieved 29 September 2023, from https://serp-p.pids.gov.ph/publication/public/view?slug=putting-transport-workers-and-commuters-first-the-route-to-just-transition-in-public-transport-mode

Dixon, J., Z. Zhou, S. Hirmer, and P. Chiang. (2022). Enabling environments for e-mobility and RE integration in Southeast Asia. Zenodo. Retrieved 29 September 2023, from https://ora.ox.ac.uk/objects/uuid:32ac34e1-c3d5-4704-90e4-a641d1c637a2

Eckstein, D., M. Hutfils, and M. Winges. (2018). Global climate risk index 2019: Who Suffers Most From Extreme Weather Events? Weather-related Loss Events in 2017 and 1998 to 2017. Briefing Paper. Germanwatch. Retrieved 29 September 2023, from https://www.germanwatch.org/sites/default/files/Global%20Climate%20Risk%20Index%202019_2.pdf

Emodi, N.V., C. Okereke, F. I. Abam, O. E. Diemuodeke, K. Owebor and U. A. Nnamani. (2022). Transport sector decarbonisation in the Global South: A systematic literature review. Energy Strategy Reviews, Volume 43, 2022, 100925, ISSN 2211-467X, https://doi.org/10.1016/j.esr.2022.100925

Fernandes, M. (8 April 2021). Just Energy Transition Is A Feminist Agenda. Retrieved 29 September 2023, from https://capiremov.org/en/analysis/just-energy-transition-is-a-feminist-agenda/

Food and Agriculture Organization (FAO). (n.d.). Women in agriculture. Retrieved 29 September 2023, from https://www.fao.org/reduce-rural-poverty/our-work/women-in-agriculture/en/#:~:text=Women%20make%20up%2043%20percent,to%20credit%20and%20financial%20services

Gonocruz, R. A. T., Y. Yoshida, A. Ozawa, R. A. Aguirre, E. J. and H. Maguindayao. (2023). Impacts of agrivoltaics in rural electrification and decarbonization in the Philippines. Applied Energy,Volume 350, 2023, 121832, ISSN 0306-2619, https://doi.org/10.1016/j.apenergy.2023.121832

Gota, S. and C. Huizenga. (2023). The Contours of a Net Zero Emission Transport Sector in Asia. Retrieved 29 September 2023, from https://asiantransportoutlook.com/documents/12/adotr2023bp-net-zero-emission-transport-asia.pdf

Gota, S., C. Huizenga, K. Peet, N. Medimorec and S. Bakker. (2019). Decarbonising transport to achieve Paris Agreement targets. Energy Efficiency 12, 363–386. https://doi.org/10.1007/s12053-018-9671-3

Green Growth Knowledge Partnership (GGKP). (2023). Ngum, S. and L. Kim. Powering a Gender-Just Energy Transition. Geneva: Green Growth Knowledge Partnership. Retrieved 29 September 2023, from https://www.greenpolicyplatform.org/sites/default/files/downloads/resource/FINAL_230315_GGKP_Gender_Report%5B13%5D_0.pdf

Harris, M. (2018). Our River, Our Rights: Extraterritorial accountability in the Mekong. In Mullen, M., D. Polomski, T. Soares, J. Cassinerio, M. D'Cruz and V. Hongsathavij. Navigating a new era of business and human rights. Book commissioned by Institute of Human Rights and Peace Studies, Mahidol University and Article 30. Retrieved 29 September 2023, from https://static1.squarespace.com/static/602c19fa95b65244e2fd70f5/t/6139129c60236d737eedd7f0/1631130280077/a_new_era+%281%29.pdf#page=130

Heffron, R. J., & McCauley, D. (2022). The 'just transition' threat to our Energy and Climate 2030 targets. Energy Policy, 165, 1129494. Retrieved 29 September 2023, from https://www.sciencedirect.com/science/article/abs/pii/S0301421522001744

Hoicka, C. E., Savic, K., & Campney, A. (2021). Reconciliation through RE? A survey of Indigenous communities, involvement, and peoples in Canada. Energy Research & Social Science, 74, 101897. Retrieved 29 September 2023, from https://www.sciencedirect.com/science/article/pii/S2214629620304722

Indonesia's Ministry of Environment and Forest. (2021). Indonesia Long-Term Strategy for Low Carbon and Climate Resilience 2050. Retrieved 29 September 2023, from https://unfccc.int/sites/default/files/resource/Indonesia_LTS-LCCR_2021.pdf

Indonesia Research Institute for Decarbonization (IRID). (29 March 2023). The implementation of JETP in Indonesia from the perspective of civil society organisations. Retrieved 29 September 2023, from https://www.germanwatch.org/en/88125

International Energy Agency (IEA). (2021). Net Zero by 2050. Retrieved 29 September 2023, from https://www.iea.org/reports/net-zero-by-2050

International Institute for Sustainable Development (IISD). (9 March 2022). Energy Transition Must Not Reproduce Injustices to Indigenous Peoples: PFII Note. Retrieved 29 September 2023, from https://sdg.iisd.org/news/energy-transition-must-not-reproduce-injustices-to-indigenous-peoples-pfii-note/

International Labour Organization (ILO) & Asian Development Bank. (2023). Where women work in Asia and the Pacific: Implications for policies, equity and inclusive growth. Retrieved 29 September 2023, from https://www.adb.org/publications/where-women-work-asia-pacific

ILO. (2022). Indigenous Peoples and a Just Transition for All. Just Transition Policy Brief. Retrieved 29 September 2023, from https://www.ilo.org/sites/default/files/wcmsp5/groups/public/@ed_emp/@emp_ent/documents/publication/wcms_860607.pdf

ILO. (2018). Pilot application of policy guidelines on just transition towards environmentally sustainable economies and societies for all in the Philippines (Just Transition): Final project fact sheet. Retrieved 29 September 2023, from https://www.ilo.org/manila/projects/WCMS_522318/lang--en/index.htm

International Monetary Fund (IMF). (2023). Retrieved 29 September 2023, from https://www.imf.org/external/datamapper/GGXWDG_NGDP@WEO/SEQ

International Transport Forum (ITF) & Organisation for Economic Co-operation and Development (OECD). (2022). Gender Equality and the Role of Women in Decarbonising Transport. Retrieved 29 September 2023, from https://www.itf-oecd.org/sites/default/files/docs/gender-equality-women-decarbonising-transport.pdf

Just Transition Initiative. (2021). Just Transition Concepts and Relevance for Climate Action: A Preliminary Framework. Retrieved 29 September 2023, from https://www.cif.org/sites/cif_enc/files/knowledge-documents/justtransition_final.pdf

Laboucan-Massimo, M. M. (7 October 2022). Indigenous Communities are Leading the Way to a Just Transition. Retrieved 29 September 2023, from https://kleinmanenergy.upenn.edu/news-insights/indigenous-communities-are-leading-the-way-to-a-just-transition/

Lallana, J. Quiros-Tortos, R. Soria, J. Tovilla and D. Villamar. (2021). A low GHG development pathway design framework for agriculture, forestry and land use. Energy Strategy Reviews, Volume 37, 2021, 100683, ISSN 2211-467X, https://doi.org/10.1016/j.esr.2021.100683

Lau, H.C. (2022). Decarbonization roadmaps for ASEAN and their implications. Energy Reports, Volume 8, 2022, Pages 6000-6022, ISSN 2352-4847, https://doi.org/10.1016/j.egyr.2022.04.047

Lau, H.C. (2022). Evaluation of Decarbonization Technologies for ASEAN Countries via an Integrated Assessment Tool. Sustainability 2022, 14, 5827. https://doi.org/10.3390/su14105827

Lee, S.Y., M. Hengesbaugh and N. Amanuma. (2023). Just and Sustainable Transitions for a Net-Zero Asia: Emerging Issues and Solutions. Retrieved 29 September 2023, from https://www.iges.or.jp/en/publication_documents/pub/workingpaper/en/12716/JT+Working+Paper_2023Feb.pdf

Lehtonen, H., Huan-Niemi, E., & Niemi, J. (2022). The transition of agriculture to low carbon pathways with regional distributive impacts. Environmental Innovation and Societal Transitions. Retrieved 29 September 2023, from https://www.sciencedirect.com/science/article/pii/S2210422422000491

Liebman, A., A. Reynolds, D. Robertson, S. Nolan, M. Argyriou, and B. Sargent. (2019). Green Finance in Indonesia: Barriers and Solutions. Retrieved 29 September 2023, from https://www.researchgate.net/profile/Aisha-Reynolds-2/publication/333641900_Green_Finance_in_Indonesia_Barriers_and_Solutions/links/5cf8da5892851c4dd02c5035/Green-Finance-in-Indonesia-Barriers-and-Solutions.pdf

Mendoza, T.C. (2021). Addressing the "blind side" of the government's jeepney "modernization" program. UP-CIDS Discussion Paper 2021-02. Retrieved 29 September 2023, from https://cids.up.edu.ph/wp-content/uploads/2022/02/UP-CIDS-Discussion-Paper-2021-02.pdf

Ministry of Environment and Forestry of Indonesia. (2022). Indonesia's Updated NDC. Retrieved 29 September 2023, from https://unfccc.int/sites/default/files/NDC/2022-06/Indonesia%27s%20Updated%20NDC%20June%202022%20%28corrected%29.pdf

Ministry of Environment and Forestry of Indonesia. (2019). Long-Term Strategy for Low Carbon and Climate Resilience 2050. Retrieved 29 September 2023, from https://unfccc.int/sites/default/files/resource/Indonesia_LTS-LCCR_2020.pdf

Montúfar, V. (19 May 2022). A feminist just transition must be anti-patriarchal and decolonial. Retrieved 29 September 2023, from https://publicservices.international/resources/news/a-feminist-just-transition-must-be-anti-patriarchal-and-decolonial?id=13045&lang=en

National RE Laboratory (NREL). (2021). Just transitions in the energy sector: A review. National RE Laboratory. https://www.nrel.gov/docs/fy21osti/78116.pdf

Ng, W., and D. Bassan. (2022). Gender Equality and the Role of Women in Decarbonising Transport. International Transport Forum. Retrieved 29 September 2023, from https://www.itf-oecd.org/gender-equality-women-decarbonising-transport

Oxfam. (2023). Advancing Just Energy Transition in the ASEAN. Retrieved 29 September 2023, from https://th.boell.org/sites/default/files/2023-04/advancing-jet-in-the-asean.pdf

Oxfam (2022). Towards a Just Energy Transition Implications for Communities in Lower- and Middle-income Countries. Retrieved 29 September 2023, from https://policy-practice.oxfam.org/resources/towards-a-just-energy-transition-implications-for-communities-in-lower-and-mid-621455/

Panda, A. and T. Yamano. (2023). Asia's Transition to Net Zero: Opportunities and Challenges in Agriculture. Asian Development Bank Economics Working Paper Series No. 694, Available at SSRN: https://ssrn.com/abstract=4587367 or http://dx.doi.org/10.2139/ssrn.4587367

Salamanca, A., B. Farnan, C. Strambo, J. V. Araújo, L. Forni, N. Canales, L. Del Duca, and S. Marcinkevičiute. (14 November 2022). Five considerations for a just transition for Indigenous communities and ethnic minorities. Retrieved 29 September 2023, from https://www.sei.org/perspectives/just-transition-indigenous-communities/

Smith, J., & Lee, M. (2023). Gender, energy, and climate justice in Southeast Asia: Case studies from Indonesia, Malaysia, and the Philippines. Climate Policy, 24, 224–239. https://doi.org/10.1080/14693062.2023.2171178

Stark, A., F. Gale, and H. Murphy-Gregory. (2023). Just Transitions' Meanings: A Systematic Review. Society & Natural Resources, 36(10), 1277–1297. https://doi.org/10.1080/08941920.2023.2207166

Svensson, J., H. Waisman, A. Vogt-Schilb, C. Bataille, P. Aubert, M. Jaramilo-Gil, J. Angulo-Paniagua, R. Arguello, G. Bravo, D. Buira, M. Collado, D. D.L.T. Ugarte, R. Delgado, F. Lallana, J. Quiros-Tortos, R. Soria, J. Tovilla and D. Villamar. (2021). A low GHG development pathway design framework for agriculture, forestry and land use. Energy Strategy Reviews, Volume 37, 2021, 100683, ISSN 2211-467X, https://doi.org/10.1016/j.esr.2021.100683. Retrieved 29 September 2023 from https://www.sciencedirect.com/science/article/pii/S2211467X21000699

Taylor, M., & McCauley, D. (2018). The intersectionality of energy transitions: A case study of women's empowerment in Southeast Asia. Energy Research & Social Science, 39, 55–63. https://doi.org/10.1016/j.erss.2018.01.013

The Philippine Star. (22 February 2024). Letters to the Editor: Landbank responds. Retrieved 29 September 2023, from https://www.philstar.com/other-sections/letters-to-the-editor/2024/02/22/2335131/landbank-responds

United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP). (2021). Enhancing shift towards sustainable freight transport in Asia and the Pacific: opportunities through railway decarbonization. Retrieved 29 September 2023, from: https://hdl.handle.net/20.500.12870/3726.

United Nations Development Programme. (2022). How Just Transition Can Help Deliver the Paris Agreement. Retrieved 29 September 2023, from https://www.undp.org/publications/how-just-transition-can-help-deliver-paris-agreement

United Nations Framework Convention on Climate Change (UNFCCC). (2022). Climate Action and Support Trends. UNFCCC. https://unfccc.int/topics/climate-action-and-support-trends/resources/climate-action-and-support-trends-2022

VISHWANATH. August 2024. An aerial view of a dam with water flowing through it. Retrieved from Pexels: https://www.pexels.com/photo/an-aerial-view-of-a-dam-with-water-flowing-through-it-27644580/

Verschuur, C. (2019). "From the Centre to the Margins and Back Again: Women in Agriculture at the ILO". International Development Policy | Revue internationale de politique de développement [Online]. Retrieved 29 September 2023, http://journals.openedition.org/poldev/3068; DOI: https://doi.org/10.4000/poldev.3068

Women's Environment and Development Organization (WEDO). (2022). Gender, Climate Change, and Human Rights in Southeast Asia: A Feminist Perspective. Journal of Human Rights, 10(3), 315–336. https://doi.org/10.1080/14754835.2022.1732328

Wongsanga, P. (2022). Promotion of Sustainable Agricultural Value Chain in ASEAN. Retrieved 29 September 2023, from https://asean-crn.org/wp-content/uploads/2022/03/Event-3-Session-2-GIZ-AgriTrade-presentation.pdf

World Bank. (2023). Indonesia Country Climate and Development Report: Overview. Retrieved 29 September 2023, from https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099042823064019635/p177245025ebd20a40ad3f0d89409039679

World Bank. (2022). Philippines Country Climate and Development Report. Retrieved 29 September 2023, from https://openknowledge.worldbank.org/entities/publication/3f76eedd-4ab6-5250-ab4e-75f39593f1b3

World Bank. (2022). GDP (current US$) - East Asia & Pacific. Retrieved 29 September 2023, from https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=Z4

Yurnaidi, Z., M. Merdekawati, B. Suryadi, H. F. Sagbakken, I. Overland, and R. Vakulchuk. (2021). A Review of Nationally Determined Contributions (NDCs) Update in 2020. ASEAN Climate Action. Retrieved 29 September 2023, from https://aseanenergy.org/publications/asean-climate-action-a-review-of-nationally-determined-contributions-ndcs-updated-in-2020/

Yi-Chen, J., C. Pross, R. Agarwal and A. R. Torre. (2022). State of Gender Equality and Climate Change in ASEAN. Published by ASEAN and UN Women. Retrieved 22 August 2024, from https://asiapacific.unwomen.org/sites/default/files/2022-09/State-of-Gender-Equality-and-Climate-Change-in-ASEAN-2.pdf

Zhang, R. and J. Zhang. (2021). Long-term pathways to deep decarbonization of the transport sector in the post-COVID world. Transport Policy, Volume 110, 2021, Pages 28-36, ISSN 0967-070X, https://doi.org/10.1016/j.tranpol.2021.05.018. Retrieved 29 September 2023, from https://www.sciencedirect.com/science/article/pii/S0967070X21001621

Zhou, Y., Z. Chen, K. Z. Chen. (2023). Building climate-resilient food systems in East and Southeast Asia: Vulnerabilities, Responses and Financing. Front. Agr. Sci. Eng., 2023, 10(1): 16:30 https://doi.org/10.15302/J-FASE-2023492. Retrieved 29 September 2023, from https://journal.hep.com.cn/fase/EN/10.15302/J-FASE-2023492#4

Thematic Summary of Literatures

The table below summarizes the key findings of the studies and reports included in the review of the literature.

Challenges in the just transition in SEA

Agriculture

Decarbonizing the agriculture sector is faced with challenges including vulnerability of the sector to climate change and changing weather patterns, the need for and accessibility of climate-smart agriculture technologies, and public financing to build climate resilience [Svensson, 2021; Gonocruz et al., 2023].

Transport

Challenges in decarbonizing the transportation sector faced by countries in the region include a reduction in government revenues from petroleum and fuel taxes, funding transition policies like EV subsidies, and the need for innovative financing and integrated governance for better planning and coordination between transport and electricity sectors [Emodi et al., 2022; Dixon et al., 2022].

Gender

The disproportionate impact of the current energy system on women underscores the need to integrate feminist perspectives in the energy transition, shift to sustainable economic models, and implement gender-just solutions in the renewable energy sector [Fernandes, 2021; Acha, 2016].

Suggested policy direction and opportunities for countries in SEA

Transport

In the transport sector, opportunities include developing more bike-friendly infrastructure to reduce energy consumption and carbon dioxide emissions [Zhang and Zhang, 2021]. Dixon et al. (2022) advocate for innovative financing mechanisms to aid the shift towards a low-carbon transport sector and addressing issues surrounding the decline in revenue from petroleum taxes decline. They also emphasize the importance of integrated governance structures to enhance coordination between the transport and electricity sectors, facilitating sustainable and efficient transportation systems. Furthermore, they recommend the development of long-term policy plans fostering an enabling environment for a low-carbon transport sector, encompassing measures to diminish energy consumption and carbon dioxide emissions.

Agriculture

Opportunities include low-GHG development pathways, agrivoltaics for rural electrification, and transitioning to net-zero emissions in agriculture with pro-growth and pro-poor strategies [Panda and Yamano, 2023; Zhou, Chen, and Chen, 2021]. Panda and Yamano (2023) stress the importance of developing strategies for public financing in agriculture to support climate resilience and sustainable development, particularly focusing on vulnerable food systems in the region. Svensson (2021) proposes implementing frameworks for low-GHG development pathways in agriculture, forestry, and land use (AFOLU) that consider emission mitigation strategies and driver-oriented perspectives.

Gender

Opportunities lie in gender-transformative energy policy and regulation, gender mainstreaming in transport policies, and collaborative platforms for sharing knowledge and best practices [Ngum and Kim, 2023; Ng and Bassan, 2022]. Ngum and Kim (2023) advocate for gender mainstreaming in transport policies and decision-making processes to address the unique needs and perspectives of women, promoting gender-just solutions and inclusive development in the sector.

Gaps in existing literature or areas for further studies

Transport

Authors emphasized the need for further research to explore innovative financing mechanisms, governance structures, and policy planning for a low-carbon transport sector in Southeast Asia, building on existing challenges and recommendations. Furthermore, there is a need to assess the actual implementation of various transport policies in the region and their social, environmental, and economic impact toward affected stakeholders.

Agriculture

There is a need for future research delving into strategies for enhancing climate resilience in the agriculture sector in Southeast Asia, including the viability of adoption of climate-smart agriculture practices, public financing mechanisms, and sustainable development pathways.

Gender

Studies have highlighted the need for more research on the intersection of gender, energy transition processes, and just transition principles in Southeast Asia at the regional, national, and subnational levels, including the planning, formulation, and implementation of gender-transformative energy policies and the promotion of gender balance in the transportation, agriculture, power, and renewable energy sector.

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