



PROSPECTS FOR A JUST TRANSITION IN ASIA : NAVIGATING OPPORTUNITIES AND CHALLENGES



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Introduction

Franziska Schmidtke, Project Director Climate and Energy in Asia, Friedrich-Ebert-Stiftung

Our lives and our world are ever-changing, ever-evolving. Disruptive changes can cause social or political distrust. The changes frighten us and cause everyone to be cautious. Unfortunately, when it comes to climate change, there is no doubt that we have to adapt and transform immediately. The longer we wait, the more disrupted our lives will be. As we are witnessing already, the climate crisis is on the brink of huge, irreversible effects. A notable example of such an effect is the melting of the ice sheet in West Antarctica. We must act now.

So, since at the centre of this climate crisis is an inevitable change, the change towards a low-emission future, we should find a consensus about how we want our transformation to play out. In this context, the concept of a Just Transition was established by global trade unions, and has been further refined ever since, highlighting the need to provide a holistic approach to the fight against climate change. A Just Transition requires putting people at the centre of the transformation, which means taking into account their human rights, their needs, and their will to solve the climate crisis and leave a livable planet to their children. Only then can our transformation be just, inclusive, and equitable. Yet, tackling the greatest challenge of our time with such an inclusive process is not an easy exercise. It will change the way we live, produce, commute, and consume. And the change upon us is not to be solved by individually adapting our behaviour. The change needs to be addressed with regard to the private sector and the globalized markets. We need bold action, a systemic answer, and a courageous action. It is not only an agenda point for policymakers, but something that we all, and in different capacities, need to be part of. In light of those challenges, it is important to get everyone on board.

From the beginning, FES not only subscribed to the concept and vision of a Just Transition; we positioned ourselves as an agency to build bridges. To pave the way for a Just Transition, our task for the last couple of years in the Regional Climate and Energy Project has been building multi-stakeholder alliances. We canvassed trade unions, academia, journalists, civil society, government, and private sector representatives.

We gathered those stakeholders in our implementation countries of India, China, Vietnam, Thailand, and the Philippines. We worked with them to build awareness, foster capacities, and raise their voices. Each year during the Just Transition Forum Asia, we brought those voices together and expanded our perspectives even further. We listened to experienced speakers and held discussions during the lab sessions. And all the discussions we facilitated and topics we supported will be highlighted with this editorial. It is all for the purpose of raising awareness and nudging the individual as well as systemic change.

Our work considers that there can not be a one-size-fits-all solution to the decarbonization of our economies, the energy transition, and the social ecological transformation of our cities. Therefore, FES also fosters diversity in the answers that we can all learn from. This publication will take you on a journey to discover a solution. It will take you to a number of Asian countries, showcasing recent developments in the various policy fields in which the concept of Just Transition is enshrined. It will highlight international accomplishments together with their national and local implementation. Not limited to the positive side, the publication will also look at the shortcomings of recent efforts and problematic schemes for implementing low-carbon technologies.

This comprehensive approach reflects our belief that a Just Transition can only be understood and effectively realized if we continuously bridge discourses and policies across the international, national, and local levels. On every level, we will find different obstacles and capacities to deal with climate change. Actors from different spheres almost speak different languages, which FES is determined to bridge to provide mind-expanding examples and discussions.

Next to the articles, you will find a section with book previews, highlighting a few of the books and studies that FES has worked on recently in Asia. We wanted to introduce them here to provide you with a more comprehensive understanding of our work. These are the long-term efforts of not only all the colleagues but also our partners in Asia.

We wish you a thought-provoking, insightful read.

1 Driving change: Thailand's electric vehicle transition

Biena Magbitang, Franziska Schmidtke and Đức Hoàng Minh



Thailand is a dynamically growing country that still mainly relies on fossil fuels. The country's automobile sector, an important manufacturing hub in South-East Asia, is striving to produce significantly more electric vehicles (EVs), therefore encouraging a captivating energy transformation in the mobility sector. But how to make it a Just Transformation?

The bustling streets of Thailand embody the dynamism of the growing country. The pulse of the street is accompanied by a symphony of sights and sounds. Colorful tuk-tuks line the streets, inches from sleek, modern cars. Swarms of motorcycles further clog up the already polluted thoroughfares. And in the background is the lively chatter of the street vendors, which you can still hear even from a distance. This vivid depiction aims to convey a powerful message: The trajectory of growth and development is intricately intertwined with the challenges posed by climate change, necessitating a concerted effort to curb greenhouse gas emissions.

The changing automotive sector in the Thai industry

One of the central pillars of the Thai industry is automotive production, the largest in South-East Asia as of 2019, and accounting for more than 10 percent of Thailand's GDP in 2021. The pivotal role of this sector is further amplified by its historical significance: The country has been developing its automotive sector for more than 50 years, including a series of policies to attract foreign investment.

It is therefore deeply entwined in the Thai economy and can not be neglected in any discussion of a Just Energy Transformation of the country.

In fact, the sector is already changing. Thailand is aligning with the global electric car boom, and has set itself the goal to transform 30 percent of its annual production of 2.5 million vehicles into EVs. In December 2023, the government announced a package of incentives for the period 2024-2027, including consumer subsidies of up to 100,000 baht (\$2,764) per EV, and lower import duty and excise taxes.

The Thai government's policies are aimed at promoting sales of EVs along with creating incentives for automobile manufacturers to invest in Thailand's EV sector. The Department of Land Transport has predicted Thailand's EV penetration rate to reach 8.7 percent of all vehicles in 2023, a meaningful increase from 3.8 percent in 2022.

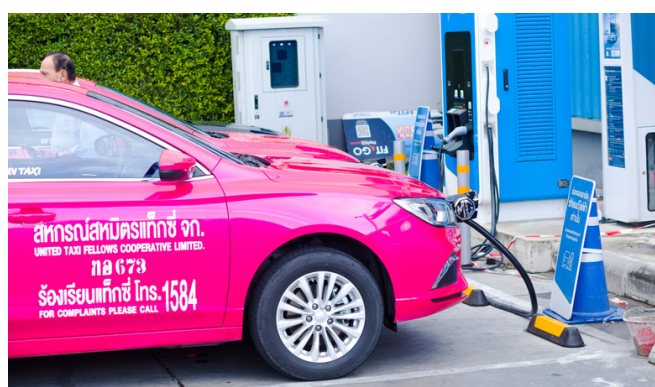
Climate ambition beyond the automotive sector

Therefore, one can argue that the Thai government is committed to transforming one of their most important industries into a greener one. Before looking beyond the EV targets, discussing the Just part of this Energy Transformation, and getting the full picture of the situation, we should note the climate ambition that the Thai government has prescribed itself.

At COP26, held in Scotland in 2021, the country officially committed to reaching carbon neutrality by 2050, and net zero greenhouse gas (GHG) emissions by 2065. Furthermore, Thailand also pledged to enhance the Nationally Determined Contribution to reduce GHG emissions by 30 percent by 2030 from the previous target of 20 percent, and its conditional target to 40 percent from 25 percent. Also within the UNFCCC framework, Thailand submitted its long-term low emissions development strategy in 2021 (and a revised version in 2022), laying out climate policies, priorities and measures, which will guide Thailand towards low GHG emissions and climate-resilient development.

After the latest government change, Thailand's Prime Minister Srettha Thavisin reaffirmed this dedication to climate action during his address to world leaders at the United Nations General Assembly in September 2023. During his speech, Thavisin emphasized the potential for economic models that harness resources for growth while preserving the environment and ecosystems.

"Thailand has been a strong advocate for a more balanced, people-centered, and sustainable path to growth. The sufficiency economy philosophy (SEP), our long-standing and locally-driven development approach, has consistently been applied to promote balance in all respects. Building on the SEP is the bio-circular green economy model, which leverages science, technology, and innovation to advance economic growth while conserving the environment and ecosystems. These are not merely concepts, but they are being implemented in Thailand."



Electric vehicle taxi plugged at charger station in Bangkok.
| Image from iStock / justhavealook

How to strive for a Just Transition in Thai's automotive sector

As promising as the numbers and business opportunities may be, it is crucial to address the human impact of these transitions. While modern technologies open doors to new jobs in parts and equipment production, they simultaneously threaten existing ones.

For instance, the rise of autonomous vehicle systems eliminates the need for human operators, potentially putting taxi drivers' livelihoods at risk. During the recently held Just Transition Forum Asia, Chalerm Changthongmadan, a representative from the Motorcycle Taxi Drivers Association of Thailand, stresses a shared aspiration for access to cleaner and more sustainable energy options: "I'm a taxi motorcycle driver who wishes [for] myself and all of us, including any grassroots communities, to have more energy alternatives like opting for renewable energy source[s] instead of fossil fuel. We could actually save millions if we had access to such greener energy. We are fighting for our place in the just energy transition and the world needs to hear our voice."

Yet the transformation from fossil fuel to renewable energy is not as easy for taxi drivers and other stakeholders. Financial constraints, limited knowledge, and a lack of trust in the government's promises are obstacles that need to be tackled, as suggested during the forum by Kiriya Kulkolkarn, from Bangkok's Thammasat University. There has been a lack of involvement of small and medium-sized businesses that can actually burden the attempt of a Just Transition. Researchers and community leaders suggested promoting sustainable development from the grassroots level to improve people's livelihoods, especially those working in the informal sector.

The perspectives, experiences, and needs of all stakeholders must be acknowledged and integrated into the broader dialogue to ensure that the transition to cleaner energy sources is indeed equitable and just for all stakeholders. This speaks to the concept of a Just Transition as a comprehensive approach to navigating the shift toward a sustainable, low-carbon economy. Key elements include prioritizing worker well-being, environmental sustainability, equity, and collaboration among various stakeholders. It is a long-term process focused on balancing economic transformation with social and environmental considerations.

In the case of the Motorcycle Taxi Drivers Association of Thailand, Changthongmadan puts it thus: "We do not want the just energy transition to be a choice of only the elites. We want them to be the choice of everyone."

Will these aspirations materialize in Thailand's electric vehicle industry? The new prime minister has made a strong

commitment to building a "people's government" that prioritizes addressing the needs of the citizens. As the nation navigates the transition to cleaner transportation, the question remains: Will the government's dedication to the people extend to fostering a just and sustainable shift in the automotive sector? The future of Thailand's electric vehicle industry holds the answer.

RECOMMENDED PUBLICATION



Impact of the Transition to Electrical Vehicles on Workers in Automotive Parts Manufacturing in Thailand

Kiriya Kulkolkarn



For a more in-depth analysis of the EV sector in Thailand, please refer to the FES Thailand publication titled **Impact of the Transition to Electrical Vehicles on Workers in Automotive Parts Manufacturing in Thailand**, by Kiriya Kulkolkarn.:



SCAN HERE

<https://library.fes.de/pdf-files/bueros/thailand/17393.pdf>

2 Towards a healthier and more just future

Gaea Katreena Cabico and Franziska Schmidtke



Climate change is a major threat to human health with the potential of disproportionately impacting the most vulnerable populations. In contrast, a Just Transition, that is a transition to a world that is more equitable as well as cleaner, offers significant health benefits. The health benefits offered by healthier living and working environments include the prevention of climate-related premature deaths, illnesses, and injuries. The interconnection between climate change and health therefore cannot be ignored. But what exactly can a Just Transition bring in terms of health, and what can the healthcare sector do for the climate?

Beyond its well-documented ecological and environmental effects, climate change has far-reaching consequences for human health. The World Health Organization (WHO) has called it the “single biggest threat facing humanity.” The list of effects on health is long and can be overwhelming. It includes illnesses and deaths from intense heat waves, and the health impacts of extreme weather events such as cyclones, floods and wildfires. Air pollution can lead to a range of respiratory illnesses such as asthma and bronchitis. Rising temperatures and altered precipitation patterns also lead to increases in zoonoses as well as food-, water- and vector-borne diseases. Climate change-induced disasters and the uncertainty about the future of the planet also contribute to mental health issues.

Scale and impact of climate-related health risks¹

- 2 billion people lack safe drinking water and 600 million suffer from foodborne illnesses annually, with children under 5 bearing 30% of foodborne fatalities. Climate stressors increase the risk of waterborne and foodborne disease.
- In 2020, 770 million people faced hunger, predominantly in Africa and Asia. Climate change affects food availability, quality and diversity, exacerbating food and nutrition crises.
- Recent research attributes 37% of heat-related deaths to human-induced climate change. Heat-related deaths among those over 65 have risen by 70% in two decades.
- In 2020, 98 million more experienced food insecurity compared to the 1981–2010 average. The WHO conservatively projects 250,000 additional yearly deaths by the 2030s due to climate change impacts on diseases such as malaria, and on coastal flooding. However, modeling challenges persist, especially around capturing risks such as drought and migration pressures.

¹Source: WHO, 2023. Climate Change: Key Facts. Available at <https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health>

The adverse health effects linked to climate change disproportionately impact the most vulnerable and disadvantaged populations such as women, children, older people, those with underlying medical conditions, poor communities, indigenous peoples, and displaced persons. Therefore, addressing climate change is not only an environmental imperative but also an essential action to protect human health and well-being.



Many women in coastal regions of Bangladesh suffer from various diseases of the reproductive organs due to the harsh consequences of climate change, specifically salinity. With fresh water increasingly scarce, they must wash their menstrual cloths and other sanitary items in water that is often dirty and salty. | ©Shuvroneel Sagar

A just and healthy transition

The definition of a Just Transition in recent years has been shaped by the political and ideological leanings of multiple stakeholders. Labour movements see a Just Transition as being one that secures workers' rights and jobs; environmental justice groups include whole communities impacted by fossil fuel in their description; multilateral institutions, investors, and transnational corporations see it

through a lens of economics, financial support, and investment. However, missing from all these approaches is a perspective on health.

The COVID-19 pandemic has established the importance of health-based planning, making evident the co-dependence of ecological health and human well-being. The debilitating post-pandemic economic crisis has reiterated the interlinkage between economics, public health, and the environment.

Health Care Without Harm (HCWH), an international network of healthcare providers, has emerged as a pivotal advocate, lobbying not merely for integration of a health angle into the Just Transition, but for a health lens to be applied meticulously to its entire planning. In a compelling position paper, HCWH stresses that incorporating a health perspective enriches the Just Transition process. The paper highlights health issues during a Just Transition from different constituencies. For example, from the perspective of workers they adopt the position that: "Any strategy for Just Transition of workers must take into consideration its impact across the value chain and on local informal economies. It should include the creation of alternate employment opportunities, provision of skills training, restoring local environments, renewing sustainable practices, and reviving traditional livelihoods such as farming or fishing."²

During the Just Transition Forum Asia, Shweta Narayan, the International Climate and Health Campaigner from HCWH, stressed that this means also taking into consideration the needs of formal as well as informal workers in the setup for a Just Transition. Furthermore, the value chain of the fossil fuel industry needs to be acknowledged. And, while we are thinking about providing a safety net for workers, next to social security health security is of utmost importance. Parts of the workforce that are now employed in the fossil fuel industry might not be healthy enough to find a job in another sector, or the long-term health effects of their labor has not been factored in.

Communities' right to health must also be safeguarded. The fossil fuel industry leaves a trail of pollution and enduring environmental effects, imposing burdens—financial and otherwise—on already marginalized communities. A health perspective extends beyond immediate concerns, considering the long-term implications for both the environment and health—a crucial aspect often overlooked in other assessments of the Just Transition.

²Shweta Narayan. 2023. Just Transition for Healthy People on a Healthy Planet. *NEW SOLUTIONS: A Journal of Environmental and Occupational Health Policy*. 2023;33(1):72-82. Available at <https://journals.sagepub.com/doi/10.1177/10482911231167566>

An additional consideration surfaces, namely the accessibility of critical infrastructure. In many cases, especially in countries such as India, fossil fuel companies own essential social infrastructure such as streets, hospitals, and education centres for their employees. The looming question is: What happens to this social infrastructure during the transition? Drawing from examples around the globe, Shweta Narayan points out that neglecting planning for the aftermath of industry closures can lead to dire social consequences, from increased domestic violence to substance abuse, alcoholism, and unemployment. These social and health aspects demand meticulous consideration.

Reducing health sector's climate footprint

Beyond framing the transition through a health lens, the health sector itself emerges as a pivotal player in climate change mitigation. The Healthcare Carbon Footprint Report, jointly published by HCWH and Arup in 2019, paints a stark picture: the healthcare sector's climate footprint equates to a staggering 4.4 percent of global net emissions, ranking it as the fifth-largest emitter if treated as a standalone country.

The healthcare sector, mandated to safeguard and promote health, bears a unique responsibility to embody the Hippocratic Oath's principle of "first, do no harm" concerning its climate footprint. HCWH passionately urges the sector to embark on a journey of decarbonization, advocating for low-carbon technology adoption, net-zero emissions building construction, investments in renewable

energy and energy efficiency, telemedicine utilization, and sustainable waste management. Establishing criteria for low-carbon or zero-emissions procurement emerges as a critical step.

Furthermore, HCWH calls upon health ministries, professionals, and medical students to champion the rapid phase-out of fossil fuels and advocate for a transition to renewable energy. Deeper research at the intersection of healthcare and climate change is advocated, aiming to facilitate the sector's transition to a climate-smart future.

In a resounding call to action, Shweta Narayan emphasizes the need to make health a foundational determinant of Just Transition policy. Every low-carbon economic option should undergo scrutiny, with health considerations analyzed through the lenses of impact on people and the environment.

A holistic perspective for a Just Transition

Integrating a health perspective into the discourse surrounding a Just Transition aligns with the ethos of placing people at the forefront. When applied from various constituencies, the health perspective becomes an informative guide for a Just Transition, enriching and reinforcing its principles. It not only sheds light on the interconnectedness of ecological and human well-being but also provides a roadmap for a transition that is not just environmentally conscious but inherently just and health-centric.

3 A path to sustainable and just cities

Gaea Katreena Cabico



Undoubtedly, the fight against climate change can only be won if we adapt our way of living in more than one sense. Also the way where we live and how we build these places is pivotal. Urban areas especially become more and more the place where mitigation and adaptation need to happen. The article introduces the concept of a Just Urban Transition and discusses recent examples of how urban living can be adapted to the challenges of Climate Change and which unintended problems may arise.

Cities are where the climate battle will be largely won or lost," said United Nations chief Antonio Guterres during the announcement of the first summit of local government leaders at a UN climate conference. This move recognizes that cities play a pivotal role in the global fight against climate change, which can also be illustrated by some staggering numbers: Cities globally are responsible for around 75 percent of the world's energy consumption, and 70 percent of greenhouse gas emissions.

Shifting to low-carbon development is crucial for mitigating the impacts of climate change. This transition is critical because cities, as major hubs of human activity and industry, contribute significantly to greenhouse gas emissions. More than half the world's population currently lives in urban areas, a figure expected to rise to two-thirds by mid-century. Up to 90 percent of this increase will take place in Asia and Africa.

Undoubtedly, the decisions that will be made on urban planning, energy efficiency, power generation, and transportation will play a decisive role in efforts to reduce

planet-warming emissions. But how do we ensure that policies and investments in urban areas that aim to mitigate climate disaster will be fair to different sectors, and will put equity and inclusivity at the heart of decision making?

What is Just Urban Transition?

The concept of a Just Urban Transition embodies the intersection of climate change and justice within the context of urban environments. This intersection is clearly reflected through a framework of Just Urban Transition. This framework, as well as the concept itself, was introduced in the Just Transition Forum Asia by Chloe Pottinger-Glass, a research associate of Stockholm Environment Institute Asia.

It is an approach that seeks to address the urgent need for climate action and the imperative of ensuring fairness, equity, and social justice in urban development. It promotes the use of low-carbon urban development, equitable governance, and an enabling labour environment.

A Just Urban Transition is one that strives to strike a balance between reducing greenhouse gas emissions, building climate resilience, and ensuring that the benefits of these efforts are accessible to all urban dwellers, particularly those who are historically disadvantaged or vulnerable.

Chloe Pottinger-Glass also introduced C40, a global network of nearly 100 mayors of the world's major cities focused on the climate crisis. They produced a [toolkit for a Just Transition](#) in urban areas. Factors in the toolkit include:

- Bold and committed city leadership
- Economic landscape and needs assessment
- Inclusive, diverse stakeholder engagement
- Advocacy and coalition building
- Initiatives to restructure and democratize the economy
- Measurable goals, milestones, and tracking mechanisms
- Enlisting resources and lasting funding streams for just transition

A real-life concept for the Just Urban Transition

The concept of 15-minute cities, has gained significant traction as a promising approach towards creating more sustainable, healthy, and equitable futures. In the face of growing urban challenges such as traffic congestion, pollution, and unequal access to essential services, urbanist and professor Carlos Moreno introduced this innovative concept in 2016. It envisions a city where residents can access most of their daily necessities and services within a 15-minute walk or bike ride from their homes.

The concept of a 15-minute city can stimulate local economies by increasing foot traffic in commercial areas and creating job opportunities, and can improve the physical health and wellbeing of residents due to active travel options and cleaner air. A 15-minute city also prioritizes underserved populations, and designs streets and active travel schemes with the most vulnerable users in mind. Local populations are also involved in the creation of a 15-minute city strategy. Such a strategy also reduces unnecessary travel and promotes a shift away from private vehicles. This leads to reduced transportation emissions and improved air quality. Cities with this kind of vision and programme include Paris in France, Portland in Oregon US, Barcelona in Spain, Shanghai in China, Melbourne in Australia, Ottawa in Canada, and Bogotá in Colombia.

Regarding this real-life concept, Yamini Jain, an urban and transport planner, poses the question: What do we need to do to achieve a Just Transition in the urban mobility sector when women and men have different commuting patterns? She argued that women's travel habits, which involve more time walking, cycling, and using public transport than men, are already more sustainable. Therefore, the current car-centric transportation system is both unsustainable and gender exclusive.

She also discussed the concept of smart mobility, or E mobility, a new idea that claims to be more inclusive and accessible. This new system, however, does not address the mentioned problem for its continuation to promote the use of cars. Jain pointed out that most users of this so-called inclusive mobility are male, highly educated, fully employed, and tend to travel alone, leaving out many vulnerable groups.

Instead, she suggested some potential solutions to foster equitable and sustainable gendered mobility in cities. Solutions include enhancing the public transport system, investing in infrastructure for walking and cycling, de-prioritizing car movement within urban areas, and designing cities that prioritize safety.

The risk of 'Unjust' Transition

The path to a Just Transition is not without challenge. Even when governments attempt to implement environmentally friendly policies, there is a risk that these initiatives may turn out to be unjust.

For example, in the Philippines, the government is replacing aging jeepneys, the ubiquitous truck-style minivans that provide most public transport, with newer and bigger models powered by engines that meet the cleaner Euro-4 standard. The Public Utility Vehicle Modernization Program (PUVMP) was launched in 2017. It envisions a modern and environmentally sustainable transport sector where drivers and operators have stable and sufficient livelihoods while commuters get to their destinations quickly, safely, and comfortably. The PUVMP is also seen to translate to a more sustainable and low-carbon transportation system, as the transport sector is ranked as one of the largest carbon-emitting sectors in the Philippines.

However, jeepney drivers and operators are resisting the programme, citing the unaffordable costs of new units, and the lack of available financial support and safety nets. While transport groups recognize the imperative to transition, they argue that the shift is unjust. To achieve modernization goals without leaving workers behind, the government should implement the programme in a phased manner to minimize disruption, ensure that financing options are accessible and affordable, and provide financial assistance and support for alternative employment opportunities. The insights and concerns of jeepney drivers, operators, and representatives from marginalized communities should be also considered in shaping the programme. Through collective action and thoughtful planning, we can shape urban environments that are sustainable, inclusive, and equitable.

Conclusion

In the fight against climate change in the urban context, a Just Urban Transition is pivotal. The adoption of this concept will ensure that our transition towards climate change adaptation in cities is not just effective but also inclusive and equitable. To make this concept materialize, there are many different solutions. However, social challenges persist, and actual implementation of a Just Urban Transition is still lacking.

4 Unseen consequences: Ignoring gender in just transition

Aishwaryaa Kunwar and Đức Hoàng Minh



Climate change is a complex crisis that disproportionately affects women in India, who face a lack of rights, unequal access to resources, and heavy responsibilities. These challenges are complicated by factors that exclude women from decision-making processes. To overcome these challenges and bring forward a Just Transition, women must be empowered and included in decision-making. Some directions may provide a clue on how to create a women-driven equitable and climate-resilient future for all.

India, with its diverse landscapes and climates, is a microcosm of global climate challenges. From extreme weather events to rising temperatures, the adverse effects of climate change are deeply felt across the nation. But within this narrative of environmental upheaval, the stories of women, transgender individuals, and other marginalized gender groups often remain untold.

Gender dimensions of climate crisis

In general, the science is clear: Climate change and gender-related challenges are very clearly linked; therefore a gender perspective on climate change will help us identify groups and mechanisms that need to be considered for a Just Transition. In the case of India, this close connection can be observed in both rural and urban settings, while being more prominent in the countryside.

In the rural areas, women have traditionally borne the responsibility of managing natural resources. This gendered division of labour often places them at the forefront of climate impacts. For instance, as droughts become more frequent and severe, women are forced to walk longer distances to collect water, leading to increased physical and economic hardship. Additionally, erratic rainfall patterns disrupt agriculture, further exacerbating food insecurity in many households. The lack of protective gear and infrastructure in these places amplifies the dangers they face.

Furthermore, land ownership remains a critical issue. In many parts of India, women have limited land rights, which hinders their capacity to implement climate-resilient agricultural practices. Without secure land tenure, they are unable to access credit and support for sustainable farming, perpetuating a cycle of poverty and vulnerability.

Climate change also exacerbates gender-based challenges for women in urban settings, as climate change pushes people to seek work and livelihood through migration. In cities, women, who are already struggling with unequal pay and limited access to economic resources, find their economic situations worsening. Lack of gender-responsive job creation and entrepreneurship opportunities will perpetuate the wage gap and push marginalized groups further into poverty.

Sanjukta Mukherjee, co-founder of Sustainable Design Research Consortium, stresses that the barriers to women's entry, retention and advancement in urban lives follow the "lack of flexibility in workplace, lack of mentorship opportunities, childcare facilities, awareness or education, limited mobility, training and development as well as self-perception and gender roles."

Women are also more likely to experience heightened vulnerabilities in the aftermath of climate-related catastrophes. Extreme weather events and natural disasters disproportionately affect women, who often find themselves at greater risk due to unequal access to resources and limited mobility. Displaced by flooding or storms, they are forced into crowded shelters or refugee camps where the risk of sexual and gender-based violence increases dramatically.

Climate-induced changes such as prolonged droughts and reduced access to clean water also disrupt the availability of menstrual products. In regions grappling with water scarcity, procuring clean water for basic hygiene becomes an arduous task, let alone maintaining menstrual hygiene. Ultimately, when resources become scarcer, menstrual products are often deprioritized in household budgets forcing menstruators to resort to unsafe materials and become exposed to hazardous health risks.

Challenges for achieving gender equality in just transition

There are many cultural but also political circumstances that will find women more compromised by climate change. Given the situation, an energy transition to mitigate greenhouse gas emissions must also be just, and must prioritize gender equity.

However, the road to a Just Transition includes many challenges. The main reason is that women have historically been excluded from formal decision-making processes in India. This lack of agency hinders their ability to adapt to climate change effectively. The power imbalance perpetuates a cycle of vulnerability, as policies and infrastructure development often fail to consider their specific needs and experiences. Unregulated mobility risks exposing women workers in industries to health insecurity, forced labour, harmful working conditions, and other forms of exploitation. They are often caught in a cycle where a lack of alternative employment opportunities forces them into precarious situations, leaving them vulnerable to abuse.

Therefore, when it comes to climate policymaking and climate negotiations, we cannot afford to neglect the gender dimension. If not actively prioritized and funded, women will continue to face heightened vulnerabilities and experience the harshest consequences of climate change and social disparities. "When we talk about how climate change interplays between gender inequalities, we see it in this so-called loudest policy instrument – budget and financing," highlights public finance and gender budgeting expert Maja Bosnic. "Money speaks, therefore, if it's not in the budget, then it is not a priority".

Moreover, there is a need to understand the win-win of giving women their deserved political representation in the fight against climate change. "A better gender balance is not a zero-sum game in which women stand to gain and men lose", Sanjukta Mukherjee reiterates. "The transition has a material interest in addressing its current gender imbalance".

Women's empowerment and leadership for a just transition

To overcome the challenges posed by gender inequality, raising the social status of women is required. In the fight against climate change, female leadership styles are recognized as having a unique perspective that emphasizes holistic approaches, long-term thinking, and community well-being. An inclusive leadership style will actually allow space for diverse voices to be heard and integrated into decision-making processes, resulting in more effective and equitable climate policies and initiatives.

Female leadership in India often extends into sectors that are closely linked to climate resilience, such as healthcare, education, and community development. Women in leadership positions within these sectors are well positioned to champion climate resilience efforts by incorporating climate considerations into healthcare systems, educational curricula, and community programs. Studies have proven that we can get high profit and performance under female leadership because it is more collective and collaborative. With business models spanning many sectors, the Just Transition is opening up a lot of jobs and opportunities for women.

There are international experiences India could learn from. Phuong Tran, Founder at Vietnam Energy Efficiency Network explains the country's renewable energy sector scenario where the energy transition process is expected to create more than 300 jobs in solar, wind and biomass power, requiring 1.6 million labourers.

However, as Tran highlights, “Vietnam will lack high quality-human resources for renewable development [...] a reason for which will be the gender inequality in recruitment and stereotypes that classify the energy sector as ‘more suited’ for men.” Therefore, women are needed for a Just Transition. “When women lead, transformative change follows,” Tran adds.

The consequences of failing to acknowledge and empower women in a Just Transition is far-reaching. If women's valuable perspectives and contributions in climate action are sidelined, this is bound to hinder progress towards more environmentally friendly alternatives. The neglect of their needs can foster resentment and mistrust, risking social cohesion and undermining the social fabric necessary for a just and sustainable future. Empowering women and identifying them as equal and relevant stakeholders will benefit not only gender equity but also the environment and society as a whole.

5 Financing solar power in urban social housing

Gaea Katreena Cabico, Đức Hoàng Minh and Franziska Schmidtke



Millions of Filipinos lack access to electricity, while those who have it often pay high rates. To resolve this situation with a clean, cheap, and self-owned source of power, residents of ALPAS, a social housing project in Bulacan province, installed a solar microgrid in 2019. This promising plan has not yet reached its full potential due to a lack of funding. This case shows that community-initiated solar power projects could help millions of Filipinos escape energy poverty, but financial constraints are a major barrier. The government and private sector need to work together to create financing programmes that make solar power more accessible to the poor. This could help to achieve a Just Transition that benefits everyone.

In 2015, more than 500 families residing in dangerous zones of Metro Manila, the capital of the Philippines, were relocated to a resettlement area in neighbouring Bulacan province due to the threats they faced from typhoons and high tide events. While these threats are no longer present in the social housing area of Aniban ng Lehitimong Paninirahan ng Ligtas sa Sakuna (ALPAS), residents have a new obstacle: lack of access to electricity and water services.

And they are not alone in this. The lack of access to basic utilities, electricity in particular, is a common challenge in social housing projects of the Philippines. Factors preventing electricity to reach these relocation sites are manifold. The beneficiaries are underprivileged and face financial constraints. The housing is usually distant from the power lines. To have a connection to the lines, the electric power distribution company Meralco requires at least 50 percent of housing units to be occupied, which is not always easy to achieve.

This situation led to the first solar-powered social housing in the Philippines. The absence of electricity motivated members of ALPAS to embark on a solar power project with Sun Asia Construction and Development Corp. The vision was bold yet simple: to overcome the barriers that prevented their community from accessing energy. They also want to make a contribution, no matter how small, to the fight against climate change, to make electricity rates lower, and to take ownership of their own solar-power system.

By 2018, ALPAS community members started building their own microgrid system. The installation of solar panels, the source of free electricity, began in 2019. However, installation was delayed due to the pandemic and financial constraints, with only 28 panels installed when the pandemic hit. Community members soon realised that the limited number of installed solar panels could not meet the energy consumption needs of the around 500 residents. The dream of paying lower electricity rates has also not materialized yet, according to ALPAS President Girlyn Obenza, as residents are still in the process of repaying the loan for the solar panels only half has been settled to date.

The experience of ALPAS underlines the importance of installing solar power systems prior to relocation as well as the need for a solar-system financing programme. "It would be better if, moving forward, there were a specific budget to be used for social-housing [projects] like this one," Obenza said. The administration of President Ferdinand "Bongbong" Marcos Jr. aims to build six million housing units until the end of his term in 2028; in this context, this small-scale community project could be informative on how to overcome energy poverty in the Philippines and support the energy transition of the country.

Overcoming energy poverty

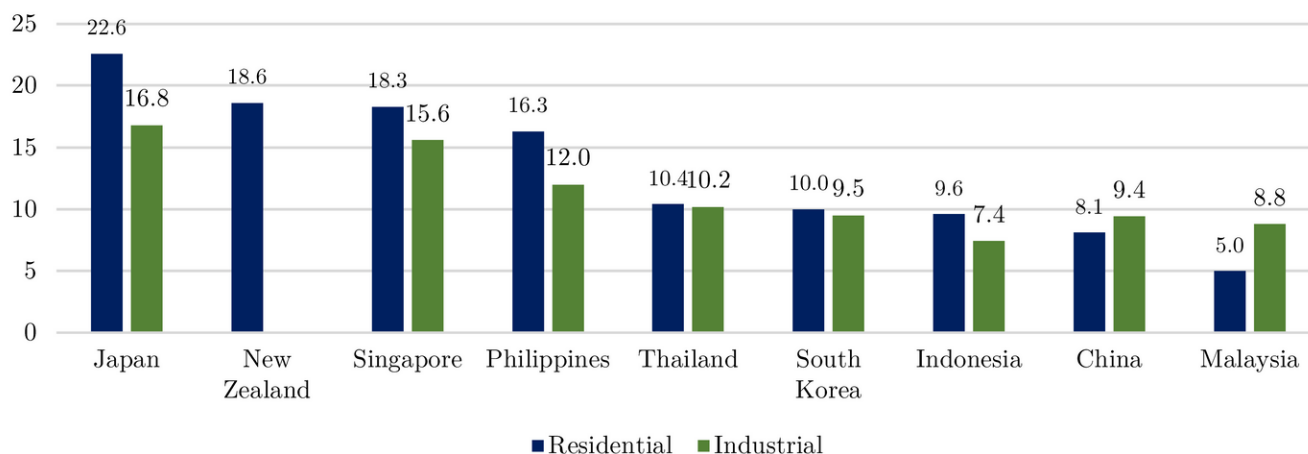
In December 2021, based on the latest status of energization provided by the National Electrification Administration, around 95 percent of households in the Philippines were electrified. This translates to approximately 23 million out of 25 million households.

What is preventing the remaining Filipino household from accessing electricity? First and foremost is high cost, according to Maria Teresa Diokno, Executive director of the Center for Power Issues and Initiatives. Electricity prices in the Philippines remain among the highest in South-East Asia, and inflation only exacerbates the problem. "Electricity inflation for the poorest 30 percent of households in 2022 hit 40 percent," said Diokno. Limited access to energy restricts access to essential services such as lighting, increases health risks, and reduces productivity, which negatively affects overall living conditions. Energy poverty also

exacerbates economic inequality as those with limited access to electricity often pay a higher proportion of their income for energy services. The prices were collected from the websites of the Indonesian Ministry of Energy and Mineral Resources, Tenaga Nasional Berhad – a Malaysian electric utility company, Board of Investment Thailand, The Manila Electric Company, and Vietnam Electricity.

For clean energy advocates, the solution is clear: empower people to own and manage the electricity they generate. With solar panels being community property through financial contribution, installed in communities and on roofs of houses, people can generate their own electricity. In short, it is the concept of energy democracy they strive for. Democratizing energy represents a transition from centralized and mostly fossil fuel-based energy systems to decentralized, clean, and more participatory energy systems that involve a broader range of stakeholders. Therefore, energy democracy is a viable approach for addressing not only electricity access but also climate change and social justice.

Electricity prices (US\$/kWh), December 2021



Sources: [AdMU WP 2023-02_0.pdf \(ateneo.edu\)](#), using the statistics of [Electricity prices around the world | GlobalPetrolPrices.com](#)

Electricity prices (USc/kWh), June 2018

USER TYPE	INDONESIA	MALAYSIA	THAILAND	SINGAPORE	PHILIPPINES	VIETNAM
HOUSEHOLD	11,00	10,00	12,14	19,97	18,67	10,59
MEDIUM BUSINESS	11,00	13,58	11,00	14,30	12,23	13,44
BIG BUSINESS	8,36	9,60	11,00	14,02	11,98	12,35
MEDIUM INDUSTRY	8,36	8,29	8,36	13,05	11,69	7,81
BIG INDUSTRY	7,47	7,76	8,36	12,72	11,63	7,41

Sources (in Indonesian):

Competitive Indonesian Electricity Rates in the ASEAN Region - Digital Energy Asia Digital Energy Asia (DEA) - an Indonesian digital energy service company

Financing solarization in housing projects

But for the energy transition to become desirable for urban communities like ALPAS, the government must create renewable energy financing programmes for the less privileged to augment existing financing options, which are hard to access. In 2022, Senator Risa Hontiveros filed a bill establishing a solar home system financing programme to be integrated into existing social housing financing initiatives, with repayment terms ranging from 25 to 30 years. The proposed financing programme is specifically designed for the social housing sector, a group typically excluded from existing renewable energy loan packages.

The proposed measure also aims to bring the benefits of solar energy to poor families, all while creating sustainable, long-term employment opportunities for the maintenance and repair of solar rooftop systems. Hontiveros' bill remains pending at the committee level, similar to counterpart bills filed at the House of Representatives by members Gus Tambunting and Luis Raymund Villafuerte.

Therefore, even though the issue has reached the agenda of the political process, it remains uncertain whether affordable renewable energy will be available to the urban poor any time soon. Taking this into consideration, Diokno also raised the possibility of consulting public-private partnerships that could provide support for the development and financing of renewable energy projects.

In the end, "the most important thing is that we give the people the opportunity to make their planned transition as easy as possible and affordable," said Wilson Fortaleza, vice president of the Center for Empowerment, Innovation, and Training on Renewable Energy. "Transitions should not just be for the upper class who can afford to transition themselves." So while the case of ALPAS showcases current constraints for underprivileged Filipinos, it also hints at viable solutions to overcome energy poverty by using off-grid renewable energy and therefore implementing a Just Energy Transition.

6 The plastic paradox: pollution, caste and livelihoods

Aishwaryaa Kunwar



New Delhi, home to over 20 million people, took a major step towards climate mitigation when it banned all forms of single-use plastics in 2017. A few years later, the whole nation of India introduced a comparable ban. Yet, while plastics and plastic waste have been a huge burden in India, causing pollution and greenhouse gas emissions, it is also a source of income and livelihood for many waste pickers in India. So the question is, how can a Just Transition in plastic be encountered?

Just Transition and the role of plastics

A "Just Transition" is a pivotal concept in the pursuit of a greener and more sustainable future. It embodies the idea that when societies and economies transition away from polluting and unsustainable practices, the process of this very transition should be equitable and inclusive. Above all, it recognizes that environmental change should not come at the expense of vulnerable communities, workers, or livelihoods. Within the broader endeavor of a Just Transition, plastic pollution emerges as a particularly complex and pressing challenge. Known for their durability and versatility, plastics have infiltrated nearly every aspect of modern life. However, their environmental consequences have grown alarmingly evident. Single-use plastics, in particular, have become emblematic of a throwaway culture that burdens landfills and pollutes oceans. In India, the context of Just Transition takes on a unique and compounded dimension.

Dr. Shyamala Mani, from the Public Health Foundation of India, stresses that what we really need to look at is our priorities and the kind of impact it is having. "We have to dramatically reduce plastics in our environment and more importantly, in our usage". But beyond the need to reduce usage of plastics significantly, one has to take into account that India's plastic problems mirror its complex social fabric.

On one hand, plastic waste pervades the environment, threatening ecosystems and public health. As Kawar Bir Singh, founder of Indian Birds points out, "Plastics in our ecosystems are pervasive. They are in our ocean, mountain ranges, freshwater habitats, and around the cities". On the other, however, there is an almost-invisible army, often marginalized and disregarded, that collects, sorts, and recycles this very plastic waste, making a living from a pursuit that society and policies often overlook.

For decades, plastic waste has been the backbone of the livelihoods of countless waste pickers in the country. Informal workers scour the streets, landfills, and even the sea shores for discarded plastics. They sort, clean, and sell these materials to recycling units, contributing significantly to the informal recycling sector in India, which accounts for nearly 90% of the recycling effort in the country. This sector is a lifeline for many, providing jobs for an estimated 4-5 million waste pickers across the nation.



Waste pickers search for recyclable materials at a garbage dumpsite in Guwahati, India. | Image from iStock / D. Talukdar

Banning plastics, but in a just way

In 2022, when India initiated the ban on single-use plastics, it intended to curb pollution and promote cleanliness. However, this move inadvertently marginalized the livelihood concerns of plastic waste pickers. While policies and awareness programs focused on the "littering issue," the underlying problems faced by these workers were often ignored.

Several initiatives are beginning to weave the threads of sustainability and social justice together. In Pune, for instance, SWaCH (Solid Waste Collection and Handling) cooperative empowers waste pickers by integrating them into the formal waste management system. This not only ensures better working conditions but also offers access to social security benefits like health care and education for their children.

Moreover, organizations like the All India Kabadi Mazdoor Mahasangh are advocating for the recognition of waste pickers as essential service providers, deserving of dignity, protection, and fair wages. These efforts are steps toward a Just Transition that honors the contributions of those who have long been invisible in the recycling chain.

Despite these promising initiatives, the path to a Just Transition in plastics is fraught with multifaceted challenges. The informal nature of their work leaves waste pickers vulnerable to exploitation, and they often face health hazards due to exposure to hazardous materials in the waste they collect. The growing privatization of waste management and the rise of waste-to-energy projects pose a significant threat to their traditional roles.

Additionally, the informal recycling sector faces competition from the influx of cheap virgin plastics, which discourages the recycling of existing materials. The introduction of Extended Producer Responsibility (EPR) frameworks, which hold manufacturers accountable for the end-of-life disposal of their products, could further transform the recycling landscape and pose another form of competition for the informal recycling sector. India notified guidelines for the policy in 2022 and is therefore adapting to a system that, based on the 'polluter pays' principle, lays down responsibilities of all stakeholders engaged in the plastic industry and fines for violations. However, reports highlight that "only a proportion of producers, importers and brand owners have registered on a centralised portal that would track their plastic collection and recycling targets". More work and effective implementation will be required for the country to reduce its plastic footprint, but also ways of adaptation for the informal sector of waste pickers needs to be discussed.

Jai Prakash Choudhary, General Secretary of Safai Sena, a collective of waste workers in Delhi puts the current state of affairs as follows: "Neither do we have a process of pre-empting harm and nor do we have a way of reducing material or in any way thinking of alternatives. We have no systemic way to do that."

Another important factor in how waste management and a Just Transition are intervened is the prevalence of caste. The caste system that operates within India's waste management systems, influences the perceptions and treatment of waste pickers. Due to social stigma, waste pickers face pervasive social stigma, and their work is often considered "unclean". They are subjected to social exclusion and discrimination. This system is built on and continues to sustain on Savarna notions of "purity" and "pollution," with certain tasks and occupations relegated to specific caste groups. As a result, waste picking, often viewed as a "polluting" occupation, is associated with marginalised caste communities, further perpetuating social inequities.

The SWaCH cooperative, which grew out of Pune's local trade union for waste pickers and Kagad Kach Patra Kashtakari Panchayat (KKPKP), attempts to navigate this caste-based inequality with its worker-rights-oriented model, helping a pro-poor alternative to centralised waste collection. The cooperative and its operations are completely owned by the waste picker members themselves, most of whom are women from Dalit and marginalized castes.



A woman waste picker carries collected reusable items at a garbage dumping site in Guwahati, India. | Image from iStock / D. Talukdar

This, however, is a rare example. Caste in India is deeply rooted and will require attention and action across various levels during a Just Transition. It poses a significant barrier to achieving a Just Transition in plastics in India. Addressing this issue requires not only environmental awareness but also a commitment to social justice, intersectionality and equity. India's journey toward a more sustainable future cannot truly be just unless it dismantles the chains of caste discrimination that persist in the realm of waste management.

What a Just Transition of plastic waste can look like?

- **Organized Systems for Waste Management and Recycling:** Implementation of organized systems that will prioritize workers' needs, ensuring safer working conditions and fair compensation.

- **Fair Payment and Dignity:** Recognize waste pickers' contributions with fair payment, dignity, and inclusion in the formal waste management sector.
- **Training, Enhanced Skill, and Awareness:** Offer training and skill development programs that enhance workers' capabilities and increase awareness of environmentally sustainable practices.
- **Leadership from Local Governance and Worker Unions:** Encourage leadership from local governance bodies and worker unions, fostering a sense of ownership and empowerment among waste pickers.
- **Micro-Credit Services and Social Protection Coverage:** Provide access to micro-credit services to support income-generating activities and ensure social protection coverage for waste pickers.

The path ahead is challenging, but it is one that must be walked with determination, empathy, and a commitment to social justice.

What is Extended Producer Responsibility (EPR)?

Extended Producer Responsibility (EPR), as defined by OECD, is an environmental policy approach in which a producer's responsibility for a product is extended to the post-consumer stage of a product's life cycle.

EPR has been a growing environmental protection mechanism throughout the world since the 1980s and involves:

- Shifting the responsibility (physically and/or economically; fully or partially) for treating end-of-life products from municipalities and taxpayers to producers.
- Encouraging producers to take into account environmental considerations when designing their products.

Typical EPR policy instruments:

- Take-back requirements assign responsibility to producers or retailers for the end-of-life management of products. through the establishment of recycling and collection targets, or of incentives for consumers to return the used product.
- Economic and market-based instruments provide a financial incentive in several forms:
 - 1) Deposit-refund: an initial payment (deposit) is made at purchase and is fully or partially refunded when the product is returned.
 - 2) Advanced Disposal Fees (ADF): fees levied at purchase based on the estimated costs to finance post-consumer treatment of the products.

3) Material taxes: involve taxing virgin materials (or materials that are difficult to recycle, contain toxic properties, etc.) so as to create incentives to use secondary (recycled) or less toxic materials.

4) Upstream combination tax/subsidy (UCTS): a tax paid by producers subsequently used to subsidise waste treatment.

- Standards such as minimum recycled content can encourage the take-back of end-of-life products, and it can strengthen incentives for the redesign of products.

EPR and the informal sector:

- A common challenge faced by emerging and developing countries in applying EPR policies is how to deal with the large informal sector that relies on these waste streams for their livelihoods. They often perform useful functions that are not provided by the formal sector in their countries, which would be interfered with by the introduction of an EPR system.
- Therefore, there is a need to include the EPR system to ensure effective waste management operations, achieve recovery targets, and facilitate affordable and sustainable financing in countries where established waste management systems are limited. Inclusion also provides opportunities for providing informal workers with sustainable livelihoods as well as improved health and social protection.
- Experiences of inclusion could be seen in many countries, from Asia, Africa to South America, while an example of the informal sector being excluded from EPR in Bulgaria could be a good lesson.

7 Colombia's pioneering Just Transition process: Insights and learnings



To effectively implement a Just Transition, a robust plan backed by logistics and financing is essential. A successful example of such a plan was introduced in the closing panel of Just Transition Forum Asia 2023. It is Colombia's Just Transition implementation shared by the insights of Javier Campillo, director of the Institute for Planning and Promotion of Energy Solutions for Non-Interconnected Areas.

Introducing the case

Colombia, historically endowed with significant fossil fuel reserves and known for its production as well as export of these resources, is now recognizing the finite nature of these reserves and the global shift towards renewable energy. Therefore, the country is heavily investing in a Just Transition, planning to spend 4.7 billion US dollars by 2026 to diversify its energy matrix and build a sustainable economy around non-conventional renewable energy sources. This strategic move aims to address environmental concerns, reduce dependency on fossil fuels, and embrace a more sustainable energy future.

The road to success: Securing funds for a Just Energy Transition

To tackle the huge task at hand, Colombia was successful in securing funds from the Climate Investment Funds, specifying clear targets and projects. Their focus includes rural electrification through local energy sources, grid infrastructure expansion for non-conventional renewable energy (NCRE), addressing public transportation electrification, and deploying NCRE technologies such as offshore wind and green hydrogen.

While the content and approach to a Just Transition for Colombia is an interesting learning possibility for other countries, Campillo emphasized his learnings from the application process. “[To] any country interested in accessing funds: There are several types of funding for Just Energy Transition, and it is very important to have a very focused approach.”

About the vision

While Campillo provided a best-practice model of how to reach the necessary funds for a Just Energy Transition, he also shared the vision that the Colombian government came up with. Beyond the very specific targets and projects under the Climate Investment Fund, those projects are just part of a greater idea that entails a transformational change for Colombia. The vision is another part. In order to achieve a transformational change around the energy transition, Colombia set out to diversify its economy, which has been heavily reliant on the production and export of fossil fuels.

For the diversification, Colombia foresees a re-industrialisation of the country through the local supply of products, goods and services for the energy transition. They also foresee a social transformation in the rural areas and in the context of the electrification of rural areas. Another part of the main strategy is to empower so-called energy communities. The future energy system is a decentralized one, where communities take part in energy production, energy manufacturing and energy consumption.

Not to forget: Gender, diversity, training and the communities

Another component of Columbia's plan for a Just Energy Transition is the involvement of women. Campillo stressed that "especially in rural areas, most sustainable businesses are driven by women." Therefore, the Just Transition plan involves gender mainstreaming, including a Diversity Action Plan with the project operators. There are set minimum requirements regarding jobs and the integration of women and people with disabilities, along with training to promote access to qualified jobs in renewable energy integration, and workshops and sensibilization aiming to achieve inclusion and empowerment.

Of course, there is a great need to train a young generation of Colombians together with new introduction of technologies.

As mentioned before, the involvement of communities is also key to the Colombian plan. The involvement of communities in the energy production line will empower them and help decentralize the grid and the energy system, which has been challenging for the mountainous country.

Campillo concluded: "For any country seeking funds for their Just Transition, it's crucial to have a clear plan, specific projects, and ensure broad involvement, especially of popular economies, in the energy transition."



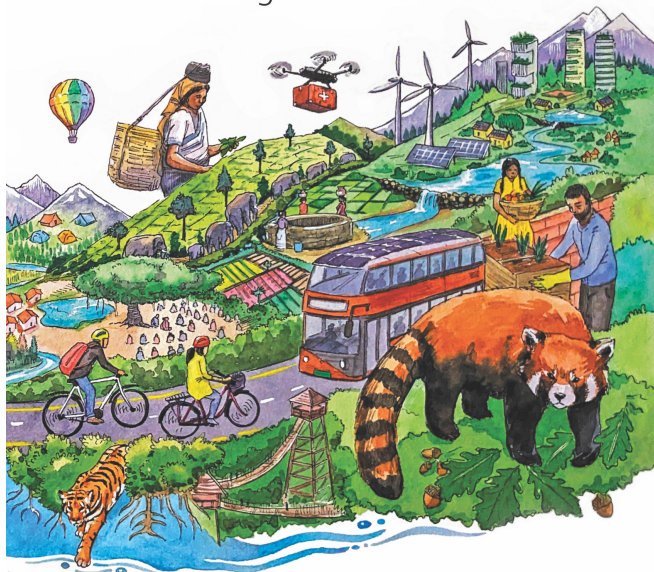
BOOK PREVIEWS

Book Preview I: Climate Actioneers' Primer: A Beginner's Toolkit

Richard Kaniewski and Mandvi Kulshreshtha

A Climate Action Series Book

Climate Actioneers' Primer A Beginner's Toolkit



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Rahul Palekar
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Imprint

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The Friedrich-Ebert-Stiftung (FES) is a non-profit German foundation, committed to the values of democracy and social justice. It was founded in 1925 and is named after Germany's first democratically elected President, Friedrich Ebert. FES India, established in the 1980s, is committed to building platforms of mutual trust for open debate and the exchange of new ideas. Using workshops, seminars, exchange programmes, and academic papers, FES India offers nuanced socio-economic analyses and fosters debates on a national, regional and global level.

SPROUTS (est. 1995) is a Mumbai-based Environmental Consulting, Eco-tourism & Research organisation, focusing on climate action via responsible tourism & wildlife conservation. SPROUTS undertakes various projects to document, conserve and protect biodiversity across South Asia.



By now, every citizen on this planet is aware of the different manifestations of global warming and climate change. Once rare phenomena such as heat waves and cold waves are becoming common occurrences. Citizens, governments and people, though unprepared, are devising coping strategies on the go. For India, the economic cost of inaction towards climate change could be as high as 35 trillion US dollars (2,588 trillion Indian rupees) in the next 50 years, according to World Economic Forum 2021 estimates. This whopping figure does not mean much to street vendors who have to endure pollution of various kinds and degrees to carry out their daily businesses. Neither does it matter to a farm labourer who realizes that the number of hours s/he can be out in the field comfortably is shrinking, and the crop yield is falling relative to labour. If the headline figures seem abstract to these stakeholders, they understand the science as well as the reason behind these drastic climate changes. They might even have simple and local solutions to address these challenges.

Unfortunately, they are never consulted for the same. Any consultations are usually between those who produce these whopping figures, i.e. academia, those who contribute towards the acceleration of climate change, namely, industry, and those who provide solutions in the form of policies and guidelines, that is the government. The present dominant societal construct undermines common wisdom, celebrates the economic gains of a few over the socio-political empowerment of the majority, and remains unapologetic about the irreversible damages it has caused to the planet as well as its beings. How did we even get here? History provides important lessons for creating a better future. Hence, it becomes imperative to trace the origins of inaction and follow its trajectory to the present. Based on that knowledge, we can create action plans for the future.

With this objective in mind, Friedrich-Ebert-Stiftung (FES) India Office, along with its partner SPROUTS, a Mumbai-based environmental NGO, organized the 2nd International

Sustainability Conference in 2021. The task was simple: to hear from communities, individuals, experts, and practitioners about the reasons behind the present climate crisis and solutions to address it. We realized that there is no dearth of workable solutions. However, such solutions have not been harnessed to their full potential yet. The reasons for inaction and disinterest could range from economic compulsion, social unacceptance, to political non-engagement. This made us even more determined to produce a solution-oriented compendium that can become common public knowledge and a resource bank for climate action. The result is The Climate Actioneers' Primer: A Beginner's Toolkit.

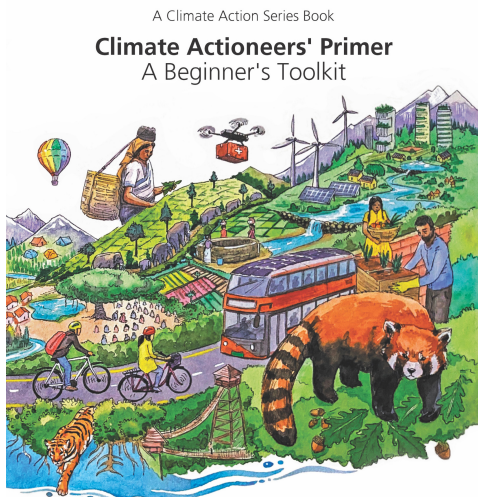
The Primer has been created to achieve an array of objectives. It follows the concept of "show and tell", where actions are demonstrated not only as ideas but as case studies wherever possible. It provides a holistic view of climate-related challenges backed by in-depth research. It elucidates the interconnectedness of issues that are mostly seen in silos.

Policies and academic research are often loaded with scholastic language and complicated processes that cannot be followed by a common citizen. The Primer is a collection of sustainable and measurable climate solutions presented in a simple manner. It has been verified by people, experts, and practitioners. It provides notes on achievable and successful ideas implemented in different parts of the world and that can be contextualized and implemented within a given geography.

The idea is also to initiate cross-sectoral dialogues and bring actors together for collective action wherever possible. It should also raise greater awareness amongst different stakeholders. The solutions can be taken up by students, activists, policymakers, planners, environment enthusiasts, corporates, subject experts, industry or those who recognise they have a stake in the future. We hope that the Primer will contribute towards building knowledge and alliances that can jointly address the current climate crisis. We also hope that it will inspire readers to pick up one or more solutions towards climate action as it has for us.

DOWNLOAD THE PUBLICATION

Climate Actioneers' Primer : A Beginner's Toolkit



Anand Pendharkar
Rahul Palekar
Amruta Padgaonkar

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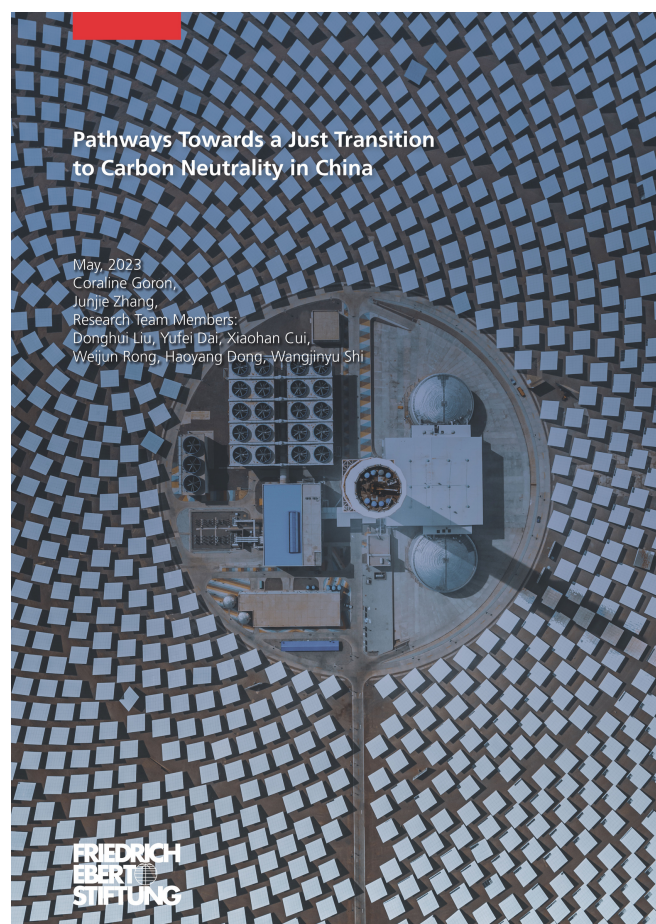


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Book preview II: Pathways Towards a Just Transition to Carbon Neutrality in China

Coraline Goron, Zhang Junjie, and Research Team



In September 2021, China's President Xi Jinping told the United Nations General Assembly that his country's emissions would peak by 2030 and it would become carbon-neutral by 2060. To achieve this goal, local governments across China have rolled out many different energy transformation policies. In collaboration with FES Shanghai, a research team from Duke University in Kunshan has analyzed these policies.

The studies analysed the justice implications of different aspects of energy transition and what lessons can be drawn. The studies not only provide a good insight into possible strategies to socially shape the energy transition, it also points out that fairness considerations such as compensation mechanisms are key elements of a successful transformation.



Impacts of the low-carbon transition on industry, localities, and social groups in China

Since the introduction of the dual goals of an emissions peak carbon neutrality (known together as the 30 60 Goals) in September 2020, climate change has become the main driver of the energy transition in China. Achieving these goals and keeping global temperatures under 1.5-2 °C requires bold, sustained, and fair energy transition strategies. The Action Plan for Reaching Peak Carbon Emissions by 2030 issued on 26 October 2021, outlines a combination of regulatory and market-based policy interventions to meet that goal. Still, the plan does not pay enough attention to the interventions' fairness impacts. China must decidedly engage in a just transition to harness the energy transition while achieving a common prosperity,

correcting existing social inequalities, re-balancing its economic development, and creating decent and sustainable jobs for all its citizens.

The book explores several key dimensions and policy fields calling for the implementation of a just transition framework in China. It examines the current and projected distributive impacts of China's energy transition on industry, localities, and vulnerable social groups.

The adverse impacts of the transition are expected to have a particular impact on energy-intensive industries that face either near-term phase-out or substantial investment costs affecting their financial stability and competitiveness. Among them, small and medium enterprises are particularly vulnerable to regulatory risks and rapidly increasing commodity prices. In locations where these industries are concentrated due to their resource endowment, historical legacy, or comparatively late economic development, the whole of the surrounding locality can face particularly challenging circumstances in the transition.

The workers and communities that have relied on these industries, especially in less-developed locations or where resources are declining, may be particularly affected. While

millions of workers in energy-intensive industries are at risk of unemployment, low-income households face the risk of falling into energy poverty as cheap coal is phased out and replaced by greener but more expensive alternatives.

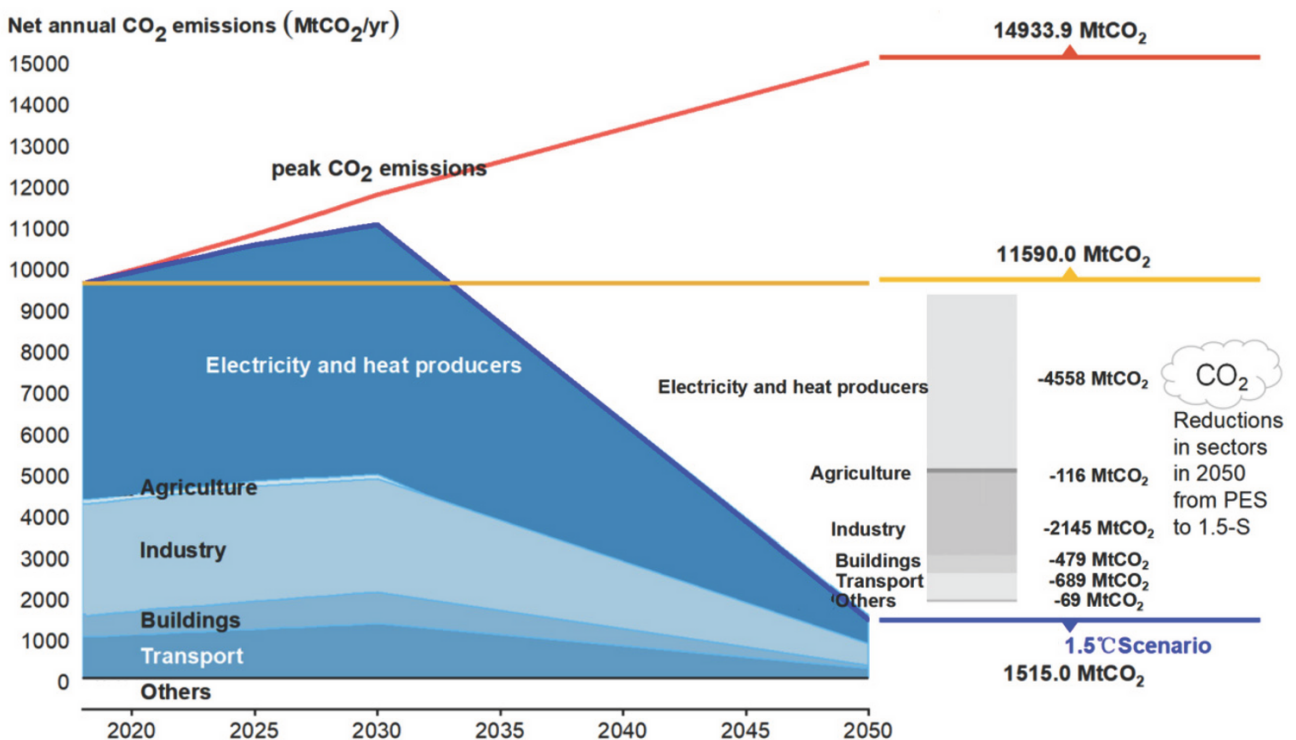
The fairness impacts of coal decommissioning: the case study of City A in Guizhou Province

A case study focusing on a coal-based city in Guizhou Province examines the Chinese government's implementation of the coal decommissioning campaign during the 13th Five-Year Plan (FYP). Based on fieldwork carried out in July 2021, it focuses on the treatment of workers whose mines have been closed.

Although many small, mostly private coal mines were closed down, and the top-down decommissioning target was exceeded, overall total coal production capacity was increased through capacity added in larger, primarily state-owned, mines. Significant impacts of the closures were observed in the localities where mines were closed, translating into an uncompensated loss of tax revenue for local governments and a significant active population outflow. Furthermore, the fieldwork found that the treatment of coal miners differed significantly depending on whether their employer was a state-owned or a private mine.

Chinese emissions going up on the short run, down on the long run

Figure 1: Carbon emissions in China through 2050



Source: BCG, 2020, McKinsey, 2021, Energy foundation, 2020

Government resettlement funds were primarily used to support state-owned mines, which resettled their workforces mainly by reemploying them in other mines or factories they own, placing the older workers in early retirement, or terminating their contract in exchange for a lump-sum compensation. In contrast, private mine workers were usually dismissed without any compensation. The municipal governments should capitalize on their current coal mining income in order to invest in economic diversification and lay the foundations for a just transition towards a sustainable economy that includes the regeneration and revitalization of mining areas, and extend social services and retraining to all workers, including those employed in the private sector and adjacent informal sectors.

The fairness impacts of energy consumption restrictions: allocation and implementation of dual control targets in Jiangsu Province

Moving from coal production to consumption, the study explores the implementation of the dual controls on energy intensity and consumption. The policy has been a critical instrument used by the central government to achieve carbon emissions reductions by ordering industry to reduce energy intensity and by limiting growth in energy consumption in the 13th FYP.

Investigating the impacts of this new enforcement tool in Jiangsu Province, the authors found that a red warning issued in August 2020 led to indiscriminate power cuts across the province, regardless of municipalities' conditions or target performance, and that were implemented in targeted industries like cement and soda production in a manner that was equally indiscriminate and untransparent. Pointing out the apparent irrationality of these measures and their negative impact on both the local economy and broader supply chains, the chapter concludes by supporting recent policy changes indicating a shift away from drastic energy consumption control towards more targeted control of carbon emissions in the 14th FYP, and calls for more scientific, transparent and fair distribution and enforcement of targets among localities and industries to avoid damaging the economy and to build confidence among compliant firms that their efforts are not in vain.

The fairness impacts of clean heating programmes: cases studies from two neighboring localities in Hebei Province

China does not seek to reduce coal consumption only in industry but also across society. Therefore the study analyses the clean heating programme, which promoted the shift from coal-burning to greener energy sources in rural areas of China's northern provinces during the 13th

FYP. Based on fieldwork in Hebei Province in June 2020, this case study focuses on assessing the impact of the fuel switch on rural households' disposable income.

While the shift from coal to gas or electricity brings undeniable health benefits and convenience to rural households, the manner of local implementation may unintentionally impose a higher burden on the poorest households. First, different fuels and technologies (clean coal, gas, factory waste heat recovery and distribution, electricity, including electric air conditioning and solar heat pumps) involving direct and indirect costs for residents have been imposed without consultation. Second, implementation has varied widely across local administrative units depending on their economic wealth, with poorer localities receiving looser fuel switch targets but facing higher transition costs.

Finally, due to differences in housing size, insulation quality and consumption calculation methods, the fuel switch has resulted in rural households paying a much higher incremental energy cost than their urban counterparts, in some cases possibly rising to more than 15 percent of their disposable income as government subsidies are phased out. To mitigate these regressive impacts, the government should stabilize energy supply and energy prices, allow for longer-term transitions involving public participation, pay more attention to the quality and safety of the equipment installed in rural areas, and support stronger cross-jurisdictional cooperation mechanisms at the grassroots level.

Achievements and shortcomings of Photovoltaic Poverty Alleviation Projects as a just transition policy tool

Under the just transition framework, the energy transition can also be harnessed to address existing social inequalities. The study analyzes the Photovoltaic Poverty Alleviation Project (PPAP), which was implemented during the 13th FYP, to stimulate the expansion of solar power in rural areas and to use the revenue generated by the sale of the electricity at subsidized prices to provide income for poor villages and households.

On many levels, this policy was a great success since, by the end of 2020, it had allowed the installation of 26.4 GW of solar power across 60,000 villages, reportedly generating 18 billion yuan of income per year that supported 4.15 million poor households and 1.25 million public service jobs. However, the case study analysis finds several implementation issues that put the sustainability of these projects at risk and, in some cases, may aggravate rather than improve the financial situation of the localities and rural households they were aimed to help.

Specific challenges include illegal land grabs from farmers, the use of low-quality equipment and poor maintenance leading to accelerated efficiency losses, the creation of unsustainable household and local government debt, and a lack of transparency regarding the use of revenue leading to misappropriation and embezzlement.

Following the end of the PPAP policy in 2020, the chapter draws on these insights to formulate recommendations to foster more effective and fruitful implementation of existing projects and inform new policies putting solar power at the center of rural revitalisation goals. In particular, it advocates increasing the oversight of PPAP projects and putting in place coordinated maintenance systems to maximize their lifelong productivity, and developing regulatory frameworks to: ensure the most efficient and fairest use of rural land; guarantee the best quality and maintenance of the solar equipment used; and enable rural solar-power farms to generate revenue from the market rather than government subsidies by enabling their participation in market-based mechanisms such as the sale of green certificates or carbon offset credits.

In conclusion, the study underscores that, whereas all the policies reviewed in the case studies have brought China a step closer to sustainability, their fairness impacts have not been sufficiently factored into policy design and implementation. Indeed, although each transition policy has included some measures of compensation and transitional support, these have often been insufficiently prepared and insufficiently funded, or implemented in

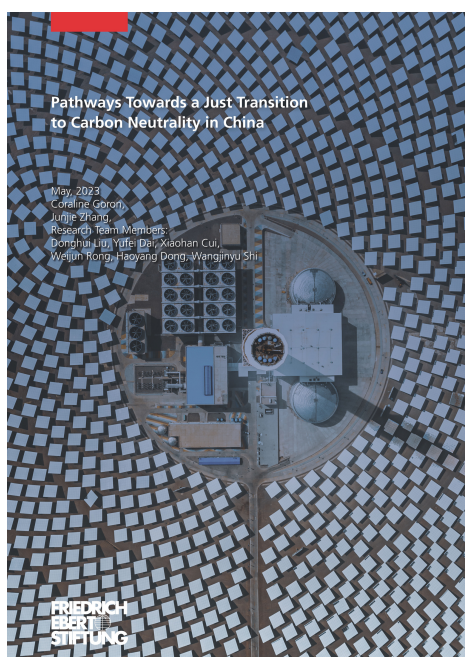
an unbalanced manner, or tied to the achievement of short-term campaign-style policy goals. In addition, most policies have experienced frequent and unwarranted changes, which have left no time for local governments and stakeholders either to participate in policy design or to plan and prepare for changes. Instead, top-down policy mandates have encouraged local overreactions and a focus on short-term achievements at the expense of sustainability.

Considering that a holistic policy design with a continuous focus on affected groups, their effective participation, their welfare, effective incentive programmes, and appropriately calculated and fairly distributed subsidies, is crucial for enabling a just transition towards carbon neutrality by 2060, we recommend the following general actions:

- Mainstream fairness considerations across all low-carbon transition policy design and implementation processes.
- Adopt an inclusive assessment system of low-carbon projects that integrates social outcomes alongside environmental performance.
- Ensure the provision of adequate, stable, and equitable compensation mechanisms for the social groups and communities that are negatively affected by energy transition policies and projects.

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Pathways Towards a Just Transition to Carbon Neutrality in China



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Book preview III: The Transformation of Southern Medium-Sized Cities Toward Climate Change Resilience: The Cases of Ben Tre and Binh Duong provinces



Ben Tre river | ©Phan My Lien

Concerns about environmental issues, including climate change, have been discussed for a long time along with the development of cities. However, it was not until the late 1970s that climate change officially became a global intergovernmental political issue. In this period, greenhouse gas emissions emerged as a scientific and political issue. Since then, climate change has gradually received greater attention from international experts and has been seen as a threat to global sustainable development. This attention to climate change comes from the evidence that human activities have caused greenhouse gas emissions leading to climate change which, in turn, results in extreme weather events or changes in natural conditions such as rising sea levels, higher temperatures, drought, and melting ice caps. In collaboration with FES, a research team from the University of Social Sciences and Humanities has analysed how attention became action in two provinces of Vietnam.

Transformation towards climate change resilience in the eyes of Vietnamese locals

With climate change increasingly causing many extreme weather events, countries are starting to design strategies to simultaneously mitigate anthropogenic climate impacts and increase resilience to climate change. Considered to be one of the countries most vulnerable to climate change, Vietnam is making considerable adaptation efforts. As such, transformations to increase climate change resilience have officially started at the policy level. After joining international agreements on climate change, most of Vietnam's economic and social processes now include tackling climate change. At the local level, Vietnamese people are also transforming their livelihoods and lifestyles to become more resilient and adapted to climatic changes over time. Indeed, these strategies have been designed depending on the impact of climate change on each area.

Ben Tre and Binh Duong, two provinces in the south of Vietnam, provide examples of transformation towards climate change adaptation. The thorough report analyses these transformations in three key dimensions: livelihoods, energy, and infrastructure/transport. These three perspectives represent fundamental changes in the societal structure in terms of both physical space and societal organization, thereby providing distinct policy suggestions. Following an analysis of the variation and tolerance of the field study locations and a literature review, the authors propose a set of indicators to measure the resilience of localities. The research was conducted through two case studies in Ben Tre and Binh Duong, representing one province in the Mekong Delta bordering the sea and heavily impacted by climate change and one province in the south-east of Vietnam, which is less affected by extreme weather events. The study included 40 in-depth interviews with local state officials and organizations, entrepreneurs, small traders, workers, and farmers. In addition to this primary data, the authors also undertook a document analysis. The transformations are analysed with reference to the FES Socio-ecological Transformation Analysis Framework.

How life has transformed in the south of Vietnam due to climate change

The results of the analysis are then presented along the three above-mentioned aspects. In terms of livelihoods, farmers have changed their agricultural practices from freshwater agriculture to brackish or saltwater agriculture or aquaculture. Some farmers have the capacity to invest in hi-tech farming. Meanwhile, others who do not have this capacity have to rent out their land, or give it up altogether and go to work for companies in the region. In addition, many farmers, especially young people, have left the rural areas for big cities such as Ho Chi Minh City and Binh Duong in search of work. Businesses are also affected by the impacts of climate change. Many companies have less revenue, forcing them to diversify products and services to stay profitable.

In terms of infrastructure, the government has built a number of saline prevention works to limit the harmful effects of saltwater intrusion in areas vulnerable to climate change. The planning of infrastructure systems such as roads, water supply and drainage systems, anti-flood systems, and wastewater treatment all take climate change into account. Regarding transportation, to cope with the impact of rising sea levels and flooding in urban areas, the road system has been enhanced and reinforced.

Some policies, such as developing bus systems using clean fuel, increasing electric and hydrogen vehicles, improving fuel consumption and emissions standards, and diversifying transportation activities (such as river transport) have been implemented.

Regarding energy, people in the study area use energy from gas, oil, coal, and renewable sources. However, people are gradually switching from traditional energy sources such as coal and firewood to modern energy sources such as oil, gas, and electricity. Because there is only one power supplier, residents have to deal with electricity shortages as well as high electricity prices. Popular renewable energy sources are solar and wind, however, solar energy only accounts for a very small share of the energy market and its capacity has not yet fully been exploited. The development of renewable energy in Vietnam continues to face many institutional, financial, technical, and informational challenges. Due to the impact of climate change, people use more appliances such as electric fans and air conditioners, which consume more electricity. The current cost of investing in solar energy is still high for low-income people, so the use of this energy source remains limited.

Policy tool to make the transformation less challenging

Although investment in infrastructure, transport, and energy systems and livelihood transformation projects have taken place in small and medium-sized cities of Vietnam, these projects remain limited in scale, investment capital, and efficiency. To address this situation, the final part of the report includes policy recommendations that focus on effectively supporting people whose livelihoods are severely affected by climate change, especially vulnerable groups, so that they can transform their livelihoods without having to abandon their land and villages or fall into poverty and debt.

To fulfill this purpose, state support is essential because livelihood transformation requires financial capital and skills. In addition, policies on weather forecasting, vulnerability, and needs assessments of people in this area need to be done, as well as an impact assessment of infrastructure works to help them cope with climate change. Energy policies should focus on developing renewable energy storage systems and integrating electricity from renewable energy into the national electricity grid. Privatizing the electricity supply, developing insurance policies for losses due to climate change, and encouraging community participation in adaptation policies and building resilience to climate change are also necessary.

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**The Transformation of Southern Medium-Sized Cities Toward Climate Change Resilience:
The Cases of Ben Tre and Binh Duong provinces**



https://vietnam.fes.de/fileadmin/user_upload/transformation

Friedrich-Ebert-Stiftung (FES) Vietnam

Friedrich-Ebert-Stiftung (FES) opened its Vietnam Office in Hanoi in 1990. It was one of the first international non-profit organisations to work in Vietnam. As a political foundation, we base our work on the principles of promoting social justice and political participation. Within these parameters, FES is supporting the renovation process known as Đổi mới, which was initiated by the Vietnamese Government in 1986.

The close and long-standing cooperation with local partners forms the backbone of the work of the Friedrich-EbertStiftung in Vietnam. The Vietnamese partner organizations of FES are central actors in the fields of politics, economic development and political education. In its cooperation with local partners Friedrich-Ebert-Stiftung emphasizes its demand orientation. Hence, all projects focus entirely on partner's needs and wishes for political dialogue.

FES Climate and Energy project in Asia

The Regional Climate and Energy project in Asia works with its partners and colleagues towards a social-ecological transformation in the region. It is based in Hanoi, Vietnam, and advocates for greater climate justice through its network in five different countries in Asia.

About this editorial

The published editorial highlights a topic from the work of the FES Climate & Energy project in Asia. The editorial brings together diverse perspectives on one topic to outline common perceptions and different realities across the region. It strengthens the social-ecological nexus in the debate around building a just future for all.

Imprint

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