

State Policy and Governance in the Nariva Swamp:

A Historical and Gender Analysis

By

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PREFACE

KINDLY RETURN TO
CENTRE FOR GENDER
AND DEVELOPMENT
STUDIES

This book is one of four research reports prepared as part of the Nariva Swamp: A Gendered Case Study. This research/action project, administered by the Centre for Gender and Development Studies of the University of the West Indies, brought together a multidisciplinary team of researchers and resources. The research and analysis were carried out over the period April/May 1999 to December 2000 and was funded through the CIDA-CARICOM Gender Equity Fund and the ISLE Programme. The primary goals of the overall project were to:

- empower communities and women of the Nariva Swamp through greater awareness of the biophysical environment and their relationship/knowledge of the natural resources;
- generate research data that incorporates a gender analysis into an interdisciplinary frame;

"But what is your price for the land?" asked Pakhom.

"Our price," answered the Starshina, "is only 1000 roubles per day."

Pakhom did not understand this day-rate at all.

"How many dessiantins (2.8 acres) would that include?" he inquired presently.

"We do not reckon in that way," said the Starshina. "We sell only by the day.

That is to say, as much land as you can walk round in a day, that much land is yours." (Leo Tolstoy, *How Much Land Does a Man Require?*)

- Gender and Natural Resource Use in Kerubhan and Cascaes
- State Policy and Governance in The Nariva Swamp: A Historical and Gender Analysis
- Community Level Governance in Kerubhan and Cascaes
- Socio-Economic, Cultural and Gender Analysis of Kerubhan and Cascaes

In addition to the four individual research reports, a composite report was also prepared.

The Centre for Gender and Development Studies would like to acknowledge the support of CIDA Gender Equity Fund, the ISLE Programme, the Ministry of Agriculture, Fish and Marine Resources, the Environmental Management Authority, the Institute of Marine Affairs, the Department of Agricultural Extension and Economics, Life Sciences and Surveying and Land Management, as well as the staff of the UWI Barbados and the Centre for Gender and Development Studies of the University of the West Indies (St. Augustine) and the numerous other individuals and agencies who facilitated the successful completion of this project.

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

The Island, Seaweed, and Equity Programme was a collaborative research and action development programme among seven island universities coordinated by the Lester Pascoe Institute of Dalhousie University, Halifax, Canada.

PREFACE

This Study is one of four research reports prepared as part of the Research Project - *The Nariva Swamp: A Gendered Case Study*. This research/action project, administered through the Centre for Gender and Development Studies of the University of the West Indies, St. Augustine campus, brought together a multidisciplinary team of researchers and research co-ordinators. The research and analysis were carried out over the period April/May 1999 to December 2000 and was funded through the CIDA-CARICOM Gender Equity Fund and the ISLE Programme¹. The primary goals of the overall project were to:

- empower communities and women of the Nariva Swamp through greater awareness of the biophysical environment and their relationship/knowledge of the natural resources;
- generate research data that incorporates a gender analysis into an interdisciplinary frame;
- critically examine 'The Scientific Method' of research and exploration.

In addition to the general aim of gathering data dis-aggregated by gender, the development of methodologies for carrying out this kind of interdisciplinary and action research was also an important goal.

The four research studies carried out are as follows:

- Gender and Natural Resource Use in Kernahan and Cascadoux
- State Policy and Governance in The Nariva Swamp: A Historical and Gender Analysis
- Community Level Governance in Kernahan and Cascadoux
- Socio-Economic, Cultural and Gender Analysis of Kernahan and Cascadoux

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Rhoda Reddock
Grace Sirju-Charran

¹ The Island, Sustainability, Livelihood and Equity Programme was a collaborative research and curriculum development programme among seven island universities coordinated by the Lester Pearson Institute of Dalhousie University, Halifax, Canada.

ACKNOWLEDGEMENTS

The Centre for Gender and Development Studies acknowledges the support of a number of institutions, individuals and agencies for the successful completion of this research project – *The Nariva Swamp: A Gendered Case Study*. The initial idea for this project came out of the Centre's involvement in the Island Sustainability, Livelihood and Equity (ISLE) Project, coordinated out of the Lester Pearson Institute and Dalhousie University. This project brought together scholars from island universities including – the Hassanudin University, Indonesia, University of the Philippines in the Visayas, Nova Scotia Agricultural College, Dalhousie, Halifax and The University of the West Indies. Our participation in the ISLE network benefited the project from its inception and at other stages through training in participatory research methodologies, partial funding, consultation as well as collaboration in certain aspects of the project.

This project was a very innovative and in some ways an experimental one which challenged disciplinary boundaries as well as traditional ideas of what gender-related research should be. We would like to acknowledge the financial support of the CIDA-CARICOM Gender Equity Fund in particular to thank the Gender Fund Coordinator - Ms. Denise Noel-de Bique for having confidence in us and for providing the necessary support to make the project a reality.

The hard work of the researchers on the project also needs to be acknowledged, they became part of a dynamic and challenging process which was not always clearly defined as we were charting new waters with limited resources. We would like to acknowledge their commitment to the process and to the communities with which they worked over the extended period.

The women and men, girls and boys of the Kernahan and Cascadoux communities must also be thanked for the time they spared to participate in research activities, to speak to researchers and research coordinators, to attend workshops and meetings including the final reporting conferences. Many relationships were developed which we hope will not end with the end of this particular project.

The action component of the project required that a number of individuals and agencies be drawn into the process. These included the former - Ministry of Agriculture, Lands and Marine Resources, in particular the Extension Office of the Nariva/Mayaro area, the Soils Department in particular Mr. Persad and the Wildlife Division; the Environmental Management Authority, the Institute of Marine Affairs, the Community Development Division, The Manatee Conservation Trust, Mr. Dindial Sikumar – farmer, and Dr. Brinsley Samaroo, Senior Lecturer, UWI Department of History. The encouragement and support of persons from the environmental movement should also be acknowledged for example the Point-a-Pierre Wild Fowl Trust and the Caribbean Forest Conservation Association.

The limited human resources of the Centre for Gender and Development Studies were used to their fullest capacity. We would like to sincerely thank the temporary staff attached to the project as well as the Centre's full time staff for their contribution towards the success of the project. The staff of the UWI Bursary in particular Anisa Persad also helped us meet the required financial reporting requirements. The assistance of other departments such as Department of Agricultural Economics and Extension, the Department of Life Sciences and the Department of Surveying and Land Information must also be recognized.

We know that this list is not exhaustive so we apologize for any omissions which we may have made and hope that the final product justifies the effort which so many have made towards its completion.

Dr. Rhoda Reddock
Dr. Grace Sirju Charran

Table of Contents

<i>List of Acronyms</i>	2
<i>Summary</i>	3
<i>Introduction</i>	3
<i>Background</i>	3
<i>Map of Nariva Swamp</i>	6
<i>How the study was conducted</i>	7
<i>Environmental and Conservation History of Trinidad and Tobago: With Special Reference to the Nariva Swamp</i>	9
<i>Governance</i>	17
<i>Gender analysis</i>	18
<i>Gendered analysis of the development context</i>	20
<i>The discourse and doxa of food self sufficiency</i>	21
<i>The social capital networks linking politicians and the Swamp</i>	29
<i>Gendered power relations:- how do women and men feel about the Nariva Swamp conflict ?</i>	38
<i>Gender and Forestry</i>	43
<i>Gender in the local context</i>	44
<i>Gender and advocacy</i>	47
<i>Ecotourism, Community participation and community management as discourses</i>	50
<i>Governance as discourse</i>	54
<i>Governance: Recommendations and their implementation (?) over the years</i>	57
<i>Policy coherence</i>	58
<i>Continuing conflicts</i>	61
<i>Conclusion</i>	63
<i>References</i>	65
<i>Appendices</i>	70
<i>Appendix 1: List of Persons Interviewed</i>	71
<i>Appendix 2. Terms of Reference</i>	73

List of Acronyms

CAREC	Caribbean Epidemiology Centre
CFCA	Caribbean Forest Conservation Association
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
EIA	Environmental Impact Assessment
EMA	Environmental Management Authority
FAO	Food and Agriculture Organisation
GEF	Global Environment Facility
GOTT	Government of Trinidad and Tobago
GORTT	Government of the Republic of Trinidad and Tobago
IMA	Institute of Marine Affairs
ISLE	Island Sustainability, Livelihood and Equity Programme
IUCN	The International Union for the Conservation of Nature and Natural Resources
JICA	Japanese International Cooperation Agency
MALMR	Ministry of Agriculture, Land and Marine Resources
NEDECO	Netherlands Engineering Consultants
NFM	National Flour Mills
NWC	National Wetlands Committee
OCTA	Overseas Technical Co-operation Agency
SEAGA	Socioeconomic and Gender Analysis (FAO)
TRVL	Trinidad Regional Virus Lab
UWI	University of the West Indies
WLCC	MALMR Wildlife Conservation Act Committee

Summary

This study examined the history of the governance and policy issues related to the Nariva Swamp and surrounding areas, and the countervailing interests of the various stakeholders. The study found that previous policy(ies) of the GORTT can be construed as gendered phenomena, and that gender interacted with the cultural and ethnic factors that played a role in the GORTT decisions. Gender issues were especially prevalent in the workplaces of the Ministry of Agriculture, Land and Marine Resources (MALMR). There has been a historical predisposition to favour commercial use of the Swamp rather than ecologically sustainable use. There are indications that this predisposition is a gendered one but it is also linked to ethnicity and culture.

There are environmental ideologies and discourses from external sources that affect the environmental issues in Trinidad and Tobago and also the Nariva Swamp. Environmental organisations sought to alleviate a perceived crisis in leadership and governance in Trinidad and Tobago on environmental issues through links to international organisations and funding agencies. Environmental laws are outdated, often unenforced and ineffective. It was in this context that active lobbying and effort was expended to give the Swamp the status of an internationally recognised entity and therefore remove it from solely national political decisions. The women in the Wildlife Section and the Pointe à Pierre Wildfowl Trust were most visible in this lobbying.

International recognition for the Nariva Swamp came in 1992, when the GORTT designated Nariva Swamp for the *List of Wetlands of International Importance* maintained under the Ramsar Convention. The granting of international recognition to Nariva Swamp as a Ramsar site affected the ecological status of the Swamp, the political status of the Swamp and the livelihood of the Nariva-based communities. As a Ramsar site, Nariva Swamp is no longer being discussed in economic terms as solely a rice producing area, but in the new economic terms of 'wise use'.

Introduction

This study of governance issues associated with the Nariva Swamp is part of a larger CIDA-Gender Equity funded project coordinated by the Centre for Gender and Development Studies (CGDS) UWI, entitled "Building Gender Approached Towards Sustainable Livelihoods: A Case Study of the Nariva Swamp". The CGDS is also linked to the ISLE (Island Sustainability Livelihood and Equity) programme, which is an integrated programme that has the sustainable development of island states as its primary research focus. The ISLE program began in 1995.

This document consists of a gendered analysis of the interviews conducted with various stakeholders and interested parties in the Nariva Swamp issue from July to September 1999. Stakeholders are people or groups involved in implementing proposed policies and those who are directly or indirectly impacted by policy. This analysis is combined with an analysis of the secondary data collected over the same period on the policy and governance decisions taken towards the Swamp.

Aims of the study: Governance and policy issues

This study examines the history of governance and policy issues related to the Nariva wetlands and surrounding areas and the countervailing interests of various stakeholders. It includes a look at the approach of past governments towards the Swamp. This exploration will incorporate a gender analysis, for example whether previous policy(ies) of the GORTT can be construed as gendered phenomena, and how does gender interact with the cultural and ethnic factors that also play a role in the GORTT decisions?

Background

The Nariva Swamp, 6234 hectares, was declared to be a forest reserve in 1954. The Bush Bush section of the Nariva Swamp (3,480 acres) is an area of high ground that was declared a wildlife sanctuary in 1968, and a prohibited area in 1989. The site was thus reserved as a local and international research centre, and in theory no hunting or harvesting was allowed on the site. The Trinidad Regional Virus Lab (TRVL) (now CAREC) conducted research on arboviruses there in the 1950s and onwards. The Nariva Swamp was protected by 3 main pieces of legislation: the Forests Act, Chapter 66: 01; the Conservation of Wildlife Act, Chapter 67: 01; the State Lands Act, Chapter 57: 01. Offences taken to court were usually related to wildlife poaching and tree felling. This was not entirely successful and encroachment by squatters was on going (Ramsar, 1996). Agriculture consists of cutting, burning and planting, followed by abandonment in favour of newly cleared land (Ramsar, 1996). The Nariva Swamp has been threatened in the past by illegal squatting; the conversion of land to cannabis and rice farming, illegal grazing of livestock in the game

sanctuary, overfishing and illegal timber harvesting and illegal hunting and excessive trapping of birds for the pet trade (Ramsar, 1996).

Following the suggestion for development of the Swamp provided by the FAO¹ (1957) report, the Government of Trinidad and Tobago decided in the 1950s to implement the Plum Mitan Rice Scheme, which was reinforced by the rehabilitation study of NEDECO² (1983). The Plum Mitan Rice Scheme was meant to provide small land assignments (2 ha to 5 ha) to family farms. The area is approximately 375 hectares, of which one-third is in use each year (Ramsar, 1996).

The Nariva Swamp is bordered on the South East and the East by the settlement of Kernahan. In the East is the Cocal settlement and the larger Manzanilla area, in the West, Plum Mitan and Biche and in the South-West, Ecclesville. Brigand Hill, Biche and Plum Mitan on the one hand, and Kernahan, Cascadoo, and Cocal on the other have close social links, and to a lesser extent economic links, and use the Swamp on a regular basis. Each community exhibits a different degree of consolidation. Approximately 5,000 people depend directly on the Nariva Swamp for their livelihood (Ramsar, 1996). Some families have worked in this sector for several generations. In 1994/1995 there were approximately 75 families, of which only seven had regularised land tenure (renewed each year), several had temporary leases and yet others had placed requests for regularisation in the 1980s, but received no answer (Ramsar, 1996). Lack of regularised land-tenure, lack of government support and lack of employment and economic alternatives characterise the Nariva communities. By allowing several decades without land leasing assignments, the practice of squatting has developed strongly in the area, to the point that it has almost perpetuated squatting as an accepted part of the culture (Ramsar, 1996). For the past decade, the Swamp has been the centre of concern and controversy because of the real conflict between commercial use of the Swamp (logging, rice production, fishing) and the ecological and physical sustainability of the Swamp. The

¹ The FAO conducted a feasibility study, published in 1957 on the reclamation of the Swamp for agriculture. Soil in the lower regions was prone to shrinkage, was of poor quality and not worth reclaiming. The study recommended the improvement of the Plum Mitan rice scheme, which was established by the Colonial Government in 1954. They also recommended the establishment of two polders on the more elevated areas in the western section of the Swamp. The polders were of 1320 ha. and 520 ha. with the provision for adequate drainage through a main drain exiting to the Nariva Swamp close to the mouth.

² Netherlands Engineering Consultants (NEDECO) published a report in 1983 that included agricultural development for rice farming on the existing 370 ha. in Plum Mitan and 450 ha. in the Cocal-Kernahan areas. They also included 1200 ha. of what they called a Biche Bois Neuf polder (roughly corresponding to the FAO 1957 Polder 1) which they gave the lowest priority to. In February 1992, a team of consultants prepared a study on the feasibility of rehabilitation and expansion of the Plum Mitan Rice Scheme up to 3,000 ha. Details of the engineering and hydrology were itemised and there was a proposed cropping pattern based on water utilisation and efficiency. The proposed farm size was 3 ha. of which 2.5 ha. were solely for rice production and 0.5 ha. for vegetable production.

controversy arose when agricultural planners decided to provide a subsidy for rice growers in mid-1980s, to stimulate rice production and achieve some level of self-sufficiency (IMA, 1998). These large scale growers had a negative impact³ on the Nariva flora and fauna and also on the livelihood of the small rice farmers. Manatees were endangered by the illegal blocking of water courses, salt water intrusion resulted from the illegal widening and deepening of water courses, and agricultural chemicals damaged fauna (IMA, 1998).

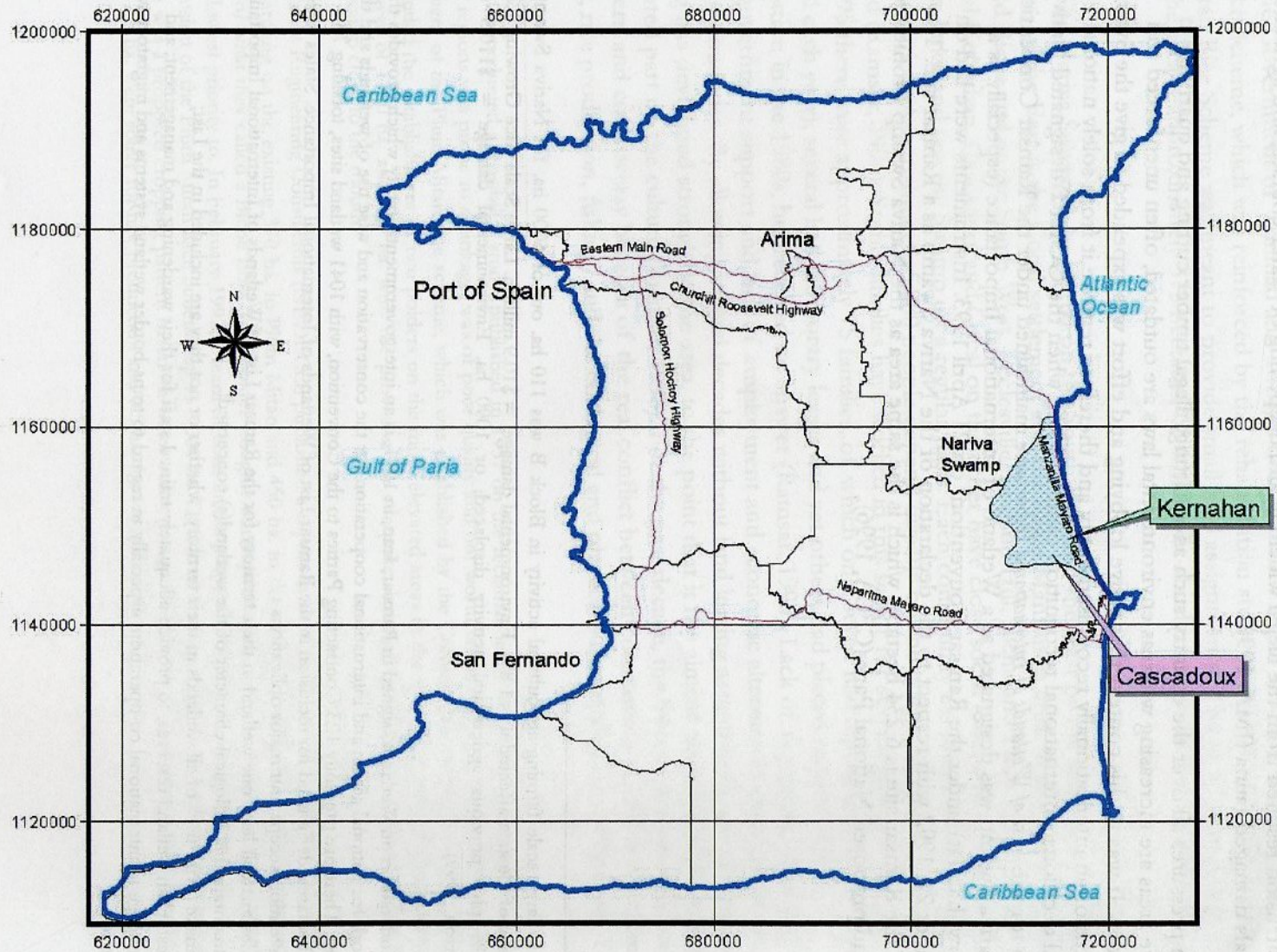
Human pressures all over the country such as squatting, illegal timber cutting and quarrying in sensitive areas are increasing whereas environmental laws are outdated, often unenforced and ineffective. It was in this context that active lobbying and effort was expended to give the Swamp the status of an internationally recognised entity and therefore remove it from solely national political decisions. International recognition came in 1992, when the GORTT designated Nariva Swamp for the *List of Wetlands of International Importance* maintained under the Ramsar Convention. The Nariva Swamp was designated as a Wetland of International Importance (especially as a waterfowl habitat) under the Ramsar Convention⁴ on 21 April 1993. Instruments were laid on December 21, 1992 with respect to the declaration of the Nariva Swamp as a Ramsar site. The total area of the Ramsar site is 6,234 hectares which is the same area as the Nariva Swamp Prohibited Area and proposed National Park (CFCA, 1996).

³ Prior to large scale farming agricultural activity in Block B was 110 ha. out of 6000 ha. for Nariva Swamp. The percentage of the area affected was 1.8%. Environmental damage = \$10.9 million. Large Scale Rice Growing 1,200 ha. or 18.7% plus previous agricultural activity displaced; or 1090 ha. Environmental damage = \$110.5 million (Pemberton, 1999)

⁴ The Convention on Wetlands, signed in Ramsar, Iran, in 1971, is an intergovernmental treaty which provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources. There are presently 123 Contracting Parties to the Convention, with 1041 wetland sites, totalling 78.4 million hectares, designated for inclusion in the Ramsar List of Wetlands of International Importance. States which join the Convention accept four major obligations :

- to designate at least one wetland in their territory for the Ramsar List of Wetlands of International Importance and to maintain the ecological character of the wetland(s) concerned;
- to make "wise use" of all wetlands in their territory, whether or not they are included in the List;
- to establish wetland reserves, to provide adequately trained staff for their wardening and management; and
- to engage in international co-operation, especially in regard to trans-border wetland systems and migratory wetland species.

Map 1. Map of Trinidad showing location of Study Area



The study is based on documentation and evaluation of state policy toward agricultural resource use and settlement in the Nariva area (e.g. agricultural policy, settlement policy, infrastructural development, tourism policy, political context, environmental issues, allocation of land rights).

As defined by Hardjeono et al., (1996) Governance comprises state, local and community levels. However, only the State level is addressed. Macro-level policy is in general concerned with economic growth and modernisation and the welfare of populations. The significance of the macro level is its power to make things happen. It is the level at which decisions are made for the entire nation, and where international events and forces are mediated for the nation (FAO-SEAGA). However, it is at the community level that the effectiveness of these policies must be assessed.

Research questions used for this governance component are listed below:

- Is there a crisis in leadership and governance in Trinidad and Tobago on environmental issues that environmental organisations are seeking to fill through links to international organisations and funding agencies ?
- Has there been a historical predisposition to favour commercial use of the Swamp rather than ecologically sustainable use ? And if so is this predisposition a gendered one ?
- Has the granting of international recognition to Nariva as a Ramsar site affected the ecological status of the Swamp, the political status of the Swamp, the livelihood of the communities, the type of research being conducted, the beneficiaries of research funding ?
- What are the gender implications of state policy on the Nariva Swamp over the 20th Century ?
- What are the scientific relations of power, and current environmental ideologies and discourses that affect the Nariva Swamp ?

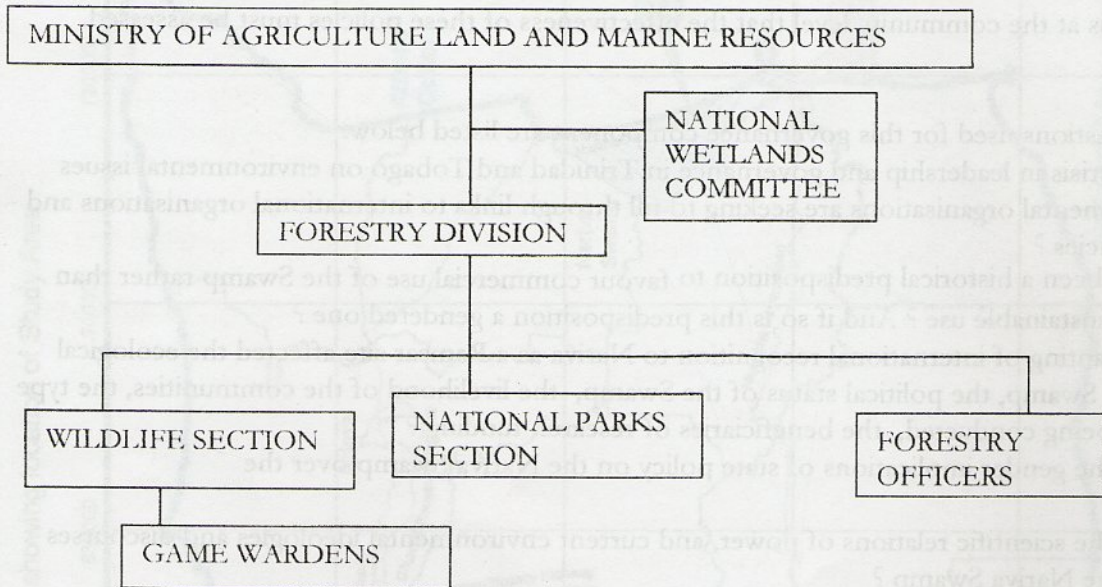
How the study was conducted

The focus of the study is on the policies that relate to rice production and on the environmental issues related to wetlands including the Nariva Swamp. A review of the secondary literature was made. The literature review included material on the history related to rice production, gender analysis as related to policy, local environmental issues, governance issues and all previous documents related to the Nariva Swamp, from the UWI library and the library of the Ministry of Agriculture at St. Clair. Newspaper clippings relevant to the Nariva issue and environmental issues were collected from various sources including the two libraries mentioned above.

Open-ended interviews were held with the stakeholders involved in the Nariva issue listed below (see fig. 1). The stakeholders were asked about their involvement in and thoughts about the Nariva issue and their views on the matter. The interviews took place at the homes or work places of the

people concerned. The interviews took place from July to September 1999. A list of interviewed persons is given in Appendix 1.

Fig 1. Institutional and Administrative framework for Nariva Swamp



Source: IMA, 1999. Final Report: formulation of the Nariva Swamp Management Plan. IMA/MAIMR, Institute of Marine Affairs, Trinidad and Tobago.

In addition to the comments of the Project Coordinators comments on a previous draft of this study were also obtained from Carol James, former head of the Wildlife Section and Brinsley Samaroo, former Minister of Agriculture. Due to the small sample of interviewees it was not seen as appropriate to present the findings as a set of facts, instead the document includes quotes from the interviews to provide a rich picture of different viewpoints and controversies because the situation is still unfolding and has not been fully resolved.

Environmental and Conservation History of Trinidad and Tobago: With Special Reference to the Nariva Swamp

In 1891, the Society for the Study of Natural History was established. This Society became the Trinidad and Tobago Field Naturalists Club which is still active in environmental issues, but is not an activist organisation. The first recorded local conservation activity took place in 1765, when the Main Ridge in Tobago was set aside as the first forest reserve in the New World. In 1900, the creation of twelve Forest Reserves was suggested in a report by Deputy Conservator of the Indian Forest Service, F. Lodge and four years later in 1904, the first Forest Reserves in Trinidad were set aside. In 1901, the Forestry Branch of the Crown Lands Department was established. Seventeen years later, in 1918, the Forestry Branch became the Forest Department and Officers were appointed. The Forests Act of 1915 relates to production forestry and removal of timber. It provides for establishing forests on State Lands, and Forest Officers are authorised to arrest and bring charges against offenders, however only the Commissioner for State Lands can evict squatters (National Wetlands Committee, 1996). In 1960, the Forest Department was integrated into the Ministry of Agriculture, Lands and Fisheries and became the Forestry Division. In 1950, the Wildlife Section was established.

The Manzanilla Windbelt, of 1782.2 hectares located close to the Nariva Swamp was declared a demarcated Forest Reserve in 1922. Brigand Hill, 127.9 hectares, which is on the boundary of the Nariva Swamp was declared a demarcated Forest Reserve in 1925. New Forestry reserves were created and laws were revised until 1960.

In the 1920s, the reclamation of Caroni Swamp was attempted but in 1953, the Caroni Swamp was established as a Bird Sanctuary and the Swamp was put under the full protection of a Wildlife Warden in 1963. This was the first protected wetland, other protected wetlands were converted into rice production as early as 1954 when the Colonial Government established the Plum Mitan rice scheme, and the Fishing Pond and Oropouche Lagoon schemes. The suggestion for development of the Nariva Swamp came from the FAO (1957) report (see footnotes 5-10). The government of Trinidad and Tobago decided in the 1950s to implement the Plum Mitan Rice Scheme, this decision was reinforced by the rehabilitation study of NEDECO (1983) (see footnotes 5-10). The Plum Mitan Rice Scheme was meant to provide small land assignments (2 ha. to 5 ha.) to family farms. The area is approximately 375 hectares, of which one-third is in use each year (Keeler et. al., 1996).

These schemes became very important in the rice industry and in agricultural politics. In 1957, the *FAO Report to the GORTT on the Reclamation of the Caroni, Oropouche and Nariva areas* for rice and other agricultural production was completed. In 1959, the improvement of the 1200 acre Plum Mitan rice area was recommended by FAO, but there were cautions on possible soil deterioration in the Swamp basin.

In 1934, the first Wild Animals and Birds (Protection) Ordinance (Chapter 25, No. 27), set aside certain forest areas as reserves where hunting was prohibited. Twenty years later in 1958, there was a debate in the House of Representatives about the change in the Game laws to wildlife protection laws. The 1958 Wildlife Conservation Ordinance no. 16 included the establishment of a Wildlife Conservation Committee (WLCC) which served as an advisory Committee to the Minister of Agriculture, Lands and Fisheries.

In 1954, the Nariva Windbelt Forest Reserve of 6,267 acres was declared under the Forests Act on March 18, 1954. This designation gives the Forestry Division the authority to manage the area with reference to felling of trees, damage by negligence in felling any tree or dragging any timber, fires, and forest produce (CFCA, 1997). The year after the establishment of the Nariva Windbelt Forest Reserve, 1955; the Manzanilla Extension, 383.2 hectares was declared a demarcated Forest Reserve.

Indirect threats to the Swamp include land alienation. Agricultural land is allowed to go to other uses and farmers then apply for new State lands including Swamps. MacMillan (1967) gives a historical perspective on this point for Aranjuez:

'Even if the gardeners succeed in 'holding their own' socially and economically in Aranjuez, the future of the agricultural land is not entirely secure. The value of land for building purposes is about \$15,000 per acre: the land owners receive at the moment a maximum of \$10 per acre annual rent, and are expected to maintain the infra-structure. The nation's planners have allowed other highly productive areas to be swallowed up by Port of Spain, and the pressure on them to permit the owners of the Estate to build at Aranjuez are very high. The returns from market gardening are good, but can hardly be equated with those from real property in an inflated market, and so the only way the agricultural sector can be preserved is by law' (MacMillan, 1967).

The Bush Bush wildlife sanctuary in the Nariva Swamp was proposed as a nature reserve by scientist T.H.G. Aitken in 1960 (Bacon et al., 1979). In 1962, protest was raised against proposed logging operations by the Forestry Division in the Nariva Swamp, by the *International Council for Bird Preservation* who protested that it would reduce the high bird diversity in the area (Bacon et al., 1979). At the end of their studies of parrots, macaws and biodiversity, scientists F. Nottebohm and Carl Carlozzi recommended the complete legal protection of the Bush Bush and Bois Neuf islands for the birds and other wildlife, the mud volcanoes on Bois Neuf and the tourist potential they contained. As a result of the public interest and a grant of \$5000 U.S. from the *New York Zoological Society*, the Bush Bush area was declared a Wildlife Sanctuary on 16th July 1968 (Bacon et al., 1979). In recognition of this interest, in July 1968, the Trinidad and Tobago Tourist Board held a meeting with the Forestry Division on the potential of the mouth of the Nariva river and its eastern bank for tourism. Six years later in 1974, the Tourist Board offered financial aid of \$7000 to clear and maintain the Bush Bush canal to allow easier access. However, this money was never allocated to the Forestry Division for this purpose (Bacon et al., 1979).

During the 1970s the Nariva Swamp was referred to as a potential energy site in a National Radio and TV broadcast called '*An up to date account of the energy situation*' given on the 8th May 1974. In this broadcast Prime Minister Eric Williams made the following comment:

'We await the arrival of the experts whom we have requested from the United Nations for seismic aeromagnetic survey, which will give us information both on mineral resources other than hydrocarbons for the country as a whole as well as on potential oil resources in the following four locations:

- (1) the Nariva Swamp
- (2) specific areas in the south-west peninsula
- (3) the area of the Central Range particularly around Tabaquite and Mahaica
- (4) the Laventille Swamp' (Sutton, 1981).

Four years earlier in another broadcast on 'National Reconstruction', on 30 June 1970, Eric Williams commented on the Swamp as a non-conservation site that fell under structural land reform policy:

'I have always myself thought, with the increasing congestion of our urban areas, that a new town could be developed in the eastern part of the country in relation to the proposed drainage of the Nariva Swamp. These are just ideas. The young people may have other ideas. I await their constructive proposals' (Sutton, 1981).

The Colonial Government established the Plum Mitan rice scheme in 1954. Even though sanctuaries had been established in the Nariva Swamp subsequent to this rice scheme, agricultural plans for the Swamp were still being developed. For example in 1970, the OCTA⁵ plan for drainage and agricultural development of the Nariva Swamp recommended settlement of 640 new families in 3 new villages in the Swamp basin. Besides rice, the plan recommended corn and soya and grazing on the higher ground. However, the 1972 Lands and Surveys Division Maps for the *Land Capability Classification Studies* suggested that Nariva Swamp soils were unsuitable for agriculture and should be left under tree crops and forest. Despite the unsuitability of the soil, it is claimed that in the mid-1970s, the GORTT assisted squatters in Kernahan and Cascadoux with access roads and channel maintenance. The GORTT had more plans for they are including more access roads which were due to be built in 1989. The EEC was approached for funding for these roads since it was calculated that this roadbuilding would require "megadollars" (National Agricultural Development Plan 1988 - 1992). In 1976/77 there was a plan by MALMR to revitalize 1400 acres in Plum Mitan

⁵ The Overseas Technical Co-operation Agency (OCTA) of Japan conducted a reconnaissance survey in September 1967. A feasibility study in 1969 and a development plan for the Nariva Swamp followed this. The study claimed that reclamation of the entire Swamp for rice was feasible and economically viable. The OCTA agricultural development scheme is for rice in the wet season with such crops as soybeans and maize during the dry season.

to produce 2200 lbs rice/ acre or 3,080,000 lbs /annum; 1500 acres at Kernahan /Cascadoux were to produce 3,300,000 lbs/ annum.

The report by Bacon et al. (1979),⁶ filled in some of the ecological gaps in the FAO and OCTA documents. The recommendations of Bacon et al. (1979) included a maximization of biological resources: 4000 acres for rice, 4000 for cattle, 8000 acres for fisheries, a Cocal Reservoir and the maintenance of the Wildlife Sanctuary, the revitalisation of the Plum Mitan rice project (800 ha.), together with the redevelopment of the Kernahan area (800 ha.) and the creation of a polder of 1600 ha. south of the Plum Mitan rice project. The Cocal reservoir was supposed to be built so as not to affect the Bush-Bush area. The Nariva regulating reservoir was to be expanded to cover all low-lying Swamp ground (Bacon et al., 1979). Prof. P.R. Bacon was also associated with the 1985 FAO aquaculture⁷ proposal for the Nariva Swamp.

The reclamation of Nariva for agriculture remained in the planning stages with a new study by NEDECO which was a summary and review of previous studies on reclamation of Nariva Swamp published in 1981. In 1983, NEDECO produced a *Final Report Phase 1. Investigations of the development of the Nariva Swamp*.

In 1982, the Wildlife Section took over the management of the Caroni Swamp National Park from the National Parks Section. Carol James became head of the Wildlife Section in 1984.

In 1960 the initial Planning Ordinance was produced, but it was not until 1983 that the *National Physical Development Plan* was introduced into Parliament. This plan contained a

⁶ The Department of Zoology conducted a study in 1979 as a response to the OCTA (1967, 1970) plan. The original plan had not paid any attention to the ecology of the area or the environmental impacts. 'The Nariva Swamp was not considered as a major plant resource production area but as largely a wasteland' (pg. 127). 'Government sees an economic future for the Swamp only when reclaimed for agriculture. The Nariva Swamp is not without plant resources and, although these may be minor, the possibility exists for considerable resource improvement. In addition to direct exploitation, the value of the vegetation in its natural condition requires greater recognition'.

⁷ Two aquaculture projects were submitted to the GORTT by private agencies for the Nariva Swamp. FAO was invited in 1984 by MALMR for assistance in appraising the aquaculture potential of the Swamp. The two projects were the conversion of 2,000 ha for marine shrimp culture and commercial fishing of cascadura and the giant freshwater prawn on 80 ha. (Deepsea Industries Ltd.). The first project was withdrawn since it involved introduction of seawater into the Swamp. The 1984 Mission recommended a technical assessment, which was done by Mr. P.G. Padlan, Senior Fisheries Officer of UNDP/FAO and Dr. P. Bacon of UWI, Jamaica as Wetland Ecologist. The 1985 study recommended the development of aquaculture as part of the rehabilitation of the Nariva Swamp. The study identified the peat soils and unripe clays classified by NEDECO as unsuitable for agriculture as potential areas for aquaculture projects. The Bush Bush sanctuary was recognised and an environmental impact assessment of the proposed projects was included. The system was for deep water polyculture in excavated earthen ponds with *Tilapia nilotica* (Tilapia), cascadura, coscorob and *Ctenopharyngodon idella* (Grass Carp). Both the Tilapia and the Grass Carp would have had to be introduced into the country.

recommendation for a growth pole in Guayaguayare-Galeota. As part of this growth pole, the 'undeveloped Nariva Swamp was to be converted into 9000 acres for intensive farming, 7500 acres for livestock rearing. Cultivation of idle lands of good agricultural potential were to form the basis of sizeable food processing and other agro-based industry'. This Plan was debated and approved in 1984.

It was with full knowledge of the plans for rice production that the rice farmer /squatter Jury ignored quit notices for Bush Bush sanctuary in 1984. It was also in this context that large scale rice farmers including the Akaloos' family moved to squat and plant rice in the Nariva Swamp in 1986. Mr. Sousuke Haga, a Japanese International Corporation Agency (JICA) rice seed expert was on assignment to the Trinidad and Tobago government in October 1987. One year later, in 1988, the Draft Public Sector Investment Programme laid in Parliament by Planning and Mobilisation Minister Winston Dookeran, included expanded rice production for Plum Mitán, according to large scale rice farmer Theresa Akaloo (Interview, Large Rice Farmers, 23rd July, 1996).

The controversy over the use of the Swamp escalated when agricultural planners decided to provide a subsidy for rice growers in mid-1980s, to stimulate rice production and achieve some level of self-sufficiency. The subsidy⁸ served as an incentive for large-scale producers to convert approximately Sector B of the Swamp into commercial rice production. From 1987, Nathai-Gyan (1997) estimates that 80% of the Biche-Bois Neuf area (sector B) was converted to rice cultivation. In 1973, the area under rice cultivation in Trinidad was 10,840 acres, in 1980 it was 11,200 acres (Planning Associates, 1981), in the early 1990s four large farmers were occupying 3700 acres. Rice paddy production increased from 201,209 in 1986 to 1,435,408 in 1988. These large-scale growers had a negative impact on the Nariva flora and fauna and also on the livelihood of the small rice farmers. There were reports that manatees were endangered by the illegal blocking of water courses, salt water intrusion resulted from the illegal widening and deepening of water courses, and agricultural chemicals damaged fauna (Ramsar, 1996).

The conflict could be seen clearly in 1989 when Jabar, one of the first large scale rice farmers to enter the Nariva Swamp, bulldozed 40 ha. of Palm Swamp forest. He had a forest offence matter pending and said that the Permanent Secretary in the Ministry of Agriculture gave him permission to be in the Swamp. The Forestry Officers had no authority to act against him under the State Lands Act.

⁸ Cabinet Minute No. 2400, dated 28/8/81 agreed with effect from 1/9/81 that the guaranteed price for locally produced paddy would be set at \$1.81/kg or 0.89/lb. This was increased in 1983 to \$1.96/kg or \$0.89/lb by Cabinet Minute 1409, dated 19/5/83. The subsidy served as an incentive for large-scale producers to convert approximately Sector B (Biche-Bois Neuf area) of the Swamp into commercial rice production (IMA, 1998).

In this same year, 1989, the Bush Bush Wildlife Sanctuary was declared a Prohibited Area under the Forests Act on September 27th 1989. Entry to the area was regulated by permit from the Director of Forestry with stipulated conditions. However restricting access to this sanctuary was constrained by the limited funds given to the Wildlife Section for game wardens in 1991. In 1993, fifteen permits were given to naturalists and scientists to enter Bush Bush Wildlife Sanctuary. The Trinidad and Tobago Field Naturalist Club undertook a research project on the status of the Manatee in Nariva Swamp with the assistance of the Wildlife Section. The San Juan Rotary Club collaborated on the conservation of the Manatee in the Nariva Swamp, Manazanilla. The Wildlife Section was still starved of funds but Thomas Peake and Co. donated \$2,000.00 for gasoline and oil towards patrols for the Nariva Swamp (Annual Report of the Forestry Division, 1993). However, inadequate vehicular transport hampered the progress of the Wildlife Section and widespread illegal activity continued in the Bush Bush Wildlife Sanctuary.

Funds were provided for another study on rice production however. In 1991, the Agristudio⁹ Reconnaissance study for the extension of the Plum Mitan Scheme, Draft Final Report, was produced¹⁰. One year later, in 1992, fourteen applications for 1,045 acres in Nariva Swamp were

⁹ Agristudio recommended the expansion of the Plum Mitan rice project to other areas of the Swamp suitable for irrigation development. These included areas already largely and illegally cultivated: 100 ha. in Petit Pool, 1200 ha. in Biche Bois Neuf (Block B) and 700 ha. in the Cocal-Kernahan area. They recommended the creation of a 200 ha. buffer zone between the Biche Bois Neuf reclamation area and the Bush Bush sanctuary. Agristudio reviewed the previous studies and claimed that the construction of the main drain recommended by the FAO (1957) study would drain water into the Swamp in the dry season if there were no regulating devices put in place. They also felt that the drain would encourage salt water intrusion. This study criticised the OCTA (1967) study for proposing to completely alter the Nariva Swamp. The proposed embankment of the OCTA (1967) study was criticised since it would have been built on peaty sub-soil. They also felt that the irrigation component was insufficient. Agristudio felt that UWI's plan to construct the Cocal reservoir was inadequate since it would involve a long embankment built on soft peaty soils. Agristudio felt that the NEDECO plan did not consider environmental aspects and included part of the Bush-Bush sanctuary into the proposed Biche Bois-Neuf irrigation scheme. They also felt that the NEDECO plan needed a buffer zone for the protected area (Agristudio, 1991).

¹⁰ Agristudio's Plum Mitan Rice Scheme Rehabilitation Feasibility Study was ambitious. The Project Area covered 420 hectares in Nariva Swamp, between the Perimeter Cut in the east, the Petit Pool Cut in the north, Cuche and Canque Cut in the west, and the Jagroma Cut in the south. An increase of 15% was computed into costs of the OCTA project and prices. The rate of return to the OCTA project was not more than 8% and on that basis the project was considered less than feasible. Agristudio had a cropping programme with dry season crops...certain other cash crops such as watermelons, sweet potatoes, sweet peppers and other vegetables, which give high returns per ha., were to be carefully introduced. At full development, the project was supposed to produce an equivalent to 63% of current imports of rice and 25% of current imports of peas and beans - a total of \$7.5 million. From year 9, the project was to settle 730 farm families with 5.26 ha. of developed and irrigated land. The economic rate of return of the project was estimated at 12%. The net income per farm at full development would be over \$6600 TT per year (\$4,600 per year is the average net urban income). At full development the project was projected to supply approximately 63% of current volume of rice imports and 25% of the current volume of imports of peas and beans. The project aimed to settle 730 families with an average size of seven members and create over 1,000 full-time job opportunities. Total established cost of the project would have approximated TT\$ 29.5 million, of which TT \$15.8 million was to come from local public

made in one month. The State Lands Division of Ministry of Agriculture was accepting applications for State Lands within the Plum Mitan area. However, squatters were then taking land in the Bush Bush Wildlife Sanctuary, Ortoire-Nariva Windbelt Reserve and the proposed National Parks area. The then Minister of Agriculture advised that no action could be taken against the squatters in the Bush Bush Wildlife Sanctuary because the boundaries were not clear.

The Nariva Swamp at this time was protected by the Forests Act, Chapter 66: 01; the Conservation of Wildlife Act, Chapter 67: 01; the State Lands Act, Chapter 57: 01. This legislation was insufficient to preserve its ecological status. The National Parks Section relied on the Forests Act provision for the declaration of eight wildlife sanctuaries and forest reserves as prohibited areas between 1987 and 1990 because no other legislation was available (Wildlife Section, 1993). The entire Nariva Swamp was declared a prohibited area under Section 2 of the Forests Act, Chapter 66:01 in 1992. Active lobbying and effort was expended to give the Swamp the status of an internationally recognised entity and therefore remove it from solely national political decisions. International recognition came in 1992, when Trinidad and Tobago designated Nariva Swamp for the List of Wetlands of International Importance maintained under the Ramsar Convention. The Nariva Swamp was designated as a Wetland of International Importance (especially as a waterfowl habitat) under the Ramsar convention on 21 April, 1993 (CFCA, 1996).

The Nariva Swamp was included on the Montreux Record in 1993 in Kushiro, Japan (CFCA, 1996). This is a register of Ramsar sites where changes in ecological character have occurred, are occurring, or are likely to occur as a result of technological developments, pollution or other human interference. Molly Gaskin, and Karlyn Sheppard of the Pointe à Pierre Wildfowl Trust, and Nadra Nathai-Gyan, of the Wildlife Section, Forestry Division, and Carol James, currently with the UNDP-GEF were present at this meeting.

In May 1993 the Forestry Division accomplished the following:

- i. Boundaries within Nariva Swamp were identified - the Sanctuary and Proposed National Park.
- ii. Habitat evaluations in the squatted areas of Bush Bush Wildlife Sanctuary were done.
- iii. Two comprehensive reports were written on the extent of squatting and its consequences to the environment of Nariva Swamp, and submitted to the Ministry of Agriculture, Land and Marine Resources.

In May 1993, the Ministry of Agriculture, Land and Marine Resources announced plans to evict all large rice farmers from Nariva Swamp and make it into a National Park. On July 28th 1993, Justice

resources and the balance of TT \$13.7 million could have been sought as a soft loan from an International Lending Agency. Operating and Management Costs after completion of Stage 1 (1150 ha.) would have been about TT\$44,000 annually, increasing to TT\$121,000 after full development in year 11 (3650 ha.) (Agristudio, 1991).

Anthony Lucky ruled that the wildlife, flora and fauna in the Nariva Swamp must be protected in the public interest. Attorney Ramesh Lawrence Maharaj had claimed before Justice Anthony Lucky in the court case that the Jabars could be considered squatters or persons in possession of lands with knowledge that he or she will be given the lands. Parbatie and Goolcharan Jabar, two of the large illegal rice farmers appealed against the Justice Lucky decision and conservatory order. Appeal Court Judge, Mme Justice Permanand, dismissed the Jabars' appeal on September 23, 1993. In February 1995, the Land and Surveys Division served 150 quit notices on farmers. Very few farmers left.

In 1994, Montserrat Carbonnel of the Ramsar Bureau visited to hold preliminary discussions regarding the implementation of the Monitoring Procedure at the Nariva Swamp Ramsar site. The Nariva site was designated by the Scientific and Technical Review Panel of the Bureau as one of their five (5) priority projects for 1994, and field assessments were scheduled for March 1995. Visits were also made by M. Carbonnel to other wetlands in Trinidad, and she recommended that applications for inclusion of some of these on the Ramsar list be made. It was suggested that an application should be made to Ramsar's Wetland Conservation Fund to facilitate the necessary collection of data on these sites, and it is expected that this would be done in 1995. The International Union for the Conservation of Nature and Natural Resources (IUCN) made offers of assistance for Nariva Swamp (Annual Report of the Forestry Division, 1994).

The Forestry Division continued the eviction of squatters in Nariva Swamp and reported the blossoming of the project on the conservation of the West Indian Manatee, and stimulated public interest for their successful involvement in this effort. Permits to enter Bush Bush Wildlife Sanctuary / Nariva Swamp Protected Area numbered 283 for that year and were given to scientists, students, naturalists and ecotourists (Annual Report of the Forestry Division, 1994). In 1994 Thomas Peake and Co. Ltd. donated \$4000.00 for gasoline and oil towards patrols for the Nariva Swamp (Annual Report of the Forestry Division, 1994).

Despite the court case and the Ramsar visits, rice farmers continued to occupy the Swamp (CFCA, 1996). The Ramsar team was also present in the Swamp and in April/May 1995, a Monitoring Procedure or Management Guidelines Procedure was carried out by a three person team. The team comprised one consultant from the Ramsar Bureau and two specialists in social and community aspects and wetland restoration Mike McCoy and Lirio Marquez (CFCA, 1996).

In July 1996, Molly Gaskin presented a petition of 12,000+ signatures to the government demanding that the illegal rice farming taking place in the Swamp be stopped. Despite the legal decision and quit notices being served, the illegal farming continued until November 1996. In October 1996, the farmers were finally forced to leave the Swamp so that an EIA mandated by Ramsar could be conducted. Their status in the Swamp hung in the balance pending the EIA recommendations.

The Institute of Marine Affairs (IMA) was contracted by the Government of Trinidad and Tobago through the Ministry of Agriculture, Land and Marine Resources (MALMR) to conduct an environmental impact assessment (EIA) of activities within the Nariva Swamp area, particularly the area known as Block B. The EIA was officially launched on September 5, 1997 (IMA, 1998). In addition to the EIA, a management plan for the Nariva Swamp was to be prepared together with a monitoring plan to monitor the impact of the recommended activities of the management plan. The EIA consisted of 10 components:

i. Wetlands ecology, ii. Aquatic fauna, iii. Geology, soils and hydrology, iv. Machinery and roads, v. Water and soil quality, vi. Rice agronomy, vii. Socio-economics, viii. Economics, ix. Legislature control, x. Public education.

The environmental impact assessment (EIA) of activities within Block B began on August 25th, 1997. Data was collected from September 1997 to May 1998 on all aspects of the environment of Nariva Swamp; the impacts of large-scale rice farming in Block B were identified, and mitigatory recommendations were provided. Impacts were identified for three phases; namely (i) site modification (ii) agricultural operations and (iii) post-rice farming.

In May 1998, the GORTT agreed to fill in 15 channels illegally dug by the large rice farmers in Block B. Funding for this was provided by the Ramsar Bureau's Small Grants Emergency Fund (Wildfowl Trust, 1998b). The Ministry of Works and Transport provided ground support. Funds were in place by June, but work did not start until mid August (Wildfowl Trust, 1998b). When restoration work started, the big rice farmers, Akaloo, Hosein and Jabar threatened the contractor and Mr. Motilal Lal, a retired Forestry Officer who was overseeing the non-engineering part of the contract. A rice harvester belonging to Akaloo was placed across a bridge illegally constructed over the Jagroma river in Block B that the contractor needed to use to fill in the channels. The contractor fled terrified (Wildlife Trust, 1998b). Currently the management plan for the Nariva Swamp is being discussed by the IMA and the GORTT.

Governance

Governance represents a method or system that provides the mechanism through which sustainable island development could be attained. The reorientation of government to governance in a neo-liberal climate means using public resources for the functions that only government can provide while encouraging a greater role for the private sector and civil society (Hardjoeno et al., 1996). Good governance includes systemic, political and administrative levels. Governance has three dimensions: the political dimension includes the way in which state affairs are administered and regulated (laws), the technical includes the natural and human resource capacities, while the ability to accomplish the task (e.g. managerial capacity) represents the institutional dimension. The 1989 World Bank report on Africa argued that governance was 'the exercise of political power to manage a nation's affairs' (Leftwich, 1994). However Leftwich (1994) claims that the Bank's prescription for good governance is naive because it fails to recognise that good governance is a function of state

character and capacity, which is in turn a function of politics. A sound definition of governance must also include the history, practice and theory of the state as an agent in the development process (Leftwich, 1994).

According to the ISIE concept paper on Governance: it is the culture of a society that informs its behaviour and perceptions. Culture should therefore be an integral component of political and economic development and there are links between culture and governance that represent the way in which stakeholders in an institution, government, community, business or family live their power, rights and responsibilities. Any system of governance rests on a world-view --- a set of assumptions and values that determines how power, rights and responsibilities are distributed and expressed (Hardjoeno et al., 1996: p 3-4); the stance that the self takes to the total environment as expressed through its behaviour, ideas, body and feelings and inspirations. This has implications for Trinidad and Tobago when considering the culture of rice production, and the attitudes to development and the environment inherited from colonial times. The culture of the society is also to be overly conscious of how the outside world views Trinidad and Tobago and to be uncritically receptive to external policies that have specific gendered impacts. The push for rice production may be legitimised by ideology and doxa but the original and primary impetus is perhaps culture as hinted by this historical quote from Jolly in 1945:

"The peasant's concern over his rice crop is understandable when it is realised that 70 per cent of the crop is consumed in households and that this food (valued at 3.5 c. per lb. paddy) makes up one-quarter of the total food expenditure. These facts explain why peasants willingly continue rice cultivation for a relatively low return of only 72 cents per man-day available... Indeed, rice growing appears to be much more a part of the peasants' family life than of his business activities as a farmer. The character of the rice crop as shown by the survey raises the whole question of whether it is feasible in Trinidad to obtain an appreciable surplus of rice at reasonable prices from peasant production.... The recommendation to be made about rice is therefore that if the policy is to obtain a supply for urban consumption at reasonable prices, production from estates rather than from peasants appears to be more likely to attain the object. If the more important object is to develop a contented and self reliant peasantry, the policy most likely to succeed with East Indians is that of making rice lands available to them' (Jolly, 1945).

Gender analysis

The World Bank Participation Sourcebook, Appendix 1: Methods and Tools suggests that the concept of gender analysis began from the need to mainstream women's interests while at the same time conceding that women could not be treated as a homogeneous group. It was realised that women's

needs were better understood when viewed in relation to men's needs and roles and to their social, cultural, political, and economic context. Gender analysis thus takes into account women's roles in production, reproduction, and management of community and other activities. Changes in one of these roles may produce beneficial or detrimental effects in others. Data collected for gender analysis should be organised to highlight key gender problems, underlying causes of problems for men and women, and the relationship between problems and causes. The FAO's Socioeconomic and Gender Analysis package (SEAGA)¹¹ looks at how development policies and programmes have differential impacts on people in a society, based on socioeconomic patterns and structures (including gender relations) in that society. Some terms from the SEAGA package will be used in the analysis.

Cornwall (1998) documents an example of African trainees who were told that they had conducted a gender-analysis exercise in their village wrongly because their diagrams revealed the hardships faced by adolescent men, who were caught between gerontocracy and a gendered division of labour. This analysis focuses equally on men (their positions, views and reactions) and women, and includes men's perceptions on gender issues. It also includes references to women who were seen to behave in 'patriarchal' ways. The inclusion of the male perspective is based on the insights of Cornwall (1998) who claims that too often 'gender' is taken to mean 'women' and something women should be concerned about while 'men' become the problem. This 'women-only' approach to gender can result in excluding men who would be interested in bringing about change, while it affronts those men who retain their patriarchal tendencies. The end result is that 'gender' becomes a battleground on which other struggles are waged (Cornwall, 1998).

Gender Analysis Framework

Five major categories of information comprise gender analysis:

1. Practical and Strategic gender needs assessment
2. Activities profile
3. Resources, access, and control profile
4. Intra and inter-household benefits and incentives analysis
5. Institutional constraints and opportunities.

These categories of analysis were developed to address women's needs and were not applied to this governance and policy analysis of the issues surrounding the use of the Nariva Swamp. At the ISLE Gender Steering Committee held in Halifax (11 -12 January, 1999) (Anon, 1999) eight theoretical constructs of gender were identified:

¹¹ SEAGA, contact: SEAGA/SDWW, Food and Agriculture Organization of the United Nations, Viale delle Terme di Caracalla, 00100 Rome, Italy. E-mail: SEAGA@fao.org

1. access to and control of resources and benefits;
2. control of decision making;
3. productive and reproductive labour;
4. social and capital networks;
5. power, resistance and negotiation;
6. P/politics and collective action;
7. indigenous knowledge and discourse;
8. culture, ideologies, values and behaviours.

The most relevant of these theoretical constructs of gender are incorporated into the analysis e.g. social and capital networks, politics and collective action, culture, ideologies, values and behaviours. For example, gender based differences in access to resources predict how different members of households, groups, and societies will participate in and be affected by planned development interventions. Other issues are how intermediate level institutions link macro-policy to households, the rules and practices through which institutions control the distribution of resources and the way that they reproduce gender disadvantages. Also relevant is gender bias within institutions, and the work values and work practices through which gender and social inequalities are reproduced (UNDP, 2000). The Gender analysis also highlights the different roles and learned behaviour of men and women based on gender attributes. These vary across cultures, class, ethnicity, income, education, and time (*The World Bank Participation Sourcebook, Appendix 1: Methods and Tools*).

Gendered analysis of the development context

Environmental issues often become multiple and interconnected sites of struggle (Leftwich, 1994; Utting, 1994; Rocheleau, et al., 1996). This is especially the case in Trinidad and Tobago where different groups have different visions of society; and differing access to resources and to power. These struggles are played out according to gender, race, class and ethnicity, variously connected in a complex political-economic situation. Issues pertaining to the environment are inherently political and decisions about the environment are not politically neutral.

Gender is a pivotal organising principle around which social, cultural and economic processes are structured. Gender shapes social and economic institutions from the household level to the macroeconomic, legal and political levels (FAO-SEAGA). All development interventions take place against a specific local background that includes patterns and linkages among socio-cultural, political, environmental, economic, demographic, institutional issues and socio-economic patterns (FAO-SEAGA).

The discourse¹² and doxa of food self sufficiency

Doxa, according to Bourdieu, is that which is accepted as natural and self evident, beyond discourse or argumentation - rather than being actively contested and negotiated. For example, the idea that unfettered markets are the key to economic efficiency and growth (FAO-SEAGA). This male-derived doxa has shaped many economic policies in the last few decades. Food self sufficiency and the legitimacy of large scale mechanised production can be seen as a doxa or perhaps an ideology - where ideology is a set of beliefs, a viewpoint that legitimises a particular kind of arrangement and makes it natural and morally acceptable. An ideology is a dominant value system, which permeates all spheres of life and is accepted by all, even those who are victimised by it (Anon, 1999). One agricultural economist interviewed claimed that self-sufficiency was an FAO term that became a major economic theory (Interview, Agricultural consultant, 7th September, 1999). Governmental Five Year plans produced by Planning Departments in many Third World countries are strongly influenced by the development theories of the day and are overtly determined by foreign aid goals. Researchers and policy makers agree that these plan objectives are rarely met. The Doxa of food self-sufficiency was enshrined in post-Independence policy in the *Draft Second Five - Year Plan 1964 - 1968. National Planning Commission*.¹³

'The food import bill is not only high but growing and is now in the vicinity of the sum of \$70m. per annum. A dominant objective of policy must therefore be to reduce the share of imports in total food consumption in order to achieve a greater degree of self-sufficiency and to protect the balance of payments. Rice constitutes a large part of the diet of most of the population. While annual per capita consumption has risen from approximately 86 pounds in 1955 to about 158 pounds in the 1960s, local production has declined from 12,000 tons in 1952 to 10,000 tons in 1961. The contribution of local production to total supply has declined to 30 per cent. Rice is grown as a subsistence or subsidiary crop. Since 1952 the acreage under rice has declined from 18,000 acres to 15,000 acres in 1961. Land has been switched to the more profitable eddoes and sugar, the latter due to the expectation of a good quota on the American market. Price-wise local growers cannot compete with British Guyana. As far as quality is concerned, Trinidad rice is not in the forefront. Greater rice production locally would call for substantial capital investment for reclamation of swamp areas, for modernisation of the industry by the provision of drying and milling facilities, and for some degree of mechanisation and irrigation. The question therefore, resolves itself into whether the use of more land and capital

¹² Discourse is a body of knowledge; the arena in which knowledge and power are fused. Those in power determine what is counted as knowledge (Anon, 1999). Discourses are historically, socially, and institutionally specific structures of statements, terms, categories, and beliefs. As texts, they assert truths and claims for authority and legitimisation (Anon, 1999).

¹³ Authors of the Draft Second Five-Year Plan 1964 - 1968 were: Dr. Eric Williams, Mr. Arthur, N. Robinson, Mr. John O'Halloran, Mr. Robert Wallace, Mr. Lionel Robinson, Mr. Louis Alan Reece, Mr. Jack Harewood, Mrs. Patricia Robinson, Mr. David Weintraub and Mr. William Demas.

for the purpose of rice cultivation would constitute the best use of these resources when it is considered that there are other sectors in agriculture where returns are likely to be greater. Thus the value of alternative production foregone by producing the crop must be closely considered before the adoption of any schemes designed to promote self-sufficiency over the next five years, especially when there are good prospects of purchasing large amounts of rice at cheap prices from several sources. To admit this however is not to ignore the possibilities of encouraging the expansion of rice production in specific areas, particularly through the undertaking of limited drainage works and also perhaps through the provision of funds for the establishment of a rice-mill in the County of Caroni as one of the Agricultural Development Board projects. Under the sub-project; *Land Settlement and use of Marginal Areas*, one major project, the Oropouche Drainage Scheme, should lead to increased production on a considerable acreage in the South. Attention is also being given to the Nariva Swamp area in an effort to ascertain its potential for development' (Draft Second Five - Year Plan 1964 - 1968. National Planning Commission).

Once a macro-economic policy like the one above is in place it becomes part of the environment and overall conditions that shape a country's economic development and determines allocation of resources (FAO-SEAGA). In 1972/1973 there were serious shortages in the supply of rice and the GOVT implemented the rice programme with the justification of reducing the country's susceptibility to external trade fluctuations (Cuevas-Perez, Barrow and Ganpat, 1984). The rice policy may have influenced the provision of resources for rural roads in rice producing areas and the lack of funding for game wardens. The prevailing policy can also become part of the prevailing technocratic thinking as claimed in the FAO (1957) report that was discussed by Quesnel (1972):

"The popularity of rice schemes in policy making circles is due to the fact that rice is the basic food of virtually the whole population. A greater production of the most basic requirement is often assumed to be an important economic objective without much thought being given to the proposition. However, Trinidad is exceptionally well situated to engage in international trade and food supplies are in fact imported from every corner of the globe. She is then placed in a position to export products most urgently needed by other countries and for which they are prepared to pay The objective of Trinidad as with any other country possessing economic ambitions is to increase productivity per head of population. One certain method of not achieving this is by ignoring her greatest natural advantage that allow her to participate in international trade and developing xenomaniac policies of self-subsistence' (Quesnel, 1972).

Economic and agricultural planners¹⁴ did not question the doxa of food self sufficiency:

"Successive governments always aimed at local food production. Rice is a staple food.

¹⁴ Rural development economist, State Board member, and Economic consultant /NGO head.

The *National Agricultural Plan*¹⁵ was drawn up under the NAR administration, 1986 - 1991. In 1988 it was stated as policy that a certain proportion of local rice consumption should be produced locally. Rice is in great demand. Local rice is not of very good quality especially from the Nariva area. Nothing is wrong with the aim for local food self sufficiency. Nothing is wrong with that goal. The demand is there. Look how much rice is imported, that wild excursion to India" (Interview, Environmentalist, 30th August, 1999).

" Food self sufficiency is not a wild concept. There is the concept of comparative advantage which is when you produce what you have an advantage in and import what you don't have an advantage in. But this occurs no where on earth [because people must ensure that they have a food supply]. Because of the potential collapse of Guyana, government was prepared to subsidise local rice production. Four million is not an unreasonable sum to subsidise food self sufficiency, but that argument breaks down if the local rice was pet rice, that would blow a big hole in the self sufficiency argument. We have the problem that we produce what we do not consume and consume what we do not produce. This is the worst of all possible worlds...to produce subsidised rice and feed it to dogs and then import rice for people. If you check and see no reduction in imports then they cannot say they were satisfying local demand. A comparative study on available agricultural land should have been done. A lot of ex post justification took place" (Interview, Agricultural consultant, 7th September, 1999).

However another agricultural consultant¹⁶ was sceptical about agricultural planning in general:

"The planners put things up, then they find the justification after. When did they start to pay the subsidy to Jai Ramkissoon¹⁷ ? If you check you will see that it was under Minister Brinsley Samaroo. Jabar¹⁸ went in under him. The agricultural statistics are easier to keep for rice. How much eddoes is produced and imported? Those figure are not kept so easily. What comes through the CARICOM jetty? No one keeps those records. Records of rice go through customs, so it is easy to get those figures. We probably eat more ground provisions in combination than rice, but there is no system to collect that information. For rice we have to import seeds and machinery"

¹⁵ In 1987, when the expansion of rice production in Block B took place, rice was considered a major crop for food supplies for the nation. In a speech at a Seminar organised by the Faculty of Agriculture's Farm Management Information Systems (FMIS) Project, the then Minister of Agriculture [Myers] stated that his Ministry has "accorded rice the status of a priority commodity and to this end an inter-agency committee has been convened to co-ordinate, among other things, a strategy for the development of the rice industry" (Pemberton, 1999).

¹⁶ This consultant is a member of a State Board and thus an insider to agricultural planning processes.

¹⁷ Former large scale poultry producer and rice farmer.

¹⁸ One of the first large scale rice farmer/squatters to enter the Swamp.

(Interview, Agricultural consultant, 10th September, 1999).

The question is not whether root crops are grown or can be grown in the Nariva Swamp but why a policy decision was made to give more funding and infrastructural support to rice than root crop production. In the 1979 *White Paper on Agriculture*, agricultural policy objective no. 3 states a wish to promote greater utilisation of local foods. What this means is outlined on pages 25 and 28 where the food import bill is given as \$366 million for 1977, a 14% increase over the 1976 figure. The principal components of the cereal imports were said to be wheat based products and rice and the strategy was to reduce wheat imports in current consumption to 62% and meet the deficit by expanding the domestic production of rice.

The policy objective applicable to paddy productions was to increase the local production of rice to the level of the country's resource capability (and in accordance with good economic sense), in order to reduce the dependence on imports of this basic food commodity (Planning Associates, 1981).

- The Government repaired and constructed drainage and irrigation facilities in Caroni Fishing Pond and Nariva.
- High yielding rice variety seeds were provided to farmers at a subsidised price of \$0.62/kg.
- Land preparation costs were subsidised by operating a tractor pool at El Reposo, Sangre Grande and at Rio Claro at prices of \$20.00/acre for ploughing, \$15.00/acre for rotovating and \$15.00/acre for banking.
- The Central Marketing Agency purchased rice at a minimum guaranteed price (Cuevas-Perez, Barrow and Ganpat, 1984). The result of these policies is seen in Table 1.

Table 1. Domestic Production of Paddy in Trinidad and Tobago 1986 - 1992 (tonnes)

YEAR	CARONI LTD.	LARGE FARMERS	SMALL FARMERS	TOTAL FARMERS	OVERALL TOTAL
1985	10	NA	NA	1500	1600
1986	39.2	91.5 (4.6%)*	1859.5	1951.5	1990.2
1987	1919.2	362.2 (4.7%)	3309.6	3672.3	5591
1988	1970	625.5 (14.4%)	3705.1	4330.5	6300
1989	3843.4	1339.2 (25.8%)	3860.9	5200.2	9043.5
1990	4774.8	1101.1 (11.9%)	8168.5	9269.1	14043.4
1991	5642	2096.9 (11.9%)	8452.5	10549.9	16190.5
1992	6418.2	4377.9 (28.3%)	11093.5	15471.9	21889.6
1993	4800	NA	NA	11100	15900

1994	4000	NA	NA	12500	16600
1995	3000	NA	NA	6000	9000

NA not available

*% of total farmer's production

Source: Pemberton, C. 1999. Economic aspects, draft technical report for the Nariva Management Plan/EAI activity 2. Estimation of the non-user value of the Nariva Swamp.

In 1984, the per-capita consumption of rice was approximately forty-five kilos (45 kg.). This rice consumption rate was considered above desired consumption levels and it was admitted that consumption was high because the subsidised price to the consumer resulted in a retail price for rice that was cheaper than that of starchy roots crops (Cuevas-Perez, Barrow and Ganpat, 1984). One interviewee explained the over consumption in these terms:

"National Flour Mills¹⁹ was getting income from the importation and sale of US rice and was using 20-30% of this money to support the local rice industry, including Caroni Ltd., and the small farmers. It was consumers money supporting the rice industry and not government revenue and no one minded supporting the farmers except that they were doing too much damage. We switched over to US rice because Guyana was in financial difficulties, one of the results being that they couldn't fix their equipment. It was when we went to *Uncle Ben's* rice and the other parboiled rice that the importation shot up. People were used to this sappy, sappy rice and suddenly got this higher quality rice (Interview, Economist, 24th August, 1999).

It is unclear whether ground provisions are considered "women's crops" and are marginalised because of this. Or whether rice production produces more prestige for male farmers and agricultural planners because it is easier than ground provisions to grow on a large-scale and in a highly mechanised manner. Mechanised agriculture was grudgingly recognised by an interviewee as a "man thing" and one agricultural economist linked mechanisation with "seriousness":

"No one took root crops seriously. We don't know how to mechanise root crops. There was a [UWI-based] mechanisation research project but I have never seen a piece of machinery come out of that research" (Interview, Agricultural consultant, 7th September, 1999).

¹⁹ National Flour Mills (NFM) has to purchase all locally grown paddy through the Rice Mill at Carlsen Field. Paddy is bought at \$1.96/kg from small farmers and \$1.76/kg from large farmers and Caroni (1975) Ltd. Farmers are penalised for paddy with a moisture content above 17%. NFM monopolises importation of rice, and influences the retail price of rice with the Prices Control Commission. Profits from rice importation are used to subsidise purchased domestic paddy. NFM loses money on local rice production, which except for Caroni's supply is unsuitable for human consumption. Grading paddy was instituted because of profit losses (Lee and Jacque, 1993).

The biggest threat to the Swamp came from large-scale rice farming. Is the choice to grow rice in the Swamp a gendered one and is the push towards large-scale rice growing based on masculine notions of progressive agriculture? According to one interviewee:

“The large rice farmers were operating at a completely different level. They were large scale and they had impressive machines. They were not the same small farmers, though they were also squatting. There would have been no drama if they had been small scale. It all came together. The farmers had been agitating for a long time for the Mill. National Flour Mills came in; all the pre-conditions were there, the large-scale production and milling. Rice is a staple crop; it was easy to justify the large-scale farmers after the fact. Their backers could always tag on food self sufficiency” (Interview, Agricultural consultant, 7th September, 1999).

The push towards progressive agriculture is revealed in the Report of Planning Associates (1981) which claims that:

'It is imperative for the Ministry of Agriculture to urgently address the fundamental requirement for mechanisation wherever possible, and particularly on new lands planned to be brought under rice cultivation.... Proper water control for the Nariva Swamp Reclamation Project would require the introduction of large scale mechanised production of the type contemplated by Caroni Ltd. This would mean large tracts of land to facilitate and justify mechanised operations, ploughing, direct seeding by aerial methods, fertiliser application, pest control by aerial spraying and weed control and harvesting. The necessity for large contiguous tracts of land is a pre-requisite for effective mechanisation. Such a requirement appears to be in direct conflict with the Ministry's current strategy of segmentation into small-holdings' (Planning Associates, 1981).

Gendered thinking is hidden behind such terms as “economies of scale” [which are]

“...important when you are trying to control a watercourse, block a river and set up polders” (Interview, Agricultural Consultant, 7th September, 1999).

It was claimed that:

“even women should not want one-acre plots..why stay in the subsistence mode?” (Interview, Agricultural Consultant, 7th September, 1999).

Another interviewee claimed that:

"If you say that men are more interested in large-scale mechanised farming you are making a leap of the mind. You are equating 1000 acres of rice with a phallus. But certainly mechanised agriculture is a man thing" (Interview, Environmentalist, 30th August, 1999).

These two views were not selected as representative but as illustrations of the range of the views on gender that exist. These views may indicate that mechanised or modernised forms of agriculture are seen as gender-neutral. There is also the view that the Nariva Swamp contained the only 'virgin' area of any size and reclamation was necessary due to lack of suitable land:

'Trinidad and Tobago, though an agricultural country - suffers from the scarcity of suitable agricultural land for the development of the farm sector. The Nariva Swamp is the only virgin area of any size, which remains undeveloped and attracts the attention of the Government and its planning agencies' (Agristudio, 1999).

Quesnel (1972) disputes the idea that there was an agricultural land shortage:

'Swamp reclamation presupposes a land shortage in Trinidad of a most desperate kind. The technical sections of the [FAO, 1957] report emphasise the peculiarities of swamps, the high cost of reclamation and the maintenance of reclamation works and the extremely difficult agriculture conditions that are likely to be encountered in the reclaimed areas. Even if every square mile of the present agricultural land of the island were cultivated at maximum intensity there would still be areas available for development more suitable than the swamps. In spite of the popular demand for more agricultural land there is at the present time no land shortage in Trinidad (FAO, 1957). The FAO (1957) report goes on to support this assertion by quoting a survey which showed that in an area roughly co-extensive with Caroni County exclusive of the swamp, 52% of the land was uncultivated. Of the 52%, 64% was in high bush, 22% in grass that was sparingly grazed and the remainder was in low scrub. The report states bluntly that the demands for land are 'indicative of poor standards of farming rather than an absolute shortage of land'.

The FAO (1957) report states: 'In this industry, as with most other agriculture in Trinidad, land is not the problem; the problem is lack of capital and management'.

Rice is seen as having no place in this development for the following reasons;

1. It is highly seasonal in its labour demands so that while placing a limit on the area that can be cultivated by a family it does not provide year-round occupation.
2. Other enterprises are not easily combined with it.
3. There is little scope for increasing earnings by mechanisation or other techniques.
4. It is a low output crop earning only \$200 per acre (1959) for a heavy labour input on expensively developed land'.

'The Japanese team that followed ten (10) years later went through the same exercise of surveying the swamp, outlining the problems and providing suggested solutions. They produced a plan for draining the whole swamp, not just two polders, giving all the engineering features.

The cut-off canal, which the Dutch had proposed earlier as an optional feature, became a key feature of their plan. According to newspaper reports the Japanese estimated a cost of \$56,000,000 for the reclamation of the whole swamp exclusively of an area of 6,000 acres which would remain permanently under water. This works out at \$1,650 per acre for 34,000 acres. The normal cost of clearing forest land and preparing it for planting was, in 1969, about \$250 per acre - less than one sixth of the cost of reclaiming the swamp. In this then the Japanese bear out the Dutch; the cost of reclaiming swampland is excessively high when compared with bringing other land into production. Had the country developed in the meantime to such an extent that other usable land had already been used? Now as in 1957, there is no land shortage. There are well over 100,000 acres of cultivated land, which could be brought into production at a small fraction of the cost of reclaiming the swamp. As was mentioned earlier most of the land, which would be made available for agriculture by draining the Nariva swamp, is of the Navet clay soil type. For crops other than rice this would require intensive improvement and the cost involved would be additional to the cost of reclamation and a continuing added cost if productivity is to be maintained. The 100,000 acres of other available land is generally of a rather poor soil type but not so bad as that of Navet clay. Therefore improvement would be less costly than the improvement required for Navet clay' (Quesnel, 1972).

Rice is visible in the statistics and thus fits into the economic framework. Rice fits better than ground provisions into the dominant and masculinist thinking that unfettered markets are the key to economic efficiency and growth (FAO-SEAGA). Ground provisions are brought into Trinidad by women traders from other Caribbean islands, whereas rice is dealt with at a macro level, for example the famous two shipments of rice from India that went astray were organised at the very top by male Ministers, Embassy officials and male members of the National Flour Mills (Gibbings, 1998). This is a classic example of women remaining invisible in macro-level statistics. Markets never function without policy intervention to lay ground rules (FAO-SEAGA). Markets are also increasingly subject to policy to make them freer, global, to revitalise them and extend them into peripheral sections of the economy (FAO-SEAGA). Therefore, the policy decision to focus on rice rather than create policies and institutional support to facilitate the entry of women into markets either through their roles as small scale importers or as local providers of ground provision could be considered a gendered decision that was not justified when the EIA was conducted:

'The effect of large-scale rice growing in Block B on the macro-economy of Trinidad and Tobago was insignificant. The total value of production was in the vicinity of \$TT 12 million. In an economy with GDP that ranged from \$TT 17,813.5 million to \$TT 17,212.7 million (at current prices) from 1985 to 1989, this was less than 0.07% of GDP. The contribution of all Agriculture to GDP at this time (\$465.2 million in 1989) was 2.7% meaning that the large-scale rice farmers were contributing about 2.37% of Agriculture's contribution to GDP. Annually the rice farmers in Block B produced about 2,850 tonnes of paddy rice. Production increased from 91.5 tonnes in 1986 to 4377.9 tonnes in 1992. This production converts to about 1852.5 tonnes of rice at a conversion rate of (paddy to rice) 0.65. This represented about 18% of the domestic production of rice, which in 1991 stood at 10,524 tonnes of rice. In 1991, the nation imported 21,676 tonnes of rice, 92% of these imports coming from the USA and the rest mainly from

Guyana. Total consumption of rice was therefore 31,930 tonnes with domestic supply contributing 32% and the production of large-scale rice farmers contributed about 5.8% of this consumption' (Pemberton, 1999).

The social capital networks linking politicians and the Swamp

The popular view is that environmental degradation is poverty driven. There are limitations to this view; environmentally damaging behaviour also results from gender interests and ideologies (Jackson, 1993). Certain women can strike 'bargains with patriarchy' which link their interests to those of certain men rather than with women (Cornwall, 1998). This means that the processes of negotiation, contestation and collaboration between men and women needs to be taken into account. Women and men in similar situations need not have common interests, so their social networks have to be taken into account. Social and capital networks, politics and collective action, culture, ideologies, values and behaviours are part of gender analysis. For example, gender based differences in access to resources predict how different members of households, groups, and societies will participate in and be affected by planned development interventions.

Social capital was one component of the livelihood theoretical domain identified as useful for gender analysis at the ISLE Gender Steering Committee held in Halifax (11 -12 January, 1999). The livelihood domain also included access to and control over resources, benefits and decision making. Social capital refers to the ways in which exchange networks are mobilised to allow people to gain access to various resources necessary to their survival (Anon, 1999). Social capital networks are usually gendered in that there may be complementary and or contradictory practices between the social capital practices of men and women, even within the same households. Many women use social capital networks to open up livelihood possibilities that are critical to their contributions to household livelihood. Men may use social capital networks in more vertical ways, for example to access the market for things in accordance with the conventions of local gender ideologies (for example, regarding men's breadwinner ideals) (Anon, 1999).

The National Wetlands Committee²¹(NWC) was one important social network involved in

²¹ The National Wetland Committee (NWC) was formed in January 1995. It dealt with Ramsar matters. The Committee was appointed by the Honourable Minister of Agriculture, Land and Marine Resources; it was chaired by the Director of Forestry, Mr Selwyn Dardaine; and it included representatives of governmental institutions (Ministry of Agriculture, Forestry Division, Wildlife and National Parks Sections, and Fisheries Division; Ministry of Planning and Development; Institute of Marine Affairs), the University of the West Indies and local NGO's. The National Wetlands Committee endorsed the preparation of a National Wetland Policy as a priority issue and a draft was expected for public comment in February 1996. Ramsar's administrative authority in Trinidad and Tobago is the Ministry of Agriculture, Land and Marine Resources, of which Mr W Ruthven Rudder was Permanent Secretary. The "official contact" for the Ramsar Bureau was Mr Selwyn Dardaine, and the "technical contact" was Mrs Nadra Nathai-Gyan of the Wildlife Section of the Forestry Division (Ramsar, 1996).

the management of the Nariva Swamp. Social capital in this case refers to the mobilisation of social relationships in order to obtain access to things which people could not otherwise access. What the Wildlife Section could not access was the management of Nariva Swamp under their section. The activities of the Wildlife Section were limited by the 1958 Conservation of Wildlife Act and they had no formal control over any lands or waters, whether State or private (Pritchard, 1997). Environmentalists also had little formal say in the management of wetlands since the WLCC was controlled by government. The WLCC was established under the 1958 Wildlife Conservation Ordinance No. 16 and served as an advisory Committee to the Minister of Agriculture, Lands and Fisheries. Environmentalists who want to win struggles or have recently won gains need to network in order to maintain what they have achieved (Utting, 1994). The environmentalists were using social capital and networking to constructively conserve natural resources (Anon, 1999).

The Government appointed the National Wetlands Committee (NWC) in 1995 to make policy for wetlands three years after Ramsar was signed in 1992. Gupte Lutchmedial was appointed to the National Wetlands Committee as a member of the San Juan Rotary Club, Molly Gaskin was appointed as the representative of the Pointe à Pierre Wildfowl Trust and Sylvia Kacal as a Non-Government person, not as a member of the Caribbean Forest Conservation Association. These three were appointed in the first round of this committee. The Wetlands Committee worked on policy and a strategic plan. This network was formed as a result of the Ramsar signing and did not arise from any Government commitment to Environmental policy. This NWC network provided a point to mobilise so that the Wildlife Section could gain access to the international resources they considered necessary for the survival of the Nariva Swamp. The approach to Ramsar was discussed for many years within the Forestry Division because:

“We thought it would bring a more rational approach to the management of the Swamp. We thought the Government would be more likely to pay attention to international obligations as they did for CITES²¹” (Interview, MALMR staff, 4th August, 1999).

The approach to Ramsar was considered necessary because:

“There was conflict for resources within the Ministry. No effort was made to manage the conflict. Tacit approval was given to the rice farmers; their actions were not prevented. The Thelen and Faizool draft policy for national parks was approved in

²¹ Trinidad and Tobago became a party to CITES in 1973. CITES the Convention on International Trade in Endangered Species of Wild Fauna and Flora, entered into force on 1 July 1975 and has a membership of 152 countries. Member countries act by banning commercial international trade in an agreed list of endangered species and by regulating and monitoring trade in others that might become endangered (National Wetland Committee, 1996).

principle, 61 National parks was considered too many, but Bush Bush was one" (Interview, MALMR employee, 10th August, 1999).

Two OAS missions to Trinidad in 1973 and 1976 resulted in an OAS-sponsored plan for a system of National Parks and Protected Areas and a policy document from which legislation could be enacted (Thelen and Faizool, 1980). The OAS was appointed the consulting agency and offered technical assistance while the Forestry Division was the coordinating agency for the project (Thelen and Faizool, 1980). The 61 protected areas were placed in six categories, scientific reserves, national parks, natural landmarks, nature conservation reserves, scenic landscapes and recreational parks (Thelen and Faizool, 1980). They further recommended the increase in the Bush Bush Wildlife sanctuary to include the mangrove swamp and the coastal areas (Thelen and Faizool, 1980). The National Parks Section was started in 1978, the result of recommendation of an OAS funded study. The OAS provided the initial funding for the Section during the 1980s to implement this project (Pritchard, 1997). According to one environmentalist "Cabinet approval for this National Parks plan was given in 1981 and the legislation was prepared, but nothing happened with the legislation" (Interview, Environmentalist, 2nd September, 1999).

This experience among others would have encouraged environmentalists to look for international support and remove the Swamp from solely local political considerations. As stated by Pritchard (1997) 'being able to portray a national policy as delivering international commitments can be helpful in expediting its adoption and implementation and in avoiding the re-invention of justifications for courses of action'.

It seems that even though the National Parks policy was approved in principle, this was not enough to stop the rice farmers or those in the Ministry of Agriculture who supported rice production in the Swamp. The conflicts surrounding the Nariva Swamp can be linked to the tendency of each interest group to see the issue through one set of eyes or one set of interests. For example in 1992, the State Lands Division of the Ministry of Agriculture was accepting applications for State Lands within the Plum Mitan area, which led to the land grabbing situation. This action of the State Lands Division was described as a:

'Blinkered management approach, a strongly sectoral management approach. The State Lands Division considered it to be their jurisdiction and their mandate to give out lands. It could be that the Parliamentary Secretary for the area approached the Division and asked for lands to be given to his constituents" (Interview, MALMR staff, 4th August, 1999).

Manni Dookeran was the Chief Technical Officer in the Ministry of Agriculture but he would not tell them [the large farmers] to go. He might have said why don't you apply, he might have said that he would support them since he was from

Ecclesville"(Interview, former Minister of Agriculture).

To transform natural goods and services into resources, people apply other types of capital to natural capital. People use social capital to mobilise social relationships, in accordance with cultural norms, to secure access to things which they normally could not afford, or to which they would have no access (Anon, 1999). For example the San Juan Rotary Club had a *Save the Manatee* project together with Wildlife, they not only took all the credit, but also restricted access to people they knew:

"Gupte is running it personally for friends and family but originally it was a good project" (Interview, Environmentalist, 2nd September, 1999).

In the Nariva rice farming situation, the things exchanged through the social capital network were access to free land, water, village labour, mechanised technologies, subsidies for rice production, a refurbished mill and access to government policy and plans. In this case the Social capital network was based on the common religion and/or ethnic community. Since the exchanges crossed class lines in that Government Ministers were involved and the large farmers were of an unequal social position, this was vertical social capital. The social capital was based perhaps upon reciprocity, but certainly on traditional ethnic based politics. The rules and practices through which the Ministry controlled the distribution of resources was therefore informal. The only woman mentioned in the interviews was Theresa Akaloo; an Afro-Trinidadian married to one of the large rice farmers. From the interviews conducted, it seems that the PNM²²-Muslim Indo-Trinidadian Minister spoke only to Theresa's husband Zahir; but the NAR²³-Afro-Trinidadian Minister who succeeded him knew Theresa. This Minister claimed that:

"Theresa Akaloo was better than the others. Back in 1987/88, when people started expanding, she attempted to proceed along a responsible path. She always discussed with the Ministry what she was doing, used proper management, and told us what was taking place" (Interview, former Minister of Agriculture).

The first comment made by the PNM-Muslim Minister of Agriculture in his interview was that the large rice farmers were Muslims (Interview, former Minister of Agriculture). There were also villagers who claimed that the large rice farmers gained access to rice land because [this former Minister] "made a cook in the Swamp, and gave them permission" (Interview, Small farmers, Plum Mitan, July 1996).

²² People's National Movement, one of the original political parties.

²³ National Alliance for Reconstruction, a political party formed from members of previous parties.

As stated by a former Minister of Agriculture, the larger farmers were well-heeled politically or economically meaning that they had access to a social network (Interview, former Minister of Agriculture). A previous Agriculture Minister confirmed this:

"The bearded Akaloo wanted to do a project in the rice area. Ministers don't give out land, but I offered to see what I could do, and he applied for 200 acres. The Ministry of Agriculture offered 100 acres within the area abandoned within Plum Mitan. The Rice mill was refurbished in my time and the 89 cents subsidy was given in my time. Guyana and Suriname rice was cheaper but it was a deliberate policy to get more local rice, to support local people and the big Akaloos. What they did since then I don't know. The only person I dealt with was Zahir Akaloo, he had a wonderful plan, it benefited the Ministry, he was a leader in field of rice cultivation, Plum Mitan developed under him" (Interview, a former Minister of Agriculture).

A second Agriculture Minister also spoke of the established linkages between himself and the large farmers:

"I was confident that the large farmers could get through because they had excellent quality rice. I said they should apply for land and I would go with the project to Cabinet. I said they would all get pieces of land, 100 to 200 acres since there was limited space. I met the large farmers frequently and I had a good, informal relationship with them. They were a whole set of Muslim fellows. I was pleased with the initiative they had shown; I couldn't throw them out" (Interview, a former Minister of Agriculture).

Can the importance put on rice by national governments as opposed to other crops be due to the power, authority and technical competence of the élites who have favoured intensive agriculture, including rice production? Can the large-scale Muslim rice farmers be considered a political elite? The interview below is reproduced to show what Bourdieu (1977) calls 'officialising strategies'. This means that the particular interests of key sectors of the community become identified with the general interest. So the egoistic, personal and particular interests of rice farmers are represented as the disinterested, collective, publicly avowable, legitimate need for national food self sufficiency. In the interview, statements of the Prime Minister are quoted as endorsements and used to 'officialise' the rice farmers' private interests. The interview was also seen as an opportunity to document the rice farmers' position.

An agricultural consultant and an environmentalist commented on the "political strategy or choice" (Interview, Agricultural Consultant, 10th September, 1999; Interview Environmentalist, 30th August, 1999) of having the Afro-Trinidadian wife of a large rice farmer (ethnic Indian and Muslim) as the spokesperson for the group of large rice farmers. One called this the only relevant gender issue in the Nariva case study; as a long standing environmentalist he may have been familiar with

the critique of the 'ecofeminist' Chipko movement that was actually sparked off by the energies of a charismatic male activist who came from outside the community and saw the public relations value of having women pictured in the front line of the protests (Joekes et al., 1994). Since Theresa Akaloo was qualified for the spokesperson role, it is difficult to judge whether giving her the role was also a political strategy.

Theresa Akaloo, was seen as a major player by most of the people interviewed. She was not only the wife of a large-scale rice farmer, but also the President of the Rice Growers Association (TIRGA). Interviewees volunteered the information that Theresa Akaloo was honest and straightforward and they seemed to admire her in her own right. In the July-August period of 1996, Theresa was supposed to present a paper at a Conference in Guyana called *50 Years of Rice*, but became caught up in the escalating conflict over the Nariva Swamp. She claimed to be the only prominent woman in the TIRGA. Their links to this intermediate level institution (TIRGA), the large-scale rice farmers link agricultural macro-policy to their household income. It seems that she was accepted as a female leader based on her personality and ability and her non-Indian race was mentioned, but not dwelt on:

"Theresa...she is a cool lady, too bad she is on that side" (Interview, Environmentalist, 25th August, 1999).

Judging from the interview with her and two other farmers, whatever concern she had about the environment came a distant second to the drive to maximise rice production:

"Zahir was in Block A, but Ministry officers stopped him, and told him to go into Block B which was under consideration by the Ministry for rice production. Plum Mitan was one of the major areas of expanded cultivation planned for rice production in the *Draft Public Sector Investment Programme* laid in Parliament by Planning and Mobilisation Minister Winston Dookeran in 1988. The other wetland areas mentioned were Caroni and Oropouche. Technical and economic feasibility studies were commissioned to assess whether these areas could be utilised to increase self-sufficiency from 10% to the 40 million pounds of rice consumed annually. It took us years to produce profitably on 1400 acres. We are comfortable not wealthy. The whole Swamp is 65,000 acres. If boats from the small islands don't come in we would starve. The Japanese consultant²⁴ was surprised by the technology we had in Swamp in 1991. The *Express of March 16th 1996* has an article on the Food deficit. Prime Minister Panday expressed concerned about our lack of food security. We have a right to earn a livelihood by growing food, peacefully and in harmony with the nation. Farmers should

²⁴ Mr. Sousuke Haga, a Japanese International Corporation Agency (JICA) rice seed expert was on assignment to the Trinidad and Tobago government in October 1987.

be recognised as people and earn respect and should be honoured for producing food. Without farmers there would be no food and no rice. Food comes first. There are floods in Guyana now, which will lead to a grain shortage. The amount of rice being planted here is important and must support the local industry. The small farmers who speak out against us want to go back to ganja. We have to be large scale to see profits. Hand harvesting is not profitable. Gaskin is looking for international fame that is why she is against us. Our status in the Swamp is not legal, but to call us illegal farmers doesn't sound good " (Interview, Large Rice Farmers, 23rd July, 1996).

This interview was given at a critical stage in the Nariva crisis, (conducted in July; farmers did not leave the Swamp until October) and Theresa's leadership abilities are seen clearly. She was using the opportunity to demonstrate her possession of the 'capital of authority' necessary to impose a definition of a situation, in a crisis moment when the nation's collective judgement on the best use for the Nariva Swamp wavered. Theresa was also placing the issue within the "discourse" of food security.

The social capital networks linked to rice farming provided certain farmers with social safety nets, since according to one of the interviewees (a well-known member of the poultry industry) one large scale rice farmer (and perhaps others) used the rice subsidy²⁵ to pay off poultry production debts:

"Ramroop Jabar was a poultry farmer from Las Lomas. He had a contract with Cannings but he was not making money because of the pilfering going on at his place. He went on his own but he did worse, he had no management skills. I met him by the rum shop in Curepe. He told me that he paid off his poultry debts with the rice subsidy. From 1982 - 1985, Jabar was planting a little rice by his home" (Interview, Agricultural consultant, 10th September, 1999).

This particular social capital exchange network between Agriculture Ministers and rice farmers allowed the large-scale rice farmers access to the natural resource base (free land and water) in Nariva Swamp, which was far from their home locality of Cunupia. Social capital networks were in this case a vehicle for negative use patterns. Privatisation and mechanised agriculture resulted in greater demands on the natural resource in order to sell rice in the market place. Environmentalists

²⁵ The large rice farmers received an implied land subsidy of \$TT \$16,107.00 (950 / 1.22 * \$21.46) because they did not pay rent for the land they used in Block B. In addition, an implied subsidy for water of \$TT 914.48 / ha. or \$TT 868,756.00 for the 950 ha, farmed were obtained by farmers. The price support payment (subsidy) for rice paddy was \$1.01 /kg of paddy. The price subsidy per crop of rice in Block B therefore would be \$TT 2,878,500 (3000 * \$1.01 * 950) for the 2 crops per year, the total price subsidy was \$5,757,000. The overall subsidy for land rent, water and price of paddy was calculated at \$TT 6,641,863 (\$TT 16,107 + \$TT 868,756 + \$TT 5,757,000) (Pemberton, 1999).

saw this large-scale rice production as rapidly becoming unsustainable. One Minister of Agriculture hints at this unsustainability by referring to the project to introduce fresh water into the Oropouche Swamp (Interview, former Minister of Agriculture). This Swamp and the Swamp at Fishing Pond had been damaged by saltwater intrusion linked to rice production. Other damage like pesticide contamination was caused by rice farmers (IMA, 1999). Some environmentalists and Wildlife Officials claimed that the same rice farmers who damaged Fishing Pond and South Oropouche then moved into Nariva (Wildlife Section, 1993). The saltwater intrusion is officially documented in internal Ministry of Agriculture documents:

'Owing to tidal effects, salt water sometimes flows inland, and the main drain is subject to saline pollution as far upstream as beyond the Debe-Penal Road.... Indications are that more than 1000 acres of rice lands have had to be abandoned in this area. Further, it has been reported that the gradual increase in the salinity of soils in the Caroni and Fishing Pond areas, have also rendered sizeable areas of land (previously under rice) unsuitable for rice cultivation' (Planning Associates, 1981).

Below, an interview extract from another Minister of Agriculture demonstrates the patron-client relationship, his respect for the technological approach of the large-scale farmers, and his loss of control over the actions of the large-scale farmers:

"I tried to encourage the rice farmers to set up a co-op to ensure that they got Government help. The Government had tractors; I could have got them to work for a month to clear the land. I could have pushed as the Minister for better roads and drainage. I could have settled 10 large farmers with 100 acres each. One scheme was to give out Block C with 5-acre plots. Other Blocks could have been brought in at a later stage. A regularisation of those that were there could have taken place. But they decided to move into Blocks, they were opening it up for themselves. They built a huge shed over the main road into the Swamp. Molly Gaskin was surrounded and abused 'She is humbugging we living'. It was a situation of lawlessness" (Interview, a former Minister of Agriculture).

In 1992, the then Minister of Agriculture claimed that squatters could be charged only after clear boundaries had been established for the Bush Bush wildlife sanctuary, the Ortoire Nariva Windbelt Reserve and the proposed National park. While one interviewee claimed that this step was necessary for the Wildlife Section to build a legal case against the large rice farmers, another interviewee who was part of the bureaucratic struggle claimed that this was:

"...a red herring. The Minister was using the lack of boundaries to avoid the issue of rice farmer squatting" (Interview, MALMR staff, 4th August, 1999).

The goods and services the rice farmers were able to access were located outside of the formal market place, since the land use was informally sanctioned and only offered to a particular group of farmers. It is important to think of the importance individuals attach to social capital relative to that attached to environmental capital. This is because people might not want to give up social exchange networks even when the obligations and reciprocal exchanges they necessitate produce unsustainable livelihood practices. Social exchange networks can also induce people to mobilise scarce resources in ways that seem wasteful or are essentially unaffordable (Anon, 1999). In maintaining social capital networks in these ways, people are symbolically affirming the social relations they rely upon for survival (Anon, 1999). In situations of environmental degradation these social networks may appear to people to be a more worthwhile 'investment', than their environment. For example, when people use destructive fishing technologies and give away part of the catch rather than risk a smaller catch which provides nothing to share (Anon, 1999), and when rice farmers offer politicians goodies:

“Jabar sent one of his men to say that he couldn't come to a meeting with Akaloo and them, but he had cooked a manicou and he had Scotch and Rum and I could come over afterwards to talk over the future of the Swamp with him. I didn't go of course.. they would tell me let's cook up a manatee, monkey or goat” (Interview, a former Minister of Agriculture).

Three Ministers of Agriculture tried to steer a middle course that would appease both the environmentalists and the rice farmers, the words of one are given below:

“We had never taken the position that there should be no rice farming. Some responsible farming should go on but the irresponsibility going on must stop” (Interview, a former Minister of Agriculture).

A former Minister of Agriculture touched on the conflict of interest involved in a State institution giving loans to the large-scale rice farmers to grow rice on land to which they had no legal tenure. This Minister claimed that the ADB staff approved the loans for a different area (Interview, a former Minister of Agriculture).

This section showed that negotiations and bargaining took place between and among all the social networks involved in the Nariva conflict. In the next section the gendered aspects of the conflict will be examined.

Gendered power relations:- how do women and men feel about the Nariva Swamp conflict ?

Factors which entered into decision-making about the Nariva Swamp at the national government level are economics and ethnicity. The conflict over the Nariva Swamp also developed in part due to a conflict in values²⁶. Two interviewees with professional careers in environmental issues felt that Trinidadians:

“were not comfortable with open green spaces. Trinidadians think that the bush has to be tamed, the bush is hostile and dangerous and therefore it is doing a good thing to clean it away. Others like the green spaces but in a passive way, they are accustomed to it. Other people look at these green spaces as a basis for profit, they want a fete, housing, sporting arenas and a big profit. These were considered to be historical attitudes, or a colonial attitude to development” (Interview, Environmentalist, 2nd September, 1999; Interview, former MALMR staff, 9th September, 1999).

The conflict was also seen in racial terms. During a debate in the House of Representatives on Friday 22nd January 1981, the Member for Tabaquite Mr. Nizam Mohammed challenged the then Government on their attitude towards agriculture:

“This Government has always been accused of deliberately sabotaging agriculture, mainly because certain people in this country of a certain ethnic group are mainly involved in agriculture. This has been said for 25 years and I say this without any apology because none of them can deny that fact We would have had a programme of land zoning to prevent prime agricultural land being converted to other purposes. We would not have allowed agricultural lands to remain idle. And then we would have undertaken a programme of swamp reclamation. Now they would say that they are doing this but for 10 to 15 years they have been doing that in the Nariva Swamp, telling the country that not only would Nariva be supplying Trinidad but we would have sufficient rice for export. You go up there and there are only two clearances for catching cascadura. Nothing has been done and millions have been spent year after year. We are glad for the people who get employment up there, but the point is, if there had been some objective, some proper planning at least the money would have been spent and we would have had some kind of positive results’ (Hansard, 1982, pg. 376 and 384).

An environmentalist echoed the view that certain ethnic groups were associated with rice

²⁶ The ISLE definition of values - a socially shared proposition which embodies a preference, choice or designation of rightness. Values are not susceptible to proof; earlier called "good" (Anon, 1999).

production:

"You wouldn't find many governments saying we shouldn't produce as much rice as possible as long as it is economic. I guess it was not economic, but it was subsidised. I am not sure but it was probably cheaper to import the rice. Sugar is also uneconomic; we are selling it at a loss, less than the production cost. Rice has the same ethnic issues attached to it as sugar. There is a difference in that there are more private farmers involved in rice and less state involvement... In terms of policy it is political economy. The Indian community is part of the thing. The neglect of agriculture is seen to be a lack of support for the Indian population. The Indians were pushing flour milling as well. Government was not so crass as to neglect the Indian population, but not so transparent either, they gave concessions. Caroni is seen as a direct subsidy to the East Indian community. The local political dynamic is tied to the racial thing. It is the squatting thing all over again" (Interview, Environmentalist, 30th August, 1999).

However there were objectors to what was taking place in the Swamp. One interviewee claimed that:

"The rice farmers made a killing on the rice subsidies" (Environmentalist, 2nd September, 1999).

"There are people who don't care how they make their money. Their culture says money is God. People who went into the Swamp did it because it was a money thing. The most scandalous part of the whole thing was that it was a state agency receiving this rice that was being grown on prohibited land, and the rice was of poor quality... It was interesting to watch those people from Cunupia, the spokespeople. The Muslims have a kind of expansionist approach, supported by thinly veiled criminal tactics. The Strong arm is the Muslimeen²⁷. They target certain things to develop and bring money into. Some industries are a good cash front for laundering; the banks can't track the money. The Nariva scenario could have been a land grab... Land is the basis for all wealth, value without putting out anything" (Interview, Agricultural Consultant, 10th September, 1999).

"The rice farmers had no legal permission. If it is true that the rice farmers had copies of previous Government policy plans, it doesn't give them the right to go in. If I had a

²⁷ The role of the Muslimeen in shaping government decision making has been the subject of media speculation with some investigative journalism about hidden tape recordings.

plan of Port of Spain, it doesn't give me the right to put up a steel band yard"
(Interview, Environmentalist, 30th August, 1999).

An environmental lawyer interviewed in July 1996 before the farmers left the Swamp, claimed that:

"Someone could initiate a complaint, they could contact the Environmental Management Authority (EMA). The EMA should bring civil and criminal action. Both could be done together, private prosecution, malicious damage to property, civil action destruction of livelihood, damage, trespass and general damages. A system should be set up to take care of our natural heritage instead of individuals saying how they want State Lands to be used. EMA are watchdogs for our interests, it is their duty to act, they cannot ignore this situation. Responsible officials can be found personally liable, they did not prevent violation, they had knowledge of it, once it is drawn to their attention; therefore the ADB is potentially liable. Call the rice farmers land grabbers. Cite Justice Lucky's statements: borrowed our money, stole our land, they are behaving like bandits, they are behaving like brigands not farmers. Technically they are in contempt of court. Separate proceedings are needed to bring lay documentation, to bring the matter to court, establish burden of proof, beyond reasonable doubt, brought to the judges attention in proper form, for example...on such and such a date this occurred"
(Interview, Environmental lawyer, July 1996).

The women involved in the Wildlife Section were frustrated in their attempts to resolve the issue:

"Even Wildlife staff had given up, Carol James had to tell them that they would continue raising the issue until they turned purple" (Interview, former MALMR staff, 9th September, 1999).

The Wildlife Section's legal mandate was limited to matters covered by the 1958 Conservation of Wildlife Act. The Section had no formal control over any lands or waters, whether State or private (Pritchard, 1997). The WLCC²⁸ committee was called "just a talk shop", so that Molly Gaskin was called by a member of the Wildlife Section and asked to go to Nariva with Minister Rowley when he was making an official visit (possibly March 31, 1993). The Wildlife Section claimed that this was a last ditch effort to convince environmentalists about the issues that were being raised at the WLCC.

"Molly was appalled by the destruction and jumped to action. She embarked on public

²⁸ The WLCC at the time was said to include Francis Charles from Lands and Surveys, Robyn Cross and Nadra Gyan from Wildlife Section/National Parks and the Director of the Forestry Division (Interview, former MALMR staff, August 10, 1999).

action; a strategy unavailable to public servants. She gave enormous assistance in the field and catapulted the Nariva issue into the spotlight" (Interview, former MALMR staff, 9th September, 1999).

This shows how alliances are necessary with organisations or influential individuals operating at the national and international level in order to bring a local issue to national attention and to exert pressure on policy makers (Utting, 1994). The Wildlife Section also wrote correspondence to the Ministry trying to get the issue resolved. Another strategy was to collect the evidence needed for a court case to remove the large farmers. This evidence can be found in the Wildlife Section's *Historical Issues Document* (1993). Additionally the Wildlife Section held a series of meetings with judges Stewart Best and Nolan Bereaux, to discuss this document and the potential case. It was claimed that the Forestry Division did not know where the boundaries of the Sanctuary were and needed to know in order to have a legal case:

"There was a need to know how much the large farmers were encroaching on the sanctuary, and how much land they were occupying. The idea was to evict the large farmers from the Sanctuary not from Block B entirely. There was frustration on Forestry's part. We were talking about the issue before the farmers reached down to the Sanctuary, but they kept expanding and we had to make the boundaries. The situation was out of hand. We wanted the situation resolved. Even the Ministry's plans to redistribute the plots of forty hectares were thwarted. They were changing the whole water regime. The water doesn't stop at the boundary of the park; it was a Wild West situation. The Swamp system also affects the park. In response to the boundaries established by the Forestry Division, large farmer Hosein took out the stakes at first. Eventually however the large farmers left the boundary marks and a line of trees grew up in the rice fields" (Interview, MALMR employee, 10th August, 1999).

The approach to shift the policy environment for Nariva Swamp away from local politics into the international arena was done to accomplish the following outcome: a Nariva Swamp policy, regulations and management plan that would have to meet the 'wise use' policy set by the Ramsar Commission:

'Examination of a land-use map for the Nariva Swamp will show a multiplicity of competing activities juxtaposed without any apparent logic or design. These competing uses have been regarded as the basis of the management problems facing Nariva and the resolution of existing and potential conflicts has been promoted as a means of ensuring that '*Nariva must not die*²⁹'. However, for a radical, rather than superficial solution to the existing conservation impasse, a management strategy is required that recognises the fundamental ecological character of this

²⁹ 'Nariva must not die' was the title of a video produced by Pearl and Dean Productions Ltd. It is not known if this was the first use of this phrase.

important natural area' (Bacon, 1997).

The approach to Ramsar took place in a context of constrained finances for the Forestry Division. International bodies urge nation states to put their ecological house in order, while at the same time they pressure them to cut government expenditure. Public sector workers are often demoralised and ineffective under these conditions (Utting, 1994). Budget cutting was a reality for the Forestry Division as indicated by statements in the 1993 and 1994 Annual Reports of the Forestry Division on their constraints:

'A general lack of adequate transport and regular supply of gas and no aerial surveys dedicated solely to [a conservation] project were undertaken because of lack of funds' (Annual Reports of the Forestry Division, 1993, 1994).

Bacon et al. (1979), gives an indication of lack of government expenditure in the Wildlife Section:

'The enforcement of the Conservation of Wildlife Ordinance (1958) for the Bush Bush sanctuary was not very intensive. Regular patrols of the area were not very intensive since there were only three persons (two wardens and a driver) and one jeep to patrol the entire south region of Trinidad. The boundaries were not completely surveyed and marked which made enforcement of legislation difficult. The wardens were not armed whereas the hunters and fishermen were' (Bacon et al., 1979, pg. 192).

There is evidence of the lack of financial resources of the Forestry Division and the Wildlife Section. The 1987 Annual Report of the Forestry Division reports that a 15 year Research project on the ecology and biology of the Manatee (*Trichechus manatus*), started in December 1983, was by 1987 'downgraded to low priority due to:

1. Non-target status of the species by hunters,
2. Natural protection afforded by habitat,
3. Expensive in terms of man-hours.

Allocation to the Forestry Division in 1977 was \$8,195,901.00. Expenditure was \$9,096,739.91 and Revenue was \$985,544.47 (Annual Report of the Forestry Division, 1978). In 1992 the Allocation was \$718,280.00, Expenditure was \$697,051.01 and the 1992 Annual Report contains the statement that 'No monies were allocated under the development vote for 1992'.

The Report goes on to list the major constraints of the Division:

- 1.1. Unavailability of funds to purchase much needed materials and equipment.
- 1.2. Shortage of vehicles that are mechanically functioning and shortage of funds to purchase fuel.
- 1.3. Breakdown of telecommunications sets.
- 1.4. Inadequate and unpredictable release of funds.
- 1.5. Need for greater equity in the expenditure patterns of the various sections.
- 1.6. Staffing - Shortage of foresters. Vacant posts for daily rated employees were not filled' (Annual Report of the Forestry Division, 1992).

The 1992 allocation figures for the Forestry Division can be contrasted with the 1984 budget for the Agricultural Engineering and Development Division which implements the Soil and Water Management Programme in rice-producing areas of the Country on behalf of the Extension Division of the Ministry of Agriculture, Lands and Food Production. This is essentially a maintenance programme for rice areas with major thrust on maintenance of water courses as well as drainage and irrigation systems. The maintenance of access roads and bridges in rice areas also forms an integral part of this programme in an attempt to provide better access to rice growing areas and thereby encourage farmers to grow more rice. Specific work programmes for Caroni, Penal, Superville, Kernahan and Plum Mitán had been developed by the Drainage and Irrigation Section of the Division. The Draft Estimates for the Rice Maintenance programme included \$3,752,238.67 for Personnel Expenditure and \$173,560 for Goods and Services. The Wage Expenditure for Plum Mitán 1 in 1984 was more than the Forestry Division's 1992 allocation (MALMR, 1983).

Gender and Forestry

Gender analysis looks at the rules and practices through which institutions control the distribution of resources and the way that they reproduce gender disadvantages. This section provides examples of the reinforcement of gender biases within institutions, and the work values and work practices through which gender and social inequalities are reproduced. One of the ways that gender impacts on Forest policy is in the choice of species for reforestation. In many Third World countries woodlots of exotic species are planted which are suited to construction (a generally male responsibility) (Jackson, 1993). However in Trinidad gender and forestry were linked in terms of prestige. Female officers revealed that there was a perception that Forestry was a male bastion (Interview, MALMR staff, 10th August, 1999). On the other hand National Parks and Wildlife was seen as a 'softer' area best left to women with Biology as opposed to Forestry degrees. Advocacy in the Nariva Swamp issue was undertaken mainly by the women employed in the Wildlife Section. Perhaps their training in Biology gave them a more holistic view of the Swamp's value.

Interviewees expressed the view that male leadership in the Forestry Division was not as effective as it could have been. It was said that "troublemakers" (Interview, MALMR employee, August 10th, 1999) were assigned to the Wildlife Section, and that the latest World Bank National Parks plan was not popular with Forestry, since male Forestry officers thought that the Plan would result in a loss of professional territory for them:

"They didn't think that National Parks and Wildlife was as important as Forestry. Forestry was concerned about cutting trees, taming the environment... the Forestry

Officers were not conservation minded. The Wildlife Section's budget was small, the chain of command was too long, there were no substantive posts, they were managing large acreages and they needed more manpower" (Interview, Environmentalist , 2nd September, 1999).

Due to the underfunding of the Wildlife Section the decision was made to pursue international funding and projects which also resulted in higher status. Changed global circumstances were giving greater status to environmental issues over production forestry issues. These changed opportunities meant that the female staff of the Wildlife Section, who were seen as the "poor relatives" were getting professional opportunities while Forestry officers were seeing the erosion of their male bastion. One view on the gendered work place politics is given below:

"Forestry should have been asked to redefine their role beforehand [before the international projects were brought in] Forestry is not accountable to anyone, they are just fomenting things. They are not into co-management and community projects. They gave the Matura project so much hell that the villagers said if any of them came by themselves at night they would be beaten. [Men are interested in] more opportunities, power, title, influence, all those things that testosterone likes to brew"(Interview, MALMR employee, 10th August, 1999).

The view above is reproduced to indicate that the struggle between the National Parks and Wildlife Section and the Forestry Division may intensify in future. The Wildlife Section is not legally constituted by the 1958 Conservation of Wildlife Act – it is an administrative sub-unit of the Forestry Division. The Forestry Division's mission does not include responsibility for wildlife, and in some instances their actions run counter to the needs of wildlife conservation (Pritchard, 1997). There is a lack of a well-recognised wildlife function in the professional structure of the government forestry service, and enforced re-posting of some key staff to other non-wildlife roles in the Division (Pritchard, 1997). This reposting implies that they would be put to work in more traditional Forestry posts rather than be considered wildlife specialists, and would have to work under the more hierarchical leadership style of the Forestry Division.

Gender in the local context

As stated above, gender analysis also highlights the different roles and learned behaviour of men and women based on gender attributes. Also relevant is gender bias within institutions, and the work values and work practices through which gender and social inequalities are reproduced. Gender analysis also highlights the different roles and learned behaviour of men and women based on gender attributes. These vary across cultures, class, ethnicity, income, education, and time. For

example in one conflict between women Molly Gaskin³⁰ was pushed in the Swamp by one of the wives of one of the large-scale rice farmers who then tried to escape from retaliation by claiming that Muslim women could not be touched (Interview, Environmentalist, 25th August, 1999). As stated above, Cornwall (1998) claims that too often 'gender' is taken to mean 'women' and something women should be concerned about while 'men' become the problem. This 'women-only' approach to gender can result in excluding men who would be interested in bringing about change, while it affronts those men who retain their patriarchal tendencies. The end result is that 'gender' becomes a battleground on which other struggles are waged (Cornwall, 1998).

Several interviewees questioned the need for a gender analysis of the Nariva Swamp, but not in terms that could be called "backlash against feminism":

"It is fashionable to put gender in, the international agencies ask for it" (Interview Environmentalist, 30th August, 1999).

One based his skepticism on his impression that women in institutions did not bring a different perspective to the workplace which meant that work values and work practices continued to reproduce gender and social inequalities. The role of women in Trinidad is complicated by the perception that women have equal status, and this equality is deemed to be disadvantageous to young men as claimed by one interviewee:

"I do not think that Women Ministers are any different. Women do not alter the structure once they are in it; female capitalists are the same as male. Women say they want to join the army, they don't say stop war. The women leaders are not behaving any differently. I would be interested to see how many women middle managers there are in Trinidad. It is the young men who are in crisis" (Interview, Agricultural Consultant, 7th September, 1999).

This opinion is in contrast to the debate in the Forestry Division between the male 'office foresters' steeped in traditional production forestry³¹ attitudes learnt in temperate countries versus the 'co-management-biased biologists' in the Wildlife Section who used community based organisations and international funding to achieve their environmental objectives. However, one interviewee told the story of a Forestry Officer who didn't want to copy the autocratic and bureaucratic style of his senior colleagues and copied Carol James' leadership

³⁰ Key activist associated with the Wildlife Trust in Pointe à Pierre.

³¹ An indication of how the foresters were influenced towards production forestry was outlined in the introduction to a public lecture given by a wetland ecologist (CFCA, 1996): 'In 1991, I was invited to participate in the Tropical Forestry Action Plan (TFAP) and enquired what assessment would be made of the coastal mangrove communities. To my surprise, TFAP had omitted mangroves from the Plan, because foresters had not thought them to be sufficiently important (Bacon and Bonadie, 1997).

style³² (Interview, former MALMR staff, 9th September, 1999). The idea that senior staff did not go into the field but sent junior staff was said to originate with male seniors but it was said that these ideas were copied by those female staff who observed it. This may mean that female staff followed what they considered to be the norm set by previous male leaders rather than bringing a women's-type of leadership into the workplace.

Another issue raised was that a female activist made the green issues emotional issues (Interview, Environmentalist, 2nd September, 1999). This point was raised by a female consultant who prided herself on making objective choices and always being paid for her work, whereas two prominent female environmental activists prided themselves on doing volunteer work. Volunteer work is usually associated with women. However this environmentalist also made the comment that:

"Molly takes the ecological aspects and makes a fetish out of them, like the mangrove at Mucurapo...have to save them because they will protect us from a tidal wave. Those two sticks of mangrove cannot save us. Molly makes the green issues emotional issues...no harm in that I suppose, it gets people het up and aware....I heard that Stan Temple³³ called Molly the poster girl of the environmental movement and she didn't like it. Maybe the feminine side is needed to overturn the male thing, the mechanised rice" (Interview, Environmentalist, 2nd September, 1999).

There are new theories of the body and emotions that claim women can bring a new perspective to various issues since men are trained to separate their bodies from their minds, whereas women aren't. Men have also charged prominent activists as being "emotional Gaskinites" (Interview, Environmentalist, 25th August, 1999). There was another comment on emotions linked to the "stealing of credit" from the Wildlife Section by the San Juan Rotary Club. The quote was that "Wildlife was always getting itself hurt" (Interview, Environmentalist 2nd September, 1999). A female environmental consultant also distanced herself professionally from the "emotional" label:

"Molly queried why Nariva was not chosen as one of the three National Parks, it was in the top few but not in the top three. It was based on objective ranking with weightings not emotions " (Interview, Environmentalist, 2nd September, 1999).

Joekes et al. (1994), criticise ecofeminism as regressive for proposing that the affinity between women and nature is biologically grounded. This means that it denies the determining function of social relations in allocating different spheres of competence and familiarity to the two genders. Locke (1999) claims that there is a need to question the validity of approaches that insist

³² As head of the Wildlife Section Carol James helped the community-based Matura turtle protection group/ecotourism project *Nature Seekers Incorporated*.

³³ Professor Stan Temple of the University of Wisconsin was a consultant to the World Bank National Parks and Watershed Management Project.

on the involvement of women, irrespective of their [women's] interest in the issues or their ability to articulate their views in a male arena. Gender struggles and environmental struggles are just as likely to be in conflict as to coincide according to Jackson (1993). The fact that more men are responsible for logging rainforests and are more likely to work in mining is not an indication that women are more environmentally friendly. Interviews conducted by Wahab (1997) clearly show the priorities of the Swamp communities: 4 of the men and women interviewed (out of 40 interviews) said that any management plan for the Swamp should share lands, with a minimum of 10 acres per family. One man from Brigand Hill wanted 100 acres. Wahab's interview with the Plum Mitan Women's Group reveals the sentiment that the large farmers opened their eyes to large-scale rice production. Not only did the large farmers harvest for some of the small farmers, the Women's Group claimed that if the large rice farmers were forced out, 'the Swamp gone again'. This implies that this Women's Group saw the impact of the large farmers on the Swamp as a good thing in providing easier physical access to the Swamp and 'development' that would eventually turn the entire Swamp into settlements (C. Lans, fieldnotes, May 1998) and that they had struck 'patriarchal bargains' that linked their interests to those of the large-scale male rice farmers.

The large rice farmers mentioned one of the benefits they claimed to provide to the small farmers:

"Fishermen are catching fish all year round, previous to us large farmers there was only dry season catching and the fish used to rot. There were no channels for the fish so they used to die. Our trenches now give the fish room to grow, fishermen can catch fish all year round. They can drive right up to the fish on our roads. Before we came they could only catch fish in the dry season" (Interview, Large Rice Farmers, 23rd July, 1996).

The large farmers were also praised by Biche male interviewees and a Biche family for improving the access to fish by pumping out the water from their rice fields. Out of the more than 40 interviews, only one person, a woman from Kernahan, said that the Swamp was beautiful (Wahab, 1997).

Gender and advocacy

According to Jackson (1993), we cannot use the involvement of women in 'environmental' protests as green credentials. For example at one stage male Game Wardens of the Wildlife Section pooled money to put gas into their vehicles because they were underfunded by government (Interview, MALMR staff, 9th September, 1999). However, interviewees were of the opinion that more women in Trinidad than men were involved in advocacy and that Molly Gaskin's writings in the paper made the Nariva issue reach as far as it did:

"Her writings influenced Minister of Agriculture Rowley to take unpopular political

decisions" (Interview, Former MALMR staff, 9th September, 1999).

At the Kushiro conference, Carol James went as the Head of the Wildlife Section, Nadra Nathai-Gyan also went as part of the section. Molly Gaskin and Karlyn Sheppard went as the NGO representatives as mentioned earlier. It was not a coincidence that only women went, since "women with Biology degrees" were put into the Wildlife Section and "women activists and volunteers" were running the Pointe à Pierre Wildlife Trust. According to the interviewees, there are more women in the Environmental and Conservation groups. Some women started out in the Field Naturalist Club. According to a former President (Interview, Environmentalist, 15th September, 1999), the role of this Club was exploring the natural resources and disseminating information; despite longstanding debate on the usefulness of activism it is not an activist club. One environmentalist claimed that the activists left the Club and formed the CFCA (Interview, Environmentalist, 2nd September, 1999). Sylvia Kacal was the first president of the CFCA, however the idea for its formation came from the Junior Minister of Environment at that time, Eden Shand (Interview, Environmentalist, 2nd September, 1999).

The approach to shift the policy environment for Nariva Swamp away from local politics into the international arena was done to accomplish the following outcome:-- the Nariva Swamp policy, regulations and plans would henceforth have to meet the international criteria set by the Ramsar Commission. In addition to approaching Ramsar, coalition building also took place. e.g.

1. A large public outcry was created about the issue to force the hands of the various Ministers of Agriculture, this made the wetlands for rice policy less politically feasible than before;
2. Powerful organisations in Trinidad and Tobago linked together to create the issue as one of national importance and also tried to get the issue discussed in Parliament.

Advocacy at the policy level involved both genders who were trying to obtain a management plan for Nariva:

"When Ramsar was signed, they eventually appointed a Wetlands Committee to make policy and work on a strategic plan. Molly, Gupte and Kacal were members. Prof. Bacon and Gerard Alleng from the IMA were the technical experts. Bacon was a tower of strength. Of the Ministry people, Potts went to study, Salandy didn't come. The Ramsar assessment pushed for squatter regularisation and an EIA. The Wetlands Committee pushed for the Ramsar site, it had to be done as a foundation for the future, and to push for a management plan" (Interview, Environmentalist, 2nd September, 1999).

The approach to Ramsar was a deliberate strategy to provide an alternative to the prevailing anti-environmental thinking and to foster a new "discourse" that was more environmentally friendly. Textually mediated discourses are becoming new forms of social relations that transcend and organise local settings and bring about new sets of connections (Anon, 1999). The elaboration

of any discourse is embedded in conflict and power. Not all discourses carry the same weight; those that deviate from, or challenge, the prevailing system and its practices are likely to be marginal and dismissed as irrelevant or bad (Anon, 1999). The conflict over which discourse would prevail in the 1980s and early 1990s, food security vs. environmental conservation, was played out in the Magistrate's courts according to one environmentalist:

“Magistrate Kenny Persad talked about men who should be complimented for growing food instead of being charged for damage to 2 parrots and 4 monkeys, and a minimal fine of \$43 was given to the large-scale farmers who bulldozed the Swamp. All the time, the Swamp and the environment were not considered important. The Wildlife Section was asked why we were harassing little people. Magistrate Jurity talked about 2 birds in a cage versus agricultural development. There was also the claim that the laws were white men's laws. The police as well were not sympathetic, and wouldn't give the game wardens assistance because they said they had more important things to do and only had a few vehicles. On April 30, 1996 in the court matter vs. Jabar, Sukhoo, Jaimungal and Jaikaran at the Rio Claro District Court, the total fines were \$5,100.00. Traditionally in Trinidad, decision makers and policy makers have looked on swamps as useless. The idea was to satisfy the needs of a growing population. How can we use the useless land?” (Interview, MALMR employee, August 10th, 1999).

Discourses are produced within particular epistemological and cultural conditions, which arise out of given historical situations like the Nariva conflict. Therefore a shift in ideological and material exigencies at certain historical conjunctures makes possible the elaboration of new and / or refashioned objects, concepts and methodologies. The approach to Ramsar and the designation of the Swamp as a wetland of international importance produced the paradigm shift that the Wildlife Section needed. The resulting environmental discourse however relies on the production of 'facts', like the EIA, in their own support. This process of producing facts transpires in the everyday practices of institutions (Anon, 1999).

More facts were produced by the Wildlife Trust on their website. The delay in the publishing of the EIA and the delay in the filling in of 15 illegally dug channels were posted on this website: <http://users.carib-link.net/~wildfowl/nariva98.htm>. Advocacy by the Wildfowl trust and others led to a helicopter pilot providing accurate information and photos of fires taking place in Nariva at his own expense. The Canadian Centre for Remote Sensing, through the Commonwealth Secretariat, diverted a satellite to overfly the Nariva Swamp and recorded the data on fire damage which was then given free to the IMA, the WLCC and Ramsar (Wildlife Trust, 1998). The information was also posted on the Ramsar Forum website on April 18, 1998: http://www.ramsar.org/forum_trinidad_nariva_fires.htm. Additionally, the Ramsar Bureau contacted the Government and offered financial assistance to refill the illegally dug channels. Financial assistance of US\$10,000 was provided in May 1998.

Whether due to the 'green credentials' of the Wildlife Section and the Pointe à Pierre

Wildfowl Trust or to the external funding environment that has incorporated environmental concerns into its mandates, the Government's rhetoric (discourse) towards the Nariva Swamp has changed. This is clearly seen in the 1994 - 1996 *White Paper on Agriculture*. Page 3 of the document lists Sector Resources as Natural Resources, Agricultural Lands, Wetlands, Water Resources, Forest Resources and Fisheries Resources. Under the category Wetlands is the following paragraph:

"The major wetlands of ecological importance are located in Trinidad and include such areas as the Nariva Swamp (6,234 ha.); Caroni Swamp (5,611 ha.); South Oropouche Lagoon (5,642 ha.) and Fishing Pond (1,220 ha.). Mangrove forests make up a substantial proportion of most wetlands, except for manmade lakes and the inland savannahs, which include, Erin (40 ha.) and Aripo (1800 ha.). Supporting a rich diversity of fauna, mangroves provide a nurturing environment for invertebrates such as crabs and insects, which are the richest population of any fauna found in all wetlands of Trinidad and Tobago. These invertebrates in turn form the food source for many resident and migrant birds as well as swamp and marine fishes' (1994 - 1996 White Paper on Agriculture).

Ecotourism, Community participation and community management as discourses

Paradigmatic shifts in the post-war development discourse produced transformations in the way in which environmental problems were represented. As such within specific historical and institutional arrangements, some conclusions have seemed more tenable than others, and certain interventions have become more legitimate (Utting, 1994). This is the case in Trinidad where in previous decades the environmental discourse was dismissed as irrelevant to Third World development, while accession to Ramsar and environmental thinking in the World Bank and IDB has made this environmental discourse more acceptable. Internationally-derived concepts, funding and discourses about appropriate environmental management are shaping local environmental discourses. Two commonly heard concepts are *ecotourism* and *co-management*. Ecotourism has been included as a specific niche in the country's tourism initiative, which is itself an attempt to diversify the economy especially in rural areas. Ecotourism is often linked to concerns about preserving biodiversity. The ecotourism industry is growing rapidly and has attracted funding agencies. Ecotourism³⁴ is seen as a more viable option than the 'big stick' approach which unites environmental concerns and local community employment (Interview, Environmentalist, 10th August, 1999).

³⁴ Ecotourism has also entered the academic discourse: James, K. 1994. The Potential of Bush Bush wildlife sanctuary, Trinidad for ecotourism. Undergraduate thesis, B.Sc., Zoology/Chemistry. University of the West Indies. 97 pp.

The interviewees considered the discourse on Conservation and community management to be relatively new:

"It is not true that Professor Bacon learnt about community involvement from the Ramsar team. He came back from Jamaica talking about it. His inaugural lecture was about Community management. He said UWI was going to publish it but I don't think it was published. Community involvement varies in different people's minds. It is a trend happening worldwide. The Akaloos should only be part of the co-management team if they are part of the community. The Minister wanted the rice farmers to form a legal group and apply to go back, that is the impression that was given at the time. National Parks cannot be managed only by a group of Foresters, an Advisory group that includes community members should be in charge. Forestry's idea is to pick the most vocal person or the one that they know best but that is not the way to do it. The Wetlands Committee went out to different communities, it was time consuming and difficult, a lot of money is needed for travelling, which is one of the reasons the government doesn't like it. Forestry was still afraid of the little co-management that exists now. More activities are needed like concessions, nature centres, food, all these things are what the community should be involved in running. CFCA is developing the capacity of communities in Matura to participate in co-management" (Interview, Environmentalist, 2nd September 1999).

Community management is not a new concept; traditional systems were re-invented in south India by the nineteenth century colonial government in order to hand over the maintenance of irrigation tanks to local communities (Mosse, 1997). Donor agencies as well as environmental and development activists endorse community management as the way forward for the sustainable development of environmental resources (Locke, 1999). The major premise of community management is that local communities must have a central role in resource management and that new institutional arrangements must evolve to facilitate this role (Locke, 1999). It is argued that giving responsibility for environmental management to primary user groups who rely on the resource base for survival over the long term will encourage sustainable resource use practices (Locke, 1999). The promotion of this strategy is further justified by the assertion that 'community management' will empower local communities, secure livelihood strategies and be more equitable than other property regimes (Locke, 1999). In NGO and environmentalist circles, community resource rights and control have become part of a discourse and critique of modernising development strategies and the dominance of 'western' technical over indigenous community perspectives (Mosse, 1997).

At a time when state-managed systems are in fiscal crises, community management offers opportunities of reducing state obligations (Mosse, 1997). Community management is therefore attractive to policy makers because it professes to integrate development and environmental

objectives (Locke, 1999).

As head of the Wildlife Section, Carol James facilitated the development of community-based ecotourism including the Matura-based turtle protection group *Nature Seekers Incorporated*. Carol James also introduced the honorary game warden system. These co-management approaches were part of the new international thinking and additionally fit the culture and socio-economic conditions of Trinidad and Tobago in which policing resources has proved impossible. These initiatives were undertaken despite the reality that the Wildlife Section is not formally authorised to undertake a comprehensive wildlife conservation programme (Pritchard, 1997). Therefore the Matura project resulted from personal initiatives of the staff of the Wildlife Section (Pritchard, 1997). One interviewee claimed that the former Head of the Wildlife Section used her personal funds for some of the community action projects:

"Wildlife had no budget, it was not considered important before NAR came into power. In the NAR days the budget was \$40,000 for the whole year, it increased under the NAR. There was literally no money. The Game Wardens pooled money to put gas into the vehicles" (Interview, former MALMR staff, 9th September, 1999).

"I would like to see changes in the way our Biodiversity is managed. A number of stakeholders who use environmental resources would like to see changes. There is so much illegal activity. It is quite phenomenal. There is hunting throughout the year. The hunters organisations are concerned. People are selling wildmeat throughout the year. They use trap guns it's not simple to control and it is not simple to involve the illegal users. We have to use the carrot and stick approach and the honorary game wardens. There are certain willing communities, their initiative has to be followed up with law enforcement officials...The communities in the North East: Matura, Toco, Blanchicheuse and in the South east like Mayaro are angry that authorities do not support their initiatives" (Interview, Environmentalist, 10th August, 1999).

Women and men working with environmental issues in Trinidad and Tobago have accepted the current discourse on community management even though they recognise that some of the very communities they speak of are responsible for environmental damage as the interview extracts presented below show. This is especially interesting since the Nariva community does not have the characteristics of the traditional communities described in the community management discourse. The literature typically deals with national parks which are established on land taken from indigenous communities who in theory have managed their environmental resources in a sustainable way. In this literature, advocates see these rural people who have lost their traditional land to parks as undifferentiated, virtuous and co-operative; they demand participation and anti-hierarchical bottom-up approaches, the use of appropriate technology and self-sufficiency and the recognition

of indigenous technical knowledge (Jackson, 1993).

"Co-management, town meetings, it is a viable option. We have to work at it over a long period of time involving the people. Block B people have to be involved in co-management. They were responsible for the pesticide use and the alteration of the hydrological cycle. The resident communities relied on cascadoo and conchs [for their livelihood], so they need to be involved. These are viable activities, quotas need to be established so that everyone has a livelihood, otherwise illegal activities will continue. This traditional use will continue no matter what. Communities know about the Swamp more than we do. We have to work at it, I don't see any other way. The big stick approach doesn't work and we don't have the resources to do it. There is one ecotourism operator but how much does he involve the community? Income has to be linked to conservation although that is not a generally held view. The Palm and Marsh forests were all pushed down. In the Jagroma cut we used to be able to see the Capuchin monkeys right there, the large farmers destroyed all of that. The small farmers' burning and moving has to be managed as well. We have to find out why they do it, is it because of lack of tenure or soil fertility or choice of crop. The situation needs managing generally" (Interview Environmentalist, 10th August, 1999).

One interviewee did not think that Nariva Swamp farmers fit the image of undifferentiated, virtuous and co-operative:

"Some small farmers could be integrated into co-management, those who see long term. Their wants and needs have to be identified. Some of them are not rooted in the region, they take as much as they can and then move on. These latter are transients and trying to include them is a waste of time and resources" (Interview, Environmentalist, 4th August, 1999).

Ramsar's 'wise use' discourse has been interpreted in economic terms in the EIA and the idea that the Nariva Swamp should not remain 'idle' is present in Pemberton's (1999) *Optimal Resource Use Determination for Nariva Swamp*. These uses include: Okro, Bodie, Pumpkin, Melon 672 ha, Squash and Ecotourism 256 ha. (Pemberton, 1999):

'An ecotourism activity is also included in the model, utilising an area of 256 ha. The total net revenue for this solution is approximately \$15 million, which is greater than the estimated net revenue from crops of \$8.2 million for small farmers in Block A and Kernahan. [Employment will be provided for]... 20 persons hired in the ecotourism enterprise comprising 10 tour guides from the communities of the Nariva Swamp, 6 guards to patrol the area to facilitate tourism and 4 tour operators.

The land values in the areas surrounding the Nariva Swamp are expected to gain in value

because of the implementation of the feasible options. Similarly the surrounding community will benefit from the feasible options, especially the ecotourism enterprise. As stated earlier, this enterprise will employ at least 20 persons from the surrounding areas as tour guides and this will bring an additional income of \$125,000 (10 persons * 501 weeks * 5 days * \$50/day). The feasible options could form the basis of both a Management Plan for the Nariva Swamp as well as a Development Plan for the area' (Pemberton, 1999).

Governance as discourse

The current preoccupation with governance is based on the belief that there is always an administrative or managerial 'fix' in the normally difficult affairs of human societies and organisations (Leftwich, 1994). Governmental Five Year plans are strongly influenced by current development theories and foreign aid goals. Researchers and policy makers agree that these plan objectives are rarely met (Leftwich, 1994). Exposure to shifting development ideologies and their changing vocabulary, sustained sometimes by foreign aid, led to a situation in which some countries were not sure if they even had a strategy for development that was not linked to the development themes that were current at the time (Leftwich, 1994). Natural resources exist, primarily to be exploited, either to facilitate trade or for direct appropriation. While there are clear signs of resource degradation, this is relevant to planners only to the extent that it hinders development, and then only marginally so. This is the sentiment echoed by the magistrates dismissing "a few parrots" referred to above. In Trinidad and Tobago it is not always the case that periodic multi-party elections encourage political leaders to favour development strategies that promote short-term economic growth rather than long-term investments aimed at conserving or rehabilitating the environment (Utting, 1994). It seems more the case that each successive government follows the plans laid down by the last, which in turn are often part of loan conditionalities. The extent to which Trinidad and Tobago's policies are determined by adherence to the guidelines laid down by external lending agencies is illustrated below:

"The technocrats continue to destroy agriculture, there is uninformed policy, amazing madness comes out of Ministry of Agriculture. There is no link between what the technocrats know and what is being done. Whatever the IDB conditionalities are, that is what they do. The IDB does not have field staff, so they accept the report. All these guys get into programs to access money. External lenders force you to change course, what you do and what you grow is linked to external countries and companies, it is not indigenous. The plans come from failed technocrats. Technocrats who have nothing to do, no plan or strategy, they concoct the figures, and work it until it looks good. People reading the reports know nothing about the industry, they don't think they need to talk to people who know the industry, they rely on technocrats. When it fails, by then the infrastructure is there, they try to correct after the fact. For successful implementation

they need to bring in an expert who has no axe to grind. They need to pay them well, let them develop figures, the feasibility study, the planning schedule and the implementation. Who will ask: 'do we need these things'? For the Nariva issue, it is not normal to have so many studies, they didn't get the answer they wanted the first time. The terms of reference, who they spoke to... find a way to bypass committees, bring a foreign expert to justify, give different terms of reference, get the result they want. Some of these things could be done yes, but is it more feasible than the alternatives? There is no morality in this society, people want to save their jobs, get a promotion. The Minister promised his friend to buy his agricultural factory, there is a constant racket. There is a lack of respect for ourselves, anything foreigners tell us we believe, especially if it is something we want to hear" (Interview, Agricultural consultant, 10th September, 1999).

Policy decisions are made using concepts, analysis and data; there are people, interest groups and stakeholders involved and the nature of the decision making process can be participatory or top-down (FAO-SEAGA). Policy decisions in Trinidad and Tobago were formerly mainly top-down but external funders are asking for a more participatory approach:

"The National Parks Bill has been through a number of lives. Buddie Miller³⁵ is besides himself because we are trying to put some control over the hunters. We are trying to embrace the hunters concerns in a realistic manner but of course their focus is different. The National Parks Bill has been redrafted locally but it hasn't been put out for public comment. Some environmental NGOs have been working in stages to help draft policy within the Act. We had to storm our way into the Committee, we were not invited. Why? Well there is some male /female bias and some bias against NGOs, but there is also the perception that there is no need to consult the general public and the stakeholders. However the National Parks and Wildlife Authority is a component of the National Watershed Plan, the feasibility study was funded by the World Bank. The World Bank insists on cross-sectoral, multi-disciplinary consultation with stakeholders. It was on that basis that we were able to storm our way into the process. We were also able to use the Wildlife Act, which hadn't yet been drafted to bring our concerns about the National Parks Authority. Some legal minds have removed some of the original spirit of the Acts" (Interview, Environmentalist, 25th August, 1999).

What has been said about Governmental Five Year plans being strongly influenced by current development theories and foreign aid goals could be said about environmental policies which are often dictated by international bodies. One difference being that environmentalists rather than planners are linked to these projects as consultants. It may be that the GORTT is not sure if it has a strategy for the environment other than the dutiful production of loan documents with

³⁵ Buddie Miller is President of the national Hunters' Association of Trinidad and Tobago (HATT).

environmental components built in. As mentioned earlier, the National Parks Section started in 1978 from an OAS funded study and the OAS provided funding for the Section during the 1980s to implement this project (Pritchard, 1997). This is one indication of how international bodies and policies share environmental decisions in Trinidad and Tobago. The extent to which environmental policies were dictated by international bodies is evident from the Interviews below:

“The Tropical Forestry Action Plan³⁶ gave some direction for protected areas. Nariva was suggested as one of the priority areas. Nothing ever happened but it gave policy directions for the World Bank National Parks proposal. The final decision for the chosen National Parks was 2 parks in the Northern range, Maracas and Matura and Main Ridge in Tobago. Three parks was the guidelines from the World Bank. The National Park and Watershed project is how it began 6 years ago, the coastal zone component was subsequently left out. The World Bank plan dovetailed with the Tourism Master Plan 1994” (Interview, MALMR staff, 10th August, 1999).

“The Land Rationalisation study³⁷ was funded by the IDB. The IDB-funded project was to set up a computerised Land Registration system, and bring the system into the modern era. Since most large projects now have environmental components built in, Sylvia Kacal and Floyd Homer were asked to do a survey in Kernahan. Floyd Homer was from the TT Biological Society and Sylvia Kacal was from CFCA. They asked for 3 potential National Park areas. An objective ranking was done and Maracas, Matura and NE Tobago were chosen. The study found that there was ever decreasing use of resources, fewer people were collecting herbs and vines. Homer and Kacal were expected to come up with some little quick projects and suggest some band aid solutions. All the studies are quick studies, they are never long term, always rush-rush things. The terms of reference for the Homer - Kacal study was only one month, the money was stretched for 3 months since it was considered important. The terms of reference were only for 3 parks. They had hoped for more IDB funding for developing the parks. Now the project is subsumed under the World Bank National Parks and Watershed Project. They were given too little time to do too much work. Molly queried why Nariva was not chosen, it was in the top few but not in the top three. It was based on objective ranking with weightings not emotions. Now there is another project, a quickie, to look at Speyside, Nariva, Caroni, the money comes from GEF” (Interview, Environmentalist, 2nd September, 1999).

³⁶ FAO/Caricom Tropical Forestry Action Programme. 1993. Trinidad and Tobago National Forestry Action Programme (Supplement to the Report of the Country Mission Team - Project Profiles). FAO Investment Centre. March 1993.

³⁷ The IDB 1992 study was supposed to improve agriculture by removing land tenure constraints. It was accepted by Cabinet at the end of 1992. It provided a series of projects which were written into the IDB-funded Investment Sector Reform Programme/ISRP and the Agricultural Sector Investment Programme/ASRP (Dulin, 1999).

Governance: Recommendations and their implementation (?) over the years

Leftwich (1994) claims that good governance is a function of state character and capacity, which is in turn a function of politics. All notions of governance focus on relations between state and society at all levels, as well as on governance in non-state actors, such as multinational corporations, non-governmental organisations, trade unions, co-operatives, religious groups, etc (Hardjoeno et al., 1996). Leftwich (1994) considers that the current definition of governance is based on a minimal state, ideal type bureaucracy, respect for human rights, diverse civil society, political pluralism and a distinct separation between economic and political life. Minimalist states tend to downplay social and gender issues, seeks to privatise them and give these back to the community (meaning un-funded housewives and under-funded NGOs) or leave these issues to be attended to by the invisible hand of the market.

Most authorities agree on some of the parameters that constitute good governance:

1. facilitating economic growth by providing an 'enabling environment' encompassing competent public agencies, clear laws which are predictably enforced and reliable information and communication systems;
2. bureaucratic accountability and transparency;
3. ability to resist capture by powerful interest groups;
4. moderate (no?) corruption, and
5. a commitment to reducing poverty, providing basic social services, and ensuring development well-being, which incorporates equality of opportunities, freedom from fear of arbitrary arrest, free speech and free association (Hardjoeno et al., 1996).

The policy environment and structures of governance include international development policies, environmental policies and economic policies (Anon, 1999). Policy decisions about agriculture are based on technical decisions but are heavily influenced by ethnic politics. National economic policies are never made on the basis of pure economic efficiency because there are always competing power groups and claims on state support (FAO-SEAGA); therefore policies are often designed to meet different social and political goals. The Ministry of Agriculture had its own policy for food self-security, and it was through this policy that the Ministry was obviously captured by the powerful rice lobby through three administrations, PNM, NAR and then PNM again. The term 'capture' is used because the intermediate level institution of TIRGA or the large rice farmers played a mediating role in linking agricultural policy to their direct benefit without any alternatives being considered in public. Interviewers felt that the 'planning' demonstrated by the Ministry was:

"Higgedly piggedly, no one seems to care or develop a plan or develop what seems to be sustainable. The Indian government seems to be supporting Indian farmers or probably the two are in cahoots. Yes maybe they went in under the NAR, but they weren't thrown out when they first started. NAR closed their eyes" (Interview,

Environmentalist, 15th September, 1999).

"It was rather extraordinary land use planning to pave the Savannah, one person makes an unauthorised, undocumented decision; same as in the Nariva issue, not according to proper planning, vikey vikey planning" (Interview, Environmentalist, 2nd September, 1999).

One former Minister of Agriculture demonstrated how much influence the large farmers had when he claimed that:

"The rice farmers knew about the OCTA³⁸ plan. I was in the area frequently and I knew them socially, whenever I went over they had maps and they would lecture me about what the Japanese said. They wanted the land, they expanded, made roads, the small farmers were excluded however and couldn't catch fish in the area" (Interview, a former Minister of Agriculture).

Policy coherence

Policy makers must respond to a range of support and pressure groups at international, national and sub-national levels with diverse and often contradictory interests. It is partly for this reason that governments often appear to be following 'incoherent', two- or multi-track strategies, degrading the environment with one hand and conserving it with the other (Utting, 1994). It is also partly for this reason that concepts like 'sustainable development' and 'participation' often remain at the level of rhetoric or 'lip service' and are not translated into concrete policy measures. For example when the National Environment and Conservation Council (NECC) was formed in November 1972, half of its functions related to beach facilities and the other half to the national parks. Primarily NECC was supposed to:

'Make recommendations on the development, management and control of national parks, the council was inter-ministerial with a few non-government people (SCAPE included) and chaired by a former Permanent Secretary in the Government's Minister of Planning and Development. Meetings were held and in early 1975 a number of recommendations was made to Government when the council folded up. So far, there appears to be no feedback and no forward motion' (Williams, 1976).

An illustration of the type of 'planning' that took place can be found in one internal document of the Ministry of Agriculture which records that:

³⁸ The Overseas Technical Co-operation Agency (OCTA) of Japan conducted a reconnaissance survey in September 1967. A feasibility study in 1969 and a development plan for the Nariva Swamp followed this. The study claimed that reclamation of the entire Swamp for rice was feasible and economically viable.

'reconstruction of access roads on private rice-growing lands has been minimal over the years and was usually done in an ad-hoc response to representations made by industrial farmers or their representatives' (Ahmad, 1991). Ahmad (1991) claims that the development of rice production in the Nariva area was:

'...ad hoc, unplanned and chaotic and the need for some order and regulation is most urgent, as is also the development of a policy for land acquisition and occupation. The farmers have the philosophy that increased production can be achieved by occupying increased areas and not by intensification of production. Therefore, these valuable lands are very poorly utilised and there is much conflict among the farmers for needed resources. The great advantage in developing this area is that most of the land is state owned and the farmers are really squatters. Therefore, in theory, the area can be developed according to an approved physical plan'.

In April 1983, the *National Physical Development Plan* was introduced into Parliament by the Prime Minister and Minister of Finance and Planning, 23 years after the initial planning ordinance and 14 years after the rhetorical recognition of the relevance of spatial issues in the Third Five Year Plan of 1969. The *National Physical Development Plan* was debated in Parliament and approved on August 15, 1984. The Plan advocated:

1. an overall national growth centre strategy
2. development of a functional hierarchy of urban settlements
3. strong land use controls in agriculture and conservation areas
4. comprehensive rural development in 6 depressed areas including Guayaguayare - Galeota
5. a massive housing and construction program
6. phasing of major development undertakings
7. employment creation.

The Plan catered for 'active conservation and other areas to be kept under natural cover which are mainly in the upland areas of the Northern, Central and Southern Ranges, the Caroni Swamp and Tobago's Main Ridge'. The plan on pg. 55 reveals that the 'undeveloped' Nariva Swamp was earmarked to be 'developed':

'The development of a major growth zone in the Mayaro-Galeota area is the most futuristic proposal in the long-term dispersed concentration strategy. The major reasons for the selection of a growth centre in the south-eastern part of the country are:

-its proximity to the undeveloped Nariva Swamp which can potentially make available 9000 acres for intensive farming and 7,500 acres for livestock rearing. The development of this scheme and the cultivation of other idle lands of good agricultural potential can form the basis of a sizeable food processing and other agro-based industry.

-the existence of other potentials in forestry, fishing and recreation'. (National Physical Development Plan)

On page 158 the Plan suggests other development activities for the Nariva Swamp:

'The development of the desired resort complexes (of recreational and supporting supply and service activities - including agriculture) should take place in seven principal areas - Tobago, the North Coast of Trinidad, Chaguaramas and the offshore islands, the North - east coast (both south and west of Toco), the Mayaro area, Cedros and the Manzanilla - Nariva Swamp area. (National Physical Development Plan)

The Nariva Swamp was to be developed in Phase 4 1995 - 2000.

The time gap between the *Third Five Year Plan* in 1969 and the introduction into Parliament of the *National Physical Development Plan* tells its own story about the Physical Planning environment because there was a 14 year gap before it came to Parliament in which all kinds of ad hoc development took place; one of the criteria of good governance listed above was not met in the situation of the National Physical Development Plan. This was 'facilitating economic growth by providing an 'enabling environment' encompassing competent public agencies, clear laws which are predictably enforced and reliable information and communication systems'.

Macro-level planning often attempts to advance in one specific field while disregarding negative impacts in others. Environmental strategies are not planned in conjunction with development programmes that would transform specific patterns of accumulation and human settlement that cause environmental damage. Additionally, laws and policies promoting conservation are not enforced (Utting, 1994). In addition, some policies generate certain types of social responses and conflicts, which undermine conservation efforts.

The National Policy on Wetland Conservation prepared by the National Wetland Committee gives an indication of the lack of clarity of Government policy towards wetlands. A quote from this policy is presented below:

'There is no written Government policy with regard to wetlands in Trinidad and Tobago. The only clear statements of policy are the facts that Trinidad and Tobago became a Contracting Party to the Ramsar Convention in December 1992, with effect from April 1993 that Nariva Swamp was designated for inclusion in the Ramsar List of Wetlands of International Importance, and the appointment of the National Wetland Committee in 1995. Otherwise policy and intentions must be inferred from political manifestos, draft legislation, Ministerial speeches, and recent Government actions. The election manifesto of the United National Congress (1995) refers to concerns for natural resources as a crisis. It refers to "The continued degradation of our physical environment and the wasting of our natural resources continue to increase ---" and implies that this has been a result of a lack of caring in policy implementation,

and a tendency to " -- 'cook deals' which are inimical to our society." It states an intention to focus on policies and programmes to target, amongst other factors, "Improvement of the physical and natural environment to support sustainable development for current and future generations." Tourism is important, including "-- the development of inland and marine parks, nature trails, inland and coastal aqua-sports enclaves and resorts -- " for ecotourism. The section on Environment states "Proper management of our natural resources and environment is absolutely essential --" and pledges the UNC to "--develop attitudes which will encourage sustainable utilisation --". It relies on the Environment Management Authority "-- to play a key role in formulating policy, regulation and public awareness on environmental issues." There is however no policy statement on wetlands or any other aspect of Forestry Division's mandate.

Other indications of policy on wetlands are to be found in current draft Forest Resources and National Parks legislation, and the Buccoo Reef Management Plan, which incorporates management of the reef and part of the wetland and sea grass area. However these have not yet become firm reality' (National Wetlands Committee, 1996, Appendix 11 Relevant legal and institutional framework. Background to Policy).

Continuing conflicts

Conflicts sometimes arise from a clash of interests or values. Governance has become popular in academic circles because of the belief that there is always an administrative or managerial 'fix' for the problems and conflicts of human societies (Leftwich, 1994). Scientists sometimes reveal similar beliefs in scientific, managerial or technological fixes as seen in the quote below:

"Agriculture in Block B is a good idea if done properly. I would not recommend all of Block B, maybe half and the other half could be a buffer area. It has to be done under conditions of proper land tenure, the haphazard way in which it was done was the problem. They have to agree not to farm in the other areas of the Swamp, those earmarked for other purposes. The NEDECO polder³⁹ was too large and extended into Bush Bush. Fire has to be kept within the agricultural area and pesticides have to be kept within the agricultural area. Kernahan should not spread up into the rest of the Swamp in a haphazard way" (Interview, WLCC member, 24th August, 1999).

This managerial fix assumes that putting a managerial structure in place with the relevant university educated managers and technical staff, will result in better control of the behaviour of the squatters who will then peacefully live alongside the snakes and the alligators.

³⁹ Netherlands Engineering Consultants (NEDECO) published a report in 1983 that included agricultural development for rice farming on the existing 370 ha. in Plum Mitan and 450 ha. in the Cocal-Kernahan areas. They also included 1200 ha. of what they called a Biche Bois Neuf polder (roughly corresponding to the FAO 1957 Polder 1) which they gave the lowest priority to.

and a tendency to " -- 'cook deals' which are inimical to our society." It states an intention to focus on policies and programmes to target, amongst other factors, "Improvement of the physical and natural environment to support sustainable development for current and future generations." Tourism is important, including "--- the development of inland and marine parks, nature trails, inland and coastal aqua-sports enclaves and resorts -- " for ecotourism. The section on Environment states "Proper management of our natural resources and environment is absolutely essential --" and pledges the UNC to "---develop attitudes which will encourage sustainable utilisation --". It relies on the Environment Management Authority "-- to play a key role in formulating policy, regulation and public awareness on environmental issues." There is however no policy statement on wetlands or any other aspect of Forestry Division's mandate.

Other indications of policy on wetlands are to be found in current draft Forest Resources and National Parks legislation, and the Buccoo Reef Management Plan, which incorporates management of the reef and part of the wetland and sea grass area. However these have not yet become firm reality' (National Wetlands Committee, 1996, Appendix 11 Relevant legal and institutional framework. Background to Policy).

Continuing conflicts

Conflicts sometimes arise from a clash of interests or values. Governance has become popular in academic circles because of the belief that there is always an administrative or managerial 'fix' for the problems and conflicts of human societies (Leftwich, 1994). Scientists sometimes reveal similar beliefs in scientific, managerial or technological fixes as seen in the quote below:

"Agriculture in Block B is a good idea if done properly. I would not recommend all of Block B, maybe half and the other half could be a buffer area. It has to be done under conditions of proper land tenure, the haphazard way in which it was done was the problem. They have to agree not to farm in the other areas of the Swamp, those earmarked for other purposes. The NEDECO polder³⁹ was too large and extended into Bush Bush. Fire has to be kept within the agricultural area and pesticides have to be kept within the agricultural area. Kernahan should not spread up into the rest of the Swamp in a haphazard way" (Interview, WLCC member, 24th August, 1999).

This managerial fix assumes that putting a managerial structure in place with the relevant university educated managers and technical staff, will result in better control of the behaviour of the squatters who will then peacefully live alongside the snakes and the alligators.

³⁹ Netherlands Engineering Consultants (NEDECO) published a report in 1983 that included agricultural development for rice farming on the existing 370 ha. in Plum Mitan and 450 ha. in the Cocal-Kernahan areas. They also included 1200 ha. of what they called a Biche Bois Neuf polder (roughly corresponding to the FAO 1957 Polder 1) which they gave the lowest priority to.

Utting (1994) claims that:

'In situations where grassroots action has yielded important socio-environmental gains for local groups, this is not the end of the fight. The war is never entirely won. Inegalitarian local structures, co-optation, and ongoing opposition by powerful vested interests means that the pendulum can easily swing back in favour of those who benefit from environmental damage. For this reason it is crucial for local groups not only to remain organised and united, but also to strengthen links with the growing number of outside agents and organisations with an interest in environmental issues (Utting, 1994).

The idea that the fight is not over comes from a report in the *Trinidad Guardian* :

'Government has been advised that rice cultivation in Block B of the Nariva Swamp should be immediately stopped and that other agricultural crops should be grown in the wetlands. It has also been told that Block B should be rehabilitated to its original condition and that the man-made water channels, which even now continue to drain the Swamp, should be filled-in without delay. These were the recommendations made to Agriculture Minister, Reeza Mohammed, by 18 separate committees mandated to review the Environmental Assessment (EIA) done by the Institute of Marine Affairs' (*Trinidad Guardian* Wednesday October 14, 1998, pg. 10).

The last line is a telling one: 18 separate committees were asked to look at the EIA...18 separate committees. It may have been hard for the Ministers and planners to accept that the EIA's economic analysis of rice production in Nariva Swamp was negative, after all the justifications and studies (FAO, NEDECO, Agristudio, Planning Associates):

'Therefore while large scale rice farming in Block B gave private returns (net revenue) of \$2,392,100 per year, the social value of this production was negative \$4,249,763 because of the actual and implied subsidies received by the rice farmers. The net revenue after overall subsidy (Social Value of Production) of agricultural activity prior to rice farming was \$279,037 - \$1781 = \$277,256, where, \$1781 represents the implied subsidy of using the land without payment of land rent to the State... 1090 ha. of Nariva Swamp were permanently modified by large-scale rice growing causing permanent damage of \$110.5 million. It may be concluded that rice growing was not socially desirable as the previous economic activity. Thus large-scale rice growing in Block B had an overall negative impact on the nation' (underlined in original) (Pemberton, 1999).

Female activists and volunteers have not allowed themselves to be intimidated by Ministers with patriarchal attitudes:

“ I heard there was a lot of bacchanal in the meetings when the Minister asked for recommendations on the Swamp and the EIA. Certain members of the WLCC were not invited but heard about it and turned up anyway and were asked to leave”

(Interview, MALMR employee, August 10th, 1999).

This impasse of the 18 committees was posted on the Wildfowl Trust's web site in 1998 (Wildfowl Trust, 1998) and includes the observation that an IDB consultant was also asked to comment on the EIA. The EIA was completed in July 1998. Repeated requests were made for it to be made public including a group request that came out of the Panel Discussion on Nariva held on 14th October 1998 at the Learning Resource Centre, UWI (Wildfowl Trust, 1998). A TV interviewer's query on the EIA made to then Minister of Agriculture Reeza Mohammed on 29th October 1998 was met with the response that he had been mandated to come up with a policy for rice farming (Wildfowl Trust, 1998). The Cabinet discussed the Nariva issue on October 29th and November 5th 1998 where a Cabinet Note consisting of a summary of the main findings of the EIA was presented. This Note was subsequently withdrawn by the then Minister of Agriculture. The then Minister also delayed the filling in of 15 illegally dug channels that were draining off the Swamp water too quickly resulting in fires during the dry season (Wildfowl Trust, 1998).

The approach to Ramsar and the resulting EIA shifted the balance of the economic development vs. environmental conservation discourse because it forced an economic discussion of environmental impacts, an analysis of growth/development vs. environmental issues and a quantification of the subsidy to the large scale rice farmers which amounted to TT\$4,249,763. The rice planting activity contributed only marginally to the macro-economy, amounting to about 0.07% of the country's GDP or about 2.37% of agriculture's contribution to GDP. The rice farming activities only marginally improved employment opportunities in the local Nariva communities (IMA, 1998).

Conclusion

This study attempted a documentation and evaluation of state policy toward agricultural resource use and settlement in the Nariva Swamp (e.g. historical analysis, agricultural policy, settlement policy, infrastructural development, tourism policy, political context, allocation of land rights). Governance issues were examined at the state level since this is where the power to make things happen lies. Decisions are made at this level for the entire nation, and international events and forces are mediated at the macro level for the nation (FAO-SEAGA).

The following can be concluded:

There are environmental ideologies and discourses that affect the Nariva Swamp. There is a perceived crisis in leadership and governance in Trinidad and Tobago on environmental issues that environmental organisations are seeking to alleviate through links to international organisations and funding agencies. The environmental struggles of the women in the Wildlife Section and the Pointe

à Pierre Wildfowl Trust are linked to the relations of power and authority in the GORTT, negotiation and bargaining between the various sections of the MALMR, the rice lobby, and the NGOs and the wider social relations, including international relationships in which 'decisions' about macro policy and environmental policy are embedded.

The granting of international recognition to Nariva Swamp as a Ramsar site affected the ecological status of the Swamp, the political status of the Swamp and the livelihood of the Nariva-based communities.

There has been a historical predisposition to favour commercial use of the Swamp rather than ecologically sustainable use. There are indications that this predisposition is a gendered one.

As a Ramsar site, Nariva Swamp is no longer being discussed in economic terms as solely a rice producing area, but in the new economic terms of 'wise use'.

The question of whether the Nariva Swamp has a right to exist 'unused' as an entity in itself awaits an ecofeminist analysis.

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Appendices

Appendix 1: List of Persons Interviewed

- Ms. Robyn Cross, of the National Parks/Wildlife Section, Forestry Division, MALMR and Dr. Carol James, formerly Head of the Wildlife Section, currently with the UNDP-GEF were interviewed. These two women were very much involved in the Nariva issue. Attempts to interview Ms. Nadra Gyan from the National Parks/Wildlife Section were not successful.
- Three former Ministers of Agriculture were interviewed, Mr. Kamal Mohammed, Mr. Lincoln Myers and Dr. Brinsley Samaroo. They were three of five involved in the Nariva Swamp issue. Only Dr. Samaroo was interviewed in the context of this study, the two others were interviewed for a previous study (Lans, 1996) and their comments are included in the body of the study.
- Ms. Karilyn Shephard of the Pointe à Pierre Wildfowl Trust was very much involved as an environmental activist in the Nariva conflict. Ms. Karilyn Shephard is also a member of the Council of Presidents of the Environment (COPE).
- Three members of the Akaloo family, the most visible and publicly known large rice farmers were interviewed. Theresa Akaloo was president of the Trinidad and Tobago Rice Growers Association (TIRGA). The large rice farmers were mainly from three families.
- The Institute of Marine Affairs (IMA) was visited but none of the staff was formally interviewed.
- Prof. P.R. Bacon of the University of the West Indies was interviewed since he has done some consultancy work on the Nariva Swamp, works as a professional wetlands ecologist, was a member of the WLCC and is a member of the NWC.
- Ms. Sylvia Kacal, member of the Caribbean Forestry Conservation Association (CFCA) has done environmental consultancy work on the Nariva Swamp and was interviewed in that capacity.
- Mr. Eden Shand of the CFCA is an environmental consultant and former junior Minister of Environment and has well known views on the Nariva Swamp conflict.
- Dr. Victor Quesnel is a former head of the Trinidad and Tobago Field Naturalist Club and was interviewed on the role of the Club in the Nariva issue and the Club's general stance towards environmental activism.
- Mr. Walters from the National Flour Mills was interviewed on local rice production.
- A former member of the Agricultural Development Bank (ADB) was interviewed for a previous study (Lans, 1996) and his comments are included as secondary material. He asked not to be identified.
- The library of the Environmental Management Authority (EMA) was visited and a senior male member of staff was interviewed for a previous study (Lans, 1996). Material from this interview is included as secondary material.
- Mr. Stephen Broadbridge, who conducts tours to the Nariva Swamp, was interviewed as an ecotourism operator (Caribbean Discovery Tours).
- An environmental lawyer was interviewed for a previous study (Lans, 1996) and his comments are included as part of the secondary material. He asked not to be identified.

- Dr. C. Pemberton, UWI, an agricultural economist was interviewed as a consultant in the EIA process.
- Two male and one female agricultural consultants who were not directly involved in the Nariva issue but had broad knowledge of agriculture, economics and politics were interviewed to give some context to the study. These were previously known to the author and known to talk freely rather than give socially correct responses. They asked not to be identified.

Appendix 2. Terms of Reference

GOVERNANCE COMPONENT OF THE NARIVA SWAMP: A GENDERED STUDY

Researcher : Cheryl Lans, M.Sc.

Objectives:

There will be an exploration of the history of governance and policy issues related to the Nariva wetlands and surrounding areas and the countervailing interests of various stakeholders. For example what historically has been the approach of past governments - colonial and post colonial to the Swamp? This exploration will incorporate a gender analysis. In addition there will be an examination of whether the previous policy(ies) of the GORTT can be construed as gendered phenomena and if so, what are the implications of this ? Or whether there are cultural or ethnicity factors that impacted on the GORTT decisions. An inventory of policy initiatives (Dutch, Japanese, UWI, etc.) and the differences between the various Government regimes in policies towards the Swamp will be made. The study will also incorporate an examination of the ways in which policy decisions have impacted on the development of the community over time.

A historical analysis of environmental activism in the Swamp will be one component of the study. It will include an analysis of the stakeholders in the Nariva issues and the power differentials between them, and will critically discuss broad internationally derived concepts such as *ecotourism* and *co-management* that are being used in reference to the Nariva Swamp and to explore their meaning and relevance to the local situation. Are these concepts part of a new policy being negotiated with/ by the GORTT? If these concepts are being imposed on the Nariva communities from the outside, are they being taken on board ? And if so, how ?

Components are:

Provision of an operational framework within which to further clarify the concept of governance in gendered ways and in meaningful terms for Trinidad and Tobago; governance structures and the different levels of governance: state, community, regional (local government), administrative and district will be included.

Question historically accepted theories and explanations about agriculture, science, technology, the environment, society and human behaviour and how these may have shaped government policy.

This governance component of the CGDS Nariva research is complicated by the fact that the relevant Minister of Agriculture is now a UWI based researcher with personal and professional ties to other UWI staff. Another complication is the fact that some "studying up" will be necessary in the interview phase.

The data collection will result in a report that will incorporate the following:

1. A gender-based documentation and preliminary analysis of the GORIT policy towards the Nariva Swamp
2. A bibliography consisting of abstracts of secondary data, written policy, historical data and relevant analyses
3. Interviews to collect information on unwritten policies and practices such as verbal promises, cabinet notes, statements by magistrates, etc. Interviews will also be conducted with state officials, members of the environmental groups and members of the various alliances who challenged the GORTT's Nariva Swamp policy, demanded accountability from the GORTT and who successfully brought local and international pressure to bear on policy makers.

Possible approaches and questions that may shape the research:

Are there stakeholders who have been denied the right or space to articulate their claims to use of the Nariva Swamp ?

What are the specific socio-cultural and institutional factors that mediate the relationships between populations and the Nariva Swamp for example- spontaneous settlement? What does it imply if community members have land and property elsewhere, yet are treated as landless and bona fide squatters with rights of access and property who should be included into community governance frameworks ?

Are the GORTT policies (actual or implied) implicated in past and more recent migrations to the Swamp? Has there been a historical predisposition to favour commercial use of the Swamp rather than ecologically sustainable use ? And if so is this predisposition a gendered one?

- Are there gaps between government rhetoric, policy statements and implementation? What are the implications of unenforced governmental environmental laws and regulations, or minimal penalties? Is this strategy a means of defusing social conflict or is it a form of community-based support for other community members? Are attempts by state agencies to protect and / or rehabilitate the environment being undermined by other government agencies?
- Are some social / ethnic groups favoured by policy, fiscal incentives, direct subsidies and support services?
- How do the stakeholders concerned feel about the law (particularly environmental laws)? Are laws seen as an imposition of the state or perhaps a colonial relic?
- Are concepts of, what *appropriate Third World development is*, implicated in environmental change and resource use in Trinidad and Tobago? Are internationally derived concepts, funding and discourses about appropriate environmental management shaping local environmental discourses? Are two of these concepts *ecotourism* and *co - management*? Do the terms *ecotourism* and *co - management* have attached *baggage* ? How useful are these concepts to the local situation? If the terms *ecotourism* and *co - management* have been imposed on the Nariva communities from the “outside”, are they or how are they being taken on board? Are *co - management* and *ecotourism* a form of privatisation? Does private ownership (or *co - management*) lead to better and more environmentally-sensitive agriculture and land management or are there alternatives? Does *co - management* fit the culture of Trinidad and Tobago?
- Are there links between the Trinidad and Tobago’s squatting culture, leadership issues and environmental awareness? Is there a crisis in leadership and governance in Trinidad and Tobago on environmental issues that environmental organisations are seeking to fill through links to international organisations and funding agencies?
- Has the granting of international recognition to Nariva as a RAMSAR site affected the ecological status of the Swamp, the political status of the Swamp, the livelihood of the communities, the type of research being conducted, the beneficiaries of research funding? What are the scientific relations of power and current environmental ideologies and discourses that affect the Nariva Swamp?
- What recommendations for development policy oriented towards women (and men) can be made? How can research empower poor women (and men) to stand up for themselves?
- Does a multi-institutional project on islands, sustainability, equity and governance lead to a more equitable research outcome for the institutions conducting the research and for the communities studied?

Provisional definition of governance

Governance is not an autonomous administrative capacity (an efficient, independent, accountable, transparent and open public service) but is also intrinsically linked to politics and state structure and capacity (Leftwich, 1994). 'Crisis of governance' is a term used by the World Bank to mean 'the deficiency in the state's exercise of political power to manage its affairs' (Leftwich, 1994). Good governance includes systemic, political and administrative levels. It incorporates the distribution of

internal and external political and economic power and relationships and rules by which the productive and distributive life of a society is governed (Leftwich, 1994). A sound definition of governance must also include the history, practice and theory of the state as an agent in the development process (Leftwich, 1994).

Leftwich (1994) considers that the definition of governance currently popular is based on a minimal state, ideal type bureaucracy, respect for human rights, diverse civil society, political pluralism and a distinct separation between economic and political life. Minimalist states tend to downplay social and gender issues, seeks to privatise them and give these back to the community (meaning unfunded housewives) or leave these issues to be attended to by the invisible hand of the market.