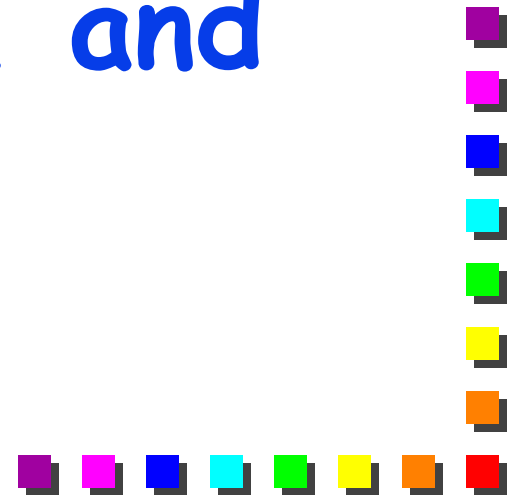


Too Much Work and Too  
Little Time:  
**Gender** Dimensions of  
Transport, Water, and  
Energy



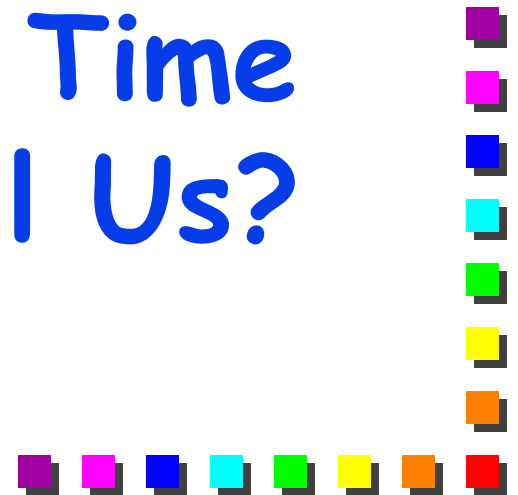
# Outline

- The "household economy"
  - time allocation data
- Household tasks
  - domestic activities: transport, water, energy, preparing food
  - disaggregation by task and by gender
- Policy implications & agenda



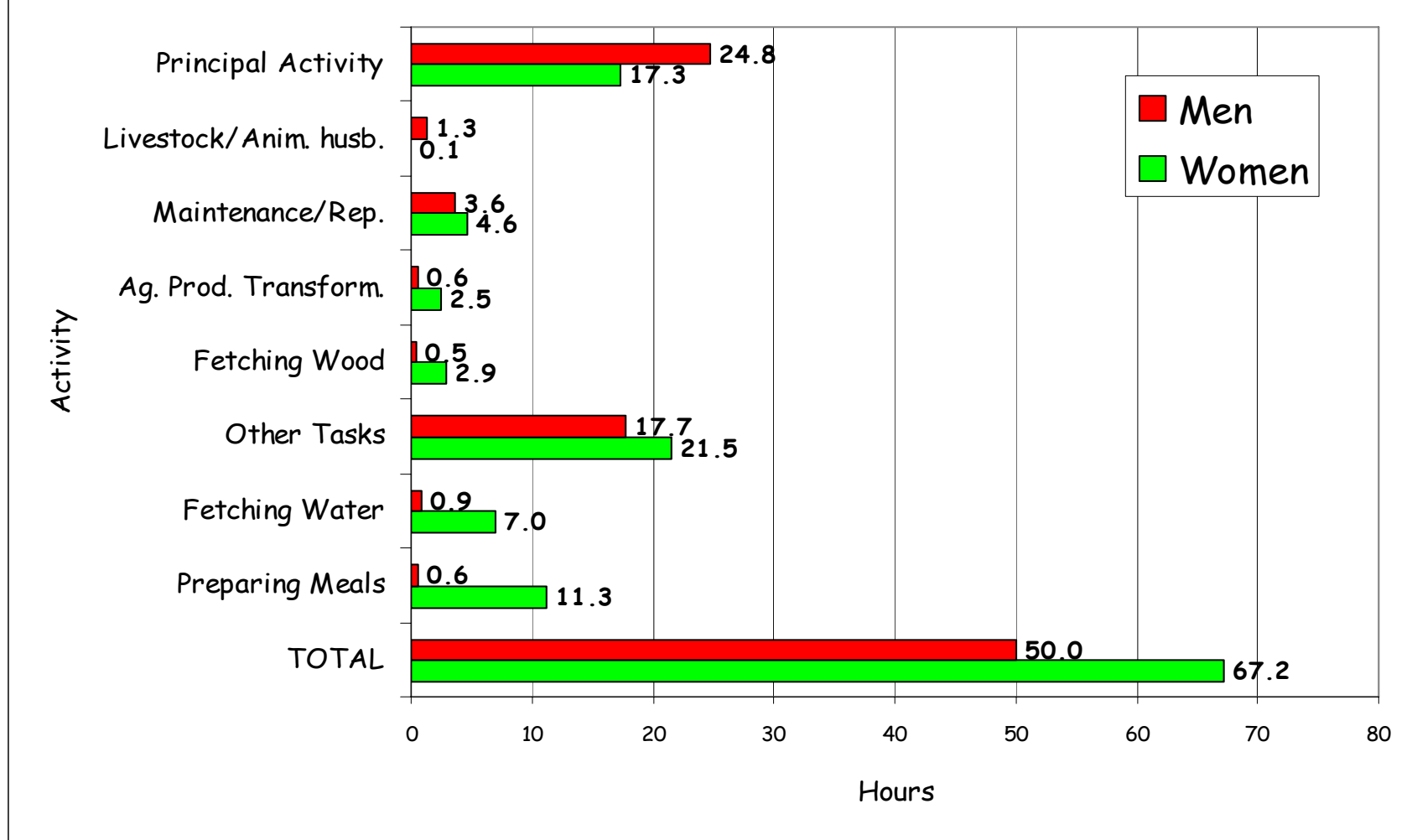
I

# Revisiting the Household Economy: What do Time Allocation Data Tell Us?

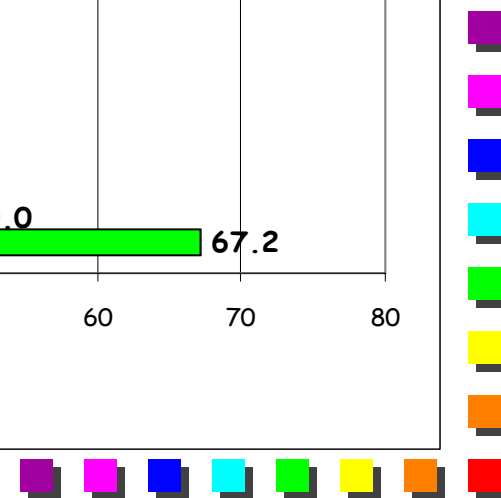


# The "Double Workday" of Women

Benin: Weekly Work Hours by Task and Sex



Source: Benin -- Time Allocation Study, UNDP, 1998



# Interdependent ...

GENDER DIVISION OF LABOR  
ACCESS & CONTROL  
OF RESOURCES

## MARKET

Labor  
Segmentation

Key Characteristics

MONETIZED  
ECONOMY  
PREDOMINANTLY  
MALE  
GOVERNED  
BY LAW

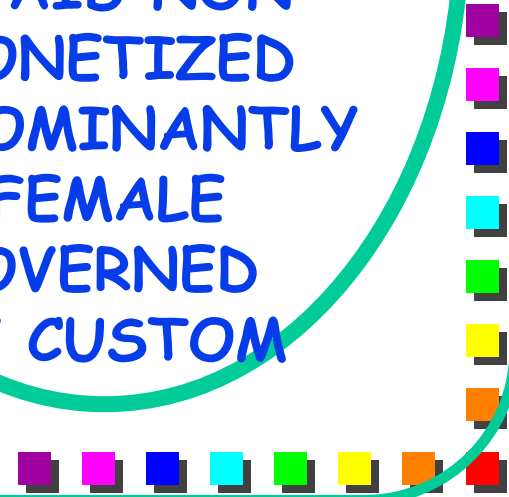
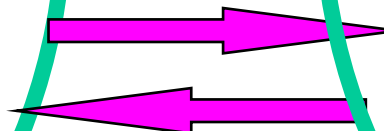
## HOUSEHOLD

Labor Immobility  
Valued at 30-50%  
of GDP

Key Characteristics

UNPAID NON-  
MONETIZED  
PREDOMINANTLY  
FEMALE  
GOVERNED  
BY CUSTOM

LABOR SUPPLY



# Invisible?

**MARKET**

Labor  
Segmentation

Key Characteristics

MONETIZED  
ECONOMY  
PREDOMINANTLY  
MALE  
GOVERNED  
BY LAW



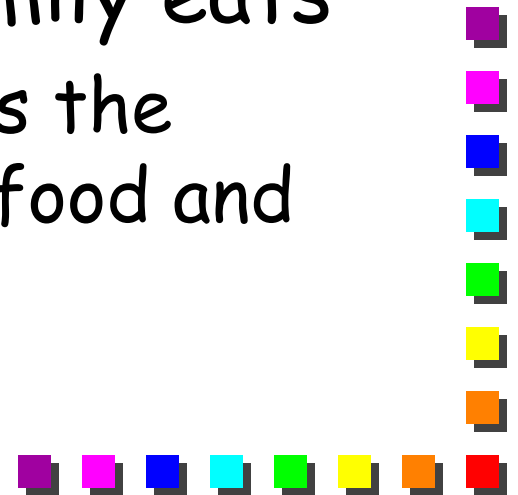
# II

## Disaggregating Household Activities by Task and Gender



# "The Last Straw"

- Time required to prepare maize by manual methods: **13 hours** to pound enough maize to feed a family for between four and five days
- A woman spends **4-5 hours every day** to prepare the food her family eats
  - this is **twice** the time it takes the villagers to **grow and gather** food and cash crops





# Transport Study Areas

■ Ghana: 8 villages; 51 HH

■ Combination of three study areas covering major zones

■ Tanzania: 19 villages; 431 HH

■ Makete district in Southwest

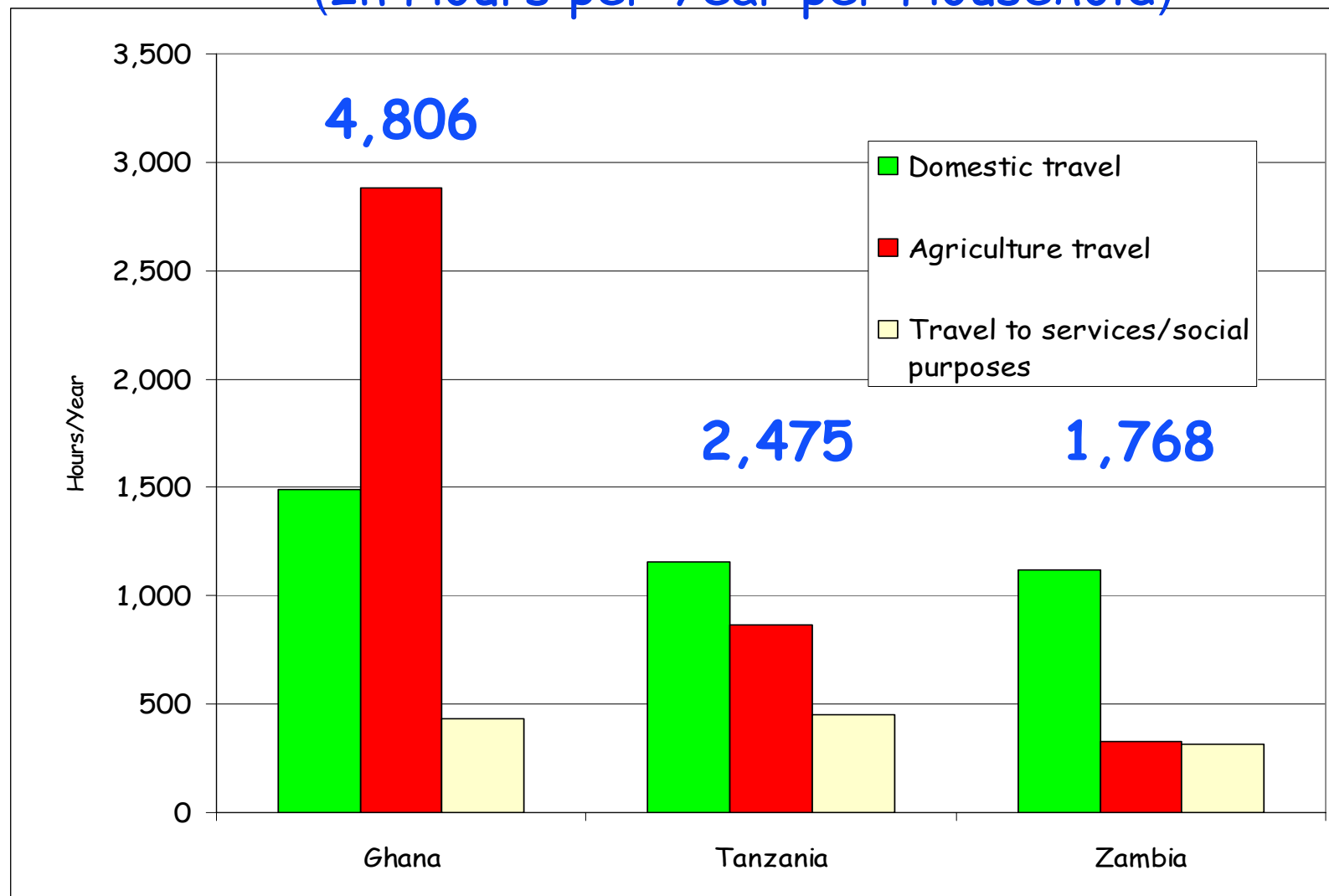
■ Zambia: 4 villages; 169 HH

■ Kasama district in Northern province



# Distribution of Transport Tasks

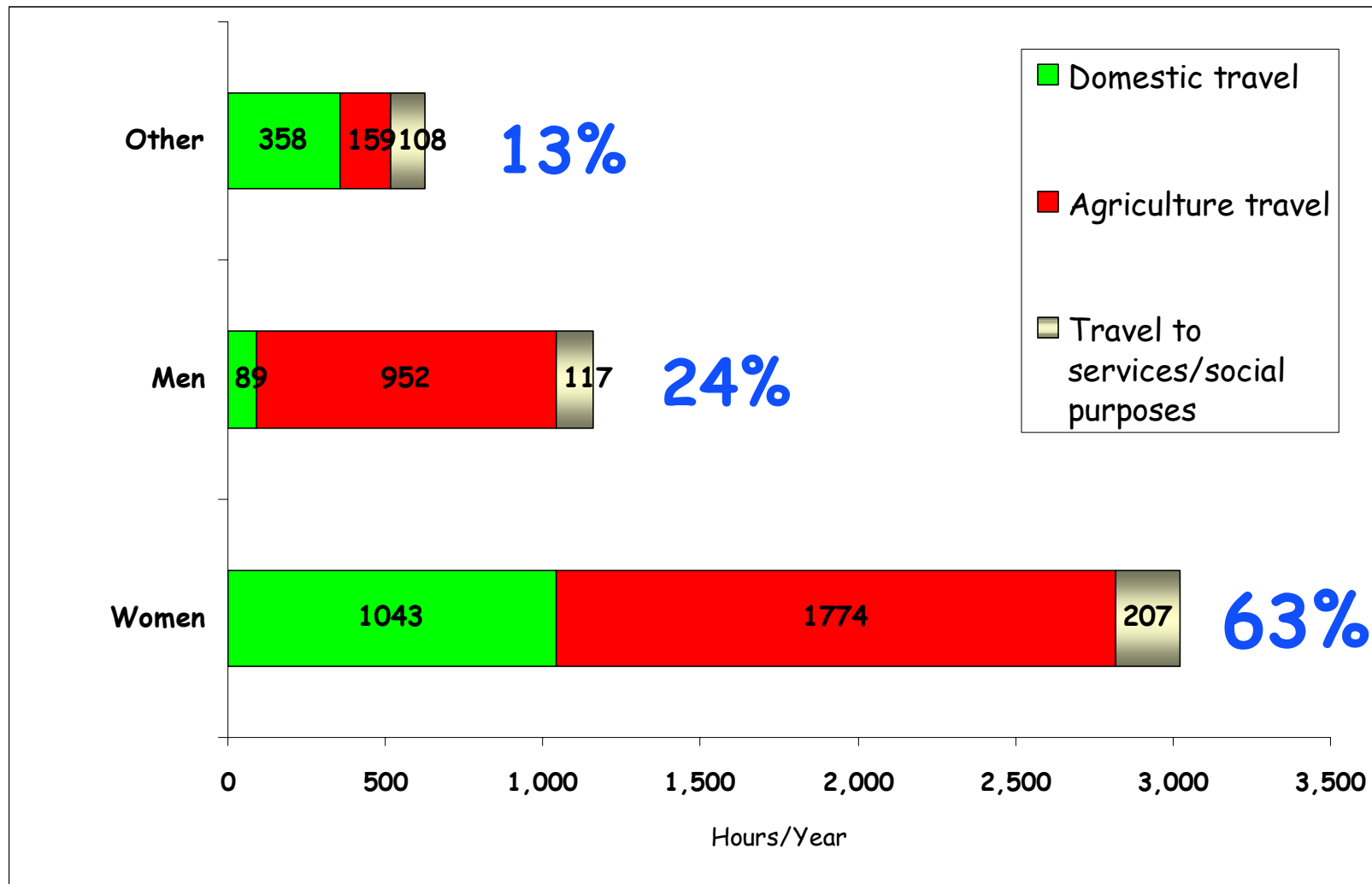
(In Hours per Year per Household)



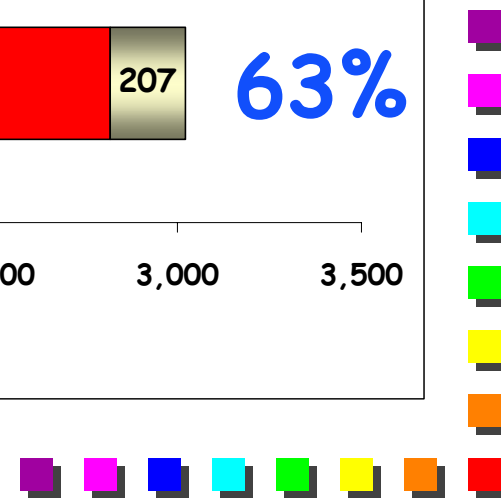
Source: Christina Malmberg-Calvo. 1994, *Women in Rural Transport ...*  
SSTP Working Paper No. 11. World Bank and ECA.



# Ghana: Transport Tasks



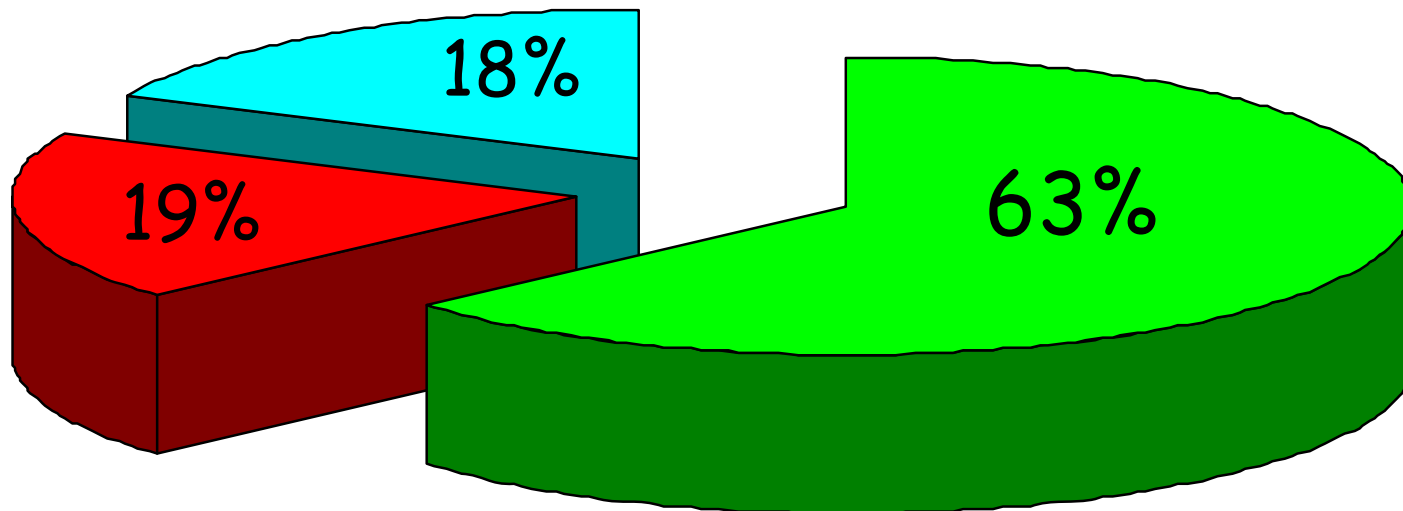
Source: Estimates based on Malmberg-Calvo, C. 1994, *Women in Rural Transport ...* SSTP Working Paper No. 11. World Bank and ECA.



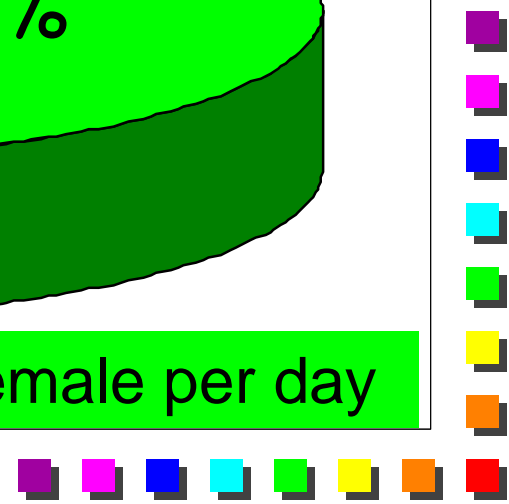
# Zambia: Transport Tasks

- Domestic
- Agriculture
- Services & Social

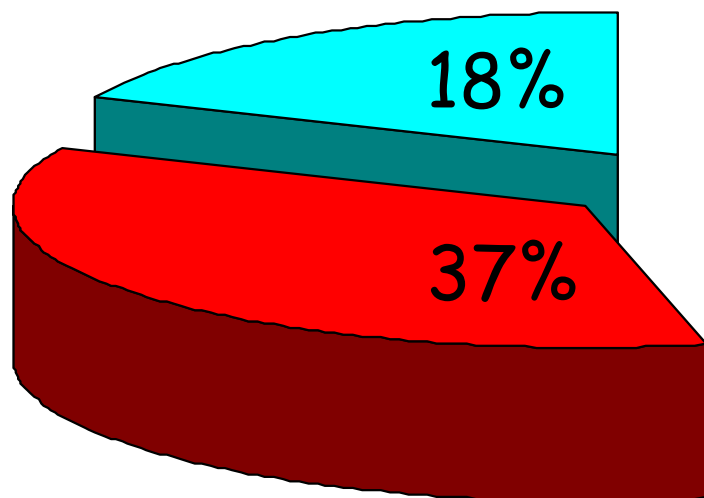
Domestic Travel Time (%)		
Women	Men	Other
96	1	3



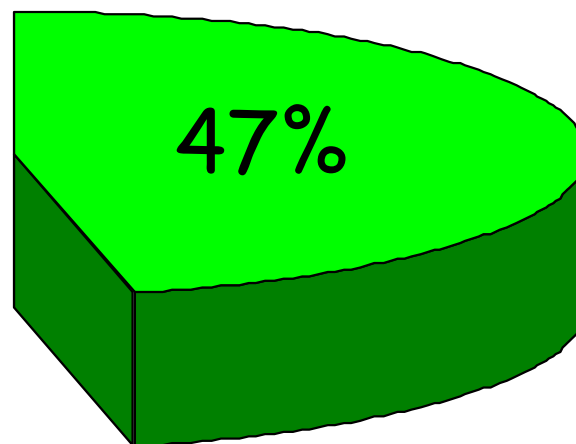
**2.35** hours per adult female per day



# Tanzania: Transport Tasks

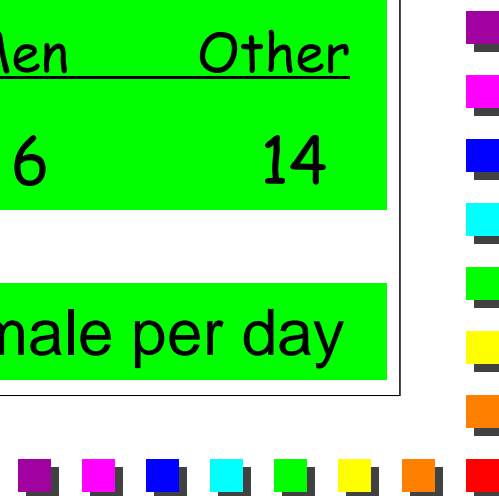


- Domestic
- Agriculture
- Services & Social

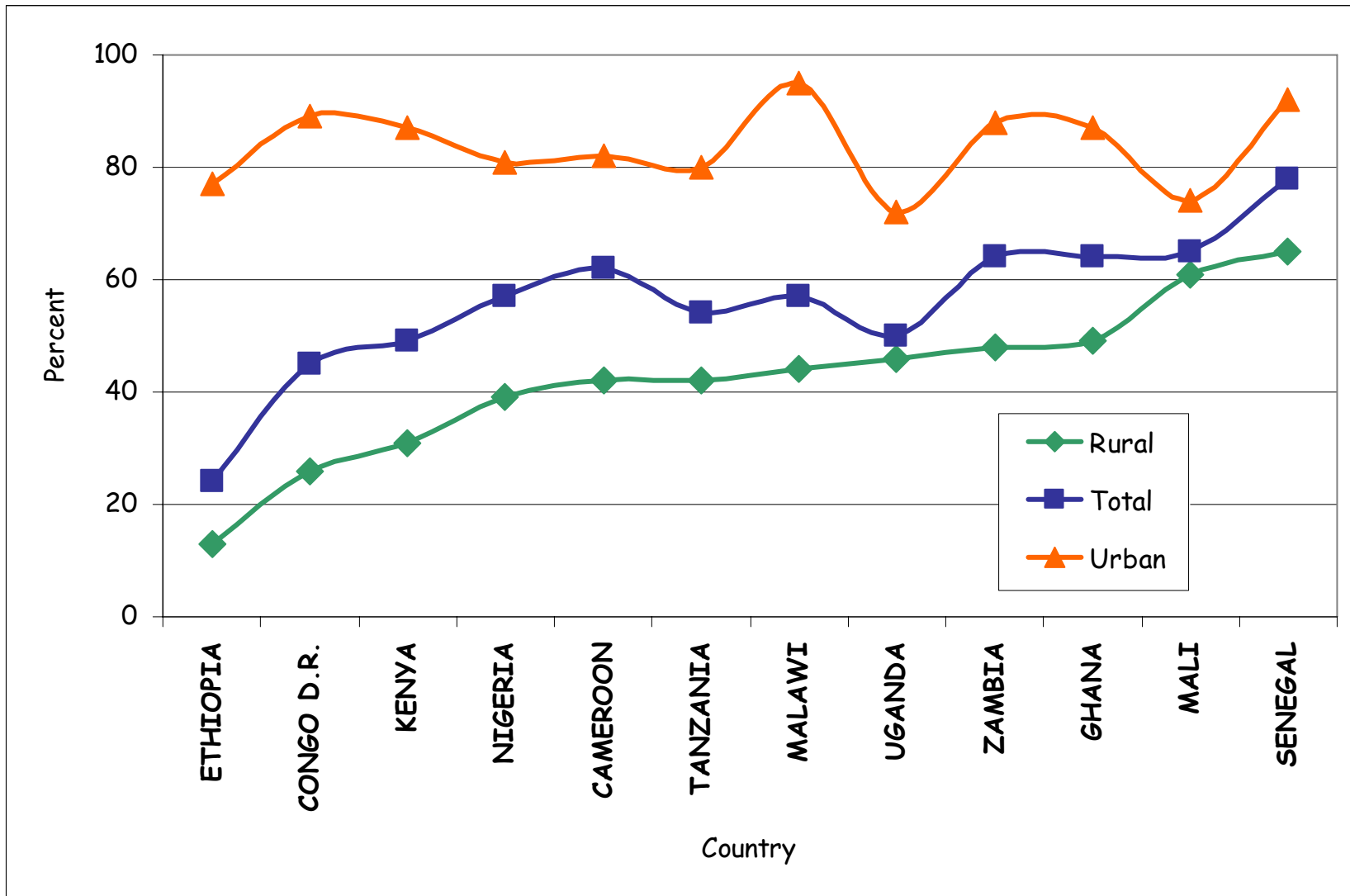


Domestic Travel Time (%)		
Women	Men	Other
80	6	14

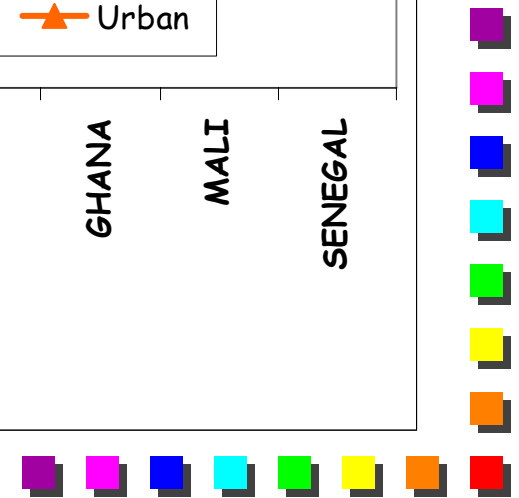
**1.89** hours per adult female per day



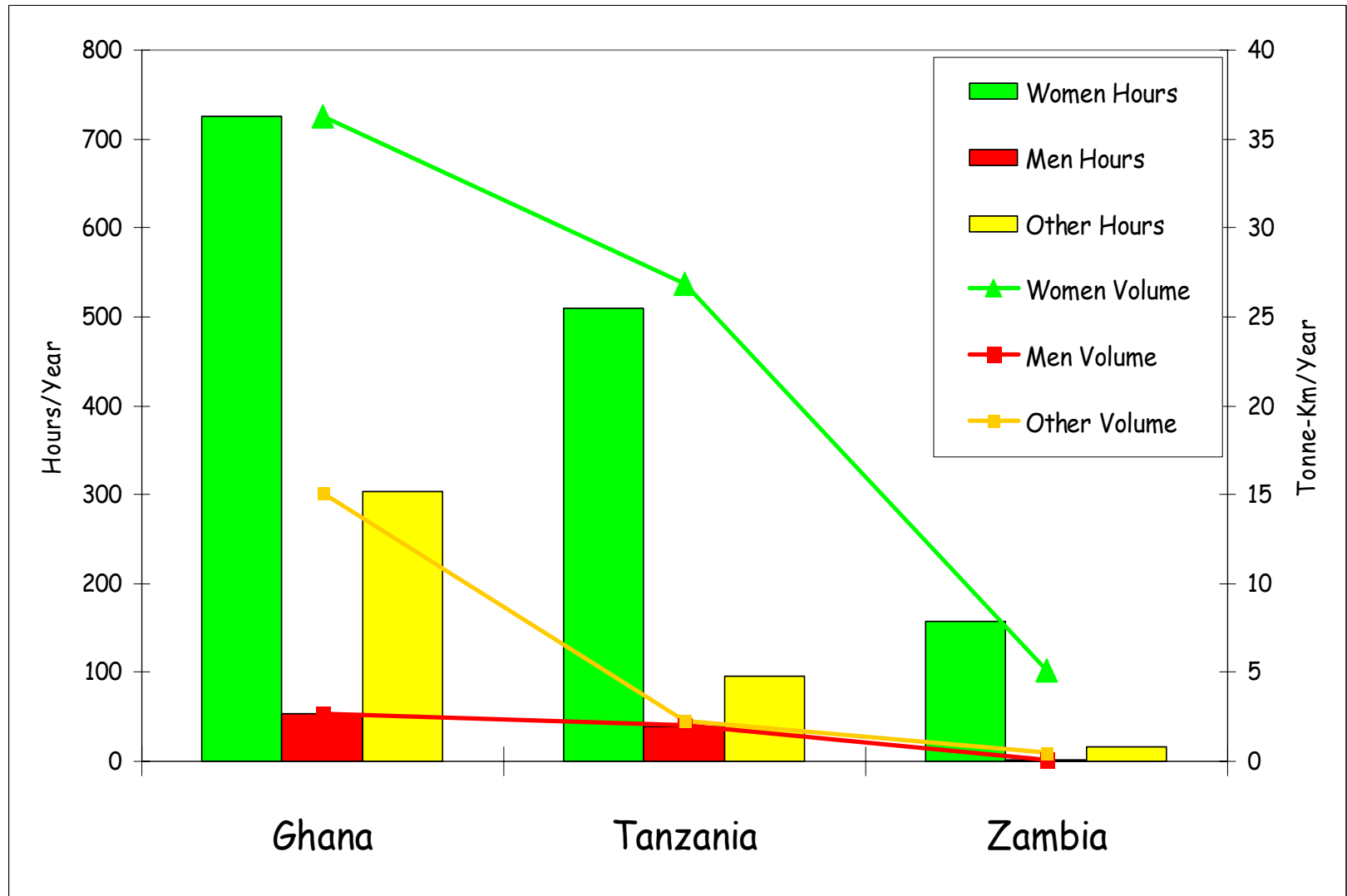
# Security: Access to Water



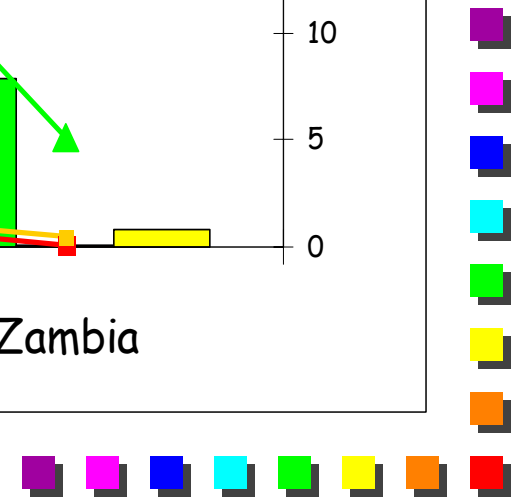
Source: [www.unicef.org/statis](http://www.unicef.org/statis) (2000).



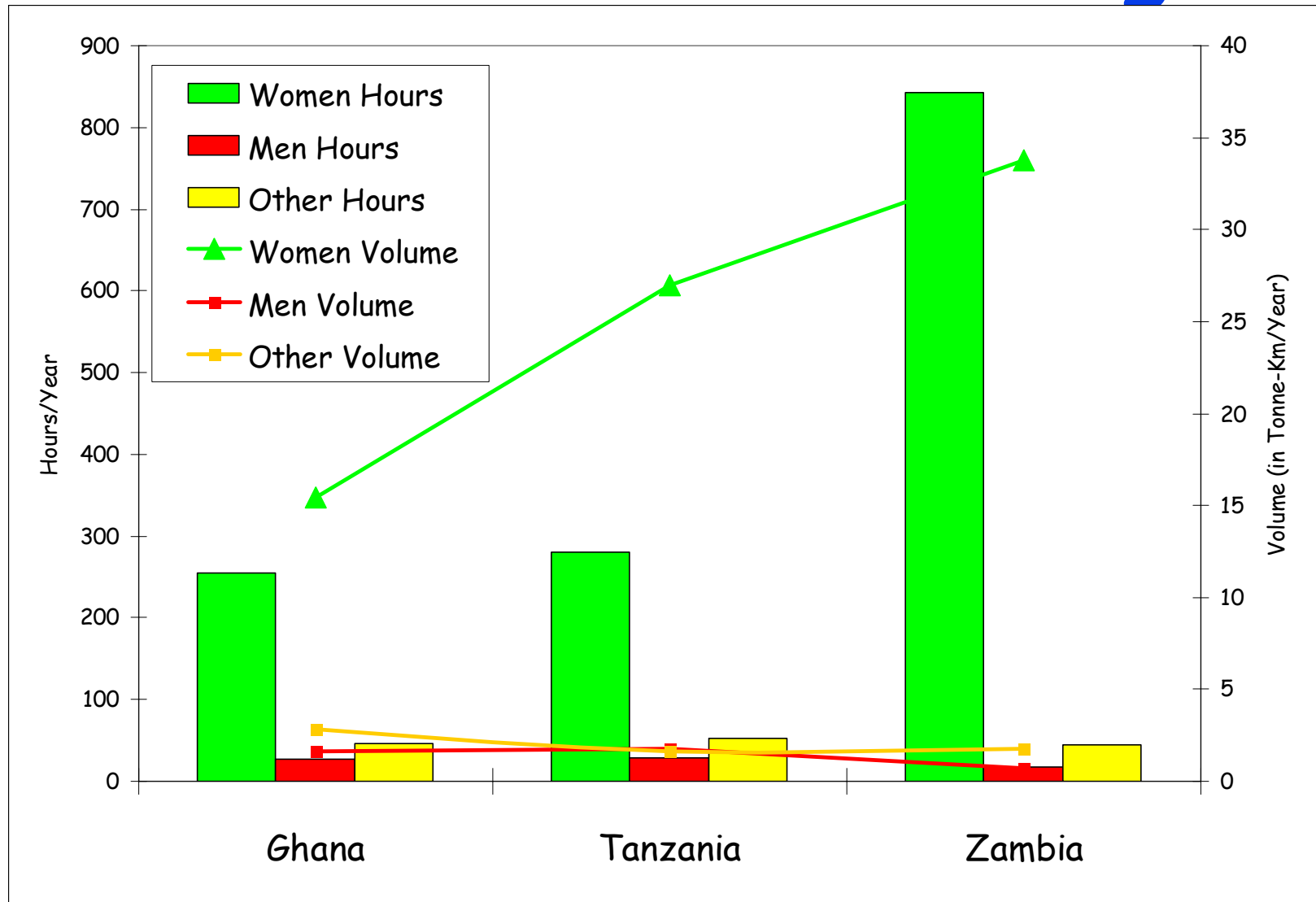
# Water Provisioning



Source: Christina Malmberg-Calvo. 1994, *Women in Rural Transport ...*  
 SSTP Working Paper No. 11. World Bank and ECA.



# Wood Fuel Provisioning



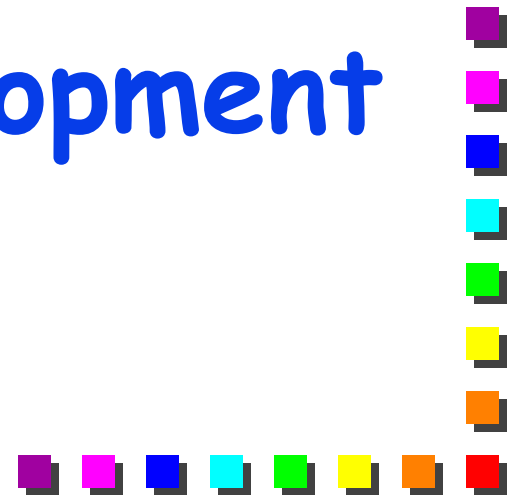
Source: Christina Malmberg-Calvo. 1994, *Women in Rural Transport ...*  
 SSTP Working Paper No. 11. World Bank and ECA.





# III

## Policy Implications for Poverty Reduction and Health Sector Development Strategies



# Policy Implications: 1

- Significance of the Household Economy
  - 5+ hours/day in these tasks over and above 7+ hours/day for women in agriculture tasks
  - low productivity common to both sets of activities
  - still not mentioned: child care!
    - lack of "specialized" time



# Children: Essential Labor Force

- Integrated into production systems of the household
- Girls: 4 times more hours on productive tasks than boys
  - Of this, 1/2 in domestic tasks
    - ... while boys go to school
  - Substantial farm work:  
boys 15 minutes/day  
girls 40 minutes/day



# Policy Implications: 2

## ■ Time is a poverty problem

- too little time = trade-offs

- scarce factor of production

- labor scarcity as binding constraint (**child labor?**)

- valuation of time (esp. women's)

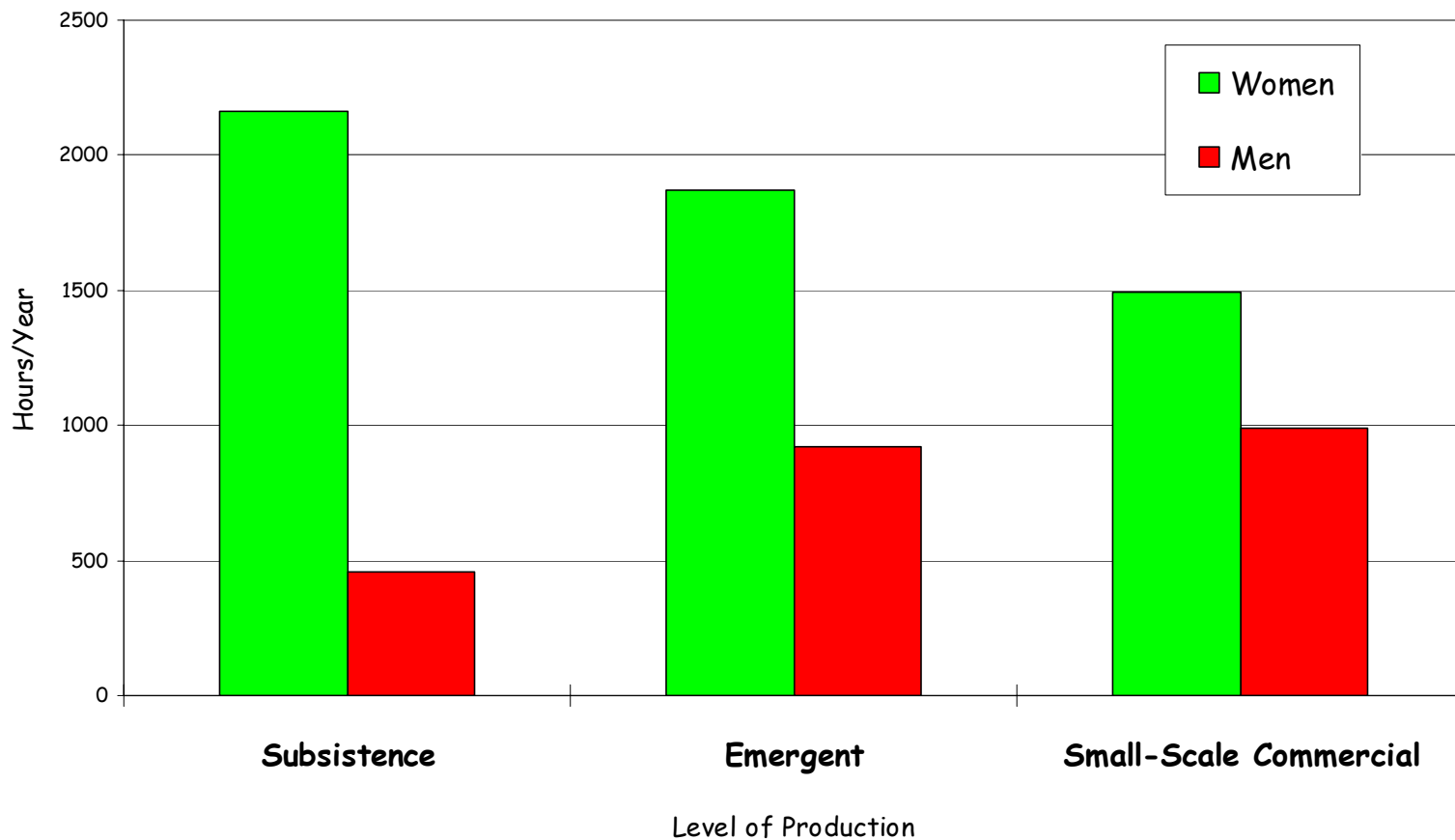
- gender division of labor

- "limited substitutability" for domestic tasks

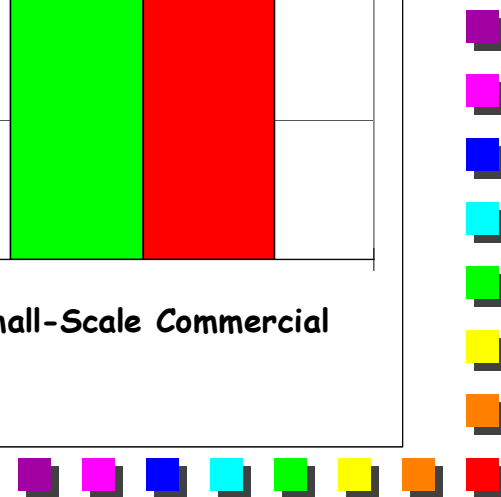


# Zambia: Time & Poverty

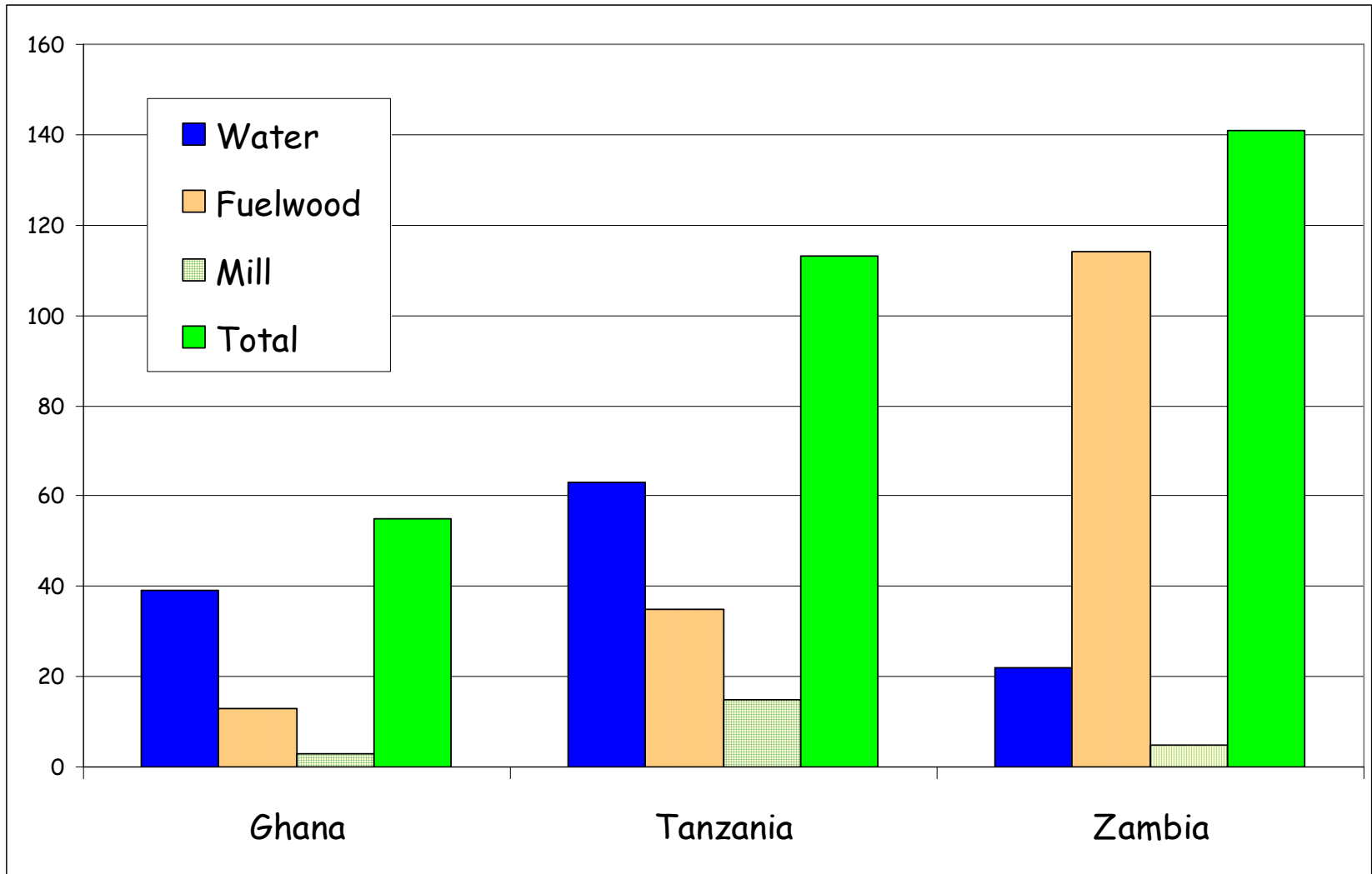
Zambia: Gaps in Total Productive Time Use by Men and Women at Different Levels of Agricultural Production



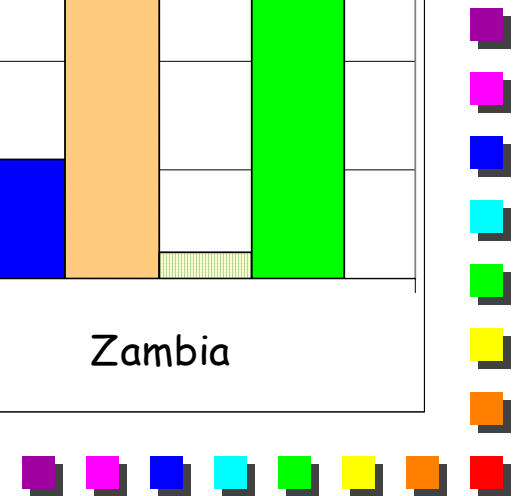
Source: Allen 1988.



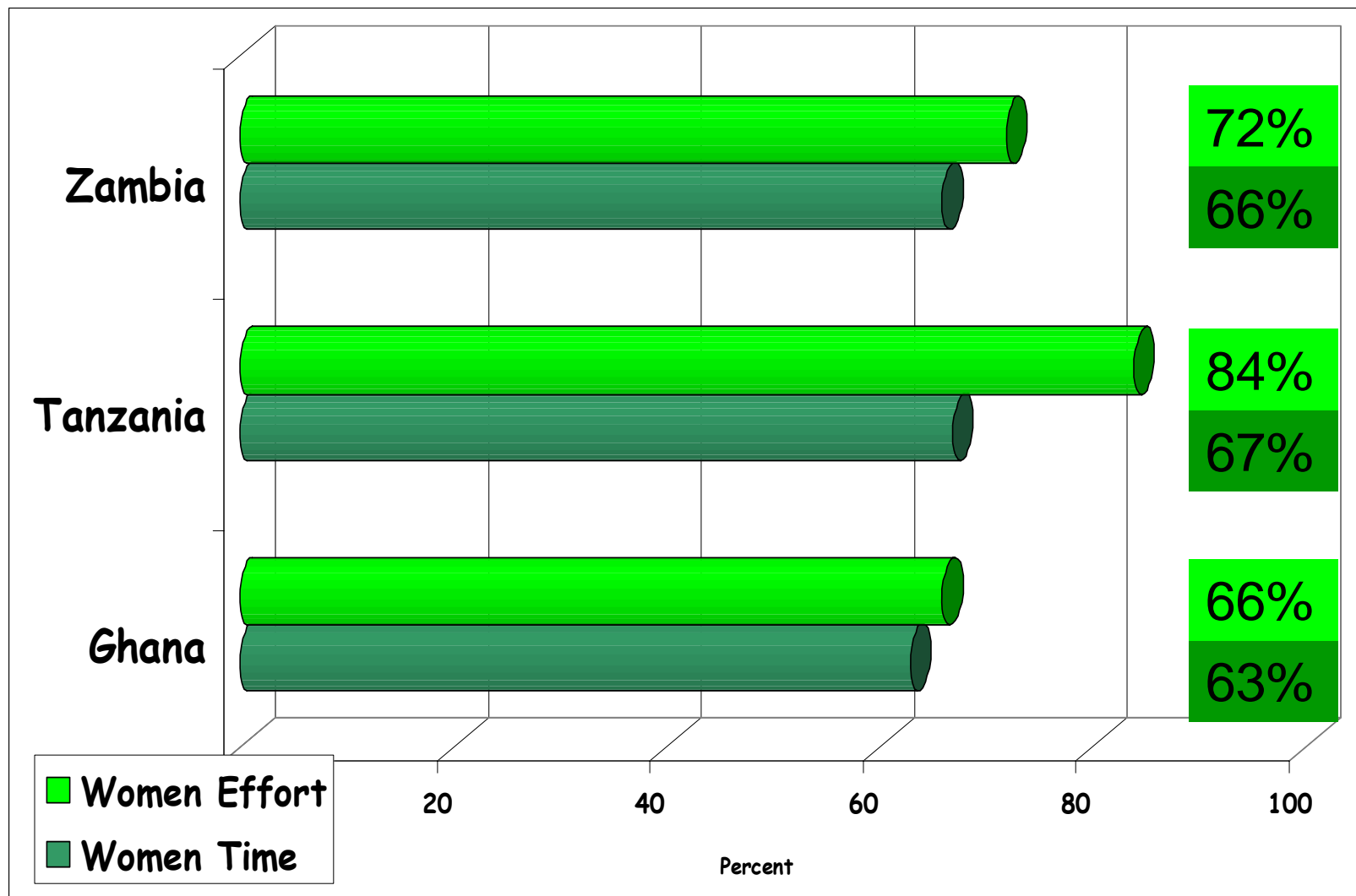
# Women's Minutes/Day by Task



Source: Christina Malmberg-Calvo. 1994, *Women in Rural Transport ...*  
SSTP Working Paper No. 11. World Bank and ECA.



# Time and Effort



Source: Christina Malmberg-Calvo. 1994, *Women in Rural Transport ...*  
SSTP Working Paper No. 11. World Bank and ECA.



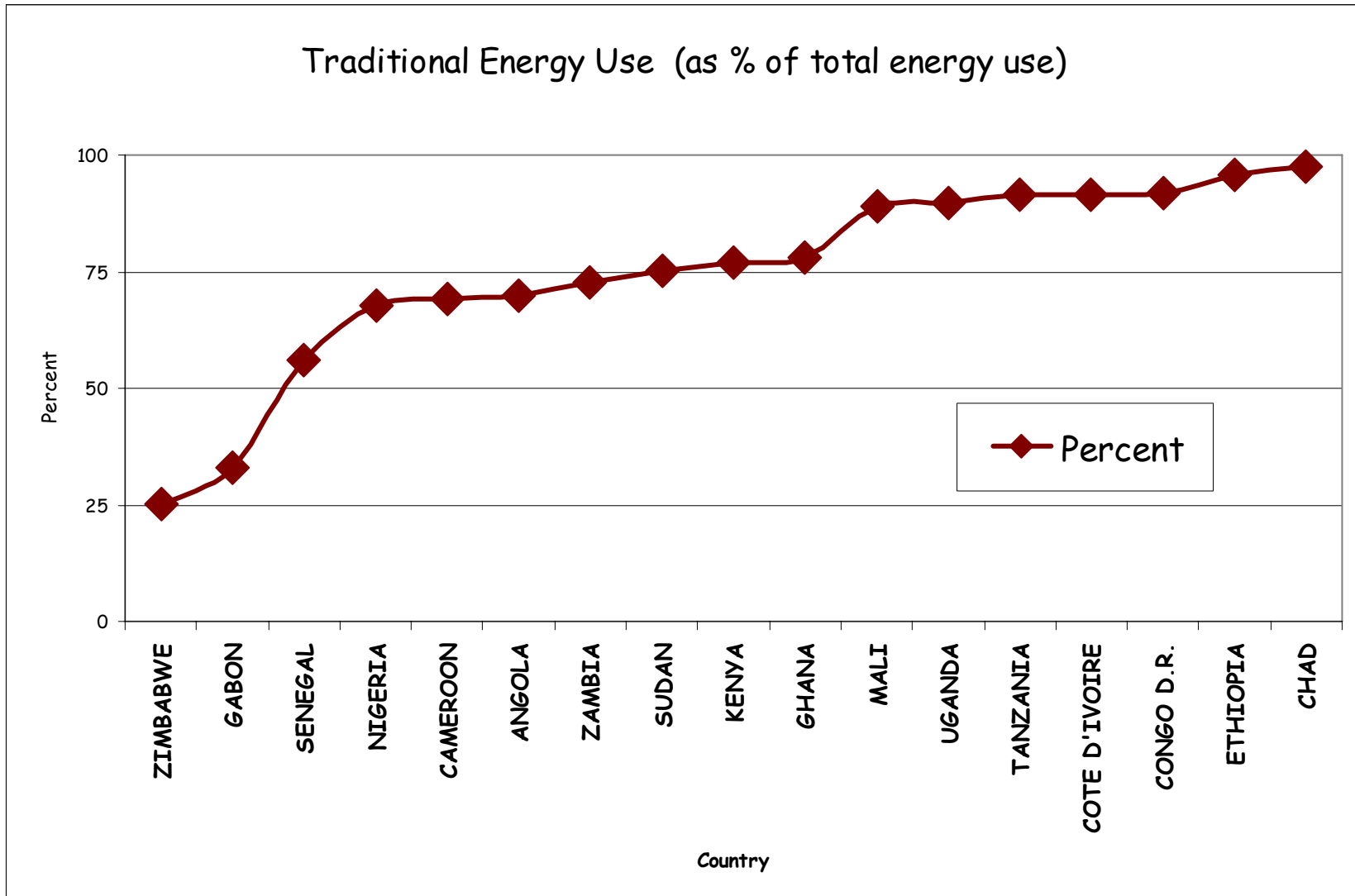
# Policy Implications: Agenda

- Investing in the **household economy** reduces poverty:
  - give **highest priority** in PRS
  - address **ALL** key areas to ensure **benefit of time savings**
    - water supply and sanitation
    - fuelwood and domestic energy
    - labor-saving technology (mills, stoves, etc.)

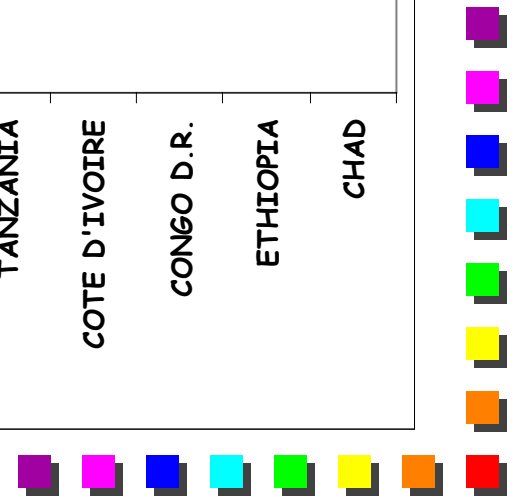




# Traditional Energy

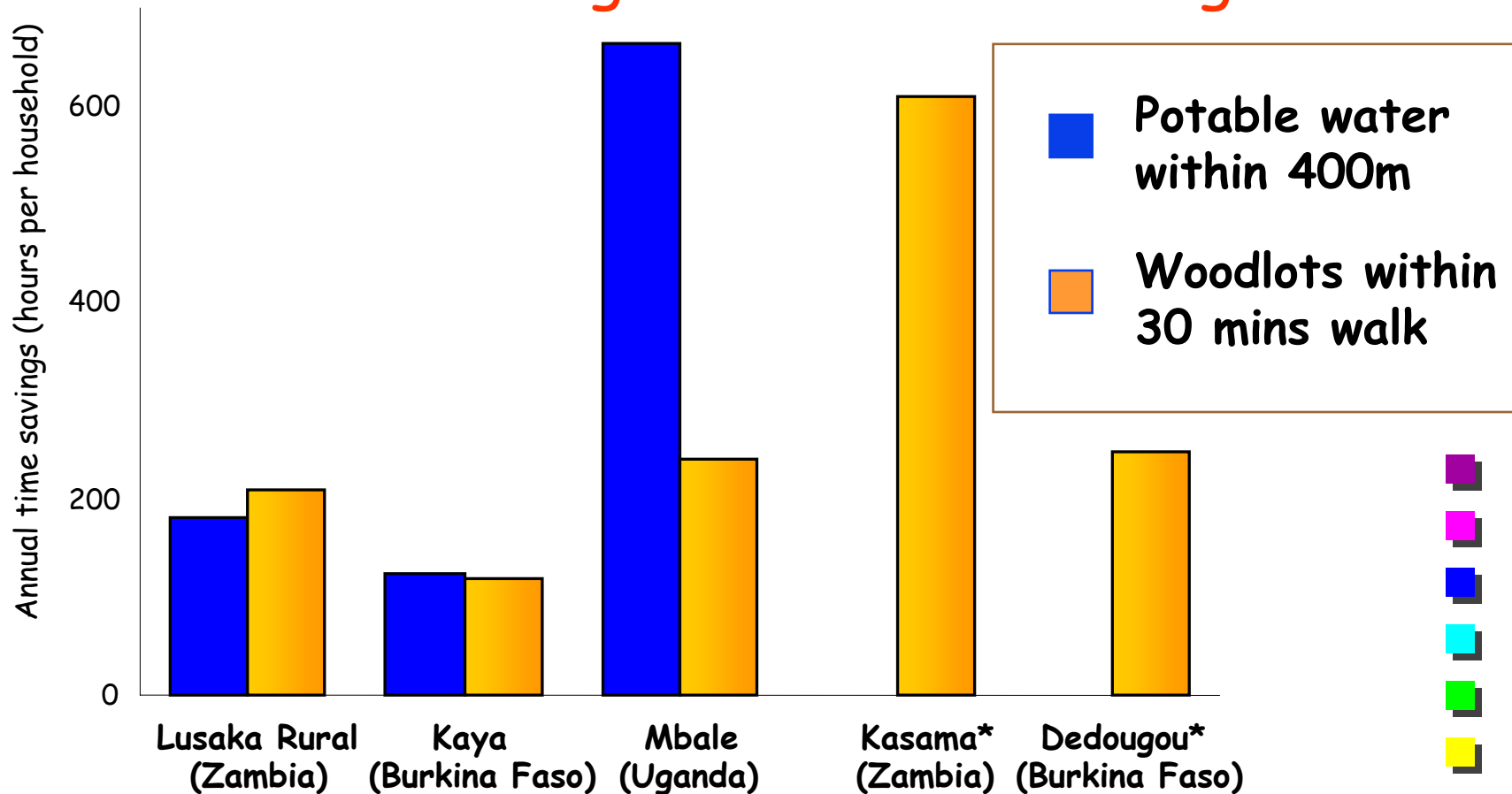


Source: World Development Indicators, 2001.



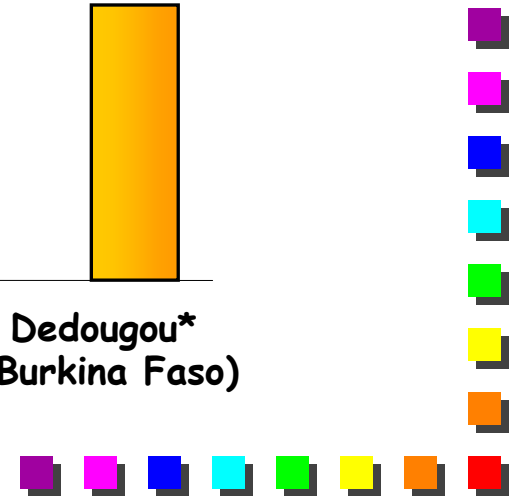
# Water and fuel investments significantly reduce collection time

## Potential average annual time savings



\* Kasama & Dedougou already within the target for water.

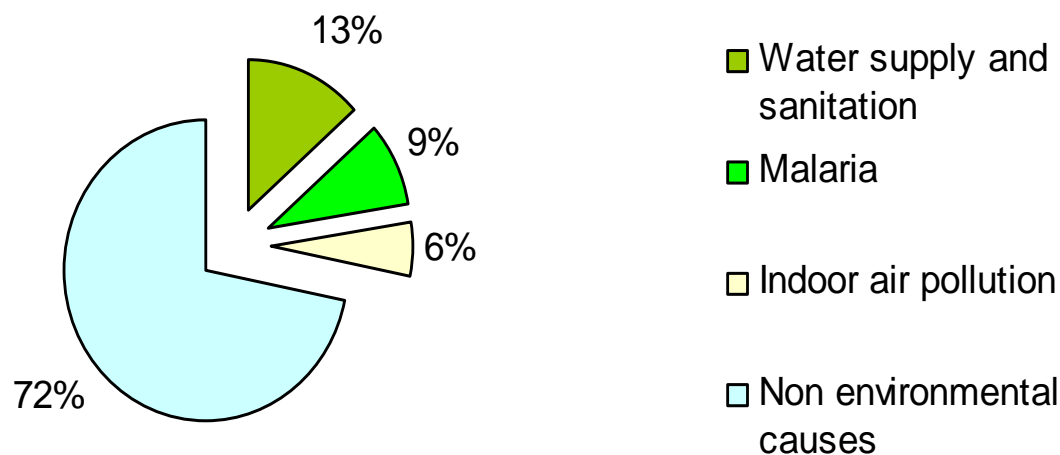
Source: Barwell 1996, in *Engendering Development*, PRR, 2001.



# Environmental Health

- In SSA 30 percent of illness and death is attributable to environmental factors

% of DALYs Lost : Sub - Saharan Africa

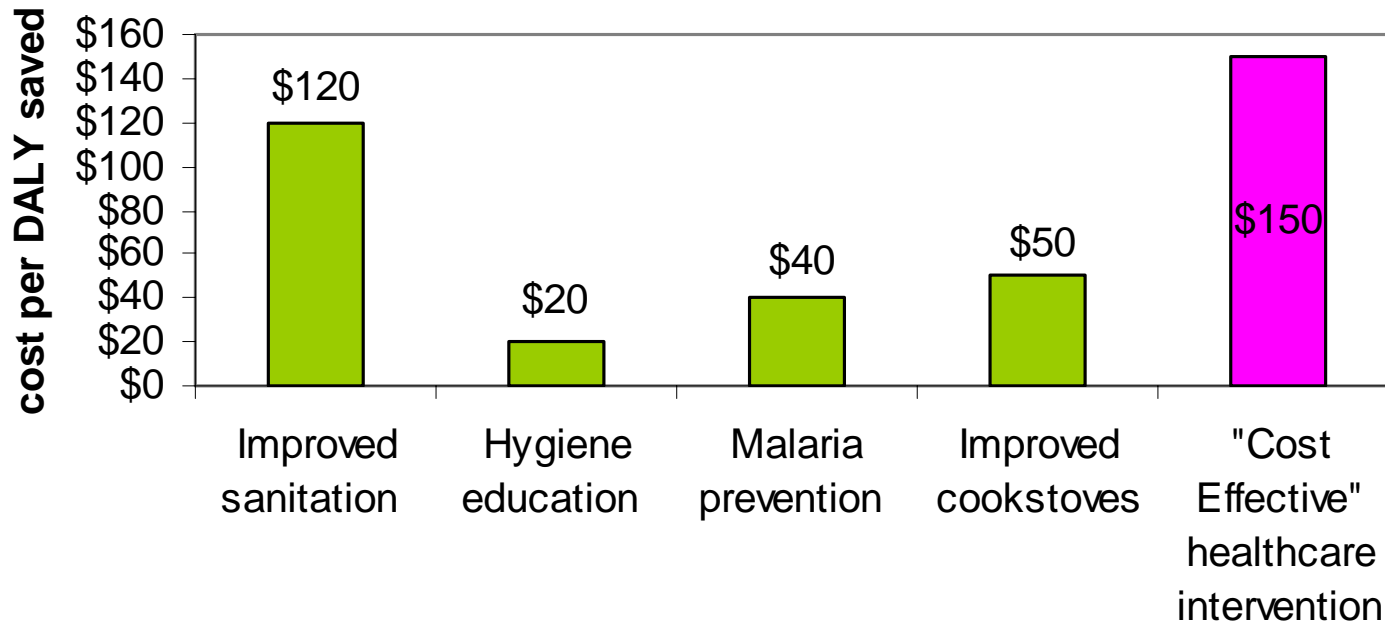


Source : Murray and Lopez, 1996. Data mostly pre-date the effects of AIDS.

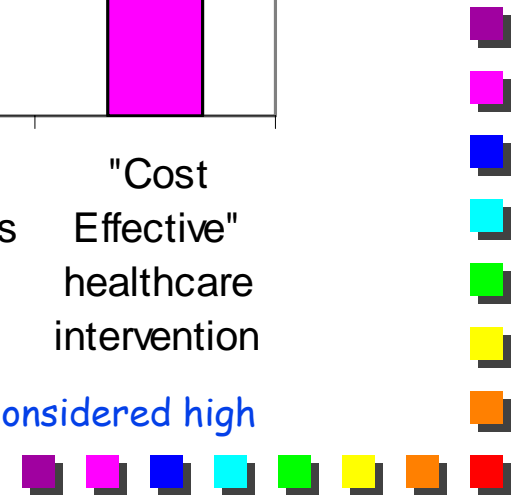
# Environmental Health

- Environmental health interventions can be **highly cost-effective**

Cost effectiveness of Env Health interventions

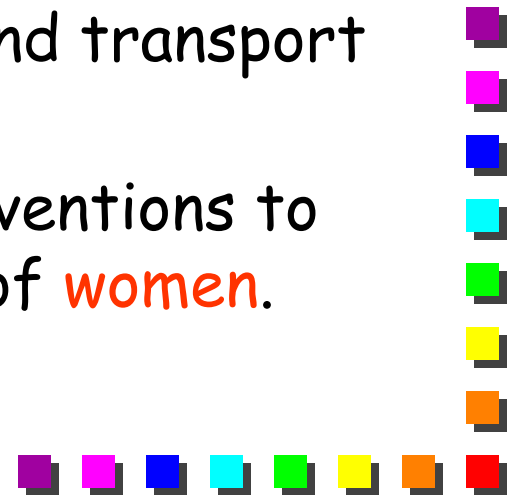


Note : Estimates vary widely, depending on circumstances. These are considered high estimates. Estimate for healthcare comes from WDR 1993.



# Transport

- **Problems** in transport sector. Solutions?
- **Attitudes**: Load carrying is **women's work**
- How can men's and women's transport activities be **redistributed** more equally?
- Transport interventions enhance **men's** mobility. Design around **different** needs:
  - Gender-inclusive access to IMT and transport technology (cultural obstacles).
  - Reorient focus of transport interventions to meet specific needs/constraints of **women**.



# Domestic Energy Enhancement Program (DEEP)

- **Energy**: biomass (woodfuel)
- **Water/sanitation**: synergy
- Prioritize **domestic technology**
- **Transport**: footpaths & IMT
- Key **indicators** for PRS:
  - water within 400 meters
  - woodlots within 30-minute walk

