

## Task Force 2: Wellbeing, Environmental Sustainability, and Just Transition



## Accelerating “Just” Energy Transition: Implementation and Financing Pathways for the G7

Venkatachalam Anbumozhi, Director of Research Strategy and Innovation, Economic Research Institute for ASEAN and East Asia, Indonesia

Edo Aulia Aprihans, Subdivision Head, Indonesian Financial Service Authority, Indonesia

Dina Azhgaliyeva, Senior Research Fellow, Asian Development Bank Institute, Japan

Aaina Dutta, Researcher, TERI School of Advanced Studies, India

Shanti Jagannathan, Principal Education Specialist, Asian Development Bank, Philippines

Zhanna Kapsalyamova, Assistant Professor, Department of Economics, Nazarbayev University, Kazakhstan

### Abstract

The transition to low-carbon energy is necessary for preventing catastrophic climate change, reinvigorating growth, and reducing air pollution. However, such a transition may have negative labor and social consequences, particularly for those along the dominant fossil supply chain, such as coal. The transition must, therefore, be approached holistically to minimize the risk of producing negative externalities and maximize benefits, involving different stakeholders and sectors of society.

To ensure a just transition, countries and communities need to adapt to green and inclusive pathways through social protection and the adoption of new skills, ensuring all who need to be are equipped to take advantage of maximizing opportunities and minimizing hardship for individuals and communities. This policy brief provides recommendations to the Group of Seven (G7) on how to ensure that the transition is a “just” one, implementable, and financially viable. The five proposals are (i) strengthening the governance of implementation structure, (ii) enhancing the role of international financial institutions, (iii) measuring and alleviating energy poverty, (iv) advancing appropriate technologies, and (v) upgrading skills. Drawing lessons from developing Asia, the fast-growing most populous region of the world, this policy brief presents a leadership agenda for G7 governments to ensure global energy transition is just, inclusive, and accelerated.

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## Challenges

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A growing number of countries are committing to more ambitious climate targets to limit to a 1.5°C global temperature rise that would require a substantial shift from the fossil fuel-based economy. The Global South, particularly developing Asia and the Pacific, is home to young coal-fired power plants (90% are in Asia). However, the transition toward a low-carbon economy may have negative labor and social consequences, particularly for those along the coal supply chain. The transition must therefore be approached holistically to minimize the risk of producing negative externalities and maximize social benefits, involving different sectors of society. Examples include loss of employment or income from coal extraction or coal-fired power plants and creating energy poverty. How to ensure that the transition is “just” and financially viable? The Group of Seven (G7) leaders agreed that low-carbon transition needs to be environmentally and socially just (MOFA 2022a). However, ensuring just transition faces several challenges.

Pervasive non-targeted fossil fuel subsidies have been heavily criticized for their economic inefficiency. While low-income groups still need them to avoid slipping into energy poverty, they cause a burden for public expenditure. For example, ADB (2016) estimated that fossil fuel subsidies in India, Indonesia, and Thailand were extensive at 2.7%, 4.1%, and 1.9% of gross domestic product (GDP), respectively in 2012. However high inflation resulting from the war in Ukraine, including the rise in energy prices, made climate pledges even more difficult to implement without resulting in increased energy poverty. The G7 governments increased support for fossil fuels in the short term for “energy security” purposes, meaning they wanted to restrain price increases—which hurt not only the G7 citizens but also the developing countries who are “left behind” (Matsushita 2023; Elder et. al. 2022).

The G7 launched Just Energy Transition Partnerships (JETPs)<sup>1</sup> with Indonesia, South Africa, and Viet Nam to support decarbonization and local communities and affected groups during the transition. JETPs requires coordination from the receiving country with multilateral development banks (MDBs) and development finance institutions (European Commission 2022), although the role of such institutions is underexplored. Further, the effectiveness of aid-like programs, such as JETPs, depends on the recipient country’s capability to absorb the shocks, their fund-managing capacity, and the “overall access to development finance” (Hulme 2016). JETPs should alter development finance’s tendency to de-risk private finance, while the public has to bear more risks (Institute for Economic Justice 2022) and prioritize local communities and vulnerable groups in energy transition (Tyler and Mgoduso 2022).

## Proposals

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### Proposal 1: Strong Governance (Structure and Superintendence)

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Climate change and development cooperation policies of the G7 should be structured in a more systematic, socially just, and ecologically sound manner. The recipient country’s platform for climate action is first characterized by the political nature of the partnership. While all development cooperation is political, development agencies have often been criticized for being too technocratic in the way they approach major policy reforms and governance. The G7 nations are the nascent stage of developing a framework for just energy transition. Hence, the immediate requirement would be to develop a separate body that is pluralistic in nature, consisting of parliamentary representatives, government bodies, academia, the private sector, non-profit institutions, youth, and other civil society groups, for mapping in and mapping out of immediate and redundant areas. This body will bring an intersectoral and interdisciplinary mindset that will be critical for just energy governance to be timely and relevant and will help the developing countries to assess future opportunities, challenges, risks, and trade-offs. Furthermore, the G7, the MDBs, and international investors can assist developing economies to share their experiences for just transition. This specialized body should act as a watchdog for controlling the socio-economic implications of the low-carbon energy transition.

### Proposal 2: Financing (Support and Collaboration)

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For the G7’s financing of just transition, the G7 can utilize the MDBs’ roles<sup>2</sup>—i.e., reducing the public’s risks and filling the capacity gap (Thompson 2021). First, energy price shocks from the war in Ukraine and the transition away from coal may lead to curtailing energy subsidies cuts to both the G7 and developing countries. Although renewable energy power generation (RePG) could serve as a solution to energy security and reduce energy poverty, the costs (e.g., capital cost in constructing RePG and maintenance cost afterward) might still burden those countries’ fiscal budgets. Here, MDBs can play a vital role through a guaranteeing scheme that can directly be provided to state-

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<sup>1</sup> JETP is a “means to support the country-led transformation of sectors, capacity building and financing in collaboration with MDBs and other development finance or green finance institutions, the private sector as well as other partners” G7 Germany (2022). <https://www.mofa.go.jp/mofaj/files/100364066.pdf>

<sup>2</sup> MDBs have jointly committed to supporting a just transition following “MDB Just Transition High-Level Principles” (MDB Group 2021).

owned RePG to mitigate resource risks (e.g., wind input instability) or indirectly through global financial institutions under the JETP to lower the capital costs of RePG (Baker 2022; IRENA and CPI 2020). For example, in the JETP with Indonesia, such schemes are imperative where RePG risks and costs may be high due to its archipelagic geography that requires more off-grid RePG in underdeveloped regions with high potential renewable resources (Kennedy 2018).

Second, low-carbon transition projects must acknowledge and recognize the adverse impact to local communities and vulnerable groups during the initial phases (Lipper et al. 2021). A plethora of RePG deployments in several developing countries have alienated local communities and vulnerable groups surrounding the areas, including the occupation of their custom lands and lack of access to the electricity produced by RePG (Hege et al. 2022). For example, in Viet Nam, there have been urges to improve local communities’ livelihoods due to the planned phasing out of coal-fired power plants (Do and Burke 2023). Another example is from Indonesia, where the biggest potential areas of renewable energy in the country are in the eastern parts, such as Nusa Tenggara and Papua provinces (IRENA 2023; Rumbayan, Abudureyimu, and Nagasaka 2012) and most of the local communities and the indigenous people live in underdeveloped socioeconomic conditions (Statistics Indonesia 2023). To address such problems, reciprocal dialogues with the communities should be considered. Here, MDBs, the G7 finance ministers, could enhance the effectiveness of the JETP with appropriate technical assistance that reduces such social risks (Thompson 2021). For instance, the technical assistance can represent local communities and vulnerable groups around RePG in a manner that empower and improve their socioeconomic conditions (Baker 2022) and promote their local norms to be recognized by private investors (Castree and Christophers 2015). The technical assistance can echo the voices of the local communities (that might reject renewable energy projects because of indigenous customs) (Richter 2019; Yanwardhana 2021) and find the common ground between the communities, the government, and the private investors. Therefore, the technical assistance can ensure that the RePG project designs are socially acceptable, reducing the rejection from the communities and vulnerable groups. The policy recommendations are summarized in Table 1.

**Table 1: Policy Recommendations for Scaling-up the Role of MDBs in JETPs**

Role of MDBs	Targeted Actors	Recommendations
Reducing the public’s risks	Low-income households and local government	<ul style="list-style-type: none"> <li>Lowering state-owned RePG costs, thus protecting low-income households from price shocks.</li> <li>Reducing transition cost in the country’s budgets.</li> <li>Lowering capital cost of RePG in underdeveloped regions.</li> </ul>
Filling the capacity gap	Local communities and vulnerable groups	<ul style="list-style-type: none"> <li>Providing reciprocal dialogues.</li> <li>Representing the communities and vulnerable groups.</li> <li>Ensuring RePG project designs address the communities and vulnerable groups’ concerns.</li> </ul>

JETP = Just Energy Transition Partnership, MDB = multilateral development bank, RePG = renewable energy power generation.

Source: Authors.

Apart from JETPs, there are other programs financing the early retirement of coal-fired power plants. The Energy Transition Mechanism (ETM) is a scalable, collaborative initiative led by the Asian Development Bank (ADB 2022) in partnership with developing countries that will leverage a market-based approach to accelerate low-carbon energy transition. It funds the early retirement

of coal-fired power plants in developing countries. ETM pilots have been launched in Indonesia, the Philippines, and Viet Nam with a plan to scale up to other countries and regions.

### **Proposal 3: Energy Poverty (Society and Culture)**

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The local people are a crucial part of just energy transition, specifically low-income households in coal-producing regions and consumers, as they are at the heart of susceptibilities.<sup>3</sup> This necessitates the identification of various broad groups (marginalized groups, consumers, laborers, local residents, and indigenous people) who are impacted by the policy regimes and their actions, and then addressing these groups in plans, programs, or projects under the specific policy. While working with these groups it is imperative to recognize the “resource curse”<sup>4</sup> that may lead to social, economic, and environmental exploitation.

*Energy poverty* is a critical issue affecting many individuals globally, particularly in the Global South. While income poverty and energy poverty are related, they are not the same. Hence, identifying energy-poor households is vital to provide them with the necessary support to overcome their energy poverty challenges, especially if they are caused by transition to low-carbon sources (for example, due to the removal of inefficient fossil fuel subsidies). Ineffective indicators<sup>5</sup> lead to inaccurate or incomplete data that can result in underestimating the extent of energy poverty, and inadequate targeting of policies to address energy poverty. Ineffective indicators may lead to suboptimal allocation of resources and inadequate progress toward sustainable development goals. For example, if policies are based solely on income level, they may not compensate sufficiently for energy poverty caused by the energy transition. Additionally, policies may not address the multidimensional aspects of energy poverty, such as access to clean energy (Sustainable Development Goal [SDG]7) and energy efficiency. The G7 aid policies and domestic climate policies of recipient governments should be re-evaluated and adjusted to better target the multidimensional aspects of energy poverty and reflect the consistent definition and data collection practices. The use of multidimensional indicators can help identify those who are most in need of support and design more targeted interventions. It is important to prioritize energy efficiency to reduce energy costs for households and improve access to clean energy (SDG7).

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<sup>3</sup> A key aspect is to promote a gender rights anti-racist approach and justice of all kinds (procedural, distributive, restorative, recognition, cosmopolitan). As explained by Sokołowski and Heffron (2022) in their work of conceptualizing energy policy behavior explains these terminologies as follows: Procedural justice focuses on the legal process and concentrates on whether the processes have been followed, and there is access to justice, etc. The distributive justice concerns the distribution of benefits from the energy sector as well as the negatives, such as whether energy revenues are shared sufficiently. Restorative justice means any injustice caused by the energy sector should be rectified decommissioning practices would be a classic example of this. Recognition justice is concerned with the recognition of rights of different groups, in particular local and/or indigenous communities. Cosmopolitanism justice in essence stems from the view that when it comes to energy, we are all citizens of the same world and therefore the cross-border effects from the energy activities need to be considered.

<sup>4</sup> A “resource curse” is a paradox when countries with abundant natural resources, have worse economic performance than those without.

<sup>5</sup> There are various measures proposed to identify energy poverty, such as energy expenditure, access to modern energy and affordability of energy services, and multidimensional indicators. Energy expenditure is the proportion of household income spent on energy services. Households that spend a high percentage of their income on energy services are considered energy poor. However, this measure does not take into account the quality of energy services or the nonmonetary costs of accessing energy services. Access to modern energy and affordability of energy services refer to the availability of energy sources that are efficient, clean, and safe, and the ability of households to pay for energy services they need without compromising their ability to meet other basic needs. Multidimensional indicators combine various dimensions of energy poverty, including energy expenditure, energy intensity, and access to energy services, providing a more comprehensive view of energy poverty and its determinants.

## **Proposal 4: Technological Advancement (Sponsors and Systems)**

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Innovation in low-carbon energy technologies could support both economic growth and the creation of well-paying jobs. Besides, the immature technologies, such as green hydrogen, carbon capture storage, and new circular eco-innovations that convert waste into energy need to be prototyped and funded. Further, to address distributional concerns policy makers must involve stakeholders at every level of the processing in order to create policy interventions (Dutta and Das 2020). Additionally, a vertical and horizontal integration can help in creating effective solutions that are inclusive and low carbon. For example, India introduced a policy for micro, small, and medium-sized enterprises involving many regional startups and providing them with loans, nonfinancial assistance, and digital assistance for the businesses that suffer losses. These businesses can be related to tackling the climate crisis (low-cost solar prosumers, skill and training centers, equipment manufacturers). The other measure is “Make in India” with the “Zero Defect and Zero Effect” initiative of the government that expresses the goal to balance economic growth with sustainability and social inclusion as well as encourages industries to constantly upgrade their quality standards in products and processes without damaging the environment.

## **Proposal 5: Social Protection and Skills (Skills and Staff)**

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The large economic opportunities forecast from JETP investments should be reaped with appropriate investments in skills and talent to create new low-carbon industries and enable existing fossil fuel industries to transform. The G7 economies should provide support to the youth and workers who could lose their jobs by recognizing their occupational needs and providing an individualized strategy to the workers by upskilling, early retirement, or internal mobility. Further, the G7 economies can create a collective social investment program for the Global South, such as direct cash transfers for low-carbon social entrepreneurship programs to incubate new enterprise development and capacity training. Consecutively, university-level programs can boost the emergence of new highly-skilled occupations, such as energy auditors, energy consultants, managers, architects, and engineers. The expansion in the job market should go beyond educated and privileged people. The retraining of the workforce in coal, oil and gas can lead to comprehensive workforce mapping. It may even go beyond establishing a completely new vocational training center, curriculum, and awareness. At the same time, a people-centric just energy transition would also require some aspirational and high-quality jobs. Hence, adopting an approach based on the transferability of workforce skills would safeguard the existing workforce as far as possible, thus providing a stable employment future. Low-wage workers are hard to reach as they face technological, financial, and even language barriers that prevent them from pursuing reskilling opportunities. Therefore, the low-carbon transition implies fundamental changes in the economy followed by significant changes in the structure of labor demand. Repurposing retired coal-fired plants and coal extraction will also support employment and local growth. The mapping of the above proposals to navigate just energy transition is provided in the Appendix.

## **Relevance to the G7**

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Understanding that it is impossible to achieve low-carbon energy transition without active partnership with the Global South, the G7 leaders agreed on joining forces to accelerate just energy transition and stressed their willingness enhancing the partnerships, starting with Indonesia, India, Senegal, Viet Nam, and Argentina (MOFA 2022b). Their investment commitment to support for

just energy transition includes \$15.5 billion to Viet Nam, \$20 billion to Indonesia, and \$8.5 billion to South Africa (Table 2).

Drawing lessons from the ongoing programs in developing Asia, this policy brief proposes a leadership agenda for the G7 in engaging multilateral financial institutions, ensuring the implementation of people-centric low-carbon transition programs and integrated policy support for enhancing the capacity of vulnerable communities in their just transition efforts.

**Table 2: JETP Funding**

Partner	G7 and Other Partners	Amount, \$ billion	Launch	Document
South Africa	France, Germany, United Kingdom (UK), United States (US), European Union (EU)	8.5	2021	Just Energy Transition Partnership with South Africa (European Commission 2021)
Indonesia	Japan, US, Canada, Denmark, EU, Germany, France, Norway, Italy, UK	20	2022	Joint Statement on “Just Energy Transition Partnership” with Indonesian (MOFA 2022b)
Viet Nam	EU, UK, France, Germany, US, Italy, Canada, Japan, Norway, and Denmark	15.5	2022	Political Declaration on Establishing the Just Energy Transition Partnership with Viet Nam (Foreign, Commonwealth and Development Office 2022)

G7 = Group of Seven, JETP = Just Energy Transition Partnership.

Source: Authors.



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## Appendix

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This Appendix complements the proposals laid out in this policy brief. In this section we first provide a mapping exercise to navigate just energy transition within the individual nation as per their energy transition goals. Given the fact that most of the policies are in place for catering to carbon emissions by the G7 nations, there are supplementary interventions that are required by the G7 nations. This can be further utilized as a learning mechanism, a collective experience, and a knowledge sharing tool by the Group of Twenty (G20) nations for specific just energy transition policies. Based on the literature, just energy transition reflects differently in different nations, rather it is often disproportionate because of geographic disparity, specifically the partnership that requires financing by the G7 nations as compared with Asian countries. Some of them have the toughest Himalayan range, followed by tenuous locations, which require additional financial support to develop supply chains and infrastructure (Dutta and Das 2020). Furthermore, as argued by Bouzarovski (2022) forging toward policy interventions that challenge the roots of injustice requires both disruptive and emancipatory actions that involve a shift in property ownership, civic engagement, and knowledge production. Not only this, achieving a just energy transition in both developed and developing economies necessitates an integrated policy that takes into account local resources and feasible technologies that meet local needs, while also contributing to socioeconomic development and livelihood improvement. Unlike many other reports on the Paris Agreement, which concentrated on electricity generation (supply side), the SDG study focused on the demand side of the energy equation. Despite the direct roles highlighted for the financial structures in pushing renewable energy for the SDGs and the Paris Agreement, major trade-offs<sup>6</sup> have also been noted. One of these trade-offs is the potential for low-carbon finance to exacerbate poverty, particularly in the Global South. Policy makers must also account for the additional energy demand required to achieve other SDGs and transition to a low-carbon future.

Therefore, we propose a mapping exercise to navigate just energy transition that can effectively lead to holistic climate neutrality, social inclusion, benefits, and partnerships across the spectrum of stakeholders. This mapping exercise can help both the G7 and G20 nations to effectively disseminate the goal of reducing emissions, faster energy transition, and transfer of benefits across the various vulnerable sections of the community. The mapping exercise will significantly impact the G7 nations as it will help them to identify, check, and address the root causes and legacies of inequality, reallocating the balance of power in existing forms of energy governance, creating new, accommodating, and participatory systems of energy governance, adopting a rights-based approach, and eliminating false solutions.<sup>7</sup> This mapping exercise can be accomplished by thoughtful and coordinated efforts and by designing advocacy strategies. Every nation would have to identify opportunities and systematically synthesize information related to energy transition, while tackling related areas of interest.

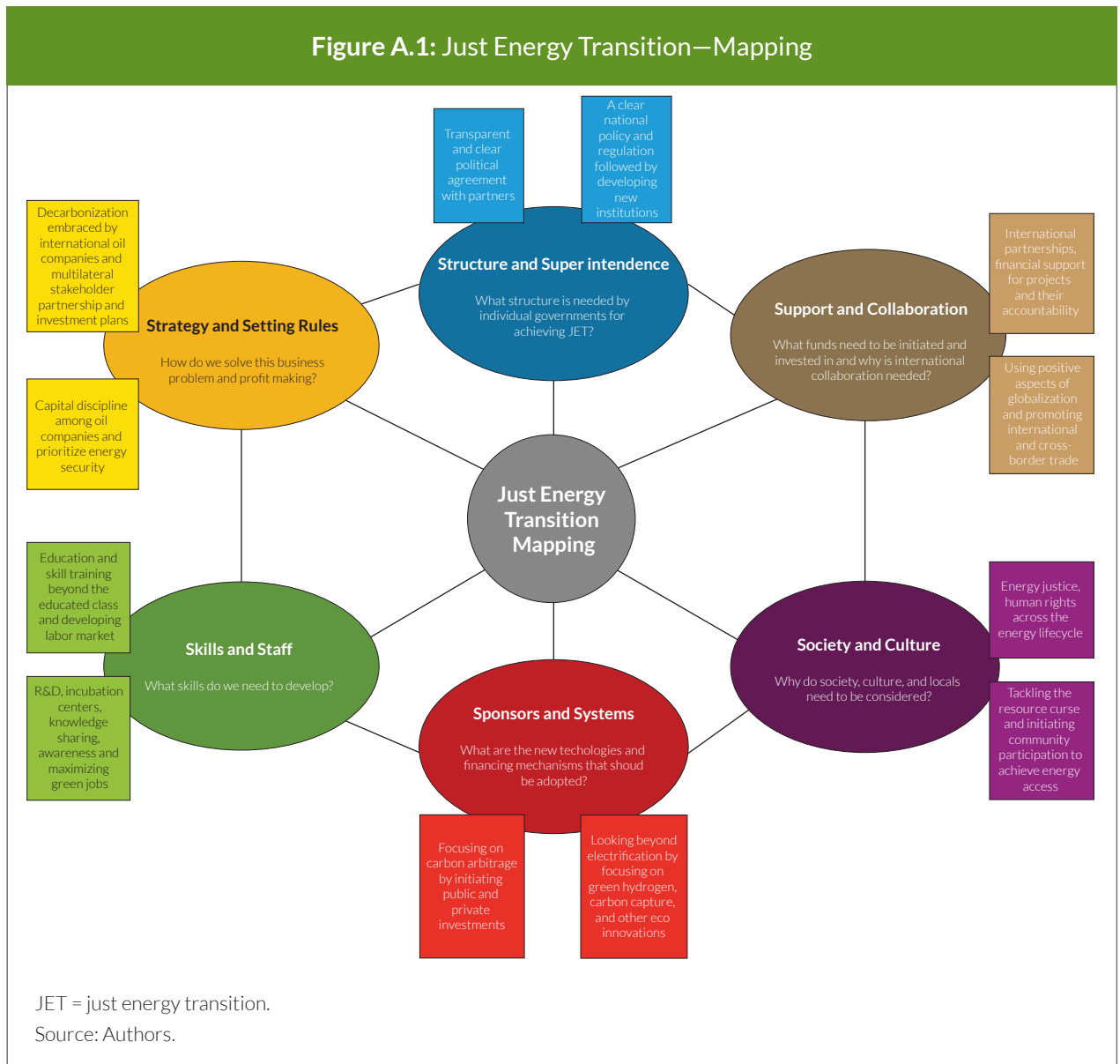
The mapping of just energy transition centers itself around six pillars that can holistically advance toward a faster energy transition and adoption reduction toward carbon emissions and can benefit vulnerable sections of the communities. Figure A.1 depicts that just energy transition with respect to universal and clean energy access (SDG 7) is not about who benefits or who is put at

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<sup>6</sup> Participatory governance is based upon individuals having a voice in decisions that affect them.

<sup>7</sup> False solutions provide new business opportunities for a privileged minority to continue to exploit nature and accumulate wealth with no responsibilities for the negative consequences of their actions.

risk. Rather, it is about the power of regulatory institutions, structure of the market, financing, alternative socio-technological models, inclusivity, and building international, regional, and local support. Using this mapping exercise will have a vast potential to collaterally tackle SDG 4 (quality education), SDG 13 (climate action), SDG 16 (peace and justice and strong institutions). It will facilitate in advancing the state of knowledge by providing solutions to work against challenges (civic pride, empowerment, direct and indirect job creation).



**About Think7**

Think7 (T7) is the official think tank engagement group of the Group of 7 (G7). It provides research-based policy recommendations for G7 countries and partners. The Asian Development Bank Institute (ADBI) is the lead chair of T7 under Japan's 2023 G7 presidency.