

## Policy Brief

# Encouraging women's participation in the labour force to advance gender equality and a just transition in Asia and the Pacific

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## **Policy Brief**

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Gender inequality is prevalent everywhere. Lower participation of women in the labour force than men is one main reason for the inequality. This stems from various factors including biased social norms which make women more prone to work at home and engage in family caregiving. While tackling gender inequality requires a broader set of interventions, shift to low-carbon economies provides opportunities to address gender disparities through increasing women's participation in green jobs. If managed properly, the green transition offers prospect to achieve a transition that is just and fair. This policy brief presents revealing facts about the persistent unequal labour force participation contributing to gender inequality. As an immediate policy action against the backdrop of just transition, the brief recommends enhanced STEM education, skills and job placements of women, followed with a longer-term pathway to overcome prevailing biased social norms that hinder gender equality.

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## Introduction

Greenhouse gases (GHGs) are rising fast in Asia and the Pacific. Without targeted actions, this pace is set to continue unabatedly in this rapidly growing dynamic region. An accelerated 'just transition'<sup>1</sup>, therefore, is a must to deliver the 2015 Paris Agreement and avoid the worst impacts of climate change. However, while necessary, the transition will also cause disruption. According to World Economic Forum (2025) globally 170 million new jobs will be created and 92 million jobs displaced by 2030 due to green transition, technological advancements, geo-economic fragmentation, and demographic changes. In the process of green transition, ILO (2018b) estimates that the measures taken in the production and use of energy will lead to job losses of around 6 million as well as the creation of some 24 million jobs. Those who are at risk of losing out over the course of transition are generally the poor and vulnerable groups working in the informal sector, including women who lack education in Science, Technology, Engineering and Mathematics (STEM) subjects that are vital to green jobs.

Throughout history, every major transformation has consistently left women behind, especially women navigating unpaid care work burdens, limited access to skilling opportunities or entrenched social expectations (Sprague and Asturizaga 2025). Learning from the past, therefore, the ongoing green transformation should be taken as an important opportunity to ensure women are not left behind. While the shift to low-carbon economies creates opportunities through promoting women's participation in emerging green sectors, it is acknowledged that many drivers of gender inequality exist independently of the green transition and demand broader structural interventions. Factors like unpaid care work, social norms, political representation, and financial inclusion often require policy solutions beyond those tied to environmental sustainability. A more comprehensive approach would mean tackling gender inequality across multiple dimensions such as labour markets, education, health, and governance, rather than relying solely on the green transition policies.

Efforts are underway for the realization of gender equality in the process of green transformation. The gender action plan adopted at the twenty-third session of the UNFCCC Conference of Parties (COP 23) and the subsequent Enhanced Lima Work Programme of COP 29 aimed to advance gender equality and women's empowerment, recognizing that climate action must be gender-responsive as the climate change has disproportionate impacts on women and girls (UNFCCC Decision -/CP.29). Against this backdrop, the 2025 SDG Partnership Report on ['Delivering a Just](#)

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<sup>1</sup> Just transition refers to a greening of economy that is fair and inclusive, creating decent work opportunities and leaving no one behind.

Transition: Advancing Decent Work,

Gender Equality and Social Protection

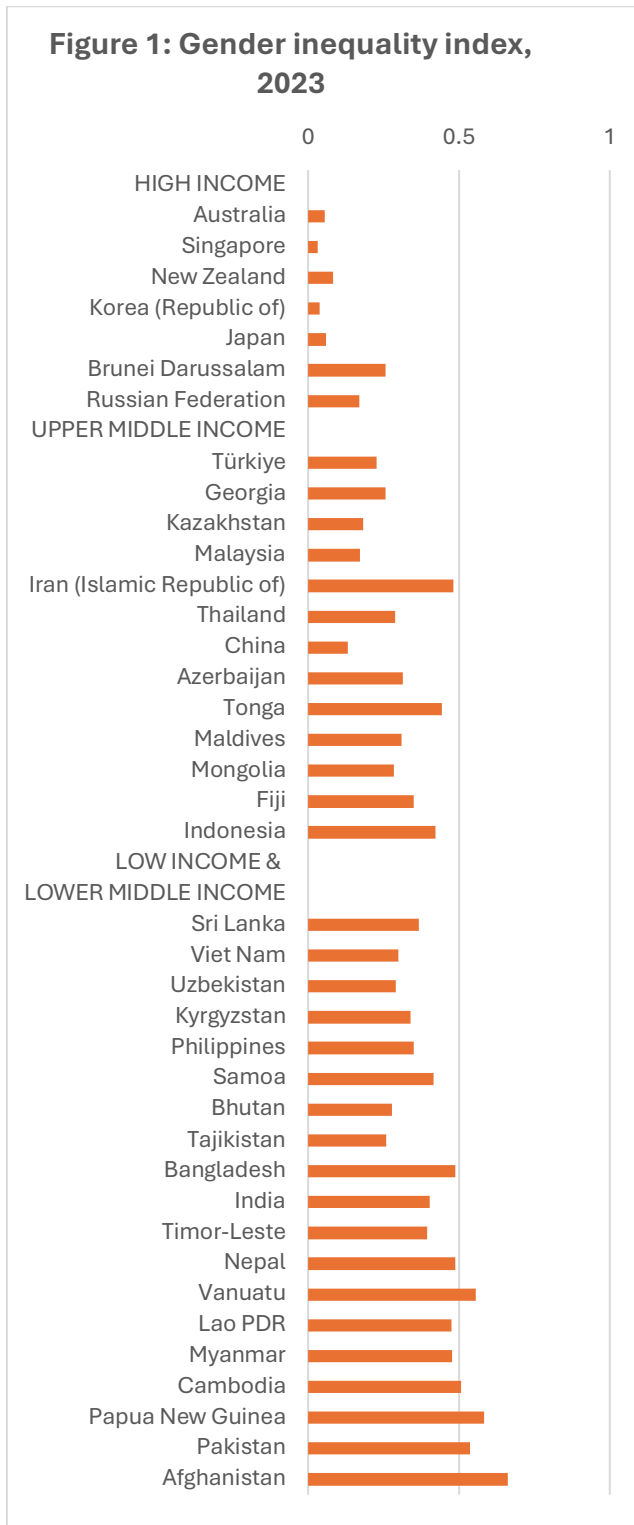
produced by ESCAP, ADB and UNDP presents solutions and enablers for a just transition of the workforce with special attention to women.

**Gender inequality is pervasive**

Gender Inequality Index (GII) - a measure of gender-based disadvantage in three dimensions: reproductive health, empowerment, and labour market participation, shows women are lagging behind men in all Asia-Pacific countries, though it is low in high income countries. The GII varies widely across countries implying highest inequality in Afghanistan (0.661) and lowest in Singapore (0.031) among the countries presented in Figure 1. Countries with GII higher than 0.5 are Vanuatu, Papua New Guinea and Pakistan apart from Afghanistan.

**Women’s participation in the labour market is lower than men in all countries**

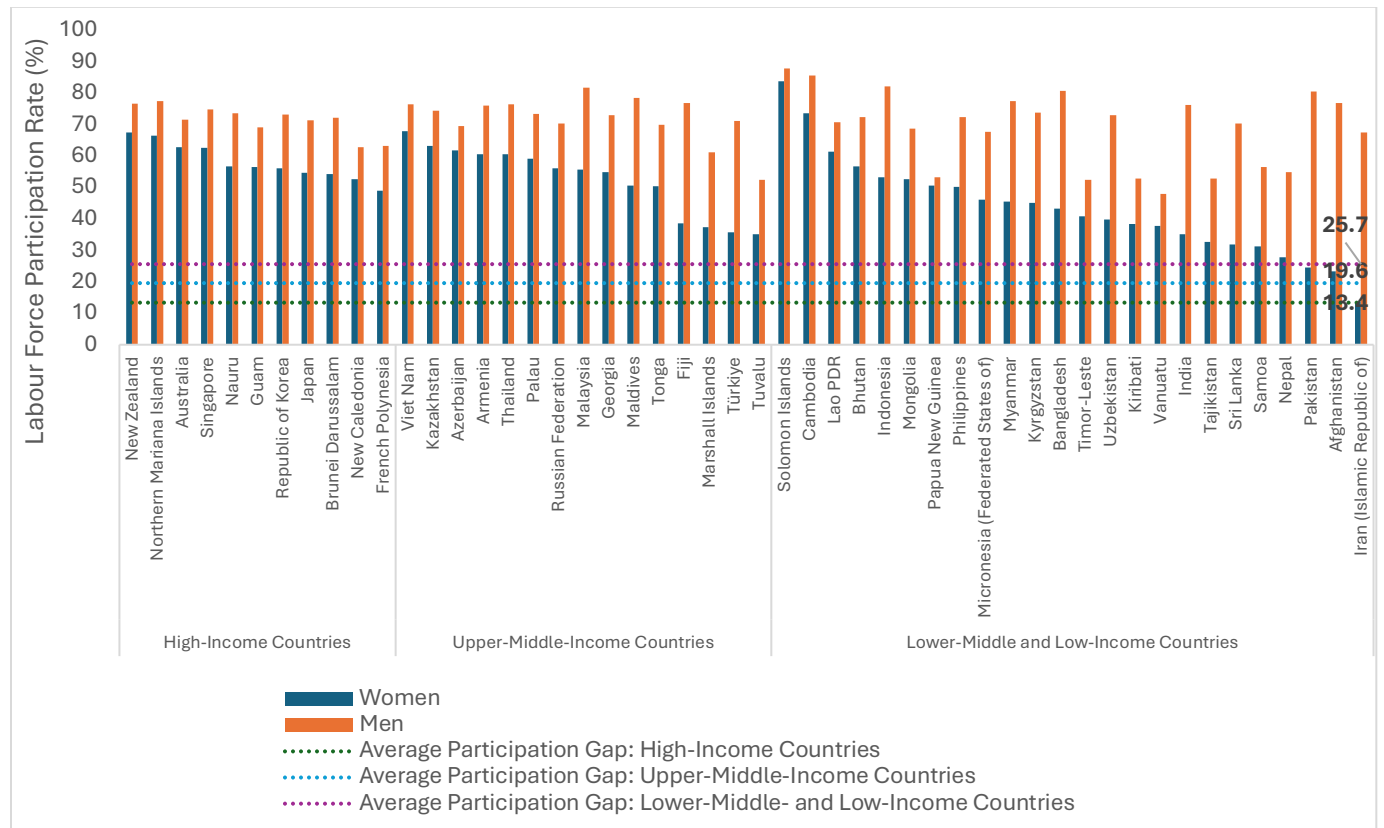
One of the reasons for gender inequality is the lower proportion of women’s participation in labour market compared to men in all Asia-Pacific countries irrespective of their economic status. However, the participation gap is lower in high income countries compared to other groups of countries. In high-income countries of the region, the average gap in labour force participation between men and women is 13.4 percentage points. This average gap increases to 19.6 percentage points in upper Middle Income Countries (MICs) and to 25.7 percentage points in low income and lower MICs of the region. The disparity is especially stark in



Source: UNDP 2025 Human Development Report

countries like Bangladesh and India, where 43.4% and 35.1% of women, respectively, are in the labour force, compared to 80.7% and 76.4% of men, respectively (Figure 2).

**Figure 2: Labour force participation rate by gender, circa 2023**



Source: ESCAP, ADB and UNDP (2025). Delivering a Just Transition: Advancing Decent Work, Gender Equality and Social Protection

## Why is female labour force participation low?

Enhancing women’s participation in labour market not only drives economic growth providing additional labour supply but also economically empowers women through increased earnings, thus supporting to reduce gender inequality. Therefore, investigating into the reasons for low female participation and implementing tailored policies is the priority of most governments across Asia and the Pacific.

Explaining the factors that influence labour supply, especially women’s labour, is complex unlike the supply of normal products which rises with the increase in price. Economic theory behind female’s participation in labour market is derived from the seminal works of Mincer (1962) and Becker (1965). Building on neo-classical model of labour supply, Mincer’s theory explains that individuals make a rational choice between hours of work and leisure hours to maximise their utility. The overall labour supply to changes in market wages depends on relative strengths of substitution and income

effects. Drawing on this theory one could infer that a decrease in a woman's labour supply could be due to her preference for more leisure hours when there is an increase in wage rate as the higher wage enables her to earn more amount of income working less hours. On the other hand, Becker's time allocation theory (1965) treats household as maximising a single utility function, therefore, the decision about labour supply is not a subject of an individual's choice. Becker's theory foresees that when a household's valuation of time for domestic chores is high the female labour force participation will be low (Box 1).

#### **Box 1: Theories of Labour Force Participation**

Economic theory behind female's participation in labour market is derived from the seminal works of Mincer (1962) and Becker (1965). Mincer's Theory states that a woman's labour supply decision is based on real wage relative to the value of her leisure time. An increase in real wage has two effects on labour supply. First, a higher wage may encourage women to join labour market due to higher opportunity cost of not working; this is called substitution effect. Secondly, women may prefer increasing leisure time with the increase in wage rate as she has been able to earn more amount of income working less hours due to increase in wage rate. This is known as income effect. Thus, overall labour supply to changes in market wages depends on relative strengths of substitution and income effects. By this theory, substitution effects would be higher than income effect leading to rise in labour supply with the increase in wage rate. However, this has not generally been the case in developing countries where female's labour supply does not increase with increase in wages.

On the other hand, Becker's time allocation theory (1965) treats household as maximising a single utility function. The main idea is that household members divide their time between market and non-market activities. Market activity implies participation in labour force, while non-market activities refer to household production for own consumption using own capital and unpaid labour, like the preparation of meals, washing, and caregiving. Becker (1965) predicts an inverse relationship between household valuation of time for home production and female labour force participation. This implies that labour market participation decisions of women depends on household demographics like the presence of children, elderly, and sick household members, among others.

Becker's theory seems to be more plausible in developing countries which suggests various factors determine female's labour supply, including family caregiving. In Asia and the Pacific, women do four times more unpaid care work than men (ILO 2018a). This huge time difference between men and women in unpaid care work is often made worse by other overlapping discriminations that women face based on social, economic, and demographic characteristics. Thus, compared to economic factors, the non-economic reasons seem to be more important in explaining women's labour force participation, otherwise, the gender participation gap could not have differed widely across the upper MICs which have similar economic status. In fact, some upper MICs have less participation gap such as Azerbaijan and Viet Nam, whereas some others have very large gap such as Malaysia and Turkey. This also infers that gender participation gap in labour market seems to be partially explained by cultural factors as Islamic countries have wider gap between men and women's

labour force participation (Figure 2). Following Becker's theory, other literatures identify various factors like marital status, age, rural or urban location, wealth, household size, education levels, social norms, apart from the level of economic development that determine women's decision to participate in labour market.

### **Biased social norms are a fundamental reason for gender inequality**

Becker's theory assumes households maximizing a single utility function. Underlying this is the assumption that there is labour division among household members, including male and female, which is mainly guided by the social norms that define what activities men and women are to perform. Such a gender segregation of works is biased against women and their participation in economy and society. Thus, social norms have received widespread attention in recent years explaining gender inequality in labour force participation as well as overall gender inequality.

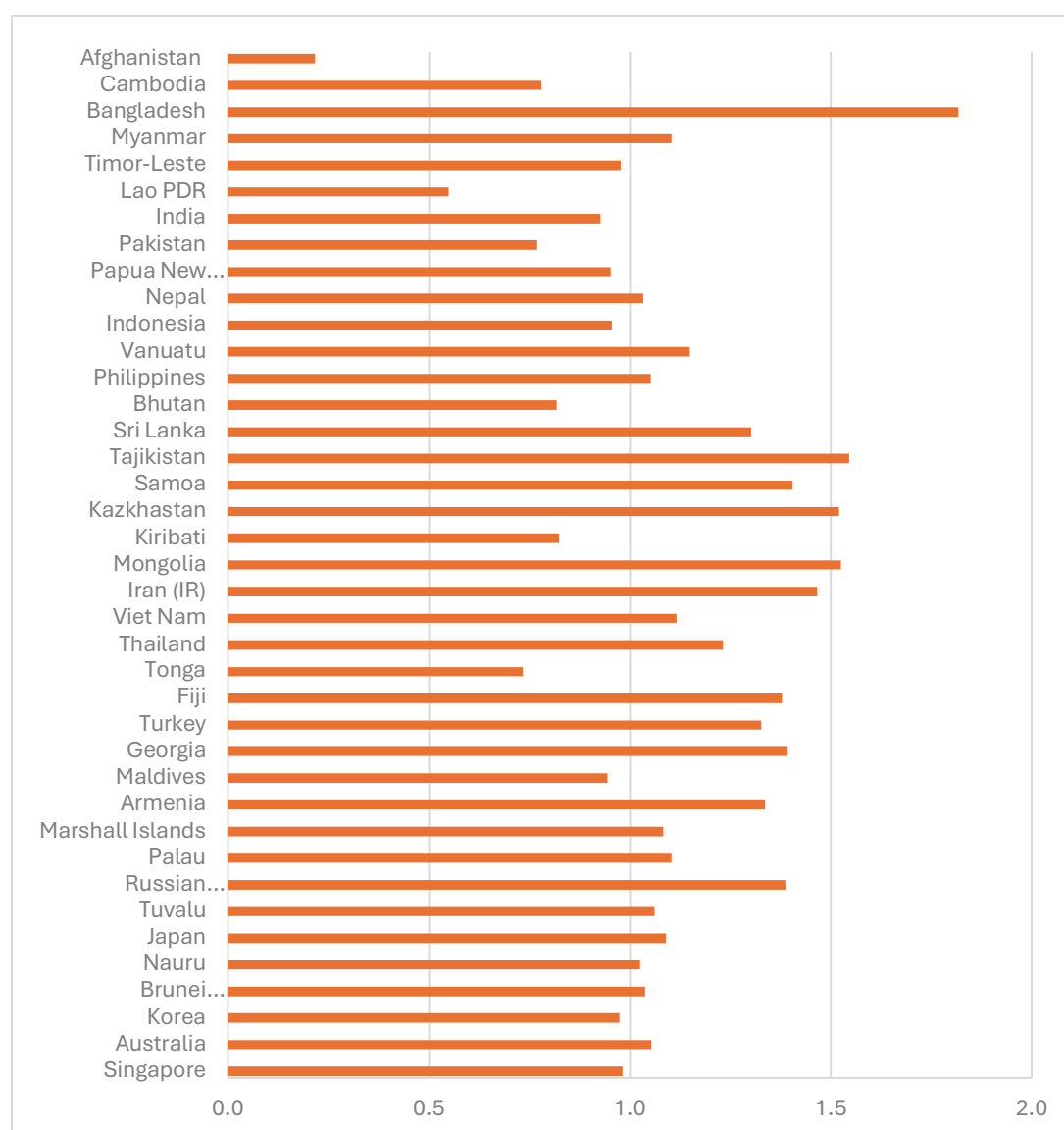
Gender norms are a sub-set of social norms that relate specifically to gender differences. A common gender norm, for example, is that women and girls should do majority of domestic works, or family caregiving. Such biased gender social norms are a major impediment to achieving gender equality as manifested by a recent UNDP study which measured Gender Social Norms Index (GSNI). The GSNI quantifies biases against women, capturing people's attitudes on women's roles along four key dimensions: political, educational, economic and physical integrity. The study found that as high as nine out of 10 surveyed men and women hold fundamental biases against women, with biases prevalent in all countries. Biases are rampant not only among men but also women. These biases hold across regions, income levels and cultures—making them a global issue. There is little progress on overcoming biased gender social norms in spite of global and local efforts towards safeguarding women's rights (UNDP 2023).

Labour force participation is key component of the GII measurement. UNDP (2023) argues that biased gender social norms also create gender gap in the labour market, leading to gender inequality. This is evident from a strong positive correlation between GSNI and GII values. The GII value in the countries with highest bias (those in the highest GSNI quartile) is more than five times than that of countries with the lowest biases (those in the lowest GSNI quartile). The UNDP study also found that gender gaps in education have been closing, but gender gaps in economic empowerment persist, suggesting that the recent improvement in educational achievements has not fully translated into higher participation of women in labour market. Following Becker's theory, this is mainly because of the social norms expecting women devote more time for caregiving including childcare than men. Hence, the gender gap in the time spent on unpaid domestic chores and care work is also positively correlated with GSNI value. Women's time spent on unpaid care work compared to men's, regardless of education, accounts for most of the recent variation in the gender gap in income (UNDP 2023). Making progress towards gender equality therefore requires transformative policy shifts for eliminating biased gender social norms against women's participation in labour market.

## A higher share of women than men is in medium- and high-skilled jobs

While women's overall participation in labour market is low, their participation in skilled jobs is higher than men in many Asia-Pacific countries, implying that providing skills could enhance women's labour force participation. The Women's Skill Composition Ratio, which measures the proportion of women relative to men in middle- and high-skilled roles is presented in Figure 3. A ratio greater than 1.0 means that women in employment are more likely to occupy skilled roles than men. Across Asia and the Pacific, women are often in more skilled jobs than their male counterparts in 25 out of 39 countries (Figure 3).

**Figure 3: Workforce skill composition: Female to male ratio in medium and high skill jobs, circa 2023**



Data Source: ESCAP, ADB and UNDP (2025). Delivering a Just Transition: Advancing Decent Work, Gender Equality and Social Protection

Bangladesh, Kyrgyzstan, Mongolia, and Tajikistan — all of which have a skill composition ratio above 1.5—are examples of countries with relative strength in women’s skilled employment. The case of Bangladesh, which has a ratio of 1.8, is particularly striking. Despite having one of the lowest female participation rates in the region, employed women in Bangladesh hold a relative advantage in skilled roles (ESCAP, ADB and UNDP 2025).

## **STEM education is necessary for increasing women’s participation in green jobs**

Women are much more underrepresented in green jobs than in polluting jobs. Currently, only six percent of women who work in advanced economies hold green jobs, compared to over 20 percent of working men. Green jobs employ an even lower share of women in emerging markets and developing economies (Stefania et al. 2024). Furthermore, women working in polluting or ‘brown’ jobs face major barriers transitioning into green jobs. For example, in Georgia, 58.3 percent of women in brown jobs are at risk of struggling to make the transition. Women who do not have skills that match the higher paying green jobs are sometimes forced to take lower-skill jobs than their current brown jobs and therefore get paid less (Sprague and Asturizaga 2025).

One of the main reasons for lower share of women holding green jobs or facing far greater challenges when trying to make the transition to green jobs is the skill gaps or gap in STEM education. In fact, women account for less than a third of STEM graduates in many countries, leaving them less prepared for green jobs. The 2024 Global Education Monitoring Gender Report highlights that women make up just 35 percent of total STEM graduates and hold only a quarter of science, engineering and ICT jobs, implying a high variation in STEM education across Asia-Pacific countries (ESCAP, ADB and UNDP 2025). Without targeted efforts to increase women’s participation, the green transition may worsen workforce gender inequality (Stefania et al. 2024).

The gender gap in STEM education has been attributed to several long-standing and deeply entrenched factors, including the stereotypes as many individuals still associate STEM fields with masculine qualities, leading to stereotypes that can discourage females from pursuing STEM education and careers. Furthermore, unconscious biases in hiring, promotion, and funding can disadvantage women and lead to their disproportionately low participation in STEM education. Women remain underrepresented in STEM leadership positions, which makes it harder for girls and women to find role models and mentors in the field. Furthermore, STEM careers are demanding, and women very often choose to work part-time to handle family responsibilities, which can impact their career advancement (Piloto 2023).

In fact, the entire social system begins with the thinking that men are better than women in working outside, which continues through unpaid care burdens, and results in missed opportunities for women to work in green sectors. This therefore calls for overhauling the entire social system. The process should start with the change in norms and beliefs, and dispelling the system and values that women are good for the family caregiving or for kitchen works, and establishing the values that women can do all the works that men do. While education and awareness has been playing a role for

changing biased social norms, a transformative shift requires incentivizing women to participate more in the economy, polity and society. Requiring such a policy shift calls for increased women's participation in the political system including in the legislature that formulates legal acts. Women's representation in high level positions of STEM education is essential so that they can play as role models inspiring and encouraging girls and women to pursue STEM careers.

Mobility is another constraint for women caused by several factors including security concerns. Therefore, women are disproportionately concentrated in capital cities, while men benefit from broader access across both urban and rural areas (Sprague and Asturizaga 2025). Unless government expand green infrastructure and training access in rural zones, enhance security and address gender-based violence, inclusion will remain limited. Women's ability to enter or stay in green jobs is also constrained by a lack of affordable childcare, inflexible work environments and deep-rooted social expectations about who should shoulder unpaid household responsibilities. These factors make it nearly impossible for many women to take on green careers, particularly where full-time hours are required.

### **Key recommendations for a gender-responsive just transition**

The preceding analysis suggests that there is deep-seated gender inequality in Asia and the Pacific countries. The analysis and findings provide important ground for policy recommendations. The inequality can be addressed by increasing women's labour force participation which is disparagingly lower than that of men in many countries. Following the Becker's theory, non-economic reasons and most importantly biased social norms appear to be the fundamental reason for such a gap in the participation. Overcoming biased social norms needs to be followed with creating conducive environment to encourage women to participate in the job markets and retain them in their jobs.

The green transition provides an opportunity to reduce the gap in labour force participation. In view of this, following two recommendations have been advanced, one as the immediate measure and the other one for the medium term:

- (i) **Providing adequate STEM education and necessary green skills to women and offering them jobs with increased facilities:** The preceding analysis shows that while women's overall labour force participation rate is significantly low, their share in medium and high skilled jobs is higher than that of men in many countries, implying that STEM education and green skills are helpful in enhancing their participation, and protecting them from job displacement with the green transition. Thus, for harnessing the energy of women in the development of a country as well as addressing gender inequality, the Asia-Pacific governments need to make every effort to target women in the process of transition, providing them requisite knowledge and skills. Reskilling and upskilling with a focus on women can protect those women who are working in the brown sectors.

Closing the gender gap in STEM would accelerate the green transition while making it more inclusive. However, mere provision of skills will not suffice unless women are employed, therefore, job placement is equally important in the process of transition. This needs to be

followed with incentive measures like maternity and paternity leave, flexible working hours to retain them in their jobs. In addition to security measures, gender-based violence must be eliminated to ensure women feel safe to work away from home.

- (ii) **Breaking the barriers created by biased social norms:** While education and skills enhance women's labour force participation, the process seems to be slower. At the current rate of progress, Global Gender Report 2023 presents that it will take another 131 years to reach full gender parity (World Economic Forum 2023). The high female labour force participation in the medium and high skilled jobs implies that unskilled women who are generally found in poor households will continue domestic chores including cooking and caregiving as compared to those of better off households. This will increase inequality between rich and poor households unless the biased gender norms are broken for all. It is only by dismantling societal expectations that require women to engage in family caregiving that governments can enable them to step beyond the four walls of their home and participate fully in society and the market. While education and awareness help drive change over time, transformative incentive measures and their strict enforcement can accelerate progress. Such measures should not only focus on women but also include men, such as providing incentives for men to assume family caregiving by valuing such works at the rate paid in the care market, such as in nursing homes or kindergartens.

In conclusion, harnessing the potential of women by enhancing their participation in state, economy and society is an important precursor for transition to sustainable and equitable societies. Breaking the widely embedded biased social norms is more urgent than ever before. In addition to the policy reforms, this is possible when both men and women realise the values of their peer's work and equitably share the unpaid works at home together. In the absence of appropriate and urgent actions, the ongoing green transition could deepen gender inequality, ultimately hindering the shift to sustainable and equitable societies.

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