Gender in Irrigation

Economic and social empowerment opportunities for women and men in irrigation

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Empowerment through irrigation ('agricultural water management')

Adapting to climate change for poor rural (and peri-urban) women and men

- Higher farm productivity
- More benefits from other measures (e.g. fertilizer)
- Longer growing season, including hunger period
- Increasing farm size
- More food and income year-round
- Employment creation

Source: Molden 2007 Comprehensive Assessment

Water for a food-secure world
Gender empowerment triangle

Water benefits
Food/income; other benefits

1. Irrigated land
   public, with–without
   land reform/private

2. Water infrastructure
   public/private
   communal/individual
   hardware/software

3.  

4.  

Water for a food-secure world
Irrigated land

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Water for a food-secure world
Public schemes with land reform-1

Example: Rice improvement project in valley bottoms in South West Burkina Faso

Rice: a female farming system:
• Women are the majority of farm decision-makers (on cultivation and produce);
• Women are land title holders or have strong use rights.
Public schemes with land reform-2

First schemes:
• land dispossessed from women and reallocated to male heads of households
• no incentives, neither for women nor for men
• project collapse

Scheme Dakoro
Public schemes with land reform-3

Later schemes:

• recognition of female farming system and land tenure

• plot allocation to prior and new women users; men hardly interested

• project success

Scheme Moadougou
Lessons learnt:
elsewhere in ‘female’ or ‘mixed’ farming systems:

Allocate irrigated land ‘to women tillers’ in their own names & free crop choice, for higher productivity and gender equity
Lessons learnt: in ‘male’ farming systems (= most farm decision-makers are men; women unpaid family laborers):

Allocate irrigated land in spouses’ joint names for gender equity and higher productivity.
Public schemes **without** land reform

Target sites for improvement where women have stronger land rights, e.g.,

- homesteads in many places;
- the commons; wetlands;
- matrilineal areas; pockets of female-headed HHs; etc.

Women’s group Jambar India

Homestead Strydkraal South Africa
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Infrastructure

Water benefits
Food/income; other benefits

Irrigated land
public with-without land reform/private

Water infrastructure
public/private; communal/individual; hardware/software
‘Hydraulic property rights creation’

• Participation in the process of water infrastructure planning, choice, design, siting, lay-out, construction, operation and maintenance vests claims to water conveyed: ‘hydraulic property rights creation’ (Coward)

• (Both public and private; communal and individual; hardware=software)
1. Public infrastructure: Vertical

Vertical irrigation infrastructure projects:

- Membership (land title, Water User Association, leaders, access to inputs, credits, technical training, etc)
  - in women’s own, or in joint spouses’ names
  - from early planning onwards
  - at least proportionately to share farm decision-makers
- Challenge taboos and empower women to enter male domains; train women in construction
2. Public infrastructure: Decentralized

Decentralized irrigation infrastructure development through local government

• Ensure gender equity in democratic, iterative community-driven integrated water development planning
• Enforce women’s quota in local government
• E.g., National Rural Employment Guarantee Act India
Private/informal infrastructure - 1

E.g. groundwater development: widening the gender gap

Chibombo district, Zambia
Private/informal infrastructure - 2

- Weaker and less secure land rights
- Smaller farm sizes
- Cultural taboos: mechanization is ‘male’
- Lack of smaller technologies
- Lack of capital/loans
- Lack of labor for intensification

✔️

- Strengthen women’s land rights
- Challenge taboos and empower women to enter male domains
- Train women in mechanization
- Promote smaller equipment
- Vest loans for irrigation equipment in the names of women or both spouses (B’desh)
Benefits food/income

Water benefits
Food/income; other benefits

Irrigated land
public, with-without land reform/private

Water infrastructure
public/private; communal/individual; hardware/software
Local diversity in gendered organization of farming & division of benefits

- What are women’s and men’s roles in farming in different areas?
- Should most women and men in an area be targeted— in their own names (female, mixed) or— jointly as spouses (mixed, male farming system)?

> Mapping a gender classification of farming systems
Gendered Cropping Systems of Zambia

Legend:
- Separately Male/Female
- Female
- Male
- Separately Male/Female
- Joint
- Unknown
- Lake
- Ethnic Groups
- Rail Line

Source: Barbara van Koppen, Vincent Akamandisya, and others May 2010.
Contributing factors

• Land inheritance, marital residence patterns
• Ethnicity
• Other gendered livelihoods
• Control over trade
• Migration/feminization of agr.
• Women’s organization
• Male-biased state support e.g. land tenure, market development, training
• Female-biased NGOs activity
• Opportunities of new crops
• Culture
• Religion
An untapped opportunity

Water benefits
Food/income; other benefits

Irrigated land
public with-without
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Water infrastructure
public/private;
communal/individual;
hardware/software;
Water: single or multiple benefits?

- Planners see water for one single use.

- People see water for multiple uses: drinking, domestic, sanitation, cropping, horticulture, livestock, forestry, fisheries, brick-making and construction, crafts, enterprises, culture, etc.
Multiple-use water services (MUS)

- Community-driven water development for multiple uses
  - Follows people’s priority uses
  - Generates many more livelihood benefits
  - At low or no incremental costs

Source: IDE Nepal
Irrigation scheme ‘add-ons’

- No canal lining for groundwater percolation into command area for domestic uses, gardening, etc.
- Year-round water in canals or reservoirs
- Washing steps
- Cattle entry points
- Bridges etc.
Water to homesteads (50-200 l/p/d - 5 safe)
A gendered basic human right to water ?!

domestic uses: health & women’s labour saving

resilient food and income....

..from crops

..from enterprise

..from livestock

..from fish
In conclusion

Target women’s own and joint benefits from productive water uses, recognizing local diversity

Target women’s multiple water uses at homesteads

Strengthen women’s land rights and target their land for improvement

Include women in community-driven infrastructure development for multiple uses
Thank you

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