University of Hawai'i at Mānoa
Center for Indo-Pacific Affairs

INDO-PACIFIC OUTLOOK

Volume 2, Issue 2 | March 4, 2026

India's Coal Belt and the Quad: Advancing Gender-Responsive Just Transitions

By Parul Bakshi

Abstract

India's path to net zero will require a fundamental reconfiguration of its coal-dependent economy, with major implications for its coal belt, where coal underpins livelihoods and local revenues. While India has been outlining just transition frameworks through District Mineral Foundations, mine closure guidelines, and state-level task forces, these mechanisms remain largely gender-blind. Women in coal regions are concentrated in informal and unpaid work and face disproportionate livelihood, health, and care burdens as mines contract or close. This policy brief examines how the Quad can support a gender-responsive just energy transition by linking domestic reform with regional stability and the Women, Peace, and Security agenda. Drawing on cross-learning, it proposes a Quad Framework for Gendered Just Transitions centered on gender audits, women-first reskilling, and transition finance tied to care and social infrastructure. It argues that embedding women's agency in coal transitions is essential not only for equity, but for resilience, stability, and strategic credibility in the Indo-Pacific.

INTRODUCTION

India has one of the lowest per capita electricity demands globally and is projected to experience the fastest growth in energy demand over the next decade. Coal remains central to this trajectory, with Coal India Limited (CIL) accounting for approximately 74% of national production, and coal generating nearly 72% of India's electricity [1].

This dependence is geographically concentrated in the eastern states of Jharkhand, Chhattisgarh, and Odisha, which together account for nearly 60% of India's coal production and host the bulk of coal reserves, revenues, and employment [2]. India's net-zero pathway therefore depends on a managed and socially sustainable restructuring of coal regions.

These states sit at the center of India's decarbonization challenge, where energy transition intersects directly with livelihoods, land use, and local governance. As climate pressures intensify and clean energy becomes increasingly cost-competitive, the pace of transition is expected to accelerate, raising urgent questions about how coal-dependent communities will absorb economic and social disruption.

Yet India's transition planning remains largely gender-blind. While national and state energy frameworks reference community development, they rarely account for how women's roles, burdens, and vulnerabilities differ from men's. An omission that affects not only equity but also policy legitimacy, social cohesion, and the durability of transition outcomes.

Women in coal regions occupy a paradoxical position. They constitute only 6.7% of CIL's formal workforce, yet they are heavily represented within the informal coal economy, which accounts for an estimated 70% of total coal-related labor [3]. Many reserves lie in tribal areas, where women face a double burden of marginalization, both as women and as members of historically disadvantaged communities.

Their work, including coal sorting, head loading, cleaning, and ancillary processing is informal, unregulated, and hazardous. In districts such as Dhanbad (Jharkhand), women routinely transport coal from depots to support mine operations. Illegal mining in abandoned pits further amplifies risk; in 2022, three such mine collapses killed four women and one man [4].

Beyond employment, coal dependence reshapes household and community dynamics in deeply gendered ways. Mining-led land acquisition erodes women's agricultural and subsistence livelihoods, narrowing economic alternatives. During mine contraction or closure, rising male unemployment has been associated with heightened household stress, including increase in alcoholism and domestic violence, further intensifying women's insecurity.

These pressures intersect with environmental and health vulnerabilities. Acid mine drainage contaminates water sources, contributing to musculoskeletal disorders among women, while dust from open-cast mining exacerbates respiratory illnesses such as fluorosis and Black Lung Disease [5]. Weak rural healthcare infrastructure compounds these risks.

At the same time, women remain largely excluded from decision-making structures within both coal governance and the broader energy sector. Despite rapid growth in renewable energy, women account for only around 10% of India's clean energy workforce, well below the global average of 32%, and remain concentrated in non-technical roles [6]. Their exclusion from planning institutions means that those most affected by the social costs of transition outcomes have the least influence over transition design.

As the Heinrich Böll Foundation cautions, "if existing power asymmetries related to access and resource distribution are not addressed early on, the same structural inequalities will simply be replicated, transferred, and worsened in new energy regimes" [7]. Without gender-sensitive planning, India's coal transition risks deepening economic, social, and health vulnerabilities rather than alleviating them. As The Energy and Resources Institute (TERI) similarly notes, "there is no climate justice without gender justice" [8].

This challenge extends beyond domestic policy. In July 2024, the Quad Foreign Ministers' Meeting reaffirmed commitments to the Women, Peace, and Security (WPS) agenda, underscoring women's

empowerment, participation, and leadership as central to regional stability and the Sustainable Development Goal principle of "leaving no one behind" [9].

Coal transitions, particularly in socially complex regions, represent one of the most concrete arenas for operationalizing these commitments. Energy transitions reshape local economies, social contracts, and governance legitimacy. Gender-just transition calls for "a systemic approach to transform women's lives, minimize the climate induced hardships, transition-induced challenges, and ensure that benefits lead to gender-equitable outcomes" [10].

This brief therefore positions India's coal belt as a critical case study for linking gender-responsive just transition with the Quad's evolving WPS agenda. It argues that inclusive transition governance, particularly women's participation in planning, reskilling, and benefit-sharing, is essential for sustaining social trust during structural change. Situating India's experience within a Quad learning framework, it emphasizes reciprocal cross-learning, exploring how gender-responsive transition models can strengthen both domestic equity and regional resilience across the Indo-Pacific.

INDIA'S COAL TRANSITION FRAMEWORKS AND GENDERED GAPS

Despite the net-zero 2070 commitment, India's just transition framework remains nascent, with coal-dependent regions governed by fragmented policy approaches. Coal is expected to remain a significant part of India's power mix in the short to medium term even as renewable capacity expands rapidly. This dual dynamic means that the transition will be a prolonged restructuring of interlinked energy, employment, and social systems.

In this restructuring, women, who constitute the majority of the informal coal workforce, are likely to be the first and most severely impacted. The challenge, therefore, is to prevent gendered vulnerabilities from deepening during the shift to renewables and associated green skilling programs.

While multiple national and state policies shape transition outcomes, this brief focuses on three instruments that form the core of India's emerging coal transition architecture: the District Mineral Foundations (DMFs), Pradhan Mantri Khanij Kshetra Kalyan Yojana (PMKKKY) and Mine Closure Guidelines.

Established through the 2015 amendment to the Mines and Minerals (Development and Regulation) Act, DMFs were created as non-profit trusts in mining-affected districts to reinvest mineral rents into local development. The PMKKKY serves as the central policy framework guiding how DMF funds are to be planned, prioritized, and spent in mining-affected districts, with defined "high-priority" and "other-priority" categories, the former covering healthcare, education, skill development, sanitation, and the welfare of women and children. In principle, this makes PMKKKY one of the few national frameworks that explicitly recognizes women as beneficiaries of mining revenues.

In practice, however, DMF expenditures have remained skewed heavily toward physical infrastructure like roads, bridges, administrative buildings, while allocations for women's livelihoods, skills, or care infrastructure remain minimal [11]. Multiple reviews indicate that women's representation within DMF governing councils remains largely tokenistic, limiting their influence over spending priorities and reinforcing gender-blind allocation patterns.

The Mine Closure Guidelines, revised in 2025 to move beyond a purely technical focus to a more "people-centric" approach, represent another step toward institutionalizing just transition. Yet they remain silent on gender-specific provisions, mandating neither sex-disaggregated data nor gender audits of closure plans. Without these, the social dimensions of closure particularly for women dependent on informal and ancillary work remain invisible in official planning.

Skilling frameworks reveal similar disconnects. Although women account for around 40% of Pradhan Mantri Kaushal Vikas Yojana (PMKVY) certifications nationally, their participation in energy-related fields falls to roughly 10% [12]. Unless closure and skilling policies are explicitly linked, with a focus on women's reskilling into renewables and care

economies, the structural inequities of coal will be reproduced in the green economy.

At the state level, policy experimentation reflects both innovation and gaps. **Jharkhand** became the first state to establish a Just Transition Task Force (JTTF) in 2023, signaling political recognition of the urgency of diversifying coal-dependent districts. While the Task Force has initiated consultations, its early work indicates limited engagement with women's groups and self-help collectives, despite their central role in household livelihoods and local governance. Without formal inclusion mechanisms, the JTTF risks replicating existing asymmetries in representation.

Chhattisgarh, one of India's largest coal producers, has received attention for directing DMF funds toward social sectors such as health and education, in some districts exceeding national averages. Initiatives in Korba and Raigarh have strengthened primary healthcare, sanitation, and schools. However, gender responsiveness remains largely confined to maternal health, with limited focus on women's economic empowerment, entrepreneurship, or transition-linked reskilling [13].

Odisha has created a public transparency portal for DMF allocations, allowing civil society and citizens to monitor district-wise spending, representing a best practice in accountability and setting precedent for replicability. Nevertheless, spending patterns remain infrastructure-heavy, with limited prioritization of gender-responsive livelihoods. The "Bijlee Didi" initiative trains rural women for renewable energy service roles, while Mission Shakti supports over 6 million women through self-help groups, credit access, and market linkages. These programs demonstrate how women's collectives can function as active agents of transition rather than passive recipients of welfare.

Taken together, these national and state frameworks show both institutional promise and structural limitation. While policies, financing streams, and pilot innovations exist, a coherent system of gender-responsive implementation, monitoring, and accountability remains absent.

Without mandatory sex-disaggregated data, gender audits of DMF and closure plans, and formal mechanisms to embed women's groups in transition governance, India's just transition will remain incomplete. Women will continue to be the most affected yet the least represented. Conversely, retrofitting these frameworks with a gender lens could transform transition policies into vehicles of equity and resilience, ensuring that India's coal sector becomes not only greener but also more inclusive and just.

LESSONS ACROSS THE QUAD: EMBEDDING GENDER IN ENERGY TRANSITIONS

The Quad's 2024 commitment to the WPS agenda marked a decisive shift from normative endorsement toward implementation, explicitly linking gender equality with regional stability and economic resilience. The challenge now lies in translating these commitments into sectoral strategies, particularly within the energy transition, where questions of equity, livelihoods, and sustainability intersect most visibly.

> The Quad's 2024 commitment to the WPS agenda marked a decisive shift from normative endorsement toward implementation, explicitly linking gender equality with regional stability and economic resilience.

This brief positions the Quad not merely as a forum of aligned democracies, but as a platform for shared learning. Despite differing political and institutional settings, member countries confront a common challenge: how to align decarbonization with gendered social inclusion in regions dependent on fossil fuels. Examining how each Quad partner has approached this tension provides insight into how gender-responsive transition governance can be operationalized in practice.

United States of America

Under the Inflation Reduction Act (IRA) and Bipartisan Infrastructure Law (BIL), federal clean energy investments were tied to Community Benefits

Plans (CBPs), institutional support through the Interagency Working Group (IWG) on Energy Communities, and capacity-building efforts via Energy Communities AmeriCorps. Together, these reflect a recognition that effective transitions in legacy fossil regions must be not only technical, but institutionally embedded and socially accountable.

Under the previous presidential framework, nearly all Department of Energy (DOE) funding opportunities (FOAs) tied to clean energy required applicants to submit a CBP outlining how the project will deliver "broadly shared prosperity" through commitments to community engagement, workforce development, labor standards, and equity; the quality of these plans influenced project selection [14]. The DOE also launched a Community Benefits Map,[1] enabling public tracking of where and how socio-economic benefits such as local hiring, training, and community partnerships, were being delivered.

Institutional coordination was further strengthened through the IWG on Coal and Power Plant Communities, established in 2021 to align federal agencies supporting historically fossil-dependent regions. Through its Rapid Response Teams (RRTs), the IWG engages directly with local governments and community stakeholders to identify transition needs, reduce bureaucratic barriers, and match federal programs with local priorities [15].

Energy Communities AmeriCorps complements these efforts by embedding trained volunteers in transition zones to assist with environmental remediation, grant writing, and economic planning. These volunteers bridge federal plans and community-level implementation.

The Partnerships for Opportunity and Workforce and Economic Revitalization (POWER) Initiative, a prior multiagency program, directed federal resources to Appalachian and coal-impacted counties for infrastructure, workforce retraining, and local diversification. While not explicitly gendered in design, it established an institutional precedent for integrated development in coal regions.

[1] *As of Oct 5, 2025, the map was not accessible, presumably under changes as per the President Trump administration.*

Alongside government action, civil-society efforts suggest a growing push for gender inclusion in clean energy. For instance, in congressional and agency deliberations linked to "Women Powering the Energy Transition," the State Department has articulated that gender equality and climate action must go hand in hand, though operational translation remains patchy. It was noted that through partnerships with the US Gender Equity and Equality Action Fund, the Bureau of Energy Resources has contributed over $4.25 million to support women's leadership, participation, and success in the energy sector [16].

Non-governmental organizations like Women's Environment and Development Organization (WEDO) advocate for gender audits, care policies, and structural inclusion in US energy programs. A strong civil-society example is the "Just Energy 4 All" campaign launched in 2017 by United Women in Faith, a nationwide network of over 500,000 women advocating for economic and environmental justice [17]. The initiative promotes energy systems that are "made with and for communities, not at their expense," mobilizing women, youth, and low-income groups to shape local renewable energy and affordability agendas. The campaign highlights how women can be agents of change, an approach that complements institutional mechanisms like the DOE's CBPs.

At the same time, the US experience exposes the vulnerability of equity-based transition frameworks when inclusion is not institutionally codified. Most federal programs lack explicit gender mandates, instead relying on broader equity categories to guide community inclusion. The rollback of diversity, equity, and inclusion (DEI) requirements and the suspension of Justice40 (mandates 40% of clean energy benefits flow to historically disadvantaged communities) enforcement under the new administration have demonstrated how quickly progress can be weakened when social objectives remain politically contingent.

While these US initiatives are not always explicitly gender-focused, their institutional logic, linking funding to community benefits, embedding local accountability, and elevating equity metrics,

illustrates how social inclusion and decarbonization are being operationalized in tandem. For the Quad, this underscores the need to insulate gender equity from domestic political cycles through shared principles and collective accountability mechanisms anchored in the WPS framework.

Australia

As one of the few countries to operationalize permanent regional transition authorities, Australia offers valuable insights into how institutional design, multi-year planning, and community trust can help coal regions navigate economic and social restructuring. The transitions in Latrobe Valley (Victoria) and Collie (Western Australia) illustrate how participatory governance and place-based funding models can shape post-coal pathways, even as gender integration remains uneven.

The Latrobe Valley Authority (LVA) was established in 2016 following the sudden closure of the Hazelwood power station. Designed as a permanent regional institution rather than a temporary task force, it coordinates across skills development, business support, health services, and community infrastructure. Since inception, the Victorian and Federal government have invested over AUD 1.6 billion in transition projects, regional infrastructure, and business incentives [18].

The LVA administers a Worker Transition Service, providing tailored counselling, skills mapping, and job placement for displaced workers and their families, alongside a Worker Transfer Scheme, enabling older employees to retire early or shift roles, thereby easing labor market adjustment and maintaining community cohesion during restructuring [19].

Notably, several local NGOs and women's associations such as Gippsland Women in Trades and the Women in Latrobe Valley Network have since worked with the LVA to expand access to technical training, small business grants, and mental health support for women affected by mine closures [20]. While these initiatives remain small-scale and largely community-led, they signal growing awareness that gender-responsive measures must accompany regional transition efforts.

However, research from the Australian Energy Council and the Sydney Environment Institute has noted that gender and social inclusion were not systematically integrated into the LVA's early frameworks, and that participatory processes, while broad, tended to reproduce existing inequalities unless women's voices were explicitly mobilized [21].

The Collie transition in Western Australia represents a more recent model. Long dependent on coal mining and coal-fired generation, Collie has been repositioned through a comprehensive Just Transition Plan backed by AUD 547.4 million in state investment [22]. Of this, AUD 200 million is channeled through the Collie Industrial Transition Fund, aimed at attracting new industries including battery manufacturing, green cement, and advanced materials.

An additional AUD 16.9 million supports reskilling and re-employment through the Collie Jobs & Skills Centre, which provides career guidance and pathways into emerging sectors. By late 2024, nearly AUD 700 million in green industrial investments had been secured, with over AUD 134 million committed to activating industrial land and upgrading local infrastructure [23].

Collie's transition is overseen by a multi-stakeholder Just Transition Working Group comprising unions, businesses, and community organizations. This model of "shared authorship" has helped align local identity with post-coal development visions, including heritage tourism, cultural revitalization, and mine-site art initiatives that support women's and youth employment.

> "...these efforts highlight growing recognition that women's leadership must be part of regional renewal."

While women-focused initiatives remain limited, partnerships with the Western Australian Women in Energy network marked early efforts to promote female participation in clean energy and STEM pathways. Although limited in scale, these efforts

highlight growing recognition that women's leadership must be part of regional renewal.

Despite their institutional robustness, in both cases gender inclusion remains implicit rather than embedded. Women's representation in decision-making bodies is limited, and livelihood programs seldom address the specific barriers faced by women entering non-traditional sectors. This gap presents an opportunity for the Quad's WPS agenda to broaden the concept of "just transition" to explicitly include women's empowerment and participation.

Japan

Japan's experience adds a governance and finance dimension to just transitions. Central to this model is the Japan International Cooperation Agency (JICA), which has institutionalized gender mainstreaming across all stages of project design and evaluation.

Since 1991, JICA has required gender analysis as a prerequisite for project approval, supported by Gender Mainstreaming Guidelines and sector-specific checklists covering infrastructure, energy, water, and disaster management [24], [25]. These tools mandate gender-disaggregated indicators, consultations with women's groups, and systematic monitoring of gender outcomes. In the energy sector, such requirements have shaped programs including the Bangladesh Power Sector Improvement Program and Nepal Rural Electrification Support, where women's employment and access to clean energy were design objectives.

Japan has further reinforced this model through gender-responsive transition finance. In November 2024, JICA issued JPY 30 billion in Gender Bonds, the first such issuance by a development agency, supporting women's economic empowerment, leadership development, and climate resilience [26].

> Quad countries bring complementary strengths to the gendered just transition agenda.

In parallel, Japan launched the world's first sovereign Climate Transition Bond, raising JPY 1.6 trillion to finance decarbonization R&D, clean manufacturing, and industrial restructuring. Under the Green Transformation strategy, transition investments are explicitly linked to principles of inclusivity, human security, and women's participation in the green economy.

Beyond finance, following the 2011 Great East Japan Earthquake, the Gender Equality Bureau of the Cabinet Office institutionalized requirements for women's participation in disaster recovery committees and resilience planning [27]. This experience has informed Japan's domestic energy transition debates where women's representation in local resilience councils, renewable cooperatives, and municipal energy boards is now treated as a measure of democratic legitimacy.

Initiatives such as Women in Renewable Energy Japan (WiRE Japan), launched in 2022, further support this shift through partnerships with METI and JERA to increase women's participation in technical and management roles across the energy sector.

Collectively, Japan's model demonstrates how institutional discipline, regulatory clarity, and financial innovation can codify gender equality within transition policy. It shows that social inclusion can be embedded through checklists, financial instruments, and performance indicators rather than left to political discretion.

Taken together, Quad countries bring complementary strengths to the gendered just transition agenda: the United States operationalizes equity through community benefit governance; Australia demonstrates regional co-design and institutional permanence; and Japan anchors inclusion in financial and regulatory systems. If harmonized through shared standards, data tools, and capacity exchanges, these approaches could enable the Quad to pioneer a gender-responsive transition architecture, one that defines equity not only as a value but as a measurable outcome of climate action. By institutionalizing gender as a

cross-cutting benchmark, from community participation to transition finance, the Quad could redefine what a just energy transition means in practice, linking empowerment, stability, and sustainability across the Indo-Pacific.

BUILDING A QUAD FRAMEWORK FOR GENDERED JUST TRANSITIONS

The Quad's 2024 reaffirmation of the WPS agenda established a shared political commitment to linking gender equality with peace, stability, and resilience in the Indo-Pacific. Gender-responsive just transition offers one of the most concrete pathways to translate these commitments into actionable energy and development policy.

> "Gender-responsive just transition offers one of the most concrete pathways to translate these commitments into actionable energy and development policy."

Across the Indo-Pacific, the social consequences of decarbonization will be as decisive for regional stability as technological or financial outcomes. The Quad's collective approach, therefore, must bridge climate ambition with social security, and domestic transformation with regional cooperation.

India's coal belt illustrates this dynamic with particular clarity. Here, transition planning intersects with deep structural inequities, informality, and gendered divisions of labor. Excluding women's voices and welfare risks reproducing the very forms of marginalization that the WPS agenda seeks to prevent, while their inclusion can serve as peacebuilding instruments, reducing economic precarity, expanding participation, and strengthening community trust in governance. Inclusive governance is a condition for both social legitimacy and climate durability.

This positions the Quad as a collective learning ecosystem. While each member approaches transition from distinct institutional starting points, the policy imperative is not duplication but co-adaptation. Institutionalizing reciprocal learning would allow the Quad to transform the WPS agenda from a diplomatic statement into a living policy mechanism for equitable climate action.

Against this backdrop, a "Gendered Just Transition Compact" could anchor collective action around three principles: first, that all major energy transition programs will include gender-responsive planning, monitoring, and finance; second, that lessons and metrics from each country's domestic programs will inform shared standards; and third, that a joint capacity and financing platform will pilot gendered transition programs in partner states such as India.

To translate this framework into practice, the Quad could adopt a set of institutional and policy pathways that align domestic reform with regional cooperation:

1. **Institutionalize Gender Accountability**: Each member should mandate gender-responsive audits and impact assessments for all transition programs. A common Quad template, drawing on JICA's checklists and DOE's CBPs, could ensure comparability and transparency across projects.
2. **Establish a Quad Just Transition Facility**: A pooled financing platform drawing on Japan's transition bonds, US and Australian technical experience, and India's coal district pilot potential could fund gender-anchored transition projects including livelihood diversification, care infrastructure, and women's enterprise development.
3. **Embed Local Women's Institutions in Transition Governance**: Quad should commit to integrating SHGs, women's cooperatives, and community organizations into local transition boards, ensuring gender parity in decision-making. Australia's participatory transition agencies provide a procedural precedent.
4. **Develop a Regional Knowledge and Training Network**: A Quad Center for Gender and Energy Transition could coordinate training, data harmonization, and peer exchanges linking India's SHG networks, Japan's gender mainstreaming frameworks, Australia's local transition authorities, and US community organizers.
5. **Pilot Demonstrations in India's Coal Regions**: India can host initial pilot projects co-designed and

co-funded by Quad partners. These would serve as proof-of-concept sites for gendered transition governance, measuring outcomes on livelihoods, participation, and social stability.

6. **Create a Joint Gender and Transition Taskforce**: To sustain coordination, a taskforce comprising ministries of energy, labor, environment, and gender equality would develop shared templates for gender audits, evaluation metrics, and monitoring systems, partnering with existing platforms like the Equality in Energy Transitions Initiative under the Clean Energy Ministerial. This alignment would convert fragmented national programs into a coherent regional standard for gender-responsive transition governance.

7. **Foster Peer Learning and Community Exchange**: Quad could launch a "Women in Transition Fellowship," connecting key players of gendered just transition process across countries. These peer-to-peer interactions would translate technical cooperation into lived collaboration. Fellows could later serve as local mentors or trainers within ongoing transition programs, embedding knowledge transfer directly into community structures.

The WPS framework positions women's participation not as a moral ideal but as a condition for stability. Energy transitions test this principle directly. In coal-dependent economies, transitions reshape livelihoods, governance, and care systems; when women are excluded, vulnerability concentrates at the household level, but when they are included, transitions gain social legitimacy and durability.

CONCLUSION

Energy transitions are not only technological or economic transformations; they are social processes that reshape livelihoods, governance, and community trust. In India's coal belt, where decarbonization intersects with tribal rights, land displacement, and informal labor, the stakes are particularly high. Without deliberate inclusion, transitions risk intensifying grievance and precarity; with it, they can reinforce resilience and social cohesion.

This is where the WPS agenda becomes operational rather than symbolic. Gender-responsive energy transitions are not simply tools of equity but instruments of stability. When women participate meaningfully in planning, reskilling, and benefit-sharing, transitions gain social license, improve implementation outcomes, and strengthen trust in public institutions. Conversely, the burden of transition is absorbed at the household level, undermining both policy credibility and community resilience.

India's coal belt therefore represents both a challenge of scale and a strategic opportunity. Although women remain largely invisible within formal transition frameworks, coal districts offer a critical testing ground for translating WPS commitments into practice. Successfully embedding gender-responsive governance would not only strengthen India's domestic transition but generate transferable lessons for other coal-dependent economies across the Indo-Pacific.

Across the Quad, parallel experiences reinforce this logic: regional transition authorities in Australia sustain political trust during industrial restructuring; community-benefit frameworks in the United States rebuild confidence in public institutions; and Japan's transition finance embeds social accountability beyond its borders. In each case, women's participation transforms energy transition from a technical agenda into a foundation for peace and resilience.

> "A gendered just transition framework for the Quad thus represents more than policy alignment; it redefines what resilience means in the Indo-Pacific."

A gendered just transition framework for the Quad thus represents more than policy alignment; it redefines what resilience means in the Indo-Pacific. By anchoring decarbonization in inclusive governance, the Quad can demonstrate that regional

stability is built not only through deterrence or diplomacy, but through the everyday security of communities navigating structural change. Centering women in coal transitions is thus not only a moral or developmental priority, but also a strategic necessity that will shape the credibility of both India's transition and the Quad's WPS agenda in the decades ahead.

Parul Bakshi is Fellow – Energy & Climate at the Observer Research Foundation (ORF) Middle East and a Visiting Research Fellow at the Oxford Institute for Energy Studies.

This publication is part of a project on "Women, Peace, and Security in the Quad's Commitment to a Free and Open Indo-Pacific" that was made possible by a grant from the Japan Foundation.

The views expressed in this publication are those of the author and do not necessarily reflect the position of the Center for Indo-Pacific Affairs or any organization with which the author is affiliated.

© 2026 University of Hawai'i at Mānoa Center for Indo-Pacific Affairs. All rights reserved.

REFERENCES

[1] CIL, Propelling Viksit Bharat Sustainably, Integrated Annual Report 2024-25, 2025.
[2] Srestha Banerjee, Chinmayi Shalya, and Diana Ann Joseph, Korba: Planning a Just Transition for India's Biggest Coal and Power District, iForest, February 2022.
[3] Apoorva Singh and Arpita Victor, Establishing Women as Critical Stakeholders in India's Just Energy Transition: Evidences from Jharkhand, Odisha and Chhattisgarh, TERI, 2023.
[4] PTI, "Jharkhand: 4 Bodies Found, Many Feared Trapped as 3 Abandoned Coal Mines Collapse During Illegal Mining," NewsClick, February 1, 2022.
[5] Singh and Victor, Establishing Women as Critical Stakeholders in India's Just Energy Transition.
[6] Ibid.
[7] Neha Saigal, Saumya Shrivastava, Elizabeth Soby, Kankana Das, and Avimuktesh Bhardwaj, Framing the Gender and Just Transition Discourse in India, Heinrich Böll Foundation, February 2025.
[8] Singh and Victor, Establishing Women as Critical Stakeholders in India's Just Energy Transition.
[9] Ministry of Foreign Affairs, Quad Foreign Ministers' Meeting Joint Statement, Government of Japan, July 2024.
[10] Saigal et al., Framing the Gender and Just Transition Discourse in India.
[11] Chinmayi Shalya, DMF: Implementation Status and Emerging Best Practices, Centre for Science and Environment, April 2020.
[12] Saee Rege, "Toward a Gender-Responsive 'Just Transition' in India," Observer Research Foundation, May 22, 2025.
[13] Shalya, DMF.
[14] Erifili Draklellis and Jeremy Richardson, "Community Benefits Plans: Driving Equitable Clean Energy Development," RMI, September 25, 2023.
[15] Matthew Dalbey and Daniel Raimi, "Meet Them Where They Are: Lessons Learned from the Federal Interagency Working Group on Energy Communities," Resources for the Future, November 4, 2024.
[16] Geoffrey R. Pyatt, "Women Powering the Energy Transition," United States Department of State, November 15, 2024.
[17] Sanjana Paul, Gender, Climate and Energy in the United States, WEDO, August 2024.
[18] Regional Development Victoria, "Latrobe Valley Economic Transition," Victoria State Government, 2024.
[19] Gareth A. S. Edwards, Clare Hanmer, Susan Park, et al., Towards a Just Transition from Coal in Australia? Just Transitions to Decarbonisation in the Asia-Pacific, The British Academy 2022.
[20] Tradeswomen Australia, "Powering Her Pathway."
[21] Edwards et al., Towards a Just Transition from Coal in Australia?
[22] Collie Delivery Unit, "Collie Just Transition: Diversifying Collie's Economy from a Dependence on the Coal Industry," Government of Western Australia, July 4, 2024.
[23] Oliver Gordon, "Collie's Just Transition: A Model for the World's Eight Million Coal Workers?" Just Stories, Institute for Human Rights and Business, February 11, 2025.
[24] Office for Gender Equality and Poverty Reduction Governance and Peacebuilding Department, Reference Material for Gender Mainstreaming in Private Sector Development, JICA, January 2023.
[25] Public Policy Department, JICA Thematic Guidelines on Gender and Development, JICA, November 2009.
[26] Treasury, Finance and Accounting Department, "JICA Launches Gender Bonds; JPY 30 Billion Non Guaranteed Domestic Bonds in Two Tranches," JICA, November 21, 2024.
[27] Cabinet Office, "Disaster Prevention and Reconstruction from a Gender Equal Society Perspective - Lessons from the Great East Japan Earthquake," Government of Japan, June 2012.