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The Global GENDER GAP INDEX

THE NEED FOR CONTEXTUALIZED INSIGHTS

Supported by

Towards a new dawn
Ministry of Women and Child Development
Government of India

Gates Foundation

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Contributors

Prof. Vidya Vemireddy (Principal Investigator and Lead Author), Faculty Member, IIMA
Ms. Sayali Yadav (Lead Researcher) Research Associate, IIMA
Ms. Astha Kushwaha (Co-Lead Researcher) Research Associate, IIMA

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Executive Summary

Setting the context

The European Commission defines a gender gap as the 'gap between women and men in terms of their levels of participation, access, rights, remuneration, or benefits in any area'. Gender gaps in access to education, healthcare services, financial services, legal rights, political power opportunities, and financial services can hinder the economic opportunities for women and their decision-making power (IMF, 2017). Worldwide, at all income levels, there has been tremendous progress in advancing gender equality, but several challenges continue to exist. Globally, gender gaps in education have been closing, female labour force participation has been increasing, female literacy has been rising, and the proportion of women in elected office has increased in various regions. Notwithstanding these noteworthy developments, gender inequality undoubtedly still exists in many regions around the world.

Worldwide, the gender gap in educational attainment has been shrinking over the years, however in many low-income and developing countries women still fall short compared to men. Particularly, in the least developed countries, the gender gap in primary education is almost closed. In the middle-income countries, the gender gap in education has been declining; for instance the female to male enrollment on average is 98 percent in the middle-income nations. In the advanced countries and the emerging market economies, the gender gap in education is virtually closed. Nevertheless, women continue to lag behind men in literacy, particularly in North Africa, the Middle East, and South Asia. The gender gap in education varies across income groups. Only nine girls are enrolled in secondary school for every ten boys in low-income countries. Because these disparities occur early in life, this kind of inequality is very severe and contributes to a 'sticky floor', or the incapacity to achieve economic progress in later life (IMF, 2017).

Over time, health indices have improved

globally for men and women. However, some nations, particularly sub-Saharan Africa, continue to have high rates of maternal mortality and adolescent fertility. Adolescent fertility rates (the number of live births per 1,000 women aged 15 to 19 in a given year), have also decreased globally, with Sub-Saharan Africa having the highest rates. Access to financial services is essential for reducing poverty and inclusive economic growth. Globally, access to financial services has grown over time, yet gender disparities still exist. Furthermore, although access to finance has improved across all regions, compared to men, women usually have less access to official financial services. Additionally, in many countries legal restrictions (E.g. obstruction of women's property rights, etc.) further restrict women's access to finance (IMF, 2017).

Despite global efforts and some measurable progress, gender disparities continue to exist across various geographies, income levels, and socio-cultural contexts. Worldwide, various global indices try to capture these disparities, however they often fail to capture the regional and contextual nuances which significantly influence the inequality in different parts of the world. This report focuses on Global Gender Gap Index (GGGI) because of its policy relevance. GGGI, developed by the World Economic Forum (WEF) is one of the most widely referenced tools for measuring gender-based disparities across four domains namely; economic participation, education, health, and political empowerment. In this report, we explore how it can be better contextualized to reflect the lived realities of countries like India.

Methodology

Our approach to creating a more comprehensive gender gap index builds upon the existing gender gap index while addressing its limitations and proposing improvements. This report employs comprehensive secondary data to understand and evaluate gender disparities across regions and particularly in India. To explore global and regional disparities in gender equality, secondary data for indicators from varied domains such as education, health, workforce participation, and political empowerment was utilized. The data was used from internationally recognized institutions including the World Bank, International Labor Organization, and national statistical agencies, to ensure a data-driven foundation for evaluating the limitations of the index and propose improvements for the Global Gender Gap Index (GGGI). After identifying the limitations of the GGGI through secondary data analysis, we organized four expert consultations with scholars, policymakers, and development professionals from diverse backgrounds to ensure the findings were contextually grounded and relevant. The consultations were aimed at gaining insights into improving the overall gender gap measurement and validating the proposed improvements and recommending additional indicators and domains to complement existing index.

Key Insights

1) Regional Variations in Workforce Participation and Informal Employment

Development varies across geographies, particularly in women's economic participation. In high-income countries within the Global South, women have greater access to formal employment and social protection benefits. On the other hand, women in low-income countries are more likely to be engaged in the

informal sector. For instance, About 65 percent of the informal workforce resides in the Asia and Pacific region, with the majority of them living in India and China. Given these structural disparities, economic indicators must be interpreted within a country's socio-econimic context to prevent misleading cross-country comparisons that fail to account for country-specific constraints and achievements.

2) Unpaid Care Work and Time Poverty in Developing Countries

Unpaid care work and household responsibilities significantly impact women's participation in the labor force, particularly in the Global South region. Women in Central and Southern Asia region, including India spend over 21% of their total day's time on unpaid care work while men in the region spend about 6% of their day's time. The gender gap in unpaid care work is narrower in the high-income countries such as Australia and New Zealand. This imbalance restricts women's participation in the labour force and impacts various areas of their life, hence it is essential to consider these factors while calculating the economic participation indicators of the GGGI.

3) Educational Gains and Gaps in Labour Outcomes

Significant global advancements have been made in improving girls' access to primary, secondary, and higher education. In India, the female literacy rate has improved from 47.84% in 2001 to 70% in 2023, additionally the enrollment in secondary and tertiary education has increased significantly. However, in many developing countries, higher education does not translate into labor force participation due to sociocultural and structural barriers. Worldwide, women continue to earn less than men given any level of education. These trends demonstrate that although women's access to education is expanding globally, systemic disparities limit their ability to enter and remain in the workforce.

4) Health Disparities and Evolving Demographics

Health outcomes also reflect regional disparities. The Global South region still faces various challenges related to the access, quality, and coverage of health indicators. Over the years, India has made significant progress in the healthcare domain with the maternal mortality ratio declining from 498 in 1990 to 80 in 2023. Additionally, there has been improvement in the female life expectancy at birth, it increased from 68 years in 1990 to 76 years in 2023. Considerable progress has been observed globally in life expectancy, maternal mortality, and adolescent fertility rates. However, there is a need to include broader health indicators to GGGI related to nutrition, mental health, and healthcare access to understand the broader development indicators of health of a population.

5) Political Participation and Leadership Beyond Parliamentary Roles

The GGGI emphasizes national political participation, but it excludes the critical grassroots leadership. For instance, India has over 1.4 million elected women in Panchayati Raj Institutions, comprising 46% of representatives, playing a crucial role in grassroots leadership. Therefore, we propose that comprehensive leadership metrics—encompassing local governance—are crucial to fully grasp the complex dimensions of women's political engagement across regions.

Towards Equitable and Context-Sensitive Measurement

To enhance the measurement and relevance of the Global Gender Gap Index, this report outlines a set of targeted recommendations. These recommendations are divided into two parts; global and India-specific recommendations. Global recommendations address structural and methodological improvements while India-specific recommendations address country's unique socioeconomic context and gender related policy efforts.

A. Global Recommendations

1) Incorporating Economic Development Levels into the Index

A country's overall economic development level impacts the gender-related development outcomes. Hence we recommend that proxy indicators of a nation's development should be incorporated into the assessment of the GGGI to ensure fairer comparisons across countries with different development levels.

2) Expand the Scope of Existing Indicators

To have a broader understanding of the domains, we recommend incorporating additional indicators to the domains, a few examples of these indicators are as follows;

- Economic Participation and Opportunity domain should include the indicators on unpaid care work, informal sector participation, etc.
- Domain of Education should include the indicators on learning outcomes, digital access, and vocational training etc.
- Health and Survival domain should include indicators on nutrition, mental health, reproductive health, etc.
- Domain of Political empowerment should have additional indicators on local-level leadership.

3) Integration of the Input-based Indicators

We recommend incorporating the input-based indicators (e.g., access to healthcare, education quality, financial inclusion, infrastructure) along with the outcome-based indicators to reflect both efforts and outcomes in achieving gender parity.

4) Introduce a Fifth Domain: Social Equity

While the terms social equality and social equity are often used interchangeably, there is a subtle difference between these terms. While social equality focuses on providing equal access to resources for everyone, social equity considers the differences and focuses on reducing those differences to create an equal level playing field. Hence adding indicators that capture a country's efforts on social equity is essential to understanding the differences in access and opportunities for women in a society.

5) Improve Data Granularity and Representation, and Monitoring Gender Parity Trends

It is essential that countries collect and publish disaggregated data (by regions, income-levels, etc.) to ensure accurate measurement and comparability. Additionally, instead of relying solely on the annual ranking, we recommend including a trend analysis over time to reflect policy impacts and policy efforts in closing the gender gap.

B. India Specific Recommendations

1) Include Informal and Unpaid Work in Economic Measurement

We recommend that women's contribution to the informal sector and unpaid care work captured through the Periodic Labor Force Survey and the Time Use Survey should be included in the economic participation metrics.

2) Measure Local Governance and Grassroots Leadership

Local leadership plays a crucial role in rural development, however GGGI overlooks the local leadership. Therefore women's participation in Panchayati Raj Institutions and local organizations is key to capturing leadership at the grassroots in India.

3) Beyond Outcomes: Integrating Inputs for a Holistic Gender Gap Measurement

The current measurement of GGGI relies on the outcome-based approach focusing on the disparities in four domains namely economic opportunity, education, health, and political participation. This approach provides information on gender disparities in outcomes, it does not account for the structural barriers within a country that contribute to these disparities. Therefore, to create a more comprehensive framework we propose incorporating an input-based approach synchronous to the outcome-based approach. By adopting this dual approach, one can evaluate a country's access to and quality of the resources, labor market dynamics, and financial inclusion strategies to better understand the causes of gender disparities.

1.Introduction

A gender gap is defined as the gap between women and men in terms of their levels of participation, access, rights, remuneration, or benefits in any area (European Commission, 1998). A gender gap index is an instrument used to measure gender equality or inequality across various dimensions, such as economic and social. These indices are calculated by combining several metrics to provide a composite score representing the relative status of men and women, within a specific nation or region. Tracking these disparities helps in assessing opportunities, obstacles, and progress.

Various gender indices have been developed, each employing distinct methodologies to assess disparities across economic, social, and political dimensions. Prominent examples include the Global Gender Gap Index (GGGI), Gender Inequality Index (GII), Social Institutions and Gender Index (SIGI), Gender Development Index (GDI), and Gender Social Norms Index (GSNI), among others. These indices are usually measured on a scale from 0 to 1 or 0 to 100, where 0 represents complete gender inequality, and 1 (or 100) signifies full gender parity. Measuring gender disparities at various levels (i.e. district, state, national, regional, etc.) is essential to understand its causes and suggest appropriate policies.

Policymakers frequently rely on gender gap indices to track advancements and shape strategies for achieving gender equality. Among various gender indices, the Global Gender Gap Index (GGGI), published by the World Economic Forum is the most widely cited index globally. However, its limitations necessitate a more nuanced approach to measuring the gender gap. A contextualized assessment, which incorporates regional and structural factors and policies, can ensure that a country's progress is fairly assessed and evaluated. This report aims to propose improvements to the GGGI's measurement framework to better reflect diverse socioeconomic and cultural contexts.

This report is structured around the following objectives:

1. To emphasize the importance of contextualizing and proposing modifications to the gender gap assessment
2. To assess the global status of gender gap metrics, focusing on the GGGI, to foster wider recognition and suggest better evaluation tools.
3. To propose a more nuanced measurement framework, ensuring that country-specific progress and challenges are accurately reflected in global and national gender gap measurement.
4. To suggest broad recommendations on contextualizing the Global Gender Gap Index and to offer more detailed recommendations specifically for India to track its progress.

Following the introduction, the second section explains our approach to contextualizing the global gender gap measurement, the third section explains the gender disparities at global, regional (Global South and Global North), and in the Indian context. The next section provides an overview of the gender gap indices, specifically the global gender gap index, and evaluates India's performance in this context. The following section explains the limitations of the GGGI, and provides insights into the need for contextualization of the index. The final section outlines the proposed improvements to strengthen the index followed by the conclusion.

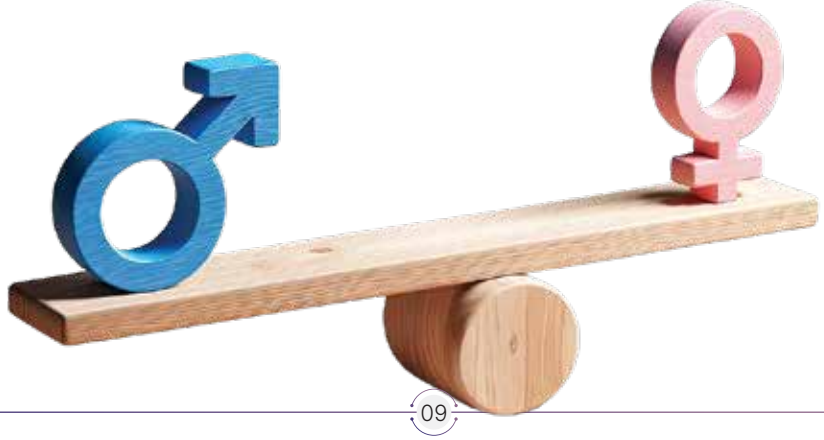
2.Our Approach:

Rethinking Global Gender Gap Measurements

This report employs a comprehensive use of secondary data to understand and evaluate gender disparities across regions and countries. To understand the global and regional differences in gender equality, secondary data was integrated for various development indicators across domains including education, health, economic participation, and political participation. The data was used from the internationally recognized institutes such as the World Bank, International Labor Organization, and national statistical agencies, to ensure a data-driven foundation for evaluating the limitations and proposed improvements for the Global Gender Gap Index (GGGI).

Our approach to creating a more comprehensive gender gap index builds upon the existing gender gap index while addressing its limitations and proposing improvements. We began with a thorough review of the existing literature on the global gender gap indices. Furthermore, a review of gender disparities at regional and national levels was conducted to explore how these inequalities differ across socioeconomic environments.Based on these insights, we developed a conceptual framework that integrates both input-based as well as outcome-based indicators to understand the gender disparities in the Indian context. This approach ensures a broad understanding of the gender disparities in outcomes. Additionally, it ensures that the structural barriers which impact the progress in outcomes are integrated into the measurement.

To enhance the relevance of our findings, we conducted four expert consultations with academicians, policy practitioners, and development professionals from various fields after identifying the limitations of the GGGI using secondary data. The consultations were aimed at gaining insights into improving the overall gender gap measurement and validating the proposed improvements by recommending additional indicators and domains to complement existing indices. To ensure that the perspectives of the experts from diverse fields and regions are incorporated, four expert consultations were conducted across four different parts of India with the experts from the areas of health, education, labor market, etc. These experts provided insights on the context-specific challenges, data gaps, and policy considerations. The consultations ensured that the proposed improvements were empirically grounded and practically feasible which can help develop a more comprehensive and context-specific gender gap index. The first two consultations aimed at identifying the limitations in the global gender gap index measurement and proposing key indicators relevant to making measurement more contextual, while the third and fourth consultations aimed at validating and refining the proposed recommendations.



3.Assessing Gender Disparities:

Global, Regional, and National Insights

Women's progress in various domains including access to healthcare and educational opportunities, unpaid care work, etc. varies significantly across regions, and is influenced by various factors such as national development levels, income levels, social and cultural norms of society. Nations with high income are more likely to have gender parity while low-income and middle income countries face gender disparity in various domains due to deep rooted structural barriers. For instance, in the context of economic development, higher income levels enable citizens to access better resources and lead to better social outcomes such as healthcare services, education, and nutrition (Stewart F., 1999). Hence, to accurately assess the status of gender parity in a region, it is essential to understand the economic context of the region and the nation; as economic levels play a fundamental role in shaping the development of a nation (Deb S., 2017).

The relationship between education and employment highlights the differences between developed and developing countries. While higher education is linked with better employment opportunities, the relationship is not true for all countries, it depends on various microeconomic, macroeconomic, and other contextual factors. In many developing countries, women with some educational qualifications remain unemployed due to various sociocultural constraints and predefined gender roles (Shuangshuang, Y. et al., 2023). Additionally, higher education does not always guarantee closing of the gender gap as discrimination and gendered role segregation persist.

Similarly, significant labor force participation rate differences are seen across developing and developed countries, further underscoring the need for contextualization of the gender gap indices. In high-income countries, women have greater access to formal employment and social security, while in low-income and middle-income countries, a large proportion of women are engaged in the informal and vulnerable sector employment. Women from the low-income and middle-income regions are disproportionately involved in unpaid care work, agriculture, or low-paying jobs that don't offer any social security and growth opportunities. Failing to account for these realities does not accurately capture the women's economic conditions in the Global South, specifically in India. There is a need for a detailed reinforcement and localized approach to gender gap assessment. The following sections provide an in-depth analysis of the gender disparities in various domains across diverse social and economic contexts.

3.1) Assessing Gender Disparities: A Global Perspective

3.1.1 Education

Education, especially secondary education, is associated with many positive outcomes such as improved awareness of rights, greater awareness in decision-making, reduced chances of early marriage and childbirth, and a lower risk of maternal mortality (Ban M. et al., 2016). Worldwide, it is observed that there has been a rapid improvement in girls' education. Over the years, the mean years

of schooling have increased rapidly for women than men. In developing countries, the increase in primary and secondary education enrolment is remarkable; additionally, in the past decades, the countries have made notable progress in tertiary education enrollment as well.

Education is considered as the great equalizer in the gender gap in access to employment opportunities. In developing countries a positive correlation is seen between education and employment, however, this relationship doesn't hold true for all developing countries (Ban M. et al., 2016). Women with primary and lower secondary schooling have relatively low labor force participation rates compared to those with no schooling and those with tertiary education. This is partly because women with some education are more likely to afford to stay out of the labor force, while those with little or no education typically come from extremely poor households and are forced to accept whatever low-skilled, low-paid work is available (often in roles lacking social security or formal protections). The group with higher educational levels has the highest opportunity cost of not working (Posel, D. and D. Casale., 2014).

Furthermore, given any level of education (including no education), women earn less than men (Posel, D. and D. Casale., 2014). Additionally, higher educational levels have not contributed to the reduced gender pay gaps. Ñopo et al. (2011), show that the extent of the (adjusted) pay gap grew after considering gender disparities in education, suggesting that rising female education has not been fully or equally compensated in the labor market. Due to discrimination, occupational segregation, and greater challenges for women in balancing work and family obligations, these gender disparities represent unequal treatment in the labor market, none of which can be resolved by education alone (Posel, D. and D. Casale., 2014).

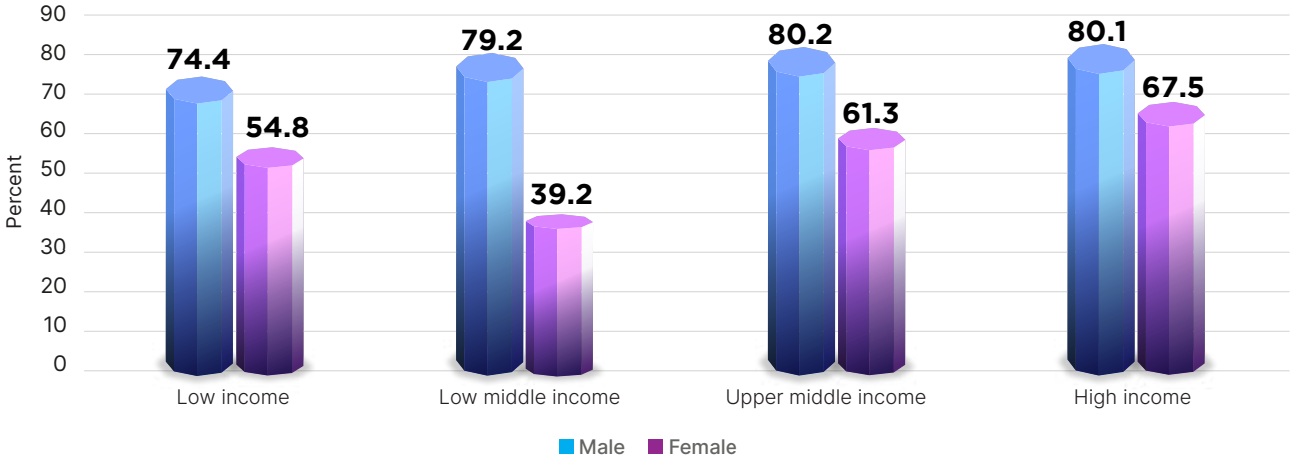
3.1.2 Employment

Worldwide, across all regions, women have equal access to education as men in a region (UNDP, 2024). However, there are still significant disparities in the labor force participation rate (LFPR[1]) for men and women. Both the Female Labor Force Participation Rate (FLFPR) and Male Labor Force Participation Rate (MLFPR) have stagnated over the last three decades. But across all the regions, the MLFPR is higher than the FLFPR (World Bank, 2022). For the past three decades, the global FLFPR stood at 53.7% while MLFPR stood at around 79.4%. The differences in the male and female LFPR are strikingly higher in developing regions such as Asia, the Middle East, and North Africa, while the gender gap has fallen in Latin America and the Caribbean (World Bank, 2022). It is essential to understand the economic cost of leaving women outside of the labor force. For instance, the World Bank (2022) estimates that closing gender gaps could lead to a 20% increase in long-run GDP per capita.

The gender gap in LFPR is highest in the lower-middle income countries, while it is lowest in the high-income countries. The income-wise analysis of the countries reveals that the gender gap in LFPR is shrinking in the high-income countries with increasing participation of females in the labor force. Women in low-income and lower-middle-income countries are engaged in the agriculture sector, while females in high-income countries tend to have higher education levels and are more likely to work in the services sector (World Bank, 2022) (Figure 1).

[1] The labour force participation rate (LFPR) captures people who are currently employed and those who are unemployed (i.e., people who are not employed but are available and actively looking for a job) as a percentage of the working-age population. The working-age population is generally defined as people aged 15 and above (with some national variation in cut-off points).

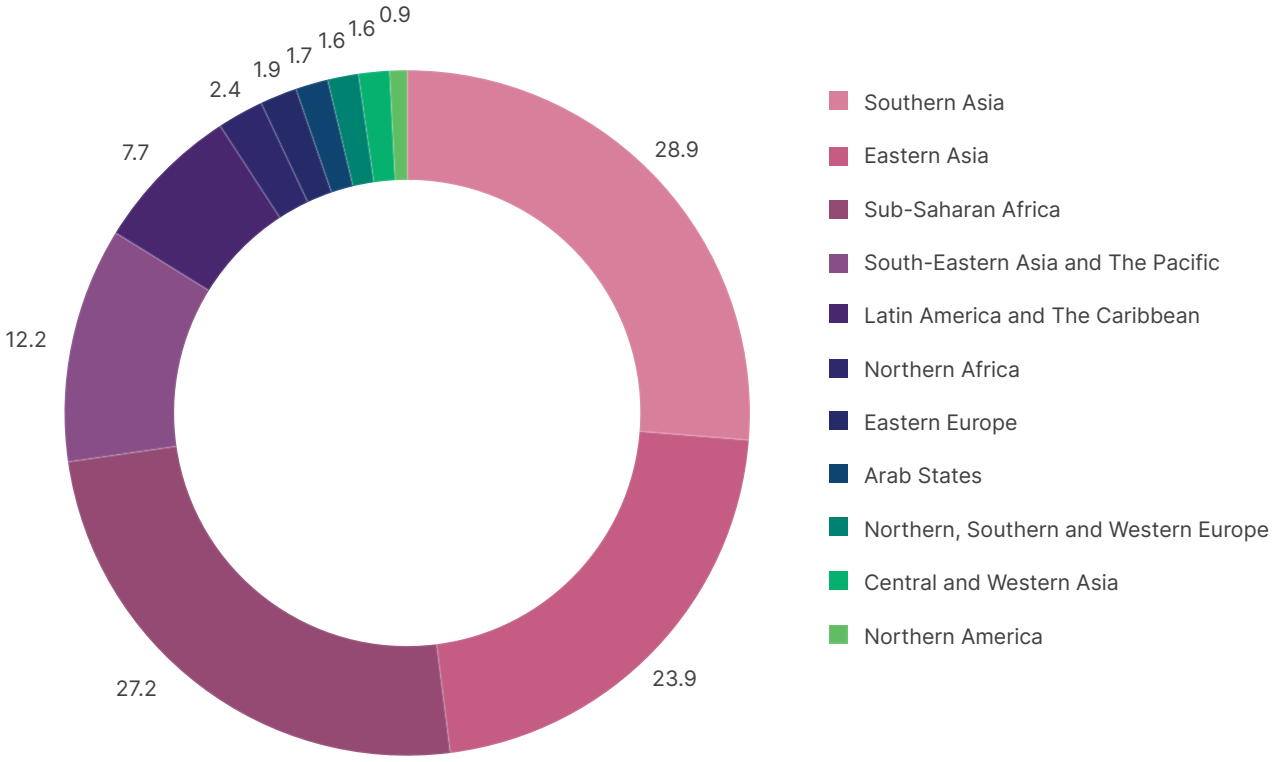
Figure 1 - Labor force participation rate for males and females by income categories, 2019 (in %)



Source - World Bank Gender Data Portal

Women in low-income and middle-income nations are primarily involved in the informal sector jobs with lower wages than men. An ILO, 2023 report suggests that Sub-Saharan Africa, Southern Asia, and South-Eastern Asia are three regions where the informal workers are over-represented in comparison to global employment in the informal sector. About 65 percent of the informal workforce resides in the Asia and Pacific region, with the majority of them living in India and China (Figure 2).

Figure 2. Distribution of global informal employment, by region and subregion, 2019 (in %)

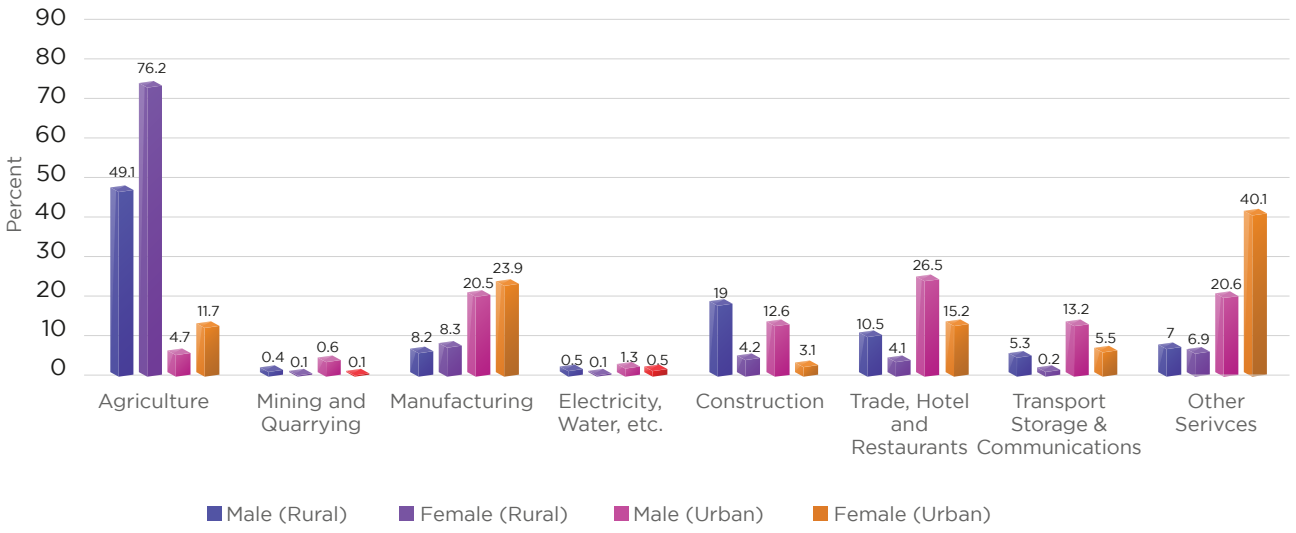


Source - ILO, 2023

The participation of men and women in vulnerable jobs is closely associated with the per capita income. Women constitute a high percentage in the vulnerable jobs sector, particularly when it comes to a large agricultural sector. Workers in low income countries and lower middle income countries such as Sub-Saharan Africa and South Asia are significantly more likely to work in vulnerable jobs[2]. More importantly, working women in these regions are disproportionately engaged in vulnerable jobs than working men. However, as the per capita income increases, men become more likely to hold vulnerable jobs than women (World Bank, 2022).

Data on employment patterns in India reveals that, out of the total female workers in rural areas, about 76.2% of them work in the agriculture sector. Although the wages of men and women working in the agriculture sector have increased in the past decade, the wage gap between men and women still persists, and women continue to be paid less than men (Pandey K., 2018). In the urban areas, approximately 23.9% of working women are engaged in the manufacturing sector, and about 40.1% of females are engaged in other services (e.g. repairing household appliances, operating beauty salons, managing trade unions, and running religious organizations– sectors that contribute to the daily functioning of society) (Figure 3).

Figure 3 - Percentage distribution of workers by broad industry division in 2022-23 (in %)



Source - MoSPI

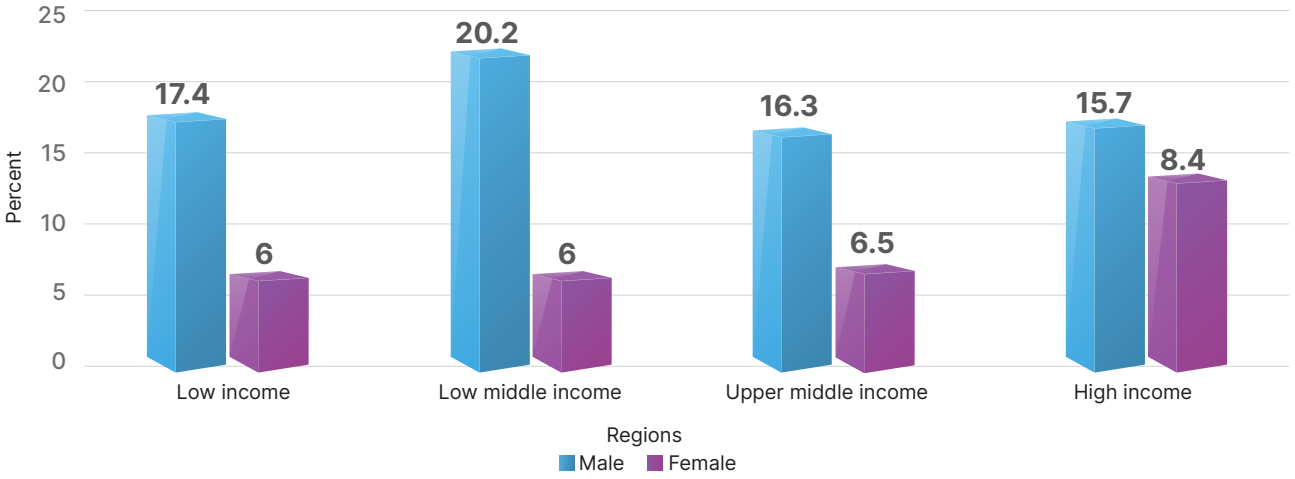
3.1.3 Unpaid Care Work, Inadequate Childcare, Elder Care and Women's Employment

Women's participation in employment is largely limited by unpaid care work and domestic work responsibilities. In many cases, without sufficient support, women may engage in informal or part-time labor in addition to these unpaid duties. Furthermore, various factors such as job type (Vulnerable work or Wage work), labor market institutions, etc. contribute to lower pay for women. Additionally, because women usually make less money than their male counterparts, decisions made in the home tend to support a division of labor in which women become 'specialized' in homemaking and men become 'specialized' in paid work (Ban M. et al., 2016).

[2] Vulnerable work consists of forms of self-employment (on or off the farm, own-account or being a family worker in a household income activity) and associated with lower labor income and low job security. Wage work is working for an employer (which can be a private employer or public sector, and informal or formal) and associated with greater labor income, greater job security and healthy working conditions.

Data on the time spent on unpaid care and domestic work across countries grouped by income levels shows that women consistently spend more time than men on unpaid care work across all income levels. However, the gap is slightly narrower in the high-income countries. The gap is largest in the lower-middle income countries in which women spend about 20.2% of a 24-hour day on unpaid care work compared to 6% for men. In the high-income countries, women spend about 15.7% and men 8.4% of the 24-hour day on unpaid care work (UN Women) (Figure 4).

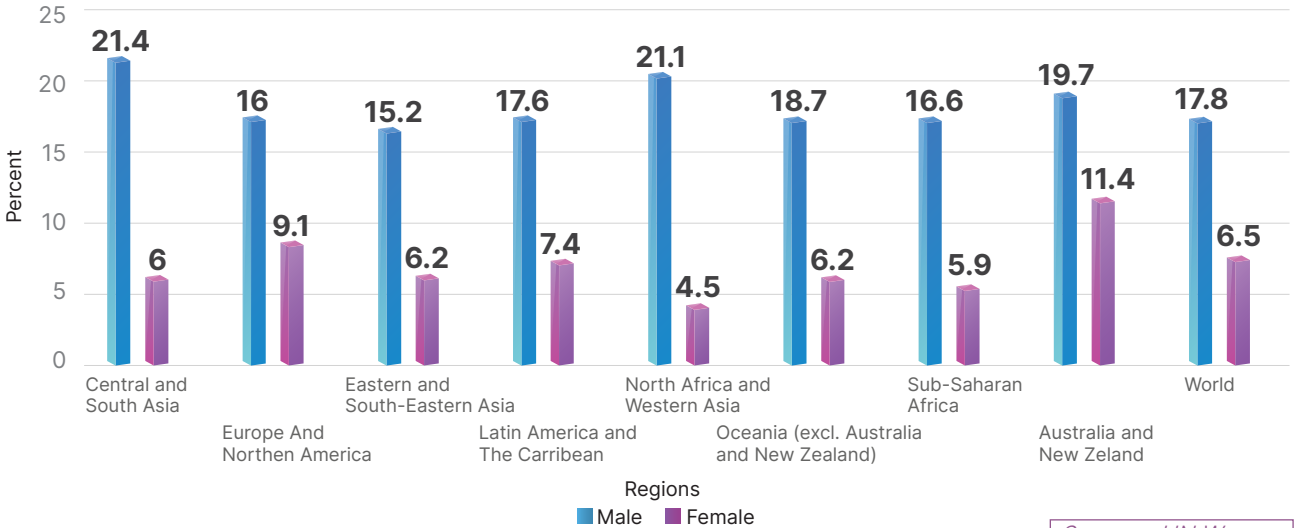
Figure 4 - Time spent in unpaid care and domestic work, percent of 24-hour day by World Bank classification and sex, 2023



Source - UN Women

Data on regional differences in unpaid care work by sex shows that in a 24-hour day, globally women spend about 17.8% of their time on unpaid care work, while the number is 6.5% for men. Across all the regions men spend less time performing unpaid care activities than women. Among all the regions women in Central and Southern Asia (21.4%), and Western Asia (21.1%) spend the most time on such tasks. The lowest gender gap is observed in Australia and New Zealand, where women spend 19.7% of their time performing unpaid care activities while the percentage is 11.4% for men (UN Women) (Figure 5).

Figure 5 - Average time spent in unpaid care and domestic work, percent of a 24-hour day by region and sex, 2023

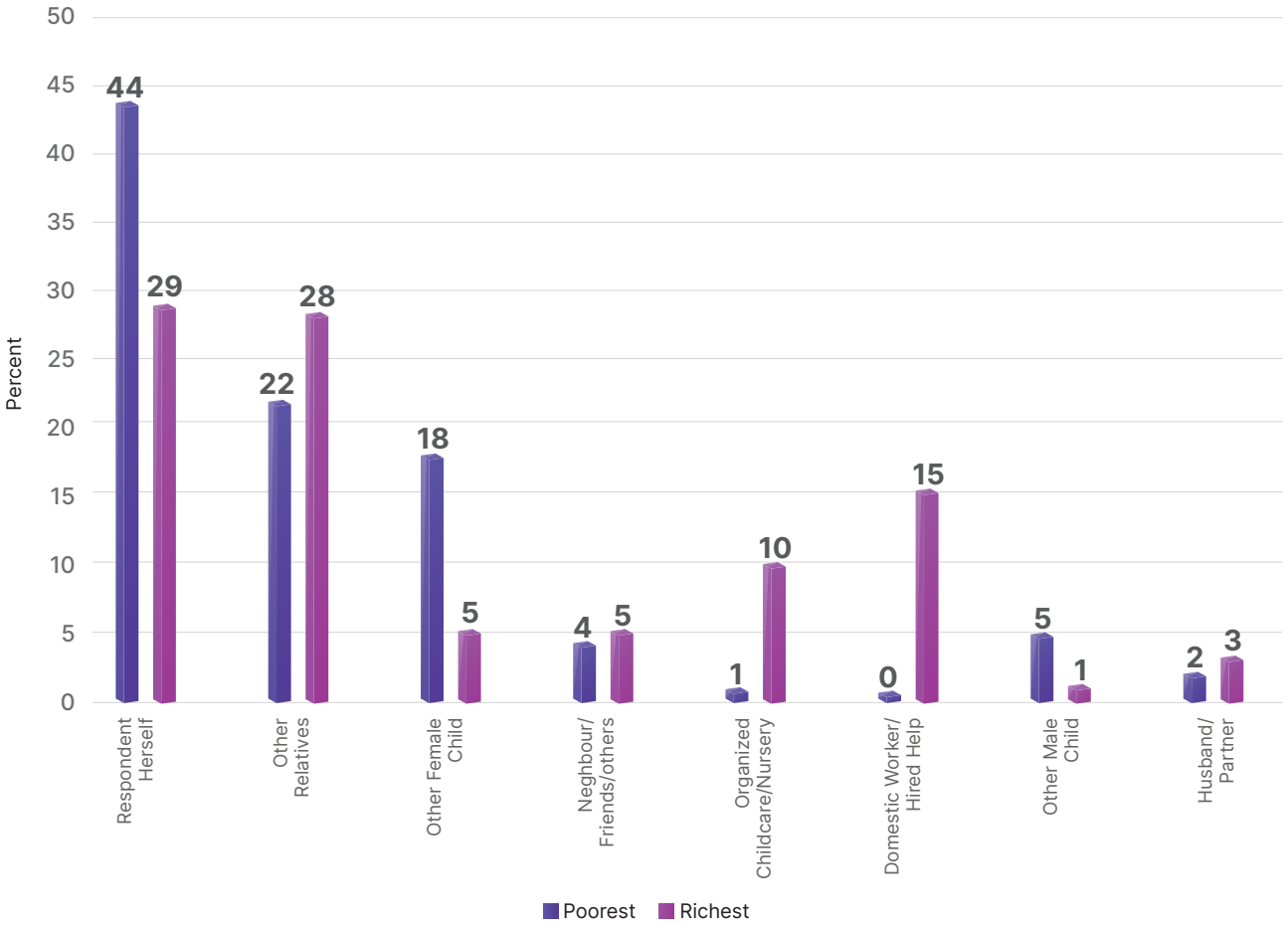


Source - UN Women

A survey of 31 developing countries highlights the problems faced by women in accessing childcare while participating in employment (Ban M. et al., 2016). About 39 percent of the working women respondents reported that they personally care for their children (under the age of 6). Only 4 percent of the working women respondents utilized organized childcare or nursery arrangements. However, among the poorest working women, only about 1 percent accessed such facilities. Poorest working women relied primarily on their older daughters and relatives for childcare (UNICEF, 2019; Ban M. et al., 2016) (See Figure 6).

The notable disparities in employment rates between women with and without children also demonstrate the influence of women's care giving duties on labor market outcomes. In developing countries, being married and having children is associated with lower LFPR for females while higher LFPR for males (Dong et al. 2014). Care work plays an important role in deciding women's employment. According to the Organisation for Economic Co-operation and Development (OECD), about 10 percent of the population is aged 50 and above, and among them, about two-thirds of them are women and they provide some form of unpaid care to the sick or elderly. Providing unpaid care work has an impact on women's engagement in the labor force. For instance, a study conducted in the United States revealed that women between the ages of 55 and 67 who gave their parents unpaid care cut their work hours by 41% on average (Ban M. et al., 2016).

Figure 6 - Common childcare arrangements for working mothers with children under age 6 years old



Source - UNICEF

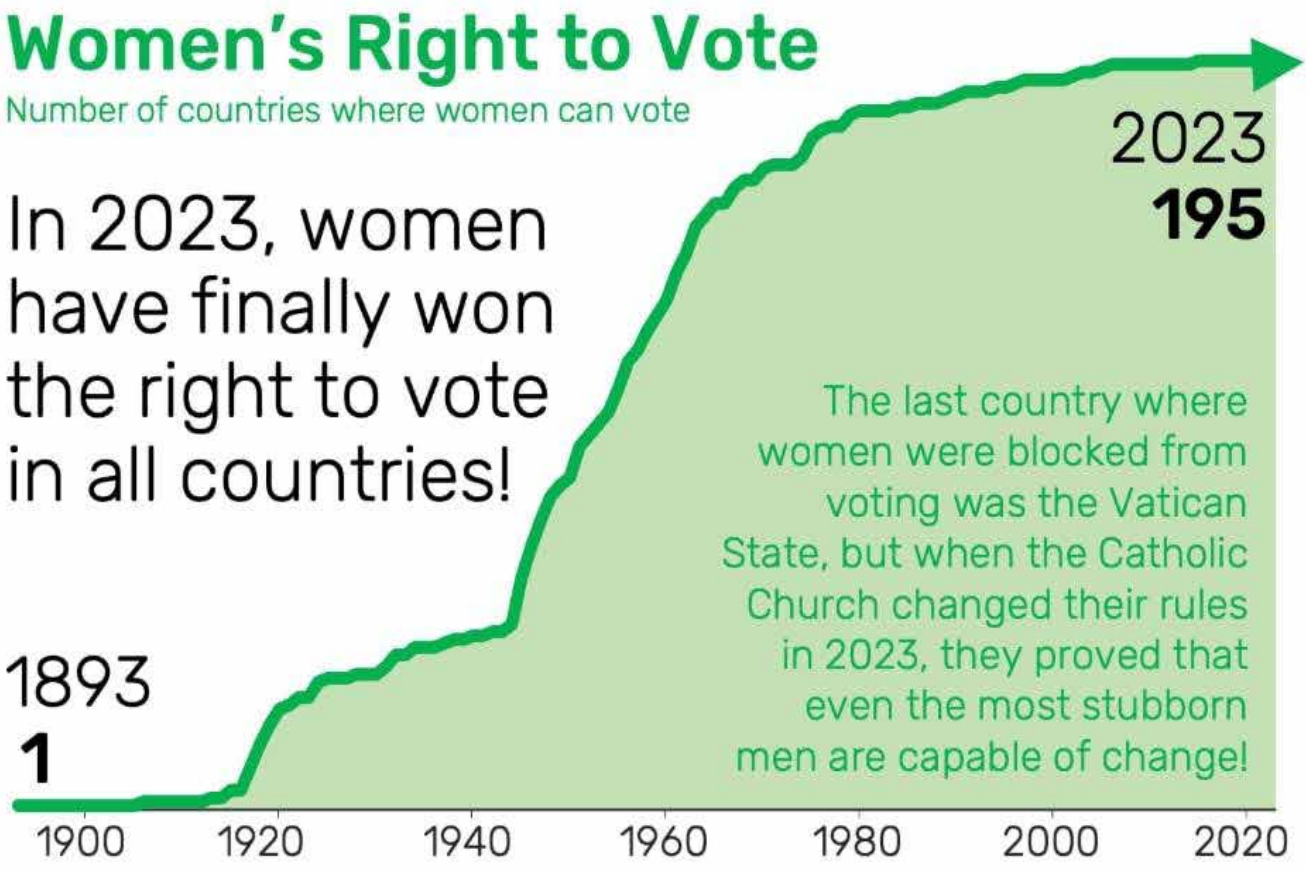
3.1.4 Women in Leadership

1) Political Participation

Until the mid 19th century, both men and women did not have a right to vote. However, improvements in the laws and institutional systems led to the right to vote for both men and women. By the 20th century, in most of the countries women had gained the right to vote and seats in parliament in almost all the countries. New Zealand became the first country in 1893 where women gained universal access to vote. By the beginning of World War II, men had the right to vote in 1 out of 3 countries, while women only had the right to vote in 1 out of 6 countries. In the decades following World War II, when discrimination against women in voting rights ended in many nations and both men and women were granted the right to vote, the difference quickly reduced. However, still in some countries women don't have a right to vote and women parliamentarians continue to be a small number of people (Herre B., 2014) (Figure 7).

Figure 7 - Number of countries where women can vote

This dose not consider elections not being held, informal restrictions, or legal restrictions based on age, criminal conviction, disanility and local residency.

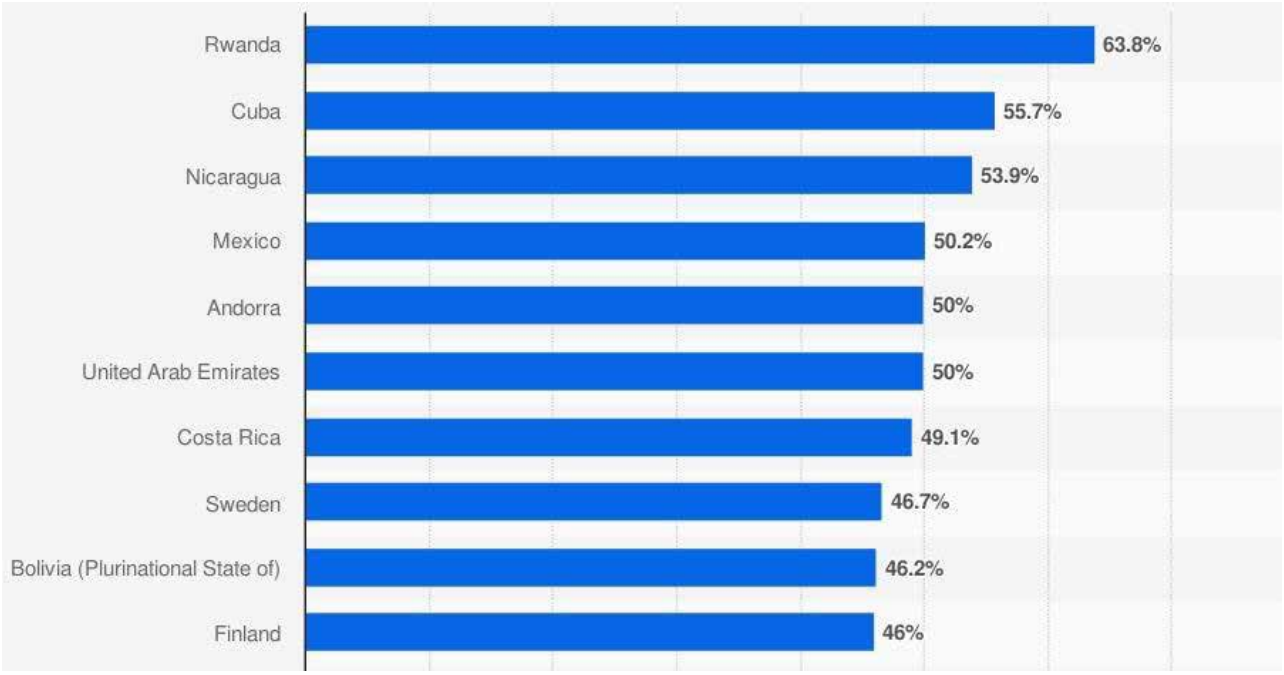


Source - Gapminder

Source - Our World in Data

Another important aspect of women's political equality is the share of women in parliaments. In the early 20th century women were completely excluded from the national parliaments. Women first entered the parliament in 1907 in Norway. The process of inclusion of women in parliaments sped up in the late 20th century and early 21st century. In 2008, a few countries (Argentina, Cuba, Finland, Sweden) had about 40%-50% of women parliamentarians while the Rwandan parliament had more than 50% of women parliamentarians. Seat-sharing of women in parliaments has been limited and uneven.

Figure 8 - Share of women in selected national parliaments (lower or single House) as of December 2024 (top 10 countries)



Source - Statista, 2025

Source - Our World in Data

As of January 2024, regional differences in the percentage of women in local deliberative bodies are also observed with Central and Southern Asia, showing the highest percentage (41%), followed by Europe and Northern America (37%), Oceania (31%), Eastern and South-Eastern Asia (31%), Latin America and the Caribbean (29%), sub-Saharan Africa (26%), Western Asia and Northern Africa (20%) (UN Women, 2025).

2) Business Leadership

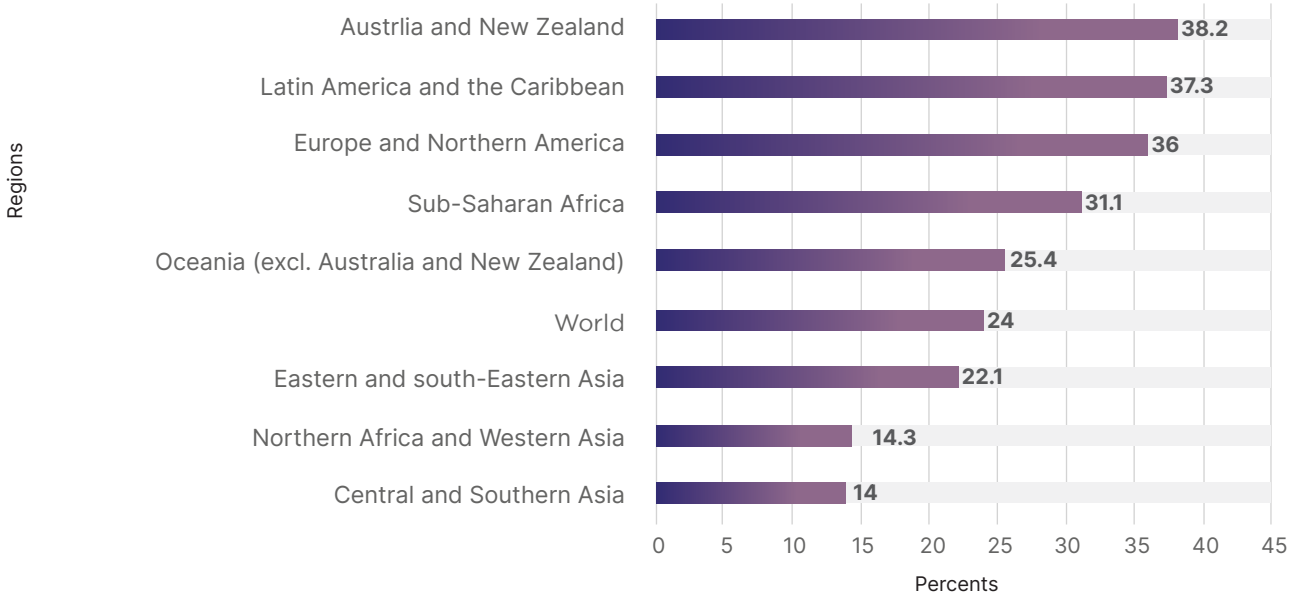
Globally, men occupy the majority of leadership positions. However, in recent years the progress can be seen in many countries with women being hired for leadership positions in companies. In Latin America, women hold the highest percentage of senior management roles (36%)[3], While the Middle East, Africa, North America, and the EU have more women in senior management than the global average of 33.5%. Since 2004, the proportion of women in senior management in India has been on the rise, peaking at 39% in 2020. However, since then, the trend has been gradually dropping (Vasal V., 2024). Women's leadership has been associated with lower CO2 emissions and higher net profit

[3] The result is based on the performance of two countries - Brazil and Argentina.

margins for firms, however, globally only 25% of the formal firms have women holding majority ownership or women in top managerial positions (Ubfal J., 2023). Worldwide, compared to management jobs (33%), women are more likely to work in administrative and support roles (63%), as well as in service and sales professions (55%) (Figure no 5).

The figure 9 explains the proportions of women in managerial positions across regions in 2023, highlighting significant disparities. The global average is 24%. Australia and New Zealand (38.2%), Latin America and the Caribbean (37.3%), and the Europe and Northern America (36%), are the leading regions, while Central and Southern Asia (14%), Northern Africa and Western Asia (14.3%), and Eastern and South-Eastern Asia (22.1) have the lowest shares.

Figure 9 Proportion of managers who are women by region, 2023



Source - UN Women and the Pardee Center for International Future

3.2) Economic Contexts and Gender Disparity: A Global North and Global South Perspective

Countries in the Global South and Global North regions have distinct economic growth trajectories, infrastructure development levels, and different sociocultural norms. Countries in the Global North region comparatively have higher income levels, advanced infrastructure, and more equitable access to education and healthcare services for both men and women than the countries in the Global South regions. In the Global South women are primarily engaged in unpaid care work and informal work, whereas the women in the Global North have opportunities to participate in the formal workforce. The following section highlights these differences in key development indicators and their impact on gender disparities.

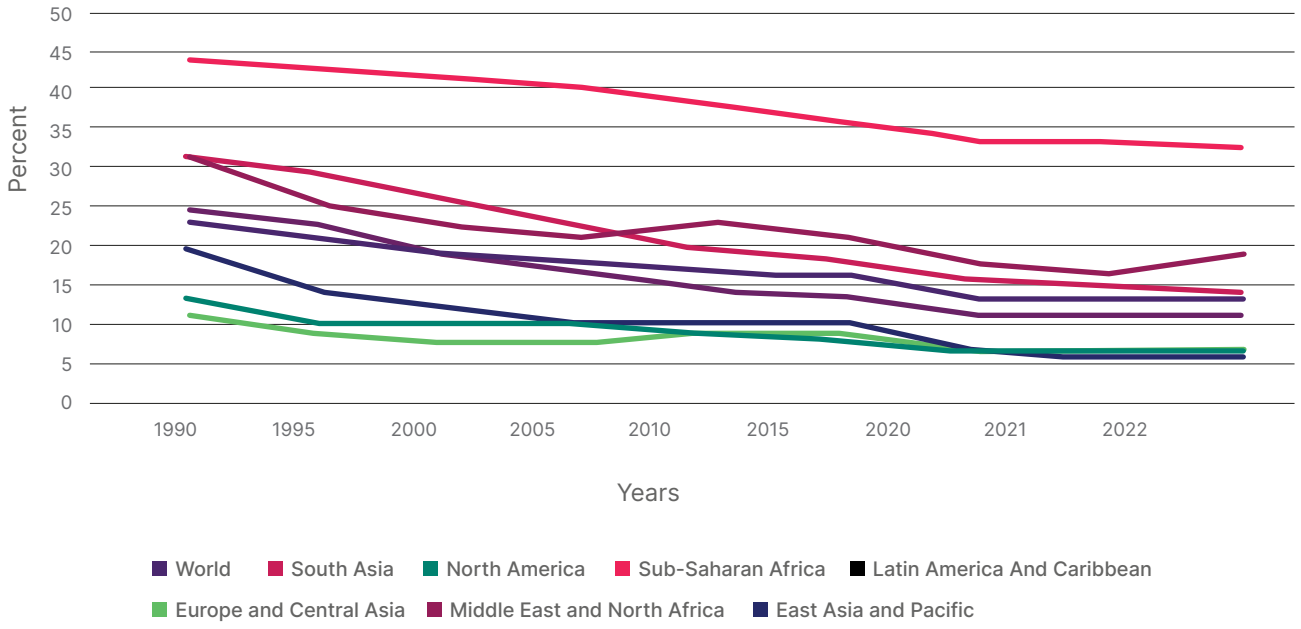
3.2.1 Birth Rate and Mortality Rate

The size, age distribution, and long-term viability of a population are all impacted by the birth rate, which has significant effects on several aspects of an economy, including labor force participation, social security, healthcare planning, educational systems, and economic growth. Due to factors

including low education levels, inadequate healthcare, extreme climate conditions, lack of clean water the Global South region experiences higher birth rates, higher infant mortality rates, and shorter lifespan, (Kowalski, 2021).

The data on crude birth rate across regions shows the differences between the developed countries (Primarily Global North) and developing countries (Primarily Global South). The regions in the Global South including South Asia, Latin America, Middle East, and Sub-Saharan Africa show a trend of higher birth rates which has been declining in the recent years. On the other hand, the Global North region consisting of Europe and Central Asia, North America has had consistently low and stable birth rates often below 20 percent, driven by urbanization, and career priorities among the population. The birth rates of the Global South are declining to the levels of the Global North regions, however, the rates remain significantly higher in Sub-Saharan Africa. The Global North faces the challenge of an aging population, while the Global South faces the challenges of population growth and resource scarcity.

Figure 10 - Birth Rate, Crude (Per 1000 people) of Global South and Global North Regions, 1990-2022 (in %)

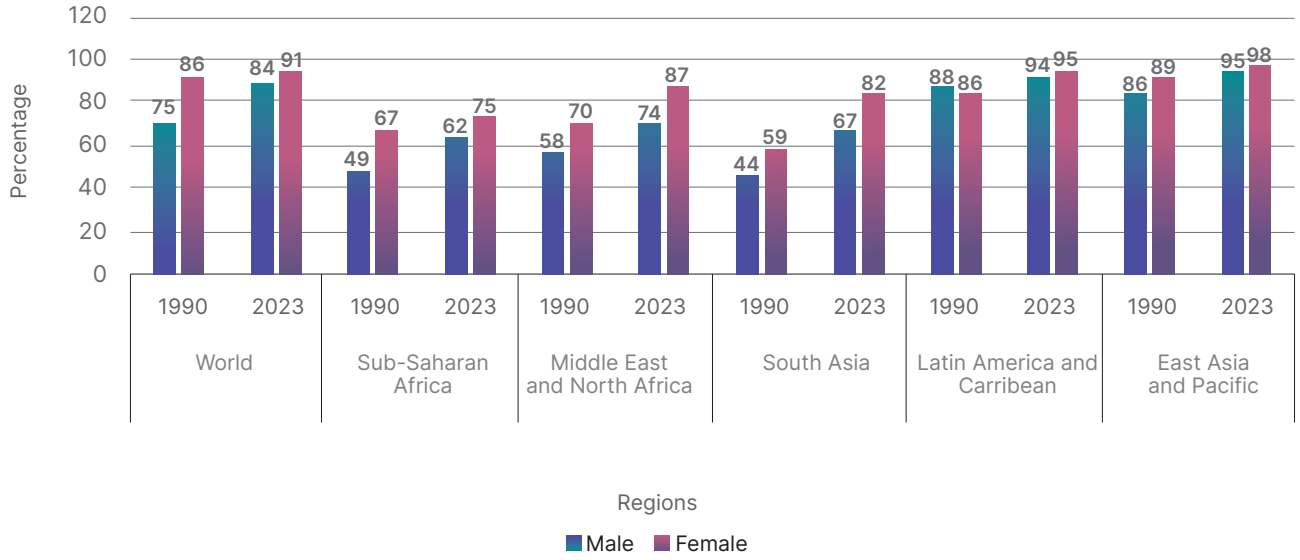


Source - World Bank

3.2.2 Literacy Rate and Expected Years of Schooling

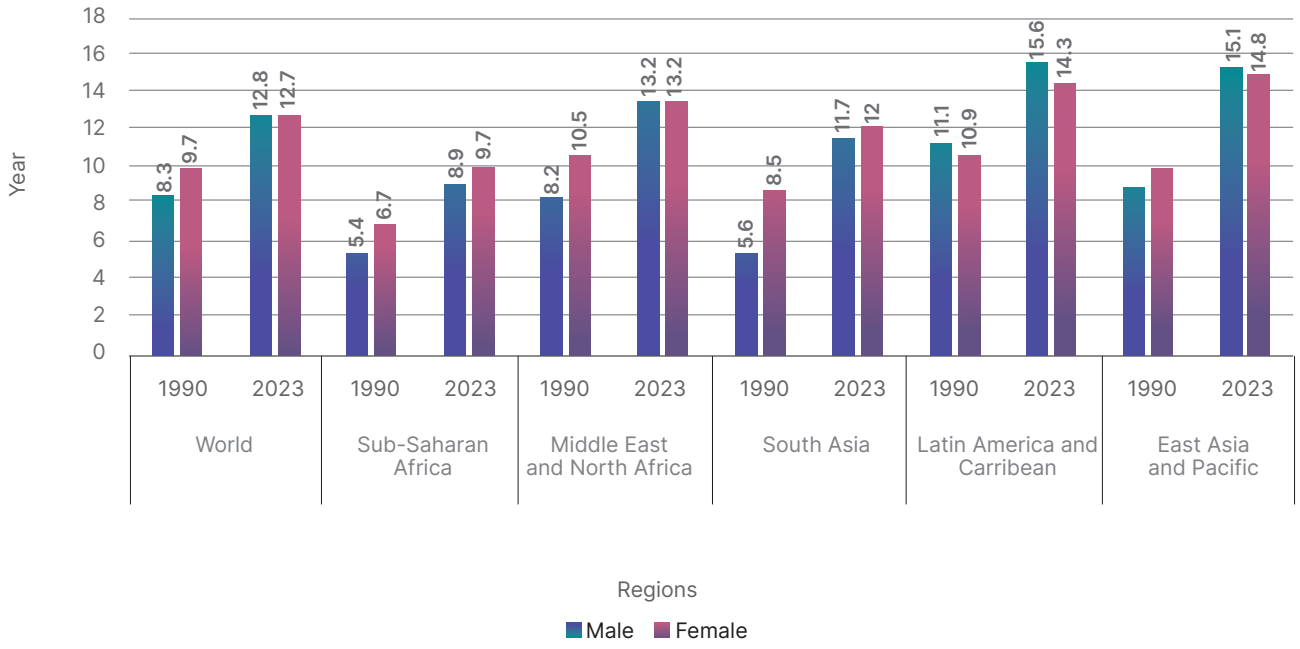
In 2023, India's female and male literacy rates were 70% and 85%, respectively, while South Asia's female literacy rate was roughly 67% and the male's was almost 87%. In the same year, Latin America and the Caribbean had near parity, i.e. 94% for women and 95% for men. The literacy rate in the Sub-Saharan Africa was 62% for women and 75% for males in 2021. Whereas for South Asia, the expected years of schooling was about 11.7 years, but for men it was 12 years, while for Latin America in 2023, women were expected to complete 15.6 years, while men were expected to complete 14.3 years of schooling. Sub-Saharan Africa has expected years of schooling of around 8.9 years for females and 9.7 years for males which is among the lowest of all the countries (Figure 11 and 12).

Figure 11 - Literacy rate, adult (% of males or females ages 15 and above)



Source - World Bank

Figure 12 - Expected years of schooling (in years)



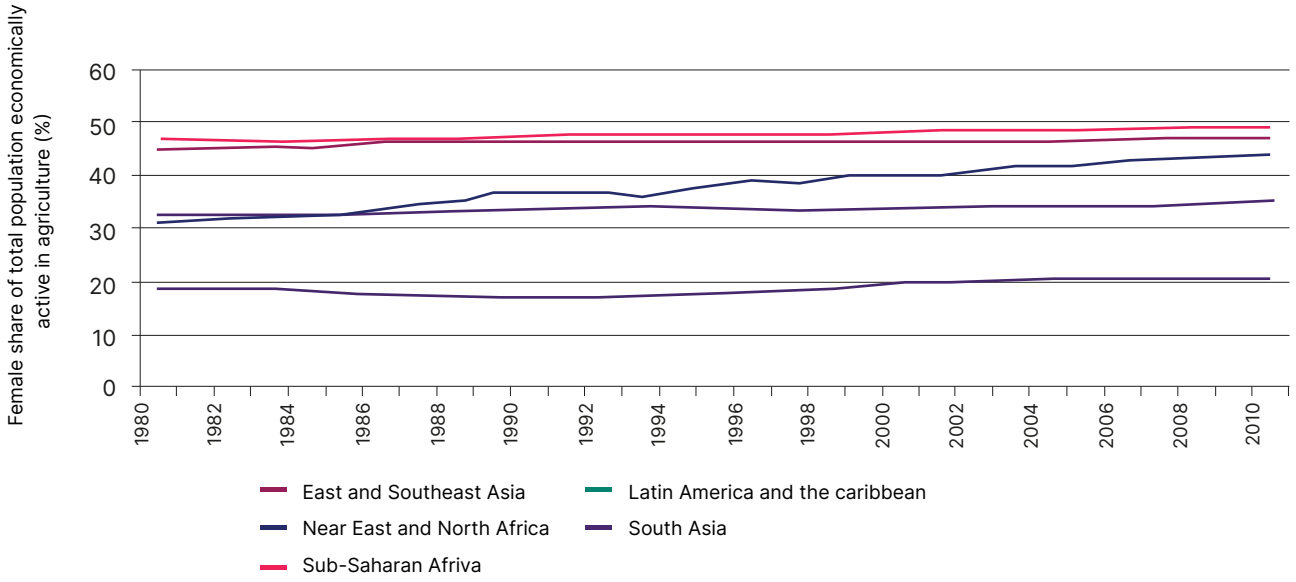
Source - World Bank

3.2.3 Female Labor Force Participation

Most economies in the South Asia region such as Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka have agriculture as the fundamental component of the economy (Nainar V., 2013). A significant proportion of women in this region work in agricultural fields performing labour-intensive tasks such as planting, harvesting, sorting, and cleaning. Despite their contribution, they are often underpaid and their contributions are overlooked (Nainar V., 2013). Additionally, women also bear the burden of unpaid care work, carrying more unpaid care work than men (UNICEF, 2023).

The technology adoption rates in agriculture are lower for women than men (Rola-Rubzen et al., 2020). Women face multiple challenges accessing and adopting these technologies such as limited access to essential inputs and services, including information, credit, fertilizers, and access to the extension services. Furthermore, physical challenges and restrictive cultural norms are additional barriers for women to access the technology (Achandi et al., 2018; Croppenstedt et al., 2013). Women remain trapped in a cycle of low input and poor output employment cycle, despite the availability of labour-saving technologies. These technologies can reduce the time spent on physically demanding tasks such as weeding, transplanting, harvesting, grinding, transportation, and gathering fuel and water (Alkire et al., 2013; Wodon & Blackden, 2006). This heavy workload further exacerbates their challenges, as Vemireddy and Pingali (2021) show that during the peak agricultural seasons, women's workloads negatively impact their nutritional outcomes.

Figure 13 - Trend of female share of total population economically active in agriculture (%)



Source - FAOSTAT, The female share of the agricultural labour force is calculated as the total number of women economically active in agriculture divided by the total population economically active in agriculture. Regional averages are weighted by population.

3.2.4 Poverty

Worldwide, one in ten women lives in extreme poverty constituting approximately 10.3% of the total female population. And if the current trend persists, about 342.4 million women and girls will continue to live on less than $2.15 per day, and the majority (220.9 million) of them will live in sub-Saharan Africa

(UN Women, 2024). The gender gap in food security widened in 2022, with 27.8% of women experiencing moderate to severe food insecurity compared to 25.4% of men (FAO, 2023). These statistics highlight the vulnerable position of women worldwide and underscore the disparities between men and women, and specifically in the low income countries.

3.3) Gender Disparities in India: A Closer Look at the National Trends

3.3.1 Health

India has seen notable improvements in various development indicators over the years. Overall, living conditions in India have significantly improved in the 21st century (Ganguly S. and Mistree D., 2025). Life expectancy at birth (total) increased from 51 years in 1960 to 73 years in 2023 overall, with female life expectancy rising from 45 to 74 years during the same period (The World Bank). The sex ratio at birth in India has also improved, rising from 919 in NFHS-4 to 929 in NFHS-5 (UNFPA, 2023). Furthermore, the Adolescent Fertility Rate (births per 1000 women aged 15-49) declined significantly from 114 in 2000 to 14 in 2023 (The World Bank). Furthermore, the mortality rate, under 5 years (per 1000 live births) - total decreased from 241 in 1960 to 28 in 2023, while the rate decreased from 247 to 28 during the same time period (The World Bank). Expanded healthcare infrastructure, wider vaccine access, and a decline in communicable disease-related deaths have enhanced public health, with diseases like polio nearly eradicated (Table 1).

Table 1 - India's performance in the key development indicators

Year	2000	Post 2016
Adolescenet Fertility Rate (Birth per 1000 women aged 15-19)	114.4	14.18(2022)
Birth attended by skilled health staff(% of total)	42.5	89(2021)
Mortality Rate, Under 5 (per 1000 live births)	91.7	29.2(2022)
Maternal Mortality Ratio(National Estimate, Per 100,000 live births)	438(1999)	143(2017)
Literacy Rate - Female (%)	47.84(2001)	69.1(2022)
Life expectancy at birth, female(years)	64	69(2022)

Source - World Bank

3.3.2 Education

In India, the female literacy rate has improved from 47.84% in 2001 to 70% in 2023 (Table 1). An increasing trend in Upper Primary and Secondary education for girls is observed from 2013-14 to 2021-22 (Table 4). It is observed that the secondary education school dropout rates for girls have slightly declined from 14.5% in 2013-14 to 13% in 2021-22. While for primary and upper secondary education, the dropout rates for both girls and boys declined significantly during the same time period, it increased in 2021-22. The dropout rate for primary education was 4.7% in 2013-14, it decreased to 0.7% in 2020-21, but increased to 1.4% in 2021-22. Similarly, for upper secondary education, the dropout rate for girls was 4% in 2013-14, it decreased to 2.3% in 2020-21, but increased to 3.3% in 2021-22 (Table 3).

Table 2 - School gross enrollment ratio (in %)

Year	Primary			Uppar Primary			Scondary		
	Girl	Boys	Total	Girl	Boys	Total	Girl	Boys	Total
2013-14	107.9	106.5	107.2	88.6	85	86.7	73.5	74.2	73.8
2019-20	103.7	101.9	102.7	90.5	88.9	89.7	77.8	78	77.9
2020-21	104.5	102.2	103.3	92.7	91.6	92.2	79.5	80.1	79.8
2021-22	104.8	102.1	103.4	94.9	94.5	94.7	79.4	79.7	79.6

Source - UDISE+

Table 3 - School drop-out rates (in %)

Year	Primary			Uppar Primary			Scondary		
	Girl	Boys	Total	Girl	Boys	Total	Girl	Boys	Total
2013-14	4.7	4.7	4.7	4	2.3	3.1	14.5	14.5	14.5
2019-20	1.2	1.7	1.5	3	2.2	2.6	15.1	17	16.1
2020-21	0.7	0.8	0.8	2.6	2	2.3	13.7	14.3	14
2021-22	1.4	1.6	1.5	3.3	2.7	3	12.3	13	12.6

Source - UDISE+

3.3.3 Employment

Based on the Ministry of Labour & Employment data, women's participation in the workforce has shown a significant upward trend, with the Labor Force Participation Rate (LFPR) increasing from 23.3% in 2017-18 to 37.0% in 2022-23 which further increased 41.7% in 2023-24 (PIB, 2024). In 2021-22, about 32.8% of females aged 15 years and above participated in the labor force. The rural sector was the main driver, with increases of 12 percentage points while the urban sector increase was 3.4 percentage points during these years (MoLE, 2023). In 2021-22, in rural India, 36.6% of women and 78.2% of men aged 15 and above participated in the labor force, while in urban areas, the participation rates were 23.8% for women and 74.7% for men (MoLE, 2023) (Table 4).

Table 4 - Labor Force Participation Rate for Males and Females (in %)

Year	Rural			Urban			Rural and Urban (Combined)		
	Male	FeMale	Person	Male	FeMale	Person	Male	FeMale	Person
2017-18	76.4	24.6	50.7	74.5	20.4	47.6	75.8	23.3	49.8
2021-22	78.4	36.6	57.5	74.7	23.8	49.7	77.2	32.8	55.2
2023-24	80.6	45.8	62.9	76.2	27.6	52.2	79.2	40.3	59.3

Ministry of Labour & Employment, Government of India (2023). 'Female Labor Utilization in India'

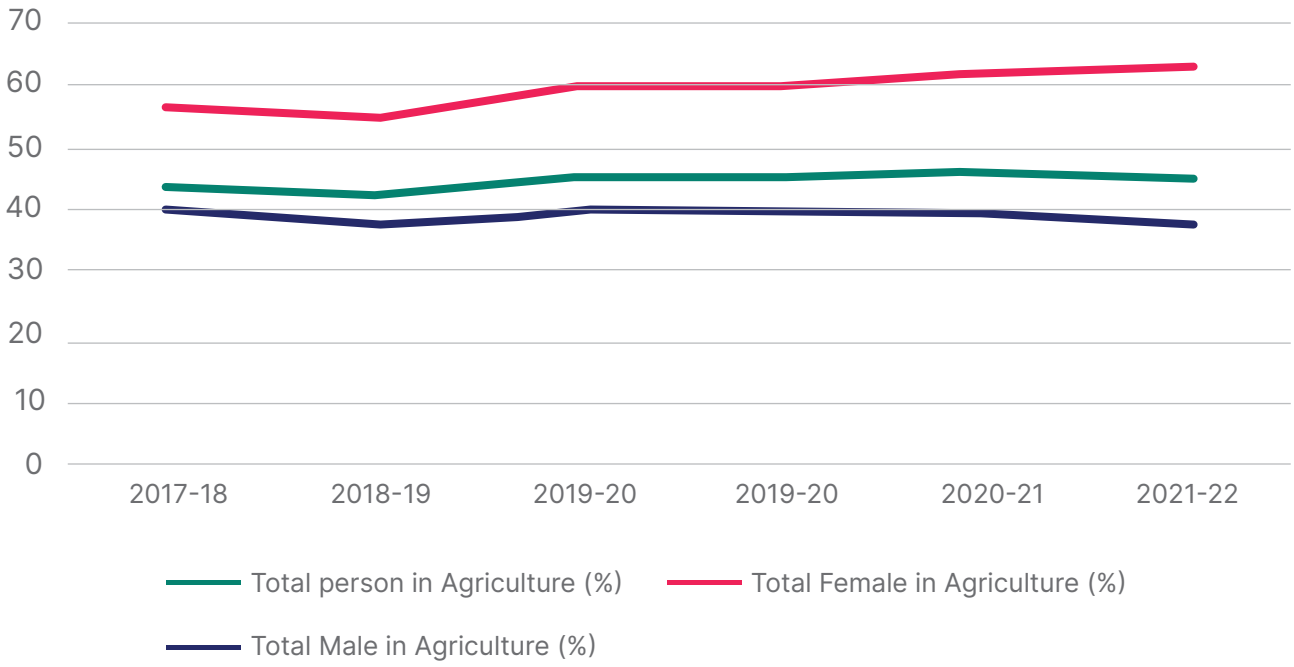
In 2021-22 about 45.5% of the labor force was engaged in agriculture, out of which about 62.9% were females while 38.1% were males (PLFS, 2021-22). Data on the distribution of unpaid women workers in family enterprises across rural India shows that agriculture accounted for 92.2% of unpaid women workers in 2017–18; this percentage rose to 94.3% in 2019–20 and then fell to 87.3% in 2022–2023. This implies that the majority of rural women are still limited to working in agriculture, despite modest diversification efforts (PLFS, 2017-23) (Table 5, Figure 14).

Table 5 - Proportion of Unpaid Female Workers in Rural Family Enterprises by Agricultural and Non-Agricultural Sectors, 2017-2023

Year	Agriculture	Non-Agriculture	Total
2017-18	92.2	7.8	100
2018-19	93	7	100
2019-20	94.3	5.7	100
2020-21	94	6.2	100
2021-22	93.4	6.6	100
2022-23	87.3	12.7	100

Source - Periodic Labour Force Surveys 2017-2023

Figure 14 - Trend of Workers Employed in Agriculture



Source - Periodic Labour Force Survey (1,2)

3.3.4 Political Empowerment

With 1.4 million elected women serving as members of Panchayati Raj Institutions and Rural Local Bodies, 46% of all elected representatives of PRIs are women (PIB, 2024). The recent passage of the Women's Reservation Bill seeks to reserve 33% of seats in the Lok Sabha and state assemblies for women, aiming to bolster political representation. Despite these efforts, India's ranking in the Global Gender Gap Index (GGGI) remains low, with a score of 0.251 (out of 1) on the gender parity index in political empowerment.

4. Overview
of Global Gender Gap Indices and Their Limitations

Gender gap indices measure gender disparities between men and women across various dimensions including economic, political, social, decision making, to provide insights into gender equality. For instance, the Gender Inequality Index (GII) by UNDP provides insights regarding reproductive health, empowerment, and labor force participation etc. The Women, Business and the Law Index (WBL) index published by the World Bank provides insights into the legal barriers faced by women to labour force participation. The Social Institutions and Gender Index (SIGI) by OECD focuses on the discriminatory social institutions, which provides insights into civil liberties, access to resources etc, while the Gender Parity Index (GPI) by UNESCO provides information about the gender gaps in education. Each of these indices serves a distinct purpose in understanding gender disparities globally. (Table 8). Many of these indices rely on either qualitative or quantitative data that may not fully capture all the aspects of gender inequality in a region. Rankings can oversimplify complex issues (e.g. social and cultural barriers,

structural economic barriers, etc.), hence creating a comprehensive framework which considers these aspects of a country is essential. Among these indices, the Global Gender Gap Index (GGGI), published by the World Economic Forum (WEF), is a widely cited index in literature. The following section gives an overview of the GGGI.

Table 6 - List of major gender gap indices published worldwide

Gender index	What it measures	Published by
Gender Inequality Index (GII)	Measures gender-based disadvantages in health, empowerment, and labor market participation.	United Nations Development Programme (UNDP)
Social Institutions and Gender Index (SIGI)	Compares human development indicators (health, education, income) by gender.	Organisation for Economic Co-operation and Development (OECD)
Women, Business and the Law (WBL) Index	Legal barriers to women's economic participation. across multiple categories.	World Bank
Gender Social Norms Index (GSNI)	Public attitudes and biases affecting gender equality	United Nations Development Programme (UNDP)
Gender Parity Index (GPI)	Educational gender gaps in enrollment and literacy rates.	UNESCO
Female Economic Opportunity Index (FEOI)	Assessing policies and conditions that enable women's participation in the workforce.	The Economist Intelligence Unit (EIU)
Women's Peace and Security Index (WPSI)	Measures women's inclusion, justice, and security in different countries.	Georgetown Institute for Women, Peace and Security (GIWPS) & PRIO
Gender Gap in Digital Access and Use	Measures the gender gap in access to and use of digital technologies and the internet	Georgetown Institute for Women, Peace and Security (GIWPS) & PRIO
Gender Gap in Digital Access and Use	Measures the gender gap in access to and use of digital technologies and the internet	International Telecommunication Union (ITU)
Global Women's Health Index (GWHI)	Assesses women's health, access to care, and well-being across different countries	Hologic & Gallup
Global Wage Report-Gender Pay Gap	Tracks the gender wage gap across occupations and industries worldwide.	International Labour Organization (ILO)
Women's Political Representation Database	Inter-Parliamentary Union (IPU)	Inter-Parliamentary Union (IPU)
World Values Survey - Gender Attitudes Module	Measures gender-related social attitudes, cultural norms, and biases.	World Values Survey Association
Gender Environment Index (GEI)	Evaluates gendered impacts of environmental policies and climate change.	Women's Environment & Development Organization (WEDO)
Gender Nutrition Index (GNI)	Assesses gender-based disparities in nutrition and food security.	Global Nutrition Report
Gender Vulnerability Index (GVI)	Measures gender-based vulnerabilities in Indiaacross education, health, poverty, and protection	Plan India
Equal Measures 2030 SDG Gender Index	Tracks progress toward gender equality in achieving the Sustainable Development Goals (SDGs	Equal Measures 2030

Source - Compiled by authors

4.1) Overview of the Global Gender Gap Index

Published annually by the World Economic Forum (WEF), the Global Gender Gap Index (GGGI), measures gender disparities across countries in four domains namely, Economic Participation and Opportunity, Educational Attainment, Health and Survival, and Political Empowerment . It focuses on assessing gender-based gaps rather than absolute levels of development, ensuring that rankings are independent of a country's income or overall development status.

The sub-index of Economic Participation and Opportunity mainly contains three concepts, participation, remuneration, and advancement. The gap in participation is captured through differences in labor-force participation rates between men and women across various employment profiles. The wage gap indicator is measured using the female-to-male earned income ratio for which the data is collected by the World Economic Forum's Executive Opinion surveys. However, the sample size of these surveys was over 12,000 business leaders across 121 countries, which is under representation, failing to capture the broader workforce disparities specifically in the informal sectors and lower-income groups.

The sub index on educational attainment captures the gap between women's and men's current access to education through the enrolment ratios of women to men in primary, secondary, and tertiary level education. A longer-term view of the country's ability to educate women and men in equal numbers is captured through the ratio of women's literacy rate to men's literacy rate (GGGI, 2024).

The Health and Survival sub-index is captured with two indicators, namely the gap in the sex ratio at birth and the gap in the healthy life expectancy at birth. The objective of the sex ratio at birth is to understand the issue of 'missing women' in regions, while the life expectancy gap estimates the years women and men are expected to live in good health (GGGI, 2024). The Political Empowerment sub index measures the gender gap in political leadership. It measures the ratio of women to men in ministerial positions and parliamentary positions, and women as a head of a government for the past 50 years (GGGI, 2024).

Each indicator is assigned a score between 0 and 1, 0 indicating complete disparity while 1 represents complete parity, and a country's overall score is determined by the weighted average of its four sub-index scores. The GGGI calculates the scores regardless of the country's level of development. Hence, a high-income country and a low-income country can achieve similar rankings if their gender disparities are comparable. The higher is the score, the lower the gender disparity in a country. However, the index doesn't assess absolute well-being of a nation, nor does it incorporate legal frameworks, social factors, cultural contexts, and other contextualized factors in calculating the scores.

Economic Participation and Opportunity (Female-to-Male Ratio)

- Labour Force Participation Rate
- Wage Equality for Similar Work
- Estimated Earned Income
- Legislators, Senior Officials, and Managers
- Professional and Technical Workers

Health and Survival (Female-to-Male Ratio)

- Sex Ratio at Birth
- Healthy Life Expectancy

Educational Attainment (Female-to-Male Ratio)

- Literacy Rate
- Enrolment in Primary Education
- Enrolment in Secondary Education
- Enrolment in Tertiary Education

Political Empowerment (Female-to-Male Ratio)

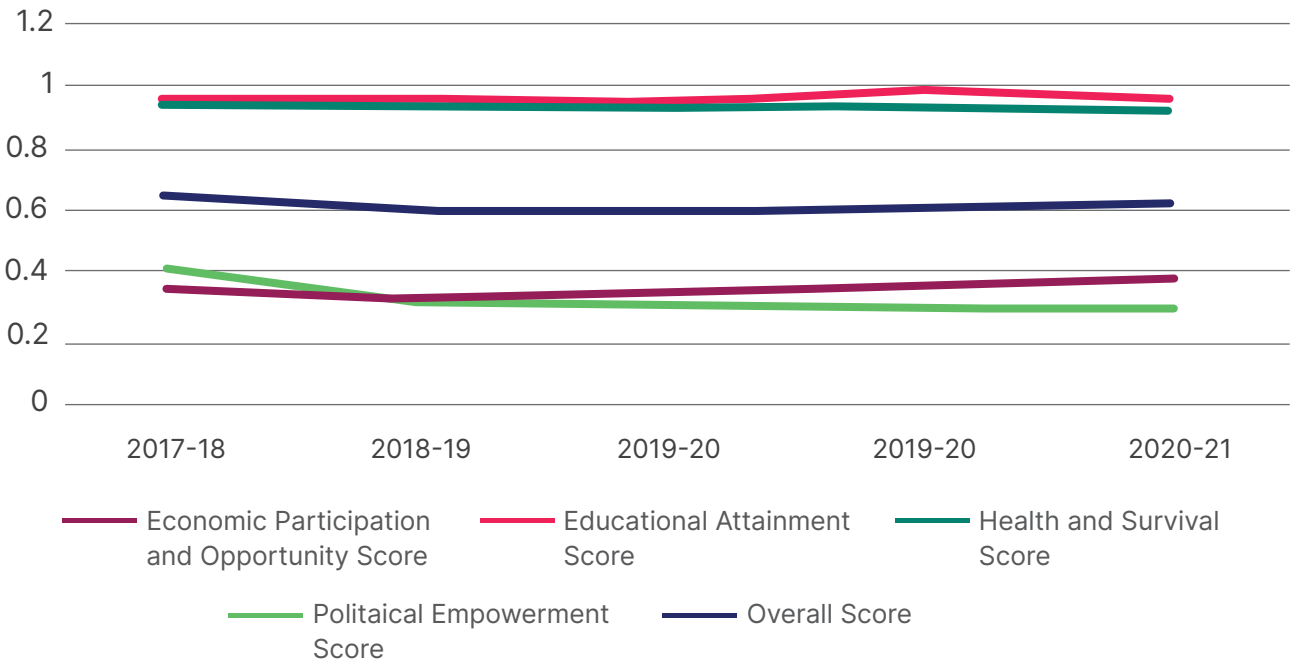
- Women in Parliament
- Women in Ministerial Positions
- Years with Female Head of State (Last 50)

Economic Participation and Opportunity (Ratio)	Weight
Labour-force participation rate, % (female-to-male ratio)	0.199
Wage equality for similar work (survey), 1-7 scale (female-to-male ratio)	0.199
Estimated earned income, PPP, in $ (female-to-male ratio)	0.221
Legislators, senior officials and managers, % (females-to-males ratio)	0.149
Professional and technical workers, % (female-to-male ratio)	0.121
Educational attainment (Ratio)	**Weight**
Literacy Rate, % (females-to-male ratio)	0.191
Enrolment in primary education, % (females-to-male ratio)	0.459
Enrolment in secondary education, % (females-to-male ratio)	0.230
Enrolment in tertiary education, % (females-to-male ratio)	0.121
Health and Survival (Ratio)	**Weight**
Sex Ratio at birth, % (female-to-male ratio)	0.693
Healthy life expectancy, years (females-to-males ratio)	0.307
Political Empowerment (Ratio)	**Weight**
Women in Parliament, % (female-to-male ratio)	0.31
Women in ministerial positions, % (female-to-male ratio)	0.247
Years with female head of state (last 50), Share of tenure years (female-to-males ratio)	0.44

4.2) Trend of India's Performance in the Global Gender Gap Index

The most recent Global Gender Gap Index (GGGI) was published in 2024, in which India ranked 129th among a total of 146 countries included in the index calculation. India scored an overall gender parity score of 0.641. The domain wise scores of the country were as follows; 0.398 for Economic Participation and Opportunity, 0.964 for Educational Attainment, 0.951 for Health and Survival, and 0.251 for Political Empowerment. (Figure 15).

Figure 15 - Trend of India's score in GGGI



Source - Global Gender Gap Index (2020-2024)

In comparison to 2020, India's performance in the GGGI ranking declined between 2020 and 2024. The country's rank dropped from 112th place in 2020 to 129th in 2024, with a decline in the gender parity score from 0.668 to 0.641 during this time. India showed an improvement in educational attainment (0.964 in 2024 vs. 0.962 in 2020) and Health and Survival (0.951 in 2024 vs. 0.944 in 2020), while the scores of Economic Participation and Opportunity (0.398 in 2024 vs. 0.354 in 2020) and Political Empowerment (0.251 in 2024 vs. 0.411 in 2020) worsened. These declines reflect persistent gender disparities in mentioned critical areas.

5. Limitations of the Global Gender Gap Index

1) Differences in the Economic Levels are Not Considered in the Index

The GGGI calculation doesn't account for the differences in the economic development and income levels across countries while ranking the countries based on gender disparities. This approach overlooks the structural barriers that impact both men and women of an economy while making progress towards gender equality. A study by (Jones J. 2010) explains that the increase in the income levels of the countries contribute to the improved social indicators, while the relationship is also influenced by other various factors such as cultural norms, institutions etc. Ignoring an economy's development levels and progress can be misleading in cross-country comparison.

2) Limited Scope of Indicators

The Global Gender Gap Index measures the gender disparity in four domains namely, Economic Participation and Opportunity, Health, Educational Attainment, and Political Empowerment. However, all these domains rely on limited indicators that fail to capture the full scope of gender equality within them. For instance, the domain of 'Educational Attainment' contains four indicators namely, literacy rate, enrollment in primary education, enrollment in secondary education, and enrollment in tertiary education. However, it does not consider other essential components of education such as vocational training metrics, gender digital divide, etc. These components are essential for understanding the gender disparities in the transition from education to workforce participation.

Additionally, the domain of Economic Participation and Opportunity doesn't include indicators on the informal workforce, self-employed and unpaid care workers, and lacks indicators on mobility and financial accessibility. The domain of Health and Survival contains only two indicators namely, sex ratio at birth and healthy life expectancy, which does not capture other essential indicators of health such as access to nutritional foods, gender-based violence, indicators on healthcare awareness, indicators on mental health etc. Lastly, the domain of Political participation and Representation, doesn't include the data on political participation at the local governance levels, which creates a misleading picture of the political leadership in India.

3) Inconsistencies in GGGI's Educational Attainment Metrics

The methodology of GGGI claims to measure the outcome variables to understand the gender disparity across countries. However, the domain of 'Educational Attainment' includes the indicators on enrollment in primary, secondary, and tertiary education which are input-based indicators. Enrollment indicators signify access to education but do not signify the outcomes such as age-appropriate academic proficiency, graduation rates, etc. Hence, integration of learning outcomes into the index indicators is essential to capture the gender disparities in this domain.

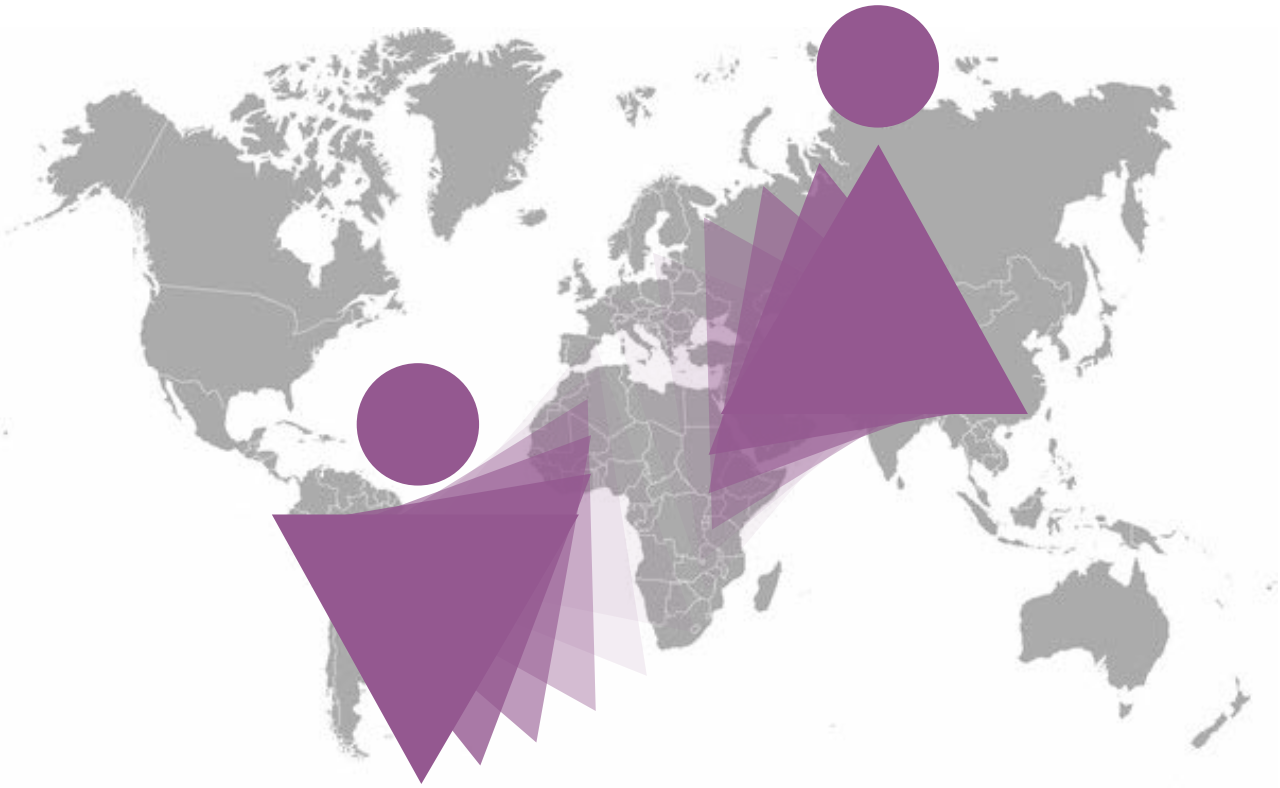
4) Insufficient Sample Size for the Measurement of the Wage Gap Estimates

The wage gap indicator estimates are based on the Executive Opinion Survey, conducted by the World Economic Forum. The survey data used in the calculation of 2024 GGGI covered data on wages from over 12,000 business leaders across 121 countries. However, this sample size is not representative of the wage data for a country. For instance, in a country such as India with a population of over 140 crores, and diverse occupational means the sample size considered in the survey does not justify the population size.

5) Inconsistencies in the Calculation of the Gender Gap Index

5.1) India performs poorly in the GGGI rankings, with inconsistencies across key areas like economic participation, education, health, and political empowerment. In 2021, while it ranks 155th out of 156 countries in Health and Survival, it holds the 51st position in Political Empowerment, indicating concerns about the index's coherence in assessing gender equality (Shankar U. et al., 2021).

5.**2)** Estimated earned incomes for men and women are $6,200 and $2,500 in Bangladesh, $12,100 and $19,800 in China, and $38,700 and $54,500 in France, with gender gaps of $3,700, $7,700, and $15,800, respectively. Despite the larger absolute gender gap in France, it ranks 39th, far ahead of China (76th) and Bangladesh(131st), suggesting that absolute income levels influence rankings, challenging the GGGI's claim of a level-free assessment (Shankar U. et al., 2021).



6. Our Approach

Need for Contextualizing the Gender Gap Index and Integrating Input-based Approach Alongside Outcome-based Measurement

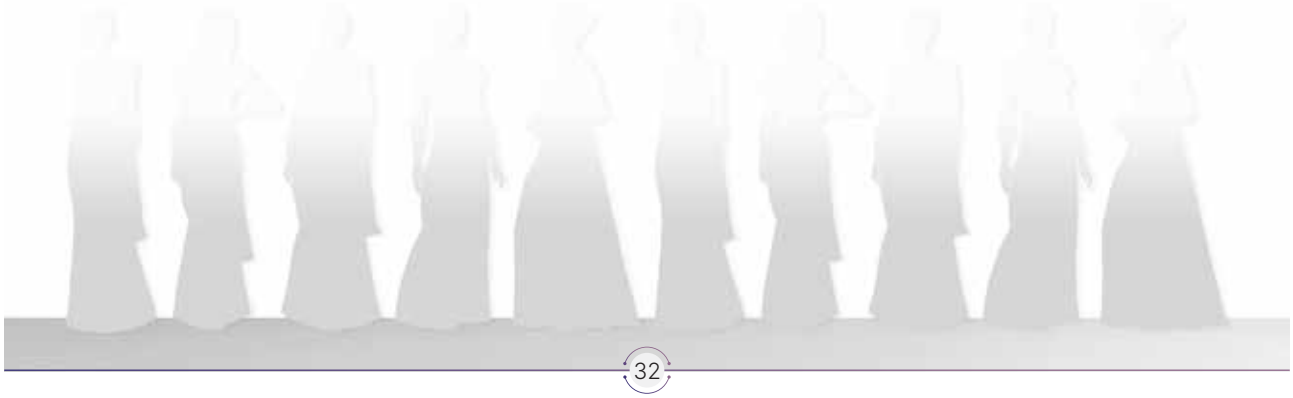
The GGGI measures discrepancies and ranks nations according to the results of development indicators in four areas: political empowerment, economic involvement, health, and education. Although this methodology allows for a uniform comparison across countries, it ignores the variations among nations that may have a direct influence on these results. As countries' economies develop, a positive correlation between income and social development indicators is observed. However, the relationship can be non-linear and can be impacted by various factors. Additionally, high economic development does not translate into improvements in all areas of social progress (Jones J., 2010; Deb S., 2017). For countries with low social progress, the link between economic growth and social development is weaker. Basic human needs are taken care of as the economies grow, however, targeted efforts are needed to improve broader social goals to achieve sustainable growth (Deloitte, 2015). Hence, we argue that;

i. The economic development levels of a country play a crucial role in the development of social progress indicators, hence the level of economic development should be considered while ranking the countries based on gender disparities, otherwise it might create misleading results.

ii. A low-income nation may lack the necessary resources to invest in the policies aimed at reducing the existing gender gap. Therefore, a low-income country should be given special attention if it is investing in reducing gender inequities, considering the financial constraints, and systematic barriers.

iii. Alongside the outcome-based approach, we argue for the inclusion of input-based metrics to enable a more thorough evaluation of gender equality. An over the years trend of the inputs (e.g. budget analysis, etc.) should be included in the report which can provide information regarding the policies and efforts the countries are taking to reduce the gender disparity.

iv. Additionally, highlighting key policies that countries are implementing to enhance gender equity would provide important insights into diverse policy approaches and methodologies. This information can serve as a reference for other countries.



7. Proposed Improvements
for More Inclusive Gender Gap Index

The following section proposes improvements for a more comprehensive measurement of the Global Gender Gap Index requiring enhancements at the India-specific & global levels. The global-level enhancements focus on strengthening the index methodology, expanding indicators, and assessing existing gaps to improve its applicability across diverse economies. While on the other hand, the India-specific improvements section highlights the need for adjustments to the existing index for a comprehensive measurement of gender disparity in the country.

7.1 Global Level Enhancements

1) Inclusion of a Domain on Social Equity

We recommend that a new domain on social equity should be added to the index. Social equity is associated with resources, access, and opportunities. While the terms social equality and social equity are often used interchangeably, there is a subtle difference between these terms. While social equality focuses on providing equal access to resources for everyone, social equity considers the differences and focuses on reducing those differences to create a level playing field. Hence adding indicators that capture a country's efforts on social equity is essential to understand the differences in access and opportunities for women in a society.

2) Accounting for Economic Context in GGGI Measurement

The current Global Gender Gap measurement evaluates the gender gap without considering the socioeconomic differences in the economies on parameters including population, income levels, etc. which can mislead the cross-country comparisons. Countries with better economic development have better access to resources, infrastructure, and policies; on the other hand, low-income countries face systematic barriers to development. Due to the differences in their characteristics in economic levels and sociocultural characteristics, the ranking of these countries based on comparison can be misleading as these countries have different baseline conditions, structural issues, and policy priorities. We recommend that considering economic context through indicators such as GDP per capita, employment structure, gender-focused programs, etc. can provide a more balanced assessment of the gender disparity across countries. It would provide a fairer comparison, ensuring that the gender gaps are measured keeping in mind countries' economic capacity and development stage.

3) Adding Indicators for a More Detailed Assessment

One key recommendation of this report is to expand the Global Gender Gap Index by incorporating additional indicators for which data is widely available across countries. The current index relies on a limited number of indicators to measure the gender disparities across countries, which is not sufficient to understand the true realities of a nation. For instance, the Health and Survival domain only consists of two indicators namely Sex Ratio at Birth and Healthy Life Expectancy, but it fails to include other essential indicators such as access to healthcare, access to nutritious foods, anemia prevalence, etc. Similarly, other domains lack depth in effectively measuring gender disparities. We recommend that adding more indicators to these domains would help provide a clearer picture of gender disparities across countries. The Appendix

section provides a few examples of the indicators that can be added to the existing gender gap index.

4) Strengthening Metrics for Economic Participation and Opportunities

To provide a more comprehensive measurement of the Economic Participation and Opportunities domain, we propose an expansion of the domain indicators. Inclusion of indicators on unpaid care workers and self-employment workers, financial inclusion, mobility and infrastructure development indicators, post-childbirth employment, assessment of gender-responsive budgeting, women's mobility, and indicators on the impact of climate change on women's workforce participation, etc. These indicators can capture the structural barriers and provide more actionable insights (See Appendix).

5) Strengthening Metrics for Educational Attainment Domain and Political Participation and Representation

To ensure a more precise evaluation of the gender disparities in the educational attainment domain, we propose the inclusion of indicators on learning outcomes (e.g. functional literacy, average years of schooling completed, etc.), vocational training indicators, the correlation between time use patterns and educational attainment, career progression in STEM fields, the digital gender divide and more which can help capture actual progress in education and gender disparities more accurately (See Appendix).

We recommend that the domain of Political Participation and Representation should include political representation at the local level. Leadership in trade unions and grassroots organizations will provide a more comprehensive understanding of the domain (See Appendix).

6) Strengthening Metrics for Health and Survival

To provide a substantial understanding of the gender disparities in the Health and Survival domain, we propose the addition of indicators beyond life expectancy (e.g. anemia prevalence, dietary diversity, etc.), marriage age as an indicator to understand reproductive health, premature health deterioration, Disability-Adjusted Life Years (DALY), Quality-Adjusted Life Years (QALY), and immunization indicators, etc. can help get an in-depth understanding of the gender disparity in health in a country (See Appendix).

7) Track Progress and Country-Specific Policy Insights

Currently, the Global Gender Gap Index (GGGI) provides a comparative framework by ranking nations according to the status of gender disparity across countries. However, the gender gap measurement does not consider the differences in socioeconomic characteristics among countries while comparing them. We propose that for each country included in the analysis, providing information on the trend of an indicator being measured and details on key policy initiatives taken by the country would offer comprehensive information on the progress and efforts made toward gender parity.

8) Accounting for Gender Disparities Faced by Men in the Global Gender Gap Index

Currently the Global Gender Gap Index caps scores at parity at 1 even when women outperform men in an indicator, resulting in the lack of recognition of male disadvantage in the areas of development. While this ensures that the index remains focused on discrimination faced by women, it does not fully capture the discrimination in the society faced by both genders. Hence, we propose that countries where men face discrimination such as higher dropout rates, workplace hazards, etc. should be factored into the index to better understand the overall situation of a country.

7.2 India-specific Enhancements

1) Inclusion of Informal Sector Workforce

Women in India, both rural and urban areas are engaged in the informal workforce such as agriculture, domestic work, street vending, and construction labor, etc. Many women are also engaged in piece-rate work (e.g. handcrafts, packaging, and embroidery, etc.), without any social protection. Neglecting the crucial part of the labor force results in an incomplete picture of the gender disparities in economic participation. Hence we recommend including time use surveys and integration of the informal sector workforce to improve the gender quality assessment. The Appendix section provides a list of India specific indicators that can be added to the existing gender gap index to understand the situation of the country in a better manner.

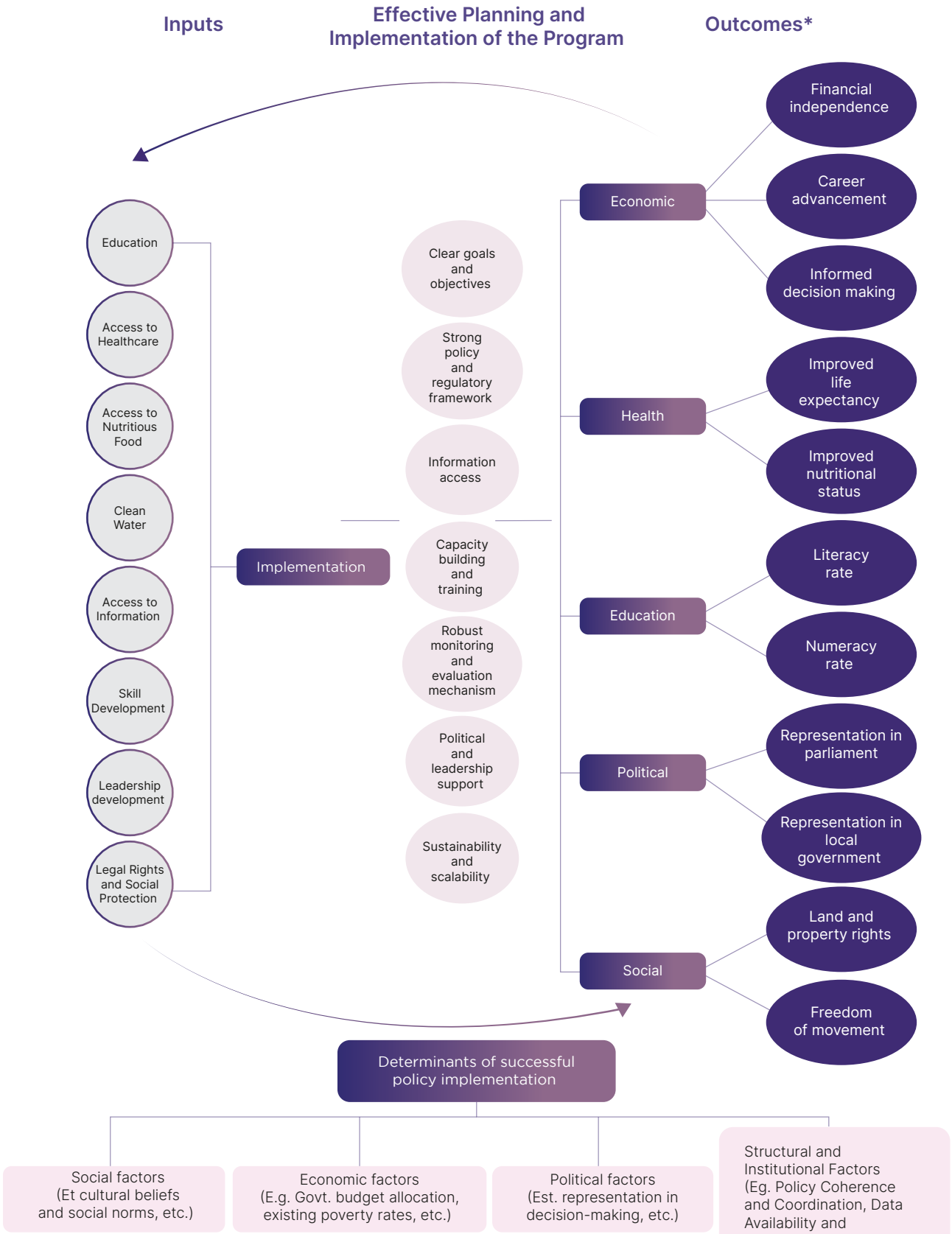
2) Inclusion of Women's Representation in the Local Governance

The existing index only considers women's representation in politics for women in parliament, women as head of the state, and women in ministerial positions. It is essential to recognize that the political systems are different worldwide. For a country such as India, political leadership at grassroots levels, such as Panchayati Raj Institutions, Self Help Groups, etc. is essential for development. Hence we recommend that leadership at the local levels should also be included in the index.

3) Beyond outcomes - Incorporating Inputs for holistic gender gap measurements

The current measurement of GGGI relies on the outcome-based approach focusing on the disparities in four domains of development such as economic opportunity, education, health, and political participation. This approach provides information on gender disparities in results, it does not account for the structural barriers within a country that contribute to these disparities. Therefore, to create a more comprehensive framework we propose incorporating an input-based approach synchronous to the outcome-based approach. This dual approach would ensure that access to resources, quality of resources, labor-market policies, financial inclusion policies, etc. of a country are analyzed to understand gender disparities and their reasons (Figure 10).

Figure 16 - An input-based and outcome-based approach to measuring gender disparities in the Indian context.

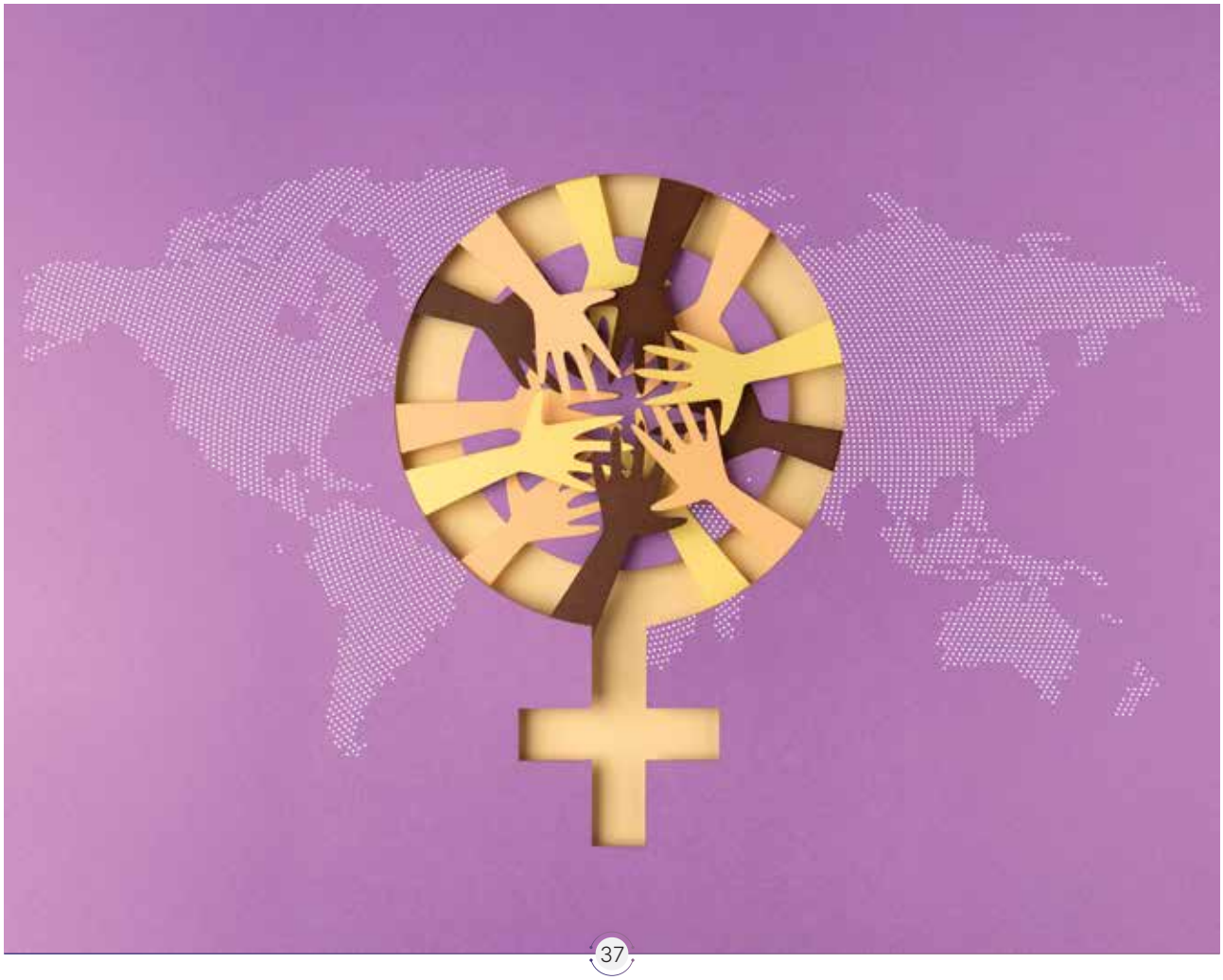


Source - Compiled by authors

8. Conclusion

Worldwide, the Global Gender Gap Index (GGGI) acts as an important tool for the assessment of gender disparities, but its methodological limitations necessitate improvement. The current GGGI methodology focuses on the outcome-based indicators while excluding other essential factors such as economic context, structural barriers, and policy efforts in its calculation and country rankings. Additionally, exclusion of critical factors such as learning outcomes in the education domain, exclusion of unpaid care work in the economic participation domain, and exclusion of essential indicators from the health domain leads to an incomplete representation of gender disparities. Addressing these gaps by adding necessary indicators and reconsidering the relevance of some indicator can ensure fairer cross-country comparisons.

This report proposes that along with the outcome-based approach, integration of the input-based approach into the gender gap measurement metrics would strengthen the findings of the global gender gap index. Additionally tracking country specific progress over time, and highlighting the policy initiatives taken by the countries to improve the gender equality in their countries can provide valuable insights to the government stakeholders and policy makers to plan the appropriate strategies in the areas where improvement is needed. Refining the methodology of GGGI by integrating more indicators and considering regional context would be a more effective approach to shaping gender equality policies.



References

- Croppenstedt, A., Goldstein, M., & Rosas, N. (2013). Gender and agriculture - Inefficiencies, segregation, and low productivity traps. The World Bank Research Observer, 28(1), 79-109.
- Alkire, S., Meinzen-Dick, R., Peterman, A., Quisumbing, A., Seymour, G., & Vaz, A. (2013). The women's empowerment in agriculture index. World development, 52, 71-91.
- Blackden, C. M., & Wodon, Q. (Eds.). (2006). Gender, time use, and poverty in sub-Saharan Africa (Vol. 73). World Bank Publications.
- Lemmon, G. T., & Vogelstein, R. (2017). Barriers to Women's Economic Participation. In Building Inclusive Economies: How Women's Economic Advancement Promotes Sustainable Growth (pp. 11–21). Council on Foreign Relations. http://www.jstor.org/stable/resrep29884.6
- ILO. (2024, October). Unpaid care work prevents 708 million women from participating in the labour market. https://www.ilo.org/resource/news/unpaid-care-work-prevents-708-million-women-participating-labour-market#:~:text=%22Women%20shoulder%20a%20disproportionate%20share,inadequate%20care%20and%20support%20systems.
- FAO (2011). The State of Food and Agriculture: Women in Agriculture Closing the Gender Gap for Development. Available online at: www.fao.org/docrep/013/i2050e/i2050e.pdf
- Deere C. D., Leon M. (2003). The gender asset gap: land in Latin America. World Dev. 31 925–947. 10.1016/S0305-750X(03)00046-9 ILO. International Labour Organization. Asia–Pacific employment and social outlook rethinking sectoral strategies for 2022: a human-centred future of work. 2022. https://www.ilo.org/publications/major-publications/asia-pacific-employment-and-social-outlook-2022-rethinking-sectoral. Accessed 23 June 2024.
- PIB. (2023, March). Agriculture has highest estimated percentage distribution of female workers followed by manufacturing as per the Annual Periodic Labour Force Survey (PLFS) Report 2021-22. https://www.pib.gov.in/PressReleaseIframePage.aspx?PRID=1911142
- Gender equality - equal rights and opportunities for girls and boys help all children fulfil their potential. (2023, July). https://www.unicef.org/rosa/gender-equality
- Frisancho, V., Bustelo, M., & Viollaz, M. (2023). What Is the Labor Market Like for Women in Latin America and the Caribbean?. https://doi.org/10.18235/0005341
- FAO. (2025). Gender, food security and nutrition. https://www.fao.org/gender/learning-center/thematic-areas/gender-and-food-security-and-nutrition
- Facts and figures: Economic empowerment. (2024, February). https://www.unwomen.org/en/what-we-do/economic-empowerment/facts-and-figures
- Leal Filho, W., Azul, A. M., Brandli, L., Lange Salvia, A., Özuyar, P. G., & Wall, T. (Eds.). (2021). No

Poverty. Encyclopedia of the UN Sustainable Development Goals. doi:10.1007/978-3-319-95714-2

- Kowalski AM (2018a) Benefits of Broadening the Analysis of International Competitiveness: The Case of CEE Countries. AIB Insights 18(1):7–11
- Rubin C (2011) The global search for education: impact of globalization on the North and South Divide. https://www.educationworld.com/blog/global-search-educationimpact-globalization-north-and-south-divide.
- Chen, M., Vanek, J., Lund, F., Heintz, J., Renana Jhabvala, & Christine Bonner. (2005). Progress of the World's Women 2005: Women, Work and Poverty [Book]. United Nations Development Fund for Women.
- Pennings, S. (2024, March 16). How much would GDP per capita increase if gender employment gaps were closed in developing countries? World Bank Blogs. https://blogs.worldbank.org/en/developmenttalk/how-much-would-gdp-capita-increase-if-gender-employment-gaps-were-closed-developing
- Female labor force participation - World Bank Gender Data Portal | World Bank Gender Data Portal. (n.d.). World Bank Gender Data Portal. https://genderdata.worldbank.org/en/data-stories/flfp-data-story
- Ubfal, Diego Javier. 2023. What Works in Supporting Women-led Businesses?. © World Bank, Washington, DC. http://hdl.handle.net/10986/38564 License: CC BY 3.0 IGO
- Ban Ki-moon, Phumzile Mlambo-Ngcuka, Razavi, S., Turquet, L., Mansukhani, M., Heintz, J., Seck, P., Staab, S., Baden, S., Azcona, G., Rodrigues, N., Gaye, A., Browne, S., Billi, L., Hill, C., Rodriguez, J., Clayton, M., UN Women Communications and Advocacy Section, UN Women Information Systems and Telecommunications Section, . . . Chris. (2016). TRANSFORMING ECONOMIES, REALIZING RIGHTS PROGRESS OF THE WORLD'S WOMEN 2015-2016.
- Posel, D. and D. Casale. 2014. "Gender, Education and Labour Market Outcomes." Background paper for Progress of the World's Women 2015–2016. UN Women, New York.
- Ñopo, H., N. Daza and J. Ramos. 2011. "Gender Earnings Gaps in the World." IZA Discussion Paper No. 5736. Institute for the Study of Labour, Bonn.
- Dong, X.-Y., S. Li and S. Yang. 2014. "Gender Analysis of Labor Market Outcomes in China in the First Decade of the 21st Century". Background paper for Progress of the World's Women 2015–2016. UN Women, New York.
- Bastian Herre (2024) - "Women have made major advances in politics — but the world is still far from equal" Published online at OurWorldinData.org. Retrieved from: 'https://ourworldindata.org/women-political-advances'
- Facts and figures: Women's leadership and political participation | UN Women – Headquarters. (2025, March 11). UN Women – Headquarters.

https://www.unwomen.org/en/articles/facts-and-figures/facts-and-figures-womens-leadership-and-political-participation

- Vasal, V. (2024). Regional picture. Grant Thornton International Ltd. Home. https://www.grantthornton.global/en/insights/women-in-business/regional-picture/
- Deb, S. & Council for Social Development. (n.d.). Impact of economic growth on social development dimensions in India: A State-Level analysis. In Council for Social Development. https://csdindia.org/wp-content/uploads/2017/10/Working-Paper-Impact-of-Economic-Growth-on-Social-Development-2017.pdf
- Stewart, F., United Nations Conference on Trade and Development, Oxford University, Emma Samman, Wilkinson, & Sen. (1999). Income distribution and development. In United Nations Conference on Trade and Development. https://unctad.org/system/files/official-document/ux_tdxrt1d1.en.pdf (Original work published 1996)
- Shuangshuang, Y., Zhu, W., Mughal, N. et al. The impact of education and digitalization on female labour force participation in BRICS: an advanced panel data analysis. Humanit Soc Sci Commun 10, 598 (2023). https://doi.org/10.1057/s41599-023-02020-2
- European Commission (1998). 100 Words for Equality: A Glossary of Terms on Equality between Women and Men.
- Kiran Pandey, & Kiran Pandey. (2018, September 18). Hard work, but low wages for women farmers. Down to Earth. https://www.downtoearth.org.in/agriculture/hard-work-but-low-wages-for-women-farmers-61656#:~:text=As%20farmers%20and%20agricultural%20labourers,of%20Agriculture%20and%20Farmers'%20Welfare.
- Nikore, M. (2024, June 14). Building India's economy on the backs of women's unpaid work: A Gendered Analysis of Time-Use data. orfonline.org. https://www.orfonline.org/research/building-india-s-economy-on-the-backs-of-women-s-unpaid-work-a-gendered-analysis-of-time-use-data
- FORECASTING TIME SPENT IN UNPAID CARE AND DOMESTIC WORK. (n.d.). https://www.unwomen.org/sites/default/files/2023-10/technical-brief-forecasting-time-spent-in-unpaid-care-and-domestic-work-en.pdf

Appendix

1) Domain wise limitations and proposed improvements for the Global Gender Gap Index

Limitations of the Economic Participation and Opportunities Domain

Exclusion of Informal Sector Workers - The index excludes the informal sector, where most Indian women work, leading to an incomplete assessment of their economic participation.

Exclusion of Self Employed and Unpaid Care Workers - The index excludes self-employed and unpaid workers, overlooking a significant share of women's economic contributions, especially in agriculture and household enterprises.

Usage of Opinion Surveys Instead of Empirical Data for Indicator Calculation - The index relies on opinion surveys with a very small sample size, which may introduce biases and fail to accurately capture the true gender disparities.

Lack of Indicators Related to Financial Accessibility - The index lacks indicators on financial accessibility, overlooking women's access to credit, banking services, and financial independence, which are crucial for economic empowerment.

Proposed Improvements for the Economic Participation and Opportunities Domain

Inclusion of Unpaid Labor and Self-Employment Workers - A significant proportion of Indian women participate in the informal economy and care work, which play a crucial yet often overlooked role in the economy. Ensuring their inclusion in these sectors is vital.

Financial Inclusion Metrics - Incorporating indicators on financial inclusion would provide a more accurate assessment of women's economic empowerment by capturing their access to banking, credit, digital payments, and financial decision-making power.

Incorporating Mobility and Infrastructure Indicators - Including mobility and infrastructure indicators would better capture how access to transport, safe public spaces, and essential services affects women's economic participation and opportunities.

Integrating Climate Impact on Women's Work - Adding indicators on climate change would highlight its disproportionate impact on women's livelihoods, especially in agriculture and informal labor, where environmental shifts affect income and job security.

Tracking Post-Childbirth Employment - Including indicators on post-childbirth employment would capture workforce retention rates, barriers to re-entry, and the impact of caregiving responsibilities on women's economic participation.

Assessing Gender-Responsive Budgeting - Incorporating indicators on gender-responsive budgeting would help measure government commitment to gender equality by tracking resource allocation for women-centric policies and programs.

Measuring Women's Mobility and Occupational Mobility - Adding indicators on women's physical and occupational mobility would provide a clearer picture of barriers to workforce participation, career advancement, and access to economic opportunities.

Adding Employment Quality Indicators - Introducing metrics on job security, wages, benefits, and working conditions would provide a more comprehensive understanding of gender disparities in the workforce.

Tracking Education-to-Work Transition - Adding indicators on the transition from educational attainment to the job market would help assess how effectively women's education translates into employment opportunities and career progression.

Limitations of the Educational Attainment Domain

Limitations of Enrollment-Based Education Metrics - The index primarily measures gender gaps through enrollment rates but fails to capture educational quality, skill acquisition, and learning outcomes, contradicting its stated focus on measuring outputs rather than inputs.

Exclusion of Digital Education Metrics - The index does not account for access to digital education, overlooking gender gaps in technology use, online learning opportunities, and digital literacy, which are crucial for future workforce readiness.

Gaps in Skilling and Vocational Training Data - The index does not adequately measure informal skilling, despite its importance in labor market success.

Lack of Intersectional Analysis in Gender Indices - The index fails to disaggregate data by caste, socio-economic status, and geography, overlooking how overlapping inequalities shape gender disparities.

Proposed Improvements for the Educational Attainment Domain

Expanding Education Metrics Beyond Enrollment - Including retention, completion, and graduation rates would provide a more accurate assessment of gender disparities in education by measuring long-term participation and successful outcomes.

Enhancing Skilling and Vocational Training Metrics - Developing indicators for both formal and informal skilling would help assess gendered employment barriers and better capture workforce readiness and economic opportunities.

Integrating Time-Use Patterns in Gender Indices - Including time-use data would highlight gender disparities in unpaid labor, caregiving, and leisure, providing a more comprehensive understanding of economic and social inequalities.

Measuring Career Progression in STEM Fields - Tracking career trajectories in STEM would help assess gender gaps in retention, advancement, and leadership, providing insights into gendered barriers in these fields.

Addressing the Gender Digital Divide - Tracking access to digital education platforms would provide insights into modern learning trends, digital inclusivity, and gendered disparities in technology use.

Limitations of the Health and Survival Domain

Narrow Scope of Health Indicators - The index relies on a limited set of metrics, overlooking key aspects like maternal health, mental health, reproductive care, and gender-based violence.

Absence of Mental Health Indicators - The index lacks metrics on mental health, failing to capture gendered disparities in stress, depression, anxiety, and the impact of domestic and workplace pressures on women's well-being.

Lack of Comprehensive Nutritional Indicators - The index does not include key nutrition metrics, overlooking gender disparities in malnutrition, anemia, and access to balanced diets, which are crucial for women's health and well-being.

Limited Coverage of Healthcare Access - The index fails to capture disparities in healthcare affordability, availability, and quality, overlooking barriers women face in accessing essential medical services.

Exclusion of Gender-Based Violence and Its Health Impacts - The index does not account for the physical and mental health consequences of gender-based violence, missing a critical factor affecting women's overall well-being.

Overlooking the Health Impacts of Climate Change - The index fails to capture how climate change disproportionately affects women's health, including increased disease vulnerability, malnutrition, and restricted access to healthcare during climate-related disasters.

Lack of Indicators on Health Awareness - The index does not measure women's awareness of key health issues, such as nutrition, reproductive health, and disease prevention, which are crucial for informed healthcare decisions and well-being.

Proposed Improvements for the Health and Survival Domain

Broadening Health Metrics Beyond Life Expectancy - Incorporating indicators like anemia prevalence, dietary diversity would provide a more comprehensive assessment of nutritional and overall health status.

Enhancing Reproductive Health Metrics - Including indicators on contraception access, maternal healthcare, and reproductive health awareness would offer a more accurate picture of health and well-being.

Integrating Climate Change and Health Indicators - Adding metrics on climate-related health risks, such as heat stress, vector-borne diseases, and food insecurity, would highlight the broader health impacts of climate change.

Incorporating Age of Marriage - Tracking the age of marriage is crucial for understanding its impact on maternal and reproductive health, as early marriages are linked to higher risks of maternal mortality, malnutrition, and limited access to healthcare.

Measuring Premature Health Deterioration - Including indicators on early onset of chronic diseases, maternal health complications, and malnutrition would help assess factors leading to premature health decline and reduced quality of life.

Incorporating DALY and QALY for Comprehensive Health Assessment - Tracking Disability- Adjusted Life Years (DALY) and Quality-Adjusted Life Years (QALY) would provide a more holistic measure of disease burden, health-related quality of life, and the long-term impact of illnesses and disabilities.

Enhancing Health Metrics with Immunization Indicators - Including immunization coverage rates would help assess access to preventive healthcare, protection against infectious diseases, and overall public health resilience.

Limitations of the Political Participation and Representation Domain

Narrow Definition of Political Empowerment Indicators - The index primarily measures political empowerment through national-level representation, overlooking local governance structures like panchayati raj institutions. It also fails to account for variations in political systems, such as bicameral and unicameral legislatures, as well as different electoral frameworks, which impact gender representation differently across countries.

Overlooking Women's Leadership in Community Organizations - The index does not account for women's leadership in community-based organizations, cooperatives, and self-help groups, missing key aspects of grassroots political and economic empowerment.

Issue of Tokenism in Political Representation - The index does not account for cases where women are elected as a symbolic gesture, without real decision-making power, limiting the effectiveness of their political representation and empowerment.

Proposed Improvements for the Political Participation and Representation Domain

Enhancing Local Governance Data - Incorporating women's participation at panchayat and municipal levels would offer a more comprehensive view of political engagement beyond national representation.

Expanding Political Representation Beyond Formal Politics - Recognizing women's leadership in cooperatives, trade unions, and grassroots organizations would provide a more inclusive measure of political participation and influence.

Incorporating Intersectionality in Political Empowerment Metrics - Gender indices should account for caste- and class-based disparities in political representation to better reflect the diverse barriers to political participation and leadership.

2) A Few Examples of Proposed Indicators and Data Sources for Enhancing the Global Gender Gap Index

India

Indicator Name	Importance	Data Sources
Maternal Mortality Rate	Access to healthcare services, etc.	National Family Health Survey
Unmet need for contraception	Indicates gaps in family planning services, availability of contraceptives, and reproductive rights.	National Family Health Survey
Control over earnings	Indicates financial autonomy, and decision-making power, highlighting barriers to economic independence and gendered financial disparities.	India Human Development Survey
Access to mobile phones	Captures individual-level gender disparities in mobile ownership and internet use.	India Human Development Survey, Periodic Labour Force Survey
Internet usage	The Internet usage indicator is important as it reflects access to digital opportunities, highlights digital divides.	India Human Development Survey, Periodic Labour Force Survey
Employment trends and reasons for not continuing employment	Tracks female workforce participation trends and reasons of discontinuation of work	Periodic Labour Force Survey
Type of employment (regular, casual, self-employment)	Provides gender-disaggregated data on employment types across different sectors.	Periodic Labour Force Survey, Annual Survey of Industries,
Unpaid care work	Helps to understand its economic value, identify gender inequalities, and inform policies for a more equitable distribution of care responsibilities and resources	Ministry of Statistics and Programme Implementation
Dropout rates in higher education	Tracks gender disparities in higher education enrollment and completion.	Unified District Information System for Education Plus, All India Survey on Higher Education
1) Enrollment and Completion rates in STEM disciplines at UG, PG, and PhD levels (Science, Engineering, Technology, Mathematics) 2) Dropout rates in STEM fields by gender	Tracks gender-wise enrollment and completion rates in STEM education, a key determinant of STEM career participation.	All India Survey on Higher Education
Sector-wise vocational training participation and completion (IT, retail, beauty & wellness, etc.)	Tracks participation and completion in government-led vocational skill development programs.	Skill India Portal & Reports
Placement rates post-training (male vs. female differences across industries)	Measures employment outcomes of individuals trained under government programs like PMKVY (Pradhan Mantri Kaushal Vikas Yojana).	Skill India Reports

Indicator Name	Importance	Data Sources
Anemia prevalence in children and adults	Anemia is a critical public health issue affecting productivity, maternal health, and child development.	Annual Health Survey (AHS) & District-Level Household Survey (DLHS)
Age of marriage	Percentage of men and women married before the legal age of marriage	National Family Health Survey
Maternal mortality ratio	Provides indirect estimates of maternal mortality	National Family Health Survey
BMI (Underweight, Overweight, Obesity - Adults)	Important in understanding the nutritional and health status of a population.	National Family Health Survey
DALY (Disability-Adjusted Life Years)	Measures the overall disease burden by combining years of life lost (YLL) due to premature death and years lived with disability (YLD).	National Data Sharing and Accessibility Policy (NDSAP)
QALY (Quality-Adjusted Life Years)	Measures the impact of health interventions by considering both quantity (years of life) and quality (health status) of life.	Department of Health Research (DHR), MoHFW
Immunization	Measuring immunization is crucial for preventing diseases, reducing child mortality, identifying gender disparities, improving maternal health, and guiding effective public health policies.	National Family Health Survey
Number of Elected Representatives (Gender-wise) in Panchayati Raj Institutions (PRIs)	Crucial for assessing women's political participation	Ministry of Panchayati Raj (MoPR)

Global

Indicator Name	Importance	Data Sources
A ge of Marriage	The age of Marriage indicator can give a glimpse of the socio-economic conditions of a society. And it can also provide a snapshot of the employment opportunities,	World Population Review (All the countries worldwide)
Time spent on unpaid care work	Captures the gendered division of household and caregiving responsibilities	United States, United Kingdom, Germany, France, Japan, Canada, Mexico, Bangladesh, Ethiopia, China,
Anemia prevalence in children and adults	Anemia is a critical public health issue affecting productivity, maternal health, and child development.	World Bank
Immunization, DPT	Measuring immunization is crucial for preventing diseases, reducing child mortality, identifying gender disparities, improving maternal health, and guiding effective public health policies.	World Bank
Share of Population Covered by Social Protection	The Share of Population Covered by Social Protection is a crucial indicator that measures a country's ability to provide financial security and essential benefits (such as health insurance, pensions, and unemployment support) to its citizens, helping reduce poverty, inequality, and economic vulnerability while promoting social and economic stability.	Our World in Data
Maternal Mortality Ratio	Measuring the Maternal Mortality Ratio (MMR) is essential for assessing the quality of maternal healthcare, identifying gaps in healthcare access, and tracking progress toward reducing preventable maternal deaths.	World Bank

The Global Gender Gap Index

The Need for Contextualized Insights

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