

THE INTERNATIONAL JOURNAL OF HUMANITIES & SOCIAL STUDIES

Measuring and Monitoring Gender Equality: Pakistan Gender Gap Index (PGGI)

Tabinda Qaiser

Social Sciences Research Institute, National Agricultural Research Centre, Islamabad, Pakistan

Hassnain Shah

Social Sciences Research Institute, National Agricultural Research Centre, Islamabad, Pakistan

Dr. Sharif

Social Sciences Research Institute, National Agricultural Research Centre, Islamabad, Pakistan

Murad Ali

Social Sciences Research Institute, National Agricultural Research Centre, Islamabad, Pakistan

Abstract:

Gender-based inequality is a trend that affects the majority of the country's population. It is fundamental to develop the frameworks for capturing the magnitude of these disparities in order to design effective measures for reducing gender inequality. The study based on the subsequent objectives which is to measure and monitor gender equality through the Pakistan Gender Gap Index (PGGI). The PGGI is calculated to determine and examine the scope of gender inequality in Pakistan. A multidimensional concept, taking in to relation with health, education, economic activity and political and economic empowerment of women has been discussed in measuring gender inequality. The trends shown by calculating the PGGI is that the level of gender inequality in Pakistan turned down sharply over the period 1990 to 2010 relatively low level of improvement as compared to previous years. The percentage contributions to overall gender inequality of the four sub-dimensions highlights the largest inequality comes from the dimension for economic activity. The sub-dimensions of education 20.10 % and health 4.64 % are the two components which show little improvement and reduce the gap among gender.

Keywords: Gender; Inequality; Gap; Empowerment; Equality; Pakistan

1. Introduction

Mainstreaming gender issues into policies, development plans and programmes is the key development strategy to promote gender equality in Pakistan. (GoP, 2006). However, Women in Pakistan do not form a homogenous entity and their opportunities vary with the social system and the class they are part of in the society. The vast majority of women are caught between rigid controls of social customs further, rural and urban divide on opportunities is significant with fewer opportunities are much more constraining for women due to less access to social services and infrastructure and fewer public arenas (Bauca *et al.*, 2011).

In general, Pakistan scores low on indicators for gender equality. Pakistan ranks 125 out of 169 countries on the United Nation Development Programme (UNDP) Gender Inequality index (UNDP, 2010) and 132 out of 134 countries on the Global Gender Gap index (World Economic Forum 2010). The most recent Demographic and Health Survey (National Institute of Population Studies, 2008) reveals population figures that point to structural inequalities in nutrition, health care and status of women. Promoting gender equality and empowering women and considering the role of human capital is one of Millennium Development Goals (MDGs) set by the United Nations. It is on the public policy agenda of almost every country of the world because inequality on basis of gender cannot be justified on any ethical or philosophical basis. In spite of this, gender inequality is observed in almost all developing countries and even in the developed world (UNDP, 2010; World Bank 2001).

Although Pakistan is catching up in bridging the gender gap, particularly in the recent years but at a very slow rate as compared to the other countries. Countries like Pakistan with a rich source of human capital if do not capitalize on the full potential of one half of their population, are misallocating their human resources and undermining their competitive potential. Even in light of heightened international awareness of gender issues, it is a disturbing reality that no country has yet managed to eliminate the gender gap. Pakistan is ranked 56th position out of 58 countries included in the study to assess the current size of the gender gap by measuring the extent to which women in 58 countries have achieved equality with men (WEF, 2005).

The measurement of gender inequality is important in itself: the fact that women have pervasively been discriminated against in many well-being dimensions is a long lasting state of affairs for which some remedy must be sought (Permanyer 2011). Therefore the present exercise aims to examine the gender gap in Pakistan. Keeping in view the growing interest in literature and increasing concern on reducing the gender gap and achieving gender equality consistent with the increasing commitment of the international

community towards fulfilling the Millennium Development Goals (MDGs). The present paper is an attempt to assess the trends in size of the gender gap by measuring the extent to which women have achieved equality with men in four critical areas: health, education, economic activity and women empowerment through their participation in political process during the past decade.

2. Materials and Methods

The Global Gender Gap Index measures gaps in human development variables between men and women, measured as female/male ratios. They cover resources, capabilities and functioning. The index value may be interpreted as the percentage that reveals how much of the gender gap in a country has been closed. The index covers four domains: economy, education, health, and politics (Van. S., 2011). The Pakistan Gender Gap Index (PGGI) is an adaptation of the Global Gender Gap Index (GGGI) developed by the World Economic Forum in 2006 to Pakistan specificities. GGGI is a framework for capturing the magnitude and scope of gender-based disparities and tracking their progress. The index benchmarks national gender gaps on economic, political, education- and health-based criteria, and provides country rankings that allow for effective comparisons across regions and income groups, and over time. The rankings are designed to create greater awareness among a global audience of the challenges posed by gender gaps and the opportunities created by reducing them. The methodology and quantitative analysis behind the rankings are intended to serve as a basis for designing effective measures for reducing gender gaps (Greig, F. *et al.* 2006).

The Gender Gap Index (GGI) is a composite index, which provides a summary measure of the level of gender disparity. It is based on the absolute value of a relative gender gap. The GGI takes on a minimum value of zero when there is no gender disparity, and a value of one when there is maximum gender disparity (UNDP, 2007). In this paper as the analysis is done to calculate the gender gap index for Pakistan therefore the term PGGI will be used in the subsequent sections of the paper as Pakistan Gender Gap Index (PGGI).

The methodology followed in this paper was pioneered by Atkinson (1970) and details are given in Deaton (1997) and further used by (UNDP, 2007) for calculating the gender gap index. According to which if we denote the level of female achievement, or the female score as X_f , and the corresponding male score as X_m , the PGGI is defined as (MWFC 2007):

$$\left| \frac{X_f - X_m}{X_m} \right|$$

Where $X_f - X_m$ is the gender gap, which is the difference between the female score and the male score. The PGGI is the absolute value of the ratio of the gender gap and the male score. It also has two desirable properties of a measure of inequality: (a) mean or scale-independence, and (b) principle of transfers. So the above formula can be written as:

$$\left| \frac{X_f}{X_m} - 1 \right|$$

As the Global Gender Gap Index examines the gap between men and women in four fundamental categories: economic participation and opportunity, educational attainment, political empowerment and health and survival (Hausmann., *et al* 2008) therefore the PGGI is the absolute value of the ratio of the gender gap across four areas of concern (a) health (b) education (c) economic activity and (d) empowerment of women. The PGGI is the average of the sub-dimensions as shown below:

Write PGGI instead of MGGI.

$$PGGI = \frac{1}{4} \sum_{h=1}^4 PGGI_h$$

The PGGI is the average of the sub-dimensions. The PGGI as well as the GGGI is a simple arithmetic mean of four sub-indexes which, on their turn, are weighted arithmetic means of ratios of the women level of the variable used for that ratio over the men level of the same variable.

Data on following indicators by gender was used for Measuring Gender Inequality through the PGGI from 1990 to 2010. Analysis of the trends helps us to understand better the overall trend in the Pakistan Gender Gap Index. The trends displayed by the indicator series included in each of the sub-dimensions help in accepting the movements in the sub-dimensions. For example, positive trends in female and male achievements result in less gender disparities, while contrary trends lead to the opposite results (UNDP, 2007).

2.1. Health Dimension

- Life Expectancy at Birth
- Under-5 Mortality Rate

2.2. Education Dimension

- Adult Literacy Rate
- Combined Gross Enrolment Ratio (Primary, Secondary, and Tertiary Levels)

2.3. Economic Activity Dimension

- Labour Force Participation Rate
- Proportion of Persons Engaged in Non-Agricultural Employment

2.4. Empowerment of Women Dimension

- Political Representation
- Percentage Share of Elected Parliamentarians
- Percentage Share of Appointed Senators
- Percentage Share of Legislators, Senior Officials, Managers, Professionals, Technicians and Associate Professionals

Twenty years data for different variables of interest under each sub-dimension as indicated above is used to for analysis. The data for the study period was collected from different reports of Government of Pakistan, Planning and Development Division (2003), World Bank (2011), Pakistan Demographic Survey (2008), Statistics Division, Federal Bureau of Statistics (2010), Labour Force Surveys (1990), Population Census of 1990 and 2000, various issues of Economic Survey 1990 to 2011, and SAARC Development Report (2008).

3. Results and Discussion

As PGGI is the average of sub-dimensions of the four components hence differences in the trends in these sub-dimensions change the composition of the PGGI. Therefore to present the vivid picture these changes are discussed in this section. The trends in the sub-dimensions of PGGI are presented in Figure 1. The result which shows an increasing disparity in the health sectors for the period under discussion while gender disparity in women empowerment increased from the initial period but depicted an unstable picture throughout the study period with an increase from 1990 to 2010. Similarly the fluctuating results come for economic activity also but gender inequality in economic activity decreased overtime. Better results are found in the education sector where situation improved overtime in a constant fashion.

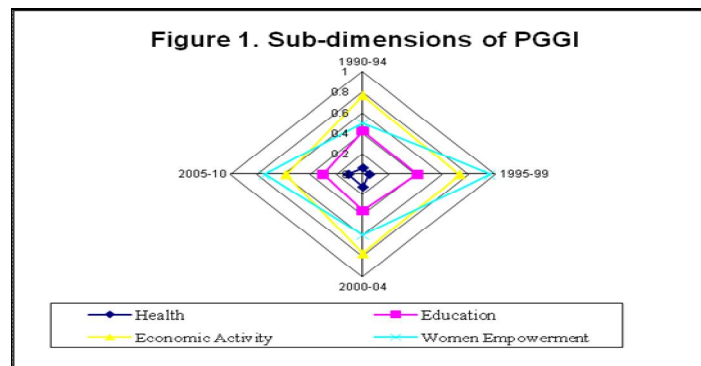


Figure 1

The results of each sub-dimension along with the values of PGGI for the study period are presented in Table 1. There was better position regarding gender equality in health sector in 1990s as the value remained around 0.06 and 0.05 in 1990-94 and 1995-99 while after that it worsened as the its value increased to 0.12 and 0.11 in 2000-04 and 2005-10. In education sector almost steady improvement was observed as the gap in this dimension decreased from 0.42 to 0.30. The gap in education dimension not only decreased but also depicted a decreasing trend throughout the study period which also shows a continuous policy in this sector. Under the third dimension of economic activity a little improvement is observed but still large gender disparity is there as the value for 2005-10 was still 0.58. During the first decade under study it improved from 0.77 to 0.73 but again reached to original level in 2000-04. However after that a sharp improvement came in this dimension as the value decreased from 0.77 to 0.58. Under the fourth dimension of women empowerment the gender gap increased to the highest level of 0.96 in 1995-99 which is almost close to complete inequality level. During 2000-04 little improvement is depicted but again it increased.

Years	Health	Education	Economic Activity	Women Empowerment	PGGI
1990-94	0.06	0.42	0.77	0.50	0.55
1995-99	0.05	0.41	0.73	0.96	0.66
2000-04	0.12	0.35	0.77	0.59	0.59
2005-10	0.11	0.30	0.58	0.74	0.52

Table 1: Trends of Sub dimensions of the PGGI

Based on the gender equality/inequality around the four sub-dimensions throughout the study period the trends of PGGI are also calculated and presented in Table 1 and Figure 2. Level of gender inequality in Pakistan turned down sharply over the period 1990 to 2010. The gender gap was at a relatively high level in 1995-99 when the PGGI gave the value of 0.66 from the initial level of 0.55 in 1990-94. It reduced again by 2000-04 from 0.66 to 0.59 but still higher than the initial level. In 2005-10 the Pakistan gender gap index came out to the level of 0.52 showing a continuing low level of improvement.

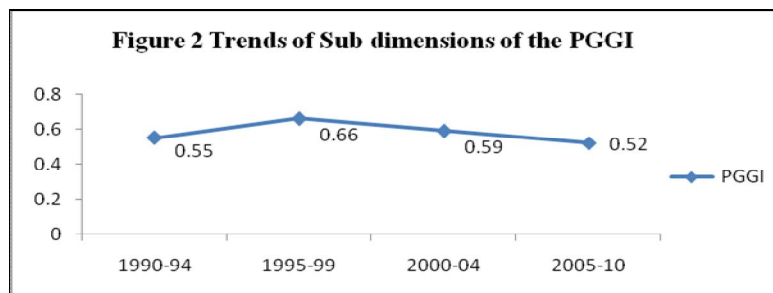


Figure 2

The level of contribution in overall PGGI by sub-dimensions is also analyzed and presented in Figure 3 depicting the real percentage contributions to overall gender inequality by each of the four sub-dimensions from 1990 and 2010. The largest inequality comes from the dimension for economic activity which contribute 37.99% followed by empowerment of women with share of 37.28%. The last two sub-dimensions of education 20.10% and health 4.64% are the two components which show little improvement but it reduces the gap among gender.

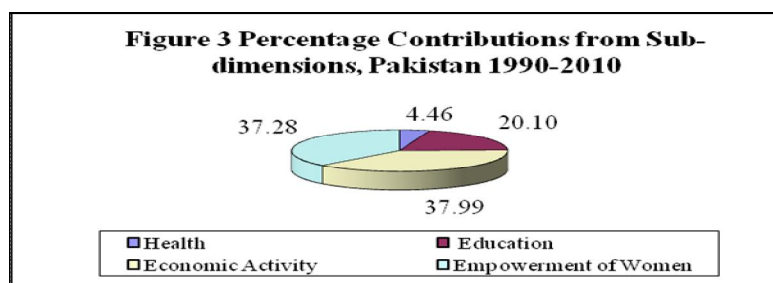


Figure 3

4. Conclusion and Recommendations

There is little improvement in the gender disparity overall but the trends depicted a dismal picture in the sense that the pace is very slow. The results for the four sub-dimensions are also not consistent as fluctuations are observed over the period of study. However there are positive signs as in case of education but still there is more room for improvement. The percent share of sub-dimension in overall PGGI indicates that there is need to focus more on economic activity and women empowerment as their contribution to overall PGGI is highest. Similarly the education sector also needs more improvement and the overall gender inequality could be decreased by focusing in these sectors. Although the contribution of the health sector is small yet it is an important area that could not be neglected also. An improvement in the overall health sector indicators of a country has important effect not only for the quality of life of its nation, but also for economic development, through the channel of efficiency enrichment and poverty alleviation. In Pakistan, women have made extensive progress in education. The results of the study portray that female are still deprived in the education sector also. Women make half of the country but have been underrepresented in the formal workforce. Their contribution to the informal and un-paid labour market has often been neglected in the past. In particular, the altitude and trend in the economic activity dimension shows that females have less access to participate in the economic activity. Similarly for women empowerment encouragement and support is needed for women to succeed not only as elected members but also more participation in the other services sector, especially where women have little experience in the public sphere, is required to decrease the gender gaps.

The results presented in this paper provide policy-makers with a tool offering direction and focus improving the economic, political and social potential of half of the population of Pakistan. Furthermore, the results compel the policy-makers to strengthen their commitment to the idea of women's empowerment. There is need of concrete and coordinated efforts of aid agencies and civil society organizations also to bridge this gender gap in the country.

5. References

1. Atkinson, A. B., 1970. 'On the Measurement of Inequality', *Journal of Economic Theory*, 2: 244–63.
2. Bauck. P., Janne Lexow., Janne Andresen., 2011. *Gender Review: Royal Norwegian Embassy of Islamabad (Pakistan). Norad Report 11/2011 Discussion*. Norwegian Agency for Development Cooperation.

3. Deaton, A., 1997. *The Analysis of Household Surveys: A Micro econometric Approach to Development Policy*, Washington, DC: World Bank.
4. Govt of Pakistan, 2006. *Gender Mainstreaming Project. The Gender Issue*. Planning and Development Division. UNDP.
5. Greig, F., Hausmann, R, Tyson, L. D and Zahidi, S., 2006. *The Gender Gap Index 2006: A New Framework for Measuring Equality*. The Global Gender Gap Report 2006. Geneva: World Economic Forum.
6. Hausmann, R., Tyson, L. D. Zahidi, S., 2008. *The global gender gap report 2008*, World Economic Forum, 2008.
7. MWFC, 2007. *Measuring and Monitoring Gender Equality: Malaysia Gender Gap Index*. Published by: Ministry of Women, Family and Community Development, Malaysia.
8. Permanyer, I., (2011). *Are UNDP Indices Appropriate to Capture Gender Inequalities in Europe?*, Social Indicators Research, pp. 1-24.
9. UNDP, 2010. *Human Development Report (HDI) Country profile Pakistan* available at: <http://hdrstats.undp.org/en/countries/profiles/PAK.html>.
10. Van. S., 2011. *To Measure is to Know? A Comparative Analysis of Gender Indices*. Working Paper No. 2011-02. Institute of Social Studies.
11. World Bank, 2001. *World Development Report: Attacking Poverty*. Washington DC: The World Bank.
12. WEF, 2005. *Women's Empowerment: Measuring the Global Gender Gap*. World Economic Forum.
13. World Economic Forum, 2010. *Global Gender Gap Report 2010* available at: <http://www.weforum.org/issues/global-gender-gap>