
UNIT 19: GENDERED IMPACT ON AGRICULTURE, ENVIRONMENT AND ECOLOGICAL CONCERNS

Structure

19.1 Introduction

19.2 Objectives

19.3 Women and Agriculture

19.4 Gender Issues and Needs in the Agriculture Sector

19.4.1 Access to Land (including forests) and Water Resources and Services

19.4.2 Gender Differences in Work and Activities

19.4.3 Gender and Agriculture Extension and Research

19.4.4 Empowerment and Access to Decision Making

19.4.5 Gender, Agricultural Biodiversity and the Commercialization of Agriculture

19.5 Women's Activities and Ecological and Environmental Concerns

19.5.1 Displacement in the name of Development

19.5.2 Displaced Population due to Natural as well as Man-made Disasters

19.5.3 Energy and Environmental Policy

19.5.4 Gender Audit of Water Policy

19.5.5 Gender Mainstreaming in the Agricultural Sector

19.5.6 Women as Farmers and Agricultural Workers

19.5.7 The Agrarian Crisis and Its Impact on Women

19.5.8 Towards Framing a Gender Impact Strategy for Agricultural Development

19.6 Environment and Ecology Concerns

19.6.1 Linking Environment and Gender: An Introduction

19.6.2 Differences in Gender Impact of Environmental Risks: Some Examples

19.6.3 Gender Equity in Environmental Projects

19.7 New Approach: Theory vs Practice

19.8 The Way Forward: Empowering Women through Strengthening Women's Control Over Resources

19.8.1 Women, Water and Sanitation

19.8.2 Experiences from Bangladesh

19.9 The Platform for Action on Environment

19.10 Summing Up

19.11 Glossary

19.11 Answers to Check Your Progress Exercise

19.12 References

19.13 Questions for Reflection and Practice

19.1 INTRODUCTION

Historically, women have been the managers of natural resources and also dependant on them for their livelihood. They use the natural resources in a sustainable manner as that determines not only the survival of their families but their own as well. There is thus an imperative for understanding how issues such as division of labour, access to credit or information as well as rights of ownership require a gendered understanding for policy prescriptions and development initiatives in the agriculture sector as well as those impacting the environment.

19.2 OBJECTIVES

After studying this Unit, you should be able to:

- Discuss gender issues and needs in the agriculture sector;
- Analyze the rationale for mainstreaming gender in the agriculture sector; and
- Describe the linkage between environment and gender and the differences in gender impact of environmental risks.

19.3 WOMEN AND AGRICULTURE

Agriculture contributes a significant share to the Gross Domestic Product in the national economies of most developing countries. This underlines the linkages between agricultural performance and the output and incomes of other sectors and those between governments' overall objectives (such as employment generation, poverty alleviation, food security and human resources development) and their goals and policies for agricultural development. Women have always played a central role in agriculture, undertaking a wide range of activities relating to food production, processing and marketing. In addition, women play a key role in land and water management in all developing countries.

Women are most often the collectors of water, firewood and fodder. They have access to local knowledge on the medicinal use of plants; they have been engaged in soil conservation programmes; and, besides, it is women who perform most of the work pertaining to animals. With migration to the cities of the developing world gathering speed, women carry with them these rural skills and are responsible for the growth of urban and peri-urban agriculture, which is now recognized as being vital to food security in cities.

The important role played by women in agriculture was in the past largely ignored in government statistics and decision-making. There has been some change in the situation over the last two or three decades and women are now receiving recognition in the agricultural sector in many parts of the developing world. However, these recent developments may be endangered by such factors as the drive to commercialize agriculture and rural development being entrusted to private players in many countries. These factors have reduced gains and threaten a return to the situation where women's role is not fully recognized, and where gender-blind policies and programmes fail to address the needs of women farmers.

There also **remain a number of areas where progress in advancing gender equality has not been significant and which represent challenges for the future.** These include women's lack of access to land, resource entitlements and inputs such as credit and technology and the limited role played by women in planning and the formulation of policy in the sector. Women have also had less contact with extension services than men and generally use lower levels of technology because of problems of access, cultural restrictions on use or lesser interest in doing research on women's crops and livestock .

The role of women in community development and the creation of self-help groups is particularly important, especially given current trends in agricultural extension activities.

Agricultural extension is tending to rely more and more on working with farmer groups, and farmer-to-farmer extension, farmer field schools and farmers' organizations while replacing the more traditional methods of agricultural extension carried out on individual farm visits. A key focus of this approach is to enable rural people to secure sustainable livelihoods, with an emphasis on income-generating activities.

Women have traditionally earned valuable income through the processing of foods at the household level for sale, but there are severe constraints on the expansion of this due to a lack of information about markets, the absence of cold storage facilities and packaging technology and an inability to obtain credit. These limitations are now understood and one challenge is to foster this business acumen and to encourage small-scale agro-processing.

Box 1: The African Farmer

The phrase 'the African farmer and her husband' expresses the importance of women farmers in Africa, where:

- Some 80% of all those engaged in food production are women;
- On average women work more hours than men in producing food;
- Men tend to hire out their labour and women produce the bulk of the food for local or family consumption.

In other regions too, cultural traditions and economic necessity have always meant a significant role for women in agriculture. The importance of women as caretakers of the food supply is now beginning to gain global recognition.

19.4 GENDER ISSUES AND NEEDS IN THE AGRICULTURE SECTOR

Women are known to produce more than 60 percent of the world's food. In general, women provide 50–60 per cent of the labour requirement, increasing to 80 per cent in paddy and rice production. On account of large scale migration of the male population to cities, more women are becoming functional heads of both households and farming activities. This is the scenario in most developing countries.

Five main gender issues have emerged as being of particular significance in the agriculture and rural development sector:

1. Access to land and water resources, and to credit and other support services;
2. Gender differences in roles and activities;
3. Gender and agricultural extension and research;
4. Women's empowerment and equal access to decision-making.
5. Gender, agricultural biodiversity and commercialization

These issues are inter-linked and are explained in detail below :

19.4.1 Access to Land (Including Forests) and Water Resources and Services

Issues of access to land, forests and water and their interface with women are critical for understanding the impact of any development policy.

Access to land, forests and water resources

Increasing privatization of community resources in the hands of a few are undermining the ability of many women to use and conserve increasingly scarce resources in a sustainable way. There are pressures to export and meet strict quality control standards. In addition, agricultural services are being commercialized and land tenure arrangements are under threat, reducing the amount of good land available to small farmers. This is because fertile land is being diverted to cash crops. As a result, the small farmers, most often women, are increasingly pushed to cultivating plots that are dispersed, remote and usually less fertile. This land is often not fit for continuous cultivation and is vulnerable to land and water degradation, particularly through soil erosion and deforestation. Insecure land tenure reduces the incentive to make improvements on land or undertake activities such as tree planting or terracing. It also offers little incentive for investing in permanent crops. Further, this implies a lack of ability to seek credit.

Women's access to land and ownership rights remain a critical problem even in such cases where there is no legal restriction on their owning and holding land. The need for women to secure full and independent land rights, without mediation by men, is required on the grounds of welfare, efficiency and gender equality. In the long term, political will is needed to answer the demand for land reform, and to ensure that it is carried out in such a way that women are treated equitably.

Women are linked with forests for their supplies of fuel, fodder and minor forest produce. Deforestation and depletion of forest resources and loss of access to and control of forest resources have increased poverty, unemployment and drudgery of women.

The **water and sanitation sector** is another area where women need to be actively involved in policies, programmes and projects. In the rural areas, while men are usually more

concerned with water for irrigation or for cattle, women are usually the ones who collect, use and manage water in the household besides being responsible for disposing of household waste and maintaining sanitation facilities. Despite the recognition of the important role of women in the water and sanitation sector, the design of programmes in several countries excludes women from the decision making process.

Access to Credit and Other Support Services

The disadvantage of lack of ownership of land and resources results in limited access to agricultural support services, such as credit with which they can purchase inputs, and to advice and training in agricultural technology. There are several reasons for this including legal restrictions (such as the need for a male signatory); lack of collateral (e.g. land title); lack of information about credit sources and availability; as well as lack of other services such as micro-credit schemes. Although some initiatives for launching microcredit schemes have come up in developing countries, there are several gender-related issues that need attention. These are:

- Women must be provided loans for all types of profitable agricultural activities, and not just those required for domestic purposes.
- For enabling women to utilize and fully benefit from loans, credit facilities should be accompanied by provision of agricultural technical skills and human development training. Collective enterprises undertaken by women's groups for farming can succeed when the groups are provided with management training and support.
- The staffing of microcredit programmes needs special attention as such people who have field experience and local knowledge should be employed.

- Equal access to credit means more than just micro-credit and should include the full range of economic policies to ensure that there are no barriers to gender equality and equity.

19.4.2 Gender Differences in Work and Activities

It is important to recognize the differing roles of men and women in the rural sector. An analysis of the gender division of labour has shown that women as paid and unpaid labour take on three types of roles. As stated by Razavi and Miller, 1997, these three roles are:

- *The productive role:* this refers to market production and home/subsistence production undertaken by women which generates an income (whether financial or 'in kind');
- *The reproductive role:* this refers to the child-bearing and child-rearing responsibilities borne by women and
- *The community management role:* this refers to activities undertaken by women to ensure the provision of resources at the community level, as an extension of their reproductive role

An understanding of these three roles can inform gender-aware planning that takes into account the differential impact of programmes and projects on women and men because of women's multiple roles. When these roles are not factored into policy making, they lose effectiveness for the intended beneficiaries. Another factor that needs to be taken into account is that certain tasks, activities or enterprises may be regarded as 'male' or 'female'. For example, women typically gather forest products for fuel, food for the family, fodder for livestock and medicinal uses. Men more often cut wood to sell or use as building materials. In order to secure sustainable and equitable management of forest resources, therefore, both women and men need to be consulted in the design and implementation of forestry projects.

Similarly, where livestock is concerned, women and men often own different animal species and use different animal products, and any policies would need to address the needs of both .

19.4.3 Gender and Agricultural Extension and Research

It is well known that government extension services have not proved effective in reaching women farmers and the cultural bias has, in many countries, prevented women from active participation in group training as well as in being able to access inputs such as fertilizer and credit. These services have been predominantly staffed by men – according to the FAO only 15% of extension workers are women (FAO, 1999) – and they tended to direct their services to male farmers or heads of households, excluding female-headed households and women members of male-headed households. However, in the present context there has been an increasing influence of NGOs, and any consideration of gender in relation to these points must be considered in this context.

The growing commercialization of agriculture has led to efforts to optimize production and access to markets but at the same time, there is also a danger that small-scale farming will suffer. Diverse food production systems are under threat and, with them, the accompanying local knowledge, culture and skills of the food producers. Over the last few decades, the change in farming methods and the ‘green revolution’, through which just a few varieties of rice, maize and wheat were planted around the world, have resulted in the disappearance of more than 75 percent of agricultural crop varieties. The activities of multinational corporations, promoting patented technologies also pose a threat. The poorest farmers living in remote areas among whom many are women with very little access to cash, are the ones who are left out of this development process. Thus the income gaps among rural families and between areas require greater commitment to advancing gender equality and equity.

19.4.4 Empowerment and Access to Decision-making

This challenge is perhaps the most difficult and long-term. Externally imposed programmes such as Structural Adjustment Programmes, incorporation into the world capitalist system, the globalization of trade and the development of significant monopoly power in certain private sector markets due to the penetration of multinational corporations have frequently had a negative impact on the lives of women in developing countries.

Given that development planning can also represent an intrusion of outside influences and ideologies into rural communities, it is highly likely that the outcomes will also be unfavourable unless those responsible for designing and implementing rural development projects are aware of the potentially differential impacts of these policies on women and men.

Thus, there is a need for women to be empowered and educated so that they can exert influence and participate in decision-making on issues that affect their lives. In fact, gender equity is impossible without women's empowerment. In the agricultural sector, gender-awareness in decision-making is needed at a number of levels: in the field, in technical positions in government and NGO agencies, in government departments such as agriculture, fisheries and forestry and at the level at which macro-economic and other macro-level decisions are made.

19.4.5 Gender, Agricultural Biodiversity and the Commercialization of Agriculture

As predominantly small farmers, women have been largely responsible for activities such as the selection, improvement and adaptation of plant varieties. This has both supported and increased agricultural biodiversity. However, with increasing commercialization of

agriculture and diversion of agricultural land for non-agricultural uses, the ability of women to get employment, shelter and fulfill their basic needs is reducing.

In a study conducted in five villages in Afghanistan, it has been seen that some women also have experience of working in some of the most profitable areas of agriculture such as melons, orchards and vineyards. The possibility of using common land for women's orchards or vineyards, and again accessing markets through those women able to leave the village, could be explored. This would provide women and their families with extra income and may enable these women to have more decision-making power. Though, as mentioned earlier, the assumption that an increased economic contribution leads to increased decision making power that translates into increased well-being in this context needs to be tested and further understood. For this type of project to work, family support as well as a community decision to allow land to be used for this purpose would be necessary, as would the availability of markets. It could also only be tried in areas where sufficient land and water is available and in areas where women were interested.

Box 2 Women and Natural Resource Management

Most women in Africa are directly dependent on their local environment and sustainable natural systems for their own and their families' survival. As daily managers of the living environment, they are experienced in the management of agriculture and food production, fisheries, forests, soil, energy and water resources, and have developed skills in conservation that are built into their traditional subsistence activities. At the local level, co-operative action taken by women demonstrates that by sharing their knowledge and experience they can improve the environment and promote sustainable development.

Check Your Progress Exercise: 1

Note: i. Use the space given below to answer this question.

ii. Compare your answer with the one given at the end of this unit.

1. List the five main gender issues related to agriculture and the rural development sector.

.....

.....

.....

.....

.....

19.5 WOMEN'S ACTIVITIES AND ECOLOGICAL AND ENVIRONMENTAL CONCERNS-THE TWO WAY RELATIONSHIPS

Environment and forest development have been crucial concerns for sustainable development. Women are employed in wasteland development, social forestry and desert development programmes on a large scale. In these areas the budget has been cut by 23.5%. Smokeless 'chullas' have been enthusiastically promoted among rural and urban poor women because they are less harmful to women's health. The Government's budget for funding this project has reduced by 18.5%.

The most ironic impact of the SAP is on the environment and forest development. In the last few years, the environment has become one of the most debated political issues. At the Rio Summit, government organizations (GOs) and non-government organizations (NGOs) from India made their presence felt by making passionate presentations. In reality, however, there has been an overall budgetary cut of 18% for the environment and forest development.

In the context of a wood-fuel crisis, alternate energy resources like biogas and solar energy equipment gain major importance. The Government, however, has reduced the budget for these alternate energy sources by 26.3% and 25.4% respectively. Further funds allocated for research on alternate energy resources have been reduced by 26.3%. On the one hand, a resource "crunch" is created where environmentally regenerative programmes are concerned; while on the other hand, millions of rupees are made available for controversial mega projects like the Sardar Sarovar, Dabhol Power Plant and Narmada Dam. The Morse Committee, noted environmentalists, most of the NGOs outside Gujarat, within India and internationally, have criticized the projects that are supported by the World Bank. This is because they will harm 240,000 people and create major environmental problems.

19.5.1 Displacement in the Name of Development

The most disturbing aspect is the very space to live and work is withdrawn from the urban poor in favour of parking spaces and flyovers. Throughout the 20th century, the urban poor women have been employed in food, beverage, tobacco, textiles, and wood / bamboo / cane and ceramics industries. Here too, they have been targets for retrenchment and forced to join the unorganized sector. Women are squeezed out of marketing, vending spaces because global traders have made local labour and skill obsolete.

Gender audits of mega developmental schemes and programmes have been extremely useful to seal the leakages that dis-empower women and bring to the fore women's component in terms of employment, educational opportunities, skill development, entitlement and assets ownership.

Capital driven growth has perpetrated tremendous human miseries by resorting to forced eviction of poor people from their dwelling place and work place. While commenting

on the forced eviction to accommodate mega projects, the UN Committee on Economic, Social, and Cultural Rights, Sixteenth Session, 1997 stated:

“Women and other vulnerable individuals and groups suffer disproportionately from the practice of forced eviction. Women in all groups are especially vulnerable given the extent of statutory and other forms of discrimination which often apply in relation to property rights (including home ownership) or rights of access to property or accommodation, and their particular vulnerability to acts of violence and sexual abuse when they are rendered homeless.”

19.5.2 Displaced Population due to Natural as well as Man-made Disasters:

Women, the greatest victims of natural disasters such as floods, earthquakes and social disasters such as caste, communal, ethnic conflicts and war and economic disasters in the name of development (building 350 flyovers in Mumbai, mega plants, shopping plazas displacing people) need rehabilitation in terms of proper housing, civic amenities, safe transport and work.

GATT's pressure to amend the Indian Patent Act that is based on process patenting will make essential drugs very expensive. Poor women will find it impossible to avail themselves of medical facilities. Finally, ten case-studies based on the experiences of Botswana, Brazil, Chile, Ghana, Jamaica, Peru, Philippines, Korea, Sri Lanka and Zimbabwe suggest that unless the governments ensured compensatory policies in terms of public works, nutritional support, public education alongside the SAP, women suffered the most.

ICE policy i.e. Information, communication and entertainment in favour of economic reforms has nothing to offer the common women except deprivation, degradation and dehumanization. Free-play of market forces unleashed by the economic reforms have made

the majority of Indian women more vulnerable in the factor, labour and product markets. The Government of India appointed 2nd National Labour Commission (NLC) in 2000 to focus on five aspects-- review of law, social security, umbrella legislations for the unorganized sector, impact of globalization on Women workers and child labour and healthcare. Its recommendations serve the interest of economic reforms that benefit world capital, Multi National Companies and Trans National Companies.

19.5.3 Energy and Environment Policy

In the 1980s, governments and development agencies became much more aware of the need to consider gender issues in their environmental and natural resource management programmes. This led to changes in project design and implementation. Eco-feminists have played a crucial role in evolution of new gender-sensitive approaches among the policy makers. But in actual practice, the economic vested interests have reigned supreme.

19.5.4 Gender Audits of Water Policy

Gender economists have critiqued the watershed management and rainwater harvesting programmes that focuses solely on water utilization for agriculture and industry. Majority of rural and urban poor women have to spend many hours for accessing and collecting for drinking water and water for household consumption.

Policy makers first came to appreciate that women 'play an essential role in the management of natural resources, including soil, water, forests and energy...and often have a profound traditional and contemporary knowledge of the natural world around them'. The exclusion of women from environmental projects - through outright neglect or belief in the gender neutrality of projects - would thus be a recipe for project failure.

Subsequently, donor agencies came to see women as especially vulnerable: 'their responsibilities as day-to-day environmental managers ...make women both victims of and contributors to the natural environment's degradation and pollution.

On the other hand, gradually, awareness grew of many grassroots success stories of women fighting to conserve local resources - such as greening of deserts in Rajasthan, *Appiko* in Karnataka, *Chipko* in Tehri Garhwal and Junagarh in Gujarat, *Narmada Bachao Andolan* in Madhya Pradesh., Maharashtra and Gujarat.

19.5.5 Gender Mainstreaming in the Agriculture Sector

Given the extensive participation of women in all aspects of agricultural production, the mainstreaming of gender into the agriculture sector is a key strategy not only for the promotion of equality between men and women, but also for sustainable agricultural and rural development. A key outcome of the mainstreaming approach was that women's concerns which were earlier viewed in isolation, as separate issues, leading to their marginalization in the state system and other social structures was replaced by an approach which not only makes more material resources available to women but also ensures that women farmers are provided with greater facilities at the micro level.

Despite this, there remain a number of areas where progress in advancing gender equality has not been significant and which represent challenges for the future. These include women's lack of access to land, resource entitlements and inputs such as credit and technology and the limited role played by women in planning and the formulation of policy in the sector. Women have also had less contact with extension services than men and generally use lower levels of technology because of problems of access, cultural restrictions on use or lesser interest in doing research on women's crops and livestock. Thus, agricultural development needs to focus on gender to create a more effective, transformational approach

that achieves poverty reduction and hunger alleviation for all, and also improves equity between men and women. In several areas, women are both the majority of farmers and the most prone to experience negative impacts due to inequity in the form of unequal access to land rights, loans, income, transportation, and education.

19.5.6 Women as Farmers and Agricultural Workers

The term women farmers and agriculture workers includes all paid and unpaid work in agriculture and its allied sectors such as animal husbandry, forestry, fisheries, agro-processing and other related activities. It refers to all women working in farm and non-farm activities. Women constitute 40 % of the agricultural workforce and this percentage is rising.

An estimated 20 % of all rural households in India are *de facto* female headed due to widowhood or other reasons. The increased feminization of agricultural work and labour means concentration of women in a sector which is already experiencing a decline. Because of this the destitution of the agrarian population due to the crisis has also meant a feminization of poverty.

19.5.7 The Agrarian Crisis and Its Impact on Women

With the rate of growth of the agriculture sector declining to 1.8 % p.a. during the tenth five year plan, the destitution characteristic of the agrarian crisis has also meant a feminization of poverty. In addition, changes in cropping pattern, diversion of land for commercial crops, dwindling of forests and erosion of access to the forests has led to loss of livelihood of women particularly from tribal, dalit and pastoral communities who are the main users of forests. The high input costs of agricultural production resulting from the withdrawal of subsidies on fertilizers, pesticides and agricultural credit are aggravating the problem. Another trend reflecting the agrarian distress in the post-reform period has been the increase in distress migration. Where women migrate along with their families they have to face the double burden of taking care of the family and working on construction sites, brick

kilns etc. In addition, this results in women becoming more vulnerable to trafficking and other types of exploitation besides leading to increase of violence against women.

19.5.8 Towards Framing a Gender Impact Strategy for Agricultural

Development: (An analysis by the Bill & Melinda Gates Foundation's Agricultural Development Initiative)

1. Agriculture has the power to be transformative for reducing hunger and poverty in Sub-Saharan Africa and South Asia.

Although, it is known that women currently provide 60-80% of the agricultural labour in our areas of focus, they have limited access to the resources and opportunities needed to maximize and profit from their contributions. These limitations constrain both female farmers' ability to improve their lives and that of their families. These limitations also constrain the transformative power of agriculture to alleviate poverty and hunger.

2. The Agriculture Development initiative recognizes that in order to achieve the required impact, every resource and tool available should be used to ensure that women are active participants in every aspect of work. To that end, a gender mainstreaming strategy can ensure that the practical needs and strategic interests of women and girls are considered in each proposal and that understanding the complexities of gender roles helps refine our project goals and design. Our strategy ensures that gender is at the forefront of how the work is conceptualized and executed. Thus, those who are most burdened and least empowered must be both the primary beneficiary of resources as well as the catalyst for effecting lasting change in agricultural development.

3. Gender Impact should imply that women and men are actively engaged in all processes so as to allow them to voice needs and priorities and be heard by leaders, policy makers, and donors. This means special effort must be taken to hear from and listen to those voices most marginalized from influential networks and those least likely to have access to functioning markets and services. A greater enfranchisement and participation by women and smallholder farmers will lead to improvements in health, nutrition and poverty both for women, men, and families throughout the community.

Box 3: Key Questions

- What roles do men and women play in each stage of agriculture?
- How have these roles changed over the past 23 years?
- How are the roles men and women play in agriculture affected by age, marital status,

wealth, ethnicity, and tradition?

Do the roles which men and women play affect their bargaining power within and outside the household?

Are gender roles in agriculture different depending on whose land the work takes place on and on which terms; i.e., owned, sharecropped, mortgaged, farm labour?

Source:

<http://unpan1.un.org/intradoc/groups/public/documents/APCITY/UNPAN018206.pdf>

accessed on 14th July 2010.

Check Your Progress Exercise: 2

Note: i. Use the space given below to answer this question.

ii. Compare your answer with the one given at the end of this unit.

1. What do you understand by the term women farmers?

2. Explain briefly the impact of the agrarian crisis on women.

.....

.....

.....

.....

.....

19.6 ENVIRONMENT AND ECOLOGY CONCERNS

Women's interface with the environment comprises their engagement with land, forest, water resources in addition to their role in resource management. The previous section on agriculture includes a broad discussion on these aspects and hence for avoidance of repetition, the same issues will be discussed in terms of the environmental risks and women's role for environment protection.

19.6.1 Linking Environment and Gender: An Introduction

The discussion on Gender and Environment is based on two guidelines:

1. That gender mediates human/environment interactions and all environmental use, knowledge, and assessment; and
2. That gender roles, responsibilities, expectations, norms, and the division of labour shape all forms of human relationships to the environment

Examples from Rwanda: (1) The annual population growth rate in Rwanda is very high -- over two percent. Any attempt to introduce family planning by aid agencies is met with considerable resistance by the government, churches and mosques. This is a gender issue, not

a women's issue, because men control all three of these institutions. (2) At a site where American engineers had drilled new water wells, the quality of the groundwater was far higher than the river water that was traditionally the source of water for the community.

Women, who collected water, did not have to travel as far, because the wells were closer to the community than the river was. However, the wells remained unused, Why? Because the main opportunity for social interaction among young men and women was when women went to the river to collect water while the men were fishing or irrigating crops.

These are two examples to understand why the issue must be termed as gender and environment rather than women and environment. The two broad guidelines noted above manifest themselves in a variety of environmental relations and interactions, including:

- Gender differences are evident in the use and management of natural resources, and unequal relationships in the family, community, etc. To mediate women's access to resources;
- Gender differences are visible in livelihood strategies that are rooted in particular uses of the environment;
- Gender differences are visible in knowledge of the environment, knowledge of specific resources, and of environmental problems;
- Gender differences are obvious in responsibilities for managing, owning, or using resources, and in rights to resources;
- Gender differences can be seen while engaging with the environment, in perceptions of the environment as well as in perceptions of the nature and severity of environmental problems.

The connections between gender relations, environmental change and vulnerability have only begun to be studied. Vulnerability to the effects of degraded environments are gendered and

the effects of improvements in environmental quality do not impact a community in the same way. The impacts differ depending on factors such as race, age, class and gender. Besides, the abilities to cope with or compensate for environmental change are gendered.

19.6.2 Differences in Gender Impact of Environmental Risks: Some Examples

A gender-segregated workforce results in different experiences for women and men in relation to environmental risks. Consider these examples:

- Men might be exposed to toxic chemicals used in mining; women will be exposed to pesticides used in the export flower-industry;
- Women's and men's income-generating activities may require specific resources (fuel, water) that produce particular wastes;
- Environmental pollution produces different health hazards for men and women - - women may be particularly vulnerable to home-based hazards such as indoor fumes;
- Women's domestic responsibility to provide resources for the household (water, fuel, food) increases when resources become scarce;
- If environmental hazards produce illness, men and women have different responsibilities for caring for ill family members;
- Responses to environmental change differ with age, class, family hierarchy, and gender;
- Biases in educational and training systems can imply that women are less equipped than men to understand, cope with, and anticipate environmental change or resource conditions.

One of the cumulative effects of all these gendered relationships is that even perceptions of the environment and of the state of the environment are often shaped by gender.

Check Your Progress Exercise: 3

Note: i. Use the space given below to answer this question.

ii. Compare your answer with the one given at the end of this unit.

1. Discuss two examples of environmental risks associated with women.

19.6.3 Gender Equity in Environmental Projects

In the 1980s, Governments and development agencies became much more aware of the need to consider gender issues in their environmental and natural resource management programmes. This led to changes in project design and implementation. Policy makers first came to appreciate that women 'play an essential role in the management of natural resources, including soil, water, forests and energy...and often have a profound traditional and contemporary knowledge of the natural world around them'. (World Bank, 1991). The exclusion of women from environmental projects -- through deliberate neglect or belief in the gender neutrality of projects - would thus be a formula for project failure.

A few years later, donor agencies came to see women as especially vulnerable: 'their responsibilities as day-to-day environmental managers ...make women both victims of and contributors to the natural environment's degradation and pollution.' (Ibid).

On the other hand, gradually, awareness grew of many grassroots success stories of women fighting to conserve local resources - - such as those described in Power to Change (Women's Feature Service, 1994). This then led to women being viewed as 'major local assets to be harnessed in the interests of better environmental management' (Davidson cited in Braidotti et al, 1994).

In some countries, the new environmental projects are based on an assessment of whether natural resource users are male or female so that the delivery of services 'reaches the right people'. For example, social forestry schemes have been redesigned, recognizing the diverse uses of tree products and different species preferences of men and women: men typically want timber for construction and fencing, while women need fodder and wood fuel. And, in water and sanitation activities, women's participation on water committees or in maintaining facilities is becoming the rule rather than the exception.

19.7 NEW APPROACH: THEORY VS PRACTICE

The rationale for the new approach is not always visible at the time of implementing the projects. The reasons for this practice being ineffective at times are:

First, project intentions can be subverted. As an example, the case of leaving environmental management to community level institutions (such as those promoted by the Aga Khan programme in northern Pakistan) can be cited. Such programmes do not guarantee women's access to project resources. In fact, the aim of involving women at all stages of the project often makes women do voluntary work, without giving them a fair share of project benefits.

Second, compared to a gender analysis of the underlying problems, environmental projects promote a limited set of aims. Policy documents (e.g. World Bank, 1991) acknowledge that lack of property rights reduces women's capacity to conserve environmental resources but the new approach does not address this issue. Donors still favour giving women access to credit, to help them manage resources and build up assets. It is immature to assume that traditional male control over land and other assets will not extend to the newly possessed natural resources. Thus, any attempt to give women authority within isolated projects without taking into account their limited property rights is almost certain to fail.

19.8 THE WAY FORWARD: EMPOWERING WOMEN THROUGH STRENGTHENING WOMEN'S CONTROL OVER RESOURCES

Is there any way of strengthening women's control over resources in environmental projects? Legal changes guaranteeing women independent property rights and increased political representation are needed at the national level. However, such reforms take time. They also need to be complemented at the local level by building up women's capacity to claim the new rights attained.

One approach suggested for environmental projects is **support for collective action by women** (Agarwal, 1994). This has the potential to confer inalienable use rights -- though not necessarily property rights -- over natural resources. Women have more chance of exercising rights as a group than as individuals. Wasteland development projects in India (such as the Bankura projects in West Bengal) have successfully supported women's groups efforts to regenerate forests and improve land productivity. They also build on women's greater use rights over common property than on privatized lands. But women need to keep the initiative here: new government policies in India are formalizing collective management

of forests under male-dominated communal institutions, undermining women's traditional property rights in forest resources.

Support for women's collective actions in addressing natural resource management problems is one instance of a general strategy to strengthen women's bargaining power in their relations with men. Other examples need to be found to develop the policy relevance of this approach to a broad range of environmental problems.

While women's involvement is important at all levels of decision-making, their participation is critical in the successful transfer of technologies at the community and household levels, as this would have an immediate effect on their surrounding environment, and their health and livelihood. This would also influence their decision-making powers in the community/ household. Attention should be paid to the fact that women at different stages of their life, for instance at their reproductive age, would be affected differently by the adoption of Environmental Sustainable Technologies.

19.8.1 Women, Water and Sanitation

Focusing on water issues, women are major users of water, and also discharge most of used water from a household - through cooking, washing, cleaning, bathing children, etc. They are also key players in maintaining the hygiene of family members. For the water to be used in a sustainable manner, it is important that they are made aware of the interrelationships between the technologies selected, the way it is applied and used in the provision of potable water, the discharge of used water, and issues related to sanitation and health. It is thus important to involve women in both the decision-making process, i.e. selection of ESTs, as well as in implementation, i.e. adoption and use of ESTs.

The key decisions for which it is necessary to consult women include: the situation of water facilities; choice of technology; the selection of pump caretakers, water committee members and other personnel; and the choice and management of the financing system. If women are well represented at higher levels, grassroots participation will be more effective.

Special care must be taken that women's participation does not become just a source of cheap labour. To date, women's involvement has been largely in voluntary construction work or as water committee members, in stereotyped roles: fund-raising, collecting fees, health and hygiene education, or cleaning. With appropriate training, women can also be involved in technical and managerial aspects of water supply and sanitation. There is scope, for example, to involve women in the management of credit schemes and revolving funds in Rajasthan in India shows that employing women rather than men as pump mechanics has higher initial costs but in the long-term brings greater efficiency and social benefits.

Box 4 CASE STUDY: In the suburbs and districts of Dibuchi, people drilled bore wells within the boundaries of their houses, where they also dug holes for toilet purposes. This resulted in water contamination and the spread of water-borne diseases, which led in turn to the death of many children. Such a situation could have been avoided if EST was selected and adopted in an appropriate manner, taking women's needs and wishes into consideration.

19.8.2 Experience from Bangladesh: Bangladesh Cyclone Response fails to meet Women's Needs

Disasters are not always gender-neutral. Studies in Bangladesh show that women suffered most following the 1991 cyclone and flood.

Among women aged 20-44, the death rate was 71 per 1000, compared to 15 per 1000 for men. Since emergency warnings were given mainly by loudspeaker and word of mouth, women's lower literacy does not explain these findings. Other factors lay behind women's higher mortality. Women were left at home by their husbands to care for children and protect property. Women's saris restricted their mobility. Women were malnourished compared to men and physically weaker. During the cyclone, the lack of purdah in public shelters may also have deterred women from seeking refuge.

"Women were left at home to care for children and protect property"

Following the cyclone, the lack of female personnel in emergency medical teams inhibited women from seeking medical care. Equipment taken into disaster areas was inadequate to meet the needs of women. Many women lose breast-feeding infants during environmental disasters. Pumps to express breast milk are essential to avoid serious infection and debilitating pain. Equipment and medication are also needed to handle the increase in miscarriages which always follows disasters.

19.9 THE PLATFORM FOR ACTION ON ENVIRONMENT

This section has been drawn from the documents of – *United Nations Environment Programme* , *UNEP's Division of Early Warning and Assessment* , *UNEP's International Environmental Technology Centre : Advancing the Sustainable Development Agenda; The UN Women's Conference, its implementation and follow up including the Beijing Review 2000; Presented by Jane Esuantsiwa Goldsmith, On the 18th February 1999 UNED-UK held its annual conference titled 'Towards the UN Millennium Assembly)*

"Women have an essential role to play in the development of sustainable and ecologically sound consumption patterns and approaches to natural resource management."

- The platform for action on environment makes the link between poverty and environmental degradation, and that everyone's co-operation is needed to eradicate poverty to achieve sustainable development.
- The Platform highlights the contribution and potential of women in promoting sustainable development.
- Through their management and use of natural resources, women provide sustenance to their families and communities.
- Women's indigenous knowledge of ecological linkages and ecosystem management are the main labour force for subsistence production.
- Women are more likely to be around, constituting a more stable part of the population—they are more likely to make a long-term commitment and investment in their communities.
- Women have often played leadership roles or taken the lead in promoting an environmental ethic re-cycling, local level activities.
- There's been a rapid growth of women's NGOs working at local, national and international level.

However, women remain largely absent at all levels of policy formulation and decision-making in natural resource and environment management.

- Their skills and experience are marginalized in policy making.
- Women are rarely trained as professional natural resource managers, planners, and agriculturalists.

19.10 SUMMING UP

Women have always played a central role in agriculture, undertaking a wide range of activities relating to food production, processing and marketing. In addition, women play a key role in land and water management in all developing countries. The five main gender issues that have emerged as being of particular significance in the agriculture and rural development sector include access to land and water resources; access to credit and other support services; gender differences in roles and activities; gender and agricultural extension and research; women's empowerment and equal access to decision-making as well as gender, agricultural biodiversity and commercialization. Thus, the mainstreaming of gender into the agriculture sector is a key strategy not only for the promotion of equality between men and women, but also for sustainable agricultural and rural development. The linkages between gender relations, environmental change and vulnerability are important as vulnerability to the effects of degraded environments are gendered and the effects of improvements in environmental quality impact people differently. The impacts differ depending on factors such as race, age, class, and gender. Besides, the abilities to cope with or compensate for environmental change are gendered. Thus, there is a need to focus on the vulnerabilities of women to changes in the environment and climate change so that actions and initiatives for empowerment of women (through strengthening of women's control over resources) can be taken.

19.11 GLOSSARY

GDP (Gross Domestic Product): The total market value of all final goods and services produced in a country in a given year, equal to total consumer, investment and Government spending, plus the value of exports minus the value of imports. The GDP report is released at

8.30 am EST on the last day of each quarter and reflects the previous quarter. Growth in GDP is what matters, and the GDP growth of the United States has historically averaged about 2.5-3% per year but with substantial deviations. Each initial GDP report will be revised twice before the final figure is settled upon. GDP numbers are reported in two forms current dollar and constant dollar.

Bio-Diversity: The variety of life on earth at all its levels, from genes to ecosystems, and the ecological and evolutionary processes that sustain it.

19.12 ANSWERS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress Exercise 1:

1. Water, land, natural resource management.

Check Your Progress Exercise 2:

1. Women engaging themselves in agriculture and its allied activities.
2. Feminization of poverty, loss of livelihoods, diversion of land to commercial use, withdrawal of subsidy, reduction in agricultural credit.

Check Your Progress Exercise 3:

1. Earthquake, cyclone

19.13 REFERENCES

Agarwal, B., *A Field of One's Own: Gender and Land Rights in South Asia*, Cambridge : Cambridge University Press, 1995.

Braidotti, R., E. Charkiewicz, S. Hausler and S. Wieringa, *Women, the Environment and Sustainable Development: Towards a Theoretical Synthesis*, London: Zed Books, 1994.

Commonwealth Secretariat, *Gender Mainstreaming in Agriculture and Rural Development: A Reference Manual for Governments and Other Stakeholders*

Hombergh, H. van den, *Gender, Environment and Development: a Guide to the Literature*, Utrecht: International Books, 1993.

<http://unpan1.un.org/intradoc/groups/public/documents/APCITY/UNPAN018206.pdf>
<http://unpan1.un.org/intradoc/groups/public/documents/APCITY/UNPAN018206.pdf>

Joekes, S., M. Leach, and C. Green, *Gender Relations and Environmental Change*, *IDS Bulletin*, vol. 26, no. 1, IDS, Brighton, 1995.

Shiva, Vandana, *Staying Alive -- Women, Ecology and Development*, London: Zed Books , 1988.

Women's Feature Service, *The Power to Change*, London: Zed Books, 1994.

World Bank, *Women's Crucial Role in Managing the Environment in Sub-Saharan Africa*, Africa Technical Department, Women in Development Unit, Technical Note, IBRD, Washington, 1991

World Development Report, World Bank, Oxford University Press, N. Y., 1991

19.14 QUESTIONS FOR REFLECTION AND PRACTICE

1. Discuss gender issues and needs in the agriculture sector.
2. How does commercialization of agriculture impact women? Explain briefly.
3. Analyze the rationale for mainstreaming gender in the agriculture sector

- 
4. Describe the linkage between environment and gender and the differences in the gender impact of environmental risks.

ignou
THE PEOPLE'S
UNIVERSITY

ignou
THE PEOPLE'S
UNIVERSITY