

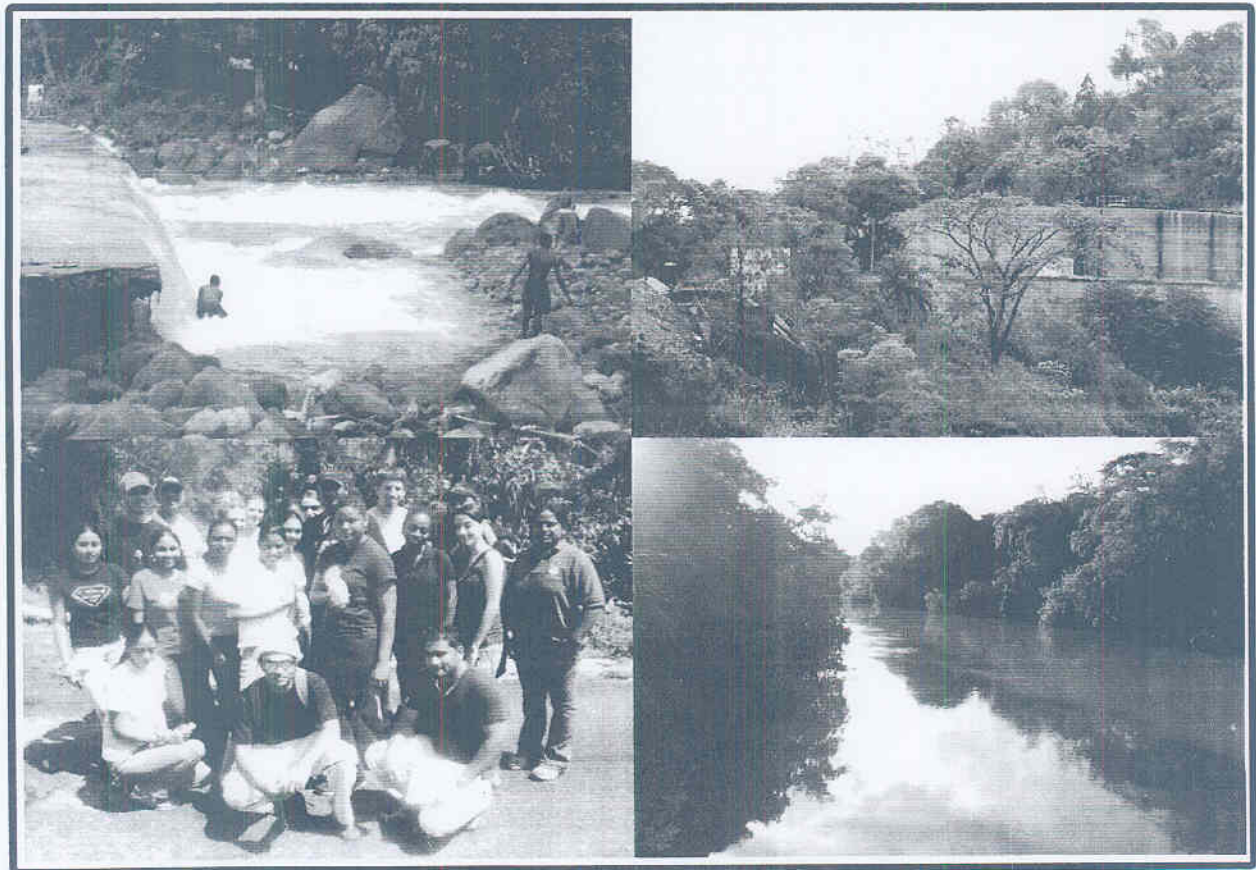
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The University of the West Indies
St Augustine, Trinidad and Tobago
The Centre for Gender and Development Studies

GENDER MAINSTREAMING IN INTEGRATED WATER RESOURCES MANAGEMENT IN THE CARIBBEAN

APRIL 7 – 11, 2008
WORKSHOP MANUAL



Global Water
Partnership
Caribbean

CARIBBEAN
WaterNet

GENDER MAINSTREAMING IN INTEGRATED WATER RESOURCES MANAGEMENT IN THE CARIBBEAN

**APRIL 7 – 11, 2008
WORKSHOP MANUAL**

**THE UNIVERSITY OF THE WEST INDIES, ST. AUGUSTINE
THE CENTRE FOR GENDER AND DEVELOPMENT STUDIES
WOMEN GENDER WATER NETWORK**

**Trinidad and Tobago, West Indies
April 2008**

ACRONYMS AND ABBREVIATIONS

CapNet	Capacity Building for Integrated Water Resources Management
CGDS – UWI	Centre for Gender and Development – UWI
GWA	Gender and Water Alliance
GWP	Global Water Partnership
GWP-C	Global Water Partnership – Caribbean
IWRM	Integrated Water Resources Management
MDGs	Millennium Development Goals
NGOs	Non-Governmental Organisations
UWI	University of the West Indies
WGWN	Women Gender Water Network – CGDS

Note on Authors and Co-ordinating Team

A number of persons have participated in the production of this manual and the development of this workshop including:

- * Rhoda Reddock (Director, St. Augustine Centre for Gender and Development Studies, UWI);
- * Gwendoline Williams (Gwendoline Williams and Associates);
- * Fredericka Deare (Chair, Women, Gender and Water Network and Environmental Consultant, Kairi Consultants Ltd);
- * Paul Hinds, Regional Coordinator, Global Water Partnership - Caribbean;
- * Diana J. Fox, Associate Professor of Anthropology, Coordinator Women's and Gender Studies Programme, Bridgewater State College, MA, USA;
- * Jocelyn Dow, Coordinator, Citizen's Initiative;
- * Jacob Opadeyi, Coordinator, Caribbean WaterNet and Coordinator, Centre for GeoSpatial Studies Engineering Institute, UWI;
- * Grace Sirju-Charran (Senior Lecturer, Department of Life Sciences, Faculty of Science and Agriculture, UWI; former chair of Women and Development Study Group, UWI);
- * David Dolly (Lecturer, Department of Agricultural Economics and Extension, Faculty of Science and Agriculture, UWI);
- * Marilyn Crichlow, Programme Manager (Special Projects), Water and Sewerage Authority (WASA);
- * Steve Fletcher, Director, Water Resource Agency, WASA;
- * Rose Rajbassie, Community Leader, Plum Mitán, President, Trinidad and Tobago Federation of Women's Institute.

The Training Workshop and production of the Manual are sponsored by Global Water Partnership – Caribbean, and Caribbean WaterNet.

Valuable contributions have also been made by Deborah McFee (Outreach and Research Officer) and the Staff of the Centre for Gender and Development Studies; WASA (Trinidad and Tobago); the residents of Plum Mitán and Kernahan, Trinidad; Faculty of Social Sciences; Campus Principal and Elizabeth Invet- McComie, Executive Assistant to the Campus Principal, St Augustine UWI.

All pictures have been used with permission of the authors including: Kathryn Chan; Fredericka Deare; Jill Schneiderman, David Dolly, Diana Fox.

Brochures, Manual design: Kathryn Chan

Reference material has been heavily used and in places quoted verbatim and acknowledged on the relevant pages.

ACCOMPANYING CD CONTENTS

WGWN_2008_Manual_APPENDIX 1: READINGS

IWRM READINGS: "Integrated Water Resource Management on a Basin Level" – A TRAINING MANUAL – PREFACE, Source: UNESCO 2003 - William (Bill) Cosgrove, Vice-President, World Water Council, President, Ecoconsult Inc.

Chapter 2 **Gender and Integrated Water Resources Management (IWRM)**

Source: UNDP/GWA – Gender Water Alliance/CAP-NET/IRC. "Mainstreaming Gender in Water Management". November 2006

The Environment in Anthropology: A Reader in Ecology, Culture, and Sustainable Living, Haenn and Wilk, New York University Press, 1996

- * **Gender and the Environment: A Feminist Political Ecology Perspective**, Rocheleau, Thomas-Slayter, Wangari;
- * **Gender, Population, Environment**, Sally Ethelston;
- * **Cultural Theory and Environmentalism**, Kay Milton

WGWN_2008_Manual_APPENDIX 2: CASE STUDIES

Mt. Plaisir Estate Hotel: A Catalyst for Development in Grand Riviere, UNDP report

Women in Charge: Trinidad

A Gift from God: Gender and Feminist Ethnography of Water in Three Trinidadian Communities

* **Water, Women and Community in Trinidad**

WGWN_2008_Manual_APPENDIX 3: WATER_POLICIES

GRENADA WATER POLICY, 2007

TRINIDAD AND TOBAGO WATER POLICY, 2003

WGWN_2008_Manual_APPENDIX 4: VIDEO MATERIAL

Booklet information: "Nariva Swamp: A Contested Wetland: Issues of Gender and Sustainability" a production of The Centre for Gender and Development, The University of the West Indies, St. Augustine

WGWN_Bibliography, 2006

WGWN_Bibliography_Nov 2006 Version

GENDER WATER ALLIANCE MANUALS

ADVOCACY MANUAL for Gender and Water Ambassadors, December 2002, Gender Water Alliance

RESOURCE GUIDE: Mainstreaming Gender in Water Management, Version 2.1 November 2006, GWA (Gender Water Alliance) and UNDP (United Nations Development Program)

Why Gender Matters Tutorial for Water Managers, CapNet and GWA

ADDITIONAL READINGS AND REFERENCE MATERIAL

The Science Question in Feminism

Gender Mainstreaming in Water Resources Management, Why and How, Background Paper for the World Vision Process, October 1999, World Water Vision

A Gender Perspective on Water Resources and Sanitation, 2004, UNITED NATIONS DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS

Gender, Water and Sanitation: A Policy Brief, Interagency Task Force on Gender and Water Sub-programme of UN-Water and Interagency Network on Women and Gender Equality (IAN-WGE)

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THE CENTRE FOR GENDER AND DEVELOPMENT STUDIES, UWI-CGDS has its origins in the work of the Women and Development Studies Groups at The University of the West Indies (UWI). Women and Development Studies Groups were established on the three campuses of The University of the West Indies in 1982 as a result of a regional meeting called by the Women and Development Unit, UWI, which had been in existence since 1978. The CGDS is involved in research, outreach and training in gender – related areas. It teaches and facilitates teaching at graduate and under-graduate level; carries out research on a range of issues including gender issues and the environment, constructions of Caribbean masculinities and gender, sexualities and HIV/AIDS.

THE WOMEN, GENDER AND WATER NETWORK, WGWN– CGDS emerged out of the experience of a research project entitled, The Nariva Swamp: a Gendered Case Study in Wetland Resource Management, which was carried out by the CGDS, St Augustine between 1998 and 2000 as part of a wider regional research programme of the CGDS entitled Gender, Science and Technology. One of the many issues that arose out of the Nariva project was that water-related issues were not sufficiently examined; therefore there was a need for another project to undertake this exploration. Since then a number of projects has been undertaken relating to gender, use and community management of water resources. Emerging out of these research efforts, the WGWN felt it was necessary to conduct training and sensitisation on gender issues in Integrated Water Resources Management.

GLOBAL WATER PARTNERSHIP– CARIBBEAN, GWP–C is a working partnership among all stakeholders in water management within the Caribbean that was formally launched in June 2004 in Tobago. In conjunction with GWP, the GWP-C aims to achieve an integrated approach to water resource management at community, national and regional levels by supporting sustainable partnerships of stakeholders, strategic alliances and the implementation of appropriate action at relevant levels.

CARIBBEAN WATERNET: The Caribbean Water Network is concerned with this lack of Integrated Water Resources Management across the Caribbean region and is committed to provide technical support and resources towards the development of IWRM capacity in the Caribbean. Our goal is to facilitate capacity building and communications in IWRM-related areas throughout the Caribbean. Specifically, the network will:

- Seek to enhance human. Organisational and institutional (capacity and) competence in IWRM, through facilitating cooperation/coordination and providing capacity building and training for/through members in the region.
- Engage in IWRM action research and translating results of research into tangible outputs on the ground.
- Act as a channel for technical, financial, human and material resources in IWRM for the benefit of the region and members.

"When you can't drink water from the ground beneath you and you can't drink the water from the river beside you, there is little alternative but to drink the water from the sky above you."

Reed Sembower

<http://www.changemakers.net/node/4730>



DAY 1

Module 1 – Basic Concepts of Gender and Integrated Water Resources Management

This module facilitates an understanding of gender and gender analysis in general and the gender-related concepts in the context of Integrated Water Resources Management and provides a practical guide to Gender Analysis and Integrated Water Resources Management.



WGWN-CGDS Training Workshop Schedule				
Day 1: CONCEPTS AND DEFINITIONS				
	Module 1:		Monday 7th April 2008	
	Basic Concepts of Gender and Integrated Water Resources Management			
	This module facilitates an understanding of gender and gender analysis in general and the gender-related concepts in the context of Integrated Water Resources Management and provides a practical guide to Gender Analysis and Integrated Water Resources Management.			
A.M.		Duration		Facilitator
	8.00 - 9.00	1 hr	Registration	
	9.00 - 9.30	30 min	Welcome	Rhoda Reddock
	9.30 - 10.30	1 hr	Session 1: Introduction and Ice Breaker	Gwendoline Williams
BREAK	10.30 - 11.00	30 min		
	11.00 - 12.30	1 hr 30 min	Session 2: Understanding Gender and Why Gender Analysis	Rhoda Reddock
	1.15 - 2.15	1 hr	Session 3: The Meaning of Water in Women's and Men's Lives	David Dolly
BREAK	2.15 - 3.00	45 min		
	3.00 - 3.30	1 hr	Session 4: Understanding Integrated Water Resources Management in the Caribbean	Steve Fletcher
	3.30 - 3.45	15 min	Session 5: Summary of Day One Understanding Gender, Understanding IWRM	Gwendoline Williams
			In light of their current understanding of Gender and IWRM, what are the things to celebrate in terms of application of gender to case studies/experiences? What are the gaps?	
	3.45 - 4.00	15 min	Instructions for Overnight Reading	Gwendoline Williams
			OVERNIGHT READING:	
			1. UNESCO text on Gender and IWRM	
			2. UN report on Grand Riviere "Mt. Plaisir Estate Hotel: A Catalyst for Development in Grand Riviere"	
			3. Gender and the Environment: A Feminist Political Ecology Perspective	
			KEY READING:	
			4. The Environment in Anthropology: A reader in Ecology, Culture and Sustainable Living	
			5. Gender, Population, Environment	
			6. Cultural Theory and Environmentalism	
EVENING	6.30 - 8.00		Formal Opening Ceremony (Learning Resource Centre)	
	8.00 - 10.00		Cocktails	

DAY 1

3

Module 1 – Gender and Integrated Water Resources Management: Basic Definitions and Concepts

This module facilitates an understanding of gender and gender analysis in general and the gender-related concepts in the context of Integrated Water Resources Management and provides a practical guide to Gender Analysis and Integrated Water Resources Management.

1. INTRODUCTION AND BACKGROUND

The Centre for Gender and Development Studies (CGDS)/Women Gender and Caribbean Water Network of the University of the West Indies is offering a Training Workshop on Gender Mainstreaming in Integrated Water Resources Management (IWRM) in the Caribbean. This workshop is also collaboration with the Global Water Partnership - Caribbean office (GWP-C) and Caribbean Water-Net.

The WGWN emerged out of the experience of an interdisciplinary research project entitled, The Nariva Swamp: a Gendered Case Study in Wetland Resource Management, which was carried out by the CGDS between 1998 and 2000 as part of a wider regional research programme of the CGDS entitled Gender, Science and Technology. One of the many issues that arose out of the Nariva project was that water-related issues were not sufficiently examined; therefore there it was decided to develop another research sub-theme to undertake this exploration.

In 2003, Professor Jill Schneiderman, Professor of Geology at Vassar College, New York and a visiting Fulbright scholar to the Centre, initiated the first phase of this project by conducting research with women in various communities throughout Trinidad. Professor Schneiderman subsequently co-published with Rhoda Reddock a paper entitled, 'Women, Water and Community in Trinidad and Tobago,' Natural Resources Forum, Volume 28, 2004. This was followed about one year later by a follow up study in the Plum Road/Plum Mitán area by Dr. Grace Sirju Charran.

Following this, an inter-disciplinary working group was formed in November 2003, comprising scholars from the UWI, as well as practitioners in the public and private sectors

who were interested in examining water issues from a gender perspective. This umbrella group is further divided into six thematic clusters:

- * Water Quality and Pollution;
- * Water and Agriculture;
- * Disaster Preparedness and Vulnerability;
- * Private and Public Sector Participation in Water and Sanitation;
- * Water Quality and Health; and
- * Community Participation and Management of Water.

The Network is currently chaired by Dr Fredericka Deare of Kairi Consultants with an inter-disciplinary membership comprising individuals from various faculties of The University of the West Indies, which include the Centre for Gender and Development Studies, The Faculties of Science and Agriculture, Engineering, Humanities and Education, and Social Sciences, and a representative from the Water and Sewerage Authority (WASA).

To date, this Network has undertaken a number of activities as part of this working group: Some of our past initiatives include:

- A Roundtable Discussion – Women, Gender and Safe Water: Claim Your Right, CGDS, (2002).
- Comments to the Draft Water Policy, Water Resources Department, Ministry of Public Utilities and the Environment, Government of Trinidad and Tobago, 2003.
- A one-day training workshop on Women, Water and Natural Resource Management at UWI St. Augustine Campus, March 2005. This workshop provided the first opportunity for wider participation from the campus community and the general public, as well as the opportunity to highlight the value of gender analysis in research on water and natural resource use and management.
- Research projects on Water use and Management at two locations in Trinidad and Tobago, involving community participation and ethnographic methodology. This facilitated the research of Dr. Diana Fox, Associate Professor of Anthropology at Bridgewater State University, Massachusetts and a visiting Fulbright Scholar to the CGDS in 2005.

Dr. Fox and her team – Heidi Savery and Ron Dalton – conducted ethnographic research (a two-part process of group discussions followed by in-depth interviews), on the topic of Women, Gender and Water in the areas of Mt. D'Or, Plum Road and Jones Village, Barrackpore in May 2005.

- Current research on recreational water use and gender, focusing on the gender and social aspects of recreational water use and the biological, health aspects of recreational water in the Caura Valley and Salybia Beach. This research project is conducted by Dr Dawn Phillip of the Department of Life Sciences, and ethnographer Diana Fox and her research team.
- Outputs from these research activities include publications and presentations at local and international fora. Examples include:
 - a. Paper and Power Point presentation at the Caribbean Studies Association Annual Conference in May 2003 entitled, "Water, Women and Community in Trinidad" by Jill Schneiderman and Rhoda Reddock. This paper examined community-based women's initiatives in Plum Mitán and Princes Town.
 - b. Paper and presentation, "Women in Charge," by Grace Sirju-Charran, Jill Schneidermann and R. Reddock at the Third World Academy of Sciences, July 2004
 - c. Paper, "A Gift from God": Gender and the Feminist Ethnography of Water in Three Trinidadian Communities", by Diana Fox et al, Caribbean Review of Gender Studies (CRGS), first issue of online journal, 2006
 - d. Presentation by Rhoda Reddock entitled, "What are Integrated Water Resources Management Gender Issues in the Caribbean" at the Caribbean Waternet, Regional Training of Trainers Course, December 13, 2006.

Emerging from the above-mentioned activities, the WGWN, felt it was necessary to conduct further training and sensitisation on gender issues in Integrated Water Resources Management (IWRM). To be effective, the regional development process and Caribbean policy on water must integrate and reflect the peculiar experiences of men and women.

1.2 Making the Case for a Gender-based Approach to IWRM

Drinking water in sufficient quantity and quality is a basic human need and right. Millennium Development Goal 7 on Environmental Sustainability aims to reduce by half the number of people who have no access to clean drinking water and basic sanitation.

In the English-speaking Caribbean and Suriname, access to water on average runs at 90%, while it stands at 80% for the Dominican Republic and less than 50% for Haiti. In Trinidad and Tobago, the combination of high losses (due partly to rates that fall below operating costs), leakage and theft and inadequate investment in infrastructure, result in water-rationing in particular areas.

State, international non-governmental agencies, as well as multilateral institutions have long sought to harness the many different ways that people around the world view, use and 'celebrate' water, in an attempt to address the many issues that surround this resource. Issues of politics, culture, hygiene, agricultural use and management all need to be approached from a gender perspective, if the attendant development projects are to succeed.

A gender perspective, which seeks to include an understanding of gender roles and relations and how these affect and are affected by water interventions can ensure greater sustainability and resource efficiency and can therefore increase the number of beneficiaries of a project. It only makes sense that interventions that include the views and experiences of both men and women will generally work better. Like most other resources, water, and therefore its management, is not 'gender neutral'!

2.0 PURPOSE OF THE TRAINING

The main aim of the training is:

To strengthen the approaches to policy development, and programme and project management in IWRM through the incorporation of gender concepts and gender planning methodologies so as to achieve the goals of social equity for men and women in society.

2.1 Programme Objectives

The overall goal of the workshop is to build capacity within the Caribbean to apply gender analysis and incorporate gender equality and diversity concerns into IWRM programmes.

Specific Objectives

1. Define the concepts of gender, gender analysis and gender mainstreaming as applied to public policy and water resource management.
2. Use the 'gender lens' to share with each other on a country basis, their experiences in access to and use of water in the household, as well as business and industry.
3. Link the gendered approach to water uses in the household, and in business and industry to the key components of the Millennium Development Goals, for example, to poverty alleviation, child mortality, and the environment.
4. Diagnose the extent to which gender is currently incorporated into policies, programmes and projects in the Caribbean and the implications to date.
5. Use the methods and techniques of gender mainstreaming to take into account the needs and interests as well as the active involvement of men and women in the development of policies, programmes and projects related to water resource management.
6. Use the logical framework analysis approach to develop gender-based Action Plans for IWRM within a Caribbean context and in relation to the Millennium Development Goals (MDGs).

2.2 Expected Outcomes

These include the following:

- a) About thirty (30) persons from the Caribbean trained on gender analysis and gender mainstreaming in IWRM.
- b) Caribbean-focused training modules and material developed on Gender and IWRM that can be used later to develop a Train-the-Trainers programme.
- c) Shared experiences and networking of participants from various Caribbean countries with common interests.
- d) Developed Action Plans that can be implemented in the various Government Ministries and Departments, public agencies and in selected private sector and

civil society organizations.

In addition, a report on the proceedings of the training programme and the recommendations for the conduct of future Gender and Integrated Water Resources Management Training Programmes will be prepared and submitted to partner organisations.

2.3 Course Language

The Programme will be conducted in English. If necessary, and where possible, translators can be provided for any non-English speakers in keeping with the inclusive nature of the course.

2.4 Target Group

The training programme will be as inclusive as possible and draws participants from the following:

- * Members from GWP – C Partner organisations in the Caribbean
- * Caribbean Waternet local and other regional members;
- * Professionals from the public and private sectors involved in water management and allied sectors, and in Gender and Development;
- * Civil society organisations - non-governmental organisations (NGOs), women's and men's groups and community activists in water.
- * Officials of water sector agencies, professionals, and international, regional experts and academics.

The programme will cater for a maximum of 32 which includes 12 sponsored foreign participants, 12 sponsored local participants and six to eight paying participants.

2.5 Duration

The Workshop will be held over a five-day period. It is proposed that the Workshop be conducted in April 7 – 11, 2008

2.6 Course Structure and Content

The structure of the Training Workshop is as follows below. It is divided into five modules:

- **Module 1: Gender and IWRM: Definitions and Concepts;**

- **Module 2:** Application of Tools of Gender Analysis;
- **Module 3:** Gender Mainstreaming in IWRM 1;
- **Module 4:** Field Trip & Practical Session in Plum Mitán, Trinidad
- **Module 5:** Gender Mainstreaming in IWRM 2

2.6.1 Programme Structure and Schedule

DAY ONE		
Morning	Registration	
	Welcome	
	Module 1: Gender and IWRM: Basic Definitions and Concepts This module facilitates an understanding of gender and gender analysis in general and the gender-related concepts in the context of Integrated Water Resources Management and provides a practical guide to Gender Analysis and Integrated Water Resources Management	
	Session 1: Introduction and Ice Breaker (1 hour)	Facilitator: Gwendoline Williams
	Session 2: Understanding Gender and Why Gender Analysis (1 1/2 hours)	Facilitator: Rhoda Reddock
Afternoon	Session 3: The Meaning of Water in Women's and Men's Lives (1 hour)	Facilitator: David Dolly
	Session 4: Understanding Integrated Water Resources Management in the Caribbean (1 hour)	Facilitator: Steve Fletcher
	Session 5: Summary of Day One and Instructions for Overnight Reading (1/2 hour)	Facilitator: Gwendoline Williams
Evening	Formal Workshop Launch and Opening Ceremony	

DAY TWO

Morning	Recap and Overview of Day : How Gender Analysis Enhances IWRM (3/4 hour)	Facilitator: Gwendoline Williams
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Module 2: Application of Tools of Gender Analysis

This module recognises that water managers needs tools and skills to apply gender analysis to IWRM process. Participants will be provided therefore with the tools to undertake analysis of IWRM policies, projects, programmes and strategies from a gendered perspective. It also provides the participants an opportunity to apply these tools to case studies and to share experiences and bring awareness of the gender implications of their programmes.

	Session 1: How can a Gendered Approach Contribute to IWRM in the Region? (1 hour)	Facilitators: Marilyn Crichlow Gwendoline Williams
	Session 2: Tools and Principles Related to Gender and Integrated Water Resources Management (1 hour)	Facilitator: Diana Fox
	Session 3: Presentation and Discussions of Prepared Gender and Water Cases in the Caribbean (1 hour)	Facilitator: Diana Fox
Afternoon	Session 4: Group Exercises in Applying Gender Analysis to IWRM (2 hours)	Facilitator: Diana Fox
	Session 5: Summary of Day 2 Introducing Water Management Policies and Instructions for Overnight Reading (1/2 hour)	Facilitator: Gwendoline Williams

DAY THREE

Morning	Recap and Overview of Day 2 (3/4 hour)	Facilitator: Gwendoline Williams
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Module 3: Gender Mainstreaming in Integrated Water Resources Management (1)

The module aims at assisting the mainstreaming of gender within projects with practical tools for situational assessment, analysis and planning. It aims at demonstrating simple, learner-centered, gender- and poverty-sensitive participatory tools that can be used at the policy, programme and project levels.

	Session 1: Developing Water Resources Management Policies in the Caribbean (1 hour)	Facilitator: Marilyn Crichlow
	Session 2: Gender Mainstreaming: Definitions, Tools and Mainstreaming Methodology (1 hours)	Facilitator: Gwendoline Williams
	Session 3: Issues of Project Cycle and Public Policy in IWRM (1 hour)	Facilitator: Marilyn Crichlow

Afternoon	Session 4: Gender Mainstreaming in the Project Cycle and Policy Process and Application to Gender Policies and Projects (13/4 hours)	Facilitators: Marilyn Crichlow Gwendoline Crichlow
	Session 5: Summary of Day 3 (_ hour) Field Trip Instructions and Methodology and Instructions for Overnight Reading	Facilitators: Gwendoline Williams David Dolly Grace Sirju-Charan

DAY FOUR

Module 4: Field Trip & Practical Session in Plum Mitan, Trinidad

This module provides the opportunity for participants to discuss, examine and apply tools provided thus far to community-based water management system

Morning/ Afternoon	Field Trip & Practical Working Session: Plum Mitan and Kemahan, Trinidad - Rapid Reconnaissance: Looking at natural resource management and utilities management as it relates to community-based management of water	Facilitators: David Dolly/ Grace Sirju-Charan
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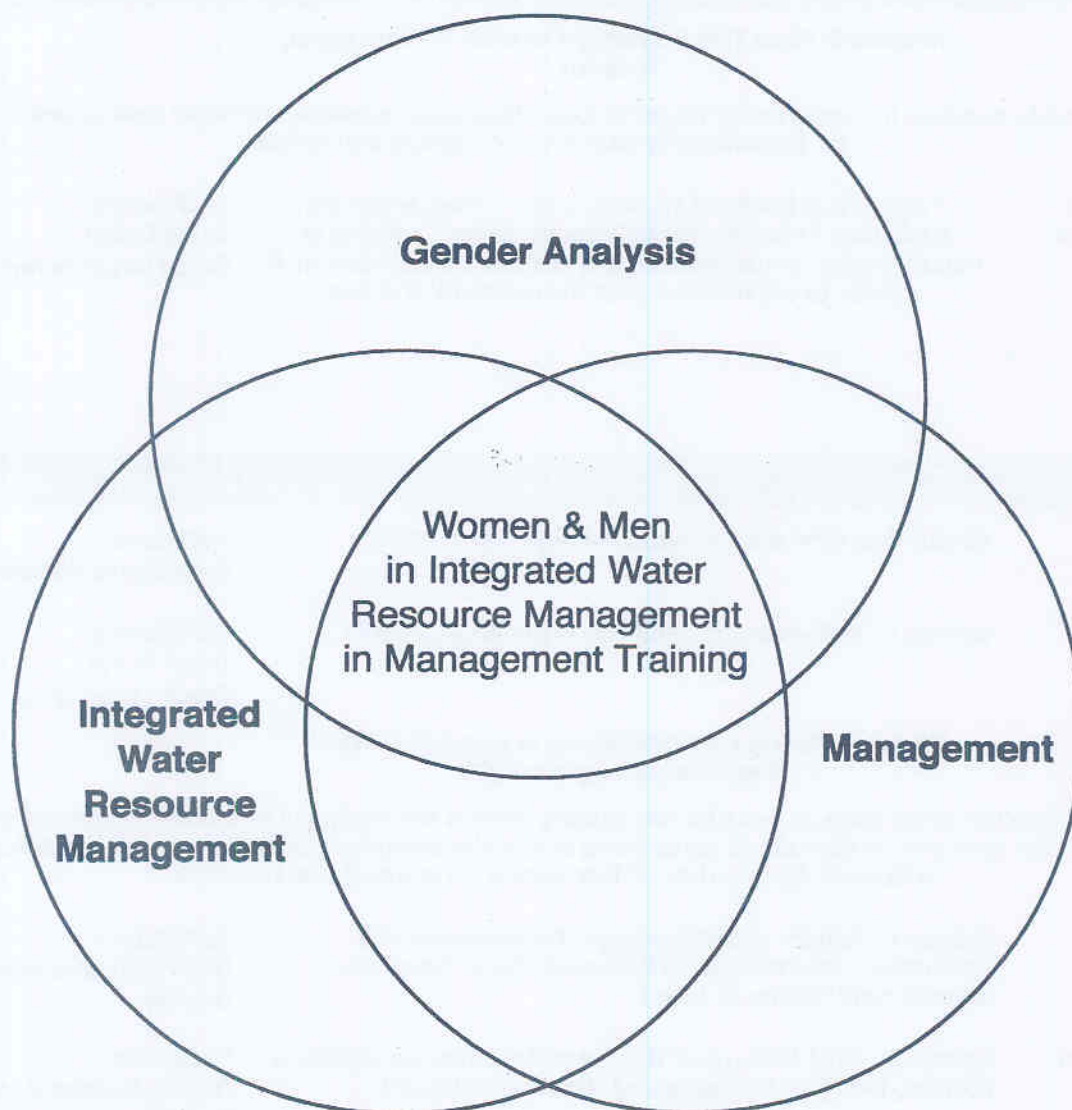
DAY FIVE

Morning	Recap, Overview and Evaluation of Days 3 (3/4 hour)	Facilitator: Gwendoline Williams
	Session 1: Reflections of Field Trip Experience (1 hour)	Facilitators: David Dolly/ Grace Sirju-Charan
Module 5: Gender Mainstreaming in Integrated Water Resources Management (2)		
This module therefore looks at tools for formulating policies and designing or influencing organizations to be gender-sensitive. It also allows participants to make presentations of their completed action plans which will be based on all that have been learnt during the week.		
Afternoon	Session 2: Gender Mainstreaming in Organisations and Institutions: Presentation of Reviewed Water Resources Management Policies (1 hour)	Facilitator: Deputy Speaker Penelope Beckles
	Session 3: Final Critique of the Water Resources Management Policies, Recap of Workshop and Next Steps (2 hour)	Facilitator: Deputy Speaker Penelope Beckles
	Course Evaluation (_ hour)	Facilitators: Gwendoline Williams
	Closing Ceremony and Distribution of Certificates of Participation	Rhoda Reddock Gwendoline Williams

3.0 TRAINING DESIGN

– STRUCTURE AND CONTENT SELECTION²

The training content in the Manual has three elements. These are drawn from theory and practice in Gender Analysis and Planning; Management; and Education. These are interlinked as shown below:



² Source: Dr. Gwendoline Williams & Associates - See Appendix I for further rationale for the Structure and Content of the Manual

Gender Awareness and Sensitization:

Modules 1 and 2 explores gender concepts; gender planning as a management function in transforming organisation culture to one that supports gender sensitivity.

Specifically, **Module 1** facilitates an understanding of gender as a social construct and gender analysis as a tool for understanding the differential ways in which any one factor or variable may affect or be affected by women or men. - related concepts will be explored providing a practical guide to Gender Analysis and Integrated Water Resources Management.

Module 2 recognises that water managers need tools and skills to apply gender analysis to IWRM process. With these, participants will be able to analyze IWRM policies, projects, programmes and strategies from a gendered perspective. Use will be made of case studies and the sharing of experiences so as to create awareness of the gender implications of the IWRM programmes.

Management:

Modules 3 and 4 introduces participants to critical management skills and tools in mainstreaming gender in policy and planning and project management in the IWRM.

Integrated Water Resource Management:

All of the modules and their activities have been designed based on the perspectives, policies and programmes in the IWRM.

3.1 Manual Layout

3.1.1. The manual includes:

- * An overview of gender and water projects undertaken to date by the Centre for Gender and Development Studies, UWI St. Augustine
- * An introduction to the concept of gender and the links to sex and gender roles in policy and planning through the process of gender mainstreaming
- * The process of gender mainstreaming in policy and planning as well as project management and review
- * Prerequisites for successful implementation
- * Proposals for action
- * Appendices concerning Gender Mainstreaming and IWRM



THE UNIVERSITY OF THE WEST INDIES

ST. AUGUSTINE, TRINIDAD AND TOBAGO, WEST INDIES

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GENDER & WATER TRAINING WORKSHOP Caribbean 2008

GENDER MAINSTREAMING AND INTEGRATED WATER RESOURCES MANAGEMENT IN THE CARIBBEAN

7th to 11th April 2008



Global Water
Partnership
Caribbean



GENDER AND IWRM

(INTEGRATED WATER RESOURCES MANAGEMENT)

Module 1: Gender and IWRM: Basic Definitions and Concepts:

This module facilitates an understanding of gender and gender analysis in general and the gender-related concepts in the context of Integrated Water Resources Management and provides a practical guide to Gender Analysis and Integrated Water Resources Management

Gender Training – Issues That Raises Emotions for Us All

All of us are familiar with issues of **gender**, of relationships between women and men, at home, at work, in the wider society. We probably discuss these issues with our friends and close one. Mostly we have strong ideas and emotions about issues of gender, whether we like how it is, or we wish for changes. These emotions mean that gender training is challenging, even for experienced trainers.

When this is combined with a sometimes new focus on **management skills**, this is indeed a further challenge. Added to this are the issues of **participative training**, and within this how to ensure this is not used as an opportunity for existing views to be confirmed and further stereotyped.

Summarizing below are some key areas to ensure clarity for future courses. This can be used as further guidance for trainers, and for members of the Gender Committee who are attending.

a) Focus on the Organisational Level of Analysis

Society
Organisation
Individual

Most participants, as mentioned above, have strong feelings about gender, and are very used to discussing issues of gender at both the societal level and the individual level. So for example, many statements have been made about 'people's attitudes, the values of society' – at a societal level – and about what is said to be the unwillingness

of women to apply for promotion – an individual focus. It is recommended that the training course focuses on the organisational level, while recognising strong links both upwards to society and downwards to the individual levels. What is needed is to increase awareness and the tools for analysis at the organisational level.

4.0 **SESSION 1**

UNDERSTANDING GENDER AND GENDER ANALYSIS

4.1 Unit 1 - What is Gender?

The term gender has come into popular usage since the middle of the 1970s. It was introduced by a group of feminist theorists who can be described as social-constructionists in that they stressed the social factors contributing to differences between women and men. Prior to this the term was used primarily in a linguistic and grammatical sense as e.g. masculine, feminine and neuter nouns.

The concept 'gender' was introduced to facilitate an analytical and conceptual distinction between the biological differences of being 'male' and 'female' and the socially constructed or socially determined differences and meanings attached to 'masculinity' and femininity'.

This resulted therefore in a conceptual distinction being made between sex which was seen as biological and gender which was seen as social. What is important to be noted is the following:

- * Sex, being biological was seen as unchangeable and gender being social was seen as having potential for change;
- * Sex was discussed in terms of being male or female while gender was discussed as being masculine and feminine;
- * The social values attached to masculinity and femininity were and are not equal. Masculinity was always valued more highly than femininity and seen as superior. As a result it is more jealously guarded.
- * Attached to the masculine and the feminine are also differentiated responsibilities, expected behaviours and attitudes;

- * These are internalised from a very early age and maintained or shaped by norms, sanctions, institutions and social structures.
- * These values, behaviours and general expectations vary from society to society or in any one society over time and among groups e.g., classes, rural/urban sectors, religious and ethnic groups. For example although men and women become parents in most societies, what is expected differs across cultures and from one historical period to the other.
- * Behaviour of women and men is therefore shaped by gender ideologies.
- * Gender ideologies are culturally specific but differ within and between cultures and over time.
- * These ideologies are learnt through socialization and can change overtime.
- * Gender is therefore seen as something which is fluid, changing and never constant and subject to social forces?

Definition

Gender

"The socially constructed identities as reflected in behaviours, attitudes and power relations between women and men, and reflected in notions of femininity and masculinity (Rhoda Reddock, 2000: 2)

"Complex systems of social and personal relations through which women and men are socially constructed and maintained and through which they gain access to, or are allocated status, power and material resources within society" (Eudine Barriteau, 1998).

Sex

Sex identifies the biological differences between women and men.

EXERCISE 1:

GENDER & CHILDHOOD EXPERIENCE

EXERCISE: INSTRUCTIONS³

As a starting point for thinking about gender it is helpful to reflect on your own experiences. This can help you remember the messages, spoken or unspoken, you received from family, friends and peers. You become more aware of the complex influences that shape expectations of men and women – how we behave, what we can do, what behaviour is acceptable and what is not and our future potential.

Some argue that gender socialization can begin in the womb especially now with new technologies. Now even before birth we can know definitely if to buy blue to pink. Sex and gender such an important concept that human beings are unable to deal with persons of ambiguous gender. This is why the first question always asked of a new born is – Is it a boy or a girl? Indeed when we are born we are unaware of our sex until others let us know and also let us know what is expected of us.

The first activity therefore asks you to think back to when you first became aware of gender issues in your own life. Spend a few minutes thinking about these questions and make brief notes. Try to tease out your own values and assumptions and how they came about.

Share this in small groups then report back to the larger group.

- a) When did you discover that you were different from the opposite sex?
- b) What messages did you receive as a child about gender – about the roles, qualities and expectations for women and men?
- c) Where did these messages come from?
- d) How did it make you feel?
- e) How did this early learning shape your adult values and assumptions?

4.2 Men and Women Multiple in Society – Understanding Gender Ideologies

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- * **Gender Ideologies** refers to ideas, belief systems, attitudes and values related to women and men and their place in society;
- * These ideologies are internalised by us all and shape our behaviours and social relations with other persons.
- * These ideologies are acquired and reproduced through relationships with parents and care-givers, formal and informal education systems, peer group interaction, religious teachings, informational material and the communications media.
- * Gender ideologies, unless challenged, tend to perpetuate the unequal power relations and between women and men and the unequal value of masculinity and femininity through their pervasiveness and widespread acceptance.
- * Gender ideologies also prescribe accepted social behaviours and determine the sexual division of labour within the family, the work place and the state.
- * They also cut across sociological ordering principles such as class, caste, age and ethnic group, and is closely related to a differential distribution of power.
- * In short, while biological sex, such as the ability of men to produce sperm and women's ability to bear and breastfeed children, are universal, gender ideologies determine how this takes place, under what conditions and the meanings attached to these activities.
- * Gender ideologies are dynamic and can change over time.

EXERCISE: INSTRUCTIONS

For each of the following terms ascertain whether they are the result of biological sex or gender ideologies.

Activity / Behaviour	'Sex'	'Gender'
Should be the breadwinner		✓
Bears children	✓	
Opens doors for women		
Experiences menopause		
Does most housework		
Can be Catholic priests		
Has a scrotum		
Wears skirts		
Collects Water		

Sex and Gender Diversity

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The fluid character of the concept 'gender' allows us to understand cases where one's physical body (anatomy/biology) and gendered behaviour do not always fit as easily together as our 'western oriented' society would like it to be. This concept allows for and recognises the existence of persons who do not fit neatly within the categories of 'male' and 'female' for example:

- * persons whose gender identity may not coincide with their anatomical or biological attributes i.e. transsexual persons;
- * persons whose sex may not be clearly identified i.e. intersexed or trans gendered persons;
- * or persons who have a sexual preference for persons of the same sex, a preference which differs from that of the majority of persons - homosexual person.

4.2.1. Gender, Work and Production⁴

An important component of gender ideologies is the assignment of roles and responsibilities to women and men. All of these activities are gendered in that gender ideologies shape the values assigned to them, the ways in which they are carried out and who is assigned the responsibility.

Gender Role Analysis

Another way of understanding this is in the language of Gender Roles.⁵ Seven gender roles could be identified as follows:

⁴ Rhoda Reddock, an Introduction to Gender Analysis.

⁵ Source: Dr. Gwendoline Williams & Associates

1. REPRODUCTIVE	– Impregnating, pregnancy, giving birth
2. PRODUCTIVE	– Paid or unpaid work in or outside the home, wealth generation
3. FAMILY CARE	– Taking care of the household, including housework and care of the young and elderly
4. KIN RELATIONS	– Taking care of the extended family
5. COMMUNITY RELATIONS	– Involvement in the immediate and/or national community
6. SELF DEVELOPMENT	– Taking care of the self for personal and professional development
7. SPOUSE RELATIONS	– Focus on maintaining intimate and marital relations

Men's and women's activities are often also carried out in very different 'social spaces' or 'domains' of gendered activities. In the existing sexual division of labour, women's space has been defined as the home, and for men, it is in places outside of the home - street, workplace, community and places of governmental decision making, like parliaments and boardrooms. Although this is not always adhered to, it still underlies our participation in and experiences of these spaces.

Definition

Gendered Spaces

This refers to the fact that in any given community or within the domestic environment there are spaces that are defined as male or female spaces. Some of these are long-standing definitions. These spaces maintain their gendered character by sanctions and rewards which are administered by adhering to or challenging the boundaries of these spaces and the activities which occur there. For example in our region a rum shop or 'recreation club' is a male gendered space. Women who frequent such places may acquire certain names.

EXERCISE: INSTRUCTIONS

Think of accepted 'masculine' and 'feminine' spaces. How do we feel or are we made to feel when we women or men enter these spaces? Using specific examples explore some of the public policy impacts of this.

Key Related Gender Definitions

Gender Relations

This term refers to the ways in which women and men interact within a context of gender hierarchies and gendered structures. These can take place in the private personal sphere, the public sphere and in social, economic and political contexts.

The contexts within these relations take place may be rigid or flexible and change over time.

Gender Bias

This refers to the tendency to make decisions and value judgements (formal and informal) about the capabilities of women and men based on stereotypical assumptions about masculinity and femininity. For example many agricultural policies are based on the assumption that the farmer is male and the farmers' wife is his help or a secondary farmer. This is a situation of gender bias. A process of gender analysis would ascertain what women and men actually do and are capable of doing. In order to do gender analysis, persons would need to be gender sensitive and use gender-disaggregated data.

Gender-Sensitivity

This refers to the awareness and understanding of the many and varied ways in which ideas of men and women's place (gender ideologies and practices) contribute to inequitable gender relations including unequal access to and control of resources.

Gender Equity vs. Gender Equality

Equality refers to the right of women and men to have the same opportunities for the achievement of important goals in society e.g. education, employment and social and sexual autonomy, and income. The concept of equity is not based on numerical equivalencies. It acknowledges that all human beings have the right to social justice and an enabling environment in which to develop their fullest potential. The special needs which women may have for example child care facilities, maternity leave etc. therefore need to be considered to ensure their equal opportunity to achieve these goals.

Points to Remember about Sex and Gender

- * 'Sex' is used to refer to 'Male' and 'female' differences, normally physiological related for example to differences in physical strength, the existence of different genitalia, reproductive organs and the like.
- * Sex differences are usually very difficult to change. There are rare cases of sex change involving surgical operations.
- * 'Gender' refers to social, cultural and historical differences usually referred to as 'masculine' and 'feminine' differences.
- * Gender roles relate to different social and cultural codes for behaviour, role expectations, life-styles, power and influence etc.
- * Gender expectations and ideologies vary over time and space. Since gender ideologies are socially constructed, they can be socially deconstructed although not easily.
- * Gender ideologies also support unequal power relations which make them difficult to change as some people benefit from them.
- Gender ideologies are shaped by:
 - Cultural attitudes and behaviours (Norms, Practices, Values)
 - Religious traditions and belief systems
 - Political and ideological expectations
 - The influence of Media and information and communications technologies

EXERCISE 2:

"ORDERING" GENDER ROLES

EXERCISE: INSTRUCTIONS

- a. Individually, study the list of the seven Gender Roles of Men and Women in society on **Page 22** . Then as you see it, order the list in order of the importance **TRADITIONALLY** attached to each item by men and women respectively.

Enter your response in the first table below. Then in the second Table reorder the list based on the importance attached to each item by men and women **TODAY**.

- b. Then in your groups share individual responses and try to get a consensus on the order.
- c. Each group will then share their responses with the workshop and answer the following question in plenary:

"What has been the impact of changing gender roles and the importance attached to them by women and men on society and the community?"

Gender Roles in Order of Importance Traditionally attached by Women	Gender Roles in Order of Importance Traditionally attached by Men
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.
6.	6.
7.	7.

Gender Roles in Order of Importance Currently attached by Women	Gender Roles in Order of Importance Currently attached by Men
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.
6.	6.
7.	7.

The Sexual/Gender Division of Labour

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4.2. UNIT 2

Although In the past not all of the activities mentioned above were perceived of as work and labour or as productive. We now recognise that not only paid work is important or productive and much of what was previously not seen as work is now understood in this way.

Definition

The Sexual/Gender Division of Labour

This refers to the assignment of tasks and responsibilities to women and men based on the social values, norms and mores of a given society. These dictate which activities are socially acceptable and by whom they are to be performed. This division of labour has historically not been equitable, as those tasks assigned to women often have a lower value than those assigned to men.

This division of labour can exist in the domestic sphere as well as in public life and refers to both waged and unwaged work.

Work and the Sexual/Gender division of Labour

Women and Men's work can be divided into two main areas - Production and Reproduction, although much of reproductive work is also productive.

- * Production refers to the production of goods and services.
- * Reproduction refers to all the work that goes into keeping human beings alive:
 - * bearing new offspring;
 - * sustaining family members - cooking, cleaning, washing, fetching water, domestic agriculture etc.
 - * bringing up children in the values and mores of the society
 - * transferring cultural traditions and knowledge from one generation to the other, including gender ideologies;

- * maintaining kin and community relations - attending weddings and funerals etc.,
- * re-generating the energy to work and produce - self, spouse and children;
- * Providing intimacy, care, comfort and recreation in order to psychologically and physiologically re-energise.

In the past all of this work was not considered work and was the activity carried out mainly by housewives. Today much of this responsibility continues to be that of women even if they also work outside the home and even though men are accepting more of this responsibility. Whereas in the past there was a clear distinction in that Production which took place outside the home and Reproduction within the home today this is no longer the case.

4.2.1 Reproductive and Productive Activities - Characteristics

'Reproductive' Activities (Social & Biological)

- * defined as 'Feminine activities'
- * Usually home-based
- * Invisible in national accounting statistics and records
- * The actual activities may vary from society to society and over time.
- * Not highly valued and often taken for granted.

'Productive' Activities

- * defined as 'Masculine activities'
- * In the public domain
- * Visible, waged work; recorded in national accounting statistics
- * Higher status and economically valued

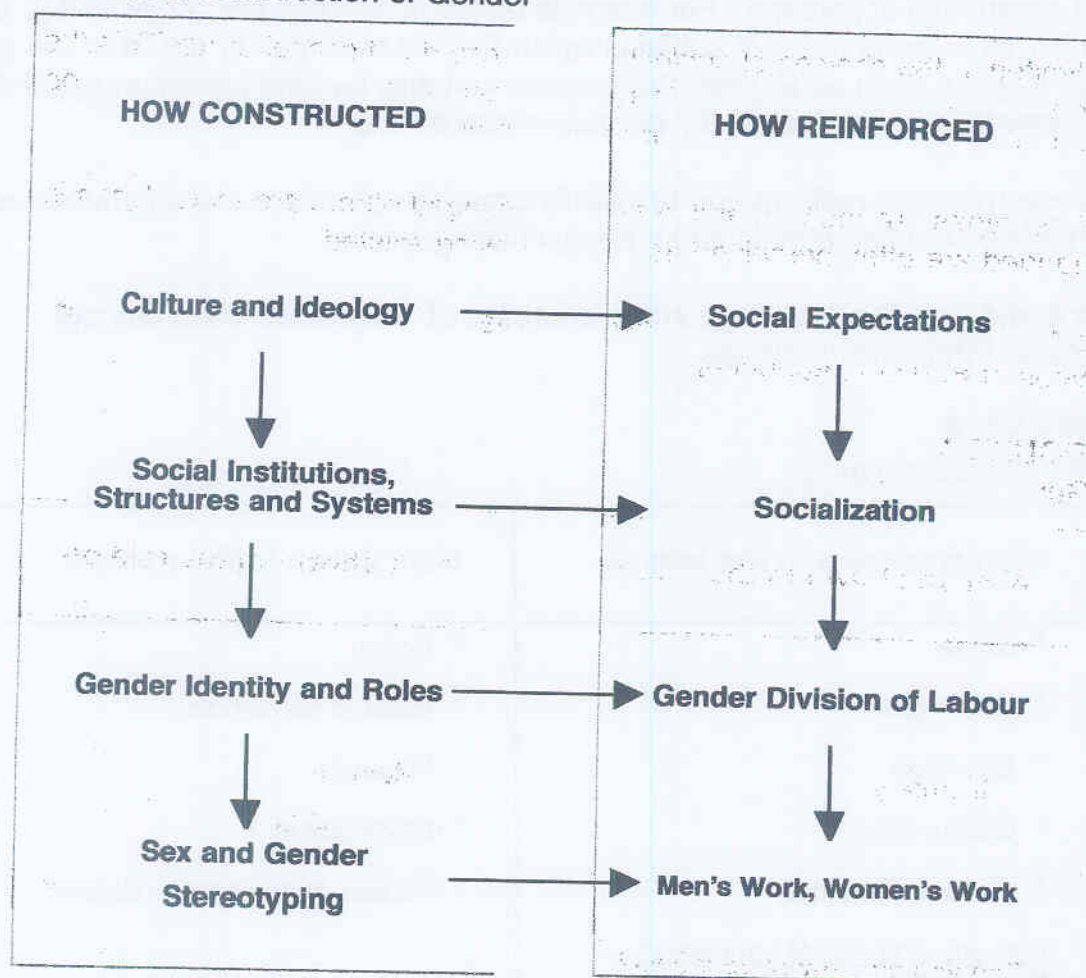
Activities defined as masculine activities may lose their value and their remuneration if they become defined as 'feminine', hence the resistance on the part of many men and women to large-scale movement of women into predominantly masculine occupations.

4.3 The Social Construction of Gender

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Figure 3 illustrates how the gender roles in society are constructed and reinforced.

FIGURE 3'
The Social Construction of Gender



Sex/Gender Stereotyping

This refers to the view that associates men and women with specific occupations, activities, behaviours, attitudes etc. An example of this is the view that all women are cooks or all men are handy with technical tasks. This is very problematic as it limits the opportunities and possibilities open to individuals and a priori specifies the capacities and capabilities of persons. For example based on stereotypes, boys and girls may be limited in the choices of subjects which they do at school or adults in the jobs for which they are seen as eligible. Stereotypes can also be held based on people's race or ethnicity, religion, nationality or other characteristic.

Some stereotypes are resilient and not easily changed others are more dynamic and when changed are often perceived as always having existed.

Figures 4 and 5 on the next page show examples of long-established Gender Stereotypes of Personal Attributes.

FIGURE 4
Gender Stereotyping

Women shown in the role of-	Man shown in the role of-
* Nurse * Housewife * Secretary * Child minder * Washer of clothes <u>Can you add any of your own?</u> <u>Do so below:</u>	* Doctor * Head of household * Manager * Wage earner * Reader of newspaper doctor

FIGURE 5
Gender Stereotypes of Personal Attributes - which of these still exist and which have or are being changed?

Female Stereotype	Male Stereotype
* Gentle * Caring * Less Intellectual * Physically Weak * Shy of Financial Dealings in Business * Risk Averse * Meek * Quiet * Submissive * Humble	* Rough * Individualistic * More Intelligent * Physically Strong * Good in Making Business Deals * Courageous * Risk Taking * Noisy * Assertive * Brave

32 5.0. GENDER PLANNING – MEN AND WOMEN'S GENDERED INTERESTS⁸

5.1 Unit 1 – Gender Planning

Gender Planning for women and men is intended to do the following:

- * A gender analysis of the context in order to understand the situation of women and men and the factors affecting them;
- * Understanding the common and different gendered interests of women and men in a particular context;
- * Make men more aware about women's work, rights, exploitation, and claims for change.
- * Make women understand how ideologies, gender ideologies, institutions, social and cultural codes and social control levers operated by both men and women shape the orientations, beliefs and most importantly, the behaviours of women and men in patriarchal societies.
- * Show how common and divergent 'gendered needs and interests' shape gender identities and thereby the interaction between men and women.
- * Assess the position of women and men in economic development (vis-à-vis industry and entrepreneurship) in light of stereotyping of gender identities and personal attributes and gender roles.

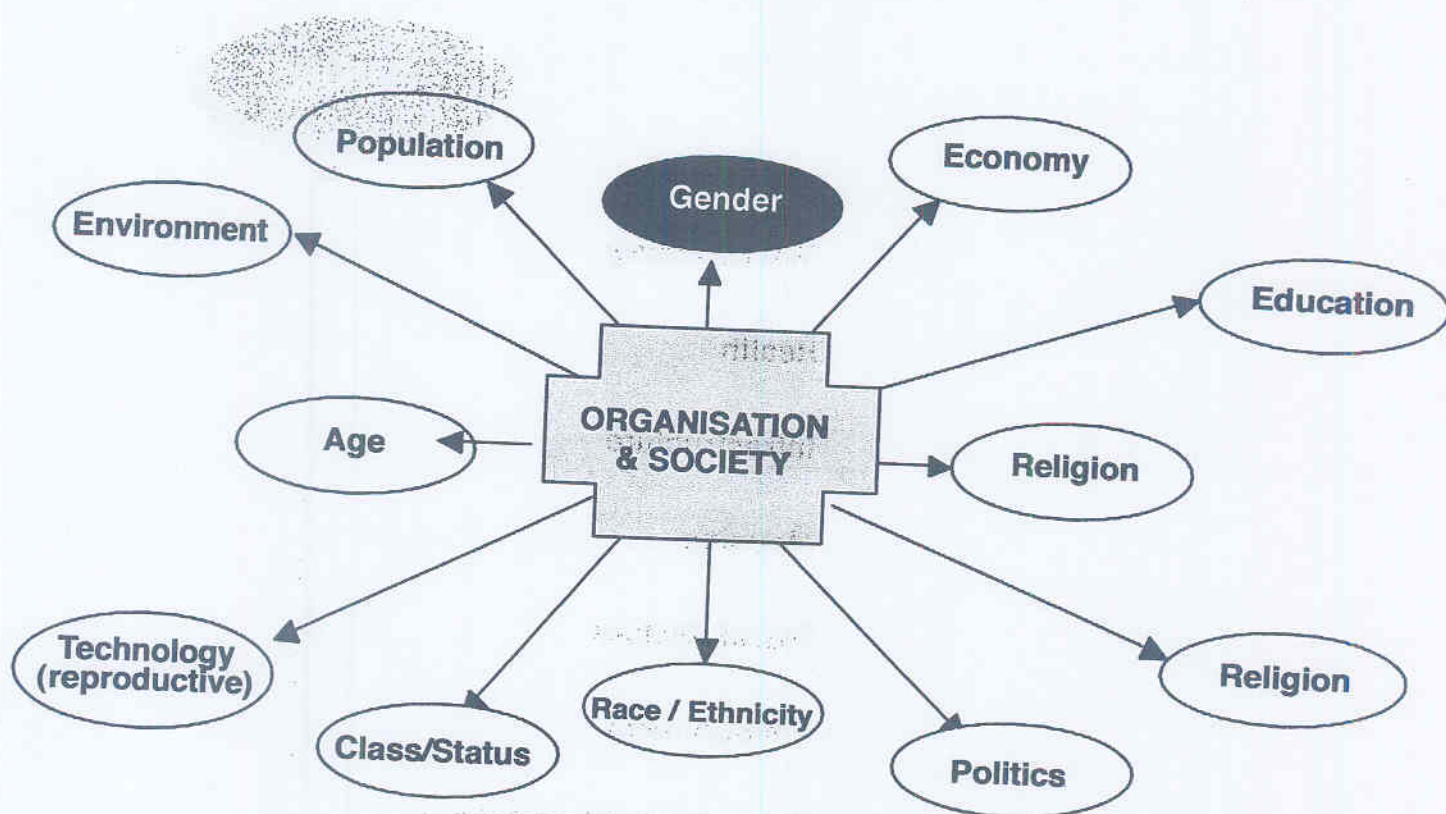
5.1 Gender as a Social Variable

As a social planning variable, Gender influences all sectors of society.

Figures 6 and 7 illustrate the interaction of gender issues in social organization and planning.

FIGURE 6

Intersect of Gender and Other Variables of Social Analysis

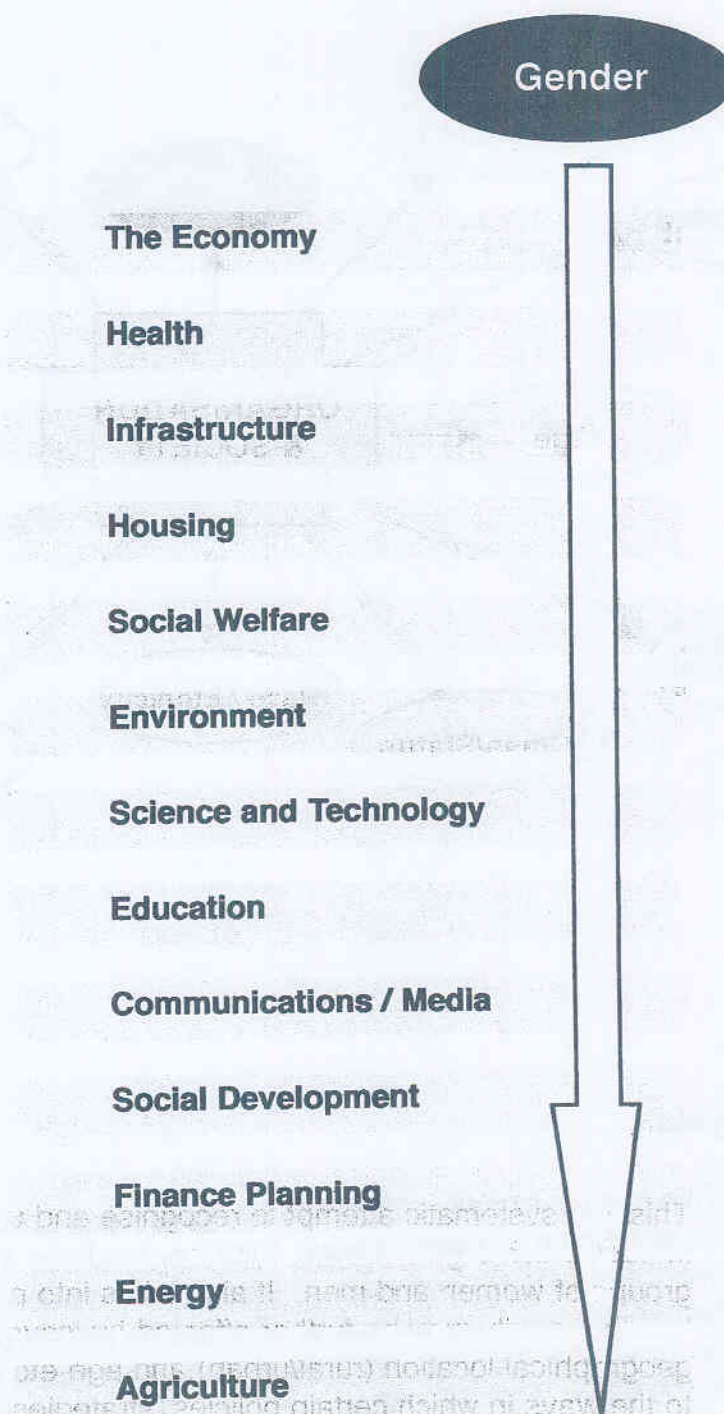


Definition

Gender Analysis

This is a systematic attempt to recognise and understand the differential impact which a given variable, factor or decision may have on different groups of women and men. It also takes into consideration how gender-based inequity may be further affected by issues of race/ethnicity, class geographical location (rural/urban) and age etc. It is important as it points to the ways in which certain policies, strategies and decisions may impact negatively on certain groups and/or perpetuate already existing inequities.

FIGURE 7⁹
Gender as a Social Planning Variable Cuts Across All Sectors



⁹ Source: Dr. Gwendoline Williams & Associates, 2002

EXERCISE 3: GENDER PLANNING ISSUES

EXERCISE: INSTRUCTIONS¹⁰

Using the example on the next page as a guide, in your group, list the issues for women and men as related to the 12 Areas of Concern raised at the Beijing Conference (1995) using **Worksheet1** (Each group is required to complete the 4 areas highlighted below)

Record your group's responses on flip chart paper. You may also use a role-play activity to present the findings.

12 Areas of Concern Beijing Platform for Action (1995)

1. Women and Poverty
2. Education and Training of Women
3. Women and Health
4. Violence Against Women
5. Women and Armed Conflict
6. Women and the Economy
7. Women in Power and Decision Making
8. Institutional Mechanisms for the Advancement of Women
9. Human Rights of Women
10. Women and the Media
11. Women and the Environment
12. The Girl Child

EXAMPLE**Identifying Gender Issues in the Beijing Agenda**

ISSUES FOR WOMEN	ISSUES FOR MEN
Women and Poverty – Credit for small business – Shelter, food, protection – Water and other utilities – Child care – War and social unrest – Low wages – Job opportunities – Abuse – Multiple partners and health – Welfare and social assistance programs	Men and Poverty – Shelter, food, protection – Access to high level education – Child and family care – Jobs and employment – Crime (the majority of the prison population comprise of men) – Abuse / Violence / Warfare (Conflict handling) – Use of resources (% of income used for leisure) – Health (accessing health care as a mode of prevention)

EXERCISE 3: GENDER PLANNING ISSUES

Worksheet 1

ISSUES FOR WOMEN	ISSUES FOR MEN
Women and the Economy	Men and the Economy
Men and Education	Women and the Economy
Women in Power and Decision Making	Men in Power and Decision Making
Men and the Environment	Women and the Environment

UNIT 2 - Analysis of a Gender Issue

5.2 What Is Gender Analysis?

Gender analysis is the first and most critical step towards gender-responsive planning and programming. It involves the collection and evaluation of sex-disaggregated information in order to understand the differences, commonalities and interactions between women and men. Gender analysis examines women's and men's specific activities, conditions, needs, access to, and control over resources, and access to development benefits and decision-making power. Gender analysis then studies the linkages of these and other factors in the larger social, economic, political and environmental context.

Because men and women perform different roles, they may have different experiences, knowledge, talents and needs. Gender analysis explores these differences so policies, programmes and projects can identify and meet the different needs of men and women.

5.2 Analysis of a Gender Issue

5.2.1 Elements of Gender Inequality

A gender issue can be assessed in terms of three (3) elements as shown in Figure 8: Gender Gap, Gender Discrimination and Gender Oppression.

FIGURE 8 - Elements of Gender Inequality



Gender Gap

A gender issue arises where there are observable gender gaps of which women and men are aware of and considered to be unfair.

A gender gap is a measure of gender inequality or inequity in respect of the socio-economic and politic status of women and men. It is not just a female-male gap as it is not solely derived from biological differences. It arises also from stereotyping owing to differing gender roles and the consequent positioning of women and men in the various realms of policy and planning.

The difficulties women have in accessing credit for building their business enterprises is an example of a gender gap in entrepreneurship development.

Gender Discrimination

Gender gaps do not arise by accident. They are the results of biased differential treatment meted out, usually to girls and women in comparison to boys and men. This unfair treatment is what we term gender discrimination.

Gender discrimination could be a single incident, for example, when a bank manager accepts collateral from a male for a business loan, but refuses the same type or quantum from a female. Almost all types of gender gaps extend beyond isolated instances of discrimination.

Gender gaps on a wider scale are due to systemic and systematic discrimination that is part of the social system and runs through all aspects of life. For example, in an African cultural context, throughout the socialization of both the boy and the girl child, more often than not, the boy has more opportunities than the girl to accumulate resources that would later help him to start a business of his choice. He would also have greater access to education in terms of formal schooling. It is common practice for boy children regardless of age to inherit the wealth of their fathers, such as business enterprises, houses, cars or livestock. This puts the boy child several steps ahead of the girl child in building an independent future livelihood or wealth.

Discrimination can be found in different spheres of public and domestic life. These include:

- The Household
- Marital Relationships
- Legal Instruments
- Community Leadership
- National Policy and Planning

Gender Oppression

Gender oppression looks at the underlying causes of systemic and systematic gender discrimination. In the gender diagnosis, it dwells less on the personal and group levels of social interaction and more on the institutional and societal levels of analysis. From the latter standpoint, the underlying root causes usually stem from factors related to:

- Patriarchy
- Political Systems and Processes
- Economic Management Strategic and the underlying conception of development
- Demographic and Environmental Influences
- Religion
- Cultural Traditions
- Attitudes and Values

In order to assess and analyze the gender gaps which may exist, there are several established Gender Analysis Frameworks which may be applied:

- Gender Role/Needs Analysis Approach
- Model of Empowerment Approach
- The Harvard Analytical Approach
- The Gender Analysis Matrix (GAM)

A Summary Review of some of these frameworks follows.

6.0 GENDER, GOVERNANCE AND WATER RESOURCES MANAGEMENT¹¹

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6.1 Introduction

Since the 1990s, the international community has recognised and accepted that good governance plays a significant role in improving the livelihoods of people. Weak water management impacts negatively on poor men and women through unreliable services, limited access to services, and higher costs for inefficient and ineffective services which often subsidise the rich. Improved water governance can lead to equitable water resources development and access for all. Persistent development problems, as well as the current and predicted water crises, reflect failures in governance (UNDP, 2002). There appears to be a correlation between weak water governance, persistent poverty and inadequate access to water for vulnerable groups, leading to stunted development.

Good governance can have positive impacts on gender inequalities, including the following:

- * Ensuring that poor women and men's human rights and fundamental freedoms are respected, allowing them to live with dignity.
- * Introducing inclusive and fair rules, institutions and practices governing social interactions to improve outreach to the vulnerable, such as poor men and women, and the younger and older generations.
- * Ensuring that women are equal partners with men in decision making over development, use, technology choice, financing, and other aspects of water management.
- * Ensuring that the environmental and social needs of future generations are reflected in current policies and practices.
- * Focusing water development policies toward eradicating poverty and improving the livelihoods of women and men.

Given that water is key to meeting most of the Millennium Development Goals, the solution is not only in developing new technologies and increasing supply, but also in managing the available resource effectively, efficiently and equitably. It also entails a rational assessment of the competing demands for water and equitable allocations based on a list of priorities that take into account the needs of all stakeholders.

¹¹ Source: GWA – Gender Water Alliance/UNDP/IRC - Resource Guide - Mainstreaming Gender in Water Resource Management, November 2006:?

It is against this background that there has been a move towards water reforms aimed at improved water resources management. During the World Summit on Sustainable Development, held in Johannesburg in 2002, world leaders set a target for all countries to develop IWRM and water efficiency plans by 2005. It is through the IWRM planning process, with multi-stakeholder consultations, that issues of equity, access and creation of an enabling environment can be addressed. The major challenge has been the meaningful involvement of women and men from the grassroots.

Challenges of gendered approaches in water governance

Water governance refers to the range of political, social, economic and administrative systems that are in place to regulate the development and management of water resources and provision of services at different levels of society. The involvement of women water users in stakeholder consultations and forums demands specific attention and approaches. The current tools used in multi-stakeholder consultations are mainly suited for an educated, literate group, and will require adaptation for use at the local level. Many women for example, in conservative social contexts, face cultural constraints that prevent them from speaking in public while poor women face economic constraints that do not allow them to voice their needs.

Water has been classified as an economic good, and has a cost attached to its development, distribution, operation and maintenance. While the principle of paying for water is justified, and sometimes necessary, poor women are often not able to afford the tariffs that have been set. Access to safe and affordable water is also a basic human right and this right should also inform discussions on the economic value of water. It has been acknowledged that those who cannot pay should at least pay in kind — but for the poor there is an opportunity cost to this when their time could have been used for earning income. Often when free labour is required, women usually provide it, but if there is paid work it usually goes to men.

The efficacy of IWRM derives from institutional frameworks with sufficient capacity to manage water resources. It is assumed that the institutions will be accountable and transparent. However, there is little attention to gender concerns in the water governance structures or processes. This problem needs to be addressed and constraints to mainstreaming gender in water institutions identified. Institutions are grounded in norms, culture, market systems and policies that often perpetuate gender inequalities (Odgaard, 2002). Poor women and men's practical and locally important knowledge is rarely recognised or tapped, and many lack the skills necessary for participating in committees. For most poor women and men, time is a valuable resource and its use in meetings has to be balanced with their domestic and income generating activities.

Power relations also influence the way water is allocated and the choice of technology. An irrigation pipeline is generally associated with productive use of water, and men have more influence than women over the utilisation of the resources. A hand-dug well on the other hand is generally associated with women's domestic use of water. While this use can be considered productive, and provides benefits to women and men, it may not be given a priority. The decision-making mechanisms and politics associated with water allocations have different implications for men and women.

The natural environment shapes the way poor women and men access water and the way they relate to water management structures. Frequent droughts or perennial scarcity of water means that the poor often do not have access to water or have to use poor quality water. Women and men in marginalised areas lacking in infrastructure, and removed from the central government will access water through different local systems, rather than through organised services provided by governments. This further implicates their level of participation in decision-making compared to those who are more centrally located.

An emerging challenge in governance is the issue of the rights of girls and boys. In sub-Saharan Africa, the HIV/AIDS pandemic has created a rise in the number of child-headed households. Decision-making in governance has always assumed that there will be adult men (and sometimes women) as heads of households. Children heading households are under age and unable to express their choices in public because of their young age and low socio-economic status. Water governance needs to take account of the needs and roles of girls and boys in water services provision.

Community management has been identified as a mechanism for ensuring effective water governance at the local level, especially for common property resources. It is often assumed that the local institutions are inclusive and take care of fair distribution of resources. However, in reality, communities consist of different categories of men and women in different positions of power aiming to improve their own situations. Effective water governance needs to incorporate a differentiated analysis of community and community management.

The Way Forward

Good water governance designed to ensure effective water resources management that allows for decision making from all stakeholders, including poor women and men, should provide access to safe and affordable drinking water and basic sanitation for all, and meet water needs for improved livelihoods. It would also allow for the development of an enabling environment including supportive policies, legal instruments and fair pricing structures.

Currently there is little evidence to suggest that water management has deliberately and consciously addressed gender concerns. Effective gender-sensitive water management will require:

- * A conscious effort to consult with men and women during the planning processes. This can be achieved through the use of gender-inclusive participatory tools designed to engage grassroots women and men.
- * A focus on gender in IWRM should not only target civil society, but should also address all water management structures and institutions, recognising the different constraints faced by men and women, and ensuring that there is equity.
- * Capacity building at all levels is a critical component of water governance and for the incorporation of gender concerns.
- * Issues of gender, governance and water management should not be viewed as women's issues only but should be recognised as broad issues of power relations, control and access to resources by disadvantaged groups, who may be women, children or men.
- * The importance of social aspects of water management also needs to be taken into account. Women play a central role in managing water for social, hygiene, health and productive uses.

Four Key steps of a gender-approach in governance¹²

Information

Context-specific information about women and men's different experiences, problems and priorities is essential to effective gender mainstreaming. Statistical information should be routinely disaggregated into women and men's experiences, with gender analysis being part of the situational analysis. This will assist in identifying inequalities where they exist and in making a case for developing policies that address these inequalities.

Consultation, advocacy and decision making

It is important that women and marginalised groups have a strong voice to ensure that their views are taken into account. This means promoting the involvement of women and men in consultation and decision making from the community to the highest levels of management.

¹² Adapted from Derbyshire, 2002.

Action to promote gender sensitive beneficiary groups

Action to promote greater equality in decision making and opportunity for poor women and men should be based on context specific sex-disaggregated data and gender analytical information.

Action to promote gender sensitive organisations

Gendered approaches in water governance will depend on the skills, knowledge and commitment of staff involved in implementation and management. Developing appropriate capacity in staff as well as addressing gender difference and inequality in organisations is crucial to creating inclusive water sector organisations.

Water governance cannot be good governance if there is no deliberate attempt to address the institutions, policies, legal frameworks and technology instruments that perpetuate gender inequalities. A gender approach in governance should be an integral part of setting up governance structures and mechanisms.

UNIT 5 - Gender Analysis: An Example Using the Moser Framework

The Moser Framework developed by Caroline Moser was designed to challenge planners to review the planning process with a view to engendering this process.

The framework consists of three components:

1. The concept of triple gender roles for men and women – productive, reproductive and community
2. The concept of practical and strategic gender needs
3. And the categories of approaches to women in development – WID versus GAD

5.1 What are Practical Gender Needs (PGNs)?

Practical Gender Needs have to do with the resources and supports that men and women need on a day to day basis to perform their currently prescribed roles as effectively as possible.

In any given sector of policy and planning – the economy, social development, industry, etc. – meeting these PGNs serve to maintain the status quo of the sexual/gender division of labour, thereby preserving the social order in society.

PGNs stem from the concrete conditions of men and women in the realms of reproductive and productive activities as well as in the family and community.

5.1.1 What are Strategic Gender Needs (SGNs)?

Strategic Gender Needs (SGNs) in contrast to practical gender needs are concerned with challenging the stereotypes of gender roles that have led, over time, to gender disparities, particularly towards women. These disparities are reflected in what Longwe & Clarke (1994) refer to as “gender gaps” and “acts of discrimination” within oppressive gender systems and institutions in society.

When these disparities are addressed through a critical review of gender belief systems, identities and behaviours, they should lead to the transformation of the gender division of labour.

SGNs go beyond meeting the practical needs of women and men. They confront gender stereotyping in all its forms and manifestations and seek to have these removed. Men, for example, can legitimately undertake household chores; women can improve their competencies in using and repairing electrical/electronic gadgets; women can be fully involved in family and business decision making; and men can openly express their emotions and feelings without perceived threats to their “manhood”.

Similar to Maslow's hierarchy of needs, SGNs for women and men are higher-order needs for personal development and social transformation.

In the development process, meeting of SGNs is seen as crucial for narrowing inter- and intra-gender gaps that derive from various forms of discrimination. SGNs fundamentally challenge the nature of gender relationships between men and women, and seek, through modes of mutual empowerment, to reconfigure these relationships along line of equity and social justice.

SGNs, by their very nature, are not easily acceptable by society as they:

- ° Attempt to change the social and moral foundations upon which societal norms, attitudes and practices are built, which has resulted, in the main, in a ‘culture of privilege’ for men and subordination for women.
- ° Reveal inequalities of gender stereotypes in any society.
- ° Disturb existing power relations and influence systems, for example, women moving into decision making positions in the public domain, viz. private sector boardrooms and government cabinet fora, thereby facilitating the re-allocation of public resources to

groups (mostly women) requiring it on the grounds of social equity.

5.2 Using the Moser Framework

1. Identify the gender roles of the participants will be expected to play
2. Identify the activities and tasks that male and female participants will undertake to perform
3. Identify the practical and strategic gender needs of male and female participants that will have to be met in order for them to perform as expected
4. Identify how resources will be allocated and whether participants will be access to and control over them as required to perform.
5. List the conditions under which the participants must perform and the potential opportunities and constraints to performance.
6. Identify the mechanisms that will need to be put in place and the strategies that will be necessary to adopt so that participants may perform as expected.

EXERCISE 4:

GENDER ANALYSIS – PRACTICAL AND STRATEGIC GENDER NEEDS (THE MOSER FRAMEWORK)

EXERCISE: INSTRUCTIONS¹⁰

Consider the reordering of Gender Roles from Exercise 2.

What PGNs and SGNs needed to be addressed to allow men and women to support the reordering of these roles in respect of:

- a) Reproductive Role
- b) Productive Role
- c) Family Care
- d) Kin relations

Fill in your responses in the Gender Needs Matrix in Worksheet 2 on the next page.

EXERCISE 4: WORKSHEET 2

PRACTICAL AND STRATEGIC GENDER NEEDS

	PRACTICAL GENDER NEEDS		STRATEGIC GENDER NEEDS	
	MALE	FEMALE	MALE	FEMALE
Reproductive				
Productive				
Family Care				
Kin Relations				

6.0 GENDER MAINSTREAMING

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6.1 What is Gender Mainstreaming?

Gender mainstreaming is the process of bringing a gender perspective into the mainstream activities of government at the policy, programme and project levels.

Gender mainstreaming means both:

- a) Addressing gender concerns within existing development policies, strategies and priorities and integrating them throughout a project cycle; and
- b) Agenda setting, which implies transformation of the existing development agenda using a gendered perspective.

Gender mainstreaming is a relatively new concept in its early stages of development. A workable definition would be best formulated by attempting to understand the concept within the society in which it is to be applied.

In this respect, the following workable definitions are relevant.

- The Beijing Platform for Action defines gender mainstreaming as the incorporation "of a gender perspective into all policies and programmes so that, before decisions are taken, an analysis is made of the effects on women and men respectively".
- The European Commission's Communication on Mainstreaming, dated 21 February 1999, states that mainstreaming involves "mobilising all general policies and measures specifically for the purpose of achieving equality by actively and openly taking into account, at the planning stage, their possible effects on the respective situations of women and men (the gender perspective)".
- The Group of Specialists on Mainstreaming, Council of Europe, in their 1998 report on Gender Mainstreaming, agreed on the following definition of the concept: "gender mainstreaming is the (re)organisation, improvement, development and evaluation of policy processes, so that a gender equality perspective is incorporated in all policies at all levels and at all stages, by the actors normally involved in policy-making".

Mainstreaming equality is thus essentially concerned with the integration of equal opportunities principles, strategies and practices into everyday work of government and other public bodies, from the outset, involving ministers, high level civil servants and other staff, in addition to equality specialists.

6.1.1 Gender mainstreaming is not about adding a women's component to any or all sections of already formulated policies, plans, etc. Neither should it be confused with or limited only to personnel equality policies aiming at increasing the number of women as managers. Rather, it should be seen as a strategy which informs on how the projects affect directly and indirectly the life situation of women and men, at all stages, and in every aspect of the decision-making process.

6.1.2 Furthermore, it follows that gender mainstreaming in the Public Service needs to be directed at: (a) the employees themselves, (b) all aspects of service delivery and (c) the recipients of these services.

6.1.3 Essentially gender mainstreaming should benefit both women and men, and society in general, because, at each stage of policy/programme formulation and development, more attention will be given to the impact on both women and men.

GENDER MAINSTREAMING AND THE INTERNATIONAL AGENDA

6.2 In the last decade, gender mainstreaming has become a priority in the equality programmes of international organisations as well as in many European countries.

- In the Platform for Action, adopted at the end of the Fourth World Conference on Women, held in Beijing, in 1995, the United Nations endorsed gender mainstreaming as the main strategic objective for action.

- The European Commission has also adopted gender mainstreaming to ensure equal opportunities for women and men in its policies and its funding programmes, so much so that organisations seeking support from the Structural Funds now have to demonstrate the project's contribution towards equality between women and men. The Treaty of Amsterdam also includes gender mainstreaming as one of the core objectives and Article 3 of the Treaty states that "the Community shall aim to eliminate inequalities and to promote equality between women and men in all its policies and activities".

– As to the Commonwealth Secretariat, the 1995 Commonwealth Plan of Action on Gender Development focuses on establishing and strengthening the institutional mechanisms for integrating gender issues into the mainstream of all governments.

– The Nordic countries (Sweden in particular), together with the Netherlands, Canada and New Zealand, are already implementing gender mainstreaming in a fairly structured manner.

6.3 Why Mainstream Gender in Public Policy and Planning?

The UN assessment prepared for the Beijing+5 Special Session of the General Assembly of the United Nations in 2000⁴¹ concluded that although some advancement had been made in achieving gender equality, there is still significant progress to be made to full gender equality. Women and girls still represent 2/3 of the world illiterates; fewer girls than boys finish primary school; women represent less than 15% of elected national officials; rural women are responsible for half of the world's food production and yet, globally, women own less than 1% of land.

Gender inequality is also a handicap for boys, as in some cases, the so-called "gender gaps" are to the detriment of boys. This is particularly the case in some regions where the educational performance and participation of boys in relation to girls is a source of serious concern. Here, boys living in urban slums and townships are repeating schooling, thus requiring more than normal time to complete the basic education cycle.

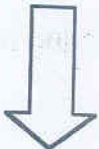
On an institutional level, progress is also lagging behind with regard to the enforcement of equality legislation, the strengthening of national institutional mechanisms and the development of gender-responsive poverty eradication strategies.

As attested by close to thirty years of research and experience, gender equality is not only a question of human rights but of good governance. As long as both women's and men's priorities and visions of development goals are not clearly addressed, taken into account and promoted, not only are we excluding half of humanity, we are jeopardising our prospects at achieving sustainable development.

It is clear, however, that gender equality cannot come about only through women-targeted and men-targeted projects that seek to improve individual conditions alone. A profound transformation of the structures and systems, which lie at the root of subordination and gender inequality, is required. To do this, we must uncover the hidden biases that limit women's and men's ability to enjoy equal rights and opportunities and find the most effective and culturally appropriate means to support women's and men's capacities to drive social change.

6.4 Four Key Steps in Mainstreaming Gender in Policy and Planning

Step 1: Sex disaggregated data and gender analytical information 	Gender analytical research and sex-disaggregated statistical data – about both beneficiary groups and implementing organizations – are essential to effective gender mainstreaming. Information systems should routinely be disaggregated by sex and gender analysis (should routinely be part of social and institutional appraisal and monitoring processes). Gender analytical studies should be commissioned to examine particular issues and address information gaps. This information is necessary to: a) Identify gender difference and inequality b) Make the case for taking gender equality seriously c) Design policies and plans that meet women's and men's needs; and d) Monitor the differential impacts of policy, project and budget commitments on women and men.
Step 2: Women as well as men influencing the development agenda 	Women will only win equality when they are able to act on their own behalf, with a strong voice to ensure their views are heard and taken into account. This means promoting the involvement of women as well as men in decision-making at all levels. It also means ensuring that men and women committed to promoting gender equality are influencing decision-making. This would involve, for example, men accepting that in today's society, the strategic and practical gender needs of women and men are almost interchangeable such that parity should be given to men and women's involvement in the household and in the labour market respectively. The public domain – viz. the workplace; the area of public decision making, for example, the Parliament; public fora – is no longer the exclusive preserves of men, nor the home and other family 'spaces' as private domains, that of women. Gender advocates within government, civil society and donor organizations are most effective when they work in collaboration, identifying and developing strategic 'entry points' for the promotion of gender equality, bearing in mind the ongoing shifts in sex and gender roles, and by extension, the 'unisex' gender roles and responsibilities in both the public and private domains.

Step 3: Context-specific action to promote gender equality 	Action to promote greater equality of influence, opportunity and benefit for women and men should be devised on the basis of context-specific sex-disaggregated data and gendered analytical information. It should also be based on a clear understanding of women's and men's priorities. Action needs to be: a) Explicitly included in policy and project documents and frameworks b) Backed up with staff and budgets; and c) Monitored and reviewed through appropriate indicators of change
Step 4: Organizational Capacity Building and Change	Gender Mainstreaming depends on the skills, knowledge and commitment of the staff involved in management and implementation. 'Evaporation of policy commitments to gender equality is widespread. Developing appropriate understanding, commitment and capacity – as well as addressing issues of development inequality within development organization themselves – is a long-term process of organizational change. Like action promoting gender equality, appropriate capacity building needs to be: a) Explicitly included in policy and project documents and frameworks; b) Backed up with staff and budgets; and c) Monitored and reviewed through appropriate indicators of change

56 **6.5 Where Does Gender Mainstreaming Take Place?**¹⁵

Gender mainstreaming as a process of integrating gender in policy and planning occurs within:

- * The Self
- * Self and Other (interpersonal relations e.g. spouse relations; sibling relations)
- * The Household
- * The Workplace
- * The School
- * My Social Group (Choir, Sport Group, Church etc.)
- * The Community
- * Fora for Public Decision Making viz. the Parliament; International Bodies etc
- * Public Spaces viz. parks, cultural venues etc.

6.5 How Do I Know That I am Mainstreaming Gender?

Whether as a public officer in the water resources management sector or as a private person, I know I am mainstreaming gender when:

1. 'I use gender disaggregated data and use these to plan my work programmes and mode of delivery.'
2. 'I incorporate gender as a variable in all data collection instruments I develop for social research.'
3. 'I target both men and women in planning programmes and projects and in structuring the delivery of services.'
4. 'I work with my family to consider the needs of the both male and female members of the family and allow the adults as well as boys and girls to share household responsibilities.'
5. 'When as a gender focal point I act as an advocate for integrate gender in all aspects of policy and planning in my Ministry, Department or parastatal.'
6. 'I use gender-inclusive language.'

¹⁵ Source: Dr. Gwendoline Williams & Associates – Report on Gender Mainstreaming and the Implementation of Family Friendly Measures in the Malta Public Service, May 2000.

7. 'I consciously avoid gender stereotyping by using sexist sayings and proverbs and superstitions and taboos.'
8. 'I plan and allocate adequate resources in a gender sensitive way, for example, provide facilities for both fathers and mothers to allow them both to sleep over with their young ones in Children Hospitals'
9. 'I do my part to ensure that fathers who are entitled to family-friendly paternal leave provisions are able to do so on time at the birth of their offsprings.'
10. 'I constantly monitor and evaluate how my programmes and projects and modes of service delivery are impacting the 'life situations' of men and women, and boys and girls in the society.'
11. 'I initiate and/or participate actively in periodic gender audits and gender impact assessments in my Ministry, Department or parasatal entity.'
12. 'I network with gender conscious colleagues across the service, the University and voluntary organizations, sharing information, participating in training and other such capacity building activities.'

6.6 Who Are Responsible/Accountable for Gender Mainstreaming?¹⁶

Gender mainstreaming requires that each Ministry, Department, Division, parastatal etc. ensures that a gender equality perspective is taken into account in the preparatory proceedings of all decisions, laws, programmes, plans, projects and the like. This process entails a **gender analysis/gender impact assessment** of all policies, projects and proposals from the various sectors such as education, health, agriculture, infrastructure, national security, finance and planning, technology, media and the like. The analysis identifies the different requirements of women and men, and the extent to which proposed changes will differentially affect women and men. It helps the authorities make the necessary amendments to promote equality in practice.¹⁷

A gender perspective is relevant in most policy fields, although in some areas, this is more easily apparent, for instance, in education, training, employment, social benefits and services, health and justice. Thus, it follows that **all ministries**, and not solely that which includes the national machinery for gender issues within it, **are responsible** for the implementation of the government's policies on gender equality and for the development of gender policies in those areas falling within their field of responsibility.

¹⁶ Source: Dr. Gwendoline Williams & Associates – Report on Gender Mainstreaming and the Implementation of Family Friendly Measures in the Malta Public Service, May 2000.

¹⁷ *ibid*, p.7

Accountability for the implementation of gender mainstreaming and for achieving the objectives of gender equality, lies with each individual, but in particular, onus is placed on Ministers, Parliamentary Secretaries, and senior public service officials.

6.7 What Are the Key Processes in Gender Mainstreaming?¹⁸

The key processes include:

- * **Mobilization:** in respect of awareness and consciousness building; commitment planning and the securing of political will; resource mobilizing including information, finance, personnel and the like.
- * **Multi-tracking/Multi-Targeting:** This involves undertaking at the planning stage of policy, programmes and projects a gender assessment/gender impact assessment such that the needs, interests and expectations of men and women, girls and boys are actively and openly taken into account. Wherever, gaps and disparities emerge in the gender analysis, be they for whichever group and in whatever type of relationship and interaction (women and men; women and women; men and men; boys and girls etc.) should be addressed with parity and in a quest for gender equality/equity.
- * **Management:** The management processes - including: planning and coordinating; staffing and budgeting as well as reporting and monitoring/evaluation – involved in incorporating and integrating gender in policy and planning and service delivery to clients and to employees.
- * **Measurement:** Use of gender (input) indicators that guide the gender assessment/gender diagnosis for the policy and planning; and output/impact indicators that are used to determine how well gender has been integrated or incorporated and the levels satisfaction from employees and clients. See the key measures below.

6.8 Gender Indicators/Prerequisites for Gender Integration¹⁹

i) Political Will

This is evidenced in the Government of Malta publicly articulated policies on gender equality and gender mainstreaming in the Public Service, through OPM Circulars 133/89 and 24/2000.

¹⁸ As seen by Dr. Gwendoline Williams, gender training consultant (2001)

¹⁹ Commonwealth Plan of Action on Gender and Development: Advancing the Commonwealth Agenda into the New Millennium (2000 – 2005:32) & Callus & Camillieri (2000:7-8)

ii) Strong National Machinery/ Creation of Appropriate Structures and Systems and Standardisation of Procedures in the Sector Ministries and Departments

The experience of some countries – for instance the Nordic countries – shows that whilst a mainstreaming approach is essential if issues are to be embedded within policy, they operate more effectively when gender mainstreaming is coupled with a strong co-ordinating state **national machinery for gender equality**.

iii) Sex-Disaggregated Data and Statistics

For successful gender assessment and gender impact assessment, **sex-disaggregated data and statistics** is a vital necessity and must be easily available. Attention therefore be paid to what data are needed, and their its collection, collation, storage, retrieval and dissemination.

iv) Research/Gender-Sensitive Strategic Planning

Ongoing research is also required for identifying current issues and problems in a given policy field, and for reviewing information requirements.

v) Ongoing Training/Training of Trainers

Training is vital for building the appropriate competency mix needed for gender mainstreaming and this must be an ongoing process.

vi) Gender-inclusive Language

This is needed in official documentation and transactions and planners/trainers should assess the implications for gender equality/equity in proverbs and common sayings, customs and traditions as well as superstitions and taboos.

vii) Gender Accounting

In mobilizing resources for gender mainstreaming, there needs to be a revisiting of the budgetary and planning processes as now obtains to see what changes need to be made to allow for effective gender mainstreaming.

viii) Gender-Sensitive Consultants and Experts

As far as possible, preference should be given to those consultants and experts whatever their field who are gender-sensitive and can therefore support the gender mainstreaming processes in Ministries and Departments.

ix) Monitoring and Evaluation

Regular **monitoring** and **evaluation** of both the process as well as the desired outcomes, must also be carried out. Such exercises should follow established procedures and use specific gender input as well as output/impact indicators.

6.9 Process of Gender Mainstreaming

Policy Formulation	Mobilization for People-oriented Planning – Policy analysis that is research focused and includes a Social and Gender Impact Assessment.
Policy Measures	To include specific gender equality/equity measures that give parity of attention to the needs and interests of both women and men as clients and employees in the Malta Public Service
Services	Multi-targeting and Multi-Tracking – These must be needs-based and available to men and women bearing in mind other related considerations of age, social class and educational background, regional and cultural factors, 'specialness' etc. These services should be delivered sensitive to the environments in which women and men interact, viz: the home and family; the workplace, the community, public fora and public spaces.
Institutional Framework	Management and Administration – The policy and planning process and service delivery must be well managed with clear legislative and statutory provisions to support the drive for gender equality and equity for clients and employees.
Monitoring and Evaluation	Measurement – Gender equality/equity measures must be assessed on an ongoing basis and periodic gender audits.

7.0 MAINSTREAMING GENDER IN INTEGRATED WATER RESOURCES MANAGEMENT IN THE CARIBBEAN

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Unit 7: Understanding Integrated Water Resources Management in the Caribbean

7.1 What is Integrated Water Resources Management (IWRM)?

Integrated Water Resources Management (IWRM) is defined as the **theoretical framework** used to undertake Integrated Watershed Management Planning (IWMP), including the development of water sources protection and project related plans. IWRM, opposed to traditional water management, is a cooperative, ecosystem-based approach that considers all water uses (environmental, economic, and social) and stakeholders in the decision-making process. It is a multidisciplinary and iterative process that seeks to optimize the contribution of aquatic resources to the social, environmental, and economic welfare of Canadians, while maintaining the integrity of aquatic ecosystems, both now and into the future.

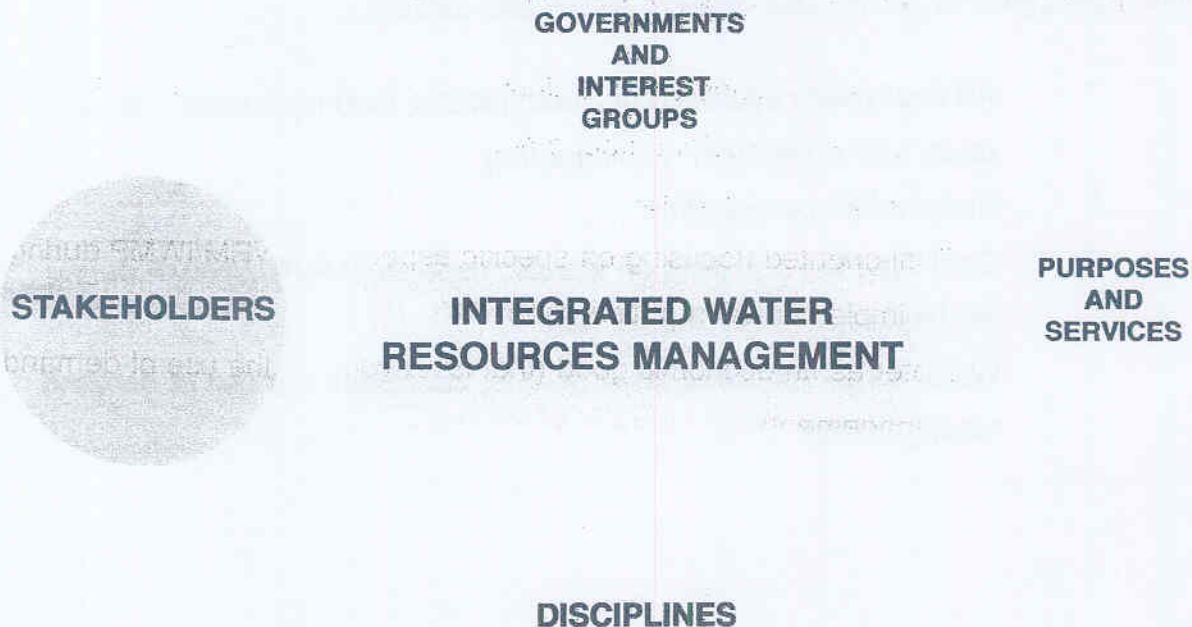
The guiding principles of IWRM also apply to IWMP and include:

- * An ecosystem approach (including water, land resources, human uses, and ecosystem requirements)
- * Stakeholder participation
- * Goal-oriented (focusing on specific aspects of IWRM/IWMP during the implementation phase), and
- * Water as an economic good (that is, advocates the use of demand management)

7.2 Integrated Water Resources Management

Integrated water resources management is the practice of making decisions and taking actions while considering multiple viewpoints of how water should be managed. These decisions and actions relate to goals such as *i) river basin planning, ii) infrastructural development iii) controlling **reservoir** releases, iv) regulating **floodplains**, v) water services delivery, and vi) the developing new laws and regulations.*

As seen in the diagram below, IWRM considers the viewpoints of human groups, factors of the human environment, and aspects of natural water systems. These viewpoints relate to human systems factors such as control water flow and quality and include conveyance systems (channels, canals, and pipes), diversion structures, dams and storage facilities, treatment plants, pumping stations and hydroelectric plants, wells, and **appurtenances**. These are contingent upon the natural water resources systems that include the atmosphere, watersheds (drainage basins), stream channels, **wetlands**, floodplains, **aquifers**, lakes, **estuaries**, seas, and the ocean. It is of note



Multiple Purposes

Integrated water resources management considers the viewpoints of water management agencies with specific purposes, governmental and stakeholder groups, geographic regions, and disciplines of knowledge (see the figure). These viewpoints have been described in a variety of ways. For example, Mitchell (1990) wrote that integrated water management considers three aspects: dimensions of water (surface water and groundwater, and quantity and quality); interactions with land and environment; and interrelationships with social and economic development. White (1969) wrote about the "multiple purposes" and "multiple means" of water management, and predicted that integration would create some confusion because it defies neat administrative organization.

In general, water agencies deal with water supply, wastewater and water quality services, stormwater and flood control, hydropower, navigation, recreation, and water for the environment, fish, and wildlife. As the practice of water resources management evolved, the term "multipurpose" (or "multiobjective") water resources development (or management) came to refer to projects with more than one purpose. Later, the term "comprehensive" water planning and management came into use to describe management practice that considers different viewpoints.

Challenges to Water Management Integration

The term "functional integration" means to join purposes of water management such as to manage water supply and wastewater within a single unit. Protecting aquatic habitat for natural and ecological systems while managing for flood control is another example. Still another term is "conjunctive use," which usually refers to the joint management of surface water and groundwater.

Governmental and Interest Groups

Accommodating the views of governments and special interest groups is a challenge in integration because they have different perspectives. Intergovernmental relationships between government agencies at the same level include regional, state-to-state, and interagency issues. Relationships between different levels of government include, for example, state-federal and local-state interactions.

Special interest groups range from those favouring development of resources to those favouring preservation. In many cases, conflicts arise between the same types of interest groups, as, for example, between fly fishers and rafters on a stream.

Geographic Regions.

The views of stakeholders in different locations must be balanced, introducing a geographic dimension of integration. Examples include issues between upstream and downstream stakeholders, issues among stakeholders in the same region, and views of stakeholders in a basin of origin versus those in a receiving basin. Another aspect of geographic integration is the scale of water-accounting units, such as small watershed, major river basin, region, or state, even up to global scale.

Interdisciplinary Perspectives

The complexity of integrated water resources management requires knowledge and wisdom from different areas of knowledge, or disciplines. Blending knowledge from engineering, law, finance, economics, politics, history, sociology, psychology, life science, mathematics, and other fields can bring valuable knowledge about the possibilities and consequences of decisions and actions. For example, engineering knowledge might focus on physical infrastructure systems, whereas sociology or psychology might focus on human impacts.

Coordination and Cooperation

Coordination is an important tool of integration because the arena of water management sometimes involves conflicting objectives. Coordinating mechanisms can be formal, such as intergovernmental agreements, or informal, such as local watershed groups meeting voluntarily.

Cooperation is also a key element in integration, whether by formal or by informal means. Cooperation can be any form of working together to manage water, such as in cooperative water management actions on a regional scale, often known as "regionalization." Examples of regionalization include a regional management authority, consolidation of systems, a central system acting as water wholesaler, joint financing of facilities, coordination of service areas, interconnections for emergencies, and sharing of personnel, equipment, or services.

Integrated water resources management can take different forms and is examined best in specific situations. In the water-supply field, the term "integrated resource planning" has come into use to express concepts of integration in supply development. Perhaps the most comprehensive concept for water supply is "Total Water Management." According to a 1996 report of the American Water Works Research Foundation, Total Water Management is the exercise of stewardship of water resources for the greatest good of society and the environment. A basic principle of Total Water Management is that the supply is renewable, but limited, and should be managed on a sustainable-use basis.

Taking into consideration local and regional variations, Total Water Management:

- * Encourages planning and management on a natural water systems basis through a dynamic process that adapts to changing conditions;
- * Balances competing uses of water through efficient allocation that addresses social values, cost effectiveness, and environmental benefits and costs;
- * Requires the participation of all units of government and stakeholders in decision-making through a process of coordination and conflict resolution;
- * Promotes water conservation, reuse, source protection, and supply development to enhance water quality and quantity; and
- * Fosters public health, safety, and community goodwill.

This definition focuses on the broad aspects of water supply. Examples can be given for other situations, including water-quality management planning, water allocation, and flood control.

What is Integrated Watershed Management Planning (IWMP)?

Integrated Watershed Management (IWM) is a process of managing human activities in an area defined by watershed boundaries in order to protect and rehabilitate land and water, and associated aquatic and terrestrial resources, while recognizing the benefits of orderly growth and development.

The plan that results from an integrated watershed management planning process can range from very comprehensive to very focused, depending on the issues and the purpose of the plan.

An IWM plan is a document with recommendations developed cooperatively by government agencies and other stakeholders to manage the water, land/water interactions, aquatic life and aquatic resources within a particular watershed, in order to protect the health of the ecosystem as land uses change.

Depending on the scope of an IWMP process, the implementation phase of the process may include various types of secondary plans such as a source protection plan, water conservation plan, community education plan, or storm water management plan.

Secondary Plans Under IWMP

The following plans are a selection of some of the most common types of plans that are often included in the implementation phase of an IWM planning process or developed by islands in the region but independently of an IWMP process. These plans are more specific and not as comprehensive as an IWM plan.

Although water companies in the Caribbean and other related organizations often develop these types of secondary plans outside of an IWMP process, they are best developed within the context of an IWM plan where they have the advantage of a watershed approach, public participation, and the data and analysis that results from a full IWMP process.

IWMP aims to balance human activities with the protection of natural resources by considering the local environmental, the social context, the environment, and the economy in the decision-making process.

In the past, water management was focused primarily on flood management, drainage, or water allocation, but by taking a watershed approach and balancing social, economic, and environmental impacts, IWMP promotes the ecosystem health of an entire watershed.

IWMP leads to effective plans for the promotion of ecosystem health because it recognizes these dependencies and interactions within the water ecosystem. When issues are assessed and management options are chosen on the basis of the watershed — rather than jurisdictional or political boundaries — these interactions can be addressed and impacts effectively assessed and managed.

One of the main outcomes and benefits of IWMP is a water management plan that encompasses an entire watershed, rather than a single water source. Taking a watershed approach means that an organization planning for infrastructure investments must consider all impacts and issues influencing that watershed, rather than considering only the impacts and issues within its own domain.

For example, using IWMP, if WASA is planning for a new wastewater treatment plant, it would consider all other wastewater treatment plans within the watershed and plan according to the overall impact of those plants rather than considering only the impacts of the plants within the particular area of focus.

An IWM plan provides a comprehensive decision-making framework that helps to coordinate agencies, organizations, stakeholders, and all governments involved in the management of water resources within a watershed. In contrast to previous water management approaches, IWMP enable stakeholders to address complex water issues that a single jurisdiction or agency may be unable to address on its own.

IWMP can assist with conflicts between stakeholders, since it is a consensus-building process. Watershed management often involves a transition from government-led planning to local stakeholder planning groups.

From a cost efficiency perspective, it is in the best interest of governments to undertake IWMP. A successful IWM plan or source protection plan improves the effectiveness and efficiency of government actions by preventing source water contamination, thereby reducing the need to remove contaminants at a water treatment facility and consequently reducing infrastructure costs.

IWMP also increases the use of demand management and water conservation strategies, since IWRM emphasizes the importance of water efficiency and demand management. Including IWMP in WASA's infrastructure program requirements should reduce infrastructure costs, improve the ecosystem health of Trinidad and Tobago's watersheds and promote a participatory approach to watershed decision-making.

Key Components of an IWM Plan

The literature differentiates between the components of the IWMP process (the steps one must take to develop an IWM plan) and the contents of the plan itself. The planning process, which may be iterative rather than linear, usually includes the following steps:

Establishing partnerships and/or committees for undertaking the work;

- * characterizing the watershed (preliminary information gathering);
- * setting goals and objectives;
- * developing, evaluating, and selecting management alternatives;
- * designing an implementation program (which includes writing the IWM plan);
- * implementing the watershed plan;
- * measuring progress and making adjustments.

In accordance with these steps, a IWM plan commonly contains the following components:

- * a watershed inventory (relevant data regarding the watershed);
- * issues affecting the watershed;
- * planning objectives;
- * analysis of management alternatives;
- * plan of action (sometimes referred to as the Implementation Plan); and
- * performance monitoring requirements

The development of an IWM plan often takes years and hundreds of thousands of dollars. Less costly and less onerous watershed plans are possible, depending on the scope of the plan. The scope of a watershed plan can range from comprehensive to very focused, depending on the issues and the purpose of the plan. A plan could focus on a single activity and its impact on one component of the ecosystem.

A plan should not be limited to an area so small that it prohibits the plan from taking a holistic view of the issues impacting the watershed. However, by focusing on only a few specific issues and goals, the plan's scope can be narrowed.

EXERCISE

Participants are invited to:

- * Present data specifically related to their field of activity;
- * Define an analytical framework with their colleagues (territory under study);
- * Participate in discussions in a multidisciplinary context;
- * Draft a number of common documents resulting from the sharing of information (tables, matrices, charts).

Defining IWRM

IWRM is a flexible tool for addressing water challenges and optimizing water's contribution to sustainable development. It is not a goal in itself. IWRM is about strengthening frameworks for water governance to foster good decision making in response to changing needs and situations. It seeks to avoid the lives lost, the money wasted, and the natural capital depleted because of decision-making that did not take into account the larger ramifications of sectoral actions. It aims to ensure that water is developed and managed equitably and that the diverse water needs of women and the poor are addressed. It seeks to ensure that water is used to advance a country's social and economic development goals in ways that do not compromise the sustainability of vital ecosystems or jeopardize the ability of future generations to meet their water needs (GWP TEC 2004. Catalyzing Change).

IWRM is based on four basic principles: 1. Fresh water is a finite and vulnerable resource, essential to sustain life, development and the environment as a result management of this resource should be approach holistically, linking social and economic development with protection of natural ecosystems. 2. Water development and management should be based on a participatory approach, involving users, planners and policy-makers at all levels. This means that decisions are taken at the lowest appropriate level, with full public consultation and involvement of users in the planning and implementation of water projects. 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 programs, including decision-making and implementation, in ways defined by them. 4. Water has an economic value in all its competing uses and should be recognized as an economic good. Managing water as an economic good is an important way of achieving efficient and equitable use, and of encouraging conservation and protection of water resources.

A Review of Gender Analysis Methodologies

Adapted from *Frameworks for Gender Analysis – A Taster*, OXFAM Gender Team, 1996

MODEL	AUTHOR	DESCRIPTION	USES	ADVANTAGES/LIMITATIONS
The Moser Framework	Caroline Moser	This framework was designed to 'talk' to planners and challenges them to include review the planning process and the role of gender in this process. It brings an empowerment agenda into the mainstream planning process by introducing Gender Planning as a type of planning in its own right. The main concepts of the frame work are: 1. Triples Gender Roles 2. Practical and Strategic Gender needs 3. Categories of policy approaches to women and development (WID) and gender and development (GAD).	• All-level planning • In conjunction with Harvard framework	Advantages • Moves beyond the technical to planning • Challenges Inequality • A powerful tool for thinking through the impact interventions may have on gender relations. • Makes all work visible – productive, reproductive and community • Recognizes there will be institutional/political resistance • Category policy approaches Limitations • Emphasizes gender roles as opposed to gender relationships • Some have difficulty with the concept of triple roles, preferring only to assess the productive and reproductive roles • Does not include men's strategic interests

MODEL	AUTHOR	DESCRIPTION	USES	ADVANTAGES/LIMITATIONS
The Moser Framework (cont'd)				Limitations (cont'd) • Does not account for other societal inequalities such as race and class • Static
Women's Empowerment Model	UNICEF/Longwe & Clarke	The framework emphasizes women's empowerment, to enable women to take an equal place with men, and to participate in the development process in order to achieve control over the factors on an equal basis with men. The framework introduces have levels of equality as the bases for criteria to assess the level of women's empowerment in any area of social or economic life. These are: 1. Control 2. Participation 3. Conscientization 4. Access 5. Welfare	• For groups committed to equality and empowerment, but whose projects may not reflect this	Advantages • Permits an assessment of what advantages exist for women along with what still has to be done • Useful for explaining the role of empowerment as intrinsic to the process of development and therefore to illuminate aspects of development work which had not previously been recognized • It is a method to change attitudes Limitations • The assumption that the different levels of equality are strictly hierarchical has been challenged. • The framework can only be part of a toolkit for planning since it: i. Static – takes no account for changes over time ii. Looks at the relationship between men and women only in terms of equality – rather than as a complicated system of rights, claims and responsibilities iii. Does not consider other forms of

				inequality
MODEL	AUTHOR	DESCRIPTION	USES	ADVANTAGES/LIMITATIONS
Harvard Analytical Framework	Harvard University	This framework is designed to demonstrate that there is an economic case for allocating resources to women as well as men. The framework aims to help planners design more efficient projects and improve overall productivity. It does this by mapping the work of men and women in a community and highlighting key differences. The framework has four components: 1. The Activity Profile 2. The Access and Control Profile 3. Review of Influencing Factors 4. Project Cycle Analysis	• Project Planning • As a gender neutral 'entry point' • For data collection • In conjunction with Moser Framework	Advantages • It is practical and 'hands-on'. • Gives a clear, simple picture of who does what, when and with what. • It distinguishes between access and control of resources • It can be easily adapted • It is non-threatening and gender neutral, relying on "facts" only. Limitations • It is influenced by the WID approach • It can lead of overconfidence – The matrices can encourage a "tick-the-boxes" approach to data collection, leading planners to be overconfident that they know all they need to know and miss the complexities of the community's reality. • A 'top down' planning tool • Concentrates on activities and resources rather than relationships between people. • Ignores underlying inequalities such as class and race. • Considered to be too technical, static

MODEL	AUTHOR	DESCRIPTION	USES	ADVANTAGES/LIMITATIONS
Gender Analysis Framework	Rani Parker	The framework helps to determine the different impacts of development interventions on women and men by - providing a community-based technique for the identification and analysis of gender differences, in order to assess the different impact of development interventions on each gender - Initiating a process of analysis that identifies and challenges in a constructive manner, assumptions about gender roles within the community.	Planning, designing, monitoring and evaluating projects at a community based level	Advantages - Simple and systematic - Specifically designed to meet the reality of community based development workers - Draws on corporate rather than individual expertise. - Enables community to articulate a full range of expectations concerning a particular project. - It use of both the categories of household and community as well as of women and men is useful for drawing out the issues of gender relations - Highlights time and socio-political issues in addition to labour and resources - Relatively quick way of gathering data - Provides and overview of negative and positive once framework is complete. - Enables people to anticipate resistance - By repeating the tool can be used to follow progress Limitations - A good facilitator is required - Matrix requires repetition over time

MODEL	AUTHOR	DESCRIPTION	USES	ADVANTAGES/LIMITATIONS
Gender Analysis Framework (cont'd)				Limitations (cont'd) • Subordination is not always explicit • Sometimes difficult to define who is actually participating in the project, or who should be deemed "the community"

Thanks To:

Ministry of Agriculture, Media Unit
Pearl and Dean (Caribbean) Ltd.
Chandra 'Daughter' Jonas
Villagers of Kernahan and Cascadoux
The Hindu Prachar Kendra

Music:

Keyboard – Rana Mohip
Dholak, Tabla – Taradath Sawh
Vocals – Sumarie Gaeta Ramsingh
Vocals – Seeromani Naraynsingh

Credits:

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Script – Gabrielle Hosein
Technical Assistant - Oyetayo Ojoade
Audio – Robin Foster
Director of Photography – Sean Edgehill
2nd Camera - Bruce Paddington
Editing – Lisle Waldron
Director – Bruce Paddington
Producer – Bruce Paddington

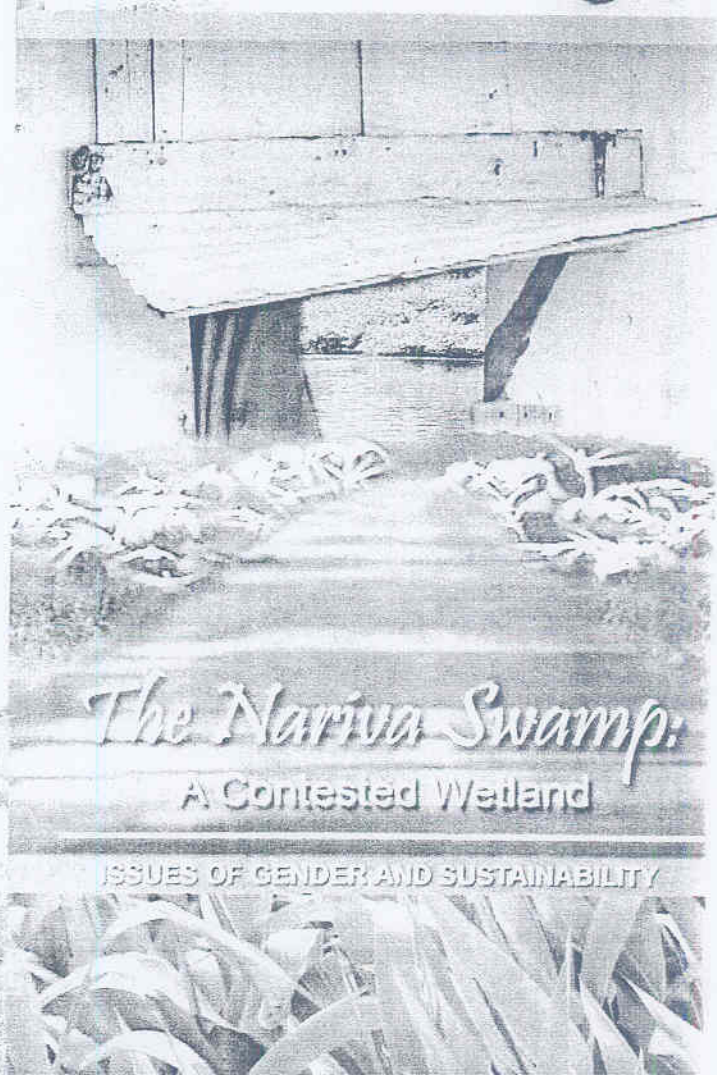
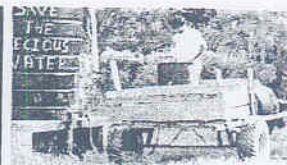
Production Facilities, Faculty Of Humanities
and Education, The University of the
West Indies, Media Unit

Funded By: The Canada Caricom Gender
Equality Programme

A Production of: The Centre for Gender and
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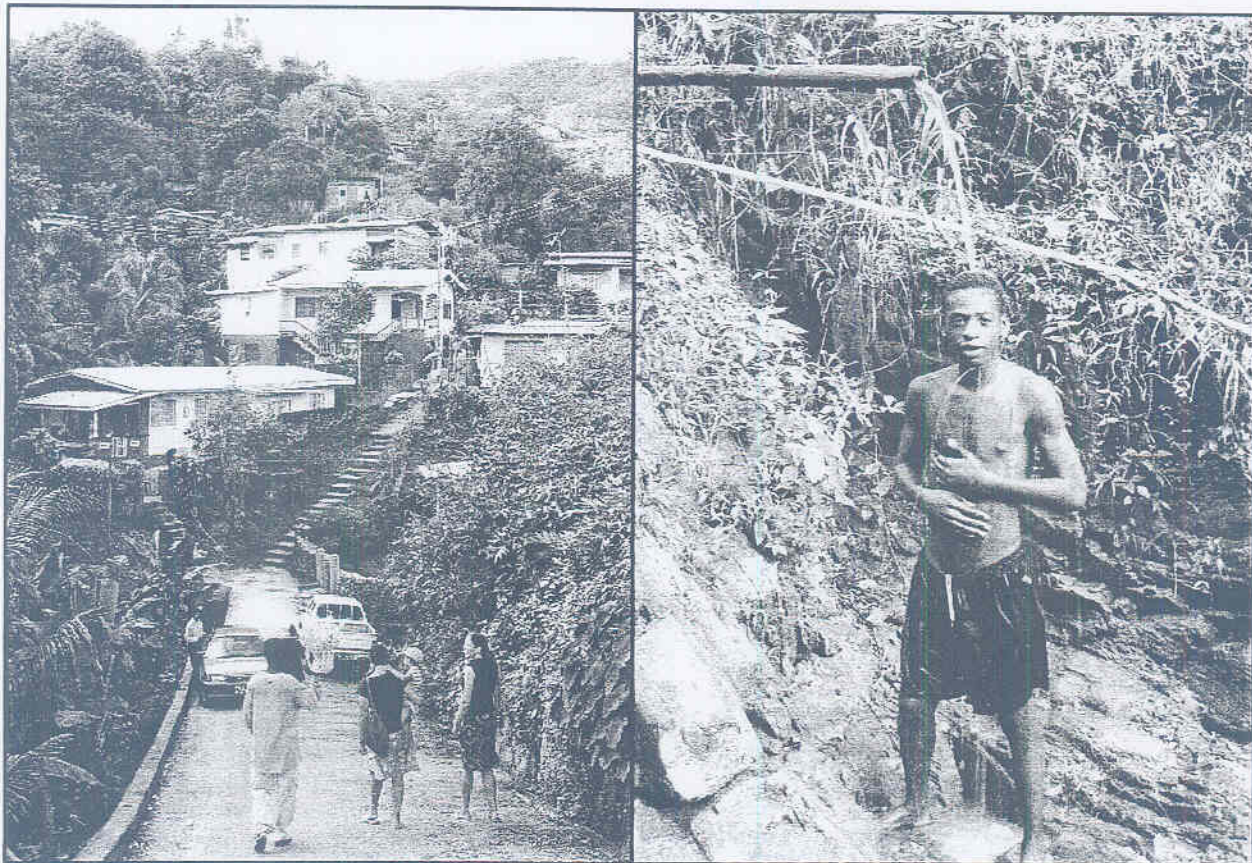


DAY 2

1

Module 2 – Application of Tools of Gender Analysis

This module recognises that water managers need tools and skills to apply gender analysis to IWRM process. Participants will be provided therefore with the tools to undertake analysis of IWRM policies, projects, programmes and strategies from a gendered perspective. It also provides the participants an opportunity to apply these tools to case studies and to share experiences and bring awareness of the gender implications of their programmes.



WGWN-CGDS Training Workshop Schedule				
Day 2: TOOLS OF GENDER ANALYSIS				
	Module 2:		Tuesday 8th April, 2008	
	Application of Tools of Gender Analysis			
	This module recognises that water managers need tools and skills to apply gender analysis to IWRM process. Participants will be provided therefore with the tools to undertake analysis of IWRM policies, projects, programmes and strategies from a gendered perspective. It also provides the participants an opportunity to apply these tools to case studies and to share experiences and bring awareness of the gender implications of their programmes.			
A.M.		Duration		Facilitator
	8.00 - 8.45	45 min	Recap and Overview of Day 1 Discussions on Overnight Reading How Gender Analysis Enhances IWRM	Gwendoline Williams
	8.45 - 9.45	1 hr	Session 1: How can a gendered approach contribute to IWRM in the region? Workshop on Video Presentation: "Water and Community - A Gender Perspective"	Marilyn Crichlow Gwendoline Williams
	9.45 - 10.45	1 hr	Session 2a: Tools and Principles Related to Gender and Integrated Water Resources Management Powerpoint presentation: "Deconstructing Caribbean Gender Dynamics: Feminist Ethnographic Tools for Understanding Gender in Culture, Society and Environment"	Diana Fox
BREAK	10.45 - 11.15	30 min		
	11.15 - 12.15	1 hr	Session 2b: Presentation and Discussions of Prepared Gender and Water Cases in the Caribbean Powerpoint Presentation: "Gender and the Feminist Ethnography of Water: Trinidad and Jamaica Case Studies"	Diana Fox
	1.00 - 3.00	2 hr	Session 3: Group Exercises in Applying Gender Analysis to IWRM Powerpoint Presentation: "Putting on your Feminist Ethnographic Lens: Preliminary Exercises in applying Gender Analysis"	Diana Fox
	3.00 - 3.15	15 min		
	3.15 - 3.45	15 min	Summary of Day Two	Gwendoline Williams Diana Fox
		30 min	Session 4: Introducing Water Management Policies Distribution of questions for group analysis	
	3.45 - 4.00	15 min	Instructions for Overnight Reading OVERNIGHT READING MATERIAL: Caribbean Water Resource and Management Policies	Gwendoline Williams



SESSION 1:

How can a Gendered Approach Contribute to IWRM in the Region?

Marilyn Crichlow, Programme Manager (Special Projects),
Water and Sewerage Authority (WASA)

Workshop on Video Presentation:

"Water and Community – A Gender Perspective"

SESSION 2a:

**Tools and Principles Related to Gender and
Integrated Water Resources Management**

Diana J. Fox, PhD, Bridgewater State College

PowerPoint Presentation:

**"Deconstructing Caribbean Gender Dynamics: Feminist
Ethnographic Tools for Understanding Gender in Culture,
Society and Environment"**

SESSION 2b:

Presentation and Discussions of

Prepared Gender and Water Cases in the Caribbean

Diana J. Fox, PhD, Bridgewater State College

Powerpoint Presentation:

**"Gender and the Feminist Ethnography of Water:
Trinidad and Jamaica Case Studies"**

SESSION 3:

APPLYING GENDER ANALYSIS

Group Exercises in Applying Gender Analysis to IWRM

Diana J. Fox, PhD, Bridgewater State College

Powerpoint Presentation:

**"Putting on your Feminist Ethnographic Lens:
Preliminary Exercises in Applying Gender Analysis"**



FILM CLIP GUIDE

THE GODDESS AND THE COMPUTER: LESSONS FROM BALI

Diana J. Fox, Ph, Bridgewater State College

1. What forms of so-called "advanced" technology did the Green Revolution introduce to Bali?
2. What were the effects of these technologies?
3. What did the anthropologist discover about the Balinese system of water management and the relationship between the practical organization of water management and religious beliefs?
4. What were some of the values that guided the maintenance of the Balinese system?
5. How did the anthropologists know that the Balinese system was ecologically healthy? What cultural practices ensured ecosystem longevity?
6. How would you contrast the non-ethnographic international development perspective with the anthropological/ethnographic approach?
7. What key insights did the anthropologist provide for agricultural development experts that they had previously not considered?
8. How could a feminist political ecological perspective deepen understanding of the Balinese system? What insights are missing from #3?

1. The first step in the process of identifying a problem is to recognize that a problem exists. This is often done by comparing current performance with a desired state or goal.	2. The second step is to define the problem. This involves identifying the specific aspects of the problem that need to be addressed and determining the scope of the problem.
3. The third step is to analyze the problem. This involves identifying the causes of the problem and determining the relationships between different factors.	4. The fourth step is to develop a solution. This involves identifying potential solutions and evaluating them based on their feasibility and effectiveness.
5. The fifth step is to implement the solution. This involves putting the chosen solution into action and monitoring its progress.	6. The sixth step is to evaluate the results. This involves comparing the actual results with the desired state and determining whether the problem has been solved.
7. The seventh step is to communicate the results. This involves sharing the findings of the analysis and the results of the solution with relevant stakeholders.	8. The eighth step is to learn from the experience. This involves reflecting on the process and identifying lessons learned that can be applied to future problems.
9. The ninth step is to document the process. This involves creating a record of the steps taken and the results achieved, which can be used as a reference for future problems.	10. The tenth step is to review the process. This involves periodically reviewing the process to ensure it remains effective and efficient.

ENVISIONING THE FUTURE: HYPOTHETICAL SOLUTIONS

CASE STUDY EXERCISES IN APPLYING GENDER ANALYSIS

Diana J. Fox, Phd, Bridgewater State College

GROUP 1: Mt. D'Or, Plum Mitan, Jones Village, Trinidad

1. Translocal connections: How can Mt. D'Or, Plum Mitan and Jones Village learn from one another's experiences to work toward greater water self-sufficiency?
2. What are the openings/cracks/entry points for change, for involving women from these communities in wider policy decisions? For changing restrictive and inequitable gender dynamics?
3. What additional gendered ethnographic data is important to collect to develop a gender-appropriate water policy for these communities that address the ongoing problems?

GROUP 2: Grande Riviere, Trinidad

1. What would a gendered approach to community development in Grande Riviere look like?
2. How can women's "water knowledge" and water roles be useful?

GROUP 3: Frankfield, Jamaica

1. What steps can Frankfielders take, that recognize persistent and changing gender patterns, to begin to improve the current situation with respect to lack of sanitary facilities and water resources in their homes?

KEY / OVERNIGHT READINGS

9

CARIBBEAN WATER RESOURCES AND MANAGEMENT POLICIES

GRENADA WATER POLICY, 2007

TRINIDAD AND TOBAGO WATER POLICY, 2003

NATIONAL WATER POLICY, SAINT LUCIA, 2004

NEVIS, DRAFT WATER RESOURCES MANAGEMENT POLICY, 2001



THE UNIVERSITY OF THE WEST INDIES

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THE CENTRE FOR GENDER AND DEVELOPMENT STUDIES

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GENDER & WATER TRAINING WORKSHOP Caribbean 2008

**GENDER MAINSTREAMING AND INTEGRATED WATER
RESOURCES MANAGEMENT IN THE CARIBBEAN**

7th to 11th April 2008





Gender in Policy and Planning

1.0 CONCEPTS & DEFINITIONS

Policy

- ☞ A policy provides the overall perspective and direction as to the goals that a society sets for itself, the ultimate purpose being the development of the people of the society through the equitable access to goods and services, for example, health, wealth, security, well-being - within a sector or cross-sectorally.

Programme

- ☞ A design or series of steps taken in pursuit of translating and implementing public policy. Policy implementation usually entails the planning and implementation of a range of programmes within a given sector or inter-sectorally, viz., the economy, education, trade and industry, science and technology, social justice (national security) and social development.

Project

- ☞ A course of action that emanates from, or is a component, of a programme. It is intended to deliver goods and services to various sections of the population in light of their felt and expressed needs and interests. A project has a time frame along with a specific budget and other type resources. Typically, several projects comprise a programme.

Delivery System (Systems and Operations)

- ☞ This is the operational stage of policy implementation and involves a direct interface with the target clientele and other stakeholders in the bid to deliver services. Such persons or groups are usually either enablers/contributors and/or beneficiaries of the policy, programme and project.

1.1 REALMS OF POLICY

Elson (1994, p33-45) challenged the traditional way of viewing economic policy in terms of macro and micro economic analysis. The former looks at the aggregate supply and demand against the background of "... the marketed output (that is, domestic private sector and public sector production plus imports) and total expenditure (that is, consumption plus private investment, plus government expenditure, plus exports). The latter focuses on the supply and demand interaction between individual economic agents be they from the public, private and voluntary sectors, or the citizenry at large" (p.34).

This macro and microanalysis of policy, needs to be complemented through an analysis of the institutional environments in which the supply and demand transactions are taking place. This is regarded as the **meso-level** policy making and analysis, and in the main constitute:

1. The industrial firm and other private sector institutions, such as market mechanisms.
2. Public sector ministries and parastatal agencies.
3. Civil associations as found in the voluntary sector.
4. The family and household.

The meso- level analysis provides a workable framework for assessing the actions of individual and groups within the economy, thereby illuminating the needs and interests, motivation, resources and negotiating positions of each. This level of analysis is critical to developing a gender-aware approach to economic analysis, for it allows for a focus on women and men as individual producers, consumers and decision makers, and as collectivities of interests, for example, civil associations of advocates for women or women and men together as family and household members. Based on this perspective, the realms of policy can be viewed as:

- ☞ Within families and communities
- ☞ Within government and public service.

- ☞ Within the private and not-for-profit sectors
- ☞ Within the national arena – that is, the citizenry-at-large
- ☞ In the wider regional and global arena

Figure 2A on the following page shows an interactive model of Policy Formulation.

Levels of Policy Analysis

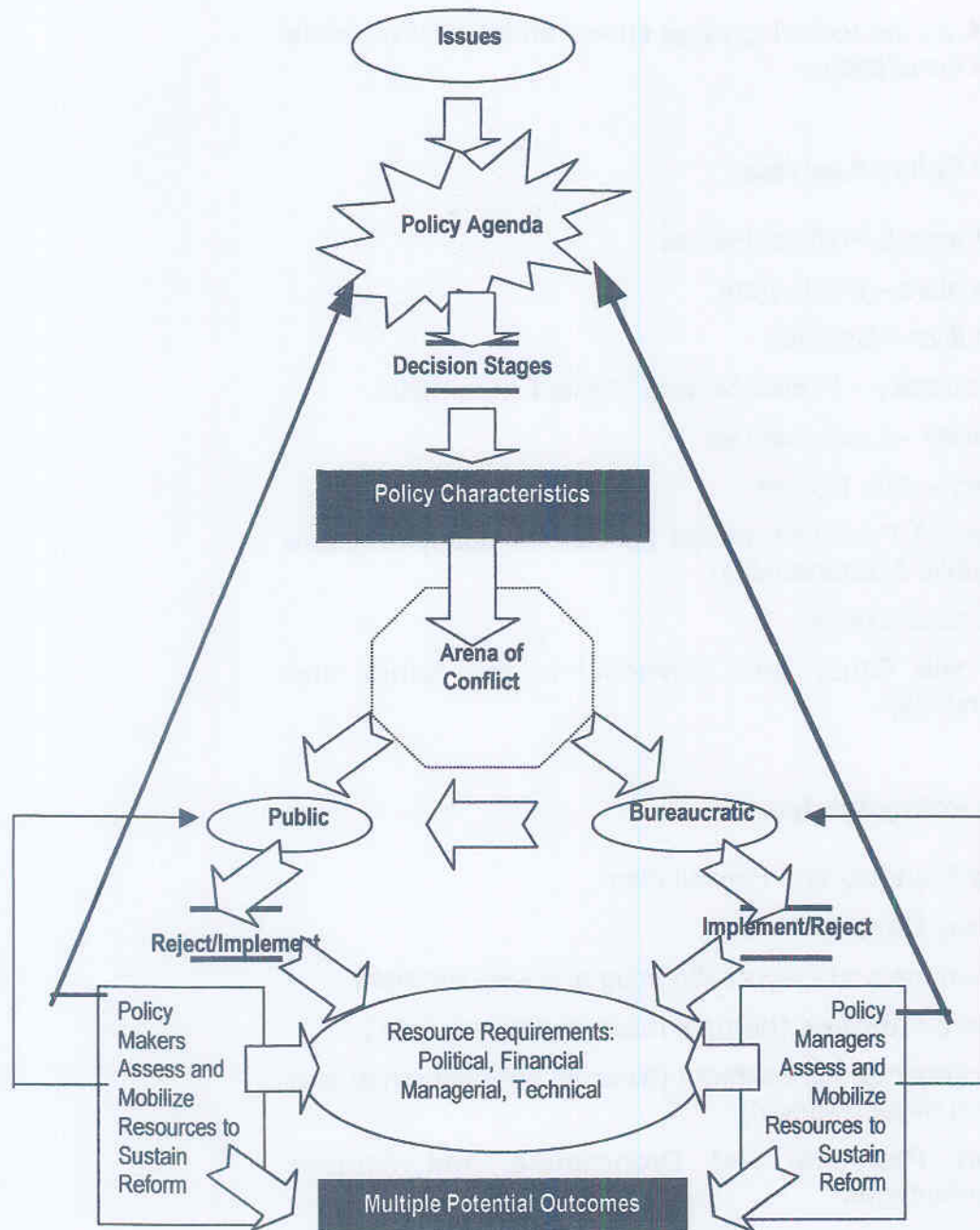
- ☞ Electorate & Political Parties
- ☞ Legislative – Parliament
- ☞ Executive – Cabinet
- ☞ Bureaucracy – Public Service / State Enterprises
- ☞ Judiciary – Laws, statutes
- ☞ Military – Arm Forces
- ☞ Interest & Pressure groups (Social Advocacy/Pressure for Public Accountability)
- ☞ Citizens-at-Large
- ☞ Self and Other (the individual in the family and community)

Systemic Policy Analysis

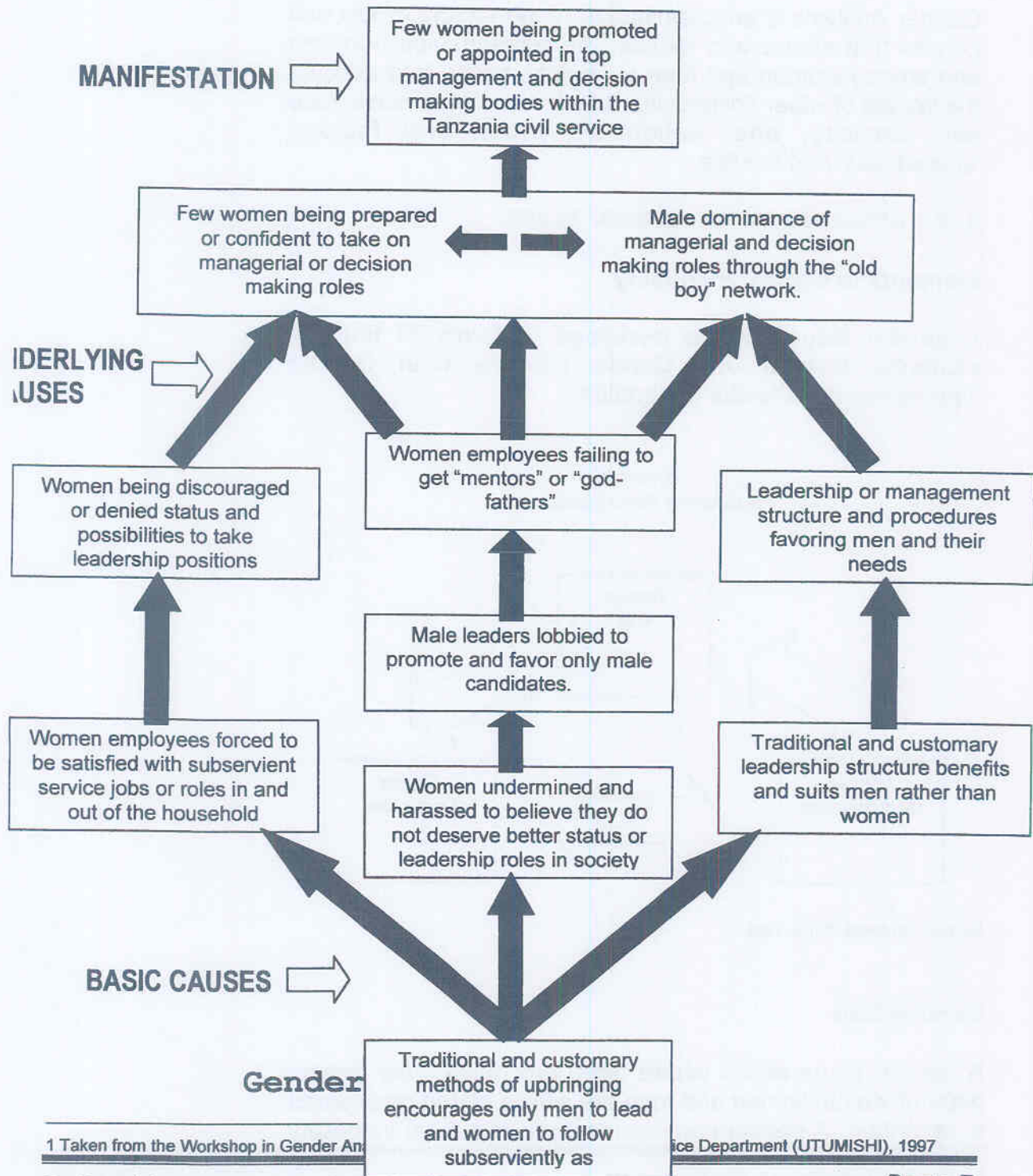
- ☞ Policy Planning and Formulation
- ☞ Strategy Development
- ☞ Programme and Project Planning and Management
- ☞ Resource Analysis (human, material, financial etc.)
- ☞ Environmental Assessment (external environmental and internal organizational)
- ☞ Action Planning and Programme and Project Implementation
- ☞ Outcomes/Impact Assessment

2.0 POLICY ANALYSIS

FIGURE 2A
AN INTERACTIVE MODEL OF POLICY FORMATION



The Conceptual Framework as a Tool in Gender Analysis of the Situation of Women in the Civil Service in Tanzania¹



¹ Taken from the Workshop in Gender Analysis



3.0 WHAT IS GENDER ANALYSIS?

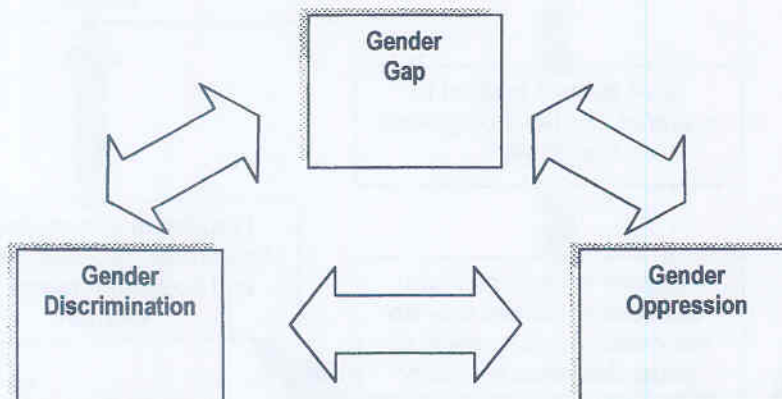
Gender Analysis is an examination of the factors of sex and gender that shape and explain the relationships between and among women and men in society, taking into account the impact of other socio-cultural factors such as class, race and ethnicity, age, nationality, urban-rural factors, 'specialness' and the like.

3.2 ANALYSIS OF A GENDER ISSUE

Elements of Gender Inequality

A gender issue can be assessed in terms of four (4) elements: Gender Gap, Gender Discrimination, Gender Oppression and Gender Integration.

FIGURE 11
ELEMENTS OF GENDER INEQUALITY



Source: Longwe & Clarke, 1996

Gender Gap

A gender issue arises where there are observable gender gaps of which women and men are aware of and considered to be unfair. A gender gap is a measure of gender inequality

or inequity in respect of the socio-economic and politic status of women and men. It is not just a female-male gap as it is not solely derived from biological differences. It arises also from stereotyping owing to differing gender roles and the consequent positioning of women and men in the various realms of policy and planning. The difficulties women have in accessing credit for building their business enterprises is an example of a gender gap in Entrepreneurship Development. Also, the fact that there are fewer women entrepreneurs in medium to large-scale business is evidence of gender gaps apart from access to financial resources.

Gender Discrimination

Gender gaps do not arise by accident. They are the results of biased differential treatment meted out, usually to girls and women in comparison to boys and men. This unfair treatment is what we term gender discrimination.

Gender discrimination could be a single incident, for example, when a bank manager accepts collateral from a male for a business loan, but refuses the same type or quantum from a female. Almost all types of gender gaps extends beyond isolated instances of discrimination. Gender gaps on a wider scale are due to systemic and systematic discrimination that is part of the social system and runs through all aspects of life. For example, in an African cultural context, throughout the socialization of both the boy and the girl child, more often than not, the boy has more opportunities than the girl to accumulate resources that would later help him to start a business of his choice. He would also have greater access to education in terms of formal schooling.

It is common practice for boy children regardless of age to inherit the wealth of their fathers, such as business enterprises, houses, cars or livestock. This puts the boy child several steps ahead of the girl child in building an independent future livelihood or wealth.

Discrimination can be found in different spheres of public and domestic life. These include:

- ☞ The Household
- ☞ Marital Relationships
- ☞ Legal Instruments
- ☞ Community Leadership
- ☞ National Policy and Planning

Gender Oppression

Gender oppression looks at the underlying causes of systemic and systematic gender discrimination. In the gender diagnosis, it dwells less on the personal and group levels of social interaction and more on the institutional and societal levels of analysis. From the latter standpoint, the underlying root causes usually stem from factors related to:

- ☞ Patriarchy
- ☞ Political Systems and Processes
- ☞ Economic Management Strategic and the underlying conception of development
- ☞ Demographic and Environmental Influences
- ☞ Religion
- ☞ Cultural Traditions
- ☞ Attitudes and Values

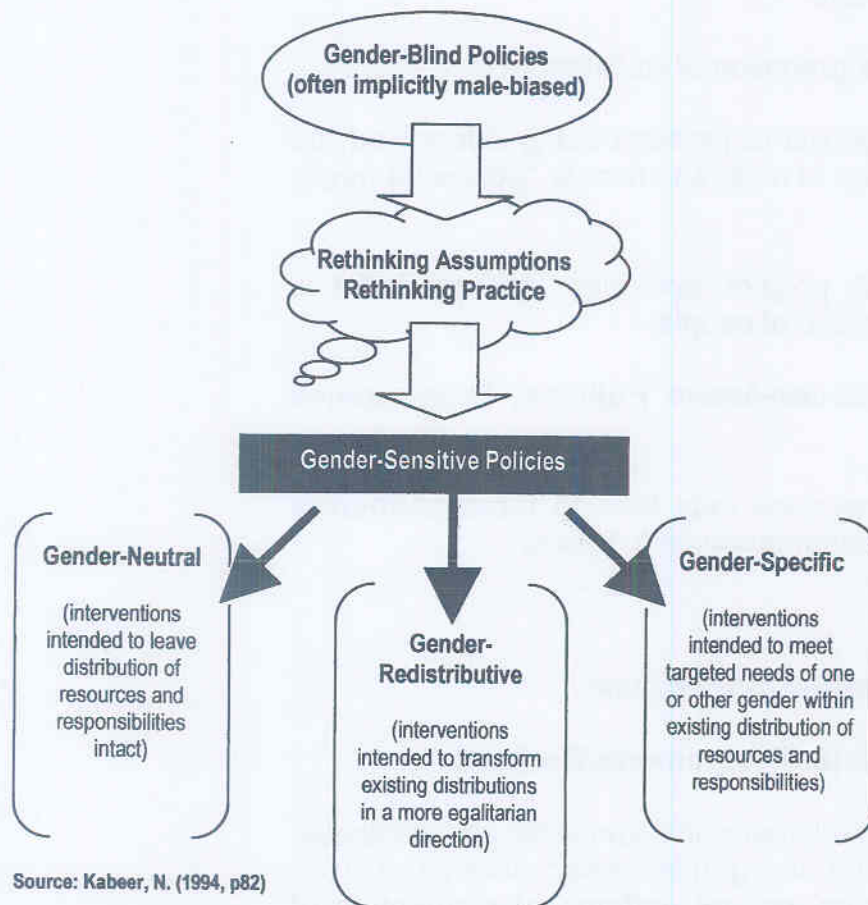
In order to assess and analyze the gender gaps which may exist, there are several established **Gender Analysis Frameworks** which may be applied.

THE GENDER AWARE APPROACH: A DIAGNOSIS OF POLICY, PROJECTS AND PROGRAMMES

The Gender Aware Approach

Kabeer (1996, p1-60) has provided an analytical model for determining the extent to which the policy and planning process are engendered. She advances that public policy and planning can either be gender-blind or gender-sensitive, with the latter being gender neutral, gender specific or gender redistributive. **Figure 2B** shows Kabeer's Model for Gender Aware Policy.

Figure 2B
Categories of Gender-Aware Policy



Gender-Blind Policies/Programmes/Projects

Gender-blind policies, programmes and projects are those which, in most cases, address the target group in generic terms as:

- ☞ Communities
- ☞ Rural/urban people
- ☞ Labour force

- ☞ The poor
- ☞ Youth
- ☞ The elderly

Such gender-blind policies, programmes and projects are characterized by the following:

- ☞ No explicit identification of the women and men gender needs and interests
- ☞ No gender dis-aggregation of statistics
- ☞ No gender diagnosis of problem being addressed, for example, in terms of male and female “gendered needs and interests”.
- ☞ Strategies and project activities designed for a homogeneous group of people.

Other Types of Gender-Aware Policies, Programmes Projects

Greater gender awareness may lead to three alternative approaches to policies/programmes/projects.

- ☞ Gender-neutral
- ☞ Gender-specific
- ☞ Gender redistributive/transformative

Gender Neutral Policies/Programmes/Projects

Gender neutral policies/programmes/projects are predicated on the existing sexual and gender-based division of roles and responsibilities as well as patterns of distribution of resources in order to ensure that policy, programme and/or project objectives (whether related to production or welfare) are met in the most efficient way. It also presumes a complementarity of gender-based needs and interests that would in benign fashion meet the needs of women and men as they collaborate to carry out their respective roles in the private and public domains respectively.

Gender Neutral policies, programmes and projects:

- ☞ Address practical as opposed to the strategic gender needs for men and women.
- ☞ Allocate resources to men and women for efficient and effective execution of duties.
- ☞ Leave existing division of resources and responsibilities intact.
- ☞ Ignore the power and influence differentials that women and men have in decision making.

Gender-Specific Policies/Programmes/Projects

Gender-specific policies/programmes/projects usually address specific gender gaps or forms of discrimination and oppression from the standpoint of women or men's gender needs and interests. For example:

For Women

1. Labour saving devices in those agricultural activities usually performed by women, viz., weeding, harvesting and the like.
2. A skills training programme for women on irrigation techniques and maintenance of equipment (focus on skills and attitudinal change)
3. Income generating projects to reduce the level of dependency on males as the ascribed 'bread winner' and 'head of household'.

For Men

1. Campaign to sensitize and change men's attitude to contraceptive use and other related reproductive health issues.
2. Social education of men on conflict management and resolution styles viz., the destructiveness of war, communal conflicts and domestic violence.

3. Legislative and other measures to have men better accept their parenting and family care responsibilities.

Gender Redistributive-Transformative Policies, Programmes & Projects

These seek to transform existing gender relations in a more democratic direction by redistributing more evenly the division of resources, responsibilities and power between women and men.

Gender redistribution is the most culturally and politically challenging change option in engendering policy and planning as it does not seek simply to channel resources to women and to men within the existing framework, but seeks a paradigm shift toward a entirely new system of gender equality and gender equity. It requires men and women to give up certain privileges and take on certain responsibilities in order to forge new gender relations based on mutual acceptance of the human worth of each gender and on principles of harmony and social justice.

Gender redistributive/transformative strategies have the following advantages:

- ☞ They are empowering to both men and women.
- ☞ They lead to improved social relationships between men and women.
- ☞ They address the root causes of gender gap disparities, forms of discrimination and oppression in all sectors of development.
- ☞ They address both practical and strategic gender needs from the perspectives of men and women in a complementary manner.

It should be noted that without some transformative potential built into them, gender-specific policies, programmes and projects are likely to:

- ☞ Leave existing division of resources and responsibilities

intact.

- ☞ Fail to conscientize the other half of the gender group, that is men, about existing gender gaps, discrimination and oppression in the sector being addressed. This means that while laudably, practical gender needs are being addressed and even met, the strategic issues that would transform the relationship between women and men in the given sector are left to usually ineffectual personal and group advocacy and moral suasion as opposed to institutional accountability. (McAllister, 1997)
- ☞ A positive aspect is that gender specific policies, programmes and projects are the quickest method of reducing practical gender gaps and forms and discrimination and oppression in a given sector and have been a considerable contributor to change, if only incrementally.

Focus Activity – Gender Diagnosis of National Water Policies

Activity 7

Let us look more closely at National Water Policies for Trinidad and Tobago; Grenada; St. Kitts and Nevis; and St. Lucia from a gender perspective in **Activity 7**.

ACTIVITY – GENDER DIAGNOSIS OF POLICY

Instructions

In your group, make use of a) Kabeer's categories of gender-aware policies; and b) the thirteen (13) factors for creating an enabling environment for gender mainstreaming in policy and planning, and determine the extent to which the respective National Water Policies are gender sensitive and gender-based.

Group I – St. Lucia
Group II – Grenada

Group III – Trinidad and Tobago

Group IV – St. Kitts and Nevis

Identify the key policy statements. List these statements in the table in Activity Handout, THEN determine to what extent each policy statement gender-blind, neutral, specific or redistributive? Use the Table in the **Activity Handout** provided to chart your conclusions.

Appendix 1

1. **Aim.** To help participants clarify their own beliefs about the roles of women and men.
2. **Objectives.** After this session, participants will be able to:
 - a) clearly state their opinions on various statements about women's roles;
 - b) question their own and each others -views regarding- the roles of women and men in society.
3. **Total duration:** One hour thirty minutes
4. **Sequencing of activities**
 - a) In the **First Activity** a piece of paper marked AGREE is taped on one wall while on the opposite wall another piece marked *DISAGREE* is taped.

Duration: Five minutes
Materials: Paper, pencils and masking tape
 - b) **Second**, the facilitator explains to the participants that he/she will read aloud a statement regarding the roles and status of women: each must decide whether they agree or disagree with the statement. They are then to run quickly to the wall which indicates the opinion (*agree or disagree*) they favour. Those grouped together under the same sign must announce their reasons for agreeing or disagreeing. Each group must then appoint a reporter to state their reasons to the other group.

Duration: Five minutes

c) Third, the facilitator reads out each statement twice and points to it on the transparency. The participants must decide quickly and move to the appropriate wall to which the sign of their choice is taped. They should report their reasons in support of their choice through the appointed reporter. For sample statements and arguments for and against, see A- B, C and D below.

Duration: Fifteen minutes

Materials: Transparency - see A- B, C and D

d) **Fourth**, the reporter from each group should present the reasons in support of its position. A debate of about 6-8 minutes should follow.

Duration: Ten minutes

B. Women can be as good

AGREE

- ☺ Women are careful and good at detailed work
- ☺ In some countries, women make up almost half of the total number of engineers
- ☺ Given proper education and training opportunities, women can be as successful as men
- ☺ Some women are engineers are functioning well. There is no reason to believe that this job is "unnatural" to women
- ☺ Given enough role models for women, there will surely be more *women engineers*.
- ☺ technologically-oriented
- ☺ Engineering takes a lot of intelligence and concentration. It is too complicated for women
- ☺ The work is too hard, and women are physically weaker than men
- ☺ Women's nature is not conducive to engineering work. That's why there are not many women engineers.

Hints for the conclusion

Sex should not be a determining factor of a person's ability to function well in a job. Except for few tasks that require especially hard physical labor, there is no proven physical reason why women cannot be good engineers.

Similarly, there is **no** reason to believe that certain jobs or tasks should be reserved for women, e.g., dressmaking, artificial flower making. On the contrary, if these tasks all go to women, some men who could excel in them would be deprived of the opportunity to do so.

C. Men can take care of babies as well as women

AGREE		DISAGREE
☺ When men want to and get an opportunity to learn to raise babies, they can be good at it		☺ Women have natural maternal instincts
☺ Men have not and cannot develop the gentleness and sensitivity required in raising children		☺ Only women can breastfeed
☺ More and more men take good care of young children. This can be done.		☺ By carrying the baby for nine months, mothers have a closer natural link with the baby
☺ As more women work outside the home, it will become necessary for more men to help rear children. Intensive involvement of men in child rearing will help children become more balanced.		☺ Women are good at childcare because they have so much experience caring for other people's children before they have their own. Men do not have that opportunity.

Hints for the conclusion

Women are child bearers and breast feeders. Their natural parenting skills stop there. Skills are acquired early in life, e.g. through looking after siblings, nieces, nephews, etc. Therefore, to say that only women can look after children would be misleading.

In fact, women who take good care of children, do so because they have had a lot of "training" since their early age. Boys could also benefit from participation in

caring for younger children. Most importantly, when men take an active part in childcare they develop good qualities, such as tenderness and patience, and experience the real joy of fatherhood

D. Men are the elephant's front legs, and women are its hind legs

AGREE		DISAGREE
☺ Men are heads of their families They earn income to support their families.		☺ Nowadays more and more women earn their own income and support families. Their contribution to the well-being of the family is as important as that of men. Fathers and mothers need mutual support like an elephant that cannot walk on its front or hind legs alone.
☺ Men are better at making decisions.		☺ Women have been prime ministers of nations and good leaders in many, other areas but there are not enough of them.
☺ Women are weaker, so men should take a lead to protect them.		☺ If women were inherently inferior, we would never have examples of women with initiative and courage
☺ Men are freer to go around and therefore more equipped to lead.		☺ Limited mobility of women comes with culture. In many societies, this limitation has decreased. Women have shown they can be in control of their movement and available to perform their tasks.
☺ Men are stronger physically.		☺ Some tasks are too demanding for women, physically. But women have been active in wars, alongside men.

Hints for the conclusion

Experience has shown that in families where women and men respect each other and share leadership, mutual respect and happy family life result. Some women excel in traditionally male domains. And the same is true for men. It seems

reasonable to assume that it would be advantageous to train women to be leaders to enable them to share this important responsibility, with me



Activity Handout - Practical & Strategic Gender Needs

TICK THE APPROPRIATE BOX. (NB: GB – Gender Blind, GN – Gender Neutral, GS – Gender Specific, GR – Gender Re-distributive)

	STATEMENT	GB	GN	GS	GR
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					

Creating Levels of Gender Awareness

You might be in search of a technique that, when followed in a flexible way, can lead to the different levels of **gender sensitive/gender-based** policies, programmes and projects. The following method is suggested:

1. Read the policy, programme or project document carefully and describe how gender sensitive it is, and at what level of sensitivity or awareness it is - gender blind; gender-neutral; gender-specific; or gender transformative/redistributive (**DESCRIPTION**).
2. Explain why you think the document or the project is gender-sensitive or not. Does it, for example, address practical and/or strategic gender needs? Does it seek to change the gender stereotypes so that gender roles are redefined and so too, the male and female 'gendered interests' (**DIAGNOSIS**)?
3. In light of 1) and 2), if there is gender-blindness or low levels of gender sensitivity or awareness, how can this be changed? Here, you may adopt the position that the degree of gender sensitivity or awareness depends on whether the changes in gender roles are based on practical or strategic needs. Simply the more strategic the change in gender roles and gender relations, the more transformative and redistributive the level of gender sensitivity or awareness of the policy, programme or project (**INTERVENTION/MONITORING & EVALUATION**).

The gender neutral approach is not any more desirable than the gender-blind approach, given that more often than not, it is also blind to the gaps, discriminations and oppression that women and men face in their different walks of life.

Also, the gender-specific and gender-redistributive and transformative approaches need not cancel each other out. **In the quest for gender equity, each may be appropriate in a specific context, and at a given point in time.**

In certain contexts, adoption of gender-specific and gender redistributive/transformative approaches provide women and men with new social values and resources in forms which strengthen their gaining power and help them to renegotiate their position within their family, communities and in public life (Kabeer, 1996, p25).

Gender redistributive/transformative policies, by their very nature, may be difficult to achieve, but serve as the ideal for a just and empowered society.

READINGS

2.1 Guidelines for Assessing a Gender-Aware Organization

UNIT - Gender Analysis: An Example

Using the Moser Framework

The Moser Framework developed by Caroline Moser was designed to challenge planners to review the planning process with a view to engendering this process.

The framework consists of three components:

1. The concept of triple gender roles for men and women – productive, reproductive and community
2. The concept of practical and strategic gender needs
3. And the categories of approaches to women in development – WID versus GAD

3.2.1 What are Practical Gender Needs (PGNs)?

Practical Gender Needs have to do with the resources and supports that men and women need on a day to day basis to perform their currently prescribed roles as effectively as possible.

In any given sector of policy and planning – the economy, social development, industry, etc. – meeting these PGNs serve to maintain the status quo of the sexual/gender division of labor, thereby preserving the social order in society.

PGNs stem from the concrete conditions of men and women in the realms of reproductive and productive activities as well as in the family and community.

3.2.2 What are Strategic Gender Needs (SGNs)?

Strategic Gender Needs in contrast to practical gender needs are concerned with challenging the stereotypes of gender roles that have led, over time, to gender disparities, particularly towards women. These disparities are reflected in what Longwe & Clarke (1994) refer to as "gender gaps" and "acts of discrimination" within oppressive gender systems and institutions in society.

When these disparities are addressed through a critical review of gender belief systems, identities and behaviors, they should lead to the *transformation* of the gender division of labor.

SGNs go beyond meeting the practical needs of women and men. They confront gender stereotyping in all its forms and manifestations and seek to have these removed. Men, for example, can legitimately undertake household chores; women can improve their competencies in using and repairing electrical/electronic gadgets; women can be fully involved in family and business decision making; and men can openly express their emotions and feelings without perceived threats to their "manhood".

Similar to Maslow's hierarchy of needs, SGNs for women and men are higher-order needs for personal development and social transformation.

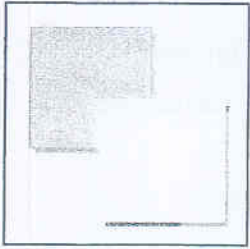
In the development process, meeting of SGNs is seen as crucial for narrowing inter- and intra-gender gaps that derive from various forms of discrimination. SGNs fundamentally challenge the nature of gender relationships between men and women, and seek, through modes of mutual empowerment, to reconfigure these relationships along line of equity and social justice.

SGNs, by their very nature, are not easily acceptable by society as they:

- 7. Attempt to change the social and moral foundations upon which societal norms, attitudes and practices are built, which has resulted, in the main, in a 'culture of privilege' for men and subordination for women.
- 8. Reveal inequalities of gender stereotypes in any society.
- 9. Disturb existing power relations and influence systems, for example, women moving into decision making positions in the public domain, viz. private sector boardrooms and government cabinet fora, thereby facilitating the re-allocation of public resources to groups (mostly women) requiring it on the grounds of social equity.

3.2.3 Using the Moser Framework

1. Identify the gender roles of the participants will be expected to play
2. Identify the activities and tasks that male and female participants will undertake to perform
3. Identify the practical and strategic gender needs of male and female participants that will have to be met in order for them to perform as expected
4. Identify how resources will be allocated and whether participants will be access to and control over them as required to perform.
5. List the conditions under which the participants must perform and the potential opportunities and constraints to performance.
6. Identify the mechanisms that will need to be put in place and the strategies that will be necessary to adopt so that participants may perform as expected.



Exercise 4: Gender Analysis – Practical and Strategic Gender Needs (The Moser Framework)

EXERCISE: INSTRUCTIONS

Consider the reordering of Gender Roles from **Exercise 2**.

What PGNs and SGNs needed to be addressed to allow men and women to support the reordering of these roles in respect of:

- a) Reproductive Role
- b) Productive Role
- c) Family Care
- d) Kin relations

Fill in your responses in the Gender Needs Matrix in **Worksheet 2** on the next page.

Exercise 4: Practical and Strategic Gender Needs

Worksheet 2

	PRACTICAL NEEDS	GENDER	STRATEGIC GENDER NEEDS	
	MALE	FEMALE	MALE	FEMALE
Reproductive				
Productive				
Family Care				
Kin Relations				

MODULE

GENDER MAINSTREAMING IN
POLICY AND PLANNING AND
PROJECT MANAGEMENT

1

Module Outline

- ◉ What is Gender Mainstreaming?
- ◉ Gender Analysis in Policy and Planning and Project Management – Gender Gap, Gender Discrimination, Gender Oppression
- ◉ Four Key Steps in Mainstreaming Gender
- ◉ The Enabling Environment for GMS – 13 Factors
- ◉ GMS in the Project Cycle

2

WHAT IS GENDER MAINSTREAMING?

3

GENDER MAINSTREAMING

- ◉ What is Gender Mainstreaming?
 - Gender mainstreaming is the process of bringing a gender perspective to mainstream activities of governments, the private sector and civil society in respect of policy and planning and project management.
 - It addresses gender concerns within existing development policies, strategies and priorities and integrating these throughout the project cycle.

4

GENDER MAINSTREAMING

◎Definition:

- The **Beijing Platform for Action** defines gender mainstreaming as the incorporation "of a gender perspective into all policies and programmes so that, before decisions are taken, an analysis is made of the [needs] and effects on women and men respectively".

6

GENDER MAINSTREAMING

◎Definition:

- The **European Commission's** Communication on Mainstreaming, dated 21 February 1999, states that mainstreaming involves "mobilising all general policies and measures specifically for the purpose of achieving equality by actively and openly taking into account, at the planning stage, their possible effects on the respective situations of women and men (the gender perspective)".

6

GENDER MAINSTREAMING

◎Definition:

- The Group of Specialists on Mainstreaming, **Council of Europe**, in their 1998 report on Gender Mainstreaming, agreed on the following definition of the concept: "gender mainstreaming is the (re)organisation, improvement, development and evaluation of policy processes, so that a gender equality perspective is incorporated in all policies at all levels and at all stages, by the actors normally involved in policy-making".

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GENDER MAINSTREAMING

- ◎Mainstreaming equality is thus essentially concerned with the **integration of equal opportunities principles, strategies and practices into everyday work of government and other public bodies, from the outset, involving ministers, high level civil servants and other staff, in addition to equality specialists.**

8

GENDER MAINSTREAMING

- ◉ Gender mainstreaming is not about adding a women's component to any or all sections of already formulated policies, plans, etc.
- ◉ Neither should it be confused with or limited only to personnel equality policies aiming at increasing the number of women as managers.

9

GENDER MAINSTREAMING

- ◉ It should be seen as a strategy which informs on how the projects affect directly and indirectly the life situation of women and men, at all stages, and in every aspect of the decision-making process.

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GENDER MAINSTREAMING

- ◉ Gender mainstreaming in the Public Service needs to be directed at: (a) the employees themselves, (b) all aspects of service delivery and (c) the recipients of these services.

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GENDER MAINSTREAMING

- ◉ Gender mainstreaming should benefit both women and men, and society in general, because, at each stage of policy/programme formulation and development, more attention will be given to the involvement in, and the impact on the quality of life and life chances of both women and men.

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GENDER ANALYSIS IN POLICY AND PLANNING AND PROJECT MANAGEMENT

13

Gender Analysis of Policy and Planning and Projects

- A gender issue can be assessed in terms of three (3) elements:
 - Gender Gap
 - Gender Discrimination
 - Gender Oppression

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Gender Analysis in Policy and Planning and Projects



Longwe & Clarke
1989

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Gender Gap

- A gender issue arises where there are observable gender gaps of which women and men are aware of and considered to be unfair.
- A gender gap is a measure of gender inequality or inequity in respect of the socio-economic and politic status of women and men. It is not just a female-male gap as it is not solely derived from biological differences. It arises also from stereotyping owing to differing gender roles and the consequent positioning of women and men in the various realms of policy and planning.
- The difficulties women have in accessing credit for building their business enterprises is an example of a gender gap in entrepreneurship development.

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Gender Discrimination

- Gender gaps do not arise by accident. They are the results of biased differential treatment meted out, usually to girls and women in comparison to boys and men. This unfair treatment is what we term gender discrimination.
- Gender discrimination could be a single incident, for example, when a bank manager accepts collateral from a male for a business loan, but refuses the same type or quantum from a female. Almost all types of gender gaps extend beyond isolated instances of discrimination.

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Gender Discrimination

- Discrimination can be found in different spheres of public and domestic life. These include:
 - The Household
 - Marital Relationships
 - Legal Instruments
 - Community Leadership
 - National Policy and Planning

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Gender Oppression

- Gender oppression looks at the underlying causes of systemic and systematic gender discrimination. In the gender diagnosis, it dwells less on the personal and group levels of social interaction and more on the institutional and societal levels of analysis. From the latter standpoint, the underlying root causes usually stem from factors related to:
 - Patriarchy
 - Political Systems and Processes
 - Economic Management Strategic and the underlying conception of development
 - Demographic and Environmental Influences
 - Religion
 - Cultural Traditions
 - Attitudes and Values

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Gender Analysis Frameworks

- In order to assess and analyze the gender gaps which may exist, there are several established **Gender Analysis Frameworks** which may be applied:
 - Gender Role/Needs Analysis Approach
 - Model of Empowerment Approach
 - The Harvard Analytical Approach
 - The Gender Analysis Matrix (GAM)

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GENDER ANALYSIS OF POLICIES AND PROJECTS

Gender-blind, Gender-Neutral, Gender-Specific and Gender
Transformative Policies and Projects

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Gender-blind Policies, Projects, Programs

- ◎ Those which, in most cases, address the target group in generic terms
 - Communities
 - Rural/Urban people
 - Labour Force
 - The poor
 - Youth
 - The elderly

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Gender-blind Policies, Projects, Programs

- ◎ No gender disaggregation of statistics
- ◎ No explicit identification of "the women" and "the men" gender needs and interests
- ◎ No gender diagnosis of problems being address in terms of male or female gender interests
- ◎ Strategies and project activities designed for a homogeneous group of people

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Gender - Neutral

- ◎ Policies that rely on accurate information about existing gender-based division of resources and responsibilities in order to ensure that policy and program objectives are met in the most efficient way

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Gender - Neutral

- It presumes a complementarity of needs and interests based on the social division of labour.
 - They address practical as opposed to the strategic gender needs for men and women
 - They allocate resources to men and women for efficient and effective execution of duties
 - They leave existing division of resources and responsibilities intact
 - They ignore the power and influence differentials that women and men have in decision-making.

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Gender - Specific

- Addresses specific gender gaps or forms of discrimination and oppression from the standpoint of women or men's gender needs and interest
 - e.g.: Women
 - Labour saving devices in those agricultural activities usually performed by women.
 - Skills training program for women on how to use irrigation techniques and maintain equipment
 - e.g.: Men
 - Campaign to sensitize and change men's attitude to contraceptive use and other related reproductive health issues.

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Gender-Redistributive/Transformative

- These seek to transform existing gender relations in a more democratic direction by redistributing more evenly the division of resources, responsibilities and power between women and men.
- This is the most culturally and politically challenging option because it does not simply seek to channel resources to women and to men within the existing framework, but may require men and women to give up certain privileges and take on certain responsibilities in order to achieve greater equality in social relationships

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FOUR KEY STEPS IN MAINSTREAMING GENDER IN POLICY AND PLANNING

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Four Key Steps in Mainstreaming Gender in Policy and Planning

◎ Step 1: Sex disaggregated data and the use of these to analyze policy and planning and project management

- Identify gender difference and inequality using, for example, Moser's practical and strategic gender roles of men and women
- Make the case for taking gender equality seriously by designing public policies and plans (and also, business strategies) that meet women's and men's needs; and
- Monitor the differential impacts of policy, project and budget commitments on women and men.

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Four Key Steps in Mainstreaming Gender in Policy and Planning

◎ Step 2: Women as well as men being actively involved in, and therefore influencing the development agenda

- Gender advocates within government, civil society and donor organizations are most effective when they work in collaboration, identifying and developing strategic 'entry points' for the promotion of gender equality, bearing in mind the ongoing shifts in sex and gender roles, and by extension, the 'unisex' gender roles and responsibilities in both the public and private domains.

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Four Key Steps in Mainstreaming Gender in Policy and Planning

◎ Step 3: Context-specific action to promote gender equality

- Action needs to be:
 - Explicitly included in policy and project documents and frameworks (these provide an environmental scan – economic, social, political etc)
 - Backed up with staff and budgets; and
 - Monitored and reviewed through appropriate indicators of change

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Four Key Steps in Mainstreaming Gender in Policy and Planning

◎ Step 4: Organizational Capacity Building and Change

- Like action promoting gender equality, appropriate capacity building needs to be:
 - Explicitly included in policy and project documents and frameworks; for example, equity considerations in the training and development plan)
 - Backed up with staff and budgets; and
 - Monitored and reviewed through appropriate indicators of change

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Gender Mainstreaming Take Place?

- The Self
- Self and Other (interpersonal relations e.g. spouse relations; sibling relations)
- The Household
- The Workplace
- The School
- My Social Group (Choir, Sport Group, Church etc.)
- The Community
- Fora for Public Decision Making viz. the Parliament; International Bodies etc.
- Public Spaces viz. parks, cultural venues etc.

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How Do I Know That I am Mainstreaming Gender

- 'I use *gender disaggregated data* and use these to plan my work programmes and mode of delivery.'
- 'I incorporate *gender as a variable in all data collection instruments* I develop for social research.'
- 'I target *both men and women in planning programmes and projects* and in structuring the delivery of services.'
- 'I work with my family to *consider the needs of the both male and female members of the family* and allow the adults as well as boys and girls to share household responsibilities.'

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How Do I Know That I am Mainstreaming Gender

- "When as a *gender focal point* I act as an advocate for integrate gender in all aspects of policy and planning in my Ministry, Department or parastatal.'
- 'I use *gender-inclusive language*.'
- 'I consciously *avoid gender stereotyping* by using sexist sayings and proverbs and superstitions and taboos.'
- 'I *plan and allocate adequate resources* in a gender sensitive way, for example, provide facilities for both fathers and mothers to allow them both to sleep over with their young ones in Children Hospitals

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How Do I Know That I am Mainstreaming Gender

- "I do my part to ensure that fathers who are entitled to *family-friendly paternal leave provisions* are able to do so on time at the birth of their offsprings.
- 'I constantly *monitor and evaluate* how my programmes and projects and modes of service delivery are impacting the 'life situations' of men and women, and boys and girls in the society.'
- 'I initiate and/or participate actively in *periodic gender audits and gender impact assessments* in my Ministry, Department or parastatal entity.'
- 'I *network with gender conscious colleagues* across the service, the University and voluntary organizations, sharing information, participating in training and other such capacity building activities.'

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Responsible/Accountable for Gender Mainstreaming

- Gender mainstreaming requires that each Ministry, Department, Division, parastatal etc. ensures that a gender equality perspective is taken into account in the preparatory proceedings of all decisions, laws, programmes, plans, projects and the like. This process entails a **gender analysis/gender impact assessment** of all policies, projects and proposals from the various sectors such as education, health, agriculture, infrastructure, national security, finance and planning, technology, media and the like. The analysis identifies the different requirements of women and men, and the extent to which proposed changes will differentially affect women and men. It helps the authorities make the necessary amendments to promote equality in practice

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Responsible/Accountable for Gender Mainstreaming

- A gender perspective is relevant in most policy fields, although in some areas, this is more easily apparent, for instance, in education, training, employment, social benefits and services, health and justice. Thus, it follows that **all ministries**, and not solely that which includes the national machinery for gender issues within it, **are responsible** for the implementation of the government's policies on gender equality and for the development of gender policies in those areas falling within their field of responsibility.

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What Are the Key Processes in Gender Mainstreaming?

- Mobilization:** in respect of awareness and consciousness building; commitment planning and the securing of political will; resource mobilizing including information, finance, personnel and the like.

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What Are the Key Processes in Gender Mainstreaming?

- Multi-tracking/Multi-Targeting:** This involves undertaking at the planning stage of policy, programmes and projects a gender assessment/gender impact assessment such that the needs, interests and expectations of men and women, girls and boys are actively and openly taken into account. Wherever, gaps and disparities emerge in the gender analysis, be they for whichever group and in whatever type of relationship and interaction (women and men; women and women; men and men; boys and girls etc.) should be addressed with parity and in a quest for gender equality/equity

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What Are the Key Processes in Gender Mainstreaming?

© **Management:** The management processes - including: planning and coordinating; staffing and budgeting as well as reporting and monitoring/evaluation - involved in incorporating and integrating gender in policy and planning and service delivery to clients and to employees.

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What Are the Key Processes in Gender Mainstreaming?

© **Measurement:** Use of gender (input) indicators that guide the gender assessment/gender diagnosis for the policy and planning; and output/impact indicators that are used to determine how well gender has been integrated or incorporated and the levels satisfaction from employees and clients.

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GMS in Policy and Planning and Project Management: The Enabling Environment

1. Political Will
2. Strong National Machinery/Creation of Appropriate Structures and Systems
3. Institutional Framework - Legislative Support
4. People Oriented Planning as a context for GMS
5. Services: Multi-targeting and Multi-tracking
6. Sex Disaggregated Data and Statistics
7. Research/Gender Sensitive Strategic Planning
8. Ongoing Training/Training of Trainers
9. Gender Inclusive Language
10. Gender-based Budgeting and Accounting
11. Gender Sensitive Consultants/Experts
12. Project Monitoring & Evaluation
13. Gender Audits

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The Enabling Environment for Mainstreaming Gender in Policy and Planning and Project Management

1. **Enabling Environment - Political Will**

- This is evidenced in the Government of Malta publicly articulated policies on gender equality and gender mainstreaming in the Public Service, through OPM Circulars 133/89 and 24/2000.

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The Enabling Environment for Mainstreaming
Gender in Policy and Planning and Project
Management

2. **Enabling Environment –**

**Strong National Machinery/ Creation of
Appropriate Structures and Systems and
Standardisation of Procedures in the Sector
Ministries and Departments**

- The experience of some countries – for instance the Nordic countries – shows that whilst a mainstreaming approach is essential if issues are to be embedded within policy, they operate more effectively when gender mainstreaming is coupled with a strong co-ordinating state national machinery for gender equality.

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The Enabling Environment for Mainstreaming
Gender in Policy and Planning and Project
Management

3. **Enabling Environment**

**Institutional Framework - Legislative
Support**

The policy and planning process and service delivery must be well managed with clear legislative and statutory provisions to support the drive for gender equality and equity for clients and employees.

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The Enabling Environment for Mainstreaming
Gender in Policy and Planning and Project
Management

4. **Enabling Environment**

People-oriented Planning as a context for GMS

Policy analysis that is **research focused** and includes a Social and Gender Impact Assessment.

- **Policy Measures** To include **specific gender equality/equity measures** that give parity of attention to the needs and interests of both women **and** men as clients and employees in the Malta Public Service

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The Enabling Environment for Mainstreaming
Gender in Policy and Planning and Project
Management

5. **Enabling Environment**

Services: Multi-targeting and Multi-Tracking –

These must be needs-based and available to men and women bearing in mind other related considerations of age, social class and educational background, regional and cultural factors, 'specialness' etc.

These services should be delivered sensitive to the environments in which women and men interact, viz. The home and family; the workplace, the community, public fora and public spaces

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The Enabling Environment for Mainstreaming
Gender in Policy and Planning and Project
Management

6. *Enabling Environment* *Sex-Disaggregated Data and Statistics*

- For successful gender assessment and gender impact assessment, **sex-disaggregated data and statistics** is a vital necessity and must be easily available.
- Attention therefore be paid to what data are needed, and their its collection, collation, storage, retrieval and dissemination.

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The Enabling Environment for Mainstreaming
Gender in Policy and Planning and Project
Management

7. *Enabling Environment* *Research/Gender-Sensitive Strategic Planning*

- Ongoing **research** is also required for identifying current issues and problems in a given policy field, and for reviewing information requirements.

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The Enabling Environment for Mainstreaming
Gender in Policy and Planning and Project
Management

8. *Enabling Environment* *Ongoing Training/Training of Trainers*

- Training is vital for building the appropriate competency mix needed for gender mainstreaming and this must be an ongoing process.

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The Enabling Environment for Mainstreaming
Gender in Policy and Planning and Project
Management

9. *Enabling Environment* *Gender-inclusive Language*

- This is needed in official documentation and transactions and planners/trainers should assess the implications for gender equality/equity in proverbs and common sayings, customs and traditions as well as superstitions and taboos.

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The Enabling Environment for Mainstreaming
Gender in Policy and Planning and Project
Management

10. Enabling Environment

Gender-based Budgeting and Accounting

- In mobilizing resources for gender mainstreaming, there needs to be a revisiting of the budgetary and planning processes as now obtains to see what changes need to be made to allow for effective gender mainstreaming.

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The Enabling Environment for Mainstreaming
Gender in Policy and Planning and Project
Management

11. Enabling Environment

Gender-Sensitive Consultants and Experts

- As far as possible, preference should be given to those consultants and experts whatever their field who are gender-sensitive and can therefore support the gender mainstreaming processes in Ministries and Departments.

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The Enabling Environment for Mainstreaming
Gender in Policy and Planning and Project
Management

12. Enabling Environment

Project Monitoring and Evaluation

- Regular **monitoring** and **evaluation** of both the process as well as the desired outcomes, must also be carried out. Such exercises should follow established procedures and use specific gender input as well as output/impact indicators.

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The Enabling Environment for Mainstreaming
Gender in Policy and Planning and Project
Management

13. Enabling Environment

Gender Audits

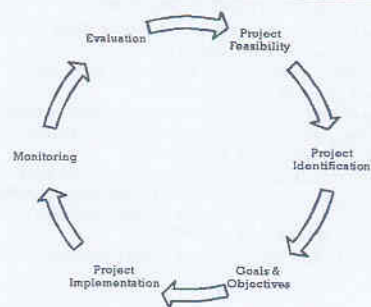
Gender equality/equity measures must be assessed on an ongoing basis and periodic gender audits.

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GMS IN THE PROJECT CYCLE

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The Project Cycle



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Checklist for the Project Cycle

● Project Identification – Social Analysis/Social Impact Analysis:

- What sector of IWRM does the project address?
- What gender roles are pertinent to the sector?
- What gender gaps exist in this sector as reflected, for example, in the sex-disaggregated data?
- What discriminatory practices - social, economic and cultural - explain the gender gaps?
- What are the practical and strategic gender needs for men and women so that these are redistributive and transformative of the lives of men and women?
- Do project planners need gender training?

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Checklist for the Project Cycle

● Goals & Objectives

- Do the objectives explicitly attempt to address gender gaps?
- Do they address strategic and practical gender needs?
- Do they address the removal of discriminatory practices?
- Do they follow policy and practices on gender equality?

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Checklist for the Project Cycle

• Interventions & Planned Activities

- Do policy makers, planners and project field staff need gender awareness training?
- Does the private and the 'not for profit' voluntary sectors need gender sensitization?
- Does the type of project interventions take active account of the relevant gender issues including those identified in the problem diagnosis?
- Are planned activities empowering for men and women, not only in terms of their traditional gender interests, but with respect to the redistributive/transformative goals and objectives?
- How S.M.A.R.T. Are the planned interventions and activities?

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Checklist for the Project Cycle

• Monitoring

- Are the monitoring indicators gender-sensitive? What are the measures used?
- Does the monitoring process involve consultation with all the relevant stakeholders, and their participatory involvement in the IWRM policies and projects?
- What are the outcomes/impacts of mainstreaming gender in the IWRM project cycle?

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Checklist for the Project Cycle

• Evaluation

- Is the project evaluation team gender-sensitive and able to use the tools of mainstreaming gender in IWRM policy and planning?
- Do the TORs for project evaluation explicitly indicate the need to measure the gender impact of the project?
- Does the evaluation process involve consulting all the male and female stakeholders, and ensuring their full participation at all stages of the project cycle?

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Glossary of Gender Terms

CONCEPT	WHAT DOES IT MEAN?
Sex/gender	Basic dichotomy in analysis of male/female differences.
Sex	The biological differences between women and men. People are born female or male, with different bodies and different chemistry.
Gender	The socially constructed differences between women and men. Babies are born girls and boys who learn how they are expected to think and behave as women and men. This differs from one culture and society to another, changes over time, and defines who has power and influence over what.
Gender relations	The social relationships between women and men that reflect and reproduce gender difference as constructed in a particular context, society and time. They express differentiated power, rights, responsibilities, and values, as well as mutuality; gender relations intersect with other social relations based on age, class, ethnicity, race, sexuality and disability.
Types of gender policy	<i>Gender-blind</i> - ignores the different socially determined roles, responsibilities and capabilities of men and women. It is based on information derived from men's activities and/or assumes those affected by the policy have the same (male) needs and interests. <i>Gender-neutral</i> - is not specifically aimed at either men or women and is assumed to affect both sexes equally. However, it may actually be gender-blind (see above). <i>Gender-specific</i> - recognises gender difference and targets either men or women, within existing roles and responsibilities. <i>Gender-redistributive</i> - seeks to change the distribution of power and resources in the interests of gender equality.
Gender balance	Equal or fair distribution of women and men within an institution or group, giving equality of representation.
Gender equality and equity	These concepts are not the same, although often used interchangeably. <i>Equality</i> is rights-based. Women and men have equal rights, enshrined in international standards and treaties and should have the same entitlements and opportunities. <i>Equity</i> means justice so that resources are fairly distributed, taking into account the different needs of women and men, girl and boys. It is best used linked clearly to rights, as an outcome of gender equality.
Gender division of labour	The work and responsibilities assigned to women and men on the basis of their gender identity. In most societies, men's work is more highly valued than women's work. Much of women's work is unpaid and unrecognised.
Women's triple role	Moser identified three categories of women's work: <i>reproductive</i> (care and maintenance of the household and all its members); <i>productive</i> (production of goods and services for consumption and trade); and <i>community-based</i> (organisation and management of collective events, services and politics). Men share the last two but rarely the first, which in most societies is not considered as work.
Practical and strategic needs	<i>Practical gender needs</i> arise from the different material conditions of women and men; they reflect women's subordinate position in society but do not include challenging it. <i>Strategic gender needs</i> of women and men arise from their position, status and power. Women's strategic gender needs may include

	ownership rights to land and challenging the gender balance of power and control to achieve gender equality. The concept of practical and strategic gender needs as planning tools was developed by Moser as a way of expressing the different experience and expectations of women and men. In practice, the distinction between practical and strategic is not always clear-cut. A practical gender need for women may be a water source nearer to home, but this could also free time for women to access skills training - a strategic interest.
Condition and position	Used to differentiate between material conditions, in which women and men live, and position or status they hold in society.
Development approaches WID/GAD	Women in Development (WID), and Gender and Development (GAD) refer to two essentially different approaches to development. WID is based on the assumption that women are 'left out' of development, and need special projects to 'integrate' them. Gender relations and power inequalities are not addressed, and women's participation is often passive. GAD is based on gender analysis and sees gender equality as a fundamental development goal, with women's empowerment and agency as key features of development strategy.
Gender mainstreaming	A strategy first articulated by ECOSOC in 1997 with GAD goals and a commitment to gender equality in all aspects of policy and programme design and implementation. Its aim is to transform the 'mainstream' at all levels to end gender discrimination. When transformation of gender relations is not part of the agenda, mainstreaming can be a WID strategy in disguise, in which gender issues are 'mainstreamed' to the point of invisibility.
Frameworks	There are a number of frameworks for gender analysis and planning that are commonly used in gender training and throughout the planning cycle of projects and programmes. Four of the most widely used are the Moser framework, Harvard framework, Longwe Empowerment framework and the IDS Social Relations framework. The Capacities and Vulnerabilities framework (CVA) and the People-Oriented Planning framework (POP) also contain tools useful for gender mainstreaming, as does the Gender Analysis Matrix (GAM) developed by UNIFEM.
Sex disaggregation	Identifying and highlighting the differences for women and men in all aspects of life. It is particularly important for understanding gender differences within units of analysis such as 'household', 'family', 'community', 'market' and 'nation'.
Gender analysis	Based on sex-disaggregated data and the accounts of women and men, it goes further to examine why the observed differences exist. It explores the history, mechanisms, dynamics and effects of gender relations. It examines the structural causes of gender inequalities from the household to the nation state, making links between these levels and uncovering resulting sex discrimination in access to rights, power and resources.
Access and control	Access to resources means being able to use them; <i>control</i> over resources means deciding who may use them, and how. Part of the Harvard gender framework analysis.

Focus Activity – Gender Diagnosis of National Water Policies

Let us look more closely at National Water Policies for Trinidad and Tobago; Grenada; St. Kitts and Nevis; and St. Lucia from a gender perspective.

ACTIVITY – GENDER DIAGNOSIS OF POLICY

Instructions

In your group, make use of a) Kabeer's categories of gender-aware policies; and b) the thirteen (13) factors for creating an enabling environment for gender mainstreaming in policy and planning, and determine the extent to which the respective National Water Policies are gender sensitive and gender-based.

Group I – St. Lucia

Group II – Grenada

Group III – Trinidad and Tobago

Group IV – St. Kitts and Nevis

Identify the key policy statements. List these statements in the table in Activity Handout, THEN determine to what extent each policy statement gender-blind, neutral, specific or redistributive? Use the Table in the **Activity Handouts 1 and 2** provided to chart your conclusions.



Gender Equality and Gender Justice

TICK THE APPROPRIATE BOX. (NB: GB – Gender Blind, GN – Gender Neutral, GS – Gender Specific, GR – Gender Re-distributive)

	STATEMENT	GB	GN	GS	GR
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					



Activity 2 - Enabling Environment 2 - G10

Enabling Factor	Yes (Please Tick)
1. Political Will/Executive Advocacy	
2. Strong National Machinery/Creation of Appropriate Structures and Systems	
3. Gender Focal Points in Ministries	
4. Institutional Framework – Legislative Support	
5. People Oriented Planning as a context for GMS/Stakeholder Involvement and Participatory Decision Making	
6. Services: Multi-targeting and Multi-tracking	
7. Sex Disaggregated Data and Statistics	
8. Research/Gender Sensitive Strategic Planning	
9. Ongoing Training/Training of Trainers	
10. Gender Inclusive Language	
11. Gender-based Budgeting and Accounting	
12. Gender Sensitive Consultants/Experts	
13. Project Monitoring & Evaluation	
14. Gender Audits	

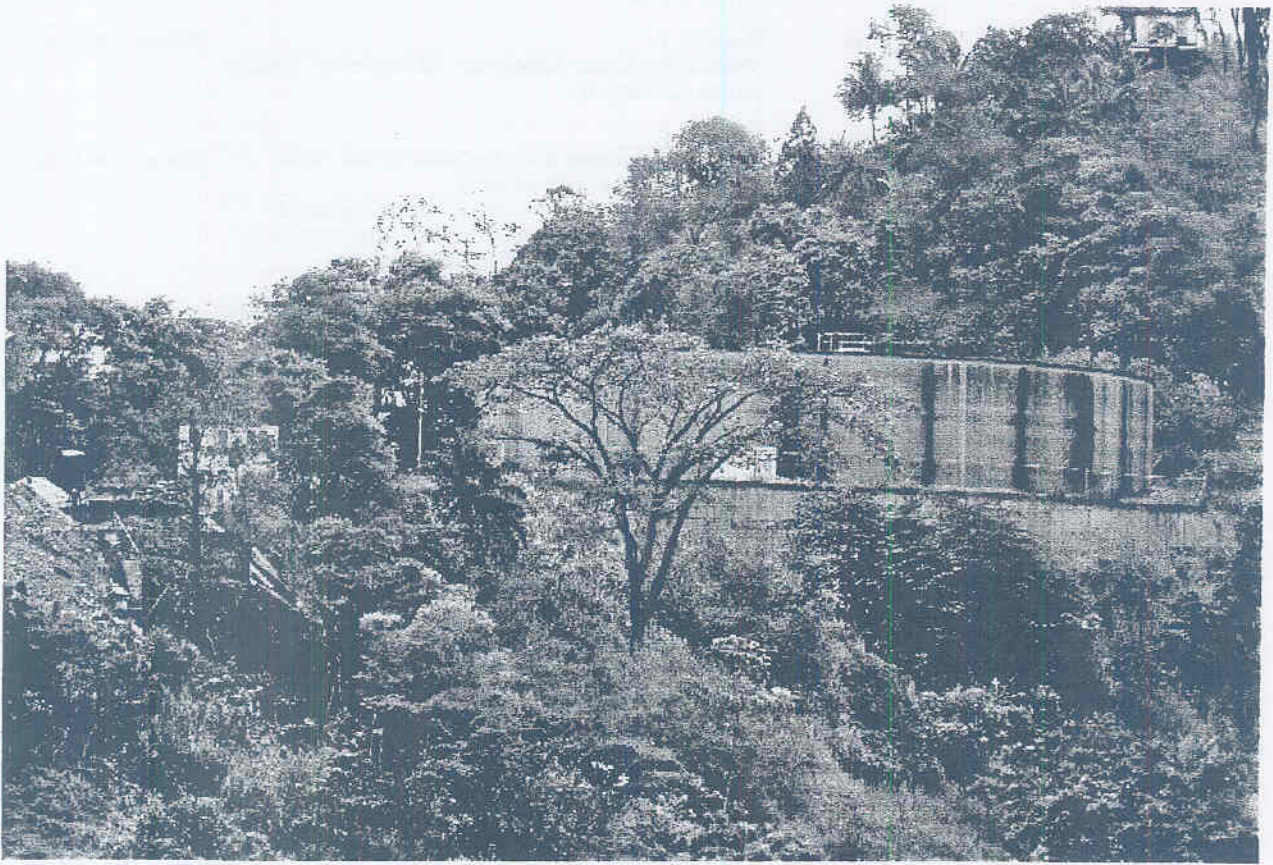
DAY 3

Module 3 – Gender Mainstreaming in Integrated Water Resources Management (1)

The module aims at assisting the mainstreaming of gender within projects with practical tools for situational assessment, analysis and planning. It aims at demonstrating simple, learner-centered, gender-and poverty-sensitive participatory tools that can be used at the policy, programme and project levels.



WGWN-CGDS Training Workshop Schedule				
Day 3: GENDER MAINSTREAMING				
	Module 3:		Wednesday 9th April, 2008	
	Gender Mainstreaming in Integrated Water Resources Management (1)			
	The module aims at assisting the mainstreaming of gender within projects with practical tools for situational assessment, analysis and planning. It aims at demonstrating simple, learner-centered, gender- and poverty-sensitive participatory tools that can be used at the policy, programme and project levels.			
A.M.		Duration		Facilitator
	8.00 - 8.45	45 min	Recap and Overview of Day 2 Group Activity	Gwendoline Williams
	8.45 - 9.45	1 hr	Session 1: Developing Water Resources Management Policies in the Caribbean	Marilyn Crichlow
	9.45 - 10.45	1 hr	Session 2: Gender Mainstreaming: Definitions and Tools, Mainstreaming Methodology Powerpoint Presentation: <u>Gender Mainstreaming in Public Policy Formulation and Project Cycle Process - Applications to IWRM Projects and Policies</u>	Gwendoline Williams
BREAK	10.45 - 11.15	30 min		
	11.15 - 12.15	1 hr	Session 3: Issues of Project Cycle and Public Policy in IWRM	Marilyn Crichlow
LUNCH	12.15 - 1.00	45 min		
	1.00 - 2.45	1 hr 45 min	Session 4: Group Session:	Gwendoline Williams Marilyn Crichlow
	2.45 - 3.00	1 hr	Summary and Evaluation of Day 3	Gwendoline Williams
BREAK	3.00 - 3.15	15 min		
	3.15 - 4.00	45 min	Session 4: Field Trip Instructions and Methodology (25 mins) Video Presentation: Living with the Nariva Swamp Field Trip Plan: Background, Focus, Learning Objectives, Expected Outcomes, Wear (shoes), Safety Guidelines	David Dolly Grace Sirju-Charan
	4.00 - 4.15	15 mins	Instructions for Overnight Reading OVERNIGHT READING MATERIAL: Nariva Wetlands: The Great Waterhole Women in Charge: Trinidad Gift of the Gods (A Case Study on Plum Mitán)	Grace Sirju-Charan



SESSION 1:

Developing Water Resources Management Policies in the Caribbean

Marilyn Crichlow

SESSION 2:

Gender Mainstreaming: Definitions and Tools, Mainstreaming Methodology

Gwendoline Williams and Associates

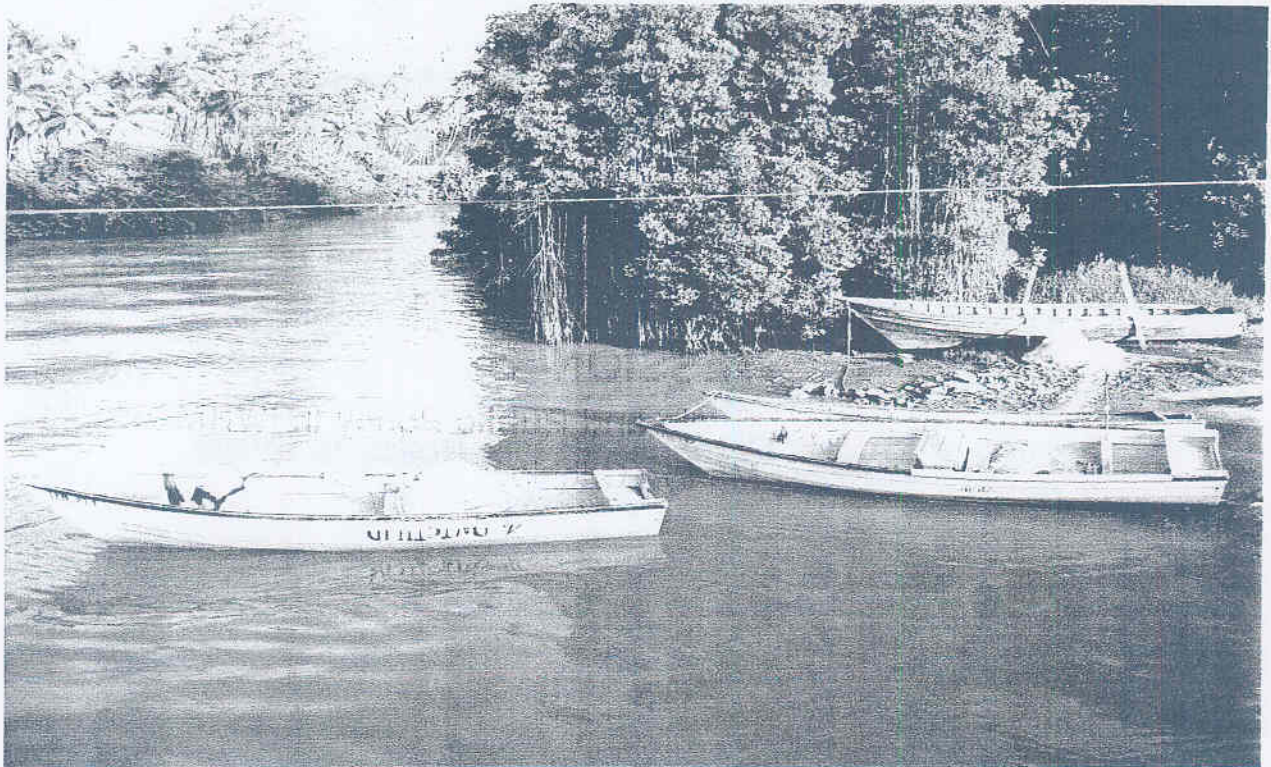
Powerpoint Presentation: Gender Mainstreaming in Public Policy

Formulation and Project Cycle Process – Applications to IWRM Projects and Policies

SESSION 3:

Issues of Project Cycle and Public Policy in IWRM

Marilyn Crichlow



SESSION 4:

Field Trip Preparatory Notes and Considerations

Grace Sirju Charran and David Dolly

NARIVA'S WETLAND COMMUNITIES

THE GREAT WATERHOLE



A Rapid Rural Assessment
of Nariva Swamp Communities



THE GREAT WATERHOLE

7

A RAPID RURAL ASSESSMENT OF NARIVA SWAMP COMMUNITIES

David Dolly

The Nariva Swamp is situated in east Trinidad. It comprises approximately 6200 hectares of land. Inside Nariva associated wetlands and rivers feed into a fairly extensive system which is a large area from Manzanilla Bay in the north east to Radix point in the southeast. The swamp traverses inland from the Atlantic Ocean in a roughly triangular shape for approximately ten to twelve kilometers.

GEOLOGY

Within the wetland system the following geomorphologic elements exists:

- * Barrier beach
- * Shore parallel back barrier brackish lagoon and mangrove swamp
- * Fresh water tropical swamp and marsh forest and meadow
- * Topographically positive active dormant mud volcanoes
- * Fluvial flood plains and channelized feeder rivers.

(Development Planning Associates (2003))

The swamp exists as a result of a barrier to the outflow to the beach that is caused by the beach sand bank. This barrier and a slow infiltration rate in the swamp's subsoil create an ideal meander through flat terrain. The natural water flows which enter the swamp are made to spread out and deposit sediment in a sloping flood plain. There is a Nariva river which connects to the Atlantic Ocean through the wetland. The river is tidal in the dry season. It collects salt from seepage through the sand barrier. This is most evident by the presence of Mangrove forests.

The thin alluvial deposit which has eventually settled is a soft geological formation. Though maintaining excellent vegetation cover, the swamp is a fragile and young geological structure. Under extreme conditions such as natural hurricanes it is possible that the coastal bar will be breached. In so doing the swamp's geological format will be reshaped. Unwarranted human settlement and activity could also begin to encourage harmful erosive outcomes which could eventually impact many inner settlements towards the centre of the island of Trinidad. The swamp is listed under the RAMSAR convention which protects the site as a wetland of international importance.

HYDROLOGY

There is much interchange in Nariva's hydrological cycle. However water is available at all times. There is a catchment area of water which is a fresh water regime. This depends on local climate and climate variations, land use, deforestation and river diversions. This fresh water system supplies a swamp basin regime which depends on diversions, drainage, evaporation rates and vegetation disturbance. Human settlement activity will directly influence the basin. Thirdly there is a tidal regime in which there are lagoons and marine exchanges. Coastal dynamics and sea level changes will influence this component.

FLORA AND FAUNA

Most of the swamp consists of palm swamp forest but there is an area of 1500 hectares which occupies highland forest. There is a rich ecology of mangrove, woodland, palm swamp, evergreen forest, and littoral woodland and secondary agricultural vegetation. The swamp is home to more than 70% of mammalian species belonging to the island of Trinidad. Bacon (1979) has inventoried 319 plant species and 614 animal species living in this wetland. There is a wild life sanctuary in the south western corner of the swamp. Therein lies a rich habitat of fauna which characterizes the area.

SWAMP COMMUNITIES

The earliest settlers of the Nariva swamp were Amerinidians. There is evidence of this presence among sand ridges in the beach. Today there are four main communities which inhabit the fringes of the swamp. They are Biche, Plum Mitán, Kernahan and Cascadoux. The former two have more longstanding settlement status. The communities of Kernahan and Cascadoux are resettled populations from their original residences which were further south in Penal, Barackpore and Rio Claro. This internal migration occurred approximately fifty years ago.

Plum Mitán and Biche have much more amenities. There are health and recreation centres, community services, public and protection services. There are pre and primary schools. A recent attempt to establish a secondary school has been aborted after the construction site was unable to support the school which was already built. This matter is still a highly contentious issue. Until recently there was a longstanding and state owned pipe system of water distribution. The system was unreliable and community members chose a natural rain fed system in which community springs were identified and used. Many community members collect water in large plastic containers purchased from local suppliers. The area has adequate drainage systems.

Kernahan and Cascadoux lack in-house health, recreation and school facilities. There is an interfaith centre which serves many community building activities. The communities use rainfed water systems. There is an unreliable truck borne water supply. Likewise there is water storage in large plastic containers. Occasionally swamp water is used after boiling. There are inadequate drainage systems.

Most of the settlement in the Swamp was agrarian. As recent as 1951, the Government intervened and established rice schemes. In 1954 the Food and Agricultural Organisation conducted a study to 'reclaim' 1200 acres in Plum Mitan. Since then several studies and area development programmes were planned after consultations. There is little evidence of outcome and implementation today. This is an indication of the Swamp's autonomy in the natural order of this part of Trinidad. The swamp is still home to the earlier settled communities who depend on it for some degree of livelihood. In so doing they rely on the land, water and plant and animal resources. Much evidence suggests that such livelihood and occupation on a smaller scale is best aligned with the sustainability of the swamp for future generations.

A RAMSAR Monitoring Procedure (1996) has recognized some general characteristics of the Nariva fringe communities. They conclude a population of 5000 who all directly depend on swamp resources. They use the swamp on a regular basis and have close social links with other communities. Each community is characterized by differing degrees of consolidation.

FIELD TRIP OBJECTIVE

The general objective of this field trip is to conduct a rapid reconnaissance survey of the Plum Mitan and Kernahan community in order to understand the issues surrounding access to and control of all water resources which are available. There is a Gendered access to this resource and this access has impact on the lives of community members. Specifically there are several objectives which the exercise will like to obtain in a wider context and reflective of the brief which was earlier presented. These are as follows:

- i. To rapidly participate with community members in order to observe, anticipate and assess their own situations within the context of common resources
- ii. To understand any changes which are likely to be attainable and sustainable for better local control, community organization interactive participation and empowerment.
- iii. To understand gendered access to water resources and use.

PHILOSOPHY ABOUT METHODOLOGICAL CONSIDERATIONS

There is much disillusionment with conventional methodologies that have relied on questionnaire surveys to inform community situations. Many biases are inherent in the conventional approach. Conventional methods are more long term. On many occasions the observations outlive their usefulness given the time lapse between data collection and data analysis. References regarding qualitative research provide much critique of these issues. Readers may wish to access some of these on their own.

The method which will be employed in the field trip therefore belongs to a growing family of methodologies in which local people participate with researchers. In so doing both researchers and community members understand local conditions and situations in order to plan to act and improve their own considerations of 'better'.

The methods are called Participatory Rural Appraisals. They are seen as a learning paradigm in which learning outcomes can more easily change behaviour in desired directions. Participatory methodologies emphasise decentralization, democracy and diversity. Participatory Methods value local knowledge. They are suitable for examining the status of water supply to the two communities selected, identifying any problems and coming up with findings and solutions which would influence policy.

These methods are numerous and have subtle differences. However they elicit a range and quality of information and insights which are only possible by the techniques they employ. Anthropologists have contributed their understanding to the development of these methods. The methods range along a continuum from Rapid Rural Appraisals to a more involved community interaction called Participatory Learning and Action.

A day field trip is still too short to rapidly assess the situations in Kernahan and Plum Mitan. However there is a precursor to a longer (5-7day) and complete rapid rural appraisal called the Rapid Reconnaissance (RR) Technique. In the decade of the 1970's this was the first attempt to obtain data differently. They led to an earlier process called the Sondeo. This method usually extended for two weeks and 'sounded out' situations with the use of multidisciplinary teams. The very short version of this will be now employed on this visit.

A video presentation of the Centre for Gender and Development Studies at Saint Augustine will be presented for discussion in regard to some practical applications of this philosophy.

Team Composition

Workshop participants will represent multidisciplinary teams of differing professional and skilled capacities. There will be a mix of Gender, Outsiders and Insiders.

Sources of information

To meet the specific and general objectives of the field trip the researchers will ensure diverse source information from men and women, young and old, notables and typical, different ethnicities, classes and religions, newcomers and old timers, specialist and key informants.

Preparing for the trip:

"Thumb-nail sketches": Find out as much as you can about the communities from secondary sources (published papers; video-tapes, newspaper articles, oral reports from colleagues...) and use this to prepare a THUMB-NAIL SKETCH of each community. For this project you would emphasise information on water supply and the uses of water. Data (maps, GIS etc) which would allow you sketch a map of the area with the major and minor roadways and waterways, location of houses) is also desirable. This will be further elaborated on during the field trip.

Preparing the materials required for the research

- * Prepare the research question(s)
- * Have a copy of the map you sketched
- * Compile a list of objectives and the type of information that would be useful to get.
- * Prepare a list of questions which may be asked at the interview, but be prepared to ask new ones as information unfolds. Unlike a formal questionnaire survey in which there is a pre-determined hypothesis to be tested, new issues and direction of the study emerge as the information is being collected. (Be creative and innovative!)
- * Try to carry out some ranking exercise (Google: "preference ranking")
 - prioritizing problems/ solutions.

Techniques

The main technique will be interviews and participatory observations, given the short time participants will spend with the communities. However facilitators will make participants aware of other popular tools which have become part of the repertoire of Participatory Learning and Action. These are: Mapping, Transects, Interviews, Ranking, Calendars and Venn Diagrams.

When you arrive at the community you will be engaged in OBSERVING; CONVERSING (with community members) AND RECORDING (on data sheets, journal...video/audio-tapes). The techniques you will be using will be observation and open-ended interviews using tools of Gender Analysis. Unlike a formal questionnaire survey

Begin your observation as you begin to drive through the community (windshield survey of the land use 100 meters away on each side of the road- this will be inserted on your map). If time permits you can do the mapping using a "Transect walk" (Find out more about this technique).

During the interview process:

- * Be relaxed, not rushed
- * Listen, not lecture
- * Probe not gloss over
- * Seek out the marginalized, voiceless(Women?) not only the empowered
- * Remember an academic team of 3-4 can be quite intimidating!
- * Take time after each interview, to consult as a team makes notes here as well.

WGWN-CGDS Training Workshop Schedule				
Day 4: FIELD VISIT				
Module 4: Thursday 10th April, 2008				
Field Trip & Practical Session in Plum Mitan and Kernahan, Trinidad				
This module provides the opportunity for participants to discuss, examine and apply tools provided thus far to community-based water management system.				
A.M.		Duration		Facilitators
7:00		15 min	Assemble for Departure CDGS	David Dolly
7:30			Depart for Plum Mitan	Grace Sirju-Charan
9:30		30min	Arrive at Rose Rajbansie , Plum Mitan , Refresh	
10:00		1hr 30min	Travel to Spring, Begin Rapid Reconnaissance.	
11:30		1hr	Travel to Brigand Hill Light House	
LUNCH		1 hr	LUNCH Catered by Rose Rajbassie, Plum Mitan	
1.30		1hr	Continue Rapid Reconnaissance	
2.00		1hr	Observations in Kernahan	
BREAK				
2:30		30 min	Depart for Kernahan	
3:00		2hr	Observations in Kernahan	
5:00		2hr	Depart for St. Augustine	

REFERENCES

- Bacon, P. R. (1996) Water management for sustainable development in the Nariva Swamp. Presented at the Nariva Swamp Seminar- Caribbean Forest Conversation Association, UWI Saint Augustine
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- Dolly D. Young G. (Ed) (1990) Report of a Rapid Reconnaissance Survey of Saint Andrew /Saint David. MFPMEF AND DAE, UWI, Trinidad and Tobago
- Sirju –Charan G. (2007) Brief for Field Trip to Kernahan and Plum Mitan, Preparatory Notes CGDS.
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- RAMSAR Advisory Mission Reports: No 35, Nariva Swamp, Trinidad and Tobago (1995) www.ramsar.org/ram_rpt_35e.htm
- Tones A. (2005) Participatory Learning and Action (PLA) a Training Manual to Accompany the Post Conference Workshop AIAEE Annual Conference, Junction, Texas, May29-31 2005
- Wahab A. (1997) The Status of Women in the Nariva Wetland communities; A Case Study. Unpublished

READINGS

IN RELATION TO TO FIELD TRIP LOCATION

Nariva's Wetland Communities: The Great Waterhole

David Dolly

Women in Charge: Trinidad

Grace Sirju Charran, Jill S. Schneiderma, Rhoda Reddock

A Gift from God: Gender and Feminist Ethnography of Water in Three Trinidadian Communities

Dianna Fox, Heidi Savery, Ron Dalton



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GENDER & WATER TRAINING WORKSHOP Caribbean 2008

**GENDER MAINSTREAMING AND INTEGRATED WATER
RESOURCES MANAGEMENT IN THE CARIBBEAN**

7th to 11th April 2008



DAY 4

Module 4: Field Trip & Practical Session in Plum Mitan, Trinidad

This module provides the opportunity for participants to discuss, examine and apply tools provided thus far to community-based water management system.



Day 4: FIELD VISIT

Module 4:

Thursday 10th April, 2008

Field Trip & Practical Session in Plum Mitan and Kernahan, Trinidad

This module provides the opportunity for participants to discuss, examine and apply tools provided thus far to community-based water management system

A.M.	Duration		Facilitators
7:00	15 min	Assemble for Departure CDGS	David Dolly
7:30		Depart for Plum Mitán	Grace Sirju-Charan
9:30	30min	Arrive at Rose Rajbansie , Plum Mitán , Refresh	
10:00	1hr 30min	Travel to Spring, Begin Rapid Reconnaissance.	
11:30	1hr	Travel to Brigand Hill Light House	
LUNCH	1 hr	LUNCH Catered by Rose Rajbassie, Plum Mitán	
1.30	30min	Travel to Kernahan	
2.00	1hr	Continue Rapid Reconnaissance	
BREAK		BREAK for Watermelon grown in Kernahan, meet at village shop	
3:30	2hr	Depart for Kernahan	
5:30	2hr	Return to Campus	

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REFRESHER: FIELD TRIP TO PLUM MITAN AND KERNAHAN

David Dolly and Grace Sirju-Charran

THINGS TO REMEMBER:

"Thumb-nail sketches"

- information on water supply and the uses of water
- Data (maps, GIS etc)
- sketch a map of the area with the major and minor roadways and waterways, location of houses)

Preparing the materials required for the research

- * Prepare the research question(s)
- * Be prepared to ask new ones as information unfolds
- * Have a copy of the map you sketched
- * Compile a list of objectives and the type of information that would be useful to get.

SUGGESTED QUESTIONS

- 1) List the various water resources in your community indicating the use made for each source and the time of year when they are used.
- 2) Are there any water-saving practices that you use?

DURING THE RESEARCH PROCESS:

Begin your observation as you begin to drive through the community (windshield survey of the land use 100 meters away on each side of the road – this will be inserted on your map). If time permits you can do the mapping using a "Transect walk"

During the interview process:

- * Be relaxed, not rushed
- * Listen, not lecture
- * Probe not gloss over
- * Seek out the marginalized, voiceless(Women?) not only the empowered
- * Remember an academic team of 3-4 can be quite intimidating !
- * Take time after each interview, to consult as a team- make notes here as well.

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GENDER & WATER TRAINING WORKSHOP Caribbean 2008

GENDER MAINSTREAMING AND INTEGRATED WATER RESOURCES MANAGEMENT IN THE CARIBBEAN

7th to 11th April 2008



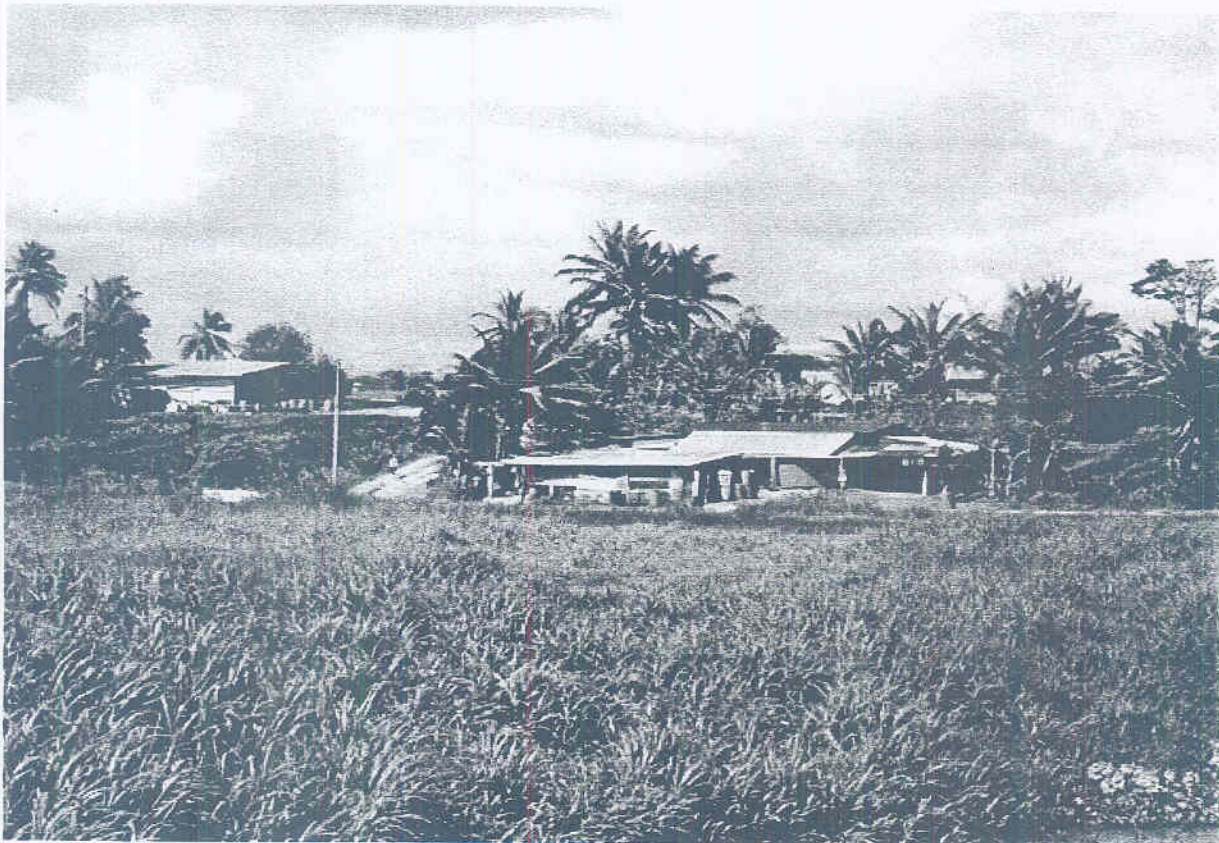
Global Water
Partnership
Caribbean



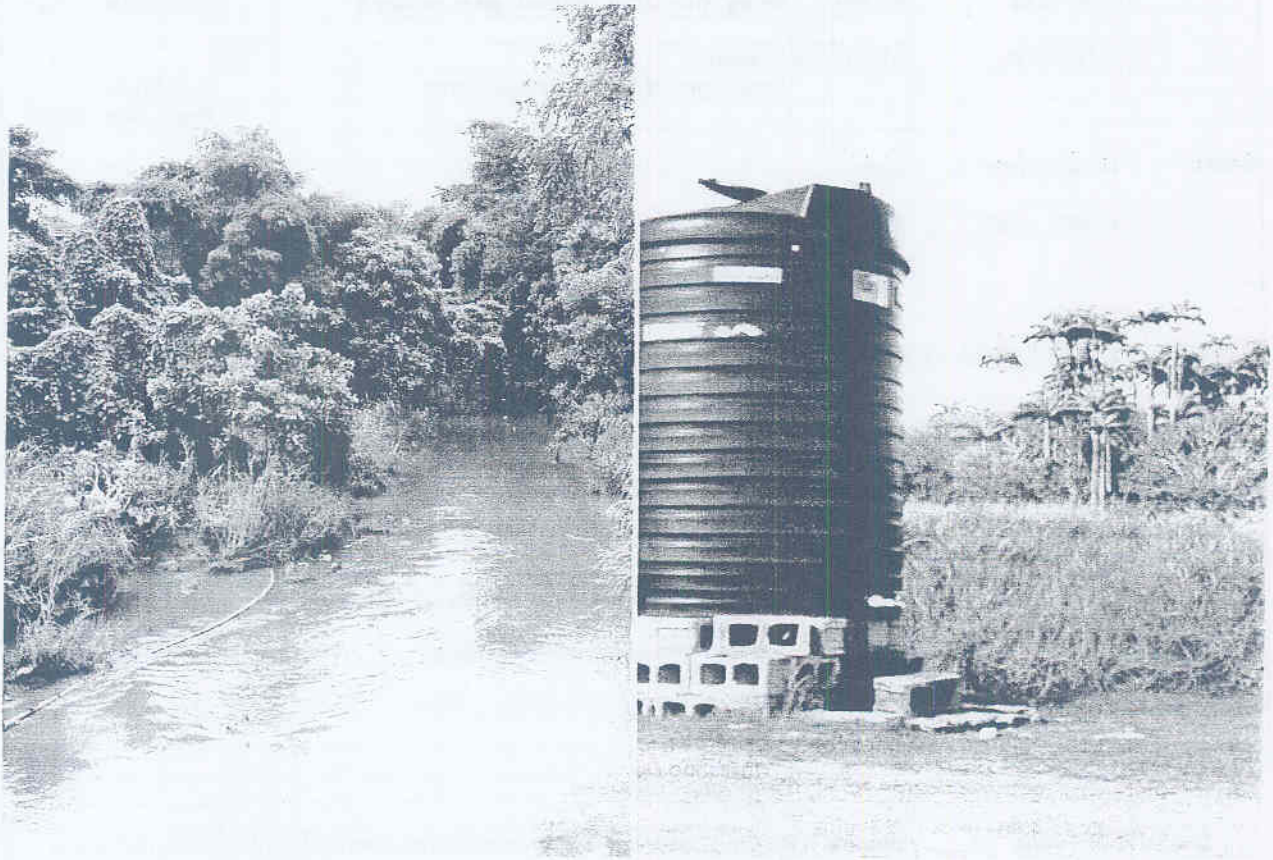
DAY 5

Module 5: Gender Mainstreaming in Integrated Water Resources Management (2)

This module looks at tools for formulating policies and designing or influencing organizations to be gender-sensitive. It also allows participants to make presentations of their completed action plans which will be based on all that have been learnt during the week.



WGWN-CGDS Training Workshop Schedule				
Day 5: MANAGEMENT OF CHANGE				
	Module 5:		Friday 11th April, 2008	
	Gender Mainstreaming in Integrated Water Resources Management (2)			
	This module therefore looks at tools for formulating policies and designing or influencing organisations to be gender-sensitive. It also allows participants to make presentations of their completed action plans which will be based on all that have been learnt during the week.			
A.M.		Duration		Facilitator
	8.00 - 8.45	45 min	Recap, Overview and Evaluation of Day 3	Gwendoline Williams
	8.45 - 10.30	1 hr 45 min	Session 1:	
			Reflections of Field Trip Experience	David Dolly
				Grace Sirju-Charan
BREAK	10.30 - 11.00	30 min		
	11.00 - 12.00	1 hr	Session 2a:	Deputy Speaker
			Gender Mainstreaming in Organisations and Institutions:	Penelope Beckles
			Presentation of Reviewed Water Management Policies	
LUNCH	12.00 - 1.00	1 hr		
	1.00 - 2.00	1 hr	Session 2b:	Deputy Speaker
			Gender Mainstreaming in Organisations and Institutions:	Penelope Beckles
			Presentation of Reviewed Water Resources Management Policies	
	2.00 - 3.00	1 hr	Session 3:	Gwendoline Williams
			Final Critique of the Water Resources Management Policies.	Deputy Speaker
			Recap of Workshop and Next Steps	Penelope Beckles
BREAK	3.00 - 3.15	15 min		
	3.15 - 3.45	30 min	Session 4:	
			Workshop Evaluation	
	3.45 - 4.00	15 mins	Closing Ceremony and Distribution of Certificates of Participation	Rhoda Reddock
				Gwendoline Williams



SESSION 1

Reflections of Field Trip Experience

David Dolly

Grace Sirju Charran

SESSION 2

Gender Mainstreaming in Organisations and Institutions: Presentation of Reviewed Water Management Policies

Deputy Speaker Penelope Beckles

SESSION 3

Final Critique of the Water Resources Management Policies

Deputy Speaker Penelope Beckles

[illegible]



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ST. AUGUSTINE, TRINIDAD AND TOBAGO, WEST INDIES

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GENDER & WATER TRAINING WORKSHOP Caribbean 2008

GENDER MAINSTREAMING AND INTEGRATED WATER RESOURCES MANAGEMENT IN THE CARIBBEAN

7th to 11th April 2008



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APPENDIX : READINGS

Chapter 2 Gender and Integrated Water Resources Management (IWRM)¹

2.1 Introducing IWRM

Integrated Water Resources Management (IWRM) is a systematic process for the sustainable development, allocation, and monitoring of water resources. The concept and principles of IWRM were articulated at the International Conference on Water and Environment held in Dublin in 1992 and in Chapter 18 of *Agenda 21*, a consensus document from the United Nations Conference on Environment and Development (UNCED), held in Rio also of 1992.

IWRM is a cross-sectoral holistic approach to water management, in response to the growing competing demands for finite freshwater supplies. It is an approach that aims to ensure the coordinated development of water, land and related resources to optimise economic and social welfare without compromising the sustainability of environmental systems (Global Water Partnership, 2000). Policy makers, analysts, international organisations and governments have sought consensus on principles to guide the setting of priorities, policy making and the elaboration of specific initiatives in IWRM. Key principles include:

- Water should be treated as an economic, social, and environmental good.
- Water policies should focus on the management of water as a whole and not just on the provision of water.
- Governments should facilitate and enable the sustainable development of water resources by the provision of integrated water policies and regulatory frameworks.
- Water resources should be managed at the lowest appropriate level.
- Women should be recognised as central to the provision, management and safeguarding of water.

The application of IWRM as a philosophy, policy, and implementation guideline can assist in addressing the:

- Need for improved water governance and for increased coordination and collaboration among various water sectors, such as drinking water supply and sanitation, irrigation, and ecosystem maintenance.
- Potential competition and conflicts among different stakeholders from all sectors and among individuals, communities, and governments.
- Environmental degradation that is threatening all life on the planet.
- Gender and social disparities in terms of equitable access to and control over resources, benefits, costs, and decision making between women and men.
- Need for sustainable water resources development as a key to poverty eradication.

2.2 Introducing Gender

Gender mainstreaming is the process of assessing the implications for women and men of any planned action, including legislation, policies and programmes in all areas and at all levels. It is a strategy for making women's as well as men's concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of policies and programmes in all political, economic and societal spheres, so that women and men can benefit equally and

¹ Source: UNDP/GWA – Gender Water Alliance/CAP-NET/IRC. "Mainstreaming Gender in Water Management". November 2006

inequality is not perpetuated. The ultimate goal is to achieve gender equality [*by transforming the mainstream*] (ECOSOC, 1997, emphasis added).

In the area of water resources management, an uncoordinated and sectoral approach has resulted in environmental degradation from overexploitation of water resources, inappropriate allocations among competing uses, inequitable distribution of benefits and burdens, and inadequate operation and maintenance of infrastructure. Inadequate involvement of both women and men has hindered programmes and projects aimed at addressing sustainability in water resources management. Community participation and management approaches have failed to address these issues, largely because communities are often seen as a collection of people with a common purpose.

The reality is that a community is not a collection of equal people living in a particular geographic region. It is usually made up of individuals and groups who command different levels of power, wealth, influence and ability to express their needs, concerns and rights. Communities contain competing interest groups. Where resources are scarce, there is competition for supplies, and those at the lowest end of the power spectrum - poor women and men - will go without. Unequal power relations place women in a disadvantaged position. Applying a gender analysis helps water sector agencies allocate their resources better to meet the needs of different women and men and marginalised groups.

People-centred approaches do not always ensure that gender perspectives are taken into account. Thus, a deliberate strategy of gender mainstreaming can be useful to ensure that these issues that effect women and men are part of analysis, programme and project planning, implementation, and evaluation. More importantly, gender mainstreaming can assist in bringing about institutional and organisational change necessary to ensure gender equality as an on-going commitment.

2.3 Defining Gender

Gender refers to the different roles, rights, and responsibilities of men and women and the relations between them. Gender does not simply refer to women or men, but to the way their qualities, behaviours, and identities are determined through the process of socialization. Gender is generally associated with unequal power and access to choices and resources. The different positions of women and men are influenced by historical, religious, economic and cultural realities. These relations and responsibilities can and do change over time.

In this Guide, the use of the term gender also recognises the intersection of women's experience of discrimination and violation of human rights not only on the basis of their gender but also from other power relations that result from race, ethnicity, caste, class, age, ability/disability, religion, and a multiplicity of other factors including whether they are indigenous.

Women and men are defined in different ways in different societies; the relations they share constitute what is known as gender relations. Gender relations constitute and are constructed by a range of institutions such as the family, legal systems, or the market. Gender relations are hierarchical relations of power between women and men and tend to disadvantage women. These hierarchies are often accepted as 'natural' but are socially determined relations, culturally based, and subject to change over time. Gender relations are dynamic, characterised by both conflict and co-operation, and mediated by other axes of stratification, including caste, class, age and marital status or position in the family.

Sex differences such as the ability to give birth are biologically determined and are different from socially prescribed gender roles.

Recognising the above, a gender analysis refers to a systematic way of looking at the different impacts of development on women and men. Gender analysis requires separating data by sex

and understanding how labour is divided and valued. Gender analysis must be done at all stages of the development process; one must always ask how a particular activity, decision, or plan will affect women differently from men (Parker, 1993).

2.4 The Historical Framework of Gender

Women and Gender approaches in development have evolved over past decades. Until the early 1970s, development policies addressed the needs of poor women entirely in the context of their role as wives and mothers. Known now as the 'welfare' approach, the focus was on mother and child health, childcare, and nutrition. It was assumed that the benefits of macro-economic strategies oriented towards modernisation and growth would trickle down to the poor, and that poor women would benefit as the economic position of their husbands improved. Women were passive recipients of benefits. Water and sanitation services were defined in the context of health care and hygiene, which were seen as women's responsibilities.

From the 1970s and 1980s, the Women in Development (WID) approach aimed to integrate women into the existing development process by targeting them, often in women-specific activities. Women were usually passive recipients in WID projects, which often emphasised making women more efficient producers and increasing their income. Although many WID projects improved health, income, or resources in the short term, they did not transform unequal relationships, and a significant number were not sustainable. A common shortcoming of WID projects was that they did not consider women's multiple roles or that they miscalculated the elasticity of women's time and labour.

From the late 1980s on, the Gender and Development (GAD) approach was developed with the objective of removing disparities in social, economic, and political balances between women and men as a pre-condition for achieving people-centred development. Much of the work in the water sectors today is informed by this approach. However, there are many perspectives in this approach and no one blueprint for enabling equality and equity in water resources management.

Both WID and GAD approaches are still in use.

In recent years, a gender and empowerment approach has attempted to transform existing gender relations by stressing women's self-empowerment.

2.5 Principles of IWRM and their Gender Implications²

Integrated Water Resources Management (IWRM) offers an opportunity to create a paradigm shift in water resources management. The global environmental crisis, growing poverty in urban and rural areas, and continued gender inequalities all point to the need for a different governance approach to water use and management.

Applying this approach requires cohesion among the different institutions, policy, and regulatory frameworks and deliberate measures that take account of environmental sustainability and an intersectional analysis. Gender in this context is not a sufficient point of analysis without also considering intersecting identities of race, class, caste, ethnicity, age, ability, and geographical location.

- **Water should be treated as an economic, social, and environmental good.**
 - Freshwater is valuable and limited. Water supply services and infrastructure are economic activities, while at the same time, access to basic water supply is a fundamental human right. Water use for sanitation and domestic purposes, which tends

² Adapted from: Wijk-Sijbesma, 1998 and Thomas et al, 1997.

- to be the responsibility of women, should be incorporated into the assessments of economic values of the use of water. Women often have no rights to land and water, and development efforts may negatively affect their livelihoods.
- While it is desirable for water supply to be paid for, it is also important to take into account people's ability to pay. Women's interests and gender relations are often overlooked. If charges for domestic water supply have to be paid, both men and women should be involved in determining the rates. Even though women often do not have control over cash, they are still expected to pay for water and sanitation, more than men, because they are the main users and it is considered their responsibility. A gender and social equity analysis of demands is required.
 - Access to basic amounts of water supply as a social good and human right needs to be included in policies and planning. Increased charges for water should not apply to meeting basic human needs and should not reduce water minimum consumption for cooking and hygiene.
- **Water policies should focus on the management of water and not just on the provision of water.**
 - Governments and local stakeholders should be key actors in water management.
 - The private sector can play a role in providing water supply services for greater efficiency. National governments need to retain responsibility for oversight of water quality and for regulating and monitoring private providers. The government is also responsible for ensuring that the water supply needs of the whole population are met. Companies solely interested in making a profit will not be concerned about low-income households, domestic water users and those who use water sources and water catchments for their basic necessities of life. Women are heavily represented in these categories.
 - With increased privatisation, capacity building of local communities becomes more important, and it should be ensured that women and men benefit equally from capacity building initiatives.
 - **Governments should facilitate and enable the sustainable development of water resources through the provision of integrated water resources policies and regulatory frameworks.**
 - Holistic water management is needed because actions taken in one water sector have an impact on water availability, quantity and quality in another. Such impact is different for men and women, between and even within households, and according to sex, age and status.
 - At higher levels coordination within countries and ministries is necessary, including coordination at sub-national levels, and women's interests and rights need to be taken into account.
 - **Water resources should be managed at the lowest appropriate level.**
 - Participation by all stakeholders leads to better water management. Because of women's traditional roles in water resources management, they have knowledge which should be included in planning and practice.
 - The lowest level is most important to ensure that decisions are supported by those who implement water projects on the ground. These are often women. Female-headed households tend to have less bargaining power in communities than male-headed households. A specific effort to include them is needed.
 - **Both women and men should be recognised as central to the provision, management and safeguarding of water.**
 - Campaigns to reduce water wastage should target men and women and especially industries and institutions that waste water.

- Women's skills and knowledge are crucial for the effective and efficient management of water.
- More attention is needed to control pollution and to improve water quality and sanitation for the benefit of women who collect domestic water and to improve health.

2.6 Why use a gender perspective in Integrated Water Resources Management?

A gender perspective in IWRM is necessary for a variety of reasons, as outlined in the sections below.

2.6.1. Concern for effectiveness and efficiency in water sector programmes and projects.

Involving both women and men in integrated water resources initiatives can increase project effectiveness and efficiency. Participation by both women and men improves project performance and improves the likelihood of sustainability. In other words, a project is more likely to achieve what planners hope it will achieve if women and men (both rich and poor) are active participants and decision makers.

In addition to a vast body of anecdotal evidence, three specific studies have looked at this issue:

Voice and Choice for Women - Linkages on Demand, Gender and Poverty from 44 Water Schemes in Asia and Africa. A research project of the UNDP/World Bank Water and Sanitation Programme. 2001.

Preliminary findings appear to validate the hypothesis that water services will be better sustained and used by the communities if institutions and policies enable the communities (men and women, rich and poor) to initiate the service, take informed decisions about the type of service management and financing systems and build capacities to maintain and manage the services so that burdens and benefits are equitably shared

A World Bank review of 121 rural water supply projects

This review found that women's participation was among the variables strongly associated with project effectiveness. Furthermore, it was found that the failure to take gender differences and inequalities into account can result in failed projects. For example, in India, compost pits located outside villages went unused, and women continued to deposit waste near their homes - even when fined for doing so - because they did not wish to be seen carrying loads of refuse to the outskirts of the village. If there had been consultation with women, perhaps this problem could have been avoided (Narayan, 1995).

IRC study of Community Water Supply and Sanitation projects

A study by the International Water and Sanitation Centre (IRC) of community water supply and sanitation projects in 88 communities in 15 countries found that projects designed and run with the full participation of women are more sustainable and effective than those that do not involve women as full partners (Wijk-Sijbesma, 2001).

Although research has tended to focus on the water supply and sanitation sector, the same trend can be seen in other water sectors as well. The positive impact of paying attention to gender issues can be seen in the Philippines Communal Irrigation Development Project. This project exceeded physical development targets and appraisal estimates of irrigation intensity and paddy yields. The project's success has been attributed to the full participation of the intended beneficiaries. The project partly draws on a tradition of farmer-built irrigation systems and responds to a cultural context in which women exercise independent land rights. The project's success in the community was attributable to: recruitment of community organisers, two-thirds of whom are women; ensuring membership of both spouses in water user associations; and actively encouraging women to assume leadership roles. It was also noted that women's membership facilitated the payment of fees, because women controlled family finances (Quisuimbing, 1994).

2.6.2 Concern for environmental sustainability

Women and men around the world play distinct roles in managing plants and animals, in use of forests, drylands, wetlands and agriculture. Moreover, gender roles are differentiated in collecting water, fuel, and fodder for domestic use, and in generating income. Due to their distinctive engagements with the natural environment, women's experience and knowledge are critical for environmental management (UNEP, 2004). Using a gender perspective and enabling the integration of women's knowledge of the environment will increase the chances of environmental sustainability.

A watershed management project was initiated in a fragile area of a cloud forest in Mindanao, Philippines. A lake used to generate electricity was silting up from deforestation and soil erosion. There was a need to reduce soil loss and to engage local institutions in monitoring soil loss and soil recovery. The project first invited young men to monitor the water to determine whether the techniques being used for soil conservation were reducing the silting. However, the men were not consistent in monitoring. Women farmers, as well, were brought in to monitor the water without much success. The project then determined that women were more interested in health issues than soil loss. As women learned about how water quality affected the health of their families and the programme expanded to include monitoring for *e coli* bacteria, women became interested and participated. This led to their further engagement in a wider range of environmental activities. Ultimately, the community's involvement led to positive outcomes, such as an increase in the adoption of soil conservation techniques by both men and women farmers (Diamond, et al., 1997).

2.6.3. Need for an accurate analysis of water resources use

Social and economic analyses are incomplete without an understanding of gender and social differences and inequalities. With a gender analysis, planners gain a more accurate picture of communities, natural resource uses, households and water users. Understanding the differences among and between women and men (who does what work, who makes which decisions, who uses water for what purpose, who controls which resources, who is responsible for different family obligations, etc.) is part of a good analysis and can contribute to more effective results.

In Bangladesh, despite the widespread perception that gender issues were not relevant in the impact of floods and flood prevention plans, there are several ways that differences and inequalities among women and men are relevant. Women are responsible for the production and processing of farm food products and for the preparation of food resources in households in rural Bangladesh. Water-related hazards, such as early flash floods, can damage not only the fields producing crops, but also food stores and processing equipment, driving up the prices of food staples. Any disruption in food supply will impact a woman's ability to make a living from existing resources. Women's lack of mobility also limits alternative strategies for coping with stress on family resources, especially if she is the head of household owing to male migration or desertion (Thomas et al, 1993).

The differences and inequalities between women and men influence how individuals respond to changes in water resources management. Understanding gender roles, relations, and inequalities can help explain the choices people make and their different options.

In Alto Piura, Peru, female farmers complained that they always had to irrigate at night, in spite of the official rule that night turns should be equally distributed among irrigators. Since male irrigators had better relations with the irrigators' committee and with the water delegate, they were often more successful in negotiating day turns (from Zwarteveen 1997). If a project aims to provide all irrigators and farmers with equitable access to water resources, then strategies are required to deal with this specific difficulty faced by women.

Gender relations and inequalities influence collective responses to water resource management issues. Women and men tend to organise in different ways. Women often face specific obstacles

to participating in a project, joining a water-users committee, or providing input into a consultation session.

Poor women are less likely to be elected to positions on water committees or village development committees. When asked about the criteria used to elect people to positions of responsibility in the village, interviewees in Zimbabwe repeatedly mentioned two qualifications: i) someone they could respect (for position, influence, hard work or ability to forge consensus over difficult issues), and ii) someone with resources such as a bicycle or cash who could represent the village at district headquarters when required. In addition to not meeting those qualifications, poor women generally have greater constraints on time and labour resources than other women or men. They and their children are likely to be in poorer health and they therefore could benefit most from improvements that bring water supplies closer to their homes. However they are least likely to participate in the collective decision-making that will bring this about (Cleaver, 1998).

2.6.4 Concern for gender equality, equity and empowerment

Without specific attention to gender issues and initiatives, projects can reinforce inequalities between women and men and even increase gender disparities. Although many initiatives are thought to be 'gender neutral', this is rarely the case. Projects and programmes often bring new resources (training, tools, technology, etc.). Whether someone is male or female can influence whether he or she can take advantage of these opportunities. Programmes need to enable both women and men to benefit equally from water initiatives. Gaps between rich and poor women can often increase as a result of development interventions.

An initiative can also serve to reinforce existing inequalities, even when there may be opportunities to help support people's efforts to build more equitable societies and economies. The importance of specific attention to gender and diversity issues is all the more critical given the generally low profile of these issues among many water professionals.

2.6.5 Realisation of international commitments by governments and partners

Governments and development agencies have made commitments to support equality between women and men and to use a gender perspective in all programmes and projects, including those related to water and the environment. Specific commitments include:

- The results of and follow-up to the International Drinking Water Supply and Sanitation Decade (1981-1990) were discussed in consultations in New Delhi in 1990. Although these consultations were limited on the discussion of gender issues, there was a clear call for an increase in women's decision-making and management of water resources.
- The *Dublin Statement* (1992), endorsed by over 100 countries, recognises that women play a central part in the provision, management, and safeguarding of water resources. It recognises the pivotal role of women as providers and users of water and guardians of the living environment and for this reality to be reflected in institutional arrangements for the development and management of water resources.
- Principle 20 of the *Rio Declaration* (1992) states, "Women have a vital role in environmental management and development. Their full participation is therefore essential to achieve sustainable development". *Agenda 21* (1992) contains a chapter on women and sustainable development (Chapter 24) and a chapter on water management (Chapter 18).
- The *Beijing Platform for Action* (1995) highlighted environmental issues as one critical area of concern - "gender inequalities in the management and safeguarding of natural resources and in the safeguarding of the environment". Three strategic objectives were agreed: (1) To involve women actively in environmental decision making at all levels; (2) To integrate gender concerns and perspectives in policies and programmes for sustainable development; and (3) To strengthen or establish mechanisms to assess the impact of development and environmental policies on women.

- The Johannesburg Plan of Implementation of the 2002 World Summit on Sustainable Development (WSSD), para 25(a), includes agreement by governments to: "... support capacity building for water and sanitation infrastructure and services development, ensuring that such infrastructure and services meet the needs of the poor and are gender-sensitive."
- In December 2003 the General Assembly proclaimed (resolution 58/217), the period 2005 to 2015 as the International Decade for Action, 'Water for Life', and called for a focus on the implementation of water-related programmes and projects, "whilst striving to ensure women's participation and involvement in water-related development efforts ...".
- The Millennium Development Goals, which have the same time frame as the 'Water for Life' Decade, include 2015 targets on gender equality and empowerment of women, as well as on safe water and sanitation.

2.6.6 Participatory processes in IWRM initiatives need to recognise inequalities and differences between women and men

Experience demonstrates that participatory processes and 'attempts to involve poor people' do not automatically include women. Attention to gender differences and inequalities is required if participatory development initiatives are to involve women as well as men. Specific issues include:

Power relations in communities. Communities are not harmonious groups with a common set of interests and priorities. There are often strong divisions along the lines of age, religion, class and gender. These power differentials make it difficult for some people to voice opinions that contradict the views of those in power. Power differentials may even affect *who* participates in specific meetings. Outside officials may invite only 'community leaders' (generally men) to participate in consultations.

Intra-household and intra-family relations. Some women may find it difficult to speak out in front of their husbands or fathers (cultural norms of seclusion). They may also believe that discussions relating to family matters (such as issues relating to workloads or gender discrimination in resource entitlements) are not for public forums.

Different constraints to participation. Men and women have different responsibilities and workloads. Women often have less time to devote to new activities. Attending specific meetings may raise problems for women if meetings are set for the times of the day when they tend to be occupied with household responsibilities or childcare. Additionally, formal or informal membership norms in community institutions can also deny women the right to participate.

Different abilities to participate. Given gender biases in education, women and men often have varying literacy levels. Men may also have more experience putting their arguments forward to outsiders and feel more confident dealing with new people than women.

Perceived benefits of participation. Women and men may make different calculations about the costs and benefits of their involvement in participatory processes. Given the already high demands on most women's time, they often have little time to participate fully. Participatory methods are only as good as the people who use them. It is now clear that there is more to participation than a series of exercises. When they are done well, gender-sensitive participatory processes challenge organisations in many ways.

Challenges to Participatory Processes

Skills	Organisations need to develop the skills to facilitate gender-sensitive participatory processes. This requires experience, skills, and the ability to deal with conflict, should it arise.
Time	Participatory processes can take a long time and may require support over a period of years.
Flexibility and Adaptability	The selection and sequencing of tools for participatory processes should be based on specific circumstances. Responding adequately to specific

	contexts requires flexibility.
Support	Participants, both women and men, require support as they explore new issues. It is irresponsible for an outside organisation to encourage people to raise issues of gender inequalities and then not remain to engage with the consequences.
Follow-up	Can the organisation respond to the issues raised? If development cooperation organisations are serious about participatory processes, they must be prepared to act on the priorities identified and issues that emerge.

2.6.7 Participatory methods used to introduce gender equality issues

Beginning in 1992, the German development cooperation agency, GTZ assisted the Zambian Ministry of Agriculture, Food and Fisheries to integrate a participatory approach into its extension services. Extension officers used participatory methods to assess farmers' priorities, which led them towards a multi-sectoral approach to the programme. They used seasonal calendars to plan extension activities at times convenient to farmers. They began to involve farmers in monitoring and evaluating of the outcome of extension efforts. However, an evaluation revealed that women were not benefiting from the improved participatory approach to extension services provision. The staff began to make concerted efforts to address the problem and involve women in the programme. As awareness grew, two three-day workshops helped couples to analyse gender relations in their households. The case study raises several key points:

- Gender is not always the sensitive topic some claim it to be. With the right methods, attitudes, and approaches, local people and staff members welcome discussion about it.
- Gender is not a foreign, theoretical concept, and women and men can address it.
- Gender should be inherent in participatory approaches, but it is not automatically addressed without specific efforts (Frischmuth, 1998).

2.6.8 Participatory methods illustrate different perceptions of well-being

The use of gender-sensitive participatory methods in Darko, Ghana, identified differences between women and men in their understanding of poverty. These methods documented people's own perceptions of intra-household relations and provided a far better understanding of the situation and changes underway than would have been possible through data collection on externally selected indicators. Men and women prepared separate social maps of the village and carried out wealth and well-being rankings. Differences in the two discussions were analysed and the findings are outlined below.

- Men's criteria of wealth centred on assets like a house, car, cattle and type of farm. They considered crops grown by men, but not those of women. Initially they left those with no assets out of the ranking altogether. They then moved on from wealth to a discussion of well-being, using 'god-fearing' as the main criterion.
- Women started with indicators like a house, land and cattle but moved to analyse the basis of agricultural production. Again they considered only 'female' crops and did not mention cocoa or other cash crops grown by men. Contrary to common perceptions, women focused on marketed crops, and not on subsistence food crops.
- Women's criteria for the 'poorest' were related to a state of destitution, and the lack of individual entitlements or health-related deprivation. Men focused on the absence of assets.
- Each group had its own perception of well-being. Women tended to identify factors for women, while men focused on men. Neither group looked at the household as a unit for analysing welfare.
- For both women and men, being wealthy did not always mean being better off. In the men's analysis none of the rich were 'god-fearing' and two houses with no assets had 'god-fearing' people. As for the women, the biggest vegetable producers (seen as an indicator of being well-off) were not in the richer categories (Shah, 1998).

2.7 Mainstreaming Gender in Water Management

Gender mainstreaming is the process of assessing the implications for women and men of any planned action, including legislation, policies or programmes, in all areas and at all levels (global, national, institutional, community, household). It is a strategy for making women's as well as men's concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of policies and programmes in all political, economic and societal spheres so that women and men benefit equally, and inequality is not perpetuated. The ultimate goal is to achieve gender equality by transforming the mainstream (UNESCO,1997 in GWA 2003a).

Operationalising gender mainstreaming involves:

- Understanding the gender-differentiated systems for access to resources, labour, water uses, water rights, and the distribution of benefits and production. Sex-disaggregated data and the documentation of unpaid labour are important.
- Focusing on gender relations, not just women. Although many analyses draw attention to women (since it is generally women who face disadvantages and women's views that tend to be overlooked), a gender analysis looks at the relations (differences, inequalities, power imbalances, differential access to resources, etc.) between and among women and men and how these are negotiated. The position of women cannot be understood in isolation from the broader relationships between women and men.
- Understanding that gender is a factor that influences how people respond both individually and collectively. Men and women face different obstacles and draw on different resources when attempting to participate on a water committee, confront a local official or attend a training session.
- Understanding the gender dimensions of institutions at all levels in society (within the household, community-based organisations, water users associations, local governments, national civil services, etc.). These formal and informal institutions play fundamental roles in water resources management, yet they have gender dimensions: Who makes what decisions? Does the structure facilitate or hinder women's participation? Is there the capacity to reduce inequalities between women and men in the institutions? How are different needs and perspectives negotiated inside institutions? Are institutional policies developed in an inclusive and gender-sensitive manner?
- Confirming or rejecting assumptions in each specific context, ideally using participatory methodologies. Assumptions from one country or project cannot be carried over into another region or initiative. Furthermore, power relations, working arrangements, and resource availability can change over time. The specificity of each situation must be investigated.

2.7.1. Getting the initiative or project right

To ensure that the analysis increases the positive impacts of water programmes and that the overall objective to support the advancement of women is reflected in all IWRM initiatives, the following should be considered:

- Incorporating the insights from the analysis into project design. For example, it is not enough to document women's priorities. Their views should influence the priorities and objectives of the initiative.
- Giving importance and recognition to women's responsibilities and views. For example, often women's uses of water are given less importance than men's (they are not documented, women's uses are not given priority, they are not visible to planners, etc.).
- Making links to key expected results of the initiative. There should be a clear analysis that links [the] gender analysis to the overall objectives of the project. If the project is focusing on flood control, the gender dimension should look at how women are consulted, involved and affected by various options for flood control (rather than a side initiative on small-scale credit for women).

- Identifying concrete objectives. During the project design phase, objectives relating to gender equality should be clearly specified (rather than kept general, such as 'incorporate gender equality issues into the project').
- Developing indicators to track success towards meeting the results. General indicators should be disaggregated on the basis of sex (instead of total number of people consulted, there should be a breakdown between women and men).

2.7.2. Gender-sensitive monitoring and evaluation indicators

Programme and project interventions have not led to sustained and sustainable development. Benefits and costs that accrue from an intervention are also not always disaggregated by sex and socio-economic class; consequently, it becomes difficult to understand the effects of those interventions on different groups. A monitoring and evaluation process that has gender-sensitive indicators and involves men and women not as informants but as participants will result in a better understanding of who in the community has benefited, who bears the costs and what motivates different groups to act. Furthermore, a monitoring process that involves men and women ensures that monitoring becomes a self-management tool rather than a policing instrument, thus leading to collective action.

If data collection is not disaggregated by sex, it will be difficult to assess the positive or negative impacts of the programme or project on women and men, young and old and rich and poor. For example, if water provision in an urban slum has lessened the burden of water fetching for women and girls, this could free more girls to go to school. This positive result cannot be assessed without sex-disaggregated data collection, which can assist in measuring the scope of the impact, i.e., the increased enrolment and retention of girls in school. If water provision services have freed poor women's time to engage in income generating activities, without sex-disaggregated data, the positive impact will lack empirical evidence and will remain anecdotal.

Additionally, the following issues cannot be measured or monitored without gender-sensitive indicators:

- The impact/effectiveness of activities targeted to address women's or men's practical gender needs i.e., new skills, knowledge, resources, opportunities or services in the context of their existing gender roles;
- The impact/effectiveness of activities designed to increase gender equality of opportunity, influence or benefit e.g., targeted actions to increase women's contribution to decision-making; opening up new opportunities for women/men in non-traditional skill areas;
- The impact/effectiveness of activities designed to develop gender awareness and skills amongst policy-making, management and implementation staff;
- The impact/effectiveness of activities to promote greater gender equality within the staffing and organisational culture of development organisations e.g., the impact of affirmative action policies (Derbyshire, 2002: 28).

The Canadian International Development Agency has developed an extensive guide on the issue, its history and evolution, its implications and how to develop gender-sensitive indicators for the organisation as well as the project level (CIDA, no date).³

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APPENDIX 1: READING 2

17

IWRM READINGS

INTEGRATED WATER RESOURCES MANAGEMENT ON A BASIN LEVEL – A TRAINING MANUAL - PREFACE¹

To ensure their sustainability, water resources must be viewed holistically, both in their natural state and in balancing competing demands on them—domestic, agricultural, industrial (including energy), and environmental. Sustainable management of water resources requires systemic, integrated decision-making that recognizes the interdependence in three areas. First, decisions on land use also affect water, and decisions on water also affect the environment and land use. Second, decisions on our economic and social future currently organized by socioeconomic sectors and fragmented, affect the hydrology and ecosystems in which humans live. Third, decisions at the international, national, and local levels are interrelated.

The concept of *Integrated Water Resources Management*— in contrast to “traditional”, fragmented water resources management—at its most fundamental level is as *concerned with the management of water demand as with its supply*. Thus, integration can be considered in two basic categories:

- * The natural system, with its critical importance for resource availability and quality, and the wide range of environmental services that it provides
- * The human system, which fundamentally determines the resource use, waste production and pollution of the resource, and which must also set the development priorities.

Integration has to occur both within and between these categories, taking into account variability in time and space. Integration has to occur both within and between these categories, taking into account variability in time and space. At the operational level the challenge is to translate agreed principles into concrete action. The response to this is often referred to as *Integrated Water Resources Management (IWRM)*. *While the concept of IWRM is widely accepted, its appli-*

¹ Source: UNESCO 2003 - William (Bill) Cosgrove, Vice-President, World Water Council, President, Ecoconsult Inc.
“Integrated Water Resource Management on a Basin Level”

cation is equally widely debated. Hence, regional and national institutions must develop their own IWRM practices using the collaborative framework emerging globally and regionally. 18

The application of IWRM requires that national socioeconomic policies take into account the management of water resources (and vice versa). It is also universally agreed that water resources must be managed at the basin or catchment level—whether this is internal to the country, across state or provincial boundaries within states, or across national borders. Often this requires the creation of basin level institutions.

Historically, water managers have tended to see themselves in a “neutral role”, managing the natural system to provide supplies to meet externally determined needs. The ongoing UNESCO/Green Cross PC?CP1: Water for Peace process concluded that new and existing institutions would require water resources managers with new ways of thinking. This training manual provides both a clear explanation of the benefits of the new approach and an outline of a concrete training program on the application of IWRM principles at the basin level. I welcome its translation into English after successful proving of its value in the French version in several countries and basins in Africa and Southeast Asia.

INTRODUCTION²

Why should we pay attention, now and again, to water resources management on a basin level? At a time when water is the topic of the day on the international scene, because of a critical situation in several countries, it should be remembered that there are more than 300 large rivers and that their drainage basins cover more than half of the emerged land on our planet (Appendix 1).

More than 200 rivers are international which means that they flow across borders; those countries find themselves in a special situation, that of riparian countries, because they belong to a common geographical unit that does not recognize political boundaries, the river basin. The same reality applies within the national territory, whether as a federal system or not, because of multiple political and institutional frontiers. This entity, the basin, is of interest to us as a system that encompasses both natural resources and the human communities that depend on them. For a long time, man has seen the world as an inexhaustible resource to be used for his own profit. In this specific case, water mastering technologies have been used since Antiquity; man learned to bring water where and when he needed it. But, under the combined pressures of increased demand and the deterioration of water quality, traditional management models have failed; we have to move away from this technological mirage and develop new approaches that will allow for the satisfaction of human needs while maintaining the quality of natural systems that support the very existence of human communities.

² Integrated Water Resources Management on a Basin Level: A Training Manual

- * Dealing with water management in a more integrated way, moving away from the sector-by-sector approach
- * Looking for sustainable use of water, satisfying the needs of both Man and Nature.

Moving progressively away from the centralized management models in order to adopt increased public participation processes. These profound changes are widely discussed in the international arena and seem to be gaining some consensus, in theory at least.

This manual is designed to assist those who have to make decisions on a daily basis to apply these new approaches to river basin management. We should bear in mind that here is no single approach that can be applied to all cases. Quite the contrary; solutions will emerge through the sharing of diverse experiences, first at the basin level, but also on a larger scale.

THE INTERNATIONAL SCENE

The World Water Vision

Before delving into the proposed river basin management framework, it is important to clearly define the water issue and its recent evolution in the collective mind of those who move it ahead, as demonstrated by recent international events. In fact, over the last 20 years, the debate on water has shifted from the purely technical level, focused on water resources evaluation and allocation between major uses (resource management), to a more integrated approach that includes a broader range of domains, among which social and political aspects (demand management, including the needs of nature). The recognition of the multiple values of water is certainly the most significant milestone of the 20th century in terms of sustainable development.

Several major events have influenced the evolution of views on water resources management. In 1977, the Mar del Plata Conference initiated the international debate on water and proposed the International Water Decade (1980-1990). Then, at the Dublin Conference in 1992, the international community adopted several basic principles on the sustainable use of water resources:

- * Fresh water is a finite and vulnerable resource, essential to sustain life development and the environment;
- * Water development and management should be based on a participatory approach, involving users, planners, and policy makers at all levels;
- * Women play a central role in water supply, management and preservation;
- * Water has an economic value in all its competing uses and should be recognised as an economic good.

Agenda 21, Chapter 18, adopted at the Rio Earth Summit of 1992, deals in detail with the water

issue; three objectives were defined and they include some elements on quality in water management: 20

- * Maintenance of ecosystem integrity by protecting aquatic ecosystems from degradation on a drainage basin level;
- * Public health protection, including safe drinking water and disease vector control;
- * Human resources development.

Since then, the Dublin and Rio principles have been adopted internationally and constitute the basis for the debate on water resources management. Then, in less than 10 years, several international water organisations were created: the Water Supply and Sanitation Collaborative Council (WSSCC), the Global Water Partnership (GWP), the International Network of Basin Organisations (INBO), the World Water Council (WWC), the International Office for Water (IOW), and the International Secretariat for Water (ISW) to name but a few. During the same period, major international conferences were instrumental in supporting the debate on water issues.

The First World Water Forum organised in Marrakech in 1997 is a landmark in the revival of the international debate on water. Following this forum, the WWC initiated an innovative international task, the development of the World Water Vision; this exercise guided the debate in 1998 and 1999 to culminate at the second World Water Forum in The Hague in March 2000. More than 10000 people from all continents took part in this unprecedented consultation where they shared their recommendations and expectations for a more sustainable use of water. Several discussion papers were produced, dealing with issues at country, region or large theme levels (Water and Food, Water and Nature, etc.).

The overall result was presented in *World Water Vision: Making Water Everybody's Business* published in March 2000 by the World Water Vision Unit which was the guest of the United Nations Educational, Scientific, and Cultural Organisation's International Hydrological Programme at its headquarters in Paris.

It is important to present, at the very beginning of this manual, the main results of this international consultation process; the ideas developed during the course of the Vision exercise, along with the vocabulary, will certainly influence the water debate for years to come.

Numerous findings occurred in the course of the Vision exercise, with proposals for major orientations in terms of water resources management on a basin level and their uses; the three following statements should be kept in mind, while reading this manual, since they constitute valuable markers along the pathway we are proposing. The first statement may come as a surprise given the high level of media coverage which tends to associate water shortages more often with catastrophes and natural events (desertification, El Niño, climate change) than with human errors: There is a water crisis today. But the crisis is not about having too little water to satisfy our needs. It is a crisis of managing water so badly that billions of people — and the environment — suffer badly. (World Water Council, 2000, p. xix.)

One portion of the solution to the serious current water crisis lies with a better management of

water uses. The first goal of this manual being to contribute to the development of capacities in 21 water resources management on a basin level, we also believe that part of the solution lies in the way human beings use water, and most of all, that we should be able to learn from past experiences.

THE PRIMARY OBJECTIVES OF INTEGRATED WATER RESOURCES MANAGEMENT³

The three primary objectives of integrated water resources management are:

- * Empower women, men, and communities to decide on their level of access to safe water and hygienic living conditions and on the types of water-using economic activities they desire — and to organise to achieve them.
- * Produce more food and create more sustainable livelihoods per unit of water applied (more crops and jobs per drop) and ensure access for all to the food required to sustain healthy and productive lives.
- * Manage human water use so as to conserve quantity and quality of freshwater and terrestrial ecosystems that provide services to humans and living things.

Five primary actions are required to achieve these objectives:

- * Involve all stakeholders in integrated management.
- * Move to full-cost pricing of water services for all human uses.
- * Increase public funding for research and innovation in the public interest.
- * Recognise the need for cooperation on integrated water resource management in international river basins.
- * Massively increase investments in water.

SUSTAINABILITY OF WATER RESOURCES AND INTEGRATED MANAGEMENT⁴

The second statement has to do with sustainable development of water resources and integrated management, two principles at the very base of the management framework proposed in this manual: Our vision is a world in which all people have access to safe and sufficient water

³ Integrated Water Resources Management on a Basin Level: A Training Manual

⁴ Integrated Water Resources Management on a Basin Level: A Training Manual, p.2

resources to meet their needs, including food, in ways that maintain the integrity of freshwater ecosystems. The Vision exercise's ultimate purpose is to generate global awareness of the water crisis women and men face and the possible solutions for addressing it. This awareness will lead to the development of new policies and legislative and institutional frameworks. The world's freshwater resources will be managed in an integrated manner at all levels, from the individual to the international, to serve the interest of humankind and planet earth — effectively, efficiently, and equitably. (World Water Council, 2000, p.1) 22

The third statement which caught our attention deals with the sharing of roles between different levels of interested parties, from the individual to public authorities, including the role of professionals. The Vision recognises that people's roles and behaviours must change to achieve sustainable water resource use and development. The main actors will be individuals and groups in households and communities with new responsibilities for using water and water-related services. Public authorities will need to empower and support them and carry out work that households and communities cannot manage for themselves.

Water professionals and environmentalists will provide these stakeholders with the information they need to participate in decision-making and will help implement their decisions. Working together, these groups can achieve the Vision. (World Water Council, 2000, p. xiii.) The Vision, as the title suggests, provides scenarios for the future of water resources in the medium term. It is not the purpose of this manual to enter into the details of these debates; nevertheless, we should be aware of an important warning regarding the overall context in which the management process will have to be developed. What is of particular interest for us are the uncertainty and interacting trends notions; we will have to keep these in mind while developing a framework for integrated water resources management on a basin level.

Given the wide range of uncertainties affecting the water futures, there is also a wide range in possible uses and stress. This range presents the potential for influencing the outcome through actions focused on key issues that may prove to be turning points. [

Whether the water crisis will deepen and intensify — or whether key trends can be bent and turned towards sustainable use and development of water resources — depends on many interacting trends in a complex system. (World Water Council, 2000, p. 23.) Then the Vision proposes a list of issues, called "turning points in water futures". Some are in line with river basin management and will be presented in this manual. Among the issues we will deal with are: reforming water resources management institutions, increasing cooperation in international basins and valuing ecosystem functions. (World Water Council, 2000, p. 2-3.)

For the World Water Vision to be achieved, concrete and realistic programmes of action will be needed. A first step towards such programmes of action will be the Framework for Action (FFA), which is being developed in parallel with the World Water Vision. It will be a route map of how to reach the Vision objectives and will identify key milestones along the way. The final outputs will establish which combinations of policy measures, management instruments, investment priorities and implementation strategies will be needed in order to reach those milestones. (GWP, 2001, p. 2.)

A New Water Ethic: The water debate was also conducted at another level, ethical this time, with the publication of the "water manifest" by Petrella (1998), a document that played a role of catalyst in the renewal of the water debate. The economic value of water, recognised since Dublin 1992, was considered as a way to charge the costs of services and, too often, under the sole scenario of the privatisation of water services. The manifest considers access to water as a fundamental right. Water has a value but cannot be treated as a simple economic good because water is essential for life. Interestingly, the first consideration in the European Union Directive on Water, enacted in October 2000, holds to this principle: "Water is not a commercial product like any other but, rather, a heritage which must be protected, defended and treated as such" (European Union, 2000).

The social contract proposed by Petrella (1998) is based on two principles: access to water for all, and sustainable management and solidarity. The debate between the tenants of water as a collective good, with an access for the poorest, and those who sustain cost recovery through a tariff and fee approach, has certainly contributed to making the general public aware of the water issue; this debate was previously limited to specialists and was centred only on privatisation modalities for urban water services.

We should also mention the Social Charter for Water, an initiative of the Water Academy that was largely debated in The Hague in March 2000. This charter makes three recommendations that can be considered a summary of the general consensus developed in the course of recent international conferences:

WATER MANAGEMENT PRINCIPLES

- * Manage water for all human beings and their descendants, while preserving the environment through a sustainable development policy (Rio, 1992).
 - * Closely associate users to the development choices (Dublin, 1992).
 - * Consider water as an economic and social good and allow for an access for all (Paris, 1998).
- (Académie de l'Eau, 2000, p. 2)

⁵ Integrated Water Resources Management on a Basin Level: A Training Manual

NEW YORK UNIVERSITY PRESS
New York and London
www.nyu.press.org

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Library of Congress Cataloging-in-Publication Data

The environment in anthropology: a reader in ecology, culture, and
sustainable living / edited by Nora Haenn and Richard Wilk.
p. cm.

Includes bibliographical references and index.

ISBN 0-8147-3637-8 (alk. paper) —

ISBN 0-8147-3636-X (cloth: alk. paper)

1. Human ecology. 2. Applied anthropology.

I. Haenn, Nora, 1967— II. Wilk, Richard R.

GF8.E58 2005
304.2-dc22 2005050525

New York University Press books are printed on acid-free paper,
and their binding materials are chosen for strength and durability.

Manufactured in the United States of America

c 10 9 8 7 6 5 4 3 2 1
p 10 9 8 7 6 5 4 3 2 1

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EDITED BY

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New York University Press
NEW YORK AND LONDON

Chapter Four

Gender and the Environment *A Feminist Political Ecology Perspective*

*Dianne Rocheleau, Barbara Thomas-Slayter,
and Esther Wangari*

The convergence of interest in environment, gender, and development has emerged under conditions of rapid restructuring of economies, ecologies, cultures, and politics from global to local levels. Global economic, political, and environmental changes have affected both men and women as stakeholders and actors in resource use and allocation, environmental management, and the creation of environmental norms of health and well-being. Some scholars and activists see no gender differences in the ways human beings relate to the environment, except as they are affected by the constraints imposed by inequitable political and economic structures. Others see the gendered experience of environment as a major difference rooted in biology. We suggest that there are *real*, not imagined, gender differences in experiences of, responsibilities for, and interests in "nature" and environments, but that these differences are not rooted in biology *per se*. Rather, they derive from the social interpretation of biology and social constructs of gender, which vary by culture, class, race, and place and are subject to individual and social change.

In this volume, we explore the significance of these differences and the ways in which various movements, scholars, and institutions have dealt with gendered perspectives on environmental problems, concerns, and solutions. The major schools of feminist scholarship and activism on the environment can be described as:

1. ecofeminist;
2. feminist environmentalist;
3. socialist feminist;
4. feminist poststructuralist; and
5. environmentalist.

Ecofeminists posit a close connection between women and nature based on a shared history of oppression by patriarchal institutions and dominant Western culture, as

From *Feminist Political Ecology: Global Issues & Local Experiences*, eds. Dianne Rocheleau, Barbara Thomas-Slayter, and Esther Wangari. © 1996 by Routledge. Used by permission of Taylor & Francis.

well as a positive identification by women with nature. Some ecofeminists attribute this connection to intrinsic biological attributes (an essentialist position), while others see the women/nature affinity as a social construct to be embraced and fostered (Plumwood 1993; Merchant 1981, 1989; King 1989; Shiva 1989; Mies and Shiva 1994; Rocheleau 1995). Feminist environmentalism as articulated by Bina Agarwal (1991) emphasizes gendered interests in particular resources and ecological processes on the basis of materially distinct daily work and responsibilities (Seager 1993; Hynes 1989). Socialist feminists have focused on the incorporation of gender into political economy, using concepts of production and reproduction to delineate men's and women's roles in economic systems. They identify both women and environment with reproductive roles in economies of uneven development (Deere and De Leon 1987; Sen and Grown 1987; Sen 1994) and take issue with ecofeminists over biologically based portrayals of women as nurturers (Jackson 1993a and b). Feminist poststructuralists explain gendered experience of environment as a manifestation of situated knowledges that are shaped by many dimensions of identity and difference, including gender, race, class, ethnicity, and age, among others (Haraway 1991; Harding 1986; Mohanty 1991). This perspective is informed by feminist critiques of science (Haraway 1989; Harding 1991) as well as poststructural critiques of development (Escobar 1995; Sachs 1992) and embraces complexity to clarify the relation between gender, environment, and development. Finally, many environmentalists have begun to deal with gender within a liberal feminist perspective to treat women as both participants and partners in environmental protection and conservation programs (Bramble 1992; Bath 1995).

We draw on these views of gender and environment to elaborate a new conceptual framework, which we call feminist political ecology. It links some of the insights of feminist cultural ecology (Fortmann 1988; Hoskins 1988; Rocheleau 1988a and b; Leach 1994; Croll and Parkin 1993) and political ecology (Schmink and Wood 1987, 1992; Thrupp 1989; Carney 1993; Peet and Watts 1993; Blaikie and Brookfield 1987; Schroeder 1993; Jarosz 1993; Pulido 1991; Bruce, Fortmann, and Nihira 1993) with those of feminist geography (Fitzsimmons 1986; Pratt and Hanson 1994; Hartmann 1994; Katz and Monk 1993a and b; Momsen 1993a and b; Townsend 1995) and feminist political economy (Stamp 1989; Agarwal 1995; Arizpe 1993; Arizpe, Stone, and Major 1993; Thomas-Slayter 1992; Joeekes 1995; Jackson 1985, 1995; Mackenzie 1995). This approach begins with the concern of the political ecologists who emphasize decision-making processes and the social, political, and economic context that shapes environmental policies and practices. Political ecologists have focused largely on the uneven distribution of access to and control over resources on the basis of class and ethnicity (Peet and Watts 1993). Feminist political ecology treats gender as a critical variable in shaping resource access and control, interacting with class, caste, race, culture, and ethnicity to shape processes of ecological change, the struggle of men and women to sustain ecologically viable livelihoods, and the prospects of any community for "sustainable development."

The analytical framework presented here brings a feminist perspective to political ecology. It seeks to understand and interpret local experience in the context of global processes of environmental and economic change. We begin by joining three critical

themes. The first is *gendered knowledge* as it is reflected in an emerging "science of survival" that encompasses the creation, maintenance, and protection of healthy environments at home, at work, and in regional ecosystems. Second, we consider *gendered environmental rights and responsibilities*, including property, resources, space, and all the variations of legal and customary rights that are "gendered." Our third theme is *gendered environmental politics and grassroots activism*. The recent surge in women's involvement in collective struggles over natural resource and environmental issues is contributing to a redefinition of their identities, the meaning of gender, and the nature of environmental problems.

Several common threads have run throughout the scholarship and the movements that address the convergence of gender, science, and environment, but common concerns have often been obscured by the distinct discourses of resistance, critique, and alternative practice. We draw the following points into a common perspective and the authors pursue each of them in the case studies, as appropriate:

1. Women's multiple roles as producers, reproducers, and "consumers" have required women to develop and maintain their integrative abilities to deal with complex systems of household, community, and landscape and have often brought them into conflict with specialized sciences that focus on only one of these domains. The conflict revolves around the separation of domains of knowledge, as well as the separation of knowing and doing, and of "formal" and "informal" knowledge.
2. While women throughout the world under various political and economic systems are to some extent involved in commercial activities (Berry 1989; Jackson 1985), they are often responsible for providing or managing the fundamental necessities of daily life (food, water, fuel, clothing) and are most often those charged with health-care, cleaning, and childcare in the home, if not at the community level (Moser 1989). This responsibility puts women in a position to oppose threats to health, life, and vital subsistence resources, regardless of economic incentives, and to view environmental issues from the perspective of the home, as well as that of personal and family health. This does not preclude women from engaging in economic interests, but suggests that they will almost always be influenced by responsibilities for home, health—and in many cases—basic subsistence.
3. Both health and ecology are amenable to feminist and alternative approaches to practice since they do not necessarily require special instrumentation, but rather focus on the "objects" and experience of everyday life, much of which is available through direct observation (Levins 1989). While some aspects of health and ecology have become highly technical, there is much new insight and information to contribute to these disciplines that is still available to observation without specialized instruments beyond the reach of ordinary folk. There is also scope for a feminist practice of ecology that uses specialized tools differently and for different ends.
4. While formal science relies heavily on fragmentation, replication, abstraction, and quantification (Levins 1989), many women have cited the importance of integration and a more holistic approach to environmental and health issues (Candib 1995). Feminist scholars have shown that some women researchers in professional sciences have used distinct approaches based on skills acquired in their socialization as women (Keller 1984; Hynes 1989, 1991, 1992). On a more personal and everyday level, some

grassroots women's groups have explicitly stated that "our first environment is our bodies" (Gita Sen, personal communication), calling for a more integrative approach to health, environment, and family planning in development, welfare, and environmental programs.

5. Most feminist or women's environmental movements have incorporated some or all of the elements of the feminist critique of science as summarized by Sandra Harding (1987). The five classes of critique address:

1. inequity of participation and power in science-as-usual;
2. abuse and misuse of science on and about women;
3. assumptions of value-free objectivity and universality in science;
4. use of culturally embedded, gendered metaphors in scientific explanation and interpretation; and
5. development of alternative ways of knowing and ways of learning based on everyday life, women's experience, and explicit statement of values.

Feminist political ecology addresses the convergence of gender, science, and environment in academic and political discourse as well as in everyday life and in the social movements that have brought new focus to this issue.

These sciences occur in several forms, from local environmental knowledge (for example, which plants can cure us and how we can protect them), to recent innovations (new techniques to manage soil, water, and trees; new ways to diagnose exposure to toxic chemicals), to research on the unknown (what is making us sick; or how we can maintain our forest plants in a changing landscape). These various sciences are practiced by diverse groups from rural herbalists and forest farmers to suburban residents, professional nurses, environmental engineers and urban residents and factory workers. While there are many other axes of difference that may shape peoples' experience and understanding of "environment" and their sciences of ecology, feminist political ecology focuses on gender, while including discussions of interactions with class, race, age, ethnicity, and nationality.

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Chapter Eleven

Gender, Population, Environment

Sally Ethelston

Miriam lives with her family in Manshiet Nasir, originally a squatter settlement at the foot of Cairo's Muqattam hills, now largely a brick-built community of small apartment buildings and box-like single family homes. Most now have piped-in water and electricity. Her family is one of the thousands of *zabbaleen* (garbage collector) families comprising a large Christian minority among Manshiet Nasir's mostly Muslim residents. They live in a two-story, warehouse-like structure perhaps 25 feet high and about 20 feet square. Off to the side of the main living space, a narrow room has just enough space for a loom; a walled-in area behind the house is home to the family's 18 pigs.

Miriam is 17, and not yet married. What distinguishes her from many of her neighbors is the loom in her home, and the fact that she is literate in Arabic and beginning to learn English. Walking through the neighborhood, Miriam is an enthusiastic guide to her community—pointing out a recycling workshop housing a machine for crushing plastic for re-use, the veterinary clinic established by the *zabbaleen* association, and a daycare center for young children.

Through a convergence of local community activism and international assistance, the *zabbaleen* and other residents of Manshiet Nasir have witnessed some important changes in their lives. Improved pumping systems ensure that a majority of residents have access to potable water; immunization campaigns have all but eliminated tetanus and other vaccine-preventable diseases among women and children. Tacit government recognition of the settlement means that residents can, in effect, buy and sell property. Voluntary organizations such as the Association for the Protection of the Environment (Gama'at himayat al-bi'at min al-talawuth) sponsor projects for women that combine teaching functional literacy with ways of earning money—thus the loom in Miriam's home.¹

Despite these improvements, Manshiet Nasir is still an urban environmental nightmare. *Zabbaleen* women sort through the garbage collected by their husbands and children with bare hands, fearing that gloves will slow down their work and add to their onerously long day. And the refuse of modern-day Cairo—replete with deteriorating batteries, broken glass and hospital waste, mixed in with the food waste that

goes to feed the pigs—poses a great threat to public health. Among the tasks assigned to children is the disassembling of used plastic syringes from Cairo's many hospitals.

Any garbage that cannot be reused in some way ends up back in the Manshia's narrow pathways until it is taken to be burned. It covers the asphalt and mud streets with a thick, soft and often slippery layer of trash. Inadequate sewage systems overflow frequently, further endangering the health of residents.

Manshiet Nasir can be viewed as one extreme of urban environmental hazard in the Middle East and North Africa. The Manshia reflects social, economic and demographic trends and circumstances common to most countries in the region: rapid population growth and increasing urbanization; scarcity of land, water and other economic resources; and limits on women's social and economic autonomy.

Many governments in the region view one or even all of these factors as obstacles to economic and social development, but often their policy responses have been ambivalent. Programs aimed at slowing rates of population growth have tended to focus solely on female reproductive behavior through the provision of modern contraceptives, paying far less attention either to men's roles in reproductive decisions or to women's other health needs. In addition, governments often fail to take into account other factors that influence women's reproductive choices, such as their education, job opportunities and overall status.

Equally important is the failure of some governments to persuade their citizens that slowing population growth has benefits for them as individuals. Few have effectively communicated the extent of natural resource limitations in the region. And citizens' general alienation from their political systems reinforces their suspicions that efforts to slow population growth are merely another way in which governments seek to protect the lifestyles of wealthy elites by reducing pressures to achieve greater social and economic equity. "Why is it easier to insert Norplant in a woman's arm than to tell a man in Mohandissin not to drive his Mercedes?" asks Aida Seif al-Dowla, a founding member of Al-Mar'a al-Jadida (New Woman), a research and study center.²

In some countries, such a politically provocative question is hardly ever raised. For the oil-rich states of the region, high rates of population growth (above 3 percent in most cases) have been viewed as satisfactory by governments eager to meet the demand for labor but ambivalent or even opposed to increased women's work outside the home. This view persists despite very real natural resource constraints. In Saudi Arabia, Bahrain, Qatar and the United Arab Emirates, per capita annual availability of *renewable* fresh water is less than one-third of the 1,000 cubic meters regarded as a benchmark of water scarcity.³

Beyond the limited availability of cultivable land and fresh water, the degradation of existing resources is a problem throughout the region. Concentrations of air pollutants such as sulfur dioxide (in Istanbul) and lead (in Cairo) are well above the levels considered safe.⁴ Water pollution is also a serious problem due to industrial wastes, agricultural pesticides and other chemicals. The quality—and thus the productivity—of agricultural land is threatened by salination, which is a consequence of the expansion of irrigated agriculture in countries like Egypt and Iraq.

Awareness of these environmental problems is growing in the region, according to Mustafa Tolba, the former head of the UN Environment Program and now the

Population Trends					
Countries	Population Mid-1994	Natural Increase (annual %)	% Age < 15 yrs.	% Married Women Using Contraceptives	
				Total	Modern
Algeria	27.9	2.5	44	36	31
Bahrain	6	2.4	32	54	30
Djibouti	6	3.0	41	—	—
Egypt	58.9	2.3	40	47	45
Gaza	7	5.0	60	—	—
Iran	61.2	3.6	47	—	—
Iraq	19.9	3.7	48	18	22
Israel	5.4	1.5	31	—	10
Jordan	4.2	3.3	41	40	—
Kuwait	1.3	3.3	43	35	27
Lebanon	3.6	2.0	33	—	32
Libya	5.1	3.4	47	—	—
Morocco	28.6	2.3	40	42	—
Oman	1.9	4.9	36	9	36
Qatar	5	1.0	23	26	8
Saudi Arabia	18.0	3.2	43	—	24
Somalia	9.8	3.2	47	—	—
Sudan	28.2	3.1	46	9	—
Syria	14.0	3.7	48	—	6
Tunisia	8.7	1.9	37	50	—
Turkey	61.8	2.2	35	63	40
United Arab Emirates	1.7	1.9	32	—	35
West Bank	1.4	4.0	50	—	—
Western Sahara	2	2.8	—	—	—
Yemen	12.9	3.4	51	10	—
Comparative Countries					6
Mexico	91.8	2.2	38	53	—
Pakistan	126.4	2.8	44	12	45
United States	260.8	0.7	22	74	9
Zimbabwe	11.2	3.0	48	43	69
					36

SOURCE: 1994 World Population Data Sheet, Population Reference Bureau, Inc., Washington DC.

president of a non-profit environmental consulting firm. "Developing countries no longer see concern for the environment as a luxury," says Tolba.⁵ And environmental "problems" are being defined more broadly to encompass such concerns as health, bad housing and poor sanitation.

Yet teaching alternate, more environmentally sound behavior is extremely difficult, according to Emad Adly, Secretary-General of the Arab Office for Youth and the Environment. "You can't ask people to dispose of garbage properly if there's nowhere to put it; you can't really talk about water conservation without the technology to make it happen; and you can't buy healthy food if it is not on the market. The fact is that there are few alternatives to the way most people currently live their lives."⁶

At the international level, as awareness of the challenges posed by population growth and environmental degradation has increased, so has concern for how linking the two might affect women. Particularly troubling is "the implication that women are responsible for environmental degradation as long as high fertility rates are viewed as a significant cause of environmental pollution." Such a perspective reduces choices of family planning "to a means to an end rather than a legitimate end in itself."⁷

These concerns provoked sharp debate at the forum of non-governmental organizations (NGOs) held concurrently with the 1992 UN Conference on Environment

and Development in Rio de Janeiro. By the time of the summit, population had been downgraded from primary importance to a number of "cross-cutting" issues; and the Vatican, with the help of a few countries, succeeded in weakening Agenda 21's language on family planning such that the word "contraceptive" never even appeared. At the NGO forum, those gathering in the Planeta Femea (women's tent) went back to the beginning to ask: Is there a causal relationship between population increase and environmental deterioration? Given the emphasis of many developing countries' family planning programs on numerical demographic goals, rather than on the right of individual women and men to plan their families, would a framework linking population and the environment further strengthen the emphasis on top-down, coercive population control? For the majority of those attending the discussions, the answer was yes.

Two years after Rio, the International Conference on Population and Development (ICPD) is taking place in Cairo. Focusing on population and sustainable development, the ICPD reflects many of the concerns raised by women in Rio, and includes a much greater emphasis on women's needs and aspirations. The ICPD's draft Programme of Action's more holistic approach acknowledges that population, reproductive rights and health, gender equality, the environment, and development are inseparable.

Moving beyond "family planning" is a recurrent theme of the articles in this issue of *Middle East Report* [September–October 1994]. Philippe Fargues posits changes in population structure and inter-generational and gender hierarchies as sources of social change. Challenging the accepted wisdom regarding the Arab world's demographic explosion, Fargues argues that the demographic transition to lower fertility in the region is, for the most part, well under way. The crisis is social and political, not demographic.

Homa Hoodfar notes the success of Iran's government in communicating the relevance of the population issue for that society, the international community, and individuals. At the same time, she emphasizes the contradiction between the government's programmatic emphasis on female contraceptive methods and its reluctance to grant greater freedom and decision-making authority to women.

Nonprogrammatic factors affecting reproductive attitudes and behavior are also the focus of Youssef Courbage's essay. He calls attention to how varying patterns of international migration have led to the "diffusion" of contrasting norms of ideal family size, which is also being affected by labor force participation of women.

Back in Manshiet Nasir, Miriam is part of the changes in the hierarchy Fargues describes. By learning to read and write, she has already gone far beyond her parents. With an independent source of income, her role in such decisions as who she will marry and how many children she will bear will be much stronger than her mother's. And her travels outside Manshia—made possible by the association in which she is emerging as a leader—are expanding her perception of the possible.

Yet the interventions that have helped bring some change to Miriam's life do not come cheap. While the preparatory process for Cairo has helped resolve some of the political tensions evident in Rio, the issue of resources remains problematic: will those with greatest control over the world's wealth be willing to make available even the

limited funds explicitly called for in the draft Programme of Action—\$17 billion by the year 2000, one-third of which is slated to come from donors? Reflecting on progress since the Earth Summit—and other international conferences going back almost 20 years—Mustafa Tolba, for one, has his doubts.

"The Rio conference called for a total of \$725 billion, \$600 billion of which is to come from developing countries and \$125 billion in aid," he recalls. "What is available now? The Global Environmental Facility has gone from just \$1.3 billion to \$2.0 billion in three years—an extra few hundred million. And the same will happen in Cairo, Money, where will it come from and where will it go? The fact is we, as an international community, are not serious. If all the resolutions, declarations, and action plans promulgated and adopted had actually been translated into deeds, we would not have environmental problems. Instead, we have an environmental crisis."

Effective change also carries a political price tag. While NGOs are expected to play a key role in pushing forward the agenda that emerges from Cairo—as they have in Manshiet Nasir—they cannot substitute for government action. "Everyone is putting great hope in the role of NGOs, but it's too much," says Aida Seif al-Dowla. "They are not an alternative to a corrupt government that consistently seems to prove that it doesn't really care about the well-being of its people." Following the Cairo Conference, with all its extravagance and whatever the merit of its proclamations, the task of pushing the process of change in the face of existing hierarchies of wealth and power will remain.

NOTES

1. For a more complete account of both the history and the health profile of Manshiet Nasir, see Belgin Tekçe, Linda Oldham, Frederic C. Shorter, *A Place to Live: Families and Child Health in a Cairo Neighborhood* (Cairo: American University in Cairo Press, 1994). See also Marie Assaad and Nadra Garas, "Experiments in Community Development in a Zabbaleen Settlement" *Cairo Papers in Social Science*, Vol. 16 Monograph 4, Winter 1993–94 (Cairo: American University in Cairo Press, 1994).

2. Interview, June 1994.

3. For more on Saudi Arabia's water resources and the concepts of water stress and water scarcity, see Robert Engelman and Pamela LeRoy, *Sustaining Water: Population and the Future of Renewable Water Supplies* (Washington, DC: Population Action International, 1993).

4. WHO/UNDP, 1992 *Urban Air Pollution in Megacities of the World* (Oxford: Blackwell, 1992).

5. Interview, June 1994.

6. Interview, April 1994.

7. Susan Cohen, "The Road from Rio to Cairo: Toward a Common Agenda," *International Family Planning Perspectives*, Vol. 19, No. 2, June 1993, p. 61.

Chapter Thirty-One

Cultural Theory and Environmentalism

Kay Milton

The prime motivation for this book was the conviction that anthropology can benefit the environmentalist cause; that it can help us to identify our responsibilities for protecting the environment and work towards their fulfilment. Environmentalists have operated largely in ignorance of what anthropology has to offer. In particular, their understanding of the human-environment relationship has not been informed by a knowledge of how culture mediates this relationship, and the absence of this knowledge has seriously undermined the arguments presented in the global environmental debate. It is appropriate to end this exploration by considering how the study of culture can help environmentalists to a better understanding of human ecology and a more informed discourse on the search for sustainable ways of living.

Dispelling the Myths

One of the clearest messages that anthropologists can give to environmentalists is that human beings have no "natural" propensity for living sustainably with their environment. Primitive ecological wisdom is a myth, not only in the anthropological sense, as something whose truth is treated as a dogma, but also in the popular sense, as something that is untrue, a fantasy. The reasons why the myth persists are easy to understand. In some contexts it provides support for political arguments, against industrialism and its associated developments, and in favour of autonomy for indigenous and traditional communities. But perhaps the main reason for its persistence is that it gives environmentalists hope that there is a ready-made solution to environmental problems, albeit one that is very difficult to achieve. The myth implies that if industrial societies could "get back" to a more "natural" existence, by emulating the practices and cultural perspectives of non-industrial peoples, then our difficulties would be solved. The knowledge generated by the comparative analysis of human cultures indicates that this is not so.

Does this mean that the message anthropology brings to environmentalism is essentially pessimistic? Not necessarily, for the message is not that environmentally

benign cultures do not or cannot exist, but that identifying them is not as easy as pointing to non-industrial peoples. An understanding of cultural diversity can be a source of ecological wisdom, but nowhere is this wisdom ready-made. It has to come from a knowledge of the range of possibilities, and an understanding of how human cultures and the environments in which they develop impact upon each other. It may be possible to manufacture sustainable ways of living out of bits and pieces selected from diverse cultures, but it would be unwise to attempt this without first understanding them in their original contexts, and appreciating the consequences of taking them out of those contexts. The discussion in this book does not point to a clear way forward. Anthropology could not, in any case, do this on its own; hence the need for "multidisciplinary" approaches that include the physical as well as the social sciences. But the arguments and evidence presented here do indicate ways in which anthropological knowledge might inform environmental discourse.

First, and most important, the assumption that some cultures are more natural than others is a damaging distraction and should be abandoned. It fuels established prejudices, reinforcing the divisions that sustain discrimination and conflict. It also creates the misleading impression that creating a sustainable way of life is a matter of "going back", and this makes it harder to persuade many people of its value, particularly those who, in the minds of many environmentalists, most need to be persuaded: those who pursue the equally distracting ideal of "progress" in the form of economic growth. The alternative is to see nature as the all-encompassing scheme of things to which all human cultures and practices, as well as non-human species and physical processes, belong. In this view, a dam built by people is as natural as one built by beavers, computer technology is as natural as collecting fruit from the rainforest. There is no other nature to get back to. This is it—we are already there. This frees us to examine all human practices and cultural phenomena without prejudice. It enables us to consider their ecological value without assuming from the outset that some are "naturally" better than others.

Second, we need to be aware of the fundamental character of culture and therefore of cultural variation. It is not just a matter of different symbols with similar meanings, different ways of expressing the same things. Cultures can differ radically in the way they allocate power within the universe, the way they perceive or conceptualize time, the way they define humanity and the relationship between life and death. The acceptability of environmentalist arguments can depend on these variations. The concept of extinction is likely to be very differently received by those for whom cross-species reincarnation is an indisputable fact, than it is by western scientists. The idea of protecting the environment makes little sense to people who see it as their protector.

Third, and following from the previous point, we need to appreciate the way in which the different components of cultural perspectives are related to one another: how fundamental assumptions about the world relate to values, goals, norms and so on. These relationships again affect the extent to which environmentalist arguments can be accommodated. People's receptiveness to the idea of environmental protection depends on the relationship between their understanding of power, the way they allocate responsibility, both within human society and between human and non-human forces, the way they think about time and the extent to which they envisage and plan

for the future. These relationships also affect the extent to which cultural phenomena can be imported from one context into another. It might seem like a good idea for industrial societies to emulate the Dogon respect for trees, for instance. But this is not an isolated phenomenon; it is part of a cultural complex whose other components do not fit easily into an industrial context.

A great deal of knowledge which could provide environmentalists with a better understanding of human ecology is already present in the anthropological literature, though not always in a form that is accessible to non-anthropologists. One way of making this knowledge more available is for anthropologists to participate more fully in environmental discourse (cf. Rayner 1989). But moves can also be made by environmentalists. Efforts to introduce new conservation measures, to formulate new environmental policies and to change damaging practices are usually preceded by research to determine the nature of the problems and identify possible solutions. The arguments presented in this book are intended to communicate the message that problems and solutions are as much cultural as they are physical or biological, and that cultural research should be a part of the package.

Cultural Analysis and Global Discourse

The same principles and methods that are used to compare cultures and cultural perspectives, and to reveal their underlying assumptions and fundamental commitments, are also relevant for understanding what I have called "transcultural" discourses and perspectives, those generated by communication across cultural boundaries. Environmentalist discourse is clearly transcultural in this sense, as are the dominant perspectives that compete and overlap within it. The analysis is inconclusive on the question of which transcultural perspective, globalist or anti-globalist, anthropocentric or ecocentric, holds out the best prospect for an environmentally sustainable future. This is inevitable, since this kind of judgement depends on knowing what such a future might be, and this knowledge cannot come from anthropology alone. Again, this is why we need a mixture of disciplines. But cultural analysis reveals other things that have implications for global environmental discourse.

It reveals, for instance, that the diverse perspectives share a certain amount of common ground, that there is potential for agreement among globalists, anti-globalists and ecocentrists on some practical environmental measures, despite their fundamental disagreements on other things. It reveals that, while both globalists and anti-globalists claim to respect the cultures of non-industrial peoples, they differ in their commitment to this claim. The anti-globalists see this respect as central to the creation of a sustainable future, but in doing so they tie their arguments to a faith in the myth of primitive ecological wisdom, which anthropological knowledge exposes as untenable. The globalists, on the other hand, seek to impose an overarching hegemony which renders more or less worthless their claim to respect cultural diversity, and which reveals their understanding of culture to be particularly naïve and uninformed. It also calls into question their commitment to democratic principles.

Cultural diversity becomes particularly important when viewed in the context of observations made above. If no human culture holds the key to ecological wisdom, then it is essential to conserve the greatest possible number of ways of interacting with the environment if we are to maximize the chances of survival, both of our own species and of those with which we share the planet. To this extent, I agree with the anti-globalist view that protecting cultural diversity might offer the best chance of conserving biodiversity, though I would not accept the argument presented by some anti-globalists, that cultural diversity can guarantee the protection of biodiversity. Neither the anti-globalist nor the globalist perspective has identified the political circumstances in which cultural diversity can be effectively conserved.

That environmentalist arguments can be ill-founded and inconsistent is not itself a surprising revelation. Environmental discourse is essentially political, shaped by vested interests struggling to control the future, and shrouded, therefore, in a great deal of "expressive propaganda". In such contests, it matters more to be convincing than to conform to standards of truth and logic. But cultural analysis can demonstrate in what ways arguments are ill-founded and inconsistent. It can, in Douglas' words, "dispel the fog", by replacing a general cynicism towards, and suspicion of, political debate with a more precise understanding of why we should be unconvinced by some arguments and, perhaps, cautiously receptive to others. If participants in the discourse are willing to listen, then such understanding can only force environmentalist argument on to a franker plane.

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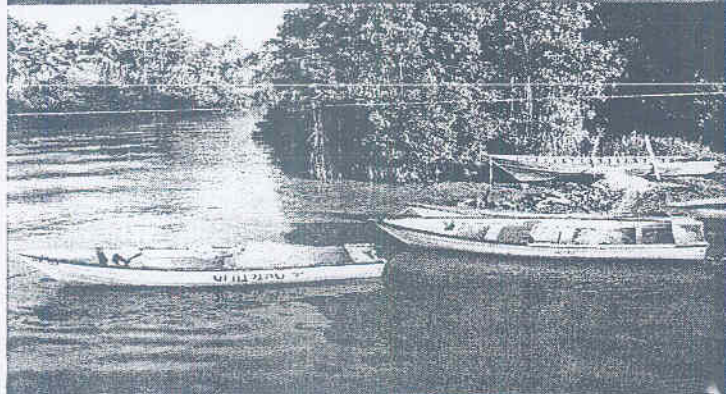
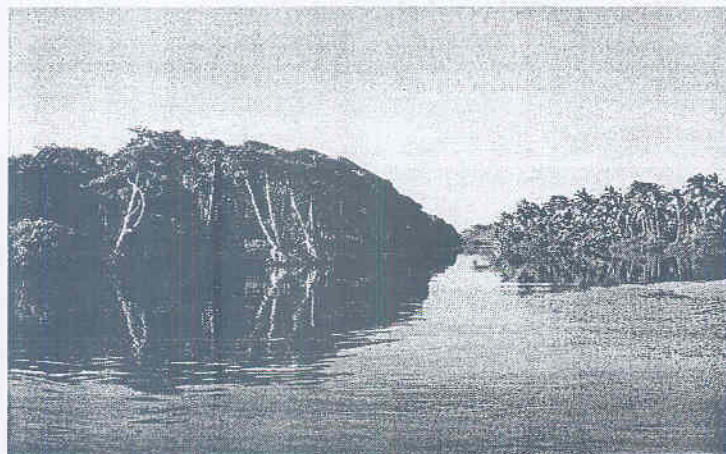
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APPENDIX 2: CASE STUDIES



7th to 11th April 2008



APPENDIX 2: CASE STUDIES 1

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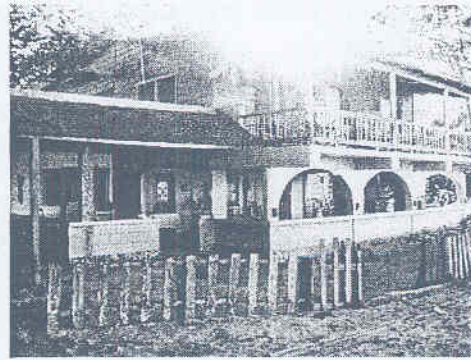
A CATALYST FOR DEVELOPMENT IN GRANDE RIVIERE

"Mt. Plaisir is small and unobtrusive but has become an important engine for sustainable economic growth and natural resource conservation"

- Tending Animals in the Global Village (A Guide to International Veterinary Medicine)



Piero Guerrini - Proprietor Mt. Plaisir Estate Hotel



Mt. Plaisir Estate Hotel

Summary

Mt. Plaisir Estate Hotel (Mt. Plaisir) is an idyllic retreat for the eco-tourist¹ and the first of its kind in Grand Riviere on the North Coast of Trinidad. In its 14 years of existence, the hotel has played a major role in transforming this poor rural village into a vibrant self sustaining community. Since its establishment in the mid 1990's, Mt. Plaisir has seen visitors from all over the world and all walks of life, each coming to experience nature and feel the warmth of a community. This case examines the background of the organization and looks at the challenges and opportunities encountered in seeking to establish a viable business while at the same time developing, empowering and training a community to become self sufficient and sustainable.

¹ "Ecotourism is environmentally responsible travel and visitation to relatively undisturbed natural areas, in order to enjoy and appreciate nature (and any accompanying cultural features - both past and present) that promotes conservation, has low negative visitor impact, and provides for beneficially active socio-economic involvement of local populations" (Ceballos-Lascurain, Tourism, Ecotourism and Protected Areas, Union for the Conservation of Nature(IUCN) (IUCN), 1996)

Tourism in Trinidad and Tobago

Trinidad and Tobago, the most southerly of the Caribbean island chain, has a vibrant energy sector, and is the largest exporter of liquefied natural gas to the United States. Trinidad, the larger of the two islands provides the base for tourism; however Tobago is driven primarily on this sector.

The World Trade Tourism Council estimates for 2005 indicated that Travel & Tourism in Tobago was expected to account for 46 per cent of the island's GDP and 57 per cent of total employment. Furthermore, Travel & Tourism Visitor Exports were projected to account for nearly 96 per cent of Tobago's total exports².

Travel & tourism in Trinidad is primarily business tourism³, but Trinidad would like to increase tourism activity overall, and there are a few still undisturbed natural areas throughout the island that are ideal for eco-tourism activities. Italian expatriate and founder of Mt Plaisir Hotel, Piero Guerrini, discovered one of these areas and transformed not only an estate house but also a community into the "bright village" of the North Coast of Trinidad.

Background

Piero Guerrini first came to Trinidad in 1993 on a photo journalism assignment to create a photo essay on the home of Derek Walcott, Nobel Prize winner in literature in 1992. On this trip Piero visited several Caribbean islands; however, he fell in love with Trinidad.

"When I came to Trinidad I felt something different, something not felt in the other islands"

Piero Guerrini - Proprietor Mt. Plaisir Estate Hotel

During this visit Derek Walcott told Piero about the village of Grande Riviere, "one of the few places where the untouched Caribbean of his youth still existed"⁴. When Piero visited this remote village it marked the end of his journalistic career; he completed his assignment and returned to Grand Riviere to open the Mt. Plaisir Estate Hotel (Mt. Plaisir). Five years later (in 1998), the hotel was awarded the prestigious Ernst and Young Entrepreneur of the Year award in the Tourism and Hospitality Category.

² Trinidad and Tobago: the impact of travel and tourism on jobs and the economy – World Travel and Tourism Council, 2005

³ A business tourist is a traveler whose main purpose for traveling is to attend an activity or event associated with his/her business or interests

⁴ Fran Severn. 1998. Getaways: where you can pitch a tent. <http://www.outside.away.com/outside/magazine>

Mt. Plaisir Estate Hotel

Mt. Plaisir sits quietly behind the Northern Range of Trinidad, in Grande Riviere, which was, a sleepy village with unrealized potential in 1993. The property was an old boarding house and cocoa estate, and it took loving co-operation from his friends and members from the community to slowly transform the old cocoa estate into an eco-resort one room at a time.

Piero was unable to obtain a loan from any financing or government agency. No one was willing to lend an inexperienced entrepreneur the money to create an eco-resort (a new concept at the time). So with his initial personal investment of US\$30,000 he purchased the property in partnership with Cyril James (who eventually left the partnership to establish his own hotel in Grand Riviere). Together they renovated each room, one at a time and the revenue from completed rooms was reinvested into further renovations. The hotel opened to the public in 1994, and was a success from the start. Within three years Piero broke even on the initial investment. Most of the help to renovate Mt. Plaisir came in the form of labour provided by village members thanks to the relationships he developed. Even though on a tight budget, Piero managed to pay each worker a daily rate for the services provided.

Mt. Plaisir now includes thirteen rooms with a view of the Caribbean Sea. These rooms can accommodate four to six persons and are available throughout the year, with peak season running from December to August. Rates to December 2007:

Accommodation only (per room, per night)

- Room - double occupancy – USD\$90
- Suite – maximum four persons – USD\$100
- Beach Loft – maximum six persons – USD\$125
- Additional person – USD\$20

The accommodation rates charged at Mt. Plaisir are comparable with other similar type hotels in Grande Riviere. However being the largest hotel in the area, Mt. Plaisir's revenue earning potential is higher. Piero also notes that he is not concerned with profit but rather with efficiency levels at which the hotel operates. He achieves this by ensuring that resources are not wasted.

The hotel also has a restaurant that offers primarily local cuisine using local, organic ingredients grown on the Mt Plaisir Estate lands. Homemade pizza is served on Sundays, baked in a Neapolitan oven built by Piero's father.

Piero describes the hotel as a "showpiece for work produced in the Grande Riviere community", he sees it as a tool to develop and stimulate entrepreneurship within the rural village. Visitors to the hotel who are interested in the anything from the art on the walls to the placemats on the breakfast table are easily directed to the person in the village who produced the piece. More often than not, it results in an order. The lobby of the hotel also displays craft-carvings, statues, jewelry and paintings from local artists.

Piero has developed a viable model for sustainable tourism⁵ through his interaction with the local community. From the construction phase more than a decade ago, to the day-to-day operations of the estate, the village has provided the resource base for raw materials, labor and innovation. Most of the materials used for construction came from the village, using traditional methods. For example all the wood was supplied from the nearby forest and "cut in the new moon", because the villagers believe this is the best time to remove the trees from the forest.

When Mt. Plaisir was first established an English aristocrat approached Piero to use the model in some small English villages that needed to be "saved". Even though the Englishman did not follow through with his initial idea Piero was very optimistic that the model would have worked. He suggests that his model can also work in many rural villages all around Trinidad and Tobago like Blanchisseuse, Las Cuevas, Morouga, or any village with a "strong community spirit". To date no one has taken the initiative to adopt the model in any of these communities.

Piero sees his function as not simply to provide employment but also to empower people to move away from the "dependency syndrome"⁶ that often plagues rural communities. He encourages employees to develop their skills and become entrepreneurs under his guidance and training. The potential of this model is evident in Piero's former business partner, Cyril James, who now owns and operates a similar type of lodging establishment just opposite to Mt. Plaisir Hotel.

On receiving the Entrepreneur of the Year award in 1998, Piero commented "it is possible to build a thriving enterprise while benefiting the employees and the community". Ask anyone in the village about Piero Guerrini and you can feel the love and respect they show for this man.

Mt. Plaisir also places heavy focus on environmental conservation and wildlife preservation. The beach front on which the property sits is a major nesting site for the leatherback turtle. Mt. Plaisir gained global recognition in 1999 when it was invited to join Green Globe 21⁷. Green Globe recognizes and promotes companies that have achieved substantial savings through waste minimization and conservation of fresh water. Mt. Plaisir spent two years listed as an "affiliated hotel" with Green Globe 21, however a formal assessment and evaluation of the property was never done and to date Mt. Plaisir is no longer on that list. In December 2006, Piero hired a consultant to perform an audit of the parameters stipulated by Green Globe to complete the membership process.

⁵ Sustainable tourism: an industry which attempts to make a low impact on the environment and local culture, while helping to generate income, employment, and the conservation of local ecosystems. It is responsible tourism which is both ecologically and culturally sensitive. – The Global Development Research Development <http://www.gdrc.org/uem/eco-tour/eco-tour.html>

⁶ The "dependency syndrome" is an attitude and belief that a group can not solve its own problems without outside help. It is a weakness that is made worse by charity.

⁷ Green Globe is the worldwide benchmarking and certification program of the travel and tourism industry.

Drivers for establishment

"If things are done right, profit will follow"

Piero Guerrini - Proprietor Mt. Plaisir Estate Hotel

Piero does not describe himself as a businessman and he makes it clear that he is not driven by profit but believes that through the development of his staff and the community, profit will undoubtedly follow. He is mostly interested in social and environmental return. Together with feeling that "something different" in Grand Riviere, Piero also saw an opportunity for an interaction with the community that could be mutually beneficial.

Creating Employment

The employment potential was one of the major drivers for the establishment of Mt. Plaisir. Piero saw the opportunity to provide meaningful employment to a community which was traditionally agricultural based, but suffering from a significant decline in the industry.

In the early 1970s more than one third of the villagers were agriculturalists. Cocoa continued to be a major source of income even though the estate (Mt. Plaisir), the only cocoa estate in the community, provided direct employment for less than a dozen men. In the late 1970's when cocoa prices fell many villagers were left unemployed and people began leave the village. Alternative sources of income for the villagers came from hunting wild meat and the occasional turtle. Some villagers also worked as casual or permanent labourers on the government's road programme.

In 2006, the hotel employed twenty (20) people from the village on a fulltime basis (seventeen (17) females and three (3) males). The females generally worked in the areas of house cleaning and food and beverage while the males tend to be involved in areas such as maintenance and landscaping. In a community of approximately three hundred and seventy five (375) people this accounts for more than 5% of the population. Mt. Plaisir was the first hotel set up in the area and since its establishment three other hotels and several guest houses have opened. In addition, other spin-off employment opportunities have been created, including tour guiding and beach patrolling as well as the provision of fresh produce for the restaurants. As a result, the tourism industry employs approximately 160 people from Grande Riviere, or more than 40% of the population. The opportunities created because of tourism has also encouraged people from neighboring villages come to Grande Riviere in search of employment.

Training Workers

Piero prides himself on his employee training. In an article in Macco magazine Piero describes Mt. Plaisir as the "Free University of Grande Riviere". Since there are no schools nearby for villagers to gain formal education on guest relations, the hotel provides hands on learning for staff. Piero himself offers training and

although he was never professionally trained in guest relations, his interactions with the guests reflect his values and sense of caring to ensure that they are well taken care of. Staff also benefit from government facilitated training programs through organizations like the Tourism Development Company Limited (TDC). The driver for Piero is the opportunity to empower employees to develop long term careers, resulting in a sense of independence, achievement and accomplishment.

Creating Entrepreneurs

One of Piero's goals is to develop the community to become self sustaining⁸ and embedded in the Mt. Plaisir's business model is an aspect of enhancing and promoting the entrepreneurial spirit. Apart from the members of the community that he employs directly, he uses the hotel as a "market" for local craftsmen and artisans to display their work which is on show for thousands of guests each year. Piero recognized the villagers' artisan talent, and everything "Grande Riviere" can be seen at the hotel where visitors can purchase directly from the hotel (artwork, crafts, batiks etc) or they can be connected to the producer to place an order. Piero estimates that ten thousand dollars (USD\$10,000) worth of art and craft is sold through his hotel every year. He takes a small commission (10%) of this for the use of his lobby as a selling point for their art. All the decorations and artwork at Mt Plaisir hotel were made by and purchased from the artists in Grande Riviere.

Caring for the environment

The motivation for Mt. Plaisir was also driven by a keen interest in protecting the natural environment. Integral to the Grand Riviere environment is the endangered Leatherback turtle.

The hotel sits adjacent to the Grande Riviere beach which together with Matelot, (another rural community on the North Coast) provides one of the largest nesting sites for Atlantic leatherbacks in the world. Piero's avid involvement in the protection of this endangered species is of mutual benefit since leatherback turtles are one of the main attractions to Grande Riviere and more than 6000 people purchased permits to see the turtles during their nesting season in 2005. From March to August the hotel burns no bright lights in the nighttime, since it would disturb the turtles when they beach for nesting. Table 1 shows the number of permits granted to allow visitors to see the nesting of the leatherback turtles in Grande Riviere.

⁸ Self-sustaining – the ability to sustain oneself or itself independently

Table 1: Total Number of Permits Issued in Grande Riviere

Year	Total
2000	2506
2001	3824
2002	3334
2003	3207
2004	3710
2005	6,507
2006	9,400

Source: Grand Riviere Tour Guide Association

Protecting the Grande Riviere Brand

Piero respects the Mt. Plaisir environment and community that led him to his new life as an hotelier. Grande Riviere has a strong community spirit, together with a beautiful pristine environment. However mass tourism, particularly in a sensitive area like Grand Riviere, can lead to degradation of both the environment and the community. Piero is mindful of this. He believes "smaller is better" and tries to balance development of the area with maintaining the harmony of the society and the environment.

Piero has been very careful to ensure that his hotel operations are environmentally friendly and adopts practices such as collecting biodegradable kitchen waste for composting. This compost is then used on the Mt. Plaisir farm which grows much of the fruits, vegetables and livestock for the hotel.

From a societal perspective Grande Riviere is a very small village that is strong and firm in their beliefs. Piero recalls an old saying "it takes a village to raise a child" and confirms that the village of Grand Riviere will not allow tourism to corrupt their way of life or change their values. He related the story of a young local girl who offered "sexual favours" to tourists for a fee. She was eventually forced to leave Grand Riviere since the community would not accept that type of activity which tarnished their reputation.

Overcoming the Challenges Facing Mt. Plaisir

"The whole effort was a success because of a lot of luck and a lot of hard work for the customer"

Piero Guerrini – Proprietor Mt. Plaisir Estate Hotel

Mt. Plaisir's success was not easily achieved. When Piero decided to establish the hotel, some people - specifically potential financiers and a few villagers - thought that he would fail miserably. However, with the support of his friends, family and the majority of the community he was able to turn an abandoned estate into a very profitable business. During the start-up and throughout its operations, Mt. Plaisir had many challenges to overcome.

Financial

Obtaining financing was the first and perhaps largest obstacle that Piero had to overcome in his venture to establish Mt. Plaisir. All the traditional business financiers such as banks and other lending institutions turned him down outright. At the time Piero was freelance photo journalist with no prior experience working in the hospitality industry. The only collateral that Piero had to offer was a love and a passion for Grande Riviere and a desire to develop and empower this rural community. He admits that a lot of his success was due to "luck". He managed to raise the money for the estate from his friends and family with most of the financing coming from his own pocket.

Establishing business operations in a foreign land

Even after obtaining adequate funds for the start up of Mt. Plaisir, Piero knew little about the details of establishing a business in Trinidad and Tobago. Being a foreigner and having visited only once before, Piero sought the support of a Grande Riviere local, Cyril James, who had all of the necessary contacts. Piero subsequently invited James to join the business as a partner and Mt. Plaisir opened to the public in 1994.

Earning Trust

Another challenge for Piero, especially as a foreigner in a small rural community, was earning and building the trust of a village that was traditionally very cautious towards outsiders. When Piero came to the village in the early 1990's to start up his establishment, the village was very suspicious of his intentions and very skeptical of him. He earned and built trust through providing a number of services to the villagers; Piero had the only car in the village and would often use it to take people to the doctor when medical emergencies arose. He also became an informal lending agency which built mutual trust, with borrowers always paying back everything that was loaned. Slowly in the eyes of the villagers, Piero became someone they could rely on and they embraced and supported his efforts in their community.

Lack of Qualified Employees

At the time of Mt. Plaisir's establishment, skilled workers were not readily available in the village; however, since the desire to develop the people of the community was one of the Piero's motivations, he played a leading role in training his workers to improve their skills and develop their competence. With no formal hospitality training himself, Piero's guidance to his employees was always focused on doing whatever was required to enhance the guests' experience through the services offered at the hotel.

Formal training is also provided to the employees. At the beginning of every season (mid December) Piero invites international chefs to visit his kitchen to train the Mt. Plaisir chefs and cooks. The hotel chefs are trained to be consistent, so that every time a meal is prepared, it is prepared to the same standard. The

consistency of the meals is very satisfactory to Piero, and his guests often comment that the quality rivals that of international restaurants.

Piero says many villagers who begin working for him believe that they will fail. To combat this paradigm he constantly challenges the employees so that they see that they can achieve the tasks assigned. Thus the workers build confidence and independence through empowerment, and slowly their attitudes begin to change. Piero notices that as the employee builds self esteem, it reflected in new tasks that the employee is willing to take on.

Piero sees learning is always continuous at Mt. Plaisir and he intends to further train his staff. One area that he wants to develop is that of Food and Kitchen Management, specifically reducing the levels of waste. Due to the distance of the hotel to markets and groceries it is very important to ensure that food is not wasted and this is one area that Piero sees for improvement. Guest Relations is another area that Piero would like to be upgraded. He makes it clear that his staff performs satisfactorily; however, there is always room for improvement.

As a result of this training and empowerment Piero has developed a loyal staff and achieves a low employee turnover. He also offers his staff wages that are comparable with some of the larger hotels on the island (e.g. Hilton Trinidad and Conference Centre) which are higher than those generally offered in Grande Riviere.

Distance from Capital City

Mt. Plaisir is almost a two hour drive from Piarco, the only international airport on the island. In the early years of the hotel's establishment, Piero had concerns as to whether International visitors would be willing to make this long journey after arriving on the island. These fears were soon allayed when arrivals to the village and the hotel started increasing rapidly. The Grande Riviere Tourism Development Organization⁹ (GRTDO) estimates that in 2006 some eighteen thousand (18,000) tourists visited the area, with fourteen thousand being non-nationals.

Distance proved to be a challenge in terms of logistics for the purchase of supplies and materials, both in the building, and day to day operations of the hotel. However this obstacle led to increased innovation in the use of locally available resources. Piero encourages his employees to be as self sufficient as possible and to find creative ways to use locally grown or produced inputs in all operations. For example fabric from replaced curtains is recycled into table cloths, pillow cases or other linen.

Most materials used for the building of Mt. Plaisir came directly from the village, including lumber which in most cases was used in its raw form due to the

⁹ Grande Riviere Tourism Development Organization: Established in 2000, to plan and coordinate Tourism Activities in the village of Grande Riviere.

absence of a sawmill in the area. Fresh fish and meat are purchased from neighboring villages and as much as possible, grown locally on Piero's own farm. Piero usually fosters good relationships with his produce suppliers to ensure that the quality is kept up to standard. He also purchases more than he needs to cater for any produce that is deemed "not good" after careful inspection. These are then used for feed for the pigs at his farm.

Personal Changes

Piero confessed that he had to make many personal changes before he could make Mt. Plaisir a success. A foreigner to the community, he had to adapt his lifestyle to that of a simple rural village rather than the more sophisticated areas he was accustomed to. For him it was imperative to understand and adjust to the ways of the community because the village is so tightly intertwined in his business operations.

Changing Trends

The hotel is appealing to eco-tourists because of its natural feel and its pureness to the environment. However, within the last few years many requests have been made for more "up-to-date" amenities - most notably air-conditioned rooms. While this was not in line with Piero's original concept for the hotel, the number of properties in the area now offering these facilities has forced him to redesign his rooms to accommodate air conditioning units. He is in the process of replacing the existing wooden shutters in the guest rooms with glass panes to properly insulate the rooms to install air conditioning units.

Competition

"I do not see competition I only see opportunities to benefit to the community"

Piero Guerrini – Proprietor Mt. Plaisir Estate Hotel

While Piero does not view it as competition, there are a number of similar type establishments that have opened in the community. For example, in 1996 while still in partnership with Piero, Cyril James purchased a piece of land opposite to Mt. Plaisir and together with his wife, opened a host home which became Le Grande Alamandier in 2000. Both operations co-existed with the latter often accommodating the "spill-over" from Mt. Plaisir. In 2001 Cyril James opted out of the partnership and concentrated solely on his hotel. Although Piero trained Cyril and his wife at Mt. Plaisir, he says that he does not see their establishment as competition.

The challenges and opportunities are similar for all hotels operating in Grande Riviere and while they do not all adopt Piero's model, particularly in their social interactions with the community they do all appear to be sensitive to maintaining that delicate balance between the environment and their operations.

Growth of Grande Riviere Tourism

The impact that Piero Guerrini and Mt. Plaisir have had on the Community of Grande Riviere is notable, and while quantitative economic data does not exist, the community and its people have visibly been impacted for the better.

The property has received international acclaim in many travel guides and environmental publications and this has helped to give the community a voice to lobby the government for facilities and services that enhance the quality of the eco-tourism product, and by extension, the quality of life of its members.

In 1991 the Grande Riviere Environmental Awareness Trust (GREAT), was formed by passionate villagers, and funded by the United Nations Development Programme (UNDP), Small Grants Programme, organized themselves to patrol the beaches to prevent the slaughtering of turtles and sensitize the public about the leatherback turtles. Piero supported the villagers and was instrumental in making a plea to have access to the Grande Riviere beach controlled during the leatherback nesting season of March to August each year, to protect the endangered species. In 1997, access to the beach during nesting season, between the hours of 6pm to 6am was only allowed through the purchase of a permit¹⁰ which ensured that an official tour guide would oversee the visit. Again with Piero as a strong advocate, tour guides and patrollers to check for permits were trained and certified by the Wild Life Section of the Ministry of Agriculture, Land and Marine Resources.

Over time GREAT experienced internal conflicts and became less effective. Some of the members then formed a new organization, the Grande Riviere Nature Tour Guide Association (GRNTGA) in 1999. The primary focus of which is the preservation of the nesting leatherback turtle. GRNTGA took over responsibility for the issuance of permits to access the beach in 2005. Other services of the GRNTGA include tours into the forest to allow tourists to see the various flora and fauna that exist in Grande Riviere and even to catch a glimpse of the Pawi¹¹, a rare bird species that is endemic to the North Coast of Trinidad.

The GRNTGA is overseen by the Grand Riviere Tourism Development Organization (GRTDO) which was formed in 2000 to monitor and develop tourism for the benefit of the village. The GRTDO runs an information centre that is designed to gather information on tourism in the area such as number of visitors, distribution of permits and number of turtles that come ashore to nest. The GRTDO also disseminates the information to all stakeholders including tourists and government agencies.

The creation of Mt. Plaisir has paved the way for many similar type establishments. Mc Eachie's Haven was opened in 1999 and Acajour was opened in 2004. As the number of tourist arrivals increased to witness this unique

¹⁰ Obtained from the Wild Life Section – Forestry Division of the Ministry of Agriculture Land and Marine Affairs

¹¹ Pawi (Trinidad Piping Guan) is considered Trinidad's only endemic bird, but is also considered critically endangered, so many birders make an effort to see them where possible.

eco-tourism experience, villagers also began to offer rooms for rent, in some cases adding on guest rooms to their homes to provide accommodation. Tourism development seemed to be embraced by the Grande Riviere community and arrivals have been steadily increasing and in 2006 the GRTDO recorded visitors from 101 countries. Table 2 shows the growth in visitors to Grande Riviere over the last six(6) years and Table 3 shows the growth of guests at Mt Plaisir over the last two(2) years.

Table 2: Number of Visitors to Grande Riviere

Year	Total
2000	3,800
2001	4,800
2002	7,400
2003	7,654
2004	8,200
2005	14,303
2006	18,000*

* Estimated

Source: Grande Riviere Tourism Development Organization

Table 3: Total Number of Guests at Mt. Plaisir¹²

Year	No. Guests
2005	4790
2006	5270

Source: Mt. Plaisir

¹² Data not available pre-2005

Expansion Opportunities

Over the years Mt. Plaisir's revenues have been growing and Piero sees potential for improvement and expansion. Table 4 shows the growth of revenues experienced by Mt Plaisir Hotel between 1995 and 2002 (the most recent audit figures to date).

Table 4: Mt. Plaisir Revenue

Year	Revenue (Trinidad and Tobago Dollars (TTD)) ¹³
1995	\$358,497
1996	\$636,219
1997	\$696,599
1998	\$871,507
1999	\$1,225,716
2000	\$1,494,892
2001	\$1,618,718
2002	\$1,591,699 ¹⁴

Source: Mt. Plaisir

Room additions and conference/retreat centre

Piero has plans to expand the facility while at the same time striking a balance between development with environmental and community preservation. He intends to increase his room capacity by six rooms, which would be built just to the west of the current structure. The proposed two story building would be designed with a large conference room on the ground level for retreats, seminars etc.

Increasing self-sufficiency

To be more self-reliant, Piero has established a small farm where he grows fruits and vegetables and rears animals for his restaurant. He is very excited about the potential of this farm and would like to turn it into a separate guest house. The intention is to develop the farm as an agri-tourism project.¹⁵ This venture will provide lasting educational experiences for tourists together with a variety of outdoor activities and alternative forms of recreation. The intention is for this establishment to operate independently of Mt. Plaisir with its own name and brand and marketed differently.

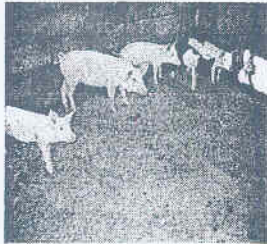
A project of this nature would also benefit the community since more jobs would be created. Piero also hopes to turn the farm into a school where agriculture can

¹³ Trinidad and Tobago Dollars(TTD) Exchange Rate: \$1USD = \$6.3 TTD

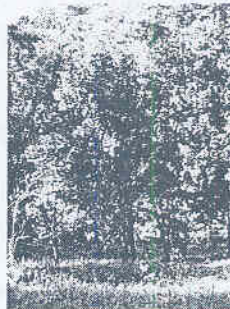
¹⁴ The decrease in revenue was attributed to the events of September 11th 2001

¹⁵ Agri-tourism refers to a "commercial enterprise at a working farm ranch or agricultural plant conducted for the enjoyment of visitors that generates supplemental income for the owner".- Agritourism Pure Holiday.
<http://www.agritourism.in>

be taught to the young people in hopes of reestablishing a vibrant agriculture community in Grande Riviere.



Pigs reared on the farm



Fruit trees on the newly established farm



A turkey reared on the farm

Conclusions

The establishment of Mt. Plaisir Estate Hotel seems to have ignited a spark in the community of Grande Riviere that has significantly transformed the village. While Piero is modest in accepting credit for this transformation he admits that the village today is much different from what it was ten years ago.

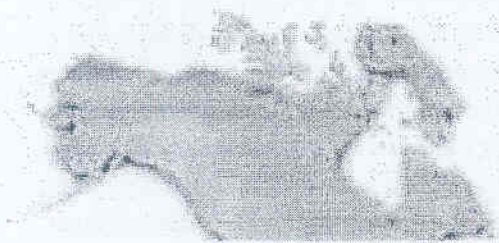
The community of Grande Riviere is now a vibrant village – the "bright village" on the North Coast, fueled by tourism and pride yet remaining true to the values and beliefs that provided the foundation for its development.

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10

Women in Charge: Trinidad and Tobago



GENERAL INFORMATION

❖ **Implementing Institution:**

Plum Mitán Village Council

❖ **Head:**

Rose Rajbansee (President)

❖ **Details of Institution:**

Address: Plum Mitán Village Council, Plum Mitán,
Manzanilla, Trinidad and Tobago, West Indies

Tel.: (+1) 868 668 1494

E-mail: rose@cablenett.net

❖ **Implementation Period:**

Construction of the dam took less than six months.
The University of West Indies study began in 2003.

❖ **Costs:**

Construction materials for the dam were provided
by the villagers through a voluntary donation scheme.
Labour was also supplied by the villagers.

SUMMARY

Although some 90 per cent of the population of Trinidad has access to an improved public water supply, this is often intermittent and only 14 per cent have access to a continuous supply.

In January 2003, the Centre for Gender and Development Studies (CGDS), University of the West Indies, began studying access to public water on the island of Trinidad, particularly in relation to gender. A team consisting of a biologist, a geologist and a social scientist undertook a study of the community of Plum Mitán in east-central Trinidad. Since the early 1950s, this community has managed a local spring that has provided villagers with a supply of potable water independently of the national public water supply operated by the Water and Sewerage Authority (WASA).

The situation is unusual as the dam and distribution systems are managed by a female-dominated village water council, which is responsible for organizing volunteer labour and fund-raising activities. Extra funds are put into a village bank account. This approach has resulted in the successful long-term, cooperative management of the Plum Mitán water supply.

Water in Plum Mitán is abundant during the wet season and is available round the clock. During the dry season, however, the village council puts a curfew on water flow. Although this produces some complaints and causes some people to hoard water, the leader of the village council characterizes the system as one of

successful "self-policing and self-regulation with a little fussing in between".

Although the system has operated for more than 50 years, it is about to be decommissioned because the dam cannot provide enough water to support recent increases in the demand for water brought about by an increase in the number of households in the area and lifestyle changes. In addition, WASA has recently provided Plum Mitán with mains water.

BACKGROUND AND JUSTIFICATION

The two-island nation of Trinidad and Tobago is aiming towards the goal of "Water for All", which the Water and Sewerage Authority (WASA) is working to achieve. The World Health Organization (WHO) Global Water Supply and Sanitation Assessment Report of 2000 registered 86 per cent of the population of Trinidad and Tobago as having access to an improved water supply. By definition, this includes public standpipes, household connections, boreholes, protected dug wells and springs, and rainwater collection. In contrast, an unimproved water supply includes unprotected wells and springs, vendor-provided water, bottled water and tanker truck provision of water. The figure of 86 per cent is comparable to that reported for India (88 per cent) but is low compared to those for other Caribbean countries. Furthermore, in spite of the promises of different Governments to improve the water supply, the figure of 86 per cent represents a

substantial decrease over figures recorded for 1970 (93 per cent) and 1994 (98 per cent). This decrease can be accounted for by an increase in urbanization and the rise of squatter settlements. Also, although precise figures are not available, it is likely that there are disparities in water supply between urban and rural areas. In Latin America and the Caribbean, for example, WHO has cited an access rate of 93 per cent for people living in towns and cities but just 62 per cent for the rural population.

Although the majority of the population of Trinidad is connected to a pipe-borne water supply managed by WASA, key officials have described the water supply as "haphazardly intermittent". In 2001, the former Minister of Public Utilities noted that only 14 per cent of the population received water 24 hours a day, seven days a week; 32 per cent received water five to seven days a week; 13 per cent, three to five days a week; 18 per cent, two to three days a week; 13 per cent, less than two days per week; 4 per cent have the infrastructure for a pipe-borne supply but receive no water; and 6 per cent have no infrastructure. These data were corroborated by the Minister of Public Utilities in 2003.

The first organized water supply established on Trinidad was the Maraval waterworks, commissioned in 1853. Today, WASA is responsible for the public water supply system, 36 per cent of which is used domestically, 18 per cent by industry and 3 per cent by agriculture. However, this leaves as much as 43 per cent of the supply unaccounted for. In

other words, it either never reached the customer or it was not paid for. This would include water lost from broken pipelines, water used for firefighting, water used in waste-treatment plants, reservoir seepage and overflow, evaporation, illegal connections and accounting errors. The amount of water that remains unaccounted for is about 8 per cent higher than the mean amount of water unaccounted for in large cities in Latin America and the Caribbean, suggesting problems with the infrastructure and management inefficiency by WASA.

A Commission of Enquiry into all Aspects of the Operation of the Water and Sewerage Authority was held in 1973. However, the complaints received then continued in 2004, more than twenty years later. These include: having to rely on water for cooking from springs a mile away; receiving a supply of pipe-borne water only at night; and, in some instances, dry taps for periods of two to three weeks and, in other instances, for up to three months, with truck-borne water being supplied only on an irregular basis after repeated requests.

Several explanations have been put forward to account for the inadequate supply of water. In recent years, there has been a marked demand for water in industries since the national development is linked to the exploitation of petroleum and natural gas reserves and the development of industries such as iron and steel, methanol and nitrogen-based fertilizers. The old infrastructure is incapable of meeting these rising demands. In addition, there have been several reports of

leaking pipes that are not repaired in a timely manner, leading to excessive wastage. Potable water is also used for agricultural purposes.

An adequate water supply can be achieved only if water sources are used within the limits of renewability and are allowed to recharge themselves. While 50 per cent of the land area on Trinidad is forested, recharging of the water supply is compromised owing to excessive deforestation caused by rapid urbanization, quarrying, indiscriminate fires, logging, slash-and-burn hillside farming and clearing, and illegal squatting. These deforested mountain slopes are unable to retain water and have led to more frequent flooding in the wet season.

The wet season, which runs from June to December, is one of the two distinct hydrologic seasons in Trinidad. A five-month dry season extends from January to May. The estimated mean annual rainfall is 2,200 millimetres, but 80 per cent of this occurs during the wet season. Prevailing winds are from the northeast and the Northern Range acts as a physical barrier to rainfall so that the highest mean annual rainfall, 3,800 millimetres, occurs in the northeast, which is sparsely populated. In contrast, the lowest mean annual rainfall occurs in the west, the area with the highest population density.

Countries are said to be facing a serious water crisis when available water is less than 1,000 cubic metres per person per year. The renewable fresh water resources of Trinidad and Tobago are

estimated to be 3,800 million cubic metres per year so that the per capita annual water availability is approximately 2,500 cubic metres. Therefore, the island is not water scarce. However, the temporal and spatial variations in rainfall in Trinidad, combined with the pattern of population distribution, the poor infrastructure and inadequate strategic planning at the local level, result in formidable challenges to those who aspire to a reliable, clean supply of potable water 24 hours a day, seven days a week. It was precisely to meet this challenge that the villagers of Plum Mitán rallied together in the early 1950s to harness the water from a nearby spring.

DESCRIPTION

Plum Mitán is a small village in east-central Trinidad, an area where many of the villagers grow crops such as bananas, citrus, cocoa and coffee. While the menfolk took care of the fields, traditional values meant that it was the social responsibility of women to provide safe drinking water, cooked meals and a clean home, all of which depended on a clean, reliable year-round source of water.

Prior to the 1950s, when the population of the village was small, water was fetched from the spring-fed stream that ran from the hillsides through the village. However, as the village population began to increase, so too did pollution in the stream and doubts arose concerning the potability of the water. Today the village consists of some 300 households.

The villagers therefore developed a plan to dam the water near the spring and pipe it to the village. Not only would this protect the water from pollution but it would also provide a means of controlling the supply and save on time and labour spent on walking long distances to fetch water. Local health authorities supported the project.

Led by Deokie Rajbansee, the owner of the land where the spring was located, the men of the village constructed a dam immediately downstream from the spring in an area devoid of human habitation (fig. 1). Construction materials included gravel, sand, cement, steel rods and wire mesh. To keep out fallen leaves and other debris, a roof was formed from a double layer of wire mesh. The first pipes used for carrying the water to the village were four inches (10 centimetres) in diameter and a stopcock was installed in order to turn the water supply on and off. Four standpipes were installed, one in the landowner's yard and three others along roadsides for use by the other villagers. Since most of the households were located downhill from the reservoir, no pumps were required and water was obtained via gravity flow.

Approximately once a month, the dam needs to be cleaned of moss and algae, particularly during the dry season when there is less water flow. Cleaning requires the use of scrubbing brushes, chlorine bleach and labour. While the floor of the dam and the bore of the pipes are thoroughly cleaned, the water supply is disrupted for a whole day. Although

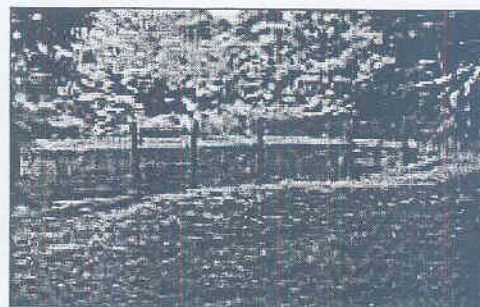


Figure 1. Site of the dam, constructed by the local community in the 1950s, that provided clean drinking water to the villagers of Plum Mitán for more than 50 years.

not every villager willingly participates in the cleaning effort, usually enough volunteers are available. Owing to these measures, the villagers prize the quality of their water even though health inspectors have occasionally advised them to boil the water. At one time, infrastructure was put in place to store chemicals for chlorinating the water. However, although these measures were never adopted, no one in the village ever becomes ill from water-borne diseases. It could be that, because they have grown up with the water, the villagers are immune to any possible harmful organisms.

The success of the long-term maintenance and operation of the dam has been attributed to two people. Today, Rose Rajbansee oversees all operations from cleaning to fund-raising (fig. 2). She is the local primary school teacher and currently holds the office of President of the Caribbean Network of Rural Women Producers and of the Trinidad and Tobago Federation of Women's Institutes,

both of which work with the Ministry of Social Development to improve the quality of life for women and their families. While still quite young, Rose Rajbansee had gained the respect of the other villagers and had taken over the responsibility of managing the dam from her father, the second person responsible for its long-term operation and maintenance. She is now also President of the Plum Mitan Village Council, which consists of 12 members, eight of whom are women. The water committee of the Village Council consists of three men and five women. Rajbansee and other members of this council often went from house to house soliciting voluntary contributions in order to obtain the funds needed to maintain and repair the dam and water system. Excess funds are kept in a village bank account, which is augmented by various fund-raising activities.

While this arrangement worked well for more than thirty years, by 1985, the dam was no longer able to meet the needs of all the villagers. Not only had the population increased but changes in lifestyle meant that more people were using showers and flush toilets. To cover the

shortfall, a stream was located on another property and negotiations took place to allow the channelling of this stream into the dam. The bore of the pipes was also increased to six inches (15 centimetres) to prevent the dam from overflowing and, once again, a water curfew was implemented in the dry season.

In spite of these measures, the village's available water supply was still not sufficient to meet its needs. No other suitable springs could be located and, in addition, it was felt that the soil type would not support the construction of a larger dam.

After more than 50 years of managing their own water supply, therefore, the villagers have now turned to WASA to provide pipe-borne water to all households. However, this has not yet solved their problems since those who were receiving a supply from the dam are now also receiving a supply from WASA, while those who, because of their location on higher ground, were not receiving supplies from the dam are still not being supplied by WASA. These unconnected households, however, are being asked to pay water rates since they

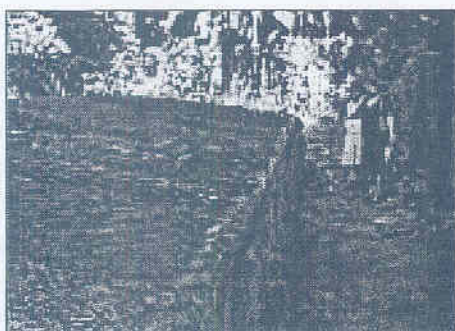


Figure 2. Rose Rajbansee, President of the Plum Mitan Village Council (left), discusses the operation and maintenance of the dam with the author of the case study.

live within a given distance from a stand-pipe prescribed by WASA. Villagers hope that, in a planned second phase, WASA will be able to supply piped water to homes located on the hillsides.

PATENTING AND COMMERCIALIZATION

The supply of water to the village of Plum Mitan used simple technologies that required no patenting and that could be easily replicated elsewhere without commercial partners.

PARTNERSHIPS

There was no private-sector, regional or international involvement in this project. The stakeholders were members of the entire local community who sought advice from public officers as required. This innovation encouraged a sense of togetherness, community and partnership among its members. When certain households were unable to give financial support on one occasion, they were expected to supply labour or contribute more the next time around. Maintenance and cleaning tasks were shared among all households. Since water is a basic requirement of all people, this project had the added benefit of strengthening partnerships and encouraging a team spirit among the community members.

REPLICABILITY

The construction of a dam similar to this one can be replicated in any location where a spring exists. The size will depend on the supply of water at the source and the soil characteristics of the chosen location. This, together with the water requirements of the users, will determine the number of households that can be supported. Most of the materials required are readily available in most countries and are not expensive. Local communities can organize themselves to provide the necessary labour.

During the 1970s, a much larger dam, similar in design, was constructed by members of an agrarian community, Tumbason, which was being established on the slopes of the Northern Range. The dam continues to provide water for domestic use in 17 households and for agricultural practices. In 1990, rehabilitation work on the dam was carried out by WASA, which continues to monitor the supply. The cost of water supplied in this way is minimal and is even regarded as being supplied for "free" since there are no fixed bills to be paid.

However, plans to replicate such a project should include guidelines to ensure that the population being served does not exceed the number that the dam can effectively support, and local government planning officers should not approve the construction of additional homes that would result in the dam becoming obsolete and necessitate the

introduction of a public supply with all its attendant problems. Also, in addition to the villagers who should develop their own water-use policies, an agency such as a local health authority, county council or WASA should ensure that the water quality meets all the necessary measures of health and safety.

POLICY IMPLICATIONS

In this case, the villagers were able to identify and exploit a suitable source of water for many years without government intervention and at a very low cost. Instead of supporting expensive infrastructure and connecting isolated rural communities to national piped water supplies, governments could help communities to establish village-level water management committees and provide them with technical training and support as the Population and Community Development Association is doing in Thailand (see the case study, "From Health to Wealth: Thailand"). In this way, local water sources can be used efficiently, probably at a fraction of the cost of extending national-scale water supply systems.

LESSONS LEARNED

Owing to the demand for water from the villagers, it was relatively easy to find volunteers to help to construct the dam. Also, with leadership from such a person as Rose Rajbansee, villagers were contin-

ually reminded of what an essential resource their water was and both funds and labour were regularly available for maintenance operations.

Among the problems that needed to be tackled and that still had not been completely resolved even after 50 years of operation were the following. In the dry season, the shortage of water meant that agricultural activities had to be curtailed somewhat. Also, residents of households located on higher land needed to understand that they would always be the first to have dry taps when the supply was limited and that households in the valley would continue to have a supply because the flow was due to gravity.

A key principle for integrated water management identified during the 1992 United Nations Conference on Environment and Development (the "Earth Summit" held in Rio de Janeiro, Brazil) was that water should be managed by those who use it the most and that all those who have an interest in its allocation and use, particularly women, should be involved in any decision-making. In the Caribbean, women both act as consumers and traditionally manage their households, including the use of water. Thus, a starting point for community management of water that might rehabilitate waterways and ultimately allow for the equitable distribution of water would be the enfranchisement of women as water managers, as has happened at Plum Mitán.

Instead, a reliance on public-funded, engineered solutions means that communities often receive their water from

distant sources. This often leads to a disconnection from the environment and the indiscriminate disposal of solid waste in watercourses. Indeed, wholesale dumping of wastes in watercourses as well as on land is commonplace in Trinidad and has been identified by UNDP as an issue needing serious attention. Water pollution is also on the rise throughout Trinidad. Threats to both ground and surface water come from agricultural and industrial chemicals such as pesticides and solvents, bacterial contamination from sewage effluent and saltwater intrusion. Against this background, any efforts by the Government to support the community management of water resources will benefit both the community and the nation. The abandonment of a locally developed solution, such as that of Plum Mitán, with the introduction of an alternative system from outside brings with it problems of mismanagement and unsustainability. The villagers of Plum Mitán were satisfied with their supply of water until the demand outgrew the supply, and many villagers continue to drink the spring water rather than the chlorinated version offered by WASA.

IMPACT

The construction of a community-managed dam provides a number of benefits in terms of community empowerment, well-being and quality of life. In addition, not having had to pay for their water for many years has allowed the

villagers of Plum Mitán to use any income for other purposes.

Using local spring water in this way also has little, if any, negative impact on the environment. A World Water Council report issued after the First World Water Forum held in 1997 stated that the present water crisis "is a crisis of managing water so badly that billions of people, and the environment, suffer badly". Community empowerment for local water management provides one possible solution to the crisis.

FUTURE PLANS

Owing to the arrival of piped water from WASA, there are no plans for maintaining the existing dam and pipelines in Plum Mitán. Villagers living on higher slopes, who still need to fetch water from the standpipes, are hoping that WASA will soon install the necessary infrastructure so that they can access water from their homes.

Many householders, however, are already installing 1,820-litre water storage tanks in their yards in anticipation of cuts in the supply from WASA. Unfortunately, there are no further springs available to augment the existing local supply in Plum Mitán and it is a pity that the introduction of an alternative supply has resulted in the abandonment of the existing dam. It is hoped that, in future, policy-makers can be sensitized to the wisdom of encouraging and supporting the community management of key resources such as water.

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Project Participants:

Ken Butcher: Sanitary inspector who gave advice on sanitation aspects during construction of the dam.

Deokie Rajbansee: Owner of the property on which the spring was discovered and on which the dam was constructed.

Rose Rajbansee: President of the Plum Mitan Village Council.

Brinsley Samaroo: Parliamentary Representative for the area who gave general support and advice.

Individual staff members from the Local Health Authority and from the Water and Sewerage Authority (WASA) who advised on engineering and construction details, for example, selecting the building materials, size of the dam and type of roofing required. Advice of a technical and legal nature was also sought from public servants and parliamentary and local government representatives.

APPENDIX 2: CASE STUDY 3

A GIFT FROM GOD:

GENDER AND THE FEMINIST ETHNOGRAPHY OF WATER IN THREE TRINIDADIAN COMMUNITIES



Volume 1. No. 1. April 2007

“A Gift from God”: Gender and the Feminist Ethnography of Water in Three Trinidadian Communities

Diana Fox¹, Heidi Savery, Ron Dalton

Abstract

Water is abundant in Trinidad, but only 14% of the population receives piped water to their homes seven days a week for 24 hours a day. The rest struggle to meet their water needs through a number of strategies ranging from simple rainwater collection tanks to locally engineered dams. This article has three objectives: 1) to report on a preliminary ethnographic study of water acquisition and management processes in three Trinidadian communities, examining the impact of gender ideologies as a key component in the decisions, work patterns, values and meanings associated with water; 2) to situate the study within the larger research project, ‘Women, Gender and Water’ organized by the Centre for Gender and Development Studies, UWI St. Augustine; 3) to explore the nexus among international, national and local water discourses examining overlap and divergences among UN Millennium Development Goals (MDGs), national water policy and local processes at the village level. Conclusions point to the centrality of gender

¹ I would like to extend my thanks to Rhoda Reddock, Patricia Mohammed and the staff of the CGDS, St. Augustine, for their assistance, instruction and kind support while I was a Fulbright fellow in their department from April-June 2005. I would also like to thank my co-authors, Heidi Savery and Ron Dalton as well as Wendi Murray, for their assistance in designing, implementing and analyzing the project. Last, but by no means least, we are all deeply appreciative of the warm, generous welcomes and assistance we received in all three of the study communities by members of those communities.

analysis to any policy recommendations that seek to improve the water problem in Trinidad and Tobago, arguing that effective public policy is more likely to result if policymakers understand the gendered, cultural meanings of people's behaviour.

Introduction

"As I does always say, I find it does be fair to the nation, that all of us have to buy water, because now, if you doing something very important or yuh doh have a cent, how it is yuh will get a glass of water?" (*Interview with man in Mt. D'Or, Eastern Main Road 6/13/05*)

"If we doesn't have water here and we should leave from this area and go by a stand-pipe in another area that has water, we's get in real trouble because the villagers and the people in that area does want to run you from by the stand-pipe and ting" (*Interview with woman in Jones Village, Barrackpore, 6/13/05*).

"Women control water. Because I for one doesn't like to see water runnin' and pipes runnin'. I doesn't like to see water wasted. I tell my children not to waste, to cherish" (*Interview with housewife, Plum Road community, Manzanilla, 5/26/05*).

This paper is a reflective analysis of preliminary ethnographic research conducted in three Trinidadian communities from April to June 2005. One goal is to contribute to a discussion of the intersectional relationship between water management and gender constructs in the Trinidadian context. Trinidad's mismanagement of water issues at the level of the nation-state is felt deeply in communities throughout the island, producing local, gendered discourses of water development in response to an ever-growing urgency surrounding reliable, equitable distribution and access to potable water. Such mismanagement is connected to the priorities of the state, which have inadequately addressed the development of the island's water infrastructure since the oil boom of the 1970s², the ensuing recession of the 1980s, and subsequent economic restructuring through World Bank/IMF³ neoliberal structural adjustment policies. In the 1990s, the development of water resources was subsumed within discussions about privatization oriented around profit—to the ongoing neglect of local concerns (Mycoo, 2005). As such, another goal of this article is to elucidate the articulation of local water issues as they pertain to gender, by locating them within national and international development discourses. We begin at the community level with an arrival story⁴...

² In 1974, the oil industry was nationalized, leading to a new prosperity as revenues were directed back into the economy through joint governmental and privatized ventures. The government provided small loans for business investments and infrastructure development ensued, including modernization of roads, ports, a major international airport, housing, and the importation of consumer goods, particularly electronics and cars (Klass, 1996: 53-54, 67).

³ See glossary for all acronyms at the end of this paper.

⁴ Arrival stories are standard ethnographic textual strategies employed by anthropologists to transport readers conceptually and emotionally into the world of their research communities.

...The red striped, white maxi-taxi van slowed to a stop on the Eastern Main Road at the foot of Mt. D'Or. We paid the driver and stepped out into the bright, late afternoon sunshine. "We can take a route taxi up the hill or walk," my guide said. As a graduate student from Holland, doing her doctoral research with the Centre for Gender and Development Studies (CGDS) at the St. Augustine campus of UWI, Hebe Verrest had already conducted substantial research with residents of Mt. D'Or. I was fortunate that a few days before heading back to the Netherlands, she was able to take me along on one of her last visits, to show me around and introduce me to people she had worked with. I had arrived a month earlier on a Fulbright fellowship—a cultural anthropologist with substantial fieldwork experience in Jamaica—but this was my first trip to Trinidad, and my first foray into formal fieldwork with a specific project. With my background also in environmental studies and gender studies, the director of CGDS and I had earlier decided that I would contribute to the project known as 'Women, Water and Gender'. Since Hebe had been doing research on small home businesses in the community for a number of years, and had established a solid rapport, she was well-placed to introduce me to community members to begin my own fieldwork.

Key among my first introductions was "Dorris"⁵, an organizer of women and widely respected in the community, whom I hoped would assist me, and my American research assistants Heidi Savery, Ron Dalton and Wendi Murray, in gathering together groups of women, men and children to discuss emic⁶ views of water management. We sought to understand the meanings and values attributed to water both in households and in the public domain of community spaces, such as springs, collective water storage tanks, and the open drains/gutters lining the roadside. Central to this inquiry was the role of gender in shaping, 1) a division of labour around water usage; 2) decision-making power regarding water regulation and distribution; 3) attitudes, ideals and perhaps even the metaphysical/spiritual significance of water linked to religious beliefs; and finally 4) stories or folklore surrounding water. The quotations at the head of this article, acquired from interviews in the three communities of research⁷, identify some of the ways in which villagers interpreted these topics. The emotional import penetrating just these three comments indicates the centrality of issues of fairness and morality in the control of water, socialization of children, and inter- and intra-community tensions surrounding water usage. They also offer an initial insight into the contributions of an ethnographic methodology toward understanding the layered complexity of the above topics.

I anticipated a hot, sweaty climb up Mt. D'Or, but "walking is fine" I said to Hebe, knowing that going on foot afforded me more intimate observations of my first entry into the community. Moreover, being *seen* walking in this future fieldwork site was a crucial, and literal, first step in building rapport with the residents. We began the steep climb,

⁵ This is a pseudonym. All names in quotations are pseudonyms which I use for those individuals with whom I did not secure permission to employ their real names.

⁶ The anthropological term for the insider perspective, or the anthropological examination of a society, using concepts and categories meaningful to members of that group.

⁷ Thanks to Ms. Renette Feracho, graduate research assistant, CGDS, for her assistance in transcribing the interview tapes.

which I would repeat numerous times over the next few months, either on my own or accompanied by Heidi, Wendi, and Ron, and also equally numerous, by my 3-year-old daughter. A similar process⁸ occurred over the next few months in the communities of Plum Road and Jones Village. The villages had been visited by other researchers⁹ associated with a project already underway. This initial ethnographic component was only a small part. Contact persons were already established and an appreciation of each community's struggles to obtain water acquired. Our research therefore became an extension of earlier work. Moreover, both Jones Village and Plum Road are rural communities, Plum Road located in the eastern part of the island, and Jones Village in the southwest. The addition of Mt. D'Or meant the inclusion of a peri-urban community in the highly populated northwest corridor. In addition to representing different geographic regions and population densities, the ethnic make-up of the communities differed. Plum Road is a mixed Afro-Trini and Indo-Trini (East Indian) community; Mt. D'Or is predominantly Afro-Trini with a small cluster of East Indian squatters, and Jones Village is an East Indian community. These ethnic variations¹⁰ were regarded as potentially significant, offering insight into different religious beliefs surrounding water and different political alliances, based on Trinidad's two-party, ethnically based parliamentary democracy. Thus, in addition to providing continuity with previously conducted research, the communities were selected for their geographic and demographic attributes.

The established project 'Women, Gaunter and Water' is ongoing and involves a multidisciplinary team of researchers at UWI¹¹ as well as outside consultants¹², and is coordinated by the CGDS. Its central aim is "to apply gender analysis to the sustainable management of human and natural resources to ensure adequate and equitable access to safe water for all users and uses" in Trinidad and Tobago (CGDS, "Research Project: Women, Gender and Water," p.1).

In order to achieve the two goals outlined above—1) the intersection of water management and gender dynamics in the three communities; and 2) the articulation of local with national and international discourses of water development policies—this article reports on the insights gained through a brief, but productive period of ethnographic research. We begin with a concise history of Trinidad's national water policies and their connection to UN Millennium Development Goals (MDGs), which are currently the most significant globally, defined objectives driving national water policies. Next, we present an overview of the feminist ethnographic methodology employed in the

⁸ Hebe did not accompany us to the other communities.

⁹ Jill Schneiderman, a Fulbright scholar from Vassar College, conducted research with Rhoda Reddock, director of the CGDS, in Plum Road and Jones Village (2004); and Grace Sirju-Charran of UWI also did research in Plum Road (2004). Both established the centrality of women's roles in organizing community members to improve water access.

¹⁰ The ethnic demography of Trinidad is as follows: African: 39.5 %; East Indian: 40.3 %; Mixed: 18.4%; Chinese and Caribs (indigenous): 1.2%. Afro-Trinidadians, many of whom refer to themselves as "Africans", trace their ancestry to the transatlantic slave trade, while East Indians and Chinese arrived in the 1830s as indentured servants.

¹¹ Departments of Life Sciences, Chemistry, Civil Engineering.

¹² Kairi Consultants, Caribbean Epidemiology Centre (CAREC)

data-gathering process that structured our focus on the role of gender with respect to water. A discussion of findings ensues, concluding with some reflections on the direction of future ethnographic research for the CGDS study.

Trinidad¹³ on the global stage

Within the next 20 years freshwater will become the most important strategic resource, essential for sustaining life and achieving sustainable development. Its control will be a source of power and the key to economic development, and it will be one of the root causes of socio-political stress (UN Interagency Task Force on Gender and Water, 4: 2005).

Trinidadians do not need UN experts to inform them of the socio-political stresses surrounding water. Reliable access to clean water has taken centre stage on numerous occasions in the island's history since the colonial period when the public began to rally their leaders for an improved water supply. Schneiderman and Reddock state, for example:

The Water Riots of 1903 happened because Trinidadians, especially the poor and women, feared imminent government infringement of their rights to a basic necessity of life. More than one hundred years later, in the year designated by the United Nations as the International Year of Freshwater, Trinidadians in general and women in particular, still had reason to riot regarding their water supply (2004:180).

After independence from Britain in 1962, Trinidad embraced international trends, which called for urban industrialization and modernization of infrastructure. The Water and Sewage Authority (WASA), currently the country's largest public utility, was established in 1965 to manage water resources and growing demand during this period of rapid development. In the 1970s, following the World Bank's agenda to meet "basic human needs" through expansion of the public sector, the T&T government, aided substantially by oil revenues, expanded its social services. These included increased subsidization of utilities such as water supply. It was at this time as well that WASA applied to the Inter-American Development Bank for funds to build the country's largest water dam (Mycoo, 2005). However, in the 1980s, the burden of public spending initiated major economic restructuring. Michelle Mycoo contends, "if the 1970s can be described as a period of increased public sector activity in pursuit of more equitable development, the early 1980s witnessed a reemergence of free market economics as part of an ever-changing development orthodoxy" (2005: 515).

These shifts in government approaches, informed by international development agendas, resonate locally. The belief, for example, that governmental appropriation over the use of natural resources, including both water and oil is unjust, is a theme that pervaded our interviews. One man in the village of Plum Road for instance expressed his anger that so much money was made off the oil—which, he asserted, comes from the land that

¹³ Because our ethnographic study focused on conditions in Trinidad, not Trinidad and Tobago the two-island republic, references will generally refer to Trinidad, except when discussing national policies and directions, when there will be references to Trinidad and Tobago. All references to the national government include by definition Trinidad and Tobago.

supposedly belongs to all Trinis—but the people see no return. He was particularly perturbed by the prospect of water privatization, stating that it “is a waste of time; its only purpose is for someone to make money. We are a rich country and the people do not receive any benefits.” He, along with others, contended that economic development policies have largely not considered the pressing needs of the majority.

The current global movement to privatize water focuses on large profits through high prices, which ultimately denies the poor their expressed right to the most necessary substance for life, what many people described to us as “a gift from God”. Our case study material does not substantiate the underlying premise of privatization, which views the public sector as inefficient and under-resourced while the private sector is capable of bringing greater efficiency through competition in water provisioning (Mycoo, 2005, see also Elmendorf and Isely, 1983). Instead, Trinidad’s historical flirtation with water privatization¹⁴ combined with its current, persistent inefficiencies leads local social actors to feel isolated and alienated from the very same politics that claim to protect them and improve their standard of living.

On the international stage, political strategies around water have been proffered most compellingly through the UN’s Millennium Development Goals, specifically goal number 7, to “ensure environmental sustainability”. Three targets are associated with this goal including: (1) to integrate the principles of sustainable development into country policies and programs and reverse loss of environmental resources; (2) to reduce by half the proportion of people without sustainable access to safe drinking water; and (3) to achieve significant improvement in lives of at least 100 million slum dwellers, by 2020.

Achieving these targets and other MDGs rests on intergovernmental cooperation and the involvement of a wide array of actors including academics, NGOs, international donors and of course UN agencies. The effort is a global one, “in the service of a great global cause...a microcosm of a larger truth: achieving the Millennium Development Goals will require a global partnership suitable for an interconnected world. The world truly shares a common fate (www.millenniumproject.org/reports)” Yet, as Taylor and Buttel contend (2006), global environmental discourse has emphasized peoples’ common interests to the exclusion of “differentiated social groups and nations having different interests in causing and alleviating environmental problems” (2006: 408). The decisions rendered by the government of Trinidad and Tobago engendering community disaffection are linked to mandates derived from the global discourse, emphasizing commonalities over important differences. According to Taylor and Buttel this discourse:

¹⁴ In the 1990s, the government of Trinidad and Tobago was convinced by arguments for privatization that were taking place on the global stage, encouraged by international agencies such as the , the World Bank and the IMF. The country required a World Bank loan in 1994 to assist WASA with wide-spread emergency repairs. The move to privatization occurred in 1996 in a contract with the British company Severn Trent that drew up the terms of the agreement. This followed the government’s 1994 decision to delegate WASA’s responsibilities in an effort to improve efficiency. However, the contract ended three years later and was not renewed as the result of protests organized by the National Union of Government and Feunderated Workers (NUGFW). Rather than improving economic viability, the deficit increased (press release of Feb. 18, 2006 “Leading Caribbean trade union leader visits UK”, www.wdm.org).

...privileges two allied views of politics—the moral and the technocratic...emphasizing remedial environmental efforts...In technocratic formulations, objective, scientific and (typically) quantitative analyses are employed to identify the policies that society...needs in order to restore order or ensure its sustainability or survival—policies to which individuals, citizens and countries would then submit...Moral formations reject coercion and rely on each individual making the change needed to maintain valued social or natural qualities of life. Yet, in many senses the moral and technocratic are allied. The solutions appeal to common, differentiated interests as a corrective to corrupt, self-servicing, naïve or scientifically ignorant governance...*In short, the global society needs management to achieve control* (ibid: 408, 411, emphasis added).

An argument can be made that the government of Trinidad and Tobago, with respect to its water policies, has followed this global society model since independence, to the neglect of varied, localized, gendered perspectives. The model continues today with pursuit of the MDGs, embracing, rather critically it appears, the contradictory features of this international discourse. In so doing, the government of Trinidad and Tobago has limited its capacity to address the problems of distribution, delivery efficiency, and sustainable use in ways that encompass the complexities of distinct communities in their particular environmental settings.

In order to clarify the shortcomings of Trinidad's present water policy, it is useful to explore in greater depth the contradictions pervading the MDGs, and the UN's conceptualization of shared requirements for managing water resources. In 2003 the Johannesburg Implementation Plan declared 2005-2015 the International Decade for Action,¹⁵ outlining, among others, three agendas: 1) *community control of water planning* where women are integrated into central roles from village level water boards to Water Ministers; 2) *policies that are both sustainable and equitable*, so that water distribution is not interrupted by class/race/ethnic/gender discrimination; and 3) *private sector water development* where there is competition for corporate control over water facilities—albeit with an emphasis on corporate accountability. While the first two agendas are closely linked, the third is starkly contradictory. According to the Water for the People Network (WPN)¹⁶,

Privatization grossly violates the people's human right to water because it distorts the provision of water supply and sanitation as a basic service and regards water just like any other commodity that corporations can exploit and profit from. This distortion results in prohibitive user fees and other charges that poor households could not afford (Independent Media Centre (IMC) 9/14/2005).

Moreover, a report entitled 'Gender, Water and Sanitation' prepared by the Interagency Task Force on Gender and Water Sub-program of the UN Water and Interagency Network on Women and Gender explains that the tension between the right to water and the privatization of water services mainly affects women and girls as primary water collectors, "when corporate profit motives supersede attention to human needs and rights" (2005: 10). Ironically, a UN agency task force involved in the pursuit of the

¹⁵ The Decade was entitled 'Water for Life'

¹⁶ An alliance of NGOs and grassroots-based groups campaigning for people's control over water services and resources

MDGs is itself critical of one of the central components of the Water for Life Decade for Action.

Yet, rather than being atypical or a mere incongruent oversight, these contrasting agendas, according to the WPN, are part and parcel of “the promotion of the MDGs of the same neoliberal policies such as privatization that have, in the first place, aggravated chronic global poverty and severe inequity” (IMC 9/14/2005). Christa Wichterlic, author of *The Globalized Woman: Reports from a Future of Inequality*, expresses a similar view. She writes, “the global age...is a contradictory and desynchronized process that pulls in different directions at once...women are integrated into the economy and the world market, but at the same time are immediately re-marginalized (1998: x). Wichterlic further explains that neoliberal economic policies collide with “the household economy and reproduction that are still the centre of life for most women” (ibid: xi), including women in Trinidad.

The inclusion of women as a pivotal factor of the Decade for Action is based on recognition of their knowledge of water resources and community-level contributions to local water projects. Around the world, women are primarily involved in cleaning, sanitation, and family health, as well as children’s education around water access and conservation. As a result, women are usually highly knowledgeable about water sources, their quality, reliability, and any restrictions to their use. Thus it is reasoned, women’s involvement at multiple levels in the design of water distribution and management plans will ease their access to water by producing an efficient, regular supply close to home. This in turn will affect women by generating greater self-esteem, reducing their exposure to the threat of violence¹⁷ and health hazards, and expand time for education, childcare, and other activities, all of which improve women’s life conditions. Moreover, according to the report by the UN Interagency Task Force on Gender and Water, where the above contributions of women are outlined, the MDGs are closely related, so that pursuit of MDG No. 7, “to ensure environmental sustainability,” is closely linked to MDG No. 3, “to promote gender equality and empower women” (<http://www.org/millenniumgoals/>).

Let us now examine how the MDGs have been incorporated into the water policies of the government of Trinidad and Tobago (including WASA). Importantly, a woman, the Honourable Penelope Beckles¹⁸, currently heads the Ministry of Public Utilities and Environment, and women head other ministerial positions¹⁹ as well—perhaps reflecting a small but growing worldwide trend.²⁰ Their appointments contain the potential to

¹⁷ Women and girls who take long treks daily and at night to fetch water are exposed and vulnerable to the threat of rape and molestation.

¹⁸ An effort was made to gather the opinion of MP Beckles prior to the completion of this article, via telephone and e-mail exchange. However, the email inquiry about the role of gender equity in the government’s water plans was not returned prior to publication date.

¹⁹ The Honourable Mrs. Dianne Seukeran MP, Ministry of Social Development; the Honourable Mrs. Camille Robinson-Regis MP, Ministry of Planning & Development; the Honourable Senator Mrs. Joan Yuille-Williams MP, and the Honourable Mrs. Eudine Job-Davis MP, Ministry of Community Development, Culture and Gender Affairs.

²⁰ The Interagency Task Force on Gender and Water Sub-program of the Water and the Interagency Network on Women and Gender Equality (IANWGE) note the following in a 2005 report: “An interesting

precipitate gender-oriented changes in WASA. Nonetheless, gender is presently not explicitly mainstreamed into WASA's national water development plans, in spite of the government's proclaimed objective to meet the MDGs of water safety and environmental sustainability. In her presentation at the Fourth World Water forum in Mexico City in March 2006, Minister of Public Utilities and the Environment Penelope Beckles stated:

Trinidad and Tobago, a small developing state with a population estimated at 1.3 million, has implemented a program of action, which targets improvements in water supply and sanitation services, security of food supplies, protection of ecosystems, prudent management of water resources policy and legislative development and institutional reform and capacity building. This program of action flows out of a vision for developed country status by the year 2020. It incorporates a very broad and comprehensive strategy for development involving all sectors of our national landscape. Our vision for development is placed within the framework of the United Nations Millennium Development Goals (MDGs). The program of action relating to water sector issues is largely directed by Targets 1 and 2 of MDG No. 7 (3/22/06, p. 1, 2).

In her ensuing discussion of the institutional mechanisms to achieve these targets, there is no mention of gender equity.

A year earlier, during the thirteenth session of the UN Commission on Sustainable Development (CSD) in New York, Ms. Beckles stated the government's position, identifying the authorization of a new wastewater treatment plant among other growth initiatives which would contribute to the achievement of MDG No. 7. These included: a) developing plans to integrate water, wastewater and integrated solid waste management; b) launching a national reforestation and watershed rehabilitation programme to improve the protection of freshwater sources; c) a community-based programme for the protection and enhancement of the environment; and d) the implementation of a US\$200 million programme to improve the delivery of water (Grimes, 2005). Although Beckles highlighted community involvement, environmental sustainability and efficient delivery of water as part of the agenda, again gender equity was not explicitly discussed. It thus appears that the two allied views of politics highlighted by Taylor and Buttel, and the contradictory agendas of community empowerment and privatization, are critically cluttered together in Trinidad and Tobago's water plans.²¹ Moreover, there is no mention of MDG No. 3 and its links to goal No. 7.

trend which may provide an impetus to gender and water programmes is the recent increase in the number of women who have been appointed as water and environment ministers. As of mid-2005, there were about 40 women ministers of water or the environment, representing every region and level of development in the world. The recently elected chair of the African Ministerial Council on Water (AMCOW) is Maria Mutagamba, Minister of Water, Lands and Environment of Uganda. This is a concrete illustration of gender mainstreaming; these ministers constitute the critical mass needed to get gender integrated into water and sanitation policies and programmes (p. 1)."

²¹ The President General of the National Union of Government and Feunderated Workers (NUGFW), Mr Robert Guiseppi, visited the UK as the guest of the World Development Movement to warn about the dangers of privatization in the Caribbean related to the General Agreement on Trade in Services (GATS), an international trade agreement that could undermine public services globally. NUGFW, the largest union in Trinidad and Tobago with about 20,000 members, organizes throughout the public sector, campaigning

Additionally, in a search of WASA's website²², the terms 'gender' and 'gender equity' are also absent; nor are they incorporated into any discussions of future plans.²³ Instead, CEO Errol Grimes reports in the company's future plans, 'Look into the Future':

In our thrust forward, we will be considering ways to expand our partnership with the private sector and to collaborate more with our customers and the trade ions whom we recognise as key stakeholders. We want to expand our reach locally, regionally and globally and have already signed a mutual assistance agreement with the Public Utilities Board of Singapore, a company recognised as the world-class model in wastewater management and water recycling.

Moreover, in spite of WASA's stated intentions to collaborate more with customers, there appears to be a rather complacent view of community water conditions, adopted both by the UN Interagency Task Force on Gender and Water and by the government of Trinidad and Tobago. As recently as 2005, the Task Force reported:

In Trinidad and Tobago, most of the community water projects have been run by women, *and these projects have been working very well*, according to the Water Development Division of the Ministry of Food Production and Maritime Resources" (Background Paper No. 2 DESA/DSD/2005/2, emphasis added).²⁴

The problems of such a superficial summary are many. The statement is hardly expressive of inequalities at the community level, manifested in a traditional gender division of labour where women assume inordinate work burdens. Nor does it adequately describe the varying experiences of most communities with their water projects, as our study has clarified. The statement ignores fluctuations in successes, recent changes in local initiatives which have yet to be played out, and communities where such organizing is nonexistent. The three communities included in this preliminary ethnographic study represent examples of each of these constraints, and will be elaborated below in sections devoted to each. It is clear from the above discussion that comparative, multi-site ethnography of Trinidadian communities is necessary to produce the kind of layered insights required to craft effective public policy, and to underscore glaring inconsistencies.

The CGDS study and Trinidad's water distribution troubles

The contours of Trinidad's water problem, community activism around it, and its solutions are all within the purviews of the CGDS project 'Women, Gender and Water'. Thus, to pursue the second goal of this article, to examine the intersectional relationship between water management and gender constructs in the Trinidadian context, the

against privatization of water and most recently, broadcasting (press release: "Leading Caribbean trade union leader visits UK", February 18, 2006 (www.wdm.org.uk/news/presrel/current/guiseppivisit.htm)).

²² www.wasa.gov.tt

²³ However, it should be noted that as of February 1, 2006 WASA's board of commissioners includes four women: Ms. Charmaine Caballero, Ms. Cherryl Guide, Ms. Helen Drayton and Ms. Margaret Rose

²⁴ Renamed the Ministry of Agriculture, Land and Marine Resources

following segment offers a summary of Trinidad's predicament with respect to water availability and distribution, drawing from the project's first stage of geological and case study research (Schneiderman and Reddock 2004; Sirju-Charran 2004). Schneiderman and Reddock's article "Water, women and community in Trinidad, West Indies" (2004) is devoted to an in-depth examination of the current water supply predicament, its historical antecedents and community efforts to meet their water supply needs. Some of their findings will be concisely reiterated here.

Trinidad does not have a shortage of water. Instead, its existing resources are poorly managed so that water deficits persist, aggravated by a five-month dry season, and rapid deforestation. The country obtains 31% of its potable water from tapping groundwater and 69% from surface water drawn from three reservoirs. Water use is distributed among domestic purposes (one-third); industrial purposes (one-fifth) and for irrigated agriculture (less than one-twentieth). Approximately 50% of the island's water supply is accounted for:

Examples of accounted-for water losses include illegal connections, accounting procedure errors, reservoir seepage and leakage, evaporation...the high percentage of accounted-for water in Trinidad and Tobago suggests problems with the water supply infrastructure and a lack of efficient management of WASA (*ibid*: 181).

As a result, even though most Trinidadian households are connected to pipe-borne water, supplies are regularly interrupted. In December 2005, according to Minister Beckles, "the level of the population receiving a 24/7 (interrupted) water supply...stood at 25%" (2006: 2). This represents a marked improvement from 2003, at which time only 14% of the population received an interrupted supply (Sirju-Charran, 2004: 4).

Still, because 75% of the population receives an interrupted supply, communities across the island have engaged a range of strategies to meet their water needs, but they do not do so easily or without significant costs, both economic and social. People are frustrated with "the loss of productive time spent carrying water; fear for the safety of people—especially women and children—who must fetch water late at night; and concern for children, elderly and disabled people who had to fetch water from a standpipe and transport it up a steep hill (*ibid*: 185).

Methodology: Feminist Ethnography

We adopted a feminist ethnographic analysis to deepen understanding of local configurations of larger gender patterns distilled in water management practices. We examined the ways in which behaviours surrounding the access, distribution and use of water both embed gender ideologies reinforced through the politico-economic policies of the nation-state and offer resistance to them. The application of feminist theory in research methodology earths these configurations. Listening to women's perspectives, for example, and weighing their insights alongside those of men privileges "the images and meanings given...by social actors as they construct their worldviews and understand themselves as gendered individuals" (Barrow, 1998: 344). This acknowledgement takes

the so-called objectivism of logical positivism to task, packing cultural interests and assumptions²⁵ that infuse this system of inquiry. The supposition that value-free procedures guide research is erroneous—an insight that has stood at the centre of feminist epistemology for at least two decades. Yet, as Harding has clearly stated in her critique of masculinist science,

I am not proposing that humankind would benefit from renouncing attempts to describe, explain, and understand the regularities, underlying causal tendencies, and meanings of the natural and social worlds just because the sciences we have are androcentric. I am seeking an end to androcentrism, not to systematic inquiry (1986: 10).

Because the feminist ethnographic analysis we applied shares this supposition, it is not a detour but rather a pivotal component of this article's thesis, to outline how systematic ethnography proceeds, guided by the tenets of feminist theory.

An initial insight is that systematic analysis itself is not devoid of social processes (ibid: 50). Social processes occur in the moment of doing research, not only as historical and cultural tropes impacting topics of study, such as gender and water. Structured procedures, for example, are frequently interrupted and redirected by anticipated events and insights, so that an unbroken, seamless operationalization of a conceptual process is exceedingly rare in ethnographic inquiry. The 'system' of ethnographic feminist methodology thereby *incorporates* flexibility so that recognition and subsequent inclusion of the foreseen and expected is regarded not as detractions from or errors in the process of inquiry, but rather as reflections of social processes embedded within inquiry.

A sudden downpour, for example, which occurred during the group interview with women in the community centre of Mt. D'Or battered the aluminium roof and drowned out all possibility of further discussion for its duration. The startling deluge occurred as we were discussing differences in water management practices during the rainy season, just commencing in Trinidad. The rain injected a moment of ironic humour. Standing in front of a semi-circle of women, we paused in our questioning, shrugging our shoulders in a "What can you do?" gesture, while many of the women held up their hands, gesturing to the outdoors and laughing as if nature herself and the prescient timing of the powers that be could be no better illustrator of the fact of full water storage tanks during this season. Instead of continuing with the impossible task of a soggy discussion, we switched the steps of the data collection process around, and began to pass out surveys, only returning to group discussion once the rains had ended.

Now, our conversations were influenced by the ideas that the women had introduced into the questionnaire. Since each of the researchers talked with individual women, helping those who had questions about the surveys, their responses to the group questions were more specific, informed by their answers to their individuated, household and family situations that they had just expounded on in the survey. Also, the feeling in the room had changed. It was more relaxed and intimate. When the group broke up, a few women

²⁵ See, for example, (1) *The Woman in the Body: A Cultural Analysis of Reproduction* by Emily Martin, 1992. Boston: Beacon Press; (2) *The Science Question in Feminism* by Sandra Harding, 1986. Ithaca, NY: Cornell University Press.

stayed behind to talk to us, their demeanour less formal and open. Other examples of the *ad hoc* in the course of this research abound; some of their tales will be told as the story of this research project folds. Suffice to say, they are not aberrations, but part of the social process of ethnographic research, which feminist analysis embraces.

Implications for the present study

Equipped with this methodological toolkit, we developed an approach that built on many of the above insights. Rhoda Reddock, director of CGDS, assigned the three selected communities to us for the demographic and geographic reasons outlined at the start of this article, and because Plum Road and Jones Village were part of the initial component of the study. For consistency, the research team planned to be in each community for three days at minimum. During this time, and with the assistance of local community leaders and representatives, we organized residents into four study groups—men, women, households and schoolchildren. We held group discussions and administered individual surveys with separate groups of men and women to compare and contrast their perspectives regarding the value and meaning of water. We also elicited areas of distinction between the two, sharing when possible, the views of women with men and vice versa after they had supplied us with their initial responses. Sometimes this led to disagreements, other times concurrence. Following the assumptions of under-based research, we believed that separate groups of men and women would be more likely to speak openly and honestly about the other group. Women in particular would be less likely to be critical of men in their presence. In addition, we scheduled visits to local schools to talk with the children in the hopes of understanding what values and meanings they may have learned at home, at school and in the community.

Two or three researchers led group discussions on specific categories of ideas related to water as a necessity of life; as a source of stress and worry; as a pollutant and possible source of illness; as it is used in religious activities or rituals; as it is portrayed in folklore and myth; and as a commodity. We then stimulated discussion regarding ideas and beliefs on related topics with the conversation ideally taking on a life of its own. We recorded these sessions with permission and they were later transcribed by a research assistant at CGDS and added to project documentation. Additional researchers took extensive notes both of the discussion and on the general atmosphere, location, personal appearances, body language, expression, and group interaction. Each discussion group and session included photographs of participants, again with permission, one for the community and one for research purposes.

Next, we distributed survey questionnaires which included both multiple choice and open-ended questions allowing for more individualized data, and to acquire a large amount of information in a short period of time. Although surveys were also designed to collect demographic information on age, sex, religion and ethnicity, we inquired about beliefs and attitudes toward water in general and practices involving its acquisition and use. During further discussion and in working one on one, we were able to move beyond the limitations of short answer, yes/no and multiple-choice questions. The survey questionnaires for children were appropriately modified.

We also aimed to involve a sample of households via 'door-to-door' discussion and distribution of survey questionnaires to heads of households. Researchers worked in pairs, accompanied by a community representative whenever possible. This activity was planned for the evenings between the hours of three to six, canvassing the community in an attempt to draw a broad cross-section of household members. For the most part, we were able to follow the planned research methodology in each community with only a few minor adjustments.

Findings and the ethnographic process

With intermittent access to water in Trinidadian communities, many individuals as well as organized groups headed by women have assumed responsibility for their own water supply. By researching the strategies employed to obtain water by individuals and groups, their views about those strategies as well as feelings of powerlessness and frustration, the research revealed a variety of inequalities relating to under and power. These included the centrality of the gendered division of labour where women and children are the gatekeepers of household water conservation, related to the needs of household maintenance and social reproduction of prescribed gender roles. However, women's roles, while critical in the limited context of water supply issues, are not in and of themselves transformative of women's social status within their households and communities.

Although individual women are leaders of community organizations connected to water activism, and they are noted in their communities for their influence, their specific circumstances have not had a ripple effect in doing a traditional division of labour where the burden of household work pertaining to water falls on women. This observation reflects longstanding feminist insights that the historical role of individual women in positions of power and leadership is not sufficient to transform gender systems (see Langley and Fox 1998). Systemic inequalities must be accompanied by system-wide change to do the colliding and mutually reinforcing intersections between gender systems and politico-economic systems. Hence, the incorporation of MDG No. 3 into Trinidad and Tobago's water agenda is critical.

The descriptive analyses of the communities below will highlight the gendered division of labour in relation to water availability and strategies for conservation. As earlier stated, the variations in communities with respect to their history and current involvement with WASA have shaped their differential access to water, and affect the nature of community water projects and their relative success. It will also become clear that *perceptions and meaning of water are shaped in relation to labour itself*, reproducing and informing persistent ideologies of gender inequality. At the same time, resistance to these ideologies are noted and recognized as potential points of intervention for the implementation of water policies that reflect the gender mainstreaming objectives of the international discourse in the Trinidadian context.

Mt. D'Or

Mt. D'Or is a peri-urban community about five kilometres east of Trinidad's capital, Port of Spain. Of the communities visited during this study, Mt. D'Or has had the most experience with WASA, and it was the only community without a women's group organized to pursue regular, efficient water availability. Public water is piped into the community, up fairly steep grades yet never reaching homes built at higher elevations due to the inadequacy of a pump, installed in the mid-1990s by WASA, located on a flat area in the centre of the community shops, below the government primary school. A constant flow of clean, fresh water from a local spring runs out of a rusted pipe from a condemned dam, lost to the gutters. WASA has done nothing to restore the dam destroyed in a flood over a decade ago, to its prior condition, and residents have not organized to bring this about. For this reason, and others, both men and women expressed enormous frustration toward WASA. One area of general concern, for instance, was a sense of fairness attributed to pricing regulations:

Woman 1: "Lots of people were complaining...like say two persons live in a house, they pay the same amount of water rate for the year as ten persons living in a house. Now that doesn't work."

Woman 2: "That's what people were complaining about. Because if you pay like \$500 for the year for water rate, right, and that person is just one person, he has to pay the same \$500 as the ten persons that use water."

In addition, because of arbitrary cut-offs, or the inability of the pump to transport water to hillside homes, community members, mostly women and children we learned, "tote" water for household cleaning. Climbing up the hill, carrying two or more large plastic canisters, they collect water from the rusted pipe emitting spring water for non-consumption, household use. Drinking water is collected and consumed treated from the spring above the pipe, or in household water collection tanks that fill up with rainwater draining from rooftops. In addition, people gather around the spring waiting for their turn to "shower" under it or to wash clothes. One day when we visited, two young men took turns soaping up and rinsing off under the pipe, while a couple waited their turn, perched together on a large rock, socializing and smoking. These apparent scenes of "leisure" do not undercut the explicit sense of outrage that is apparent in the above statements. They reflect an indignation about water-pricing policies that emerges out of a sense of injustice. *Feelings of injustice*, brought forth through the ethnographic method, are critical features of resistant ideologies, and signify potential openings for the inclusion of local perspectives in national policies. Such feelings emerged (in all communities) from women about their work burdens; from girls at the primary school when boys say that "washing wares and clothes is for girls"; and from men and women about pricing, water bills, irregular supply and other topics that will be enumerated in this section.

In addition to what we were told, we also observed the division of labour: we saw only women in Mt. D'Or washing clothes publicly—and watching children—in the open drains running alongside the road, through which the spring water passes, as it descends.

One woman sat right in the middle of the drain in a section near to the spring, scrubbing a large pile of laundry, while keeping an eye on at least four children who were playing and splashing in the water around her. We saw two boys approach the rusty pipe with plastic buckets. "What are those for?" I (Diana Fox) asked. "For washing," one replied. "Are you bringing them home?" DF continued. "Yes," said another, "to my mother." Men collect bucketsful from these drains to wash their cars or mix cement for household repairs. Initially and for a few hundred yards downward, the water looks clear and relatively clean—while further down near the Eastern Main Road the water is filthy, brown and filled with garbage.

Residents of Mt. D'Or work and shop both in the community and in surrounding towns; there is a marked shift downward in the income scale as one climbs higher—apparent in the size of homes and yards, types of cars parked in driveways, construction materials and upkeep of properties. Because Mt. D'Or was a bus ride away from our home and the university, we came here most frequently, establishing more of a presence than in either of the other two villages. Work here resembled the early phases of long-term, in-depth fieldwork with the establishment of rapport, building networks of informants, and generating insight into the nature of community life, so that the particular problem at hand could be couched within a broader context. This is crucial to anthropology's notion of holism—the interconnectedness of peoples' practices, beliefs, values and norms and the relationship among social, economic, subsistence and other patterns of daily life. In the remaining portion of this section, we convey a sense of these anthropological characteristics, along with the feminist ethnographic methodologies of both centring gender and acknowledging the impromptu.

Each time we walked up the hill to Mt. D'Or we were struck by the sense of community that engulfed us the higher we went: neighbours talking, women clasping hands, "Hello darling," they said, waving and smiling; car horns honked as drivers waved at passers-by. As we approached the community centre, we passed a piece of land housing a church, a small grocery store and a few smaller shops, typical of the kinds of mini-markets one finds throughout Trinidad, a salesperson standing behind a high counter—sometimes encased behind a window of iron bars—selling drinks, bread, cell phone cards, cigarettes, Stag beer, and the like. Groups of men and one or two women clustered outside these shops 'liming'²⁶; they nodded and waved as we passed by, making our way to the community centre where we would hold our group interviews.

All of us, white Americans, stood out in this predominantly Afro-Trini population,²⁷ and were therefore questioned about our presence there. "We're asking residents about water issues," we invariably said, and, invariably, people had something to say, mostly about

²⁶ To 'lime' is a term found throughout the southern Caribbean for various forms of socializing.

²⁷ 'African' is one of the terms for the two major ethnic groups in Trinidad, the other being 'East Indian', marking significant ethnic cultural identities and political alliances common to the southern Caribbean. These divides are a dominant source of national concern in Trinidad, and much has been written on the topic; however, this article, while making note of ethnicity, does not examine or problematize it. In Mt. D'Or, the population is predominantly African although a group of poorer East Indian residents have established homes through squatting at the far end of the community. An East Indian family owns the main grocery store.

how water is wasted, seen dripping from pipes, and how, the farther up one goes into the hills, the more difficult it is to attain water. For the ethnographer, these ad hoc conversations become data, a gauge of the saliency of a topic. Water clearly was on people's minds and on a few occasions passing conversations led to more in-depth ones, or offers to assist, as was the case of the man who worked for an oil company, whom we frequently passed. He explained that the community contains many springs, not just the one at the top of the road, as we had assumed.

As anthropologists immerse themselves in people's daily lives, some individuals more than others will become interested in our presence and our work. One such man, a bamboo weaver crafting furniture, lamps, wine holders and other items out of bamboo fibres, took on this role. This young man was also connected to Hebe, the graduate student from the Netherlands, and, when she went home, transferred his attentions to us. I (Diana Fox) became the recipient of medical advice and frequent phone calls; in exchange for whatever prestige he acquired in being associated with us (on a few occasions both men and women called out to him, teasing him about his "American friends"). He organized the group of men whom we interviewed, took us on a tour of the main spring, introduced us to people along the way, and invited us to his home to show us his work-space. He also explained important insights into community life, such as the fact that it is small enough so that everyone knows who everyone else is, and, when children become adults, many of them remain, establishing their own households. For the ethnographer, this is all crucial information, in supplying a context and texture to community life. For the applied anthropologist, who seeks to use ethnographic data toward community-based projects that are deemed helpful by residents themselves, it provides valuable insights into potential areas of difficulty as well as ease.

On the evening of our group interview with men, for instance, we waited outside the community centre for an hour, and nobody arrived, except the community organizer, Dorris, who shook her head, and explained that this was typical of men; it's hard to get them involved in community work, she said. Just then, the bamboo weaver passed by and joined the conversation. A big debate ensued about how to draw men together for the interview. At first he encouraged us to bring beer, but Dorris said this would give the wrong message—it wasn't a party, and besides, we didn't want to encourage drinking. We finally settled on pastries, and our bamboo weaver friend personally assured us that he would gather some men for us to talk to the next evening. True to his word, a small group of four did appear, and we had a very productive discussion. All were his friends, and one, a father with his young son, did not live in Mt. D'Or, but happened to be on a social visit.

In the middle of it, a woman arrived, a jocular, outspoken taxi driver (an unusual occupation for a woman). She had driven us up and down the hill quite a few times, and quickly inserted herself into the conversation. While our methodology had underscored the importance of separate male and female groups, the men welcomed this woman, perhaps because she straddled a liminal line, working in a male world. Tellingly, another woman, the girlfriend of one of the men in the group, had seated herself outside our circle; the group did not invite her in, and when we extended an invitation to her, she

declined. Our taxi driver, however, engaged the men in a vigorous debate about the responsibilities of men and women in household water use and conservation:

Diana Fox: "What are the ways that men use water?"

Man 1: "Men use water to plant, use toilet facilities, bathe, washing clothes, cooking..."

DF: "Men use water for cooking and washing clothes? Is this true for men who live by themselves or men who live with women too?"

Man 1: "Women too. Some do mind washing clothes...I have an uncle who wash all his clothes and he married over thirty years. And is not because his wife don't want to do it—he just enjoy doing it."

DF: "Do you think that women wash more than men do?"

Men: "Yes—of course" (all nodded).

Man 1: "Well, really and truly, women do more cleaning, you could say well, 65%."

Man 2: "No, at least about 75% or 80% of women do the cleaning and you'll find that 15-20% men clean the house...now and then."

Man 3: "Men will wash women clothes if their wife sick or something, right, they'll wash the children...if she get back better..." (They all laugh).

Later in the conversation, Ron Dalton joins Diana in asking the questions.

RD: "Let's say all the men and all the women had the same pile of money and they're leading their lives like they do every day. Who is going to spend the most money on water?"

Man 1: "Men."

Man 2: "Well they does really say women does shampoo they hair..."

Woman (taxi driver): [Shaking head, speaking loudly] Women are more concerned than men. It come like going to the market. We will walk all around to save a five cents and a man will say that's enough."

DF: "So even if women use water more than men, then women still will not pay—(cut off)

Woman: "Men waste water. I know big men who go by the pipe and just have this pipe running and running and they wouldn't turn it off."

[Later in the conversation]

DF: "Even though people have pipes in their houses, that doesn't mean they're getting water?"

Man 1: "That's right. And if they get it, it will be once...plenty people do but not on an often basis. People living on top of the hill, they will get water once a week, sometimes they get it twice, sometimes they get water four times a week, sometimes two weeks they ain't get none."

Woman: "People still waste water. People don't value water—they lookin' to value water when it's not there."

This conversation underscores the differences in opinion that men and women have about who is responsible for conservation. Significantly, the sole woman participant links women's protection of water resources to other household conservation roles—food purchases. But she also emphasizes the extra burden of work that this concern entails, "We will walk around to save five cents..." Additionally, when Man 1 discusses the irregularity of obtaining pipe-borne water, implicit is the understanding that women and children will be toting water to compensate for this lack. Thus, his frustration with dry pipes is shared, but the work burden is not.

Another problem is the reliability of water distribution from the WASA 'water truck' delivered to households when piped water is cut off by WASA itself (interview, Mt. D'Or, 5/19/05). Calling WASA to report a problem doesn't ensure a speedy delivery,

though, and while residents who are not hooked up to pipes can also receive water, they must pay a fee. Those who already have pipe hook-ups get billed for this delivery in their regular water bill—something which many in all communities expressed as fair since they should have received water anyway.



Figure 1: Mt. D'Or Community Centre
All author photos 2005

Past the shops, one encounters the community centre, a long, rectangular, white building where we held our group discussions. Behind it is a large green space easily the size of a few American football fields, where you can find a group of men playing football (as the rest of the world knows it). To the right, basketball courts contained people of all ages shooting ball.

In the distance, on a hill, sits the large, red, concrete water storage tank, recently covered because mischievous children had hopped over the fence encasing the tank and dived in. A child had drowned, we learned. Back in the field, we noticed that vegetable crops lined its borders and we were told that people often 'wet' their plants with water previously collected for bathing or 'washing wares' (dishes). Walking farther up, we approached the Mt. D'Or Government Primary School, but not before passing the fenced-in water pump, which, notably, was leaking.

Mt. D'Or is a community with a wellspring of natural resources, and the community clearly would like to harness them more efficiently to supplement existing water supplies. We regularly heard comments about the tapped potential of the various springs, and people also bemoaned the loss of spring water to the gutters. At the same time, women told us that things are better now, with pipe-borne water, however irregular it is. They tell their children stories about waiting every morning in long lines at the standpipe. One of the researchers asked, "Is community spirit diminished now that you don't wait together for water?" to which one woman responded that fights often broke out while waiting in line, and people's sense of irritation undermined any sense of togetherness. The women said that they wanted their children to understand that however hard it is now, things are better, and since they got better, they can continue to improve. Here again is a sense of resistance against apathy, as women endow their children with a sense of social responsibility in seeking to live a dignified life by obtaining the most basic of necessities.



Fig.2 – Walking in the community

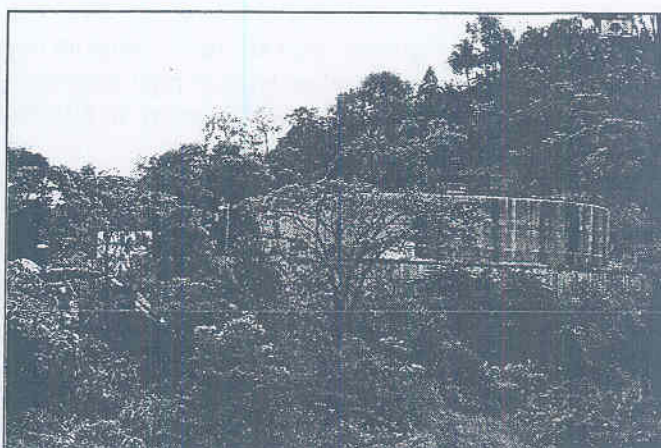


Fig.3 – The Mt. D'Or Community Water Tank



Fig.4 Young man showering with water from a spring-fed rusted pipe

It is important not to overlook this fact: children are growing up with a sense of the value of civic involvement, and that even with relative improvement the understanding of what is rightfully theirs persists. In seeking “to generate civic responsibility for the stewardship of resources” as outlined in the MDGs, and reiterated in Pennelope Beckles’ address to the UN, the government of Trinidad and Tobago should be aware that this already exists in many communities. With more than a decade of experience with WASA, Mt. D’Or residents are in a position to evaluate the improvements in water access and also the problems associated with government-distributed pipe-borne water. Their knowledge should be tapped.

Plum Road

Based on its commitment to an agenda of ‘Water for All by 2000’, WASA has made its way into communities around the island, connecting some for the first time to a public water supply (Sirju-Charran et al, 2004). These new connections reinforce the obvious: communities are not encapsulated entities, so that even when local initiatives appear to be working well, outside forces—WASA as a case in point—may not agree. In the example of Plum Road, where women’s involvement has been instrumental in achieving improved conditions at the local level, their exclusion from top-level positions limits their ability to negotiate with WASA both within and across communities.



Fig.5 View from Plum Road

The village of Plum Road is a suburban community located near the eastern-most part of the Central Range, on the periphery of the town of Plum Mitán. Moderate to steep slopes are present with housing and shops situated primarily along or just off Plum Road. Most of the developed area is densely forested and a group of Howler monkeys still reside in the forest and can be heard loudly reporting approaching rainstorms. Several natural springs are present in or near the village and one particular spring has been dammed and used to supply water to the community.

As our study team learned, WASA connections have been made in Plum Road since 2004, because of requests made by an apparent majority of residents. However, *no claims of belonging to that majority* came from our interlocutors. Our host, Miss Rose, who has stood at the centre of community management initiatives in the maintenance of a local dam, said, regarding WASA's entry into the community: "Enough people from the community wanted WASA—and everyone has a right to water—so WASA came." Since not one person claimed to be part of the group agitating for government pipes, could WASA's entry represent an example of centralization of authority in resource management asserting itself over residents' own interests? Whether or not this is the case, there is certainly a disconnect between those who make decisions at the governmental level and those who experience their consequences.

Moreover, even if a majority had called in WASA, a local project is literally being cut off from central planning initiatives, undermining the work of those who had previously empowered themselves. To understand the current state of affairs it is important to understand the community mobilization around water that has been in place for more than five decades. Miss Rose explained to us what she had already described to other CGDS researchers:

"...in the 1950s, with help from Trinidad's health authority, villagers constructed a dam downstream from a spring in the village and laid pipes to distribute water from the resulting reservoir. Prior to that, without pipe-borne water, adults and children fetched water from the spring-fed stream in the village" (ibid).

Since then, the community has survived on their labours, collecting spring water from three strategically placed standpipes around the village, and from the home of Mr. Rajbansee, Miss Rose's father, who had led the initiative. Miss Rose, now 69, was just a child at the time, and she recounted to us, as she had to previous CGDS researchers, the pride she felt in her father and the impetus she gained to maintain the project as an adult. However, as the population has grown, Miss Rose explained, the supply doesn't meet everyone's needs. As a result, people apparently pressed WASA to connect them to the municipal supply.

When we arrived in Plum Road, this process of centralized disempowerment was underway. People relayed to us a sense of apprehension about the future of the spring and the nature of their future relations with WASA. At the same time, they were not complacent, and a number of individuals emphasized their intention to save their dam. Just as in Mt. D'Or, residents are not content to remain passive and let events sweep over them. As we walked throughout the village interviewing members of the community, a portrait emerged of a water system in transition. Rose Rajbansee still oversees regular cleaning of the dam, which she says is done mainly by men; however, as men clean, scrubbing the floor of the dam and the bore of the pipes with brushes and chlorine bleach, women gather around singing, encouraging the men in their work.

Today, Miss Rose is president of the Caribbean Network of Rural Women Producers and of the Trinidad and Tobago Federation of Women's Institutes. She works with the Ministry of Social Development to improve women's and children's quality of life (Sirju-Charran 2004: 8). Over the course of our conversations, she expressed concern that the sense of collective interest and involvement in community life in general generated by the dam might decline, now that some residents were connected to WASA, and had no need to attend meetings. Ostensibly, these meetings were organized to discuss matters relating to the community water supply, but as Miss Rose said, when people get together, they discuss all matters of things important to individuals in the village.

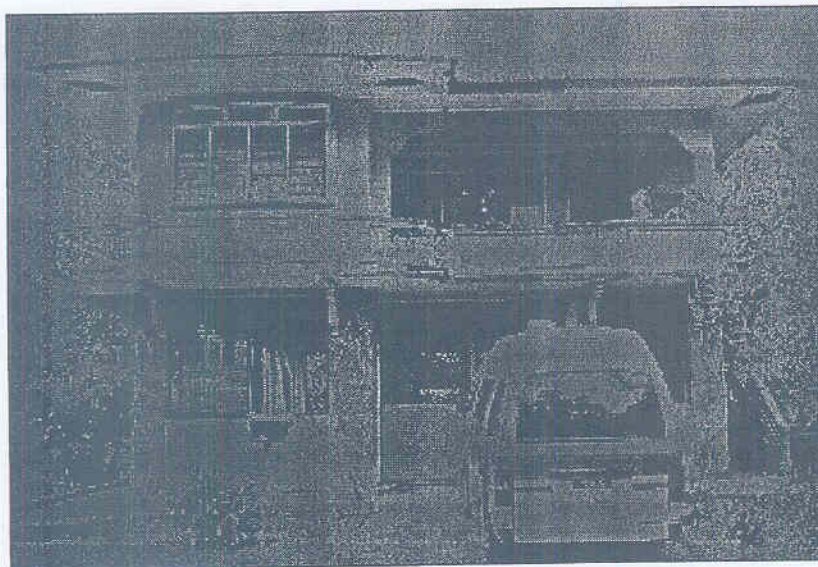
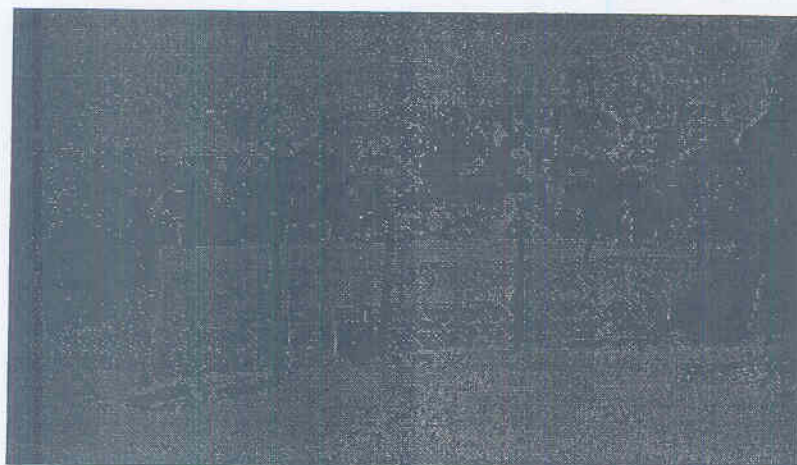


Fig. 6 Miss Rose's house – researchers' base

Others had their own misgivings. One elderly woman in her late 70s, who runs a small snack shop, said that one day she was connected to the dam and the next day she wasn't. WASA had come to town, disconnected her dam pipe and connected her to



WASA. The elderly woman lives alone, has one water storage tank and now complains about the irregularity of her WASA connection. While dam water was cut off at night to "save the flow of water", residents knew this and could store water accordingly. She is

struggling to save money for another tank and asserted, "I intend to get a connection back to the dam. We are accustomed to dam water. I was fine with dam water."

Fig.6 Water Reservoir

Other residents shared the sentiment, insisting that they would work to maintain the dam. We saw people who had WASA connections walking to the standpipe carrying dam water with empty cups to fill them for drinking. They informed us that they like the taste of dam water better, and they only used WASA water for cleaning. In another household, though, a brother and a sister living together said they preferred the taste of WASA water. Nonetheless, they were distressed that they apparently had had no say in WASA coming to town. In a third household, a mother came out of her home to fill her pot with spring water for cooking. She is connected to WASA also, but continues to use dam water as drinking water.



In Plum Road today, there are at least four forms of water access arrangements for households including: (1) WASA, dam and rainwater collection; (2) WASA and rainwater; (3) dam and rainwater; (4) and for at least one elderly resident, only rainwater collection. The great irony in this situation is that Trinidad's 'Water for All' programme is supposed to reflect the gender equity principles of the UN Millennium Goals, yet here, one of the most defenceless members of the population—a widowed, elderly woman living alone—is

rendered even more vulnerable through WASA's intervention.

Fig.7 Reservoir Valve

Finally, there is a new anxiety in the village about WASA fees, and people find themselves in a range of predicaments with respect to bill payment. Some households that are not connected to WASA have received bills, while others connected for two years have yet to receive a bill, in spite of their inquiries. They are worried about the large fee they will owe and may not be able to pay when the bill finally comes. In addition, people are distressed that they are required to pay for full delivery even though water delivery is irregular. They are charged as if they are receiving water 24 hours a day, seven days a week.

Jones Village

In contrast to both Mt. D'Or and Plum Road residents, the Jones Village community exuded enormous enthusiasm toward WASA, having received the first household connection *ever* on the day of our visit. Jones Village is a rural community located on the flat, agricultural plains of southern Trinidad. There is very little topographical relief besides a few small hills scattered throughout the community. Due to the low elevation of the area, three of the rivers that flow through or near the village, the Cipero, the Oropouche and the Curamata are, fortunately, prone to flooding. The rivers are not clean: in addition to agricultural runoff, they serve as a convenient dump for a variety of waste materials discarded by auto garages, shopkeepers, residents and passers-by—a prominent concern that emerged in our interviews.

The women's group we interviewed was confident in WASA's ability to provide clean, safe water on a regular basis. It is perhaps because this community has survived through rainwater collection efforts alone, that the advent of pipes, however their potential irregularity, represents marked progress. As well, it is for this purpose that the Jones Village Women's Group organized. Even in Mt. D'Or, in spite of significant tensions, people prefer WASA's reliability to waiting for water in long lines at a standpipe. Moreover, like the Plum Road where there were apprehensions about community cohesion, this group was adamant that community spirit would remain intact, now that their organizing agenda was on the brink of being fulfilled. In the words of Neela Khan, the former community councillor:

"I don't think that having water in the village is going to send the village apart. This is a community that is closely knitted and bound together—all men, women and children and this is the meeting place, so I do not think that having enough water is going to spread them apart. They can stay together for the future development of this community and that I respect them for and I highly commend them for that method."

Khan praised the group and its leader, Patricia Samaroo, for their efforts in working to bring pipe-borne water to the village:

"I want to commend all of you who have worked real hard together with Patricia, who have been the backbone of your community in the sense of bringing water. Patricia will call me 24 hours a day, whatever day, whatever time, Patricia will call me with regards to water in your community and I'm very happy today that at least one person can turn on their pipe for now and see that water is running."

Yet, while the community rejoiced about their success, they had other sources of stress—mainly regarding pollution of the waterways running through the village. One man present at the group interview described how dirty the river is today compared to years gone by:

"Long time I used to go to the river and dip a bucket and wash car and like when pipe water lock off—you cannot do that again...now you go to the river and take a dive and when you come back up, pampers all over yuh face and all nasty thing all over you—nobody wouldn't want that."

Additionally, disagreements emerged about the extent to which men are involved in domestic affairs and the importance of household work as paid labour, as this good-humoured but pointed exchange between one man and several women reveals:

Man: "Most of the time women are housewives...the majority of times women are housewives, so who is working? The men have to work to provide..."

Woman 1: "Ah, the bossman..."

Man: "...so I have to give from my pocket. Where the women work? [Laughter from women]. ...women workin', right, but they are housewives...they are not employed like myself..."

Woman 2: "But that is work."

Man: "I have to provide...no, but even though it is my money...it is my money I have to spend."

Woman 3: "I have to pay for mines myself."

Man: "Yes, but in your case it's different. You are a housewife and you're employed but most of the time men have to pay for the water, because if you're employed, yuh wife not working..."

Woman 4 (Neela Khan): "But who is the real boss?"

Man: "Me."

N.K.: "OK. [Laughter from women] I just thought I would ask."

Man: "I have permission to say that, right?"

N.K.: "Once you have your wife's permission."

Despite this man's assertions about his wage work as 'real work', he appears somewhat tenuous about his authority in the presence of this group of women. After the women laugh (in a mocking sort of way) when he asks, "Where the women work?" he quickly corrects his view that housework is not work by saying: "Women workin', right" although he immediately reduces its value by reasserting "but they are housewives...they are not employed." Of course, later in the conversation he admits that at least one woman in the group does work for wages. When Neela Khan asks him who is the boss in his household, he names himself—although his part-serious, part-humorous response acknowledges Khan's status, when he asks, "I have permission to say that, right?"

This exchange, brief as it is, nonetheless signifies an important, ongoing shift in gender roles that is taking place. It reinforces the point, made earlier, that structural change in

gender stratification requires multiple levels of coordination in order to break down entrenched inequalities. The dialogue reflects the friction of gender relations, an indication that they are in flux and stable both conceptually and in practice, and that the women and the defensive man are exposed to and influenced by wider ideas about domestic labour and women's work. After all, this community exhibits the combination of both a woman's group and a female political leader—not just a sole female leader—who together, and with the cooperation of like-minded men, have brought about a new condition in their water supply. A shift in the balance of power is underway.

In addition to domestic and monetary affairs affecting women's and men's views about water management, there is conflict regarding pollution and land use. It is a concern to all, but men and women negotiate it differently. Women are particularly disempowered when the sources of pollution come from societal arenas where they remain marginal. Yet village men too feel powerless to improve conditions when companies rather than individual, known persons are involved in the pollution. One man described how the oil company Petrotrin was contaminating the river from waste pond overflows. Community members use the pond, dug by Petrotrin itself on private land, during the dry season with permission from the landowner. As Schneiderman and Reddock learned earlier, "Women wash dishes and clothes in it. Children swim in it. Pond water is also collected and used to flush toilets...Children who swim in the pond have developed rashes" (2004: 184). In our 2005 interview, he also said that river water is dirtied by the "chicken pluck shops [that] dump in the night".

In some instances, though, men have been confrontational with individual polluters in ways that women are not likely to be. The following example of an altercation that a Jones Village man had with another from neighbouring St. Mary's, who was illegally dumping in a part of the river running through Jones Village, illustrates this quite clearly:

"About two months ago I was comin' from work. I work shift—I finish around 2 o'clock that morning. I comin' home and right between this junction here and the junction up there, it have a small bridge. I saw this pick-up there...park lights on and this guy dumping whole tires in the river. I stop. I say, 'Good night, good night.' Well, the three door lock and I come out from my car and I had my light on. I say, 'Good night. Yuh getting' problem?' He say, 'Nah, I alright...' I say, 'What yuh doin'? Breds, this is illegal dumpin' man...this ent lookin' nice on the village here...why yuh doh carry it in the dump instead and dump it? This is cloggin' our waterways and it will have flooding.' He say, 'Well, who are you?' I said, 'That doesn't matter—you are dumpin' and it is illegal. What I'd like to ask you to do is to pick it back up, put it in your vehicle and get...I use some obscene, right...that time of the morning I coming home and you dumpin' in my village...what you expect me to do? I use some obscene and he took it back up, load it in the van and I waited there then I went home...I have my cell phone with me...I was going to call the Barrackpore police, but he leave and went. I have his number. Anytime I see tires anywhere I will further his number to the police. I will do that."



Fig.8 Dr Fox talking with a Jones Village community member

In Jones Village today, both men and women exhibit stress around water; however, they direct it differently. The distinct approaches to their concerns combined with their stratified uses express distinct meanings and values ascribed to water. The same can be said in all three of the study communities.

Summary: Water management and the gendered division of labour



Fig.9. Women's Community Group (with some men) completing surveys

Even within a relatively brief time frame, our investigation of community water management through a gendered lens revealed that the sexual division of labour has a significant impact on women's ability to control all aspects of community water usage. It is true that in both Jones Village and Plum Road women have played key roles in mobilizing their communities to change the sources of water access.

Nonetheless, they still harbour a range of stresses, contradictions and feelings of disempowerment with respect to water management, all of them tied in some fashion to gender dynamics. We have seen that women's general involvement in household responsibilities ('washing wares', 'washing clothes', 'mopping out', 'wetting plants' and 'cooking meals', for example) currently precludes any noteworthy impact they may have in other domains of water use where men's labour is dominant, such as agriculture, construction and car washing. Women in all three communities stated that they urged men not to wastewater, "to cut off the pipe", but their actual control seems restricted to domestic usage.

Men's cars are their "babies", one Mt. D'Or woman stated, and it a major concern to them. They continue to emphasize the importance of their paid labour over women's paid household labour. Even when women work extensively with domestic water supplies and involve their communities in political agitation for water supply improvement, if men regard their own labour as a source of leverage for decision-making in and out of the

home, then women remain structurally disempowered in spite of their activism, bearing the brunt of water acquisition and conservation measures. Moreover, they do so without formal political or economic profit, which makes you worry that their ongoing work will become increasingly marginalized, should WASA's proposed privatization measures be implemented.

Conclusions and recommendations: Toward a gendered ethnography of water

Four clusters of commonalities emerged in the course of our research. The *first* is tension between communities. These emerge when people illegally dump garbage and waste in the water supplies of communities that are not their own; when people in one community have no water and come to another to use the standpipe, and the ones who live near the working standpipe try to "run them away". *Second*, there is disagreement between men and women over responsibility for conservation of water. Women claim that they continually pressure men and children not to let the pipes run. Men generally agree that women bear the burden of responsibility for conservation in the home, but they assert that because it is mostly men who pay for water, they are the ones who are concerned about the cost. They seem to indicate that this is a more important arena of worry than any other, implicitly devaluing women's concerns.

Third, in all three communities women tell their children stories about the recent past when times were harder, as an important part of their socialization, "to let them know what times were like and how they should be grateful" for greater ease today—in spite of whatever difficulties they still face. Women said it is important to tell children that if things have improved, they can continue to improve—without knowledge of the past there is no understanding of change and little sense of hopefulness for improvement.

Interestingly, we found little knowledge of Trinidad's rich folklore about water. Our questions about Mama Dlo—part woman, part serpent—who lives in streams, protecting them and punishing contaminators, seems largely lost to the memory of older residents. Children in schools in all three communities returned our queries about Mama Dlo with blank looks. Even in Mt. D'Or where there had been a theatrical performance the previous year about the legendary character, and their teacher prompted them with reminders, children shrugged their shoulders and shook their heads. Tellingly, across the communities, children were familiar with a water song from the American television programme *Sesame Street*. In Mt. D'Or and Plum Road, they also referred to the story of John the Baptist and the 'parting of the waters' for Moses and the Hebrews to cross the Dead Sea.

Finally, we were able to receive any detailed responses to our questions about the religious or spiritual significance of water beyond some general commonalities. Everyone resolutely asserted that they "prayed for water" and many said that water is "a gift from god", "the source of life" and "sacred". However, few shared any detailed ritual behaviour aside from references to baptism and the Hindu *lota* ceremony, in which a copper bowl placed outside is filled with water in the morning over prayers. A few people in Catholic homes said that they sprinkled water around doorways and windows also in

the morning as a way to bring peace to the home. It is likely that more in-depth knowledge of religious/spiritual significance of water can be gained through longer-term ethnographic research. The meaning and value of water, then, as it was conveyed to us, stems largely from social roles around collection and distribution, as well as stressors associated with limited supply.

With respect to children, further ethnographic research should consider developing alternative activities to make the most of interactions with children, since they are key representatives of gendered socialization in process. Children's responses are likely to capture shifting gender role attitudes and to display a spectrum of responses indicating various degrees of gender role change in households and communities. Incorporating research objectives into a formalized lesson plan in the schools may be one approach to involve students, along with observing children's use of water, and parental interaction with children in their daily environments.

An additional recommendation for follow-up ethnographic research includes cross-community collaboration and networking. With varying levels of experience with local initiatives and experiences with WASA, this type of collaboration could be extremely beneficial to communities. Plum Road's experience with their dam could be instructive to Mt. D'Or residents, and Mt. D'Or's experience with WASA could help prepare Jones Village residents for future interactions with WASA. Finally, WASA itself should be a subject of anthropological analysis²⁸ to gain insider perspectives on citizens' critiques. Since the 1970s, notably with Laura Naunder's call for "studying up", anthropologists have recognized the importance of turning the anthropological gaze toward cultures of power and affluence (Naunder, 1972). Certainly, WASA as a government bureaucracy qualifies as an institution of power in the eyes of the country's citizens. Ironically, as the government of Trinidad and Tobago becomes increasingly entrenched in the international development apparatus through SAPs, it may regard itself as more of a victim of global economic processes rather than an active agent. A study of WASA and related ministries might research the following questions, for example: who are the 25% of Trinidad's population receiving water 24/7, and what politics render their access possible? Why is it that female Cabinet Ministers are not centring gender in their planning, so that it is evident to all in public domains—websites, pamphlets, speeches, newspaper articles—that this is a central concern of water development initiatives? Because our findings indicate that gendered access and use are the strongest determinants of meaning at the local level, the multilayered, gendered power relationships at national and international levels, within which local conditions are couched, are critical subjects of study.

Water-related democracy will not be attained until all stakeholders participate in the political process. Moreover, water policies are more likely to be effective if policymakers understand the gendered, cultural meanings of people's behaviour and the mutually reinforcing nexus among local, national and international levels of water management discourse. International commitments to link women's status both to reliable access to

²⁸ Thanks to Dr. James Millette, Dept. of African-American Studies, Oberlin College, for making this suggestion to Dr. Fox at a March 9, 2006 presentation of this article.

water and to multi-level incorporation into decision-making power cannot be fully realized at the community level when national policies are only partially reflective of both local gendered realities and international gender equity objectives. The nation state as the intermediary between the two must understand and take seriously the ways in which its own actions reproduce two of the contradictions of international goals, stressing simultaneously community development and privatization, while neglecting the third goal, gender equity.

Additionally, the synergistic relationship among the international community, nation and communities identified by the UN as crucial for the success of the MDGs cannot occur if community actors are absent or marginally included in decision-making and planning processes. Since invitations may not be forthcoming, community agitation for inclusion is likely to be necessary. Understanding the organizations that NGOs are attempting to transform through 'studying up' is therefore critical. Moreover, communication and coalition building across communities, among those interested in local sustainable resource management, would help to build a grassroots base to pressure governmental action toward gender mainstreaming. Micro credit loans or grants to community groups and women in particular, through alliances with Private Voluntary Organizations (PVOs), the private sector, NGOs and the government is one possible way of linking the private sector to community organizing, and could facilitate such collaboration, helping to amass detailed information on community variations important for national policy initiatives (Elmendorf and Isley, 1983:197). The fact of these variations—affirmed within the bounds of this preliminary study—is as important as the "global common good" asserted in the international discourse, in developing gender-sensitive approaches to sustainable water management practices.²⁹

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Glossary

CGDS	-	Centre for Gender and Development Studies
CSD	-	Commission on Sustainable Development
IMF	-	International Monetary Fund
MDG	-	Millennium Development Goal
NGO	-	Non-Governmental Organization
PVO	-	Private Voluntary Organization
SAP	-	Structural Adjustment Policy
UN	-	United Nations
UWI	-	University of the West Indies
WASA	-	Water and Sewerage Authority

Appendix 1

A detailed list of recommendations adopted by the UN Task force on Gender and Water includes the following: Ensure that the overall national sanitation framework is gender-sensitive; earmark funds for hygiene education in school curricula; commission research to identify, through gender analysis, where social and economic groups are chronically excluded from access to sanitation; introduce affirmative action programmes for training women in technical and managerial careers in the water and sanitation sector; ensure a minimum percentage of women participate in decision-making from the Ministerial down to village levels; allocate funds to the capacity development of women and girls; provide assistance to facilitate research into gender considerations in water resource management; encourage women to participate in businesses involved in water resource management and sanitation schemes; promote sanitation education messages through women's organizations, schools and health clinics; design and implement capacity building to consider the needs of women and men in the design of water, sanitation and hygiene education programmes; remove internal gender biases and discrimination in public sector organizations; encourage gender-sensitive budgets so that local governments can assess the economic value of policy commitments on gender equality; lobby for better services targeting women and children; assist in collecting information on men and women's roles, access, needs, priorities and perspectives on water and sanitation-related issues; support equality for women in the decision-making process at a local level; enable women and girls to acquire access to information, training and resources related to water and sanitation initiatives; engage women leaders, especially environment and water Ministers, to serve as role models in the effort to mainstream gender into water management at all levels; promote gender mainstreaming in water and sanitation through linking with MDG 3: 'Promote gender and empower women'; compile and disseminate examples of good practices and develop norms and guidelines for gender mainstreaming; invest in the capacity building of the water sector, with emphasis on empowering disadvantaged women and men; encourage the media, in both developed and developing countries, to provide more coverage on gender and water issues (Interagency Task Force on Gender and Water Sub-program of the Water and Interagency Network on Women and Gender Equality (IANWGE: 11-13).

APPENDIX 2: CASE STUDY 3

WATER, WOMEN AND COMMUNITY IN TRINIDAD, WEST INDIES

Jill S. Schneiderman and Rhoda Reddock

Abstract

This article examines the history and character of the water supply in Trinidad and Tobago and the nature of problems associated with the procurement of water by Trinidadians. The article reports on case studies of two rural communities in which women have taken the lead to solve water problems. It reflects on the importance of small-scale, community-managed water systems for the possibility of achieving water democracy.

Keywords: Trinidad and Tobago; Water management; Women; Community.

1. Introduction

In *Water Wars: Privatization, Pollution, and Profit*, Vandana Shiva argues that, 'More than any other resource, water needs to remain a common good and requires community management' (Shiva, 2002). Shiva quotes William Blackstone, 'Water is a moving, wandering thing, and must of necessity continue to be common by the law of nature' (Shiva, 2002). She rightly points out that water is part of the commons because it is the basis of all life and because community members must cooperate in order to enable its sustainable and equitable allocation (Shiva, 2002). Shiva observes that self-managed communities have not just been a historical reality but are a contemporary fact. For example, she describes a nationwide study in India that showed that the most basic needs of the poor throughout that country are satisfied from common property resources. She draws inspiration from that evidence in asserting that, 'Beyond the state and the market lies the power of community participation. Beyond bureaucracies and corporate power lies the promise of water democracy' (Shiva, 2002).

Over the past 20 years, many scholars have made clear the connections between gender, environment, and development. In *Staying Alive: Women, Ecology and Development*, Shiva states that the destruction of forests, water and land takes place in the name of 'development' and progress (Shiva, 1993). Shiva sees the 'violence to nature' as 'intrinsic to the dominant development model'

and 'associated with violence to women who depend on nature for drawing sustenance for themselves, their families, their societies' (Shiva, 1993). Also, because of the sexual division of labour, women primarily undertake activities that sustain families. Thus, with regard to water in particular, women endure the ill effects of water scarcity and degradation as they try to provide for the needs of their family members. Increased workloads resulting from the need to procure water rob women of the opportunity to engage in other productive activities (UN/INSTRAW, 1984). However as Shiva points out, it is possible to move beyond a statement of women as special victims of environmental problems (Shiva, 1993).

In this article on women and water supply in Trinidad and Tobago, interviews reported here with community leaders from the rural community of Barrackpore, Trinidad supplemented with documentation from urban areas of Trinidad, illustrate the difficulties encountered and solutions attempted by women whose households have limited access to piped water systems. A case study from a rural community not connected to the public water system, Plum Mitán, demonstrates successful long-term and cooperative management of a village water supply. The community of Plum Mitán provides an example of a community maintaining and managing its own water supply cooperatively and voluntarily — achieving a degree of Shiva's 'water democracy.' These case studies are particularly relevant to the Government of Trinidad and Tobago as it pursues its on-going project to craft a national water resources management policy in a culture in which women primarily care for children and the elderly and manage the household (Mondesire and Dunn, 1995). Furthermore, little if any work has scrutinized the effects of 'normal' management of water supplies on women and their families in the

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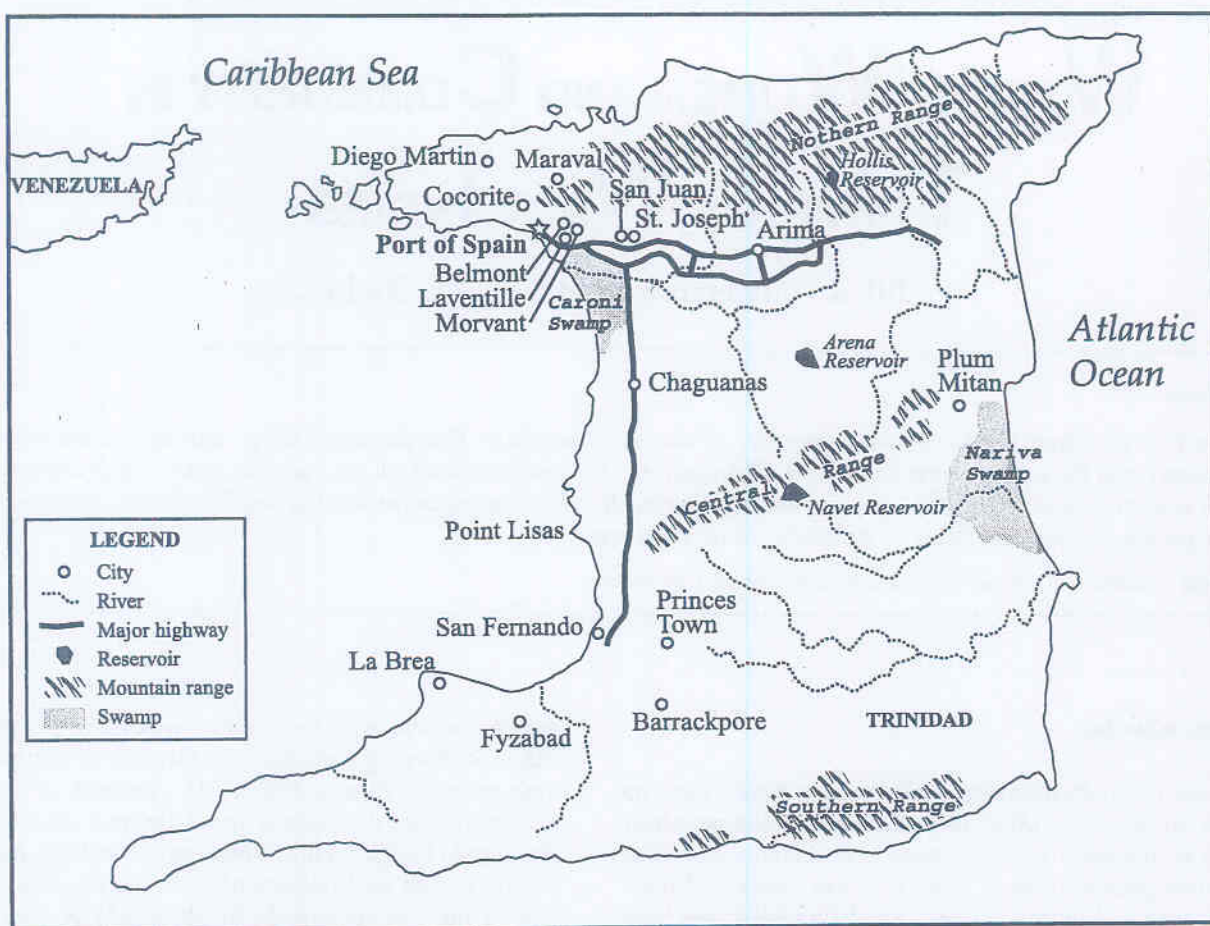


Figure 1. Map of Trinidad and Tobago.
Source: After Bellour (2002: 8).

Caribbean. This article aims to expand the investigative scope of inquiry about the management of natural resources by looking in detail at the water problems and solutions actualized by women in the small-island nation of Trinidad and Tobago.

2. Historical and physical background

On 23 March 1903, Trinidad's Red House (the seat of the Legislative Council) was destroyed by fire after riots broke out in response to a debate occurring in the Legislative Council about the distribution of and payment for water. The immediate cause of the riots was a new Waterworks Bill that threatened to curtail access to a resource that previously had been free of charge (Reddock, 1994). The Water Riots of 1903 happened because Trinidadians, especially the poor and women, feared imminent government infringement of their rights to a basic necessity of life, water (Reddock, 1994). More than 100 years later, in the year designated by the United Nations as the International Year of Freshwater, Trinidadians in general, and women

in particular, still had reason to riot regarding their water supply.

Trinidad and Tobago, a developing two-island nation, comprises a total land area of 5128 km² and has a population of 1.34 million people (Gleick, 2002). About 95% of that population lives on Trinidad, the most southerly of the Caribbean islands (Shrivastava, 1999). Steep mountains, undulating hills, and plains characterize Trinidad's landscape. The island has three mountain ranges — the Northern, Central and Southern Ranges — which are separated by basins of plains and swamps (see Figure 1).

The Northern Range extends 96 km along the full length of Trinidad's northern coast and reaches a maximum elevation of 940 m at Cerro del Aripo. The mountain chain is an extension of the South American Andes as it emerges from Venezuela. Portions of the Northern Range consist of ancient tropical rainforest. The Central Range runs diagonally southwest to northeast across Trinidad while the Southern Range runs parallel to the southern coast. These two ranges are essentially a collection of low hills that reach no more than 300 m above sea level (Gumbs, 1982). Trinidad's population is concentrated in the northwest around Port of Spain and

spreads to the east along the base of the Northern Range to Arima. The population also extends south from Port of Spain through Chagaunas to San Fernando (WRA, 2001). Over 74% of the country's population lives in urban areas (UNDP, 2002).

Trinidad has a tropical, warm and humid climate with two distinct hydrologic seasons: a five-month dry season from January to May and a wet season from June through December (Shrivastava, 2003a). A short, dry spell, called the Petit Careme, occurs in mid-September or October and lasts approximately two weeks. The estimated 75-year mean annual rainfall for the island is 2,200 mm. However, 80% of the annual rainfall occurs during the wet season. Furthermore, the Northern Range acts as a physical barrier to rainfall. Since the prevailing winds are the northeast trade winds, the Northern Range produces a strong orographic effect causing the amount of rainfall to decrease rapidly to the west and southwest of the mountain range. The highest mean annual rainfall, 3,800 mm, occurs in the northeast part of the island and the lowest mean annual rainfall, 1,200 mm, occurs in the west (Shrivastava, 2003a). Thus, the areas with the highest population density experience the lowest amounts of precipitation.

The renewable freshwater resources of Trinidad and Tobago are estimated to be 3,800 million m³/year (Gleick, 2002). Countries are considered to be facing a serious water crisis when available water is less than 1,000 m³/person/year (Shiva, 2002). Since the per capita annual water availability in Trinidad is approximately 2,500 m³, the island is not water-scarce in a global sense (MPUE, 2002). Nonetheless, the temporal and spatial variation of rainfall in Trinidad combined with the pattern of population distribution, poor infrastructure, and inadequate strategic planning at the local level result in formidable challenges to those who aspire to a reliable and clean supply of potable water 24 hours a day, seven days a week.

3. Trinidad's water supply

The Maraval Waterworks was commissioned in 1853 and was the first organized water supply established in Trinidad (Cooper and Bacon, 1981). Today, the Water and Sewerage Authority (WASA) operates the public water supply system in Trinidad and Tobago and is responsible for the infrastructure needed to supply both potable and industrial water to the population. Approximately 31% of the potable water distributed by WASA comes from a network of wells that tap the country's groundwater (WRA, 2001). The remaining 69% of the potable water comes from surface water sources. Surface water components of the public water supply system in Trinidad include four reservoirs as well as river intakes (WRA, 2001). The largest reservoir is the Arena, produced by damming the Caroni river which drains approximately one-fifth of Trinidad's land area (WRA, 2001). The Arena reservoir has a water volume of

46.6 million m³ and produces 40% of the island's potable water (WRA, 2001; Shrivastava, 1999). Located in the north central part of Trinidad, its water is distributed approximately equally between the northern and southern parts of the island (WRA, 2001). The upper and lower Navet reservoirs are the second largest and serve San Fernando and surroundings. Hollis, the oldest reservoir completed in 1939, serves Arima and vicinity. Treatment plants at or near the reservoirs chlorinate the water, reduce its turbidity, and monitor quality in an attempt to maintain the water supply within World Health Organization (WHO) guidelines.

In 2000, Trinidad utilized only 8% of its available surface water compared to 64% of its available groundwater for the public water supply system (WRA, 2001). Since no additional large volumes of groundwater are known to exist, Trinidad will need to rely more heavily on surface water sources for its public water supply system, and perhaps on desalination. As of 2002, a reverse osmosis desalination plant at the Point Lisas industrial estate produces 22 million gallons per day of industrial quality water. Currently, the country's total water supply consists of 64% surface water, 25% groundwater, and 11% desalinated water (Fletcher, 2003).

4. The water supply problem

For the year 2000, water demand was estimated to be 336 million m³ (MCM). Despite the fact that the available annual freshwater resources are more than ten times the present water demand, the water supply system distributed approximately 300 MCM per year, indicating a water deficit of 36 MCM (11%). The water deficit persists: for 2002, water demand was estimated at 368 MCM while supply totaled 346 MCM (MPUE, 2002). Harsh dry seasons exacerbate the deficit, when low surface water flows and high turbidity adversely affect the reliability of the raw water supply (MPUE, 2002).

Approximately one-third of the country's water is utilized for domestic purposes, one-fifth for industrial purposes and less than one-twentieth for irrigated agriculture (MPUE, 2002). About 50% of the water supply remains unaccounted for (Jittan, 1998; Shrivastava, 1999). Examples of unaccounted-for water losses include illegal connections, accounting procedure errors, reservoir seepage and leakage, reservoir overflow, leaks, theft and evaporation (Gleick, 2002). The amount of unaccounted-for water in Trinidad is notably higher than the 42% mean unaccounted-for water in large cities in Latin America and the Caribbean (WHO, 2000). Thus, the high percentage of unaccounted-for water in Trinidad and Tobago suggests problems with the water supply infrastructure and a lack of efficient management of WASA (WHO, 2000).

An estimated 86% of the population of Trinidad and Tobago has access to an improved water supply (WHO, 2000). An improved water supply includes household

Table 1. Comparison of economic and social indicators in Trinidad and Tobago and Costa Rica

Indicator	Trinidad and Tobago	Costa Rica
Area	~5,100 km ²	~51,000 km ²
Climate	Dry season: January to May Wet season: June to December	Dry season: December to April Wet season: May to November
Total population 1975	1.0 million	2.0 million
Total population 2000	1.3 million	4.0 million
Population growth rate 1975–2000	1%	2.9%
GDP per capita (Purchasing power parity \$)	\$8,964	\$8,650
Life expectancy at birth 2000	74.3	76.4
Adult literacy rate 2000	93.8%	95.6%
% Population using improved water supply	86%	98%

connections, public standpipes, boreholes, protected dug wells and springs, and rainwater collection. An unimproved water supply includes unprotected wells and springs, vendor-provided water, bottled water, and tanker truck provision of water (WHO, 2000). Compared to other Caribbean nations, the access figure is low. Anguilla, the Dominican Republic, Haiti, and Jamaica, are the only Caribbean nations having a smaller percentage of the population with access to an improved water supply (WHO, 2000). Furthermore, as shown in Table 1 above, Trinidad and Tobago compares poorly with Costa Rica, a nation with similar climate, per capita gross domestic product, life expectancy at birth, and adult literacy rate. Despite the fact that Costa Rica occupies an area ten times the size of Trinidad and Tobago, has a population three times larger, and has experienced a higher population growth rate since 1975, 98% of Costa Ricans use an improved water supply (UNDP, 2002).

Additionally, the access figure of 86% for Trinidad and Tobago represents a substantial decrease in the percentage of the population with access to an improved water supply over the last 30 years. During the period 1970 to 1994, it was reported that between 93% and 98% of the country's population had access to an improved water supply (Gleick, 2002). The decrease in the percentage of the population with access to an improved water supply probably reflects increased urbanization through squatter settlements. Furthermore, large disparities are apparent between urban and rural areas. Though figures for Trinidad and Tobago are not available, they may be close to the average for Latin America and the Caribbean, where 93% of the urban population has coverage, while only 62% of the rural population benefits from coverage (WHO, 2000).

Despite the fact that the majority of the population is connected to an improved water supply system, Trinidadians suffer from the serious problem of an intermittent water supply. In a recent address, former Minister of Public Utilities, Martin Joseph, noted that only 14% of the population receives water 24 hours a day, seven days a week. Of the

remaining 86% of the population, 32% receive water five to seven days per week; 13% receive it three to five days per week; 18% two to three days per week; and another 13% receive it less than two to three days per week (Joseph, 2001). About 6% of the population have no infrastructure at all to access safe drinking water and 4% have the infrastructure and are connected to the water supply but receive no water from it (Joseph, 2001). The office of the current Minister of Public Utilities corroborates these data (Beharry, 2003).

5. Community frustration

Frustration with the water supply system, which has been characterized by key officials as 'haphazardly intermittent' (Forde, 2003), runs high. A letter to the editor in the *Trinidad Express* from an individual living in a rural area expresses this typical sentiment:

'I cannot understand how the Minister of Public Utilities can claim there isn't a water problem in Trinidad when residents of St. Julien Road in Princes Town have not received water for nearly six weeks. Numerous reports have been made to WASA's customer service and despite their promises of water we have not received a single drop. I am tired, fed-up and frustrated and don't know what else can be done to ensure that my Government provides me with a necessity that they are responsible for. . . . Does the Government really think we can ever become a developed country if they can't even provide water to their citizens?' (*Trinidad Express*, 2003b).

The problem of an unreliable water supply is not restricted to rural areas. A writer from Port of Spain opined in the *Trinidad Guardian*:

'Last year, WASA finally decided to run a pipe-borne supply of water into the Paramin Hill, Maraval, area

(sic). . . when it finally reaches me, it lasts a mere hour, until the next three weeks to a month. . . [w]hy can't we get it right, Mr. Prime Minister, before you run your expensive underwater gas pipeline to subsidise our CARICOM neighbours? Please ensure that your citizens have their basic needs met, like a constant supply of running water' (*Trinidad Guardian*, 2003).

Such sentiments have led to community protests. For example, on 2 May 2003, residents of Union Village, La Brea in south Trinidad, blocked a major road in order to call attention to a lack of piped water. According to the village spokesperson, although every home in the village of 400 people has water lines, taps had been dry for three months and residents received only truck-borne water once or twice a week (Charan, 2003).

This situation must certainly feel intolerable to citizens of a country with a rank of 50 for its Human Development Index (UNDP, 2000). The Human Development Index, assessed by UNDP, measures a country's achievements in three aspects: longevity, educational attainment, and standard of living. Trinidad and Tobago's HDI rank of 50 in a list of 173 nations qualifies it as a country with high human development. Indeed, as of 2000, life expectancy at birth is approximately 74 years; infant mortality rate per 1000 live births is 17; and adult literacy for people 15 and older is almost 94%. Furthermore, the gross domestic product per capita is US\$8,964 (UNDP, 2002).

Trinidad and Tobago also has the most diversified and industrialized economy in the English-speaking Caribbean. The country has attracted international investment based particularly on its proven substantial reserves of petroleum and natural gas. Heavy industries such as iron and steel, methanol, and nitrogen-based fertilizers are also well developed. The economy is based on petroleum, natural gas, chemicals, tourism, food processing, cement, beverage and cotton textile manufacture and in recent years has grown at an estimated annual rate of 3% (Trinidad and Tobago Business Online, 2002). This industrial activity draws water from the public water supply, particularly at the Point Lisas industrial estate.

Despite such development, the water supply situation in post-colonial Trinidad has improved little in the approximately 30 years since a Commission of Enquiry into all Aspects of the Operation of the Water and Sewerage Authority was convened in 1973. Complaints heard today echo those of the past. For example, testimony from members of the public in the 1970s indicated that in Tabaguite, north-west of San Fernando, people had to rely on water from springs a mile away for cooking and some had to stand under leaking water tanks in order to bathe (WASA, 1975). In the more urban areas of Newtown, Diego Martin, and Morvant, evidence revealed a lack of piped water for as long as 12 hours every day. East of Port of Spain, in San Juan, some residents received piped water only at night. In

the Upper Belmont Valley area, a memorandum signed by over 80 residents, indicated that during the period 1967 to 1968 they obtained a scant supply of piped water and that sometimes no water was available for as long as 14 consecutive days (WASA, 1975). When water did flow in that region, only people living at low elevations would receive a supply. At the time of the testimony, no piped water arrived in the Belmont Valley Road area and truck-borne water was supplied on an irregular basis (WASA, 1975).

The problem with water availability in Trinidad results partly from an old and deteriorating infrastructure that cannot meet the demands of a growing population. However, it is also a problem of managing demand placed on the water supply by people and industries — a supply that is only replenished seven months of the year. The hydrological reality of the nation's situation is that water will be available only if water sources are used within limits of renewability and are allowed to recharge themselves. As Vandana Shiva has stated, 'In case after case, the story of water scarcity has been a story of greed, of careless technologies, and of taking more than nature can replenish and clean up' (Shiva, 2002). In Trinidad where 50% of the land area is forest, the possibility of recharging the water supply is severely compromised by excessive deforestation caused by rapid urbanization, indiscriminate fires, slash-and-burn hillside farming and clearing, and illegal squatting (Pantin, 2003; Shrivastava, 1999) often enacted by people of limited means. Other causes of deforestation such as logging and quarrying are practices associated with the movement of transnational capital. Whatever the causes, deforested mountain slopes are unable to retain and regenerate water and they exacerbate flooding during the wet season. The lesson in Trinidad, as elsewhere, is that life lived out of balance with the hydrologic cycle is unsustainable.

6. Community management of water supply

The Chief Executive Officer of the National Commission for Self-Help has stated that the majority of proposals for water projects sent to the Commission are made by groups of women (Sumesar-Rai, 2003). Furthermore, council member Neela Khan of Princes Town states that women supply the labour for self-help projects because village men are at work during the day. In fact, she recounts with satisfaction a large self-help project in her district, in which women worked in trenches to lay down a water distribution system for their village; other women supported their efforts by cooking pots of soup to feed the workers while the project proceeded (Khan, 2003). This type of labour has been performed by women elsewhere; for example, in a rural piped water project in Malawi, women provided over half of the self-help construction labour and comprise over two-thirds of the committee members responsible for tap maintenance (Briscoe and de Ferranti, 1988).

6.1. The case of Jones Village, Barrackpore

'It is everything you need water for, you know?' said Patricia Samaroo when we met with her and Fazeeda Mohammed on 27 March 2003 in Jones Village, Barrackpore, a region of primarily Indo-Trinidadians who are low-income sugar cane farmers. 'We would sooner do without electricity.'

Samaroo and Mohammed are president and vice-president, respectively, of the Jones Village Women's Group, which was formed in 1999 by 25 women in the village for the purpose of obtaining a piped water supply to their homes. Like others in their village, these women and their families have access to piped water from a standpipe, in theory no more than one-quarter mile from their homes. However, as Samaroo and Mohammed explained, the standpipe is downhill from villagers' homes and provides water only at night when it emerges as a trickle. Furthermore, because the village is heavily populated, a crowd of villagers usually waits to collect an allotment of two buckets per turn at the standpipe. Samaroo harvests rainwater during the wet season, treats it with bleach, and stores it in 13 drums of 400 gallons each in her home. During the wet season, she has no problem acquiring and replenishing water for the needs of herself, her husband and their three teenage children; the problems arise during the dry season.

When one of the authors met with Samaroo and Mohammed in March, midway through a particularly harsh dry season (*Trinidad Express*, 2003c), Samaroo's drums were empty and the village still awaited a delivery of truck-borne water, promised since January by WASA. (When the truck-borne water does arrive, villagers will need to pay 40 to 50 TT dollars — approximately US\$8.00 — to fill a 400-gallon tank.) Villagers who owned large volume tanks and a trailer borrowed a tractor to pull the trailer down to the standpipe at night, waited for hours for the tank to fill, and then towed it back home.

Another source of water for villagers during the dry season has been a pond dug on private land for use during drilling by the oil company Petrotrin. In the spirit of helping his neighbours, the owner of the land has allowed people to access the pond for various purposes. Women wash dishes and clothes in it. Children swim in it. Pond water is also collected and used to flush toilets. According to Samaroo and Mohammed, light colored clothes cannot be washed in the pond because they turn brown. Children who swim in the pond have developed rashes and their parents, with limited resources, must pay a doctor for medical treatment.

When asked how they managed their households with a minimal water supply during the dry season, Samaroo and Mohammed described a two-pronged strategy: 1) they prioritize among uses; and 2) use less water than they ordinarily would for maintenance and chores. Upon rising in the morning, water is used for hand washing and then for praying, brewing tea, preparing food, cooking, washing clothes, bathing, and flushing the toilet. They wash clothes

every day rather than let laundry accumulate because with this approach they use less water. They fetch pond water and boil it so that it can be used to clean clothes and dishes. They use half a bucket rather than a bucket or two to bathe. They flush the toilet only once a day or use a pit latrine behind the house. Also, they share what water they have with their neighbours if it is needed. In particular, elderly neighbours have difficulty fetching water from the standpipe and sometimes find themselves short of needed water. Samaroo and Mohammed also impressed upon us that they have taught their children not to waste water. The children haul buckets of water from the standpipe to their homes in the dry season; in the wet season, they shut off the tap while washing themselves. The children understand that unless they conserve their water they will not have enough for the next day.

Though Samaroo and Mohammed denied that their domestic relations were ever stressed owing to water scarcity, they conceded that they know families in which the lack of water causes problems between household members. In particular, they mentioned cases of women rationing water in the home and men becoming irate as a result, husbands refusing to fetch water when they came home from work, and wives wanting not to 'hug up' with husbands who have not had adequate water for bathing.

Tired of the dismal water situation in their village, Samaroo and Mohammed approached their representative in local government who helped them form the village women's group. The representative then encouraged the group to contact the National Commission for Self-Help. The Commission mobilizes physical, financial and human resources in order to facilitate the implementation of self-help projects. It provides grants to communities for infrastructure development projects, such as road and drainage improvement, water distribution pipes, and electric line installation. Communities supply the labour while the Commission provides funds for supplies and heavy equipment. According to Samaroo and Mohammed, letters that the group wrote to the Commission in 2002 drew no response. Refusing to be ignored, a delegation of five women from the group went to the Commission's office in 2003 and requested that their case be addressed. As a result, the Commission is reviewing the application of the Jones Village Women's Group for installation of water distribution pipes in their village. The Commission will make a recommendation to WASA, which will then estimate the cost and approve or deny the request. As a result of the initiative of these women, the water needs of the village are being assessed.

Ample evidence indicates that the water woes in Jones Village are not unique. Participating in a consultative exercise called Vision 21, coordinated by the Water Supply and Sanitation Collaborative Council (WSSCC) — an international organization that enhances collaboration to accelerate the achievement of sustainable water, sanitation and waste management services to all people, with special attention to the unserved poor — in 1999, community

groups from two urban areas (Upper Maingot Road Village, Tunapuna and Tonka Bean Alley, St. Joseph), and two rural areas (Lothians Road, Princes Town and Kuldip Trace, Fyzabad), met to discuss water issues in their communities. Among the many problems, villagers expressed frustration at: the loss of productive time spent carrying water; fear for the safety of people — especially women and children — who must fetch water late at night; and concern for children, elderly and disabled people who had to fetch water from a standpipe and transport it up a steep hill (Trinidad and Tobago Secretariat, 1999). The situation seems unchanged from the 1973 Commission of Enquiry when a witness from Princes Town related how she was obliged to rise at night to collect water, and as a result, developed arthritis. Other witnesses testified that school children were forced to remain at standpipes during the early hours of the morning waiting for water and this may have had an adverse effect on their school performance and general behaviour (WASA, 1975).

The case of Jones Village illustrates well how women, as a result of bearing the burden of an inadequate water supply, often mobilize to seek solutions. Evidence from other parts of Trinidad also suggests this is true. In Laventille, a poor and crime-ridden area of Port of Spain, Louise Reid spoke to the press about the difficulties she has obtaining water for her three children and herself in her neighbourhood: 'We'd like to have water on the Hill. I have to come to the standpipe. Imagine people still have to go to the standpipe to bathe and wash in this modern day' (Loubon, 2003). At the headquarters of Trinidad's ruling party in Port of Spain, 30 residents of the urban area of Cocorite gathered to demand a meeting with the Prime Minister. Most of those who came were women who made it clear that they had called attention to the lack of water in their neighbourhood to no avail (see Figure 2). When they insisted that they were prepared to remain until they met the Prime Minister, they were contacted by the Minister of Public Utilities who promised to supply truck-borne water immediately. A delegation of seven residents then met with the Prime Minister and detailed their plight (Lord, 2003). These incidents are reminiscent of protests in the 1980s in Monterrey, Mexico in which low-income women, through public protests, forced government planners to make Monterrey's water problems a national priority (Tortajada, 2002). The same has more recently been the case in Cochabamba, Bolivia.

6.2. The case of Plum Mitán

When one meets with Rose Rajbansee, it is possible to see how she might convince an entire community to cooperate in the maintenance of a village water supply. In her late 60s, Rajbansee lives where she was born on Plum Mitán Road in Plum Mitán, Manzanilla in southeastern Trinidad. Raised on a small farm that grew coffee, cocoa, citrus, and bananas, she knew from when she was young '... what it



Figure 2. On 8 May 2003, residents of Cocorite, Trinidad, gathered outside the headquarters of Trinidad's ruling party in Port of Spain to demand a meeting with the Prime Minister regarding the lack of water in their neighbourhood.

Photo: Lord (2003).

meant to have water and not to have water' (Rajbansee, 2003). For almost thirty years, she taught primary school and she focussed especially on issues of food and nutrition. Known as Miss Rose, she asserts that she taught as students almost all of the adults in the village of approximately 300 households and that this enables her to elicit their cooperation in managing the village water supply.

According to Rajbansee, Plum Mitán does not obtain water from WASA. Rather, in the 1950s, with help from Trinidad's health authority, villagers constructed a dam downstream from a spring in the village and laid pipe to distribute water from the resulting reservoir. Prior to that, without pipe-borne water, adults and children fetched water from the spring-fed stream in the village. Today, most households in the village are located downhill from the constructed reservoir and receive pipe-borne water via gravity flow. People whose homes are not connected to the pipeline avail themselves of one of the three or four standpipes in the village. Though water is abundant during the wet season, water quantity is not adequate to provide a round-the-clock supply during the dry season. Rather, as directed by the water committee of the village council — consisting of three men and five women, including Rajbansee — water flows from the reservoir beginning at 6 a.m. and is turned off at 6 p.m. In the recent harsh dry season, the council dictated that water flow from 4 a.m. to

11 a.m. and 4 p.m. to 7 p.m. only. Rajbansee states that some complaining accompanies these restrictions and some people do take too much water and sometimes waste it. However, she characterizes the system as one of successful 'self-policing and self-regulation with a little fussing in between' (Rajbansee, 2003).

Periodically, the dam and reservoir need to be cleaned of accumulated moss and algae. This is particularly true during the dry season because of low water flow. Cleaning is necessary approximately once a month and requires the participation and support of many villagers; it disrupts the water supply for an entire day. Though not everyone is willing to participate in the effort, Rajbansee reports, 'enough will help.' Rajbansee, along with other villagers in Plum Mitán prize the quality of the water that emerges from their spring. They do not want a WASA-installed distribution system that taps into the nation's public water supply system in part because they do not want chlorinated drinking water. The collective approach with its requisite compromises and accommodations seems a reasonable price to pay for control of this precious resource.

Rajbansee seems to be a natural leader. She is president of the Caribbean Network of Rural Women Producers and the Trinidad and Tobago Federation of Women's Institutes, which works with the country's Ministry of Social Development to improve the quality of life for women and their families. Her experience working with others toward a common goal serves her well in raising funds to maintain the village's water distribution system and dam. She and other members of the village council periodically solicit voluntary contributions from households to the village bank account. They use money from the account for water system and dam repairs. If the account balance is low, Rajbansee and other council members collect money to meet the immediate need. Additionally, the village holds annual events such as bus excursions or 'currycues' to raise funds for water supply maintenance. Rajbansee says that in the Hindu tradition, the religion of approximately one-fourth of the population, 'if you have nothing to give someone, you can give water.'

7. Rehabilitating rivers and communities

A review of the history of water resources management in Trinidad reveals that large and centralized projects have been favoured over smaller supply systems that encourage local control of and respect for the resource (Shrivastava, 1999). The shortsightedness of the former approach for a small-island nation became apparent in October 1998 when a 50 km long transmission main broke. This caused more than 300,000 people as well as steel and petrochemical plants at Point Lisas to go without water for approximately three weeks (Shrivastava, 1999). The problems associated with large-scale, engineered solutions to water problems have been well-documented for much larger countries.

High-tech solutions to nature's hydrological reality in places such as the Narmada and Yangtze River valleys reveal the natural as well as socio-economic perils of engineered solutions (De Villiers, 2000). Similarly, the temptation to rely on desalination — an energy-intensive technological fix that adds greenhouse gases to the atmosphere and requires disposal of highly saline brine — reflects the impulse in Trinidad to emulate large, industrialized nations and attempt to 'outwit nature.'

Reliance on engineered solutions will ultimately exacerbate the water supply problem. As Shrivastava (2003b) has pointed out, communities which receive their water entirely from distant sources as part of the public water supply system will not cherish their rivers. Indiscriminate disposal of solid waste and of large derelict objects in watercourses in Trinidad testifies to the disregard for important components of the hydrosphere. In fact, wholesale dumping of wastes in watercourses, as well as on land, is commonplace in Trinidad and has been identified by UNDP as an issue needing serious attention (UNDP, 2001).

Water pollution is on the rise throughout Trinidad. Major pollutants found in the nation's surface waters are suspended solids, organic material, oil and grease, heavy metals such as lead and zinc, and the fertilizers nitrogen and phosphorus (WRA, 2001; *Trinidad Express*, 2003a). These pollutants affect both inland freshwater and coastal water resources. Threats to groundwater and surface water come from agricultural and industrial chemicals such as pesticides and solvents, bacterial contamination from sewage effluent, and saltwater intrusion (WRA, 2001; Homer, 2003). Also, without vigilant scrutiny, effluent from increasing industrial activity will worsen some of these problems (Pan American Health Organization (PAHO), 1994).

Water pollution stresses public water supply systems by making clean water less available. It also causes health problems. In Trinidad, an improved water supply that offers good quality water that is readily available would help reduce diarrhoeal disease in children. A recent UNDP study of youth in Trinidad and Tobago identified poor environmental conditions, especially water supply problems, as a significant cause of gastrointestinal diseases resulting in morbidity as well as skin infections (UNDP, 2001).

A World Water Council report, issued for the Second World Water Forum in 2000, commented that the present water crisis '... is a crisis of managing water so badly that billions of people — and the environment — suffer badly' (Cosgrove and Rijsberman, 2000). A possible antidote to the crisis would require community empowerment for local water management. One of the key principles for integrated water management identified during the 1992 United Nations Conference on Environment and Development in Rio de Janeiro, was that water should be managed by those who use it most and that all those who have an interest in its allocation and use — particularly women — should be involved in related decision-making (United Nations, 1993). As pointed out in a report on the status of women

in Caribbean countries, women, as consumers and managers of household products, can make, and have made, an important difference to what items are promoted, consumed and recycled (Mondesire and Dunn, 1995). This applies to water. Thus, a starting point for community management of water that might rehabilitate waterways and ultimately allow for the equitable distribution of water would be enfranchisement of women as water managers.

Trinidadian folklore offers evidence that the protection of water is associated with women on the islands. One of the lesser-known characters of Trinidad folklore is Mama Dlo, whose name is derived from the French *maman de l'eau* which means 'mother of the water.' Sometimes taking the form of a beautiful woman who sits and combs her hair on a big river stone or sings silent songs on still afternoons by the water's edge, the lower half of her body is snake-like, reminiscent of an anaconda or river python (see Figure 3) (Besson, 2001). Some people tell of hearing a loud, cracking sound in the woods, which is said to be the noise of her tail snapping on the surface of a mountain pool or a still lagoon. To safeguard water sources, she may punish or attack those who pollute a community's water supply, e.g., by washing upstream (Warner-Lewis, 1991).



Figure 3. Mama Dlo, according to Trinidad's folklore, safeguards water sources and punishes those who pollute streams.
Source: Besson (2001).

At present, no accepted water policy governs the overall water and water resources strategy of Trinidad and Tobago (WRA, 2001). A national water resources management policy has been drafted and circulated for comment. The stated purpose of the draft policy is to support the socio-economic development of Trinidad and Tobago through the integrated management of water resources. Though the policy acknowledges that in general women play a critical role in the provision and management of water, it does not articulate a central role for Trinidadian women. Drawing inspiration from Mama Dlo, innovative approaches to the hydrological reality of Trinidad and Tobago should empower women as leaders to invest communities with control and responsibility for sustainable water use.

Acknowledgements

The first author undertook the work as a Fulbright fellow at the University of the West Indies, St. Augustine, Trinidad in 2003. She thanks Professors Rhoda Reddock and Patricia Mohammed at the University of the West Indies, Centre for the Study of Gender and Development; Professor Grace Sirju-Charran at the University of the West Indies, Department of Life Sciences; and Carol Robles at the Council for the International Exchange of Scholars, for enabling the research. She also expresses gratitude to the many Trinidadians who spoke frankly about water issues in their nation in order to aid this study. Finally the author gives thanks to: Professors Yu Zhou and Joseph Nevins of the Vassar College Department of Geology and Geography; one anonymous reviewer for constructive reviews of the manuscript; Meg Stewart, GIS consultant at Vassar College for assistance with the map of Trinidad; and Marcia Brewster for expert editing.

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Annotations/abstracts to be added.

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