

Economic Empowerment of Women: Issues of Measurement

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Abstract - Women, irrespective of caste, religion, region and class, are facing discrimination for the centuries. They are deprived in all walks of life. The recently published World Economic Forum's Global Gender Gap Index shows that not a single country of the world can claim that her women are at par with men. Gender gap increases as we move from developed countries to developing countries and further to under developed countries. Empowerment, especially the economic empowerment, of women is a drive to uplift the women from the poverty and deprivation. Economic Empowerment of women has many dimensions. Some of them are quantifiable in nature while the others are qualitative. It is easier to measure the quantifiable indicators of women's economic empowerment to certain extent, provided the required sets of relevant data are available. But it is rather difficult to measure the qualitative indicators of women's economic empowerment unless such data sets are quantified. Some of the researchers and institutions have developed certain data sets to measure the level of economic empowerment of women. While effectively measuring women's economic empowerment requires considering indicators of both women's economic advancement and women's power and agency

Many empirical researchers have found strong reasons to emphasize women's economic empowerment in development programmes:

- ❖ Economic empowerment is one of the most powerful routes for women to achieve their potential and advance their rights.
- ❖ Since women make up the majority of the world's poor, meeting poverty-reduction goals requires addressing women and their economic empowerment.
- ❖ Discrimination against women is economically inefficient. National economies lose out when a substantial part of the population cannot compete equitably or realize its full potential.
- ❖ Working with women makes good business sense. When women have the right skills and opportunities, they can help businesses and markets grow.
- ❖ Women who are economically empowered contribute more to their families, societies and national economies. It has been shown that women invest extra income in their children, providing a route to sustainable development.

Keywords – Economic empowerment, Women, sustainable development.

INTRODUCTION

Growth and development of democratic form of governments around the world generated the idea of women's empowerment got momentum. The economists along with policy makers realized and assessed the potential of women's capabilities and their role in economic terms in the making of the family, society and the nation. Human Rights activists emphasized on the provisioning and protection of women's rights in economic field as equal say in economic matters and control over economic resources make the women more active player in the society. As interest in fostering women's economic empowerment grows, two questions arise.

The present paper analyses the issues involved in the measurement of economic empowerment of women. The paper is divided into five sections viz 1. Measurement of economic empowerment of women-an overview, 2. The Third Billion Index: A Better

Measure of Economic Empowerment,3. The Gender Empowerment Measure (GEM), 4.Unmeasured dimensions of Economic Empowerment of Women, and 5. Conclusion

MEASUREMENT OF THE ECONOMIC EMPOWERMENT OF WOMEN: AN OVERVIEW

One of such exercise has been carried out by the International Center for Research on Women (ICRW). Anne Marie Golla, AnjuMalhotra, Priya Nanda, and RekhaMehra(2011) have developed a device to understand and measure the economic empowerment of women under the banner of International Center for Research on Women (ICRW). Table 1 presents a matrix for measuring women’s economic empowerment, which uses sample indicators to show different stages at which results can be measured. These stages range from project outputs and immediate outcomes to intermediate and longer term impacts. Determining which stage to measure depends on what is feasible to measure given the project’s resources, expected impact and timeframe. As the matrix shows, agency/power and economic advancement can be measured separately. Both quantitative and qualitative methods are appropriate for measurement, depending on what type of information is needed and feasible to collect.

Table 1: A Framework to Measure Women’s Economic Empowerment

	Output	Outcome	Outcome	Impact	Impact
POWER AND AGENCY	Women's participation in activities	Increased self-efficacy, ability to make decisions	Increased bargaining power	Increased control of household resources	Increased financial independence
ECONOMIC ADVANCEMENT	Women's participation in activities	New skills, changes in business practice	Access to new markets	Increased profit	Improved livelihood

Women’s economic empowerment is a multifaceted concept. Given how project-and context-specific its measurement must be, it is not possible to define a universal set of indicators suitable for every area and the project. The ICRW team has suggested the some indicators for the measurement of economic empowerment of women.(Table 2,,3 ands.4).in relation to:

1. Reach and Process Indicators
2. Economic Advancement Indicators
3. Agency or Power Indicators

Table 2: Reach and Process Indicators of Women’s Economic Empowerment

Nature of Indicator	Indicator/Question
Participation	Number of women and men who participated in different activities
	What barriers kept women from participating?
	How were participants selected? Did the selection process itself exclude any kinds of women (or other kinds of groups)?
	Number of those selected who did/did not participate
	Number of women who started activities and then dropped out. What are the reasons given for dropping out?
	Which women are participating and which aren't?
Issues faced by women	How did the community respond to the activities? To women’s participation?
	What are women’s families’ reactions to the project?
Success	Could women effectively implement project activities? (e.g. for a training, could they understand the training materials? For business activities, could they adopt suggested changes in business practice?)
	Were women successful in the activity? (e.g. For a training, did they master the material? For a new technology, did they adopt it?)

Unintended outcomes	Did the project have any positive outcomes that were not expected?
	Beyond the project participants, is there evidence that others benefitted indirectly or unexpectedly from the project?
	What negative unintended outcomes have project teams observed?
	Was anyone worse off because of the project, whether they participated or not?
	Has there been any sort of participant or community backlash? Of what nature?

Source: ICRW (2011), Understanding and Measuring Women’s Economic Empowerment

Definition, Framework and Indicators, page.

A closed scrutiny of these indicators reveals that they are essentially useful to assess the impact of a project on the economic empowerment of women. However, there is a limited scope of their use in the measurement of women’s economic empowerment at regional and national level. Economically empowered women of a particular pocket might be a boosting factor for similar exercise, but it does not translate into women’s economic empowerment at macro level. However, ICRW team’s indicators, as presented in table 3 and 4 , are seem equally useful for micro and macro analysis.

Table 3:Power and Agency Indicators of Economic Empowerment of Women

Area	Individual/Household Level	Community/Institution Level
Control over assets	Women’s ownership of productive assets (land, animals, machinery)	Laws that protect women’s property rights
	Women have their own source of income	Existing laws are enforced at the community level
	Share of household income provided by women	Women represented as owners of larger businesses and in business leadership
	Women have control over how to spend some cash or savings	Use of community resources in ways that benefit women (pumps, clinics, schools, etc.)
Agency/ Decision-making	Proportion of women’s income spent on herself and children	Women’s participation in community groups/ associations/networks
	Women’s involvement in major household decisions, i.e. large purchases (car, house, household appliance), agricultural decisions	Women’s involvement in community decision-making
	Women’s access to information and technology	Women have leadership roles in the community
Autonomy and Mobility	Women’s ability to visit friends, family, associates	Rates of abuse, assault, harassment against women in public spaces
	Women’s ability to use public transportation/travel freely in public spaces	
	Women’s use of media, phone, technology	
Self-confidence/ Self-efficacy	Psychological wellbeing	Community valuing of women’s entitlement and inclusion
	Attitudes on own self-esteem	
	Articulateness and confidence in speaking with authorities	
Gender Norms	Ability to negotiate sexual and reproductive decisions	Shifts in marriage and kinship systems
	Attitudes on women and work	Community acceptance of women working
	Attitudes on women and mobility	Community attitudes on women’s sexual and reproductive roles women and work
	Attitudes on women and violence	Community attitudes on women and violence
	Number of hours spent in housework	Sex-disaggregated employment rates by sector

Gender Roles/ Responsibilities	Gender segregation of male and female work, ability to enter profitable jobs	Community attitudes on what work women should do
	Equity of domestic duty load	

Source: ICRW (2011), Understanding and Measuring Women’s Economic Empowerment Definition, Framework and Indicators, page.8

Table4:Economic Advancement Indicators of Economic Empowerment of Women

Area	Individual/Household Level	Community/Institution Level
Productivity and Skills	Individual educational attainment	Education available to and attained by girls and women
	Business and work skills	Adult learning opportunities available
	Access to productive tools and technologies	Free entry to markets for buyers and sellers
	Access to markets (as buyers and sellers)	Access to new technologies
	Access to jobs	
Business Practice	Keeps records	Employment practices
	Separates personal and business expenses	Barriers to entry to key jobs and markets
	Diversity of product line	Workplace policies
	Marketing – takes advantage of market opportunities; is not dependent on one or irregular buyers or suppliers	Earnings/growth at a firm or sector level Women as share of certain jobs
	Invests in business	
Income	Levels of income and revenue Earnings, profits	Community resources and what percent are spent on women
	Has individual and household savings Has a safe place to save	
Consumption smoothing/risk	Has savings, insurance, or liquid assets	Community has safe places to save
	Does not experience seasonal hunger	Formal or informal social safety nets
	Did not sell productive assets	
Work environment	Work site is safely accessible for women	
	Work site has separate toilet facility for women	Labor laws exist and are enforced
	Work hours, conditions, and remuneration meet international labor standards	Wage inequality
Wage inequality	Individual and family wealth	Economic status of women in community
	Housing, property, assets	Women’s share of assets, business ownership
	Better health and nutrition	Health and nutrition indices

Source: ICRW(2011), Understanding and Measuring Women’s Economic Empowerment Definition, Framework and Indicators, International Centre for Research on Women, Washington D.C.p.9

The concepts presented here are meant to help practitioners, researchers and donors design effective, measurable interventions to advance women economically. In developing these concepts, team has drawn both on the available literature and on ICRW’s direct experience in evaluating women’s economic empowerment programs.. Economic empowerment is a complex process, and the general framework presented here will have to be adapted to meet the needs of specific projects.

THE THIRD BILLION INDEX: A BETTER MEASURE OF ECONOMIC EMPOWERMENT

Nearly 1 billion women around the world could enter the global economy during the decade 2011-2020. They are poised to play a significant role in countries around the world—as significant as that of the billion-plus populations of India and China. Yet this Third Billion has not received sufficient attention from governments, business leaders, or other key decision makers in many countries. There is compelling evidence that women can be powerful drivers of economic growth. BOOZ & COMPANY’S estimates

indicate that raising female employment to male levels could have a direct impact on GDP of 5 percent in the United States, 9 percent in Japan, 12 percent in the United Arab Emirates, and 34 percent in Egypt

To begin understanding the levers available to decision makers, Booz & Company developed the **Third Billion Index**, a means of ranking countries in terms of how effectively they are empowering women as economic agents in the marketplace. The index itself is a composite of established data drawn from the World Economic Forum and the Economist Intelligence Unit, among other sources. This composite index is unique, however, in that the Booz & Company has chosen to focus on women's economic and professional empowerment.

The Third Billion Index groups the indicators of women's economic standing into two clusters. The first is "inputs," meaning steps that governments and the private sector can take to improve the economic status of women. These inputs include laws and policies regarding minimum schooling, employment policies during and after childbirth, and access to credit. The index also considers "outputs," meaning the observable aspects (social, political, and economic) of women's participation in the national economy. These include the ratio of pay between women and men as well as the proportion of women among technical workers, senior business leaders, and employees. A combination of the input and output factors for a country determines its overall index ranking.

Perhaps the most significant finding from the Third Billion Index is the impact of women on broader "outcomes." Booz & Company's study defined "outcomes" as broader indications of well-being, including per capita GDP, literacy rates, access to education, and infant mortality. These transcend gender-related effects and represent improvements to society at large.

The data shows a very strong correlation between index scores and beneficial outcomes. Such a relationship indicates that positive steps intended to economically empower women not only contribute to the immediate goals of mobilizing the female workforce, but also lead to broader gains for all citizens in such areas as economic prosperity, health, early childhood development, security, and freedom.

This is a crucial conclusion. The idea has been a consistent theme in the literature of women's issues, but it is typically argued with anecdotal rather than quantitative evidence. Booz & Company's study's findings give compelling numerical evidence of a correlation between women's economic participation and a country's general economic growth and well-being. They strongly suggest that the economic advancement of women doesn't just empower women but also leads to greater overall prosperity.

For each, two main categories of data have been considered—inputs and outputs—and measured the relationship between those categories.

INPUTS: Inputs are the measures that a government (or, in some cases, another entity such as a company or NGO) can aim to improve in order to increase the economic contribution and empowerment of women. In the Third Billion Index, these consist of three principal composites—preparation, access-to-work policy, and entrepreneurial support—each of which incorporates several subordinate data points. Specifically:

OUTPUTS: Outputs are the observable indicators of women's progress in the world of work. As with inputs, outputs have been grouped into three composite indices— inclusion, advancement, and equal pay—each of which also includes subordinate data. Specifically:

Equal Pay

Equal pay for equal work in practice (according to the International Labour Organization's Equal Remuneration Convention)

The two scores—total inputs and total outputs—have been combined to determine each country's Third Billion Index score. The results have been statistically adjusted so that the mean score for the group of 128 countries was 50 and the standard deviation was 10, to facilitate comparisons between countries. (Thus, a country that received 70 in a particular category is two standard deviations better than average.) The resulting score for each nation is an indication of how actively it is taking steps to economically empower women, and whether those steps are generating quantifiable results.

For this index, almost half of the measures are ratios of female-to-male raw statistics, rather than absolute levels. These ratios have been opted to use because they are a better measure of women's progress; the absolute levels are more indicative of historical or geographic socio-economic advantages at a country level. The input and output factors all consist of multiple variables, with the exception of equal pay, which has only one. That parameter is a scale with 12 levels of performance, but the 128 countries in Booz & company's study all fell into just seven levels. As a result, many of the countries received the same equal pay score, and eight of them—Australia, Canada, Finland, Germany, the Netherlands, Norway, Spain, and Sweden—achieved the highest ranking

The first global gender indices were launched in the Human Development Report-1995, the Gender related Development Index (GDI) and the Gender Empowerment Measure (GEM)— just before the Fourth World Conference on Women, held in Beijing in 1995.

The Gender-related Development Index

The gender-related development index (GDI) uses the same variables as the HDI. The difference is that the GDI adjusts the average achievement of each country in Life expectancy, Educational attainment and income in accordance with the degree of disparity in achievement between women and men.

For this gender-sensitive adjustment, UNDP used a weighting formula that expresses a moderate aversion to inequality, setting the weighting parameter, E, equal to 2. This is the harmonic mean of the male and female values.

The harmonic mean is calculated by taking the reciprocal of the population-weighted arithmetic mean of the female and male achievement levels (which are themselves expressed in reciprocal form). Although this may sound complicated, the basic principle is straightforward. The harmonic mean will be less than the arithmetic mean to the degree that there is disparity between female and male achievement.

The first step in the calculation of the GDI is to index the variables for life expectancy and educational attainment. Although the range for life expectancy is the same for women and men (60 years), the maximum and minimum values are different. The maximum value (or "fixed goal post") for male life expectancy is 82.5 years and the minimum value is 22.5 years. For female life expectancy, the maximum value is 87.5 years and the minimum 27.5 years. The values for women and men are indexed accordingly. The variable for educational attainment is a composite index. It includes adult literacy, with two-thirds weight, and gross combined primary, secondary and tertiary enrolment, with a one-third weight. Each of these subcomponents is indexed separately. Both indices use a maximum value of 100% and a minimum value of 0%. The two indices are added together with the appropriate weights to form the composite index for educational attainment.

The Income Variable:

The calculation of the index for income is more involved. In calculating the female and male shares of earned income, UNDP used two pieces of information: the ratio of the average female wage to the average male wage and the female and male percentage shares of the economically active population aged 15 and above. The ratio of the average female wage to the average male wage is available for the non-agricultural sector for 55 countries. This ratio is assumed to be the average ratio for the agricultural sector as well. The average ratio of female to male wages (75%) derived for these 55 countries is then applied to the countries among the 130 for which ILO sources lack in, such data. In fact, the wage ratio is slightly higher for the 24 industrial countries (76.2%) and slightly lower for the 31 developing countries (73%).

In view of this small difference, UNDP used the 75% ratio for all countries without data. This ratio is a crude proxy for gender income differentials in paid work. Some countries

have relatively low ratios of female to male wages because, for example, unlike many other countries, they collect data on part time work. The wage data for gender comparisons need to be considerably improved, but failing to include this variable in our analysis would lead to women's estimated earned income share being grossly overstated.

UNDP considered our estimates of disparity in earned income between women and men to be conservative. The 75% wage ratio is likely to be an underestimate of actual income differentials between women and men, because it does not take into account, for example, income disparities based on non-labour resources, such as land or physical capital. Since men own most property, the disparity between women and men in non-labour income would tend to be greater than that in labour income.

The second step in calculating gender disparity in income uses available information on the percentage share of men and women in the economically active population aged 15 and above. Because of the lack of data on employment by gender, this procedure makes the simplifying assumption that female employment and male employment are proportional to female and male participation in the labour force. From the ratio of female to male wages we can derive two ratios: the ratio of the female wage to the overall average wage and the ratio of the male wage to the overall average wage.

These two ratios are derived from the following definition of the total wage bill (WL)¹⁰:

$$WL = W_f L_f + W_m L_m$$

Where W is the average wage and L the total labour force, and the f subscript denotes female, the m subscript male. Dividing this equation through by W_fL_f, we can solve for W/W_m

$$W/W_m = (W_f/W_m)(L_f/L) + (W_m/W_m)(L_m/L)$$

We take the reciprocal of this result to solve for W_m/W

We can now also solve for W_f/W

$$W_f/W = (W_f/W_m)(W/W_m)$$

A rough estimate of the female share of income can then be derived by multiplying the ratio of the average female wage to the overall average wage by the female share of the economically active population. The male share of income can be calculated in the same way or by subtracting the female share from 1.

The third step in estimating gender disparities in income is to calculate the female and male shares of income as proportions of the female and male shares of the population. The average adjusted real GDP per capita is then discounted on the basis of the gender disparity in proportional income shares. In using adjusted real GDP per capita, the diminishing marginal importance for human development of additional income above the average world

per capita income has already been taken into account. Up to this point, the methodology is the same as that used for the human development index

The discounting for gender disparity is calculated as follows. Two proportional income shares have been formed by dividing the female and male shares of income by the female and male shares of the population. If there were gender equality, each proportional share would be equal to 1. Then the GESI methodology of (1 - E) averaging-with E equal to 2 in this case has been applied to the two proportional income shares to derive the "equally distributed proportional income share". The more gender inequality there is, the lower this ratio will be relative to 1. Then the average real adjusted GDP per capita by the equally distributed proportional income share has been multiplied to derive a measure of GDP per capita that, in effect, is now discounted for gender inequality. If there were no gender inequality, the ratio would be equal to 1 and GDP per capita would remain the same. As in the HDI, real adjusted GDP per capita is the proxy for access to the basic resources necessary for human development. Finally, an index of the discounted value of GDP per capita with respect to the maximum of \$5,448 and the minimum of \$100 has developed. These values are the same as those used in the HDI. The last step in calculating the GDI is to add the index for income that has been just derived to the indices for life expectancy and educational attainment and divide by 3. That gives each index a one-third weight

THE GENDER EMPOWERMENT MEASURE (GEM)

The gender empowerment measure (GEM) uses variables constructed explicitly to measure the relative empowerment of men and women in political and economic spheres of activity. The first cluster of variables is chosen to reflect economic participation and decision-making power. It includes women's and men's percentage shares of administrative and managerial positions and percentage shares of professional and technical jobs. These are broad, loosely defined occupational categories. Because the relevant population for each is different, we calculate separate indices for each and then add them together.

For each occupational category, the population-weighted (1- E) averaging of the GESI methodology is used to derive an equally distributed equivalent percentage (EOEP) for both sexes taken together. To be consistent with the methodology for the GOI, UNDP set the value of E -the parameter that registers the degree of aversion to inequality---equal to 2. Given society's aversion to inequality, the EOEP would be as socially valued as the actual unequal percentages of men and women. If there were perfect equality between women and men, the EOEP would equal 50%. The greater the disparity between female and male shares, the lower the EOEP will be relative to

50%. Thus, for indexing purposes, 50% is the maximum value and 0% is the minimum value. After indexing, the two categories of occupations together have also added, giving equal weight to each.

The second variable is chosen to reflect political participation and decision-making power. It is women's and men's percentage shares of parliamentary seats. The (1- E) averaging of these two shares to derive the EOEP is used, and then index it. The maximum value is 50% and the minimum value is 0%, just as for economic participation and decision-making power. (In fact, any zeroes are set equal to a small fraction so that the computations can be carried out.)

The variable chosen here to reflect power over economic resources is unadjusted real GDP per capita (PPP\$). Unlike adjusted real GDP per capita, which was used in both the HDI and the GDI and ranges from \$100 to \$5,448, unadjusted real GDP per capita ranges from \$100 to \$40,000. The same procedure was followed as in the GDI of calculating the proportional income shares of women and men to derive an equally distributed proportional income share through (1- E) averaging, and then discounting the average unadjusted real GDP per capita of each country by the degree to which this latter ratio is less than 1. If there were equality between women and men, this ratio would be 1 and average unadjusted income would not be discounted. To index discounted unadjusted income, \$100 as the minimum and \$40,000 as the maximum was used. As the final step, the indices have been added for each of these three clusters of variables and divide by 3. This gives the overall GEM.

The GDI considered inequalities by gender in the HDI dimensions. The GEM focused on political participation (measured by women's shares of parliamentary seats), economic participation (shares of high level and professional positions) and power over economic resources (income gaps). These two pioneering efforts gained some public visibility, supported by annual reporting, and signaled the importance of collecting and analyzing gender-disaggregated data. Both the GDI and the GEM provoked debate about how to construct a valid and reliable gender index.

A new measure of gender inequality

Gender inequality remains a major barrier to human development. Girls and women have made major strides since 1990, but they have not yet gained gender equity. The disadvantages facing women and girls are a major source of inequality. All too often, women and girls are discriminated against in health, education and the labour market—with negative repercussions for their freedoms. The **Gender Inequality Index (GII)**, introduced as another experimental Series by UNDP in its Human Development Report-2010, is unique in including educational attainment,

economic and political participation and female-specific health issues and in accounting for overlapping inequalities at the national level. The GII captures the loss of achievement in key dimensions due to gender inequality. It ranges from 0 (no inequality in the included dimensions) to 1 (complete inequality). The GII increases when disadvantages across dimensions are associated—that is, the more correlated the disparities between genders across dimensions, the higher the index. This recognizes that the dimensions are complementary and that inequality in schooling tends to be correlated with, say, access to work opportunities and maternal mortality. Overlapping disadvantages are an important aspect of gender inequality, and capturing them is a major advantage of the GII. Dimensions and indicators of gender inequality have been given in Table 5.

Table5: Dimensions and Indicators of Gender Inequality Index

Dimensions of Gender Inequality	Indicators of GII
1.Labour Force	1. Labour Force Participation Rate
2.Empowerment	2. Educational attainment(Secondary level and above)
	3. Parliamentary Representation
3. Reproductive Health	4. Adolescent Fertility
	5. Maternal Mortality

Source: UNDP (2010); Human Development Report – 2010, Oxford University Press ,New York

Labour Force

Female labour force participation, which includes both the employed and unemployed (actively looking for work) as well as those seeking part-time work, stagnated at around 51 percent in 2008. While useful, labour force participation neglects occupational segregation in the labour market and the gender wage gap. Direct measures of income disaggregated by sex are not available for sufficiently large number of countries.

Empowerment: Women have traditionally been disadvantaged in the political arena at all levels of government. To capture this disadvantage, UNDP uses the ratio of female to male representatives in parliament. National parliamentary representation, which reflects women’s visibility in political leadership and in society more generally, has been increasing over time—though the global average is still only 16 percent¹⁸. Higher educational attainment expands women’s freedoms by strengthening their capacity to question, reflect and act on their condition and by increasing their access to information. Educated women are more likely to enjoy satisfying work, participate in public debate, care for their and their family’s health and

take other initiatives. HDR-2010 focuses on differences in secondary and higher educational attainment.

Reproductive health:Two indicators measure women’s reproductive health: the maternal mortality ratio and adolescent fertility rates. The well-being of women during childbirth is intrinsically important and a clear signal of women’s status in society. The risk of death in childbirth is reduced through basic education, adequate nutrition, and access to contraceptives, antenatal health services and skilled attendants at birth. However, such services are still denied to too many women, even though many services are inexpensive. Reproduction is not only risky—it often begins too early, compromising health and limiting future opportunities. Early childbearing, as measured by the adolescent fertility rate, is associated with greater health risks for mother and baby and tends to prevent young women from going to school, often destining them to low-skilled jobs at best. The risk of maternal death is five times higher in teen births, in part because girls’ bodies are not yet fully developed¹⁹. UNDP used the adolescent fertility rate for girls ages 15–19. Fertility for girls below age 18 would be preferable, but these data are not available.

Unmeasured dimensions of Economic Empowerment of Women

Gender roles influence how men and women spend their time. In addition to working in the labour force, many women have the additional burden of care giving and housekeeping, which cut into leisure time and increase stress and exhaustion. While better understanding is emerging of how time use affects well-being, this information is not generally available or regularly collected and thus cannot be included in global measures. The areas of concern in this matter are following:

- ❖ Information about the ownership of economic assets by women, either alone or co-owned with a spouse, is crucial; immovable assets are especially important. However, data are not widely available. The Food and Agriculture Organization of the United Nations has a new database on gender and land rights that covers six topics—legal framework, land tenure, international treaties, customary laws, civil society organizations and land use statistics—but for fewer than 100 countries.
- ❖ Violence against women is sadly very prevalent but not documented in an internationally comparable way.
- ❖ The World Health Organization estimates that the share of women who have experienced physical or sexual violence is as high as 71 percent in some countries.
- ❖ For participation in decision-making, community-level indicators would be valuable—for example, on representation and leadership, which have become more important in many countries, including India.

However, comparable data are available for only a few countries. Data on the gender breakdown of electoral turnout are equally scarce

- ❖ The GII is not perfect. Among its shortcomings is the bias towards elites that remains in some indicators (such as parliamentary representation). Even so, the inequality adjustments cast important new light on the position of women in almost 140 countries. Yielding insights on gender gaps in well-being and empowerment, it also underlines the importance of proactive public policy to overcome systemic disadvantages.

The GII also focuses on women's participation in political decision-making, highlighting that women lag behind men across the world, especially in Sub-Saharan Africa, South Asia and the Arab States. This has important implications for sustainability and equity. Because women often shoulder the heaviest burden of resource collection and are the most exposed to indoor air pollution, they are often more affected than men by decisions related to natural resources. Recent studies reveal that not only is women's participation important but also how they participate—and how much. And because women often show more concern for the environment, support pro-environmental policies and vote for pro-environmental leaders, their greater involvement in politics and in non-governmental organizations could result in environmental gains, with multiplier effects across all the Millennium Development Goals.

QUANTIFYING THE ECONOMIC CONTRIBUTION OF WOMEN

One can determine the relationship between economic activity (GDP) and employment for a given country/region by using the following equation:

Per capita GDP = labor productivity x amount of work produced per person x employment rate x age factor

Hence, positive changes in labor productivity, hours worked, employment rate, and demographics all positively affect GDP. A more scientific form of the equation looks like this:

Per capita GDP = GDP/H x H/E x E/WAP x WAP/P

where:

GDP/H = GDP/hour worked (labor productivity)

H/E = hour worked/employment (annual average in working hour per employed person)

E/WAP = employment/working-age population (15–64) (employment rate)

WAP/P = working-age population/population (“youth dividend”)

A 2007 publication by Goldman Sachs calculated the impact that greater female participation in the workforce can have a positive impact on the national economy. That paper assumes that raising female employment to the male employment level in a country would boost the overall employment rate by a measurable amount—[(male rate-to-overall rate)/overall rate]—and per capita GDP by a similar amount.

In more practical manner, at least in the medium term (through 2020), in calculating the economic contribution of new women in the workforce, there is a need to account for two additional factors:

1. Countries will likely experience a temporary drop in labor productivity, as many women will enter the workforce with limited work experience and lesser qualifications. (Although women have recently closed the education gap in many state in India, but the average woman in Uttar Pradesh is still today less educated than the average man of the state as well as the women of Kerala, Tamil Nadu and Goa.)
2. Countries will experience a drop in average hours worked across the overall population, as many of the women entering and staying in the workforce will choose to work part-time. Interruptions in employment to take care of family members (young and old) also affect the average hours worked by an employment by the women.

CONCLUSION

Measurement of economic empowerment of women is still a complex issue, because of paucity of data. Whatever data is available in various countries lack the credibility. Reference year often differs. International agencies like UNDP and WEF are trying to their best to quantify the economic empowerment of women. Individually, each and every country of the world is trying to empower their women. It is another thing that the so many barriers still exist to prevent women to get their due.

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