

WOMEN EMPOWERMENT THROUGH SCIENCE AND TECHNOLOGY

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Abstract

Women can be empowered only if they are given education and made aware of their rights and hence, they themselves prioritize their lives. Violence has to be completely eradicated from their life, then and only then can dream of empowerment being a reality. Women have to be given respect in a society to have actual empowerment. Women have always been suppressed, underestimated and valued less in the society and also within their family. Although efforts have been taken to improve the status of women, the constitutional dream of gender equality is miles away from becoming a reality. Even today, 'the mainstream remains very much a malestream'. The dominant tendency has always been to confine women and a women's issues in the private domain. Women empowerment refers to increasing the spiritual, political, social or economic strength of women. An important factor in achieving these reforms will be a greater presence of women in decision-making bodies, be they scientific or political. The voice of women in governance is required to create the political will essential to bring about changes that will benefit all of society.

Keywords: Salary bias, Violence, Laws and Regulations.

Introduction:

Women in general do not have a strong presence in science and technology. This is attributed to two broad issues: first, a women's perception of their role and function in society, and second, society's expectation of their contribution. A women's involvement in science and technology encounters bias in regard to disciplines and academic or professional level of responsibility. Women are divided between two spheres: the

management of the home and family, and the fulfilment of job responsibilities. Family commitments, either as the women's choice or as a result of cultural enforcement, have impaired a women's capacity to meet their potential, and put them at a disadvantage in many science and technology-related jobs that are dynamic and competitive in nature. The mere fact that —Women hold up half the sky - does not appear to give them a position of dignity and equality. True, that over the years women have made great strides in many areas with notable progress in reducing some gender gaps. Yet, the afflicted world in which we live is characterized by deeply unequal sharing of the burden of adversities between women and men. Sprawling inequalities persist in their access to education, health care, physical and financial resources and opportunities in the political, economic, social and cultural spheres.

Women Worldwide Education is a basic human right and a reasonably good indicator of development. This is the basis of a women's empowerment and has multiplier effects on the well-being of their families, communities and nations. Innovative use of technology, when built in with institutional arrangements and interventions can go a long way in creating enterprise opportunities for women at the grassroots level. With changing societal conditions, women are a great human resource and their role in science and technology is vital for its progress. If women have to be successful in science, we need to create support structures and positive attitude towards science as a career for them. Therefore, empowerment of women has been recognized as a central goal in the development process in India to achieve a sustainable development in any country, each member of society has to be given equal opportunities, to unfold one's inner potential. Infact, the progress of any nation depends mainly upon its human resources, which indeed, is the key behind utilization of all other resources.

Women in Science and Technology

Science and technology have been an integral part of Indian civilization and culture. Women and men have been active in science from the inception of human civilization. One of the defining marks of humanity is the ability to affect and predict our environment. Science is the creation of structure. For our world and technology, the use of structure has been stepping stone to our progress. Women and men have researched and solved each emerging need. At a glance, women in general might look like one of the many housewives – simple, docile, unassuming and humble. But make no mistake, for behind this simple straight face is a razor-sharp brain, and an uncanny ability to execute, to convert thought into action without much further ado. Women the world over want to see

advancement in areas they define as crucial to their well-being. Yet, experts say women must become involved if they are to have input into the manner in which science and technology are used and if societies are to benefit from the insights and knowledge that women possess. Women are making progress in gaining equal status in the United States; the experts note that women have better incomes and more decision-making power than they had formerly. Further, because social change takes decades, patience could be a key virtue when considering issues of equality. Solution to the problems of inequality will not be found rapidly. An expert notes that perspective is needed on a women's progress. Women have had the vote for approximately three generations in the United States, not a long period by historical standards. Yet significant change in a women's roles has been achieved, partly because of developments in science and technology. There are even differences in overall perspective among women and between women and men. Sometimes international conferences on gender equity ignore the basic, fundamental needs of women. Instead, they focus on the glass ceiling and how to get women into management. The experts believe that the international community must pay more attention to a women's basic needs, such as adequate food, shelter, medical care, safety, and education. The argument runs that women have the obligation to see that science and technology are used in beneficial rather than in destructive ways. This is a key point, in which science and technology should be institutionalized. This would focus the role of science and technology in solving a women's issues by women in science and technology within agencies that work to see these disciplines used in their own countries and internationally. The experts say that this could occur because women may be more interested in ethics than are men. Women becoming more involved in science and technology could mean that science and technology is used more often for constructive purposes than for destructive purposes. Gender equality and a women's empowerment are human rights that lie at the heart of development and the achievement of the Millennium Development Goals. Despite the progress that has been made, six out of ten of world's poorest people are still women and girls, less than 16 percent of the world's parliamentarians are women, two thirds of all children shut outside the school gates are girls and, both in times of armed conflict and behind closed doors at home, women are still systematically subjected to violence (UNDP, 2009).

Women Empowerment

A women's empowerment is a process in which women gain greater share of control over resources material, human and intellectual like knowledge, information, ideas and

financial resources like money and access to money and control over decision-making in the home, community, society, nation, and to gain power (Bisnath and Elson, 1999). According to the Country Report of Government of India, Empowerment means moving from a position of enforced powerlessness to one of power (Batliwala, 1994). For women in India, this suggests empowerment in several realms: personal, familial, economic and political. There are some basic questions that come to the mind when we talk of empowerment:

1. Can women, decide, with dignity and without any fear, their own goals and have the freedom and capability to act towards them?
- 2.. Do their opinions and desires count at the level of family, the society and the country?
3. How do we provide opportunities to enhance their capabilities?
4. Does she have the right to own and enjoy property?
5. Does she have freedom from the drudgeries of the laborious domestic chores and meaningless social restrictions?
6. Is she able to freely participate in the development and status building of the nation?
7. Does she have mastery over vocational, managerial and life-saving medicinal skills?

If the answer to any of these questions is no, it implies that women are not completely empowered. Thus, a women's empowerment needs some basic ingredients which include fearlessness (implying absence of crimes against women), freedom from drudgery of laborious domestic chores, economic earning and productivity, ability to travel and control speed, authority to take decision, sharing power and property with men and a liberalizing education that can prepare grounds for the above (Batliwalla, 1995). Women can be empowered only if they are given education and made aware of their rights and hence, they themselves prioritize their lives. Women have to be given due respect in a society to have actual empowerment. To empower women financially a lot of initiatives have been undertaken at national and state level like introduction of Self-help Groups (SHG) a plethora of welfare measures but only spending money is not enough to financially empower women. Basic skills and training should be given for the proper utilization of the finances. As unskilled and semiliterate women are exploited everywhere. But the society having developed is still not safe for its female citizens. A woman's safety is not only their family's responsibility but the country as well. Women

Security Policies relating to a women's rights have had a positive trajectory in the past few decades with the central government articulating many progressive measures to advance gender equality in social, economic, and political arenas. The Government of India (GOI) has two main bodies to advance gender equality: the Ministry of Women and Child Development and the National Commission for Women, which is an autonomous organization under the Ministry of Women and Child Development. Both bodies work on national- and state-level legal and social policies to advance gender equality. The Ministry has widely implemented local-level micro-finance schemes to advance economic opportunities for rural women. The National Commission for Women has been instrumental in creating legislative changes, and has set up Complaint and Investigate Cells at the state level. The Grievance Cells receive complaints of gender-based violence and are mandated to investigate, provide referrals and counselling, and ultimately report on such cases. Violence against women is partly a result of gender relations that assumes men to be superior to women. Given the subordinate status of women, much of gender violence is considered normal and enjoys social sanction. In extreme, but not unknown cases, death is the result. These expressions of violence take place in a man-woman relationship within the family, state and society. Usually, domestic aggression towards women and girls, due to various reasons remain hidden. The traditional systems of control with its notion of what is right and proper for women still reigns supreme and reinforces the use of violence as means to punish its defiant female offenders and their supporters. Hence it is of no surprise when National Crime Records Bureau (NCRB) predicted that the growth rate against crime women would be higher than the population growth rate by 2010. Women economic opportunity, Social and Cultural Rights in India is one of the world's fastest growing economies, with women mainly from the middle class increasingly entering the workforce. Urban centers like Delhi and Bangalore have seen an influx of young women from semi-urban and rural parts of the country, living alone and redefining themselves. However, the story of economic empowerment for women is not a singular narrative; rather it is located in a complex set of caste, class, religious, and ethnic identities. In rural India, a women's economic opportunities remain restricted by social, cultural, and religious barriers. Most notably inheritance laws embedded in Hindu and Shariat civil codes continue to marginalize women in the household and the larger community. Rural women, particularly of lower caste and class, have the lowest literacy rates, and therefore do not have the capacity to negotiate pay or contracts and most often engage in the unorganized sector, self-employment, or in small scale industry. Women and

men have researched and solved each emerging need. At a glance, women in general might look like one of the many housewives – simple, docile, unassuming and humble. But make no mistake, for behind this simple straight face is a razor-sharp brain, and an uncanny ability to execute, to convert thought into action without much further ado. Since Independence, Indians have been promoting science and technology as one of the most important elements of national development. The Scientific Policy of 1958 and the Technology Policy Statement of 1983 enunciated the principles on which growth of science and technology in India has been based over the past several decades and inspires us till date. The major scientific revolutions of the last century have opened the doors to many remarkable technologies in the fields of health, agriculture, communication and energy, among many others. Science and Technology are powerful instruments in the tasks of national reconstruction, economic resurgence and maintenance of national security. Employment in the Indian IT has grown by over a million between 2000 and 2005. The size of the Indian IT industry has reached \$48 billion in 2007 and represents 5% of the country's GDP. India's well established academic institutions are generating about half a million engineers a year. US high tech companies are hiring more and more high-tech professionals in India.

Failure of Women career in Science and Technology

Education is a key factor in deciding the future career path of students, and educational institutions are also important in their success or otherwise in training individuals to make a living out of what they have learned. Societal and cultural factors are the key to defining which subject a woman might choose for their education. The existence of perceptions such as men's vs. a women's academic disciplines skews the choice of women in early education. Arriving at a higher rate of a women's presence in science and technology fields requires a thorough understanding of the barriers they face at the time skilled women enter the job market. Among the factors that have restrained a women's further involvement in science and technology, the following three could be the most important:

(i) gender pay gap, (ii) culture and gender inequity, and (iii) lack of political will. Political will from governments is essential for encouraging a women's participation in science and technology. It can be assessed by use of the Gender Empowerment Measure (GEM), an important indicator that estimates a women's empowerment through the number of seats occupied by women in the parliament or the number of female legislators, senior officials, professionals and technical workers; and the estimated ratio of

female to male incomes.

Conclusion:

Women should be encouraged to bring their vision and leadership, knowledge and skills, views and aspirations into the development agenda from the grassroots to international levels. Science and technology brings economic growth and well-being to people and it is not only the empowerment of women through science and technology, but also the enrichment of science and technology through a women's participation. We just hope that women become empowered at 100% and become equal to men so that both of them may work side by side for a better world of today. With science and technology at the heart of economic development, a women's participation in science and technology is therefore an essential part of economic development strategies. In order to arrive at a greater involvement of women in economic development through their participation in science and technology, systematic and coherent policies are required such that gender issues are brought into the mainstream at all levels, including education, employment and governance. There are, however, barriers preventing the full engagement of women in science and technology: the lack of interest among women to pursue engineering and technology- related disciplines at universities indicates cultural influences that often regard these fields as the preserve of men. Even those women who pursue higher qualifications in engineering and technology face discrimination: in many places where women are equally competent, the man is given precedence in employment opportunities as he is regarded as the bread-winner. Such discrimination may range from unfairness at the point of hiring, salary gaps and bias in promotion opportunities.

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