

# Role of Rural Women of District Ganderabal of Central Kashmir in Natural Resource Management

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## Abstract

The natural resource management is the taking care of natural resources like land, water. It has been noticed that use and abuse of natural resources is a key issue that has been caused by man kind. The misuse of natural resources directly or indirectly refers to excessive use, destructive use or achieving imbalance between natural resources either individually or in combination. The purpose of current study was to investigate the role of Rural women in natural resources management and utilization in Ganderabal district, Central Kashmir of J&K region. The role of women in natural resource management is crucial for sustainable development. This abstract explores the multifaceted contributions of women of this domain, including their roles as farmers, forest users, and water managers women's local knowledge and expertise often lead to effective resource conservation and community resilience. Despite the large contributions of women, women often face problems such as limited access to resources and decision making power. By providing women in natural resource management can enhance conservation efforts and promote equitable and inclusive development. In the current study quantitative as well as qualitative data was collected from 400 rural women selected at random using simple random sampling technique. The data collected were analyzed using appropriate statistical tools. The study revealed that the respondents understudy in majority have limited access of latest technology, skill training, education, extension services and current information. In order to strengthen the women's participation in resources management and sustainable uses, the researchers suggest that suitable measures should be taken to empower women in

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decision making, skill training, education and extension activities.

**Keywords:** Natural Resources; Women; Environment; Ganderabal; Statistics.

## Introduction

Natural resources are any source of wealth that nature offers especially minerals, fossil fuels, timber etc. that are essential for sustaining life and supporting human activities. Natural resources can be classified into renewable resources, such as sunlight, water, wind, and forests, can be replenished over time and non-renewable resources, like fossil fuels (coal, oil, natural gas) and minerals,

are finite and cannot be replaced once depleted. Natural resources play a crucial role in various aspects of human life, mainly in food production, energy generation, shelter construction, and the creation of consumer goods. They also provide essential ecosystem services, such as pollination, climate regulation, and water purification, which are vital for maintaining a balanced environment. As the world population continues to grow and human activities exert increasing pressure on natural resources, sustainable use

and conservation practices are becoming more & more important to ensure their availability for future generations. Rural women play an essential role in management and conservation of natural resources. They are often responsible for activities like farming, gathering water and firewood, and caring for livestock. Their knowledge of traditional practices and sustainable techniques contributes to preserving the environment. Their active engagement empowers them and fosters resilient and inclusive rural communities.



Rural Life in Kashmir

In a study it was found that women have a significant role to play in, promoting sustainable development especially those related to environmental protection (Aye, 2018). It is noticed that Rural women are involved in agricultural operations to a greater extent; they need assistance from Government, private or any other agency for newest information sources related to crop production, livestock and especially quality poultry production. Generally, there are no specific information sources and training facilities for rural women, although it has been found that Rural women farmers play a vital role in food production and food security in India. It has been found that, although women participation and involvement in agriculture sector is active but they are very far from agricultural extension education services throughout the globe (Butt *et al.* 2010). In another study conducted by Blocker and Eckberg (1989) it was reported that women and men often respond differently to environmental issues: women were more concerned than men about local environmental issues while there was little difference on general environmental issues between men and women. It was reported by Ahmed and Hussain (2004) that Rural women play a key role in agricultural sector production by working with full passion in production of crops

right from the soil preparation till post harvest and food security activities. We observe that over half of the world's poor live in rural areas and depend heavily on natural resources for their survival. Rural people men as well as women depend on availability of natural resources so availability of food for their house hold as well as the conservation and sustainable use and management of natural resources is their concern. It has been found that majority of such people are rural women, who have virtually limited or no access to farm-based resources. Hence, increases women's vulnerability and their livelihood strategies to be dependent on the availability of natural resource. The researchers reported that proper natural resource management can release more time for women to use on income generation activities, child care and personal development. In the light of literature (Blackden, 2006; Coleman, 2008; Marothia, 2010; Belay, 2016; Nyamekye and Oppong-Mensah, 2016 etc), we chose this study with the main aim to examine the role of rural women in natural resources management in Kashmir valley.

### **Methodology**

The present study was carried out in Ganderbal

District of Kashmir valley, J&K region. In this paper, we chose in total 400 rural women at random from the study area. A well designed questionnaire validated was used to collect the data from the women under study. The women who participated in this study were given a verbal explanation regarding the purpose of the present study and were assured that information collected will be used only for academic purpose only. The data collected using simple random sampling technique (Cochran, 1977), was analyzed using standard statistical techniques.

## Results

The data presented in Table 1, reveals that majority (46.5%) of the respondents understudy were in the age group of 36-45 years, 69% reported that their family size was 5-8, majority of respondents 45.5% reported that they spend 4-6 hours daily in field, 49% reported that their monthly income (approximately) was Rs 10000-20000, and majority (41.0%) respondents under study reported that they possess upto 10 Kanals of land.

**Table 1:** Distribution of the study population as per general information (n=400)

S.No.	Characteristics	Variable	Frequency	%
1	Location	Ganderbal	400	100
2	Age (years)	25-35	86	21.5
		36-45	186	46.5
		>45	128	32.0
3	Family Size	2-4	86	21.5
		5-8	276	69.0
		>8	38	9.5
4	Family Income (Monthly)	5000-10000	42	10.5
		10000-20000	196	49.0
		20000-30000	94	23.5
		>30000	68	17.0
5	Time Spend in Field (Daily)	< 2 hours	96	24.0
		2-4 hours	122	30.5
		4-6 hours	182	45.5
6	Land Holding (Kanals)	landless	22	5.5
		Upto 5	106	26.5
		Upto 10	164	41.0
		11-20	58	14.5
		>20	50	12.5

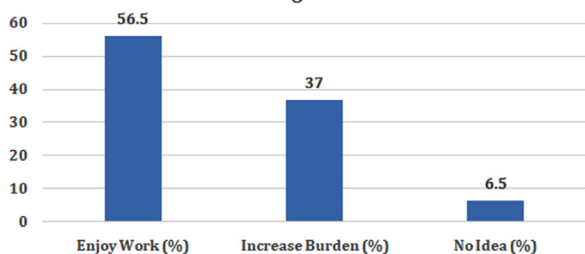


**Women working in field in rural Kashmir**

Women Working in field in Rural Kashmir



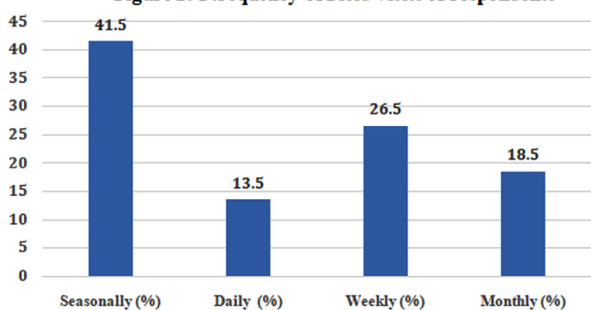
**Figure 1: Approach of respondents towards working in field**



**Statement 1:** Does working on field increase your burden or do you enjoy it?

The data presented in Fig. 1, revealed that majority (56.5%) respondents reported that they enjoy working in field. They believe by working in field they remain physically as well as mentally fit.

**Figure 2: Frequency of Field visits of respondents**

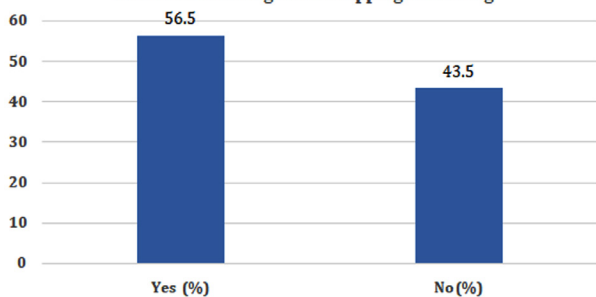


**Statement 2:** Frequency of field visits?

The data presented in Fig. 2, revealed that majority (41.5%) respondents reported that they visit to their field daily. They believe that field is part of their family and visiting daily also helped them to closely monitor crops, identify pest or disease issues early and make informed decisions about irrigation, fertilization and harvesting which helped them to improve the quality and harvest of their crops.

The data presented in Fig. 3, revealed that majority

**Figure 3: Knowledge about crop rotation/mulching/inter cropping /fallowing**

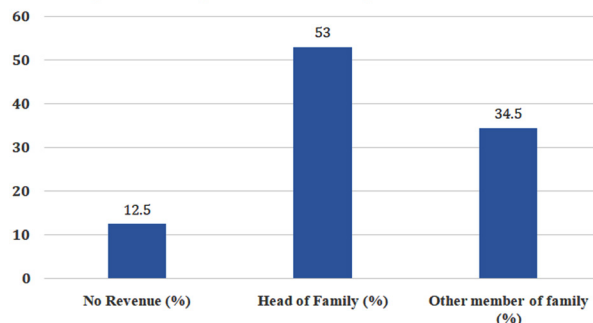


**Statement 3:** Do you have any information about crop rotation/mulching/inter cropping /fallowing?

(56.5%) respondents reported that they have basic knowledge of agriculture. The respondents were ready to learn about new and latest techniques

available in agricultural field through various training programs under various schemes of the government.

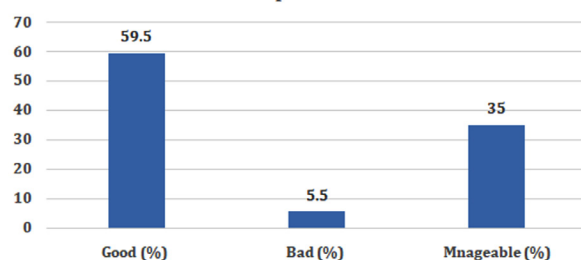
**Figure 4: Management of Revenue generated from field**



**Statement 4:** Who takes care of the money/revenue generated from agricultural produce?

The data presented in Fig. 4, revealed that majority (53%) respondents reported that they enjoy the decision making on the revenue generated from agricultural produce. The head of the family manages the revenue generated from agriculture by thoroughly analyzing various important aspects of the farming operations like selection of crop, type of cultivation, time of harvesting, orlabour and machinery for farming activities. Overall the role of the decision maker involves strategic planning to optimize the revenue generated from agricultural activities.

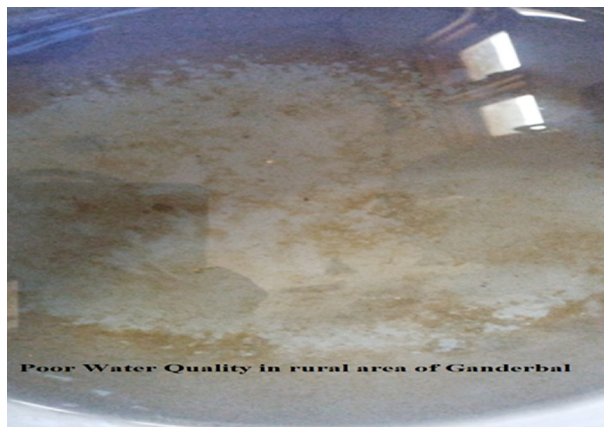
**Figure 5: Quality of water as per the opinion of respondents**



**Statement 5:** How is the supply of water in your area?

The data presented in Fig. 5, revealed that majority (59.5%) respondents reported that quality and quantity of water is good and is not same as was decade back. it is because of the involvement of various governmental schemes of the *Jal Shakti Department* which is entrusted with the responsibility of providing safe drinking water facilities to all the human settlements, by taping the available water resources and treating the same through filtration and chemical through a network of pipes.

It is shocking to see the poor water quality supply in some rural areas of Ganderbal district. During

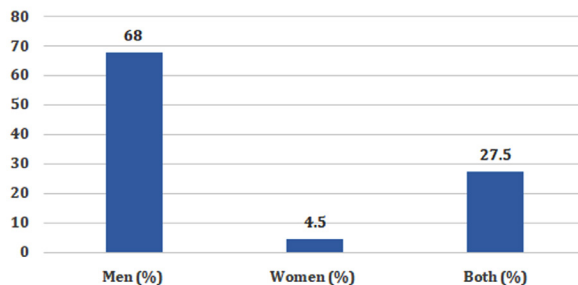


Poor Water Quality in Rural Area of Ganderabal

survey in Baba Dariyadin area Ganderabal, water quality was examined which was looking mud water. Govt must interfere and solve this serious issue as we know contaminated water is linked to transmission of diseases like cholera, diarrhoea, dysentery, hepatitis A, typhoid and polio.

We know water pollution is a global issue. No doubt women in study area are taking interest in management of natural water resources as they are aware about the importance of water in our lives.

Figure 6: Opinion of respondents as per preference for agricultural work



Statement 6: Who do you think are more preferred for agricultural work?

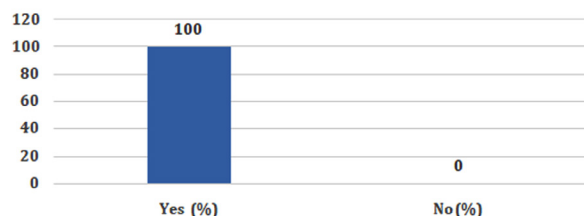
The data in the fig. shows that majority (68%) respondents reported that men are more preferred for agricultural work due to their physic and stamina. Also traditional gender roles often assigned men to physically demanding roles while women are responsible for domestic chores, these roles have influenced perceptions of strength and capability leading to preference and participation of men in certain agricultural roles and 27.5% agreed that both are equally fit for the agricultural purposes.



Women working in study rural area

In present survey it was observed that women were also involved in animal grazing and during discussion they revealed that live stock is an important source of income and natural resources are very important. Traditionally women are involved in protecting and conserving natural resources in mountain areas since time immemorial. Women with their extraordinary skills and traditional knowledge, have proved how land, water resources, forest and other natural resources can be used and managed efficiently.

Figure 7: Technology and availability of modern can lead to good crop production



Statement 7: Good tools and technology can lead to good production?

The data in the above figure represents that 100% of the respondents agree to that modern tools and good technology can lead to good production. As these advancements enable more efficient machinery and techniques for various agricultural purposes like planting, harvesting, irrigation, and pest control ultimately improving yields and reducing labour requirements.

## **Discussion**

### ***(a) Women and Agriculture:***

Women play a significant role in agriculture based activities, contributing to various aspects of farming, from planting and cultivation of crops to live stock rearing and management. They often work as labourers, but also take on leadership roles and contribute to decision making in many farming communities. However, gender inequality can limit women's access to resources, education, and land ownership in the the agricultural sector. Efforts are being made to empower women in agriculture and address these challenges. Land resource is mostly controlled by men, while women have limited power to control the resource and have also limited or no access to external inputs such as extension, fertilizer and credits. It is one of the most vital natural resources for people and it partly determines the volume of output and the status of a farmer in the social setting of the society. It is a store house for minerals and forest resources of various kinds. The group discussion revealed that women are equally conscious about the importance of land

### ***(b) Women and Water Resource:***

Women are good water managers and play a crucial role in managing water resources as they are responsible for collecting, using, and safe guarding water for households and agricultural purposes. In many regions, women spend a significant amount of time fetching water, which can limit their opportunities for education and economic activities, providing better water facilities and susustainable water use can help in empowering women by saving their time and effort. Over centuries, women have acquired extensive knowledge about water quality, health and sanitation. They consider it a religious duty to save water.

### ***(c) Women in Biomass Energy Consumption and Management:***

Women over centuries, have gathered and managed sources of biomass energy for household

utilization. Most domestic energy in rural Kashmir comes directly from these sources which include fuel wood, charcoal, agricultural residue, animal dung and bushes but due to modernization and introduction of the use of LPG gas has made it easy and feasible for rural women as it has proven to be a great help in time management.

*Women and Livelihood Agriculture:* The rural women support to prepare farm, and then, weeds and transplants, while they do milking and cleaning of sheds and other activities related to livestock. The women under study were involved in various livestock activities besides agriculture. Women's participation in agriculture is a basic aspect of livelihood in many rural communities around the world. They make significant contributions to the agricultural sector, playing crucial roles in various stages of farming and food production. Additionally, women play a crucial role in ensuring food security within their families and communities by managing household gardens and small-scale farming. Despite their essential role, women in agriculture often face challenges like inequalities in decision making and ownership of land, which can hinder their productivity and economic independence.

Challenges related to infrastructure and service provisions:

- a. Food Quality and Quantity due to lack of knowledge about latest technologies.
- b. Transportation problems.
- c. Quality and Quantity of water.
- d. Lack of health and sanitation facilities.
- e. Shortage of fuel wood due to deforestation.
- f. Climatic hurdles.

## **Conclusion**

Rural women play a crucial and diverse role in natnural resource management. Their active involvement in various aspects of agricultural and environmental practices makes them indispensable contributors to sustainable development and conservation efforts. However, they often face gender based challenges that limit their access to resources and decision making power, hindering their full potential in this field.

### ***Recommendations:***

*Empowerment and Education:* Promote programs that empower and educate rural women through training, and capacity building initiatives. This will help them to adopt sustainable practices regarding natural resource management.



### *Land Rights:*

Advocate for equal land rights and ownership for women in rural communities. Secure land tenure will give them a sense of security, responsibility and encourage long-term investments in sustainable land use and conservation.

### *Access to Resources:*

Improve access to credit, technology, and market opportunities for rural women engaged in natural resource management. This will enable them to invest in sustainable farming practices, adopt eco-friendly technologies, and access better markets for their produce.

### *Women's Participation in Decision-Making:*

Encourage and support the participation of rural women in community level decision making processes related to natural resource management. This will ensure that their perspectives, needs, and concerns are considered, leading to more inclusive and effective policies and practices.

### *Networking and Collaboration:*

Facilitate networking and collaboration among rural women's groups, NGOs, government agencies, and other stakeholders involved in natural resource management. This will foster knowledge exchange and collective action for sustainable development.

### *Recognition and Incentives:*

Acknowledge and reward the contributions of rural women in natural resource management through awards, incentives, and recognition programs. This will encourage more women to actively engage in sustainable practices and conservation efforts.

By implementing these recommendations, we can create an environment where rural women's roles in natural resource management are valued, supported, and recognized, leading to more resilient and sustainable communities for the benefit of current and future generations.

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