



Poverty alleviation goes hand in hand with gender integration as it takes into account different needs of women and men and balances the scale through equitable distribution.

A systematic analysis of linkages and interrelationships between poverty, gender, and water in local, regional, and central levels is needed before designing gender-sensitive programmes.

Water Policy Research

Highlight

**Poverty, Gender, and
Water Issues in Irrigated
Agriculture and Irrigation
Institutions**

**Mainstreaming Gender in Water
Resources Management**

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Poverty, Gender, and Water Issues in Irrigated Agriculture and Irrigation Institutions: Mainstreaming Gender in Water Resources Management¹

RESEARCH HIGHLIGHT BASED ON A PAPER TITLED

“POVERTY, GENDER AND WATER ISSUES IN IRRIGATED AGRICULTURE AND IRRIGATION INSTITUTIONS: A REVIEW OF LITERATURE”

WHO ARE IRRIGATORS —WOMEN, MEN OR BOTH?

One of the common assumptions regarding irrigator farmers – specially in African² and Asian³ countries – is that they are predominantly male, which leads to the assumption that farm household resources and labour are effectively controlled and allocated by males. Research has shown that failure to recognize gender issues affects agricultural productivity of irrigated crops negatively, and that women’s lack of independent access to, and control of, land and water threatens household food security.

In many cases water resource policies and programs have proven detrimental to women’s water rights and, therefore, to sustainable management and use of water. Interventions such as irrigation habitually fail to take into consideration the existing imbalances between men and women’s ownership rights, division of labour and incomes. Numerous studies led governments as well as international and local agencies to realize the important role played by women in water management. Women are increasingly being trained on various aspects of water supply and irrigation operation and maintenance.

There has been increasing recognition that access to water in equitable manner helps reduce poverty among poor of the poorest communities. Academics, researchers, policy makers, development workers, national and international non-government organizations and bilateral and multilateral donors have realized that improved management of water is imperative to sustainable development, poverty alleviation and biodiversity preservation. Likewise, safe, adequate, equitable and sustainable water supplies for all is one of the main social goals enunciated at global level in the past few years.

Despite high female involvement in irrigated agriculture, their participation in irrigation institutions is much lower.

Despite numerous research on gender and natural resources management, very little work has been done on linking gender with poverty. This paper seeks to fill this gap by looking at the linkages among gender, water and poverty in terms of gender participation in irrigated agriculture and irrigation institutions. It also analyses the impact of water projects on local communities from gender perspective.

Key findings of this research revealed gender inequalities in terms of participation in irrigation institutions, primarily in South Asian and African

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²Carney, J. A. 1988. Struggles over Land and Crops in an Irrigated Rice System in Gambia. In Davison, J ed., Agriculture, Women and Land. Westview, Boulder, CO, USA. See also, Zwarteveen, Margreet. 1996. A Plot of One’s Own: Gender Relations and Irrigated Land Allocation Policies in Burkina Faso. Research Report 10, Colombo, Sri Lanka: International Water Management Institute.

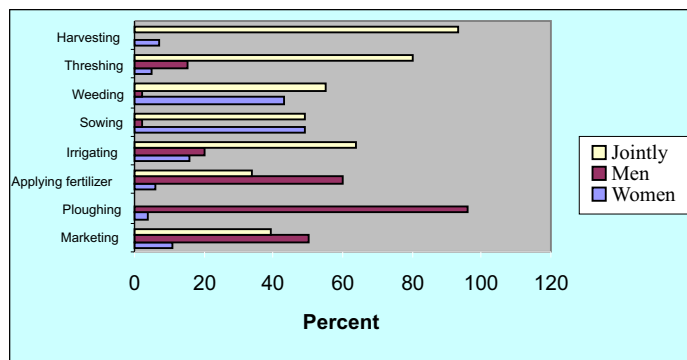
³van Koppen, Barbara, Rashmi K. Nagar and Shilpa Vasavada. 2001. Gender and Irrigation in India: the Women’s Irrigation Group of Jambar, South Gujarat. Working Paper 10. Colombo, Sri Lanka: International Water Management Institute. See also, van Koppen, Barbara, Jacobin van Etten, Prabina Bajracharya and Amita Tuladhar. 2001. Women Irrigators and Leaders in the West Gandak Scheme, Nepal. Working Paper 15. Colombo, Sri Lanka: International Water Management Institute.

nations. Despite high female involvement in irrigated agriculture, their participation in irrigation institutions is much lower. Furthermore, water projects with gender equality interventions enhanced both men and women's capabilities with relative upliftment in women's abilities to participate and realize the benefit thereof. Finally, the paper presents the framework showing the linkages among gender, water and poverty and explores the possible constraints and opportunities for participation of women in irrigation management and water user associations.

GENDER DIVISION OF LABOUR

In South Asian countries women are basically engaged in unskilled and labour intensive tasks

Figure 1: Percentage of Households, by Gender of the Members, Carrying out Agricultural Activities



Source: Saini and van Koppen, 2001

whereas men are found performing technological and highly production augmenting functions. Similarly, African women play a crucial role in many aspects of irrigated crop production. In many parts of Africa, women are also responsible for fishing in shallow waters and in coastal lagoons, producing secondary crops, gathering food, and firewood, processing, storing, and preparing food, and fetching water for family.

Introduction of irrigation schemes – either small or big – leads to increased food security and marketable surplus as farm households grow more crops. However, realizing the income and subsistence potential of irrigation depends crucially on the availability of family labour. This is why household labour availability is not a simple function of the absolute number of adult household members, but is instead closely related to the intra-household division of rights and responsibilities based on gender.

Looking at natural resource management organizations in South Asian and African context from a gender perspective, it can be noted that the dynamics of resource management cannot be properly understood when one's attention is limited only to a single segment of the community.

Considerable evidence suggest that the lack of visible participation of women in water management organizations cannot be interpreted

Table 1: Gender Distribution of Male and Female Headed Households by Agricultural Activities

Activities	MHHs (n =42)			FHHs (n =15)		
	Male	Female	Both	Male	Female	Both
Ploughing	42 (100)	0 (0)	0(0)	15 (100)	0	0
Sowing	39 (93)	1 (2)	2 (5)	6 (40)	8 (53)	1 (7)
Irrigating	39 (93)	3 (7)	15 (36)	3 (20)	6 (40)	6(40)
Transplanting	0 (0)	30 (71)	12 (29)	0 (0)	11 (73)	4 (27)
Weeding	3 (7)	16 (38)	23 (55)	0(0)	12 (80)	3 (20)

• Out of 45 MHHs, 3 households were landless

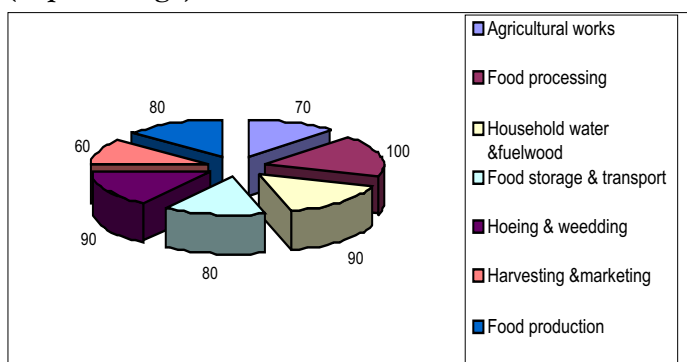
• Out of 19 FHHs, 4 households gave the land for sharecropping

Figures in parenthesis are percentages

In 80 per cent of the female headed households, women irrigate either alone or jointly. So while irrigation is rather male task in a male headed household, it becomes a predominately female task in a female headed household in the absence of male kin. This implies that irrigation is not only men's realm but also women's domain.

Source: van Koppen et al, 2001

Figure 2: Contribution of Sub-Saharan Women (in percentage)



Source: FAO Report, 1995

as lack of their interest in the use and management of the resource, nor does it imply that women do not influence what happens within the organization.

WHERE DOES INEQUALITY PERSIST AND WHAT ARE THE IMPLICATIONS?

Gender inequalities in terms of participation in irrigation institution are high in South Asian and African countries. Women's participation is much lower despite their high involvement in irrigated agriculture. Men are the main decision makers and are responsible for technology intensive tasks, while women are unpaid family labourers. In the long run, this practice leads women to contribute labour voluntarily and work as unpaid workers. This kind of imbalance in participation does not

help women take a greater role in decision-making.

There is need for a sound gender approach and analysis to rationalize the basic grounds of such disparities. Thus, the fundamental causes of such imbalance need to be investigated.

WHY IS GENDER EQUITABLE ACCESS TO WATER NECESSARY?

The need to create equitable water user groups or provide equal access to water for both sexes is basically to empower women who are disenfranchised to demand their rights. Women's low participation in irrigation institutions not only hampers the effectiveness of the organizations but also increases tendency of using connections to access water through male relatives and officials, which further leads to increased women's dependence on others.

Gender inequalities impose cost on health and welfare of families and affect ability to improve their living conditions. Moreover, gender inequalities also reduce farm productivity and thus lower prospects of reducing poverty and ensuring economic progress.

Figure 3: Water Projects with Gender Equity Interventions Enhance both Men's and Women's Capabilities



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DOES WOMEN'S PARTICIPATION REALLY MAKE A DIFFERENCE?

Women's effective roles and responsibilities in water management will boost agriculture and small industry output. Effective and efficient uses of water by women will improve both food security and cash crop production. Thus, income growth has the largest impact on gender equality,

ensuring the enhancement of economic status of households – welfare of families and future generations – thereby reducing poverty. Bestowing *de jure* and *de facto* heads of households and poor women with water rights is an effective way to reduce poverty.

However, these recompenses can be fully realized only if the strategies adopted for improving women's equitable access to irrigation resources are put in practice. Policy makers need to know about the distribution of water rights; economic and cultural impediments that limit women's effective and secure access to irrigation resources; and, benefits that can accrue by improving women's access to water.

Augmenting Women's Possible Contribution in Irrigation Institutions

- **Equitable access to and control over resources**
- **Changes in land tenure policies**
- **Redefine rigid social and cultural norms**
- **Flexible membership rules**
- **Improvement in functional literacy training**
- **Ensuring access to appropriate technology**

Figure 4: Women in Agriculture are Engaged Mainly in Unskilled and Labour Intensive Tasks



IWMI-Tata Water Policy Program

The IWMI-Tata Water Policy Program was launched in 2000 with the support of Sir Ratan Tata Trust, Mumbai. The program presents new perspectives and practical solutions derived from the wealth of research done in India on water resource management. Its objective is to help policy makers at the central, state and local levels address their water challenges – in areas such as sustainable groundwater management, water scarcity, and rural poverty – by translating research findings into practical policy recommendations.

Through this program, IWMI collaborates with a range of partners across India to identify, analyse and document relevant water-management approaches and current practices. These practices are assessed and synthesised for maximum policy impact in the series on Water Policy Research Highlights and IWMI-Tata Comments.

The policy program's website promotes the exchange of knowledge on water-resources management, within the research community and between researchers and policy makers in India.

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