

GENDER AND POVERTY CHALLENGES
IN SCALING UP RURAL ELECTRICITY ACCESS

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Paper Presented at
VILLAGE POWER '98
Scaling Up Electricity Access for Sustainable Rural
Development
6-8 October, 1998
World Bank, Washington, DC

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SUSTAINABLE RURAL ENERGY DEVELOPMENT:

1. EQUITABLE GROWTH - FOR *ALL* BUT ESPECIALLY FOR *POOR AND WOMEN*
2. ENVIRONMENTAL PROTECTION/REGENERATION
3. SELF-SUFFICIENCY (INSTITUTIONAL AND FINANCIAL

1990S GLOBAL ENERGY AGENDA

OBJECTIVES:

1. Reduce carbon dioxide emissions to meet Kyoto targets.
2. Increase energy for growing populations and higher incomes.

SOLUTIONS ARE TECHNICALLY MATURE & COMMERCIAL:

1. Energy efficiency
2. Renewable energy

HOW?

Commercial, market approaches.

Overcome market barriers

WHAT ABOUT THE POOR? THREE APPROACHES:

◆ ENSURE ACCESS BY POOR THRU SUBSIDY OR COMMUNITY APPROACH?

- energy key to livelihood strategies
- equity: with irregular/unreliable incomes, poor can't invest in more efficient appliances or buy in bulk = poor pay more for energy

Problems:

- subsidies may not be sustainable
- community/NGO approach is risky, time-consuming, input-intensive

◆ OFFER CREDIT, OVERCOME MARKET CONSTRAINTS?

- most optimistic credit scenario for SHS: 50-75% of rural households (still leaves 25-50% without electricity)
- possible perverse effects: debt, increased household energy expenditures, loss of investment

◆ IGNORE THE POOR - THEY CAN'T AFFORD RURAL ELECTRIFICATION?

- let rich take risk of new technologies
- some poor will finance thru gifts, remittances, savings societies

Time allocation to survival activities among women and men (hours per day)

Activity	Indonesia	Burkina Faso	India	Nepal
Firewood collection				
Women	0.09	0.10	0.65	2.37 ^a
Men	0.21	0.03	0.57	0.83 ^a
Water hauling				
Women	0	0.63	1.23	0.67
Men	0	0	0.04	0.07
Food processing				
Women	2.72 ^b	2.02	1.42	0.70
Men	0.10 ^b	0.17	0.27	0.20
Cooking				
Women	-	2.35	3.65	2.10
Men	-	0.01	0.03	0.38
Average total work time				
Women	11.02	9.08	9.07	11.88
Men	8.07	7.05	5.07	6.53

^aIncludes grass and leaf fodder collection.

^bIncludes cooking.

Sources: Tinker, 1990 and Hotchkiss, 1988, in Cecelski, 1995.

Women-headed households, 1990 census (%)

Developed regions 24

Africa

Northern Africa 13

Sub-Saharan Africa 20

Latin America and Caribbean

Latin America 21

Caribbean 35

Asia and Pacific

Eastern Asia 21

South-eastern Asia 18

Western Asia 12

Oceania 17

Source: UNDP, 1995

Home Lighting/Connection Point Preferences of Women & Men, Biogas Village Power Project, Ghana

Women

Men

Kitchen
(for preparing food)

In front of house
(for entertaining friends, cards)

Work room
(for working on income-
generating activities at night)

Music/TV

Back of house by bathroom
(for bathing children at night)

Source: W. Ahiataku-Togobo, Ministry of Mines & Energy, Accra.

WHAT ABOUT COOKING?

- Women's largest single energy use
- Time-consuming (5-6 hours/day compared to 1-2 for fuel collection)
- Negative health effects (respiratory & eye diseases)
- 80% of household energy consumption and largest single rural energy use in low-income countries.
- Unless cooking needs are addressed, positive impacts on deforestation, women's health & time will be minimal.
- Electricity does not address rural cooking needs.

Options for meeting cooking needs in rural electrification programs:

- Encourage electric cooking with excess hydropower (China, Nepal)
- Develop low-wattage and low-cost appliances (cookers in Nepal, irons and kettles in South Africa)
- Promote non-electric options along with electricity (SHS/improved stoves in Guatemala, gas burners/cylinders by ESKOM in South Africa)
- Adequately resource now-marginalized household energy programs as part of integrated rural energy planning

High priority needs for rural women that could be met by electricity:

- Drinking water pumping and purification
- Cooking where feasible e.g. small hydro, low-wattage appliances
- Food/agricultural processing e.g. grain grinding, oil extraction
- Security - street & home lighting
- Home lighting in work and study areas

WOMEN NEED CREDIT

- Access to credit: A barrier to renewable energy technologies, exacerbated for women.
- Women receive only about 10 per cent of credit from formal institutions.
- Women need credit for renewable energy:
 - as end-users
 - in micro-enterprises
 - as energy entrepreneurs
- Women use additional income for food, school fees, clothes for the household.
- Women have an excellent repayment record (90-100% in micro-credit programs).

Women may logically be appropriate renewable energy entrepreneurs for household and small-scale industry because:

- Women are users of these devices so may be more sensitive to customers' desires e.g. women potters produce & market 11,000 stoves annually in West Kenya
- Women are effective entrepreneurs with a good credit record e.g. in Grameen Bank 94% of borrowers are women, with 98% repayment rate (1996)
- Women can more effectively market to women, e.g. Vietnam Women's Union promotes solar home systems, collects payments

Business credit for women, 1993 data

	Portfolio (million US\$)	Women clients		Average loan size (US\$)	Repay- ment rate (%)
		Per cent of total	Per cent of portfolio		
<u>Commercial bank programmes</u>					
BRI/KUPEDES Programme, Indonesia	1122.5	23	21.9	720	98
BPD/BKK Programme, Indonesia	-	60	-	60	80
<u>Poverty lending banks</u>					
Grameen Bank, Bangladesh	311.08	94	90	158	87
Self-Employed Women's Ass'n (SEWA), India	0.462	100	100	263	97
BancoSol, Bolivia					
<u>Non-governmental organizations</u>					
ADOPEM, Dominican Republic	1.590	100	100	750	95
Kenya Rural Enterprise Programme	1.872	63	61	254	95
Credit Union Association, Ghana	0.254	30	-	-	-
<u>Affiliate network institutions</u>					
FINCA International, Washington, DC	13	96	-	100	97
ACCION International, Washington, DC	200	54	-	489	95
Women's World Banking global, New York	-	97	-	300	96

Source: Women's World Banking in UN, 1995.

Credit programmes accessible to women have:

- Frequent & flexible repayment schedules
- Alternative collateral requirements
- Low transaction costs, in money and time
- An informal banking atmosphere where women are respected
- Simple loan application procedures to accommodate illiteracy

Design characteristics that contribute to women's access to credit:

- Training services that recognize the economic constraints and cultural barriers faced by women clients.
- Incorporation of women staff members in both promotion and delivery of project services.
- Use of community networks and self-help groups.

RECOMMENDATIONS FOR VILLAGE POWER

1. Disaggregate & analyse by women and men, e.g.
 - * market surveys
 - * loan portfolios
 - * impact evaluations
 - * stakeholders
2. Address women's needs for labour- and time-saving, security & income, especially:
 - * cooking
 - * water pumping & purification
 - * street lighting
 - * home lighting where women work
 - * agricultural processing
3. Ensure women's equal access to credit & training in village power projects.
4. Build alliances between renewable energy organizations & women's organizations.