



GENDER IN A JUST URBAN TRANSITION

Discussion Paper

SILVIA SARTORI

GENDER IN A JUST URBAN TRANSITION

Discussion Paper

Silvia Sartori

TABLE OF CONTENTS

INTRODUCTION	4
1. URBAN SPACES, GENDERED SPACES	6
2. WOMEN’S EMPLOYMENT AND LEADERSHIP IN THE ENERGY SECTOR.....	9
3. MAINSTREAMING GENDER INTO TRANSITION POLICIES AND PROGRAMMES	14
CONCLUSIONS	15
REFERENCES	16

LIST OF ABBREVIATIONS AND ACRONYMS

CANSEA	Climate Action Network Southeast Asia
FES	Friedrich-Ebert-Stiftung
GRB	Gender-responsive budgeting
IEA	International Energy Agency
IUCN	International Union for Conservation of Nature
ILO	International Labour Organization
IRENA	International Renewable Energy Agency
JTFA	Just Transition Forum Asia
SDG	Sustainable Development Goals
STEM	Science, technology, engineering and mathematics

INTRODUCTION

*“It [the just energy transition] is not just about
“not leaving people behind”,
but about putting people at the centre.”*

(Anabella Rosemberg)¹

The energy transition is expanding rapidly, driven by political, economic and technological advances. Following the Paris Agreement, governments are setting ambitious goals to decarbonise and reduce their emissions by mid-century. In step, the deployment of and investments in renewable energy continue to increase. In 2019, renewables accounted for 72 percent of all new capacity additions worldwide² and in 2022, investments in renewable energy reached a record \$1.1 trillion, up 30 percent from the previous year³. The costs for renewable energy technologies are falling, with solar having witnessed a record cost reduction of 80 percent since 2010⁴, making renewable energies increasingly competitive against fossil fuels.

Concurrently, urbanisation also continues to advance as a result of economic growth, demographic increases, improved infrastructure and services. In 2023, more than 56 percent⁵ of the world’s population lives in urban areas, a figure that is expected to grow to 68 percent by 2050. This is equivalent to an additional 2.5 billion people who will be residing in cities by 2050. Almost 90 percent of this increase is expected to take place in Africa and Asia⁶. Megacities, namely cities with populations exceeding 10 million people, are becoming increasingly common. The fastest urbanisation is happening in developing countries, home to the world’s largest cities. While particularly vulnerable to the impacts of climate change, cities also account for two-thirds of global energy consumption and more than 70 percent of greenhouse gas emissions⁷.

The energy transition and urbanisation, individually and critically at their intersection, present multiple complexities and a wide range of implications that go beyond technological developments, business models and policy design alone. They also have repercussions on, and are informed by, inequality and differences in access to and control over resources among different genders and social groups. How the energy transition and urbanisation are shaped, governed and implemented will thus determine whether and how underlying gender and social injustices are tackled. If existing patterns and degrees of inequality and marginalisation are not addressed as the energy transition and urbanisation expand, there is a risk of perpetuating and even aggravating existing inequality and exclusion, and potentially generating new patterns of discrimination and marginalisation. This triggers the imperative for a just urban transition, namely a process of transitioning to low-carbon urban societies in a way that “leaves no one behind” by being fair and equitable for all residents. This will ensure a wide distribution of benefits and avoid costs being borne disproportionately by any one group of people.

What can be done to ensure current gaps in equality and inclusion are no longer overlooked or unaddressed? Can these processes be leveraged as an opportunity to address existing gaps, strengthen inclusion and promote equality? If so, how can this be enabled? What are key entry points and promising approaches?

¹ As stated during the opening session of the Just Transition Forum Asia 2023. Anabella Rosemberg is Senior Advisor on Just Transition, Climate Action Network International

² IRENA, *Renewable Account for Almost Three Quarters of New Capacity in 2019*, (2020). Available at: <https://www.irena.org/News/pressreleases/2020/Apr/Renewables-Account-for-Almost-Three-Quarters-of-New-Capacity-in-2019>

³ World Economic Forum, *Spending on Low-Carbon Energy Technology Is on the Brink of Overtaking Fossil Fuels. These 4 Charts Tell the Full Story*, (2023). Available at: <https://www.weforum.org/agenda/2023/02/low-carbon-investment-record-2022/>

⁴ World Economic Forum, *The Price of Solar Power Has Fallen by Over 80% Since 2010. Here’s Why*, (2021). Available at: <https://www.weforum.org/agenda/2021/11/renewable-energy-cost-fallen/>

⁵ The World Bank, *Urban Development*, (2023). Available at: <https://www.worldbank.org/en/topic/urbandevelopment/overview>

⁶ United Nations Department of Economic and Social Affairs, *68% of the World Population Projected to Live in Urban Areas by 2050*, Says UN, (2018). Available at: <https://www.un.org/development/desa/en/news/population/2018-revision-of-world-urbanization-prospects.html>

⁷ The World Bank, *Urban Development*, (2023). Available at: <https://www.worldbank.org/en/topic/urbandevelopment/overview>

This paper reviews discussions unfolding around these questions, which were debated during a “Gender Lab” titled “Gender in Urban Just Transition” held on September 7, 2023 within the scope of the third edition of the Just Transition Forum Asia (JTFA), hosted by Friedrich-Ebert-Stiftung and Climate Action Network Southeast Asia (CANSEA).

The Just Transition Forum Asia is held annually in response to growing awareness of the need for a socio-ecological just transition and for multi-stakeholder discussions on the issue. As part of its 2023 edition, the forum featured a series of topic-specific labs, one of which addressed gender considerations.

The lab on “Gender in Urban Just Transition” brought together stakeholders from cities in Asia to explore the challenges and opportunities of a pathway to achieve just transitions in cities from a gender angle and to share best practices and innovative solutions for achieving a socially gender inclusive and climate-resilient future. The following experts spoke at the lab: Maja Bosnic,

public finance and gender budgeting expert; Sanjukta Mukherjee, co-founder of Sustainable Design Research Consortium; Phuong Tran, founder of the Vietnam Energy Efficiency Network and Sneha Visakha, researcher and doctoral candidate at Brandeis University.

Following the lab structure, the first section of this paper provides an overview of the nexus between urban planning, gender and social inclusion, with recommendations on how urbanisation can be designed and implemented in a more inclusive and just manner. Next, the paper addresses the implications of the clean energy transition on women’s employment and leadership in the sector, reflecting the current status, gaps and presenting opportunities to overcome barriers and make the transition more equitable. The third section presents methodological tools to mainstream gender equality and social inclusion in transition processes, be they urban, energy or other sectors. It will focus on “gender responsive budgeting”, a specific tool highlighted during the forum.

FRIEDRICH EBERT STIFTUNG JUST TRANSITION FORUM ASIA 2023 **CANSEA** CLIMATE ACTION NETWORK Southeast Asia

LAB 5: GENDER IN A JUST URBAN TRANSITION

SUSTAINABLE, INCLUSIVE & ACCESSIBLE CITIES for ALL

PLANNING for WOMEN'S 'CARE WORK'

CENTERING WOMEN'S EVERYDAY LIVES, EXPERIENCES & ASPIRATIONS

the REPRESENTATIVES - from - VULNERABLE GROUPS need to BE HEARD at DECISION MAKING LEVEL

THERE is an UNDER-REPRESENTATION of WOMEN in the ENERGY SECTOR EMPLOYMENT & PARTICULARLY in STEM ROLES!

BUDGET is the LOWEST POLICY INSTRUMENT IF IT'S NOT in the BUDGET, IT'S NOT a PRIORITY

COLLECTING SEX DISAGGREGATED DATA is FUNDAMENTAL to START with 'BECAUSE THEY are TELLING the STORY'

WOMEN HAVE a MORE COLLECTIVE, COLLABORATIVE & COACHING LEADERSHIP STYLE!

LACK of INITIAL GENDER ANALYSIS will RESULT in EXCLUSION of WOMEN in BUDGETING

GREEN BUDGET is NOT the SAME as GENDER BUDGET

RESONANCE BETWEEN FEMINIST URBANISM & JUST TRANSITION APPROACHES

a BETTER GENDER BALANCE is NOT a ZERO-SUM GAME in WHICH WOMEN STAND to GAIN WHILE MEN LOSE

ACCESS to SAFE HOUSING, FOOD & NUTRITION, DRINKING WATER, SANITATION & HYGIENE

1. URBAN SPACES, GENDERED SPACES

“Any settlement is an inscription in space of the social relations in the society that built it. Our cities are patriarchy written in stone, brick, glass and concrete.”

(Jane Darke)⁸

The built space and urban spaces reflect the power relations of the society that created and populates them. The built space is, thus, a mirror of and results from the patterns of inequality and marginalisation that are embedded into the society it originates from. Consequently, transitioning to more equitable, inclusive and just societies during a process of expanding urbanisation implies a transformation of urban planning and urban spaces along principles of equality, inclusion and social justice.

Current urban plans originate from a patriarchal vision and framework of society that identifies the average user of an urban space as an able-bodied man with a typical daytime nine-to-five job. Issues such as women’s safety or women’s needs in the care economy are not traditionally a priority or a criterion in prevailing urban designs.

Addressing the nexus of gender inequalities and urban planning implies adopting feminist principles to design, plan and develop urban spaces that are accessible, safe, inclusive for, functional to and compatible with the needs of women. This will also ensure benefits for other social groups that women take care of, most notably children, the elderly and sick persons. Importantly, this would not occur at the expense of men’s rights and agency. As explained by Sanjukta Mukherjee during the “Gender Lab”, “A better gender balance is not a zero-sum game in which women stand to gain while men lose.”

The starting point of a so-called feminist city is the acknowledgement that women – irrespective of their age, marital status, livelihood or ethnicity – are equal stakeholders in the design, planning, governance and fruition of a city.

As such, they are entitled to urban spaces that cater to their needs and rights, including mobility. In particular, as cultural and social gendered norms have assigned an overwhelming majority of care work to women, they need urban services and infrastructure that support their activities in caring for children, the elderly and sick people. While this calls for dedicated infrastructure such as childcare facilities, it does not reduce or eliminate the need for redistributing and “defeminising” care work.

As the main users of non-motorised transportation options, such as walking and cycling, women are strategic stakeholders in the mobility landscape which is the lifeblood of a city. Issues related to access, reliability, types and affordability of mobility available to women are key determinants of a city’s inclusive, equal and just status. In other words, a just, equal and inclusive city would have a public mobility and transportation system that is safe, accessible, convenient, affordable and reliable for women, too.

A more just, inclusive and equal society, and hence an urban area, is also one that cares for its citizens’ health and wellbeing, leisure and pleasure, irrespective of gender, age or condition. A polluted, environmentally-degraded urban space is hazardous for its citizens. Protecting urban green and blue spaces, conserving urban heritage and biodiversity, and making tourism opportunities accessible to everyone are other aspects of a “just” urban space.

⁸ Darke Jane, *The man-Shaped City* in Chris Booth, Jane Darke, Sue Yeandle, *Changing Places: Women’s Lives in the City* (1996). P. Chapman, London.



Females both as pedestrians and a rickshaw passenger in Yangon (Myanmar), 2015. (Copyright: Silvia Sartori)

Across all these dimensions of urban life, women's participation in urban decision-making and governance processes is essential to ensure that women's voices are heard, their needs conveyed and their views contribute to the design and governance of a city. This is one of the points where feminist urbanism meets the energy transition, as both processes aim for a transformative model of development that avoids or minimises any negative environmental impacts, while challenging existing inequalities of multiple origin (including gendered, patriarchal, caste and colonial). Principles of solidarity and cooperation, participatory and democratic processes, ecological well-being, transformative development, equitable participation and distribution underlie and support both the urban and energy transition.

Both must also be aware of and responsive to existing and emerging challenges, such as the gender digital divide. As urban spaces in the energy transition increasingly rely on smart technologies, it is essential that all stakeholders, especially women, have access to devices, can afford them and possess digital literacy. Otherwise, there is a risk that the "smart transition" reinforces an existing divide and further marginalises women.

As these multiple factors and dimensions illustrate, the overarching question is not only one of "fixing old problems", but rather one of promoting a visionary, sustainable new horizon. The clean energy and urban transitions are mutually supportive processes that can reinforce and contribute to one another. Moreover, they can act as an avenue to drive forward the feminist city vision, so long as women and all other social groups are enabled to engage from the start into the design and governance of these processes.

Measures such as defeminising care work, removing gender wage disparities, building the agency of and public spaces for all shareholders, decentralising governance in favour of greater engagement of local communities and all local stakeholders can help ensure equal distribution among different genders and social groups of the benefits ensuing from the transitions. These start with lower energy costs, improved mobility, increased quality and quantity of green jobs, strengthened public services, improved social security and safety.

Case Study: The Shakti scheme



In June 2023, the Government of Karnataka (India) launched the Shakti scheme, which allows women to travel for free across the State by non-premium public transport.

The initiative triggered a 30 percent increase in the number of passengers⁹ with about 360 million women availing themselves of this opportunity during its first three months of operation¹⁰. The scheme has been particularly well received among female and transgender passengers who benefitted from an improvement in their mobility with resulting positive impacts in terms of access to education, income-generating activities and healthcare services, especially among lower- and middle-income users. Many women also reported using public transport for leisure activities as well as religious and cultural heritage tourism.

The roll out of the initiative also brought to light possible challenges and aspects to be taken into consideration when planning more accessible and inclusive public transportation programmes. The most obvious question pertains to its long-term affordability and financial sustainability, as the Shakti scheme is expected to cost more than Rs 4,000 crore every year¹¹. Other challenges include: size of the available fleet, frequency of service, safety issues at bus stops and distribution of the service across the territory.

9 *The Hindu, Shakti Scheme a Success, Says Minister*, (24 September 2023). Available at: <https://www.thehindu.com/news/national/karnataka/shakti-scheme-a-success-says-minister/article67341956.ece>

10 *The Hindu, Shakti Scheme: No Smart Cards, Karnataka RTCs to Opt for Passes*, (10 August 2023). Available at: <https://www.thehindu.com/news/national/karnataka/shakti-scheme-no-smart-cards-karnataka-rtc-to-opt-for-passes/article67181024.ece>

11 *The New Indian Express, The Power of Shakti: How It Benefits Women of Karnataka, What It Costs the State Government*, (3 July 2023). Available at: <https://www.newindianexpress.com/states/karnataka/2023/jul/03/the-power-of-shakti-how-it-benefits-women-of-karnataka-what-it-costs-the-state-government-2590822.html>

2. WOMEN'S EMPLOYMENT AND LEADERSHIP IN THE ENERGY SECTOR

“Energy transition modelling indicates that tens of millions of additional jobs will likely be created in the coming decades as investments grow and installed capacities expand. A broad range of occupational profiles will be needed. [...] To attract talent to the sector, it is crucial that jobs are decent, and that women, youth and minorities have equal access to job training, hiring networks and career opportunities.”

(International Renewable Energy Agency - IRENA)¹²

As the energy transition advances and accelerates, it is poised to significantly impact the labour market. On the one hand, the International Labour Organization (ILO) anticipates that it will result in six million job losses in the traditional energy sector by 2030¹³. On the other hand, IRENA estimates that the number of jobs in the renewable energy sector could increase from 12 million in 2020 to nearly 43 million in 2050¹⁴, offering diverse opportunities along the value chain, requiring different skill sets and talents. A key pillar of a just energy transition is ensuring that the opportunities it creates are equally accessible, and the benefits it bestows are equitably distributed.

From a gender perspective, this is currently not the case. While the renewable energy sector features a higher employment of women compared to the oil and gas sector, with a female employment rate of 32 and 22 percent respectively, a closer look at the occupational breakdown of women's employment paints a bleaker picture, as women continue to be employed mostly in administrative positions: 45 percent of women working in the renewable energy sector hold administrative jobs, and only 28 percent perform roles in science, technology, engineering and mathematics (STEM)¹⁵.

A further weakness is the continuing underrepresentation of women in managerial and decision-making roles in energy. The World Economic Forum reports that the energy sector is one of the worst industries for women in leadership, with less than one-in-five leadership roles held by women and wages 19 percent lower than for men, in general¹⁶. In 2015, the electricity, gas and water supply sector was found to have women in 22 percent of senior management roles, roughly half the share in the educational and social services sector¹⁷. Significant gaps are also to be found in higher managerial positions. A study of the world's 200 largest utilities conducted by Ernst & Young in 2016 found that women only account for 16 percent of board members, 5 percent of executive board members and 14 percent of senior management roles¹⁸. Research by IUCN in 2015 found that women occupy only 4 percent of chair positions on the World Energy Council, 18 percent of secretary positions and just 10 percent of energy ministries are headed by women¹⁹.

Women's underrepresentation in STEM and managerial roles in the energy sector, renewables included, is concerning as it perpetuates existing gaps and inequalities, besides being counterproductive and inefficient from a business perspective. Multiple studies and data have demonstrated how companies with a

¹² IRENA, *World Energy Transitions Outlook 2023*. Available at: <https://www.irena.org/Digital-Report/World-Energy-Transitions-Outlook-2023>

¹³ ILO, *World Employment and Social Outlook 2018: Greening with Jobs*, (2018). Available at: https://www.ilo.org/global/publications/books/WCMS_628654/lang-en/index.htm

¹⁴ IRENA, *Renewable Energy Jobs Reach 12 Million Globally*, (2021). Available at: <https://www.irena.org/news/pressreleases/2021/Oct/Renewable-Energy-Jobs-Reach-12-Million-Globally>

¹⁵ IRENA, *Renewable Energy: A Gender Perspective*, (2019). Available at: https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2019/Jan/IRENA_Gender_perspective_2019.pdf?rev=bed1c40882e54e4da21002e3e1939e3d

¹⁶ World Economic Forum, *These 4 Charts Show the Energy Sector's Gender Gap and What Needs to Change*, 2022. Available at: <https://www.weforum.org/agenda/2022/11/gender-gap-energy-sector/>

¹⁷ McCarthy N., *Which Industries Have the Most Women in Senior Management?* Forbes, 8 March 2016. Available at: <https://www.forbes.com/sites/niallmccarthy/2016/03/08/which-industries-have-the-most-women-in-senior-management-infographic/>

¹⁸ Ernst & Young, *Women in Power and Utilities: Index 2016*, (2016). Available at: <https://www.ey.com/Publication/wvLUAssets/ey-talent-at-the-table-women-in-power-and-utilities-index-2016/percent24FILE/ey-talent-at-the-table-women-in-power-and-utilities-index-2016.pdf>

¹⁹ IUCN, *Women's Participation in Global Environmental Decision Making*, 2015. Available at: https://portals.iucn.org/union/sites/union/files/doc/egi_factsheet_desicion_making_web_sept2015.pdf

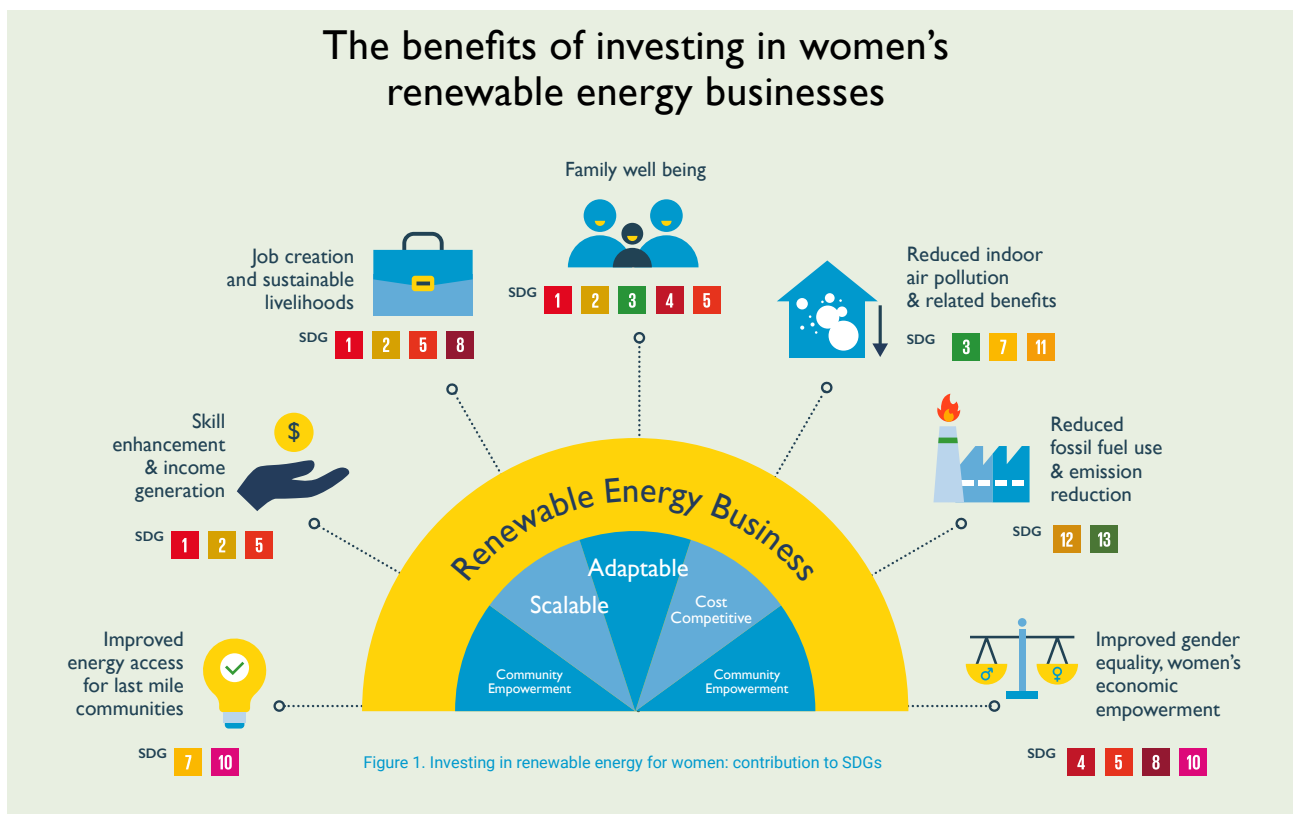
diverse management composition and workforce perform better, are more likely to earn higher profits, display more collaborative and collective leadership styles, and are more sustainable compared to male-dominated environments. Having fewer women in technical and managerial roles has further negative repercussions:

- Less innovation: in 2021, less than 25 percent of innovations patented in the energy sector had one female inventor, compared to less than 30 percent in other technology sectors²⁰.
- Fewer start-ups: in the energy sector, only 11 percent of start-ups had diverse founders, compared to 19 percent in non-energy sectors²¹.

Excluding women from decision-making processes and governance in the energy sector prevents women from contributing their viewpoints, their know-how and needs in shaping energy projects and policies. In the absence of inputs from women, frameworks and programmes that govern the energy landscape predominantly reflect and respond to the interests, priorities and needs of men.

Furthermore, women's marginalisation may soon turn out to be a threat for the industry itself. If, on one hand, the clean energy and decarbonisation processes are projected to generate millions of new jobs, on the other hand they are also currently confronted with a shortage of qualified workers. An analysis conducted by McKinsey indicates that between 2022 and 2030, the global renewables industry will need an additional 1.1 million blue-collar workers to develop and construct wind and solar plants and another 1.7 million workers to operate and maintain them²². Not only is this talent not easy to find, it also requires time for candidates to be adequately trained and qualified. If not for the sake of gender equality and social justice alone, the transition should have a vested interest in developing, attracting, retaining and equipping a new and better diversified workforce to sustain itself.

Women and other aspiring professionals are best positioned to fill this gap and play a role along these new processes, in the presence of a conducive ecosystem. The clean energy transition has a wide range of potential for women's employment, particularly in the fields of



²⁰ World Economic Forum, *These 4 Charts Show the Energy Sector's Gender Gap and What Needs to Change*, 2022. Available at: <https://www.weforum.org/agenda/2022/11/gender-gap-energy-sector/>

²¹ Ibid.

²² McKinsey & Company, *Renewable-Energy Development in a Net-Zero World: Overcoming Talent Gaps*, (2022). Available at: <https://www.mckinsey.com/industries/electric-power-and-natural-gas/our-insights/renewable-energy-development-in-a-net-zero-world-overcoming-talent-gaps>

equipment manufacturing and distribution, project development, construction and installation, operations and maintenance, not to mention in crosscutting and enabling areas such as training, health and safety, policy-making, and financing. In spaces such as the design, production, development and distribution of energy products, women's entrepreneurship stands out as a particularly empowering avenue for women, where they can leverage their preferential position to access female users and consumers.

At present, however, the potential for girls and women's active participation in the sector remains significantly untapped, due to a set of barriers that still largely inhibit and limit: (i) girls' motivation to pursue STEM studies, (ii) female professionals' entry into the energy sector and (iii) their career advancement therein. These barriers include:

- Gender stereotypes that portray STEM fields and jobs as "a man's space", not suitable for girls and women
- Social and cultural norms that discourage girls' and women's involvement in these sectors
- Limited mobility for women

- Human resources practices that discriminate against women and hinder career advancement
- Lack of female role models and of mentoring and networking opportunities for women
- Limited awareness about actual opportunities in the sector
- Limited educational avenues to pursue STEM studies
- Work-life balance patterns that make it difficult for women to reconcile their professional aspirations with family responsibilities
- Lack of gender diversity targets
- Lack of workplace services and flexibility responding to women's family and professional obligations.

In turn, women's limited integration and advancement within the energy workforce contributes to perpetuating a vicious cycle. As reported by the IEA, "If women are not advancing in the energy sector, there will be fewer female role models and mentors to attract more women. Furthermore, if women working in the energy sector are unable to advance in their careers, they will be motivated to change sectors"²³.



Participants at a "Woman Future Engineers – Career Mentoring & Networking Programme" event in Vietnam in April 2022. Copyright: HUS Media Club, University of Sciences, VNU,

²³ International Energy Agency, *Understanding Gender Gaps in Wages, Employment and Career Trajectories in the Energy Sector*, 2022. Available at: <https://www.iea.org/articles/understanding-gender-gaps-in-wages-employment-and-career-trajectories-in-the-energy-sector>

Genuine commitment and political will are essential preconditions to promote gender equality, women's political and economic empowerment in both the public and private sectors. If these preconditions are in place, multiple measures can be adopted to translate this commitment into more inclusive and equal societies and economies:

- Working environments play a crucial role in enabling a wider participation of women. They can develop and enforce human resources practices and rules that avoid gendered discriminations, combat sexual harassment, promote flexible working arrangements to allow male and female employees to manage family obligations and improve work-life balance. Equal opportunities for women can be proactively generated by creating quotas for gender parity, encouraging professionals of all genders to act as mentors, establishing networking, coaching and mentoring platforms for girls and women professionals. Collecting this evidence and giving wide visibility to girls and women engaged in the energy sector contribute to replacing conservative social perceptions with new cultural paradigms and role models.
- The availability of supporting infrastructure, such as childcare facilities and supportive systems catering for after-school activities or ill family members, has a substantial impact on women's ability to handle both professional and family responsibilities, and for women and men to jointly take care of their household and parenting needs.
- An important ally to change persisting gender stereotypes and to realize a new generation of female professionals is the education sector. From the early levels to vocational and academic studies, the sector shall ensure gender balance among teachers and assistants, develop curricula that are sensitive and appealing to both girls and boys, equally encouraging them to pursue STEM studies, expose students to female role models in the sector, collect and disseminate evidence of the benefits for girls' engagement in the sector, facilitate mentorship and coaching opportunities between girls and women professionals.

Case Study: The Vietnamese Experience at the Nexus of Women's Empowerment and Energy Transition



The case of Vietnam well illustrates the opportunities, but also challenges related to gender in the clean energy space.

Among Southeast Asian countries, Vietnam has the highest rate of renewable energy development, accounting for 15.2 percent of its national power system compared to 10.5, 6.2 and 6 percent in the Philippines, Thailand and Malaysia, respectively²⁴. According to the latest Vietnamese Power Development Plan, approved in 2023, the country will reach a renewable energy rate of up to 39.2 percent by 2030 with a vision to hit 71.5 percent by 2050, by when the country intends to progressively phase out coal. As many as 315,000 jobs are projected to be generated per year in solar, wind and biomass power generation by 2030²⁵.

While the country's natural endowment, political commitment and growth forecasts are promising, Vietnam is confronted by a severe shortage of human resources skilled for development of the renewable energy sector. The labour market for women, in particular, has remained stagnant. Tellingly, in Vietnam Electricity – EVN, the biggest electricity company in the country, women only account for 20.6 percent of the workforce²⁶.

This human resources shortage is due to limited availability of universities in Vietnam providing education in the renewable energy field, coupled with few proper plans for recruiting students and developing attractive learning programmes. On the gender side, these limitations are further compounded by:

- a. Cultural and social stereotypes against girls and women in a sector that is still widely considered “just for men”, discouraging girls from pursuing education and specialisation in these skills.
- b. Gender inequality in recruitment processes in the energy sector.
- c. Work-life imbalance which aggravates women's challenges in reconciling their professional aspirations with their family responsibilities.

Acknowledging the prospects for a wide and rapid expansion of the sector as well as its critical human capital needs, several initiatives were launched.

In 2022, the Vietnam Women Energy Network was created. Supported by the Vietnam Energy Efficiency Network (EEN), GIZ and the Global Women's Network for the Energy Transition, the Women Energy Network operates in the fields of energy efficiency, renewable energy and energy as a whole, to foster gender equality and a positive image of women in the sector, enhance their position and offer capacity programmes and networking activities for women working in this industry.

In the same year, the “Woman Future Engineers – Career Mentoring & Networking Programme” was also launched, with the objective of helping create the next generation of female engineers in the country through career orientation, mentoring programmes and professional networking opportunities for young female engineering students. Between January and May 2022, 84 students from the Vietnam National University in Hanoi and Hanoi University of Science & Technology took part in the programme, which is sponsored by the US Embassy and Vietnamese who are members of the U.S. Government Alumni, in collaboration with EEN-Vietnam.

²⁴ Hanoi National University, *Bức tranh ngành năng lượng và tiềm năng của năng lượng tái tạo ở Việt Nam*, (2022). Available at: <http://cefd.edu.vn/buc-tranh-nganh-nang-luong-va-tiem-nang-cua-nang-luong-tai-tao-o-viet-nam-tin404> (Energy outlook and renewable energy potentials in Vietnam)

²⁵ Kinh tế & Môi trường online magazine, *Nhu cầu và rào cản về nguồn nhân lực trong chuyển dịch năng lượng*, (*Human resource needs and barriers in energy transition*) (2022). Available at: https://kinhtemoitruong.vn/nu-cau-va-rao-can-ve-nguon-nhan-luc-trong-chuyen-dich-nang-luong-67117.html#google_vignette

²⁶ EVN, *Lao động nữ của EVN: Tăng cả “lượng” và “chất”*, (*EVN's female workers: Increase both “quantity” and “quality”*) (2021). Available at: <https://www.evn.com.vn/d6/news/Lao-dong-nu-cua-EVN-Tang-ca-luong-va-chat-6-12-29327.aspx>

3. MAINSTREAMING GENDER INTO TRANSITION POLICIES AND PROGRAMMES

“If a country’s budgetary process does not include gender analysis requirements, these energy transition projects will either deepen existing gaps or leave the status quo.”

(Maja Bosnic)²⁷

On the policy front, one specific tool is available to ensure that gender-related commitments are coupled with financial resources and translated into allocations of programmatic responsibilities: gender-responsive budgeting (GRB), which allows for the embedding of gender considerations into the budgets of services, programmes and policies. This is of paramount importance because “Budget is the loudest policy instrument. [...] If a specific funding is not gender-responsive, then it is not a priority”, Maja Bosnic told the recent “Gender Lab”. This applies to any policy areas, from infrastructure to health, from internal affairs to environment, from agriculture to family and social affairs, and more.

GRB starts with a gender analysis of fiscal and financial decisions that allow for the identification of gendered implications as well as gendered engagements implied into a given decision. This analysis, conducted at the preliminary stages of the formulation of a legislative and financial framework, constitutes the building block around which a gender-responsive budget is designed.

Irrespective of the sector that the budget and programme refer to, the initial gender analysis seeks to find answers to questions, such as: who is involved, who takes the decisions, who benefits, what are the different needs of each gender, what resources are available to each gender, what risks and opportunities would the programme directly and indirectly generate for different genders?

If the gender analysis is the initial step to mainstream gender into a policy and informs the strategic policy dialogue that shapes its long-term strategy, in the GRB approach gendered elements are present and captured throughout the budget cycle:

1. In the initial strategy setting and macroeconomic forecasting phase that identifies priority expenditures, gender gaps are acknowledged and related responsive strategies are then translated into budgetary priorities.
2. During budget preparation and adoption, when ministries develop revenue, spending and savings initiatives. These explicitly include an analysis of gender impacts and implications, to ensure that resources are made available to cater to gender issues, too.

3. When the budget is being executed, programmes are delivered and their performance is measured against the approved budget and performance targets. In the GRB approach, these later also include dedicated impacts on gender equality goals.
4. In the evaluation and audit phase, when the accounts and internal controls are verified and the evaluation identifies the drivers of performance, the appropriateness, effectiveness and efficiency of programmes, including specific impacts of gender goals.

The full potential of GRB can be better exploited when the tool is utilised as part of a comprehensive gender mainstreaming policy approach that, in addition to an initial gender analysis, seeks to integrate gender into all phases and components of policy design, delivery, evaluation and communication:

- Collecting and reporting gender-disaggregated data are an essential ingredient to capture and reflect the actual impact on and involvement of each gender throughout the process. This applies to both GRB, but also to all other measures and strategies undertaken by any stakeholder committed to promote and mainstream gender equality in their context.
- Gender-responsive procurement helps ensure that procurement criteria and practices are truly open, accessible and inclusive for suppliers of all genders, including and in particular businesses owned by under-represented groups such as women.
- Gender-responsive monitoring and evaluation goes beyond traditional appraisal methodologies to zoom into the specific impacts on each gender, in quantitative and qualitative terms.

To ensure policies and programmes are inclusive as well as impactful, GRB and the other tools described above can be applied and extended to social inclusion at large, taking into consideration, for instance, the specific needs, opportunities and risks not only of girls and women, but also of people with disabilities, minorities and other vulnerable groups. Reflecting these dimensions into policies and programmes is helpful not only to avoid or minimise unintended negative impacts, but also to help mobilise the potential contributions by all these groups, to achieve the targeted vision(s) and impacts.

²⁷ As stated during the Gender Lab on 7 September 2023.

CONCLUSIONS

“How we design power generation, transport and buildings in cities – how we design the cities themselves – will be decisive in getting on track to achieve the Paris Agreement on climate change and the Sustainable Development Goals.”

(United Nations Secretary-General António Guterres)²⁸

The energy transition and urbanisation are moving forward at an unprecedented pace. If their continuation and expansion seem inevitable, it still remains to be seen whether they will succeed in creating a sustainable and equitable future for all and become, indeed, “just” processes.

To ensure that everyone benefits from the transition to low-carbon economies and urban spaces and that no one is left behind, a number of key principles need to be embedded:

- Participation: all stakeholders, including different genders, minority groups, vulnerable and marginalised, should be involved in designing, planning and implementing the transition.
- Equity: the benefits and costs of the transition should be shared fairly amongst all stakeholders.
- Sustainability: the transition should be environmentally sustainable and should promote social and economic well-being.

Processes such as the energy transition and urbanisation are deeply political in nature. As such, they need to be designed and rolled out in a participatory and inclusive manner, with decentralised planning to local communities to capture, reflect and respond to the needs, inputs and know-how of each stakeholder. Additionally, participatory approaches shall take into consideration intersectionality, namely how multiple potential elements of vulnerability – such as class, gender, age and disability – combine to generate a more nuanced picture of actual needs, perspectives and contributions.

With these premises, current international efforts to transition to more just and clean urban plans and energy systems can harness an unprecedented opportunity to address existing barriers and gaps between men and women as well as between different social groups.

With policies that focus on workers’ rights, occupational safety and health, social protection, skills development, active labour market policies, social dialogue, competitive yet quality jobs, regulation of the vast informal economies that are rampant in growing urban spaces, the urbanisation process and energy transition can help avoid the perpetuation or aggravation of existing inequalities and can prevent the emergence of new forms of marginalisation and discrimination.

As these processes are strategically leveraged to make urban spaces and energy systems more inclusive and equitable, they also contribute to fulfil the Agenda 2030. They directly drive impacts on Sustainable Development Goals (SDGs) such as “Sustainable cities and communities” (SDG 11), “Affordable and clean energy” (SDG 7), “Gender equality” (SDG 5), “Climate action” (SDG 13) and “Reduced inequalities” (SDG 10), while being indirectly conducive to all other SDGs, too.

²⁸ United Nations News, *Guterres Urges Cities to Embrace ‘Generational Opportunity’ for Climate Action, Sustainable Development*, (2021). Available at: <https://news.un.org/en/story/2021/04/1089942>

REFERENCES

Darke, J., *The man-Shaped City* in Chris Booth, Jane Darke, Sue Yeandle, *Changing Places: Women's Lives in the City* (1996). P. Chapman, London.

Ernst & Young, *Women in Power and Utilities: Index 2016*, (2016). Available at: <https://www.ey.com/Publication/vwLUAssets/ey-talent-at-the-table-women-in-power-and-utilities-index-2016/percent24FILE/ey-talent-at-the-table-women-in-power-and-utilities-index-2016.pdf>

EVN, *Lao động nữ của EVN: Tăng cả "lượng" và "chất"*, (2021). Available at: <https://www.evn.com.vn/d6/news/Lao-dong-nu-cua-EVN-Tang-ca-luong-va-chat-6-12-29327.aspx>

Hanoi National University, *Bức tranh ngành năng lượng và tiềm năng của năng lượng tái tạo ở Việt Nam*, (2022). Available at: <http://cefd.edu.vn/buc-tranh-nganh-nang-luong-va-tiem-nang-cua-nang-luong-tai-tao-o-viet-nam-tin404>

International Labour Organization (ILO), *World Employment and Social Outlook 2018: Greening with Jobs*, (2018). Available at: https://www.ilo.org/global/publications/books/WCMS_628654/lang--en/index.htm

International Energy Agency (IEA), *NetZero by 2050*, (2021). Available at: <https://www.iea.org/reports/net-zero-by-2050>

International Energy Agency (IEA), *Understanding Gender Gaps in Wages, Employment and Career Trajectories in the Energy Sector*, 2022. Available at: <https://www.iea.org/articles/understanding-gender-gaps-in-wages-employment-and-career-trajectories-in-the-energy-sector>

International Monetary Fund (IMF), *Asia: A Survey of Gender Budgeting Efforts*, (2016). Available at: <https://www.imf.org/en/Publications/WP/Issues/2016/12/31/Asia-A-Survey-of-Gender-Budgeting-Efforts-44143>

International Renewable Energy Agency (IRENA), *Renewable Energy: A Gender Perspective*, (2019). Available at: https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2019/Jan/IRENA_Gender_perspective_2019.pdf?rev=bed1c40882e54e4da21002e3e1939e3d

International Renewable Energy Agency (IRENA), *Renewable Account for Almost Three Quarters of New Capacity in 2019*, (2020). Available at: <https://www.irena.org/News/pressreleases/2020/Apr/Renewables-Account-for-Almost-Three-Quarters-of-New-Capacity-in-2019>

International Renewable Energy Agency (IRENA), *Renewable Energy Jobs Reach 12 Million Globally*, (2021). Available at: <https://www.irena.org/news/pressreleases/2021/Oct/Renewable-Energy-Jobs-Reach-12-Million-Globally>

International Renewable Energy Agency (IRENA), *World Energy Transitions Outlook 2023*. Available at: <https://www.irena.org/Digital-Report/World-Energy-Transitions-Outlook-2023>

International Union for Conservation of Nature (IUCN), *Women's Participation in Global Environmental Decision Making*, 2015. Available at: https://portals.iucn.org/union/sites/union/files/doc/egi_factsheet_desicion_making_web_sept2015.pdf

Kinh te & Moi trung online magazine, *Nhu cầu và rào cản về nguồn nhân lực trong chuyển dịch năng lượng*, (2022). Available at: https://kinhtemoitruong.vn/nhu-cau-va-rao-can-ve-nguon-nhan-luc-trong-chuyen-dich-nang-luong-67117.html#google_vignette

McCarthy N., *Which Industries Have the Most Women in Senior Management?*, Forbes, 8 March 2016. Available at: <https://www.forbes.com/sites/niallmccarthy/2016/03/08/which-industries-have-the-most-women-in-senior-management-infographic/>

McKinsey & Company, Renewable-Energy Development in a Net-Zero World: Overcoming Talent Gaps, (2022). Available at: <https://www.mckinsey.com/industries/electric-power-and-natural-gas/our-insights/renewable-energy-development-in-a-net-zero-world-overcoming-talent-gaps>

Organisation for Economic Co-Operation and Development (OECD), Gender Budgeting in OECD Countries 2023, (2023). Available at: <https://www.oecd.org/publications/gender-budgeting-in-oecd-countries-2023-647d546b-en.htm>

Rick, K., I. Martén, and U. Von Lonski, Untapped Reserves: Promoting Gender Balance in Oil and Gas, (12 July 2017). Available at: <https://www.bcg.com/publications/2017/energy-environment-people-organization-untapped-reserves>

Sneha Visakha, Making a Feminist City – Planning Safety and Autonomy for Women, (2021), Vidhi Centre for Legal Policy. Available at: <https://vidhilegalpolicy.in/research/making-a-feminist-city-planning-safety-and-autonomy-for-women/>

The Hindu, Shakti Scheme: No Smart Cards, Karnataka RTCs to Opt for Passes, (2023). Available at: <https://www.thehindu.com/news/national/karnataka/shakti-scheme-no-smart-cards-karnataka-rtcs-to-opt-for-passes/article67181024.ece>

The Hindu, Shakti Scheme a Success, Says Minister, (2023). Available at: <https://www.thehindu.com/news/national/karnataka/shakti-scheme-a-success-says-minister/article67341956.ece>

The New Indian Expert, The Power of Shakti: How It Benefits Women of Karnataka, What It Costs the State Government, (2023). Available at: <https://www.newindianexpress.com/states/karnataka/2023/jul/03/the-power-of-shaktihow-it-benefits-women-of-karnataka-what-it-costs-the-state-government-2590822.html>

The World Bank, Urban Development, (2023). Available at: <https://www.worldbank.org/en/topic/urbandevelopment/overview>

United Nations Department of Economic and Social Affairs (UNDESA), 68% of the World Population Projected to Live in Urban Areas by 2050, Says UN, (2018). Available at: <https://www.un.org/development/desa/en/news/population/2018-revision-of-world-urbanization-prospects.html>

United Nations News, Guterres Urges Cities to Embrace 'Generational Opportunity' for Climate Action, Sustainable Development, (2021). Available at: <https://news.un.org/en/story/2021/04/1089942>

USAID, Advancing Gender in the Environment: Making the Case for Women in the Energy Sector, 2018. Available at: https://2017-2020.usaid.gov/sites/default/files/documents/1865/IUCN-USAID-Making_case_women_energy_sector.pdf

World Economic Forum (WEF), Global Gender Gap Report 2022. Available at: https://www3.weforum.org/docs/WEF_GGGR_2022.pdf

World Economic Forum (WEF), Spending on Low-Carbon Energy Technology Is on the Brink of Overtaking Fossil Fuels. These 4 Charts Tell the Full Story, (2023). Available at: <https://www.weforum.org/agenda/2023/02/low-carbon-investment-record-2022/>

World Economic Forum (WEF), The Price of Solar Power Has Fallen by over 80% Since 2010. Here's Why, (2021). Available at: <https://www.weforum.org/agenda/2021/11/renewable-energy-cost-fallen/>

World Economic Forum (WEF), These 4 Charts Show the Energy Sector's Gender Gap and What Needs to Change, 2022. Available at: <https://www.weforum.org/agenda/2022/11/gender-gap-energy-sector/>

About the author

Silvia Sartori is a senior expert in gender and sustainability. For the past 17 years Silvia has been working in different capacities on multiple international development and cooperation projects in Asia, at the nexus of energy, environment and climate, women's empowerment and entrepreneurship, private sector development, innovation and sustainability. Between 2021 and 2022 she led the Women's Economic Empowerment portfolio of ENERGIA International Network on Gender & Sustainable Energy. She is currently also serving as a Senior Expert on Women in Energy in Central Asia, with the Organisation for Security and Cooperation in Europe (OSCE). Her academic background is in SME Management and Development, and Asian Studies.

Imprint

© 2024 Friedrich-Ebert-Stiftung
Office for Regional Cooperation in Asia
Thanapoom Tower, 23rd Floor 1550
New Petchburi Road Makkasan, Ratchathewi
Bangkok 10400, Thailand

Responsible:

Franziska Schmidtke | Project Director for Climate & Energy in Asia

asia.fes.de

[f FESAsia](#)

[t FESAsia](#)

The views expressed in this publication are not necessarily those of the Friedrich-Ebert-Stiftung. Commercial use of all media published by Friedrich-Ebert-Stiftung (FES) is not permitted without the written consent of the FES. Publications by the Friedrich-Ebert-Stiftung may not be used for the electioneering purposes.