

**INTEGRATING GENDER PERSPECTIVES INTO  
CLIMATE CHANGE ADAPTATION  
AND IMPLICATION FOR WATER MANAGEMENT:**

**A CASE STUDY OF SURAMA, GUYANA**



Paper presented by  
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at

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# Outline of Presentation

- Introduction
- Case Study of Surama:
  - *Surama demographic and Social Characteristic of Survey Population*
  - *Characterization of the Local Economy*
  - *Amerindians, Agriculture and Climate Change*
  - *The Local Risk Situation: Past Experiences*
  - *Adaptation and Coping Strategies and Measures*
- Implications for Water Management

# Introduction

The Guyana Case Study is a component of a larger project that complements:

- (1) risk management governance, and
- (2) climate change adaptation practices with a gender perspective.

It entailed research in Guyana (one of the selected three Caribbean countries) aimed at producing a discussion that will help to facilitate advocacy for more integrated and effective national and regional risk

management policies, through the incorporation of a gender perspective.

# Introduction

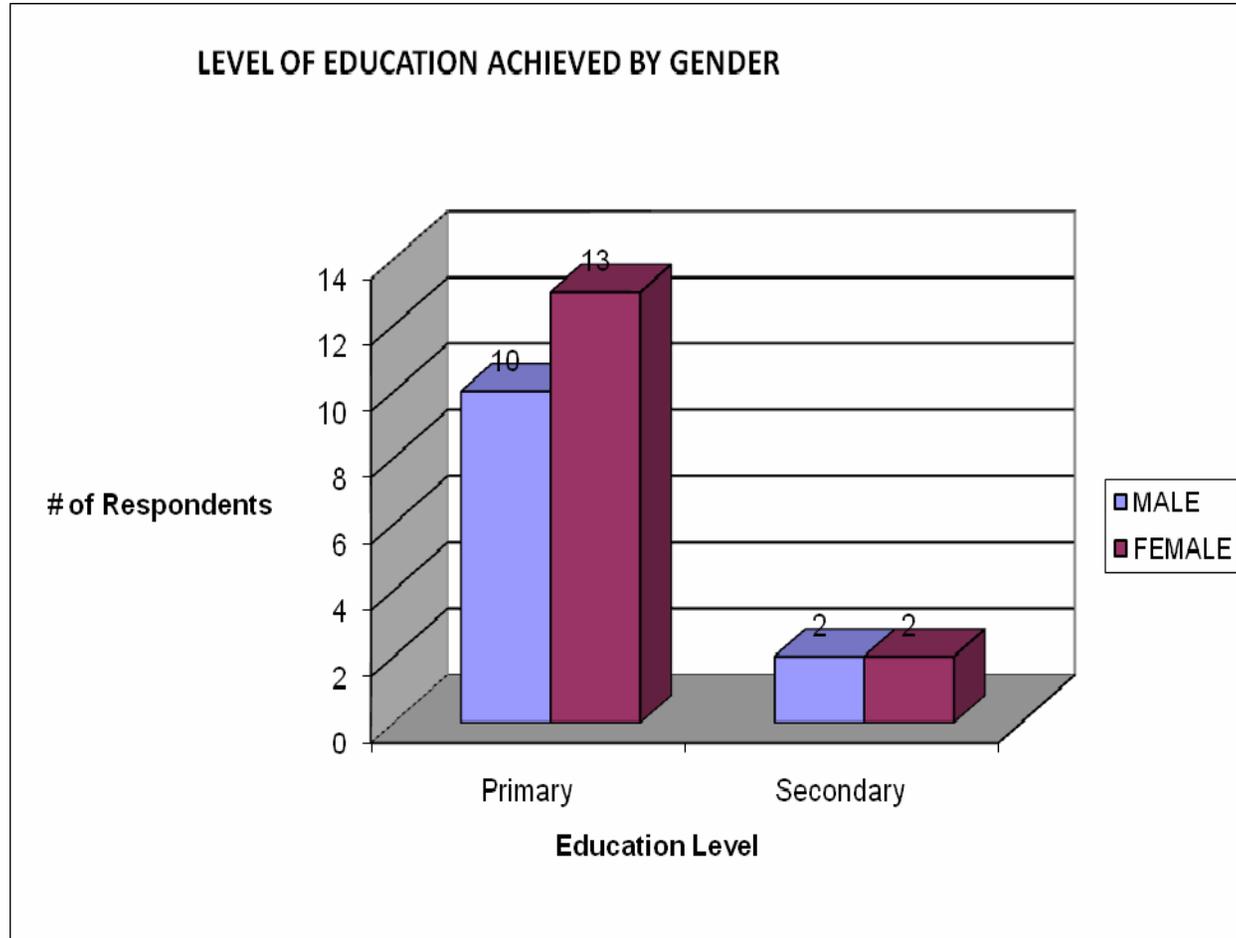
- The Guyana Case Study focuses on Amerindian women in agriculture and examines the impact of natural disasters and climate change on their cassava production.
- The study gives focus to:
  - Characterization of the local society and economy;
  - The risk situation;
  - Vulnerabilities and capacities specific to men and women;
  - Adaptation and coping strategies and measures employed by men and women;
  - Lessons learned

# Case Study of Surama

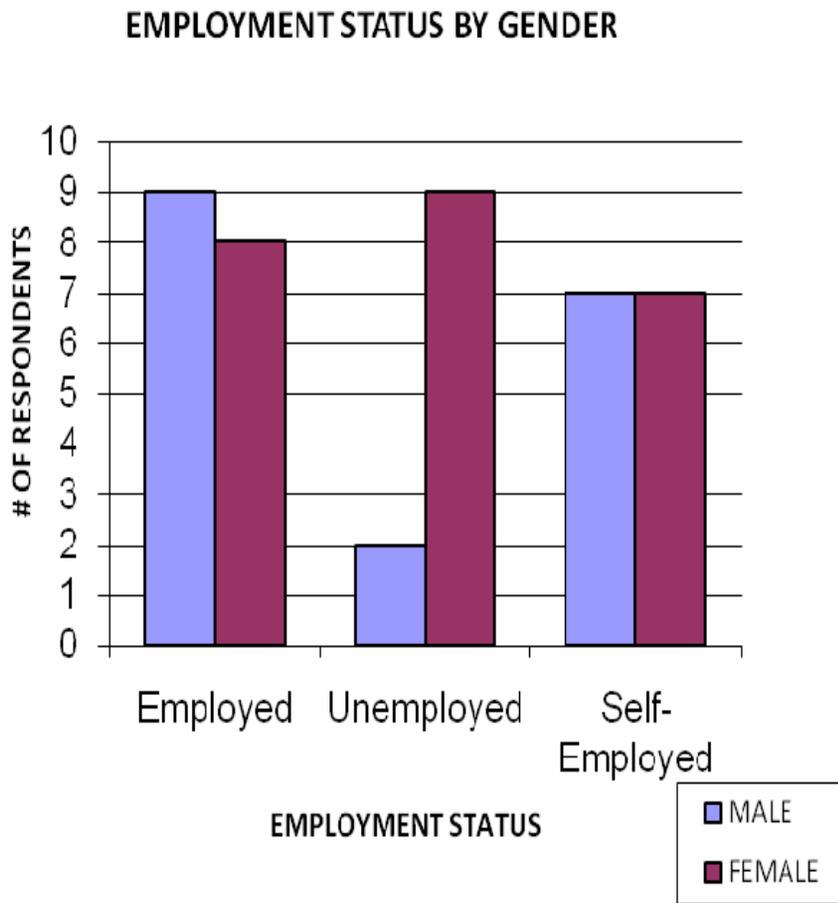
- Surama, a predominantly Macushi community currently comprising 55 households, was established in 1973. The village is located on five square miles of leased land on flat savannah (Plate 1) in the North Rupununi.



# Case Study of Surama



# Case Study of Surama



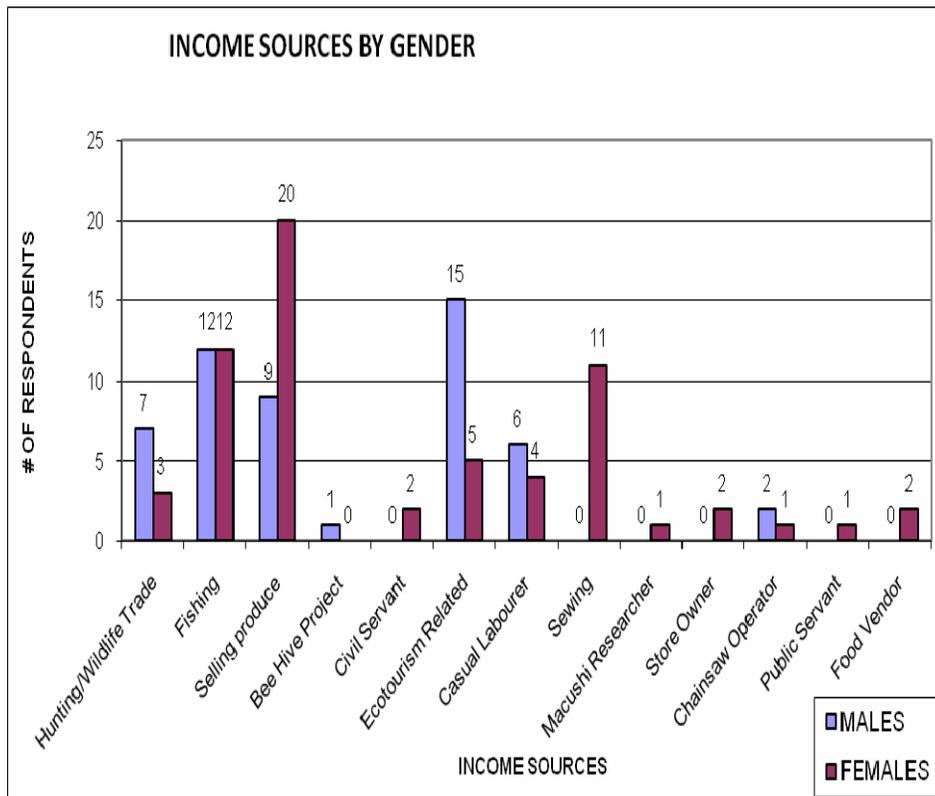
- Approx. 89 % of the men and 75% of women are employed (including self-employed).
- More women are currently employed than a decade or so ago.
- Many women have become the single supporters of family.

- Amerindian men would leave their communities in search of work in mining and forestry areas, or will migrate to neighboring Brazil, leaving a heavy burden on the women since they must tend to their farms, do the household chores and provide for their families.
- This leads to the rise in the number of female-headed households, and instability in the family unit.



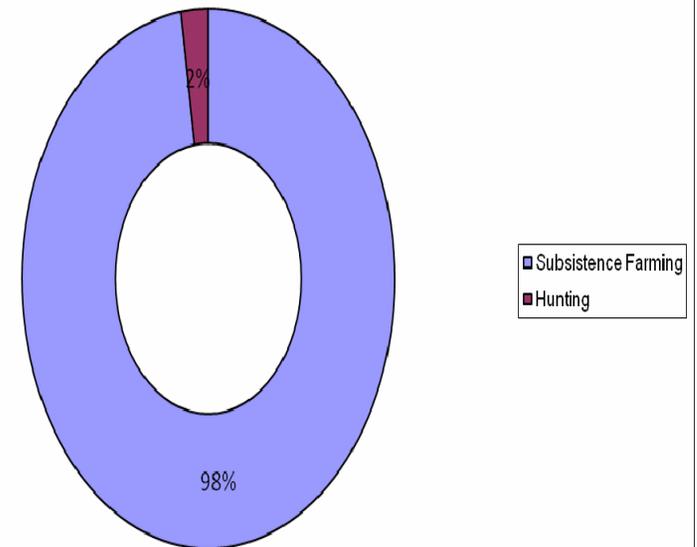
# Case Study of Surama

## Income Sources



## Non- Income Sources

Non-Cash Sources of Households



# Agriculture is the mainstay of Amerindian economies



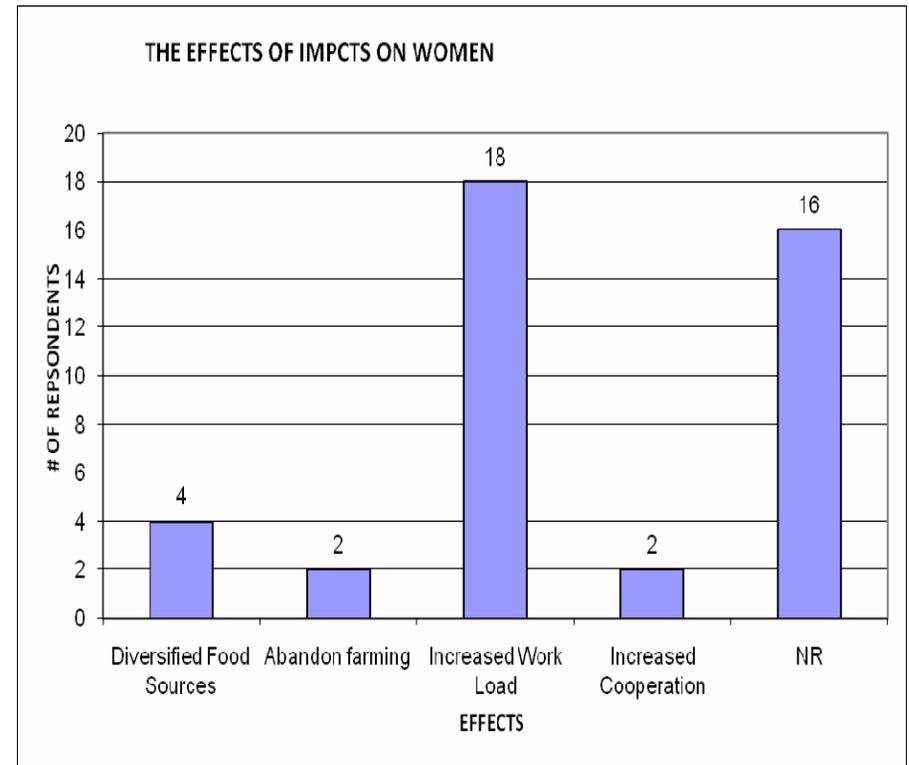
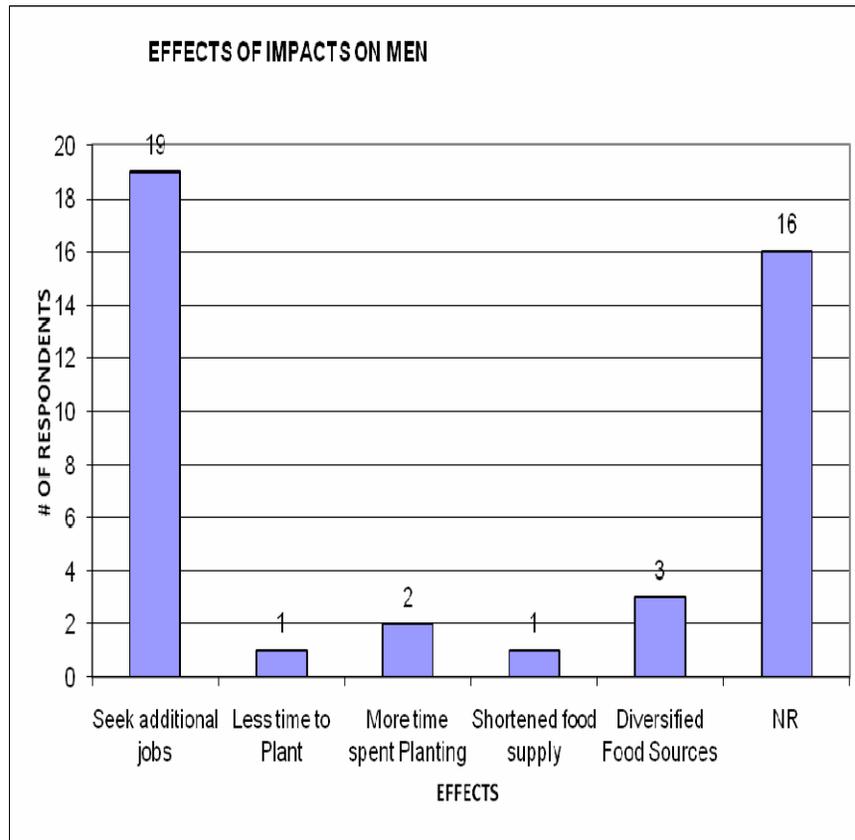
# Impacts of El Nino/ENSO Phenomenon of 1998

- Scientists have predicted more frequent, intense and extended droughts.
- Cassava crops were withered and root sizes were reduced significantly;
- Infestation of caterpillar and this damaged the cassava crops;
- Reduction in water levels, as there was no substantial rainfall for more than one month;
- Food prices skyrocketed;
- Forest fires destroyed several farms; and
- Food security was threatened as cassava is the main staple.

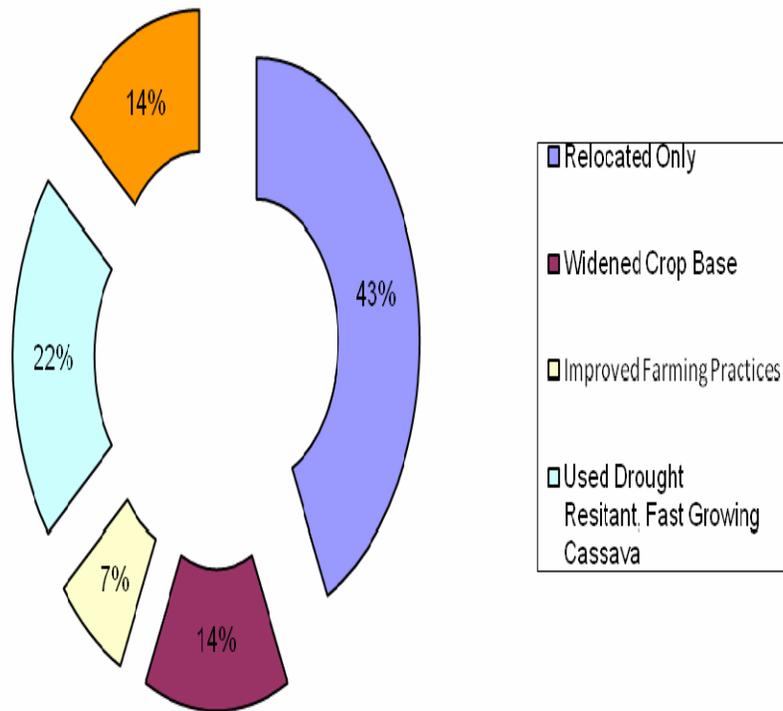
# Impacts of La Nina /ENSO Phenomenon of 1996

- Cassava rotted;
- Farmlands, especially near creeks were inundated;
- Drying of cassava bread was a challenge and food security was threatened; and
- Flood waters posed severe health risks. Increase in diarrhoea and vomiting; coupled with an outbreak of skin rashes: households were affected.

# Effects of CC from Gender Perspective



### Adaptation Measures Used In Conjunction with Relocation of Farmlands



## Coping Strategies of Men

- Decreased food consumption;
- Sought jobs in Brazil, and in mining and logging areas;
- Improved farm management; and
- Increased labour input.

# Coping Strategies of Women

- Diversification of food sources/change of family diet, for example the cockrit from the forest was used to make porridge;
- Alternative income sources: domestic help, weeding, craft, embroidery and sewing until men returned;
- Sharing of resources/bartering.

# Capacity Issues

- Limited livelihood opportunities,
- Constraints to enterprise development,
- Risk of exploitation,
- Institutional barriers to accessing natural resources, and
- More often than not, an unresponsive local government.

Issues have implications for both men and women with regards

to their vulnerabilities, as well as efforts at building their resilience to environmental, social and economic shocks.

# Implications for Water Management

- An understanding of the social, cultural, economic and institutional setting at local level is critical. **Contextualize the project. For example, access to potable water supply is a challenge in some Amerindian areas. Currently there exists a Guyana Water Incorporated Hinterland Water Strategy.**
- Men and women are ascribed different roles for water management and this fact must be clearly understood and factored into project development, as well as water policies.
- More often than not ,women at the grassroots level are key decision makers with regards to water use ( collectors, users, and managers related to reproductive and productive activities, especially agriculture). There is need to examine the institutional arrangements to identify any barriers that will prevent women's participation.

# Implications for Water Management

- **Women are natural resource conservationists (e.g. reducing use to ensure sustainability, finding substitutes ). **Women should have equal access to information, education and capacity building programmes on water management.****
- **Women's full participation in water management must be built around their reproductive and productive activities, and in so doing create for both men and women to participate fully in project activities. For example, water management should be a component of technical support to women in agriculture.**
- Special measures should be taken to remove the **barriers** that prevent women from participating meaningfully in the **labour force** that directly relates to water management.
- **Women should have equal opportunity to share their knowledge, interest and concerns regarding water management, which in turn will help transform the aware management agenda to reflect gender**

*“Principle No.3: Women play a central part in the provision, management and safeguarding of water....*

*Acceptance and implementation of this principle requires positive policies to address women’s specific needs and to equip and empower women to participate at all levels in water resources programmes, including decision-making and implementation, in ways defined by them (ICWE, 1992:4)”.*

I wish to express heartfelt gratitude to CRMI, (especially Mr. Ian King and Ms Avril Alexander) and to Dr. Leith Dunn from UWI, Mona Campus, for giving me the opportunity to undertake this research and to share the findings at this important workshop.

*Thanks for listening!!!!*