

Role of Rural Women in sustainable development

Dr. Manju Navriya

Assistant Professor in sociology,

S.P.N.K.S.Govt. P.G.College, Dausa.

Abstract

The participation of women is essential to the growth of sustainable rural communities. The Indian community as a whole recognises and appreciates the contribution that women make to the nation's sociopolitical and economic growth. The idea of sustainable rural development is nothing more than a pipe dream unless people in rural areas are equipped with the most advanced technology and facilities. They come with their own set of difficulties and complexities. In order to comprehend them and give them strength, a multidimensional approach is essential. Concerns regarding water, fuel, and cleanliness are among the most important issues for women living in rural areas of India. According to some estimates, just 36 percent of people living in rural regions of India have access to a source of potable water and a sanitation facility. According to a poll, this has a direct impact on the women and girls who are responsible for collecting water in 86% of rural families. Furthermore, while transporting water and sanitation along lonely muddy trails, women and girls frequently face the possibility of sexual abuse.

Keywords: *Women , Sustainable, Development*

Introduction:

Although the connected nations have various disparities due to different degrees of economic development and different social values, the employment of women has some commonalities and certain similarities. In point of fact, the impediments to the employment of women have been debated a great deal more in developing nations than in those that are considered to be more developed. This is true when considering factors such as the gender of the worker, the pay, and the degree of education. The second side of the employment issue facing women is the outcome of women's entrepreneurial endeavours, a growth in educational options for women, and the performance of women in business. This investigation is significant on three fronts: the first is the discovery of a positive correlation between rising levels of educational attainment and the rise in female labour force participation that follows in the wake of advancing economic development. The second advantage is the social advantages that women bring into society in addition to the increased productivity that they provide. The third and last one is the rise in the country's average income due to the rise in economic values brought about by the participation of women in the labour market. However, given the current state of affairs in terms of the employment of women, it is impossible for us to believe that positive economic development can be achieved or maintained in the foreseeable future. Because of this, there is no model that either does not take into consideration the women in the workforce or that could be followed without taking into account the women in the workforce. Training women, encouraging them to be more productive, and filling jobs with women without making any distinctions based on gender would result in a more robust structure, which will be the basis for economic growth and sustainable development. One of the reasons for our lack of development will be that we are doing the opposite. As a result of this, finding solutions to the issues that pertain to the employment of women is an important issue that must be addressed in order to attain the desired level of overall economic

growth and sustainable development. An increase in the average level of education attained by women and their incorporation into the labour force leads to a rise in the average level of national income enjoyed by a nation, as well as an improvement in that nation's ability to compete on global markets. The production of the items with a high value-added will make a significant contribution, not only to the economic growth rates of the associated nations but also to the balance of payments of those nations. It is generally agreed upon that work opportunities for women are one of the essential building blocks of sustainable development. The proportion of working-age women and the status of women in society are two indicators that may be used to compare the levels of development in different nations. The challenges that arise as a consequence of increasing numbers of women entering the labour market in developing nations, as well as gender discrimination and unstable employment, have major adverse effects on the process of development. A favourable impact on economic growth may be attributed to improvements in both the amount and quality of jobs held by women. At the individual level, women who participate in economic activities see a rise in their own income, and at the national level, their engagement has a favourable impact on the country's overall revenue. Because more and more women are getting involved in the workforce, their place in the home and in society as a whole is becoming increasingly important. The employment of women, who make up half of the population, has a significant impact on the maintenance of economic growth, the acceleration of the development process, and the achievement of sustainable development. When contrasted with the situation in less developed nations, the incorporation of women into the labour force and social life is simpler and presents less challenges in developed countries. This is in contrast to the situation in less developed countries. Women in affluent countries often have greater rights than women in less developed ones. The employment of women is examined with regard to its economic, social, legal, and physiological dimensions; as a result of the conclusions of this examination, it is of particular significance to the entirety of the community. Employing more women leads to an increase in overall productivity, which in turn leads to a rise in national wealth. When a country's GDP grows, the standard of living for individuals and their families improves. The employment of women also encourages increased personal savings among the populace. This is the resource of investment that is required in order for a country to achieve sustainable development.

Being able to contribute to a household's revenue and gain economic independence are two of the many benefits that accrue to working women. The connection between women's workforce participation and educational attainment enables them to raise children who are more equipped. This is a significant component of the ongoing dynamics of social evolution. On the other hand, women are the demographic most likely to be unemployed or let go from their jobs during times of economic turmoil. It is generally agreed that a woman's primary responsibilities in society are those of a mother and a wife. Because of this, the attitude to the employment of women, finding solutions to the difficulties that already exist, and encouraging them to engage in social life while also becoming more productive is a societal concern. Because of this, it is vital to find solutions to the challenges related their involvement in the workforce by taking into consideration the level of education and productivity that they possess in order to maintain the competitiveness of a nation. It is impossible to have decent economic growth without first finding solutions to the challenges faced by women, who make up half of the population. The rise in the average level of education, migration from rural to urban regions, the advent of industrialization, and the implementation of economic policies are some of the variables that influence the proportion of women who participate in the labour force. However, the female labour force is typically referred to as "the secondary workforce," which contributes to the structural issues that exist in the labour markets. According to the International

Labor Organization (ILO), for instance, women throughout the world have greater unemployment rates than males, and there is little chance that this will change in the near future (Global Employment Trends for Women, 2012).

Challenges:

1. Social inequality: The presence of social inequality is one of the primary obstacles to the empowerment of rural women. It may be discovered in virtually every municipality. In rural areas of India, illiteracy affects one-third of adult women, marital rape is not punishable by the law, and sex-selective abortion and female infanticide are nevertheless commonplace medical procedures. In India, patriarchy is well ingrained in culture, and men are given greater respect than women. The desire for male offspring among Indian parents is the result of a confluence of a few different causes. It is common practise to force women into marriage in exchange for a substantial dowry. In many households, sons are viewed as potential breadwinners who will take care of their parents and carry on the family name, but females are frequently seen as a potential burden financially.

2. Marginalized women and social discrimination: Women who belong to scheduled tribes, scheduled castes, members of minority groups, urban poor women, single women, and women who have been internally displaced are all examples of marginalised women. The Indian caste system is strongly established in social inequality, despite the fact that it is now formally outlawed, yet it is still very much alive and well across India. Women who are members of the Dalit caste in Hinduism face the triple discrimination of caste, class, and gender. where males have the right to divorce their wives orally and unilaterally through the practise known as "triple talaq," and where women from certain minority groups are subject to this practise. In certain respects, the position of tribal women is elevated beyond that of other types of women. For instance, the rate of female infanticide is significantly lower among tribal people. Tribal women have a greater standing than many caste Hindu women and work side by side with males. They also perform all of the same tasks. Despite this, instances of violence and persecution are rather regular. Work that is considered dirty, such as cleaning streets and maintaining sanitation, is typically done by women who belong to lower castes. Women from lower castes are frequently isolated from those from upper castes. A significant number of indigenous people from tribal communities have been forced out of their homes as a result of "development" initiatives. It had a significant influence on the lives of the indigenous women. They face an even more uphill battle in their quest to achieve equality and justice. The fact that these women are ostracised in society does not change the fact that they have a strong desire to better their life and the lives of their families. They require vitamins, meals that are more nutritious, materials that are sanitary, and drugs to treat a wide range of ailments. The majority of India's rural areas are in desperate need of basic amenities like improved sanitation and access to clean water. Working together with municipal and state governments to improve sanitation, health education, and healthcare delivery may have a significant and long-lasting impact.

3. Education: Since mainly rural girls are uneducated. Literacy and education programmes should put a particular emphasis on women and girls. However, forward-thinking government programmes devised a programme to provide rural women more agency and serve as a catalyst for them to further their education. The District Primary Education Programme prioritises enrollment, but does not place a strong emphasis on ensuring that enrolled students continue their education. It is quite improbable that females would continue their education if they do not have access to a supportive and empowering atmosphere. As taking care of

younger siblings is one of the primary reasons why females stop going to school, creches should be located inside of schools to ensure that girls do not have to miss out on their education. Other services, such as free lunches, books, and uniforms, as well as the supply of restrooms, have been recommended in addition to increasing the number of schools that are exclusively for girls and the number of female educators in those schools.

4. Women and healthcare: During pregnancy, women have an increased need for high-quality nourishment and additional attention; but, in many parts of India, it is customary for them to eat the least and last. Because they don't get enough of certain nutrients, more than half of all Indian women will eventually get anaemia. In point of fact, severe anaemia claims the lives of around 22,000 individuals every year, the vast majority of them are pregnant women. This nutritional deficiency is passed down to their offspring, who then suffer from stunted physical and mental development as a result. Women who are nursing girls often continue to do so for only one and a half months, which is two months shorter than they do for boys. According to the third iteration of the National Family Health Survey, good breastfeeding protects against many of the risks associated with malnutrition. In India, just 25 percent of new mothers nurse their infants within the first hour after birth. Women who have just given birth frequently do not have access to the appropriate medical care that they require during their pregnancies, deliveries, and subsequent postpartum periods. is to alleviate poverty, improve living conditions, and foster female empowerment by concentrating on the most vulnerable and marginalised women and girls. - The Right to Education; Food Security; the Management of Disasters; Sexual, Reproductive, and Maternal Health; and Management of Disasters.

5. Opportunity: Keeping in mind that women are an important driving force in both mitigating and adapting to climate change, the government should design a project as a response to these problems to enhance the role of these women in the management of natural resources such as water management, energy management, etc. Keeping in mind that women are an important driving force in both mitigating and adapting to climate change. They are able to do this through utilising a network of academic institutions, non-governmental organisations (NGOs), and private groups. Gender-responsive planning and budgeting as well as the development of SHGs is a better solution that may inspire people to solve their own problems on their own.

6. Gender-responsive planning and budgeting: Planning and budgeting that takes gender into account guarantees that male and female recipients are given an equal opportunity to weigh in on how available resources are allocated. Members of rural communities now conduct an analysis of the government plan and budget for their own villages using this technique. Their goal is to ensure that the requirements of both women and men are given equal weight and that their demands are given priority.

In India, each and every member of the committee was a man, and these males did not comprehend the viewpoint of women. The most effective use of resources may be determined through the inclusion of women in the planning and budgeting processes. The gendered distribution of labour and the local community having access to information on the Government's plan and district-level budget are both significant developments that have come about as a result of gender-responsive budgeting in rural communities. The initiative should aim to influence decision-makers at the senior administrative level; the district administration should include members of the community in the process of examining plans for their district's agricultural, health, education, and water sectors. Representatives of the community should

provide an invitation to review the plan from a gendered point of view and provide input, which should then be relayed to the district. At the district level, an action plan will be prepared to ensure that the entire community benefits from bridging the gaps and addressing the issues. They need to make plans now to involve the community in preparing for the future of not only one industry but also others.

7. Self help group: An significant part in the process of women's long-term empowerment may be played by self-help groups. It gives them more power. Women in business or women who farm may guarantee that the quality of processed food in the region has significantly improved as a result of their increased understanding of business and their enhanced technical abilities. The improvement in product quality has led to an increase in the demand for items at a higher price, which has helped women gain access to additional market opportunities. Because this will immediately respond to the needs of women, it has the potential to make a significant impact on the community. Nowadays, women are recognised more as established providers to the home because they have higher incomes. As a result, individuals have a greater sense of motivation to ensure that their opinions are taken into consideration, which further contributes to the empowering cycle.

8. Women association & Political participation: The first priorities are to improve the health and nutrition of mothers and their children, as well as to upgrade and improve their education. The second priority is to improve the level of income that women earn by facilitating opportunities and creating conditions in the workplace that are more welcoming to women. It is also vital to create conditions that are favourable for the development of new women's groups, in addition to strengthening associations that already exist, so that women may have a hand in the settlement of the issues that they are facing. Women are the only ones who truly understand the scope and challenges of domestic labour, particularly in rural areas, and as such, they should have a voice in the process of developing potential solutions. After all, women won't be able to participate in the national development effort on equal terms with men until they are freed from the physically demanding work of domestic chores. Only then will they be able to reap the benefits of their participation in the effort, which will allow them to participate on equal terms. There should be no limits placed on the roles that women can play in any organisation. They should, rather, be allowed to create groups of their choosing in line with the special requirements of their professions or the specific demands of their businesses. To achieve this goal, it is necessary to create the conditions under which women will feel comfortable initiating ideas and actions in a manner that is tailored to their needs and that serves to advance the causes that are important to them. They are entitled to have the unqualified support of the government, which is obligated to provide it. It is generally acknowledged that women play an important part in the political evolution of rural India. In addition to this, it has been claimed that women are actively engaging in the Grampanchayat and that they are succeeding in their respective regions.

9. Sustainable rural energy and role of women: Electricity is a major issue in the more rural parts of India. The majority of homes in rural areas of India lack access to electricity. There are over 360 million people living in 74 million rural households in India who do not have access to electricity. Our current task is to provide clean lighting that is also cheap to these people. The bulk of these individuals satisfy their lighting needs by burning kerosene and other fuels, which poses risks to both their own health and the environment.

The Importance of Women Employment In Economic Development

Employment is at the top of the list of the most significant challenges faced by nations that are still considered to be developing. A social and economic factor is represented by the act of giving a job to a person who is of an appropriate age to receive payment for their labour. Employment opportunities for young people and their level of involvement in the economy have a direct bearing on a nation's overall economic success. Even while less developed nations have a higher birth rate as a fraction of the total population, less new employment are being created, and fewer people are participating in the labour force. Inequality manifests itself in many forms, including that which exists between the sexes. The expansion and growth of the economy are both hindered as a result of this factor. In order to strike a healthy balance between the effects of economic expansion and gender disparity, it is imperative that this issue be resolved (Pirmana, 2000:4). In employment, working hours and circumstances, and most importantly in their earnings, there is a significant gender pay gap between men and women. This discrepancy is readily apparent. The equality of the sexes is of critical significance to the process of development. It is also essential since it is a means of personal growth. It is a form of rationalism in economics; it contributes to the improvement of other aspects of development and increases the efficiency of an economy in three different ways.

- To begin, eliminating the obstacles that keep women from participating in education, the economy, and other valuable inputs in the same way that men do would make women much more productive for a world that is globalising and becoming more competitive.
- Secondly, elevating women's status enables them to perform better in a variety of spheres, including those that are associated with raising their offspring.
- Third, by establishing a level playing field on which women and men are equally able to participate in social and political life, to make decisions, and to put those decisions into action, this will eventually lead to an increase in the number of authorities, as well as an increase in involvement, and it will pave the way for someone else.

As a result, the attitude to the employment of women, the elimination of the difficulties that already exist, and the incorporation of women into economic life in a more productive manner are the social concerns associated with economic development. In this era of intense global competitiveness, it is necessary for nations to remove the obstacles that prevent women from participating in the workforce and to provide employment for those women. As a result, it is impossible to achieve sustainable growth without first addressing the challenges faced by women, who make up half of the population. In the 1970s, there was a focus on the position of women as well as the disparate impacts that various development projects had on men and women.. (Başbakanlık Kadın Statüsü Genel Müdürlüğü, 2008:5).

According to Adelman and Yeldan (2000: 143), the following variables are necessary for a quick economic expansion, which is required for improving the overall quality of life and achieving a more equitable worldwide division of labour:

1. Sustainable development
2. Shifts in the underlying structures of both production and consumption
3. Technological improvement
4. Social, political and organisational modernisation
5. The standard for the betterment of life

The reduction of societal dependence is one of the primary benefits of increasing the proportion of working-age women in the population. The dependence rate may be expressed as the ratio of population jobless (aged 0-14 and over 65) to population employed (aged 15-64). The percentage of inactive population to active population can be expressed as the dependency rate. In industrialised countries, the rate of reliance is significantly lower than in less developed countries, such as those in which an average individual is responsible for the well-being of two or three other persons in addition to themselves. (Han & Kaya, 2004:109). The fact that this rate is so high indicates that individuals who do not take part in production also receive a portion of the economic value that is generated by those who do take part in production. This results in a fall in both the national income and the income per capita, as well as an overall decline in general welfare.

Employing Women For A Sustainable Development

Up to the 1970s, the idea of growing well-being and per capita income was founded on the progress and development that had occurred up until that point. After the 1970s, the economy was not the only object of interest for social transformation and economic progress; also in the centre of attention were the natural resources and the environment. In 1994, the United Nations Development Programme (UNDP) came up with a new approach that they named "Sustainable Human Development." This notion was inspired by the concept of placing human beings at the forefront of the development process. The importance of meeting the fundamental requirements of human beings with regard to their nutrition, health, housing, education, and cultural demands has increased as a direct result of this strategy's implementation. This strategy places an emphasis not only on economic growth and development based on capital stock but also on the human aspect and the distribution of income for the purpose of development. According to the Basic Needs Approach, the very first goal of development should be to provide a better quality of life for people through improved nutrition, housing, clean water, energy, health care, education, and employment (Acar, 2008:120-121). According to the Brundtland Report, the definition of sustainable development is "development that fulfils the demands of the present without compromising the ability of future generations to satisfy their own requirements" (1987). The human propensity to view themselves primarily as consumers and producers is identified as the primary source of the problem by the sustainable development approach. During the United Nations Conference on Environment and Development that took place in Rio de Janeiro in 1992, the most significant topic that was discussed was the role that production and consumption play in ensuring a sustainable development. The Earth Chapter of the Rio Declaration on Environment and Development outlines 27 principles that should guide environmentally responsible development. The second one is referred to as Agenda 21. (Earth Chapter/8, Agenda 21/sct.4.3) Both of these documents assert that the traditional behaviours exhibited by people, particularly those who live in developed countries, are the primary causes of poverty and inequality in developing countries, as well as the primary obstacles to development. This is especially true in relation to developing nations.

They also recommend that all of the governments should formulate a strategy with the goal of reducing and removing methods of production and consumption that are not sustainable while taking demographic structure into consideration. UN reaffirm the vital role of women and the need for their full and equal participation and leadership in all areas of sustainable development, and decide to accelerate the implementation of our respective commitments in this regard as contained in the Convention on the Elimination of All Forms of Discrimination against Women, as well as Agenda 21, the Beijing Declaration and Platform for Action, and the United Nations Millennium Declaration. UN reaffirm the vital role of

women and the need for their full and equal participation and leadership in all areas of sustainable development. Because it is about having good governance, sustainable development is a political problem. However, having good governance will be difficult to achieve until we move closer to having gender parity. It is possible for gender-sensitive development aid to be a potent driving force in empowering women to compete in land, labour, and product markets, which in turn enables women to contribute to sustainable development on economic, social, and environmental fronts. If women held more positions of decision-making authority and were more involved in productive work, we might move toward economic, social, and environmental sustainability more quickly and with more certainty (Stevens,2010:1-8).

Five capital model is used for a sustainable development (Güvel,2011:148-149).

- Human capital,
- Socail capital,
- Environmental capital,
- Financial capital,
- Tangible capital.

The employment of women should be taken into account in terms of political decisions, educational opportunities, financial assistance, and social perception in order to achieve sustainable growth. The incorporation of women into the labour force as a form of human capital for the purpose of achieving sustainable development is critically important for a number of reasons, including the acquisition of environmental and production perception, the increase in their income that results in the creation of financial resources for saving and investment, and the attainment of a greater level of respect in social circles. Education for women, career opportunities for women, and the rights of women to their own property all have a significant bearing on the judgement of societal values and the dynamics inside a family. When it comes to the education of children or persons within their families for the purpose of continuous production and consumption, women also play an essential role in the family unit. In addition, it is the responsibility of the parents to raise their children to be respectful to the environment, nature, history, and cultural values, and to serve as models for their children by acting in a manner that is consistent with these ideals. Figure 2 presents the connection between female labour force participation and the five-capital model.

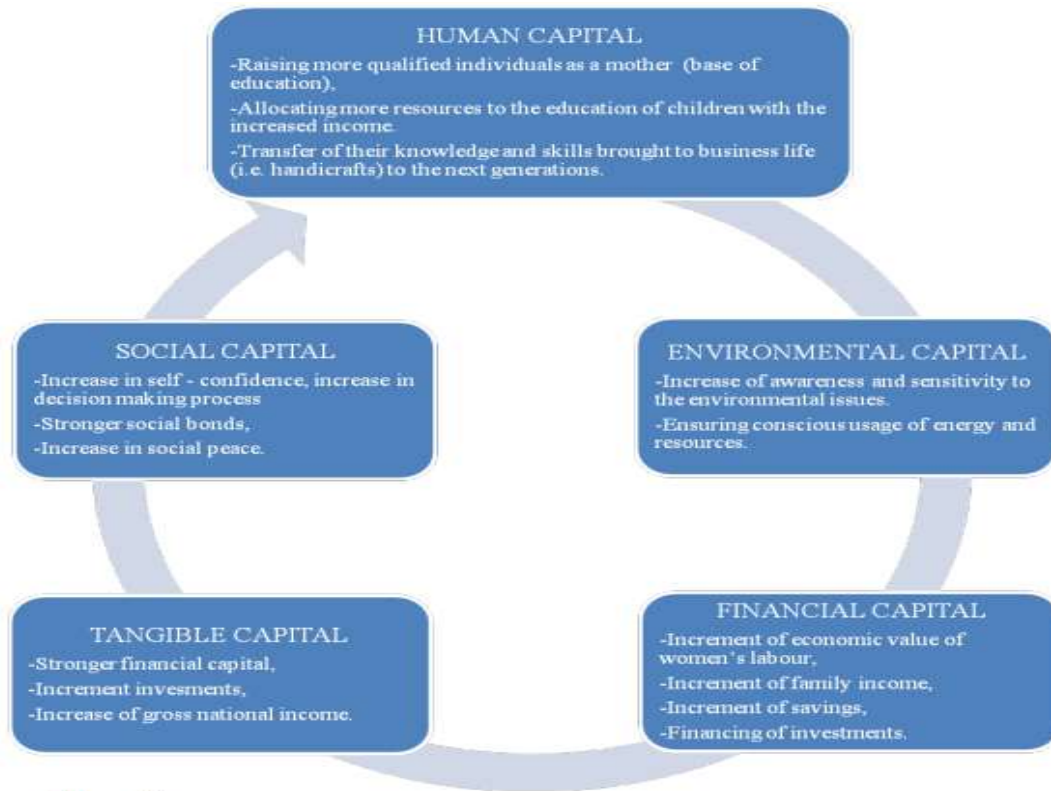


Figure 2 Five –Woman Employment and Capital Model for a Sustainable Development

Women are now not only the people who benefit from the resources and help increase the well-being, but also the dynamic actors of themselves, their families, their countries, and that of the global well-being. Today, women are not only the people who benefit from the resources and help increase the well-being, but also the people who help increase the well-being. This viewpoint has been steadily validated, and it has been observed that raising the standard of living will have a beneficial effect not just on current generations but also on those who will come after them. The empirical studies that have been conducted in recent years show that the variables related to women's employment, including their income, their ability to find jobs outside of their families, their rights to own property, their literacy, and the decisions that are made jointly within families, have been positively affected (Sen,2001:259-264).



Figure 3 The Importance of Women in Sustainable Development

The personal income of women can improve as a result of their increased level of education and equal participation in the workforce. However, this action also lays the groundwork for sustainable development, in addition to ensuring sustainable economic growth. Because of this, an economic system that does not address the issues that women face will not result in the creation of a programme for sustainable development. Education gives women the opportunity to broaden their perspectives, which ultimately results in an increase in the quantity of work they do. There is a huge possibility for poverty to be alleviated via the education and economic empowerment of women. The advantages of education are passed down from one generation to the next; women who have completed some level of education are more than twice as likely to enrol their own children in school in comparison to mothers who have not completed any level of education. The International Federation for Planned Parenthood reports that, on average, women reinvest anywhere from 30 to 40 percent of their salaries back into their own homes, whereas males typically only do so between 10 and 30 percent of the time. It is believed that women's unpaid labour contributes up to fifty percent of the gross domestic product in various nations at the present time. Regrettably, the failure of the Rio+20 organisers to place a significant emphasis on women and sustainable practises is not an isolated incident in the wider global society. Women provide financial assistance to their family through wage labour; they also keep traditional knowledge alive; they protect biodiversity; and they guarantee that their households have enough food security and nutrition. Despite the significant contributions they make, women and young girls continue to bear the brunt of the negative impacts of discriminatory legislation and inadequate healthcare and educational opportunities. In some regions of Africa and Asia, women make up approximately 80 percent of the agricultural workforce, and women are responsible for producing 50 percent of the total agricultural production in Asia. According to study conducted by the United Nations Food and Agriculture Organization (FAO), if women had the same access to agricultural resources as males, productivity would increase by 20-30 percent, which has the potential to reduce the number of hungry people in the world by 12-17 percent (Food and Agriculture Organization). Women's engagement in economic and social life has also had substantial influence on the quality and course of development in all sectors for a sustainable development. These effects are important for ensuring that development is carried out in a manner that is environmentally responsible.

Conclusion

There are still a lot of obstacles standing in the way of women reaching their full economic potential and contributing to the economy, as well as to productivity and development. This not only hinders the economic performance and prosperity of the country, but it also impedes the advancement of women. Policies that should be implemented in order to eliminate gender disparities can greatly increase economic growth and living standards, and in developing countries, they can be a significant contributor to the reduction of poverty. Policies aimed at increasing women's work opportunities, investments in women's education and professional development, and social safety measures are also needed. One of the most effective solutions is the establishment of village energy committees in which every community possesses its own independent source of renewable energy. Women have the potential to make substantial contributions to the work of village energy committees. Solar systems are superior alternatives to traditional electricity solutions for lighting and other requirements. Women living in rural areas who are uneducated might be educated to build and maintain solar energy panels. They are able to build up a solar power system for their little villages despite the fact that they are illiterate, and in exchange for their hard work, they will earn a monthly payment for their efforts. The entire community will be able to profit from having their

own solar system. It will make women more independent and strengthen their voice. Training in financial matters, leadership, and governance enables them to successfully plan and lead, as well as work toward achieving sustainability.

Reference

1. Acar, Y. (2008). İktisadi Büyüme ve Büyüme Modelleri. 5.B., Bursa.
2. Adelman, I. and E. Yeldan (2000) .The End of the Developmental State?. Structural Change and Economic Dynamics, September.
3. BAŞBAKANLIK, (2008). Politika Dokümanı, Kadın ve Ekonomi. Kadının Statüsü Genel Müdürlüğü, Ankara.
4. Berber, M. (2011). İktisadi Büyüme ve Kalkınma. Derya Kitabevi, 4. Baskı, Trabzon.
5. DPT ve WB (2009). Türkiye’de Kadınların İşgücüne Katılımı: Eğilimler, Belirleyici Faktörler ve Politika Çerçevesi. Rapor No 48508-TR, 23 Kasım.
6. DPT ve WB (2010). Erol Taymaz, Büyüme, İstihdam, Vasıflar ve Kadın İşgücü,!Refah ve Sosyal Politika Analitik Çalışma Programı. Çalışma Raporu Sayı:6, Ankara.
7. Pırmana, V. (2006). Earnings Differential Between Male-Female in Indonesia: Evidence From Sakernas Data. Working Paper in Economics and Development Studies, Department of Economics Padjadjaran University, August.
8. Sustainable agriculture: A pathway out of poverty for India'srural people Deutsche Gesellschaft für TechnischeZusammenarbeit, Eschborn.
9. Greening rural development UNDP REPORT 2012
10. Turkey's Sustainable Development Report: Claiming theFuture 2012
11. Unique Challenges for Women's Health in Rural India JannaDunbar 2011 Global Health Fellow