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Island Sustainability, Livelihood and Equity Programme

Workshop Report

“The Nariva Swamp: A Gendered Case-Study in Wetland Resource Management”

12th-14th February, 1998

Held at

**Conference Room - Institute of Social and Economic Research
The University of the West Indies
St. Augustine
Trinidad and Tobago**



**Prepared by
The Centre for Gender and Development Studies
The University of the West Indies
St. Augustine
Trinidad and Tobago**

**TRINIDAD AND TOBAGO
UNIVERSITY OF THE WEST INDIES
CENTRE FOR GENDER
AND DEVELOPMENT
STUDIES**

1. *Background to the Workshop:*

This workshop marks the second attempt to operationalise and integrate gender concerns within the ISLE frame of sustainability, livelihood and equity. The first such workshop was held in January, 1997 (13th-14th). Among the objectives articulated for the first workshop were:

- a) To report on and discuss the development of curriculum modules and case study materials being carried out in other project activities to ensure a gender focus and to inform curriculum development.
- b) To build a shared set of concepts around gender and island livelihoods in relation to issues of equity, sustainability and governance;
- c) To initiate the development of a collection of comparative essays on gender and island sustainability and governance;
- d) To initiate discussion about the construction of an internationally relevant course on gender and island livelihoods focusing on issues of equity sustainability and governance.

As part of the 1997 workshop, participants were taken on a site visit to the Nariva Swamp in Trinidad. The Nariva Swamp which has been designated for the List of Wetlands of International Importance under the Ramsar Convention, is one of the largest freshwater wet lands in the Caribbean and has the most varied vegetation of all wetlands in Trinidad and Tobago. At the point of visit, the Swamp was embroiled in a national debate over the balance to be found between its economic use by the surrounding communities and other large farmers and the preservation of the Swamp's ecology.

One of the decisions which came out of this workshop was the need to conduct further research on the Nariva Swamp. It was agreed upon at this first workshop that a comprehensive data base should be built on the villages within the Nariva area. It was decided that one of the central objectives of this data base should be to contribute to a more comprehensive and gendered understanding of the Swamp. It was further decided that such information when gathered would be used as a base for curriculum development within the ISLE framework, as well as, enhance the ISLE Programme of inter-disciplinary and cross-cultural teaching.

Subsequent to these decisions taken in 1997, the Centre commissioned Animal Scientist, Cheryl Lans, to prepare a concept paper on the Nariva Swamp. The paper was mandated to review the existing research on the area; identify the perceived limitations and gaps in these research; and draft a preliminary research frame which exhibited a recognition of some of the gender issues involved in environmental management.

Out of this report, the Centre became concerned that the Swamp had become the research site for many projects which paid little or no attention to the socio-political, historical and

gender elements which can and do impact on people's interaction with their bio-physical environment. Secondly, we were also concerned that the plethora of research projects could potentially lead to a duplication of efforts, as well as, an increasing measure of apathy by the surrounding communities toward the research process. Based on these decisions and concerns the Centre for Gender and Development, St. Augustine proposed to host a follow-up workshop on the Nariva Swamp, Trinidad and Tobago. This workshop was envisioned as a mechanism which would serve to clarify the research mandate for the Nariva Swamp. As such the following workshop objectives were set:

- 1) To develop a shared understanding of where the research on the Nariva Swamp presently stands;
- 2) To explore the possibilities for intra-university (UWI) collaboration on research related to the Nariva Swamp;
- 3) To develop inter-university collaboration in wetlands research and coastal resources management among ISLE Partner Institutions;
- 4) To interact with key governmental and non-governmental institutions and stakeholders involved in the work on the Nariva Swamp;
- 5) To contribute to the ISLE programme in the area of wetlands research, in the context of coastal resource use;
- 6) To encourage researchers to incorporate a gender analysis into their work.

Site Visit to the Nariva Swamp:

Prior to the opening of the workshop (98/02/11), A field site visit was made to the Nariva Swamp. This site visit served as a means of refreshing the memories of previous workshop participants, as well as, familiarising new workshop participants with the research site. The following is a list of the ISLE workshop participants present on the site visit:

Dr. Marion Binkley
Dr. Maria Pandu
Dr. Luisma Mabunay
Mr. Ron Goodridge
Mr. Amar Wahab

Dr. Gary Newkirk
Prof. Margarita dela Cruz
Ms. Angela Alleyne
Dr. Balfour Spence
Dr. David Dolly

The participants visited three of Nariva's surrounding communities; these were Kernahan; Biche and Plum Mitán (See Appendix One). In Plum Mitán/ Biche the participants toured the Plum Mitán Rice Scheme (Bloc A). While there they were able to interact with farmers and examine the land use of the area. At the time of the group's visit, the farmers were still involved in tied over rice production which had resulted due to the limited rain fall in 1997. The dry season cycle of vegetable production had therefore not yet begun.

The group also had the opportunity to meet some of the community's fishermen. This interaction touched many issues; figuring centrally was the fishermen's sensitivity to the

environmental impact of their fishing techniques. The fishermen informed the group that they used two major fishing techniques; hook and line and net fishing. They noted their preference for hook and line fishing, as this not only brought in more fish but it also gave them the opportunity to return young fish.

The stop at Plum Mitan, gave the participants the opportunity to speak openly with one of the dispossessed large scale farmers, who having been removed from Bloc B was presently farming in Bloc A. Unlike the fishermen, he did not see the relationship between his agricultural activities and any possible environmental degradation and saw the environmental movement surrounding the Swamp as a highly politicised one, as opposed to being driven by any genuine concern for the environment.

This visit also gave the participants some exposure to watermelon production in the area, as well as a clearer understanding of the land use patterns of the communities surrounding the Swamp.

Opening Ceremony:

The official opening of the workshop was held on Thursday 14th February, 1998 at the Conference Room of the Institute of Social and Economic Research (ISER), The University of the West Indies, St. Augustine. The session was chaired by Dr. Grace Sirju Charran, Senior Lecturer in the Department of Life Science, UWI, St. Augustine, who welcomed the various participants to the workshop and explained the relationship of the research to the ISLE Programme. She outlined some of the workshop's concerns; it's format and methodology. Prof. Wilson, Programme Coordinator, CEPAT brought welcome to the visiting participants on behalf of the University of the West Indies, St. Augustine. He encouraged the participants to enjoy the seasonal Carnival activities and invited them to join with the UWI community in celebrating its fiftieth anniversary.

Dr. Gary Newirk, Lester Pearson Institute, Dalhousie University, presented a brief background to the ISLE Programme. He identified the programme as a collaborative effort among universities (See Pg. 1), which was conceived to bring together different expertise and insights, with the overall intent of addressing issues of sustainability in small island states. He noted that the first period of the Programme focused on the operationalisation of the main concepts of ISLE (sustainability; livelihood and equity) and the ways these concepts are culturally and socially nuanced in the respective territories. He saw the work in Nariva as particularly relevant because of its ability to provide case-study material by which to test and interrogate the concepts of ISLE.

Dr. Rhoda Reddock, Head Centre for Gender and Development Studies, welcomed the participants to the workshop and particularly welcomed the members of UWI staff whose involvement she hoped would be part of a continuing relationship in interdisciplinary and intra-university collaboration. She presented some background to the Centre's establishment on the campus and the Centre's involvement in the ISLE Programme and

the Nariva research. She re-iterated the need for including a gender analysis to the various research projects on the Nariva Swamp, if one wished to understand the dynamics of human interaction and the bio-physical environment. She then drew parallels between gender studies and environmental studies, as she saw them both as interdisciplinary challenges to the ways in which knowledge has been traditionally organised within learning institutions.

Keynote Address:

The keynote address was delivered by Dr. Pemberton, Senior Lecturer and Head of the Department of Agricultural Economics and Extension, in the Faculty of Agriculture and Natural Sciences. Dr. Pemberton's involvement in the Swamp, both at a university level and as part of the Environmental Impact Assessment (EIA) team of the Institute of Marine Affairs, were among the deciding factors which led to him being chosen to deliver the keynote address to the workshop.

History of the Nariva Swamp

In presenting an overview of Nariva's farming history, Dr. Pemberton noted that the war gardens of the 1940s had a catalytic impact on farming in the area. He observed that the war period marked the only occasion that Trinidad was self-sufficient in its food production. It was also during that period that the rice farming areas, now referred to as Sector A and Sector B were earmarked for rice farming. By 1988 there was the formulation of a Canadian Rice Project which aimed at assisting government in increasing rice production. The type of activity encouraged within this project was that of large scale, mechanised farming on an average of 200 hectares of land. This type of farming he noted required some manipulation of the water flow, which resulted in the digging of irrigation channels during the dry season. The large scale farmers operating within this framework also freely used helicopter seed broadcasting and spraying; urea fertiliser; seed hoppers as part of their agricultural practices. In addition the growing market was sufficient incentive to encourage large scale farmers to expand their holdings, and by extension their demands on the resources of the Swamp.

Moving into the 90s, Dr. Pemberton noted that by 1994, there was already extensive damage done to the Nariva area as a result of the activities of the large scale farmers. He noted that the wider community is characterised by poor land tenure; land grabbing; tensions between the large and small scale farmers; and declining fish crops. There was also an increasing incidence of marijuana growing among the youth in the community.

An impasse finally arose with the 1996 petition of the local environmental groups to halt the agricultural activity of the large scale farmers in the area. By 1997 the Institute of Marine Affairs had been commissioned by the Government of Trinidad and Tobago to conduct an Environmental Impact Assessment (EIA) on the area.

Current Situation of Nariva

Dr. Pemberton observed that the present situation at Nariva is such that the surrounding communities are lacking in basic amenities, cohesion and poor infrastructure. He saw the area as having significant research potential, particularly for those with an interest in areas such as sustainable management and community based management of environmental resources. He identified three major research gaps, these were in the areas of :

- Hydrology;
- Socio-Economic Issues related to the communities; and,
- Soil Properties

He noted that a number of activities are presently being considered in an attempt to revitalise the economy. Among these initiatives are the possibilities for:

- increased tourism activity (particularly ecotourism);
- co-management strategies in the area of resource use.

Dr. Pemberton finally noted that the Nariva area, reflected many common characteristics of the agricultural sector in small island states such as intensive agricultural practices and uncontrolled forest destruction. However, he suggested that to counteract the impact of such activity there was need to consider issues such as the cessation of wetland farming; the uncontrolled drainage of swamps and reforestation programmes.

The opening ceremony was brought to a close by the chair who gave a brief vote of thanks and invited the participants to break for refreshments.

Methodology of the Workshop:

The workshop was organised along participatory and interactive principles. As such the Workshop Facilitator, Joan Bishop, explained to the participants that they were expected to actively involve themselves in generating the required outputs listed in the workshop objectives. In this session participants were asked to introduce themselves; state their areas of interest and their expectations of the workshop. Among the expectations listed were those which follow:

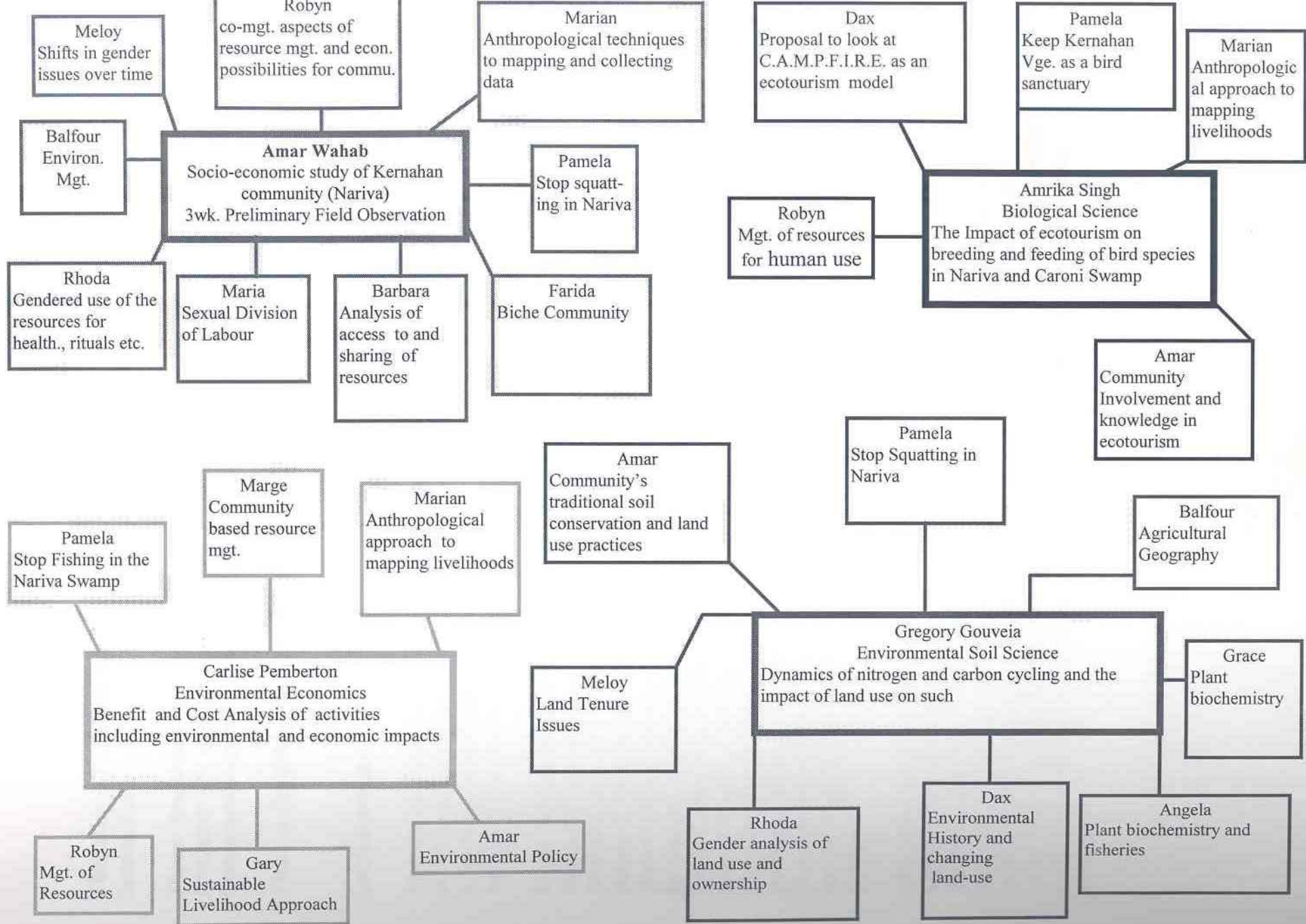
1. A better understanding of the Nariva area;
 - 1a) examples of how people make their livelihood within the community;
 - 1b) the meaning of sustainability for Nariva;
 - 1c) comparison with other communities represented at the workshop;
2. An understanding of what it means to “engender” Science.
 - 2a) the development of a conceptual framework which can be used in engendering a variety of disciplines, bearing in mind the key concepts of ISLE;

Methodology Con't

- 2b) the use of Nariva as an example to test gender as a methodological tool in other communities;
3. To gather a clearer insight about the various stakeholders/actors in Nariva;
4. To build collaborative relationships among researchers/actors/stakeholders within the Nariva area;
5. To encourage a way of thinking which would use community based resource management policies;
6. To develop a strategy/action plan for implementation of the research findings for the benefit of the community;
7. To see how the activities fit into the ISLE framework and the objectives of the CIDA Gender Equity Fund;
8. To see how our methodology can work to facilitate a more collaborative approach between Government and Research Institutions;
9. To investigate how the conflict in Nariva might be resolved.

Having discussed the group's expectation of the workshop, individuals presently doing research in the Swamp were asked to place an outline of their research on the board; having done so, other workshop participants were asked to add to those outlines ways in which their own research could contribute to the those projects listed.

The exercise had two principal objectives. Firstly, it aimed to facilitate a clearer understanding of the research interests of those present, and secondly, to begin a preliminary exploration of possible avenues for collaboration among the workshop participants. The following is a diagrammatic representation of the participants' research interests and inter-connections:



Thursday 12th February, 1998
Session Two

Theme: People and the Environment

Presenters: Ms. Neisha Mungroo and Mr. Amar Wahab
Researchers, Centre for Gender and Development Studies.

Title: A Preliminary Study of the Kernahan Community, Nariva

Introduction:

Since the emergence of overt natural resource conflict in the Nariva Wetland, research efforts have intensified to understand the biophysical realities of the Wetland. However, it is becoming increasingly apparent that management must be sensitive to the social realities of resource users i.e. the human dimension.

People and communities as resource users have been an integral component of the Nariva Wetland, despite a paucity of research on the status of their relationships with the Wetland's resources. In fact, there are a number of human communities situated on the perimeter of the Swamp. They vary in terms of social and economic makeup. However, three particular communities have been identified by previous research as having direct relationships with the Swamp environment. These are the Plum Mitan, Biche and Kernahan communities. The former two communities are situated on the north-western fringe of the Wetland while the latter is located towards the south-eastern edge. There are disparities in patterns of resource access and control, household economics, problems and needs, and social structures and infrastructure among these communities. These factors have structured different loci of relationships between these communities and the Wetland's resources and this has localized implications for the management process.

This preliminary field study in the Nariva Wetland aimed to provide an exploratory understanding of the Nariva human communities' relationships with the environment of the Wetland system, with specific emphasis on the patterns of access to and control of resources. The research also sought to identify how these relationships are structured based on social categories of gender, ethnicity, etc. In addition, the study hoped to experiment with the research method of participant observation to provide a wide net for vertical and horizontal understanding of the issues of community social and economic structure.

Research Methodology:

1. Identification of Case Community:

Due to time and cost constraints only one community of the three mentioned above was chosen for this preliminary study. Based on the results of previous research and deliberation, the Kernahan community was selected primarily on the grounds of its direct economic relationship with the Swamp environment.

2. Research Method and Data Collection:

Being a preliminary study, participant observation was viewed as an invaluable method in obtaining longitudinal qualitative data on the social and economic aspects of the Kernahan community. It involved a research duo comprising one male and one female working *in situ*. Accommodation was located near the physical site and transport was facilitated via a rented vehicle.

Community members were briefed on the purpose of the research and the researchers' affiliations. The study was explained as an attempt to understand the lifestyle of the community in the context of its relationship with the Wetland and sensitize members to the need for gender-disaggregated data collection. Informal and unstructured interviews were conducted e.g. conversations in homes, garden plots, community centre, etc., while observation served as a valuable tool in data collection.

Community members expressed frustration at research that did not benefit the community in the short-term as most previous studies have done. Therefore members were asked for their participation based on the premise that the information gathered would be shared with the policy and planning caucus re: the Nariva Swamp, specifically at this Workshop.

3. Negotiating Community Access and Trust:

Researchers' access to the field site was fairly well negotiated since customary access was already established through a spate of numerous research and activist interventions. In addition, one of the researchers had established some degree of access through a previous study. This served to facilitate re-negotiation of access to community members and information.

In fact, the process of participant observation was itself instrumental in fostering community trust and acceptance because it called for greater involvement of researchers in the social, economic and political realities of the people, e.g. assisting with gardening activities, participating in and attending religious and other social activities, sharing information, etc., than other research methods such as a survey would have required.

Community members perceived this as new and different compared to the 'safari' approach of previous research efforts.

(a) Ethnic Access:

Since both researchers and community members were of the same ethnic orientation (Indo-Trinidadian), it was felt that this facilitated a fair degree of bargaining of community trust. It was later realized that difference in ethnic makeup of the researcher

could also provide different frames of access and trust. For example, community residents commented about the close working relationship (e.g. community participation in drawing resource maps) with another researcher of 'white' European orientation.

(b) **Gendered Access:** Although it was thought that a male:female research team would bring sexual equality to the process of community access, it seemed that the research involved a greater proportion of females than males. This was mainly because most of the interaction with community members were conducted at the home site (which was female-dominated during the times of interview). Also access to males was a bit difficult since penetration into their groups may have required a male informant which was only negotiated late in the research process.

(c) **Class Access:**

The fact that the two researchers were products of and represented an educational institution in contrast with the lack of villagers' access to education (which is seen by villagers as a major ingredient for social and economic empowerment) created a class rift based on education and other related socio-economic categories, e.g. earning potential, social status, access to basic and luxury resources, family structures and systems, etc. The short study period made any satisfactory overcoming of this barrier difficult.

(d) **Social Access:**

Religion (specifically Christian denomination) is a significant social code in the Kernahan community. It however did not present any great problems of access considering the fact that both researchers were of different religious orientations. In fact, because of religious segmentation in the community (two Pentecostal and one Sai Baba group(s)), an effort was made to attend all groups' meetings etc., so as to bring some degree of neutrality to the process of trust bargaining with all religious groups, even with respect to researchers' personal religious affiliations.

(e) **Political Access:**

In addition to the class factor that seemed to have characterized the pattern of access and trust, it was felt that political access to individuals and groups was challenged to some degree. For example, an external actor involved in the community harboured inhibitions towards the research effort, advising community members against participation.

(f) **Time Access:**

Time constraint is perhaps the most significant deterrent in gaining community acceptance and trust. The research period did not allow for interaction with many community members, neither did it allow sufficient immersion into the lives of those touched by the research. Probably, because of the research method selected, greater time is required to negotiate better access with the community in an effort to understand their relationship with the Swamp environment.

4. Data Recording:

In order to reduce the reactivity of community members to the research process, data collected through informal interviews and observation were recorded after exit from the field using a diary. This remains the best testimony to the richness of this ethnographic experience and the analysis below just skims the surface of some of the issues that emerged from the diary recordings.

5. Ethical Issues:

In addition to the whole research process, including that of negotiating community access and trust, an important ethical issue that emerged was the immediate relevance and benefit of the field study to the community. It was felt that the research experience should allow for exchange between researchers and community members. However, this meant giving back to the community in a way that transcended most of the traditional dependence tendencies, e.g. monetary/material compensation. It was agreed that facilitating access to information was a just resort since this is what the research process 'extracted' most from the community.

Through interpersonal dialogue, researchers were also able to share information that was of value to community members. It served to balance the dynamics of information flow. The research effort sought to make more tangible contributions by facilitating the interaction between a group of selected community members (primarily women) and a village council/women's group in a somewhat similar community of San Francique. This facilitated inter-group exchanges and learning, benefiting the Kernahan community by helping them to understand the commitment, efforts, and organisational skills required in community building. Participants were appreciative and found the activity rewarding. The experience demonstrated the flexibility and value of the research method in engaging in active research.

6. Time Frame:

The field exercise was conducted between 20th January and 10th February 1998. While most of this duration was spent in the field, quite a bit of time and effort were involved in arranging transport and accommodation, particularly due to insufficient pre-planning and budgetary constraints.

Results/Analysis:

Based on the field diary entries, the following categories of analysis seem most apparent:

- (a) General description of the Kernahan community.
- (b) Access to / Control of:
 - (i) Infrastructure and Amenities.
 - (ii) Land.
 - (iii) Labour.
 - (iv) Income.
 - (v) Capital/Credit/Savings/Loans.

- (vi) Education.
- (vii) Marketing.
- (viii) Recreation.
- (c) Social Aspects: Religion and Youth.
- (d) Community Problems and Needs.
- (e) Community Environmental Knowledge and Skills.

(a) **General description of the Kernahan Community:**

- Most residents re-settled in Kernahan from the southern towns of Penal / Barrackpore and Rio Claro between 15-40 years ago with the hope of acquiring productive agricultural lands.
- Majority of residents are of Indo-Trinidadian descent.
- Main economic activity is watermelon and rice growing, cascadoo and conch catching.
- The Research community is separated into the villages of Kernahan and Cascadoo.
- There is a geographical division based on religion(see map 1).
- Most of the houses are wooden , built on filled-in lagoon.

(b) **Access to / Control of Resources:**

(i) **Infrastructure:**

- Absence of electricity, pipe-borne water and telephone services.
- Access to Post Office, Mayaro (10 minutes by car).
- There is one water tank per village. This is insufficient to meet village water demands and the unplanned positioning of the tank allows unequal access to water. Poor road conditions hinder access to truck-borne water. Water collection from the village tanks is a male-dominant activity since they have greater access and control to 'village transport' ,i.e. private vehicle, tractors and bull carts. In the rainy season, rainwater is the dominant source of supply.
- Roads are in poor condition making access to non-village resources (e.g. water, education, etc.) difficult.
- Poor health arrangements although the Mayaro district hospital is 20 minutes by car. A few people have died because of the distance and difficulty in accessing transport to Mayaro. Pregnant women seek health care at this same institution even though there is a skilled midwife in the community.
- Access to transport is poor since most residents do not own vehicles and the poor conditions of the roads worsen the situation.

(ii) Land:

- All community-accessed land is legally-owned by the Government of Trinidad and Tobago.
- Through the squatting 'culture', land was appropriated by the previous generation for agricultural purposes.
- Land is considered to be 'customarily' owned, i.e. it was and is accessed based on respected customary boundaries that divide areas of use/non-use and areas of passive claim.

Land use

- Land use is the way in which the land is used or managed.
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Land cover

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Land use and cover

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Map 1: General Map of the Kernahan Community, Nariva

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- Land transfer is through (1) 'sale' - where customary owners sell the cost of the labour and infrastructure invested in the land, and (2) inter-generation transmission.
- Land is perceived as 'family' land especially where labour is family-based. However, families tend to access lagoon land plots and hill plots. This is usually gender-distributed so that both male and female heads of households can make claims to land.
- Some land-owners operate on a large scale, i.e. 8-12 acres, possess their own tractors and plant mainly watermelon. Smaller scale land owners operate less than 3 acres, hire tractors, and grow watermelon and short crops.
- Land is currently being distributed to community members by the governmental land management agency.

(iii) Labour:

- Most agricultural operations depend on family labour. Most families spend approximately 12 hours in the field.
- Larger-scaled operations rely on family and hired labour.
- Most hired labour is sourced from within the community.
- Most hired labour is male-dominated. There is a traditional division of agricultural labour. Males tend to be more involved in land preparation crop protection while females tend to provide the labour for planting, molding, fertilizing, harvest and marketing.
- Fishing is a predominantly male activity. Marketing is conducted by males in distant local markets while roadside vending (and sometime nearby local marketing) is conducted by women.
- Household labour is female-dominated..

(iv) Income:

- Most income gained from agricultural and fishing operations equals household basic expenditure. This makes little income available for savings or business purposes.
- Youth engage in subsistence-support activities, e.g. crafts, catering, etc.
- The community subsistence culture is too risk intensive mainly because of the primacy of agriculture.
- Few individuals have alternative employment opportunities e.g. government jobs.
- Women generally do not have access to independent income-earning activities.
- Watermelon is the most popular crop as it provides the quickest turnover, yet being the most cost intensive.

- Income from fishing / conch catching and rice cultivation is seasonal, while income from short-crop cultivation is more stable (year-round).
- Short crops seem to be the preferred cultivation mode for lower-income families since it is less cost-intensive.

(v) Capital/Credit/Savings/Loans:

- Absence of local source of credit.
- The poor access to and control over land tenure as collateral restricts access to loans.
- Most villagers have no access to savings. However, the more mobile villagers and those that are large-scale watermelon cultivators have access to savings accounts.

(vi) Education:

- 80-90% of the community population is illiterate.
- Absence of community pre and primary school.
- Nearest schools: Ortoire RC School
Mayaro Government Primary
Mayaro Composite
- Poor access to primary and secondary schools due to unavailable and inefficient taxi service and the high cost of school necessities and transport.
- Many males sacrifice education to provide household income support while females sacrifice education to provide household labour support.
- There are YTEPP skills training courses in handicraft, food preparation, micro entrepreneurial skills, sewing and aquaculture which are predominantly patronized by females.
- The Forestry Division is conducting training of tour guides.

(vii) Marketing:

- Watermelon is sold at the farm gate, whereas short crops and fish/conch are sold at the local markets and roadsides.
- The amount of produce determines the method of marketing: larger amounts of produce are sold at the local market while smaller amounts are marketed at the roadside.
- Rice is sold at the National Rice Mill since this commands a guaranteed market.
- Females are dominant in the marketing of produce in the roadside and nearby local markets.

(viii) Recreation:

- Absence of proper recreational facilities.
- Sporting activities are male-dominated.
- Attending church and community meetings is a major form of social recreation.
- Youth are involved in fishing and hunting as a form of recreation.

(c) Social Aspects:

(i) Religion:

- Most residents were of Hindu denomination on re-settlement. Many converted to Pentecostal faith while some adopted the Sai Baba faith.
- Pastors and heads of religious organizations are community outsiders but there are representatives in the community whose opinions are respected.
- Community politics is responsible for religious and geographical divisions.

(ii) Youth:

- There are three community youth-based groups: the church youth group, community youth group and the environmental group.
- Some youths are seeking extra-community employment despite poor opportunities to do so.
- Male youths would like to acquire trade skills and need recreational facilities.
- Poor self-esteem and commitment are inhibitors to youth action and congregation.

(d) Community Problems:

- Lack of holistic community spirit.
- Lack of adequate access to basic amenities e.g. electricity, water, transport, proper housing and health services.
- Lack of adequate income to secure basic household needs.
- Lack of non-traditional economic alternatives.
- Lack of access to formal education.
- Inadequate and expensive transport.
- Difficulty in coping with the high cost of living.

Community Needs:

- Basic amenities and infrastructure.
- Proper community centre.
- Pre and primary school facilities *or* shuttle system to access nearby schools.
- Alternative non-traditional income earning activities.
- Need for women's community group.

- Increased social and economic opportunities for community youth.
- Need remedial learning skills.
- Better family planning education and services.

(e) Community Environmental Knowledge and Skills:

- Members do not regard chemical applications for agriculture as detrimental to the environment.
- Fishers have knowledge of life cycle of conch and fish and times of extraction i.e. open and closed seasons which are customary.
- Community members fear that sea water encroachment will negatively alter the environment.
- Community members understand that the area is an important seasonal nesting site for birds, fish and wildlife.
- Members are conscious that users need to be regulated.
- Most people feel that Cascadoo-rice system is sustainable because of the symbiotic relationship between the two biological components.
- Community elders perceive the declining fertility of the soil to be linked to national oil extraction.
- Communities not convinced of the value of cultural and biological pest and disease control.

Conclusions:

This preliminary study highlights the general social and economic realities of the Kernahan community and issues of resource access and control. The issues raised are integral to the Kernahan community's relationship with the Swamp environment. Unfortunately, due to time constraints, sufficient data was not generated to deconstruct the issues of gender, class and ethnicity. Further research is required to understand the gendered access to/control of resources, especially land and labour; customary resource policies (knowledge and skills); access to non-traditional economies and their impact on the Swamp environment and; the social and political structure of the community. These research objectives can be met through further ethnography which can also provide a valuable tool in deconstructing the life systems of the community.

Key Points of the Discussion (Session Two)

In the discussion which followed, the observation was made that the research site should be expanded to include other surrounding communities and towns which through their resource use form part of the Swamp's eco-system (e.g. Ecclesville; Manzanilla etc.) The researchers were also reminded of the need to factor increasing levels of marijuana production into their research. There was also some interest to know whether there was any differentiation between the environmental attitudes and knowledge of older community members and those who may have migrated to the community.

The workshop participants were able to address their concerns and questions to the community representatives who were present at this session.

Friday 13th February, 1998

DAY TWO: SESSION ONE

Theme: Governance and Policy Issues/Economics

Roundtable Panelists: Ms. Cheryl Lans

Ms. Camille Fortune-Rollock

Dr. Carlisle Pemberton

One of Ms. Lans' central points was that there is presently no written State policy on wetlands in Trinidad and Tobago. As such the Government's position on national wetlands can only be discerned from political manifestos, draft legislation, ministerial speeches and recent government actions. The most significant and directed document within this quilt of positions was the Ramsar document which established the Nariva Swamp as freshwater wetland of international importance.

Ms. Lans' presentation focused on the internal inconsistencies and oppositional positions and perspectives which exist at policy level within the Ministry of Agriculture. In this light she pointed out that even in terms of conservation, only pockets of the Nariva Swamp had been earmarked for conservation, and these areas were presently surrounded by major quarrying sites. Within the Ministry of Agriculture she observed that on one hand, the agricultural arm of the Ministry held responsibility for the rice-farming scheme; while the Forestry Division of the same Ministry held responsibility for the environmental affairs of the Swamp and that there was very little communication between the two bodies.

She further outlined the ways in which these two arms were at variance with each other. The Agricultural Division she observed was concerned with issues which would lead to an increased yield of rice, and national self-sufficiency in rice farming. As such, this Division undertook the issuance of loans to rice farmers; the establishment of a tractor pool; registration of rice mills, which were issued without farmers having legitimate tenure etc.. She noted therefore, that there was a stated policy within this Division to advance and enhance the capacity of the farmers to plant, within the Swamp. In the more

contemporary scenario she also pointed out that many of the larger farmers who were removed from the Nariva Swamp were subsequently given farming land at the Caroni Swamp.

She observed however, that the Wildlife/Forestry Division which holds responsibility for environmental issues in the Nariva Swamp, was attempting to meet its mandate under very unfavourable conditions. Among these are the absence of resources (financial and human); increasing fires; limited legislative support¹ and a weak administrative and institutional networking base from which to operate.

In discussing the gender issues associated with the management of the Swamp, Ms. Lans observed that much of the unilateral and arbitrary management of the Swamp by government ministers, reflected a very masculinist approach to environmental management and resource use; in that there appeared to be an internal assumption in the decisions made, that the resources of the Swamp were theirs to use as they pleased.

NARIVA SWAMP RELATED POLICY AND SIGNIFICANT INTERVENING VARIABLES 1951-1995

1920s	Caroni Swamp Reclaimed
1951	Rice Schemes Established at Plum Mitan; Fishing Pond; Oropouche Lagoon
1954/7	FAO Study, Reclamation of Nariva, Caroni, Oropouche
1959	1200 Acre Plum Mitan Area Improvement
1960	Initial Planning Ordinance
1970	OCTA, Japanese Report
1972	Land Capability Survey
mid 1970s	Access Roads and Channels Provided in Kernahan/Cascadura
1976/77	Min. of Agriculture Plan to revitalise Plum Mitan/Kernahan
1979	Bacon et. al. Ecological Study of Biodiversity
1981/83	NEDECO Nariva Development Plan

¹ Ms. Lans noted that court cases against squatters are thrown out or they are only charged minimally; little or no action can be taken against squatters because of unclear boundary lines; and, staff are further constrained and lacking in autonomy because they are unable to speak publicly on matters of the State.

***NARIVA SWAMP RELATED POLICY AND SIGNIFICANT INTERVENING
VARIABLES 1951-1995 con't***

1983/84	National Physical Development Plan Approved (9000 acres earmarked for intensive farming; develop idle lands)
1985	FAO Aqua-culture Project Proposal
1986	Akalloo's move into Nariva
1988	Draft Public Sector Investment Programme/ Recommended Expanded Rice Plum Mitan
1991	Agri-studio Study to Extend Rice into Plum Mitan
1992	14 Applications for 1045 Acres of State Lands in one month (squatters moved into sanctuary and wind-belt)
1995	> 140 Quit Notices Served on Squatters.

Ms. Camille Fortune-Rollock

Ms. Fortune-Rollock gave an outline of her M Sc. thesis, which examines the impact of state policy on land use and the built environment, for the period 1945 to the present time. Ms. Fortune-Rollock identified her work as a case-study which attempts to explore the impact of policy formulation on land development. Like Ms. Lans, Ms. Fortune-Rollocks noted that there is presently no clearly articulated policy on the Nariva Swamp and any reference to such would have to come from a diverse range of policy documents, inclusive of which are, the State Lands Act; Conservation Wetlands Act; Environmental Management Act, and the Town and Country Planning Act. Ms. Fortune-Rollock noted that her research benefited from a range of methods, inclusive of time-lapse mapping; aerial photography; topography mapping and, change detection analysis.

Dr. Carlise Pemberton

Ms. Fortune-Rollock's presentation was followed by a brief historical review of the Nariva Swamp which was delivered by Dr. Carlisle Pemberton. Dr. Pemberton stated that there was a need for increased activity and intervention by CBOs and NGOs in the management of Nariva. He also noted that there was a decline in agricultural production, as well as, the size in the population of agricultural based communities. This he thought impacted significantly on issues of rural development such as urbanisation; heritage loss in agricultural production; and industrial development in rural areas.

Key Points of the Discussion

The following are some of the factors which were identified as influencing elements in defining policy for the Nariva Swamp:

- Regularisation of small farmers
- The need for gender disaggregated data on small and large scale farmers: Who owns titles? How do men and women complement one another in production?
- Possible instances of Ministers and other state officials being bribed
- Security issues due to wars between large scale and small scale farmers
- Issue of land redistribution to small farmers
- Farming efficiency of large scale farmers versus the labour intensive approach of small scale farmers
- How is efficiency measured? Efficiency for whom/ for what?

DAY TWO: SESSION TWO

Dr. Ralph Premdass

In the sessions which followed lunch a presentation was given by Dr. Ralph Premdass who examined the nature of public policy. This he defined as a process consisting of several stages. In the formulation of public policy one of the first stages he thought to be necessary, is a clear specification of the problem. He observed that it was only out of an articulation of the problem that one would be able to establish goals. However, in defining the problem he warned that all stake-holders tend to view and therefore define the problem differently based on their individual positions and stakes. He also noted that all policy has a life span, and must constantly be revisited and refashioned to accommodate shifts and dynamics of the original problem.

Ms. Teresa Akaloo

Following Dr. Premdass, a presentation was made by Ms. Teresa Akaloo who spoke in her capacity as a large scale rice farmer who figured centrally in the farming at Nariva Swamp. Ms. Akaloo told those present, that at many stages of her family's involvement in rice-farming in the Nariva Swamp there was clear support by the various governments

of the day. As such she felt that she and her family were victimised in their eviction from the Swamp.

Ms. Akaloo stated that her family's farming activity was motivated by a collective sense of pride in contributing to national rice production. As a large rice farmer in the Nariva Swamp she also pointed to the fact that her family's farming presence in the Swamp was also beneficial to the smaller-scaled rice- farmers, as her family was able to use their resources (e.g. tractors; weeders etc.) to assist these farmers in preparing their land and harvesting. She also observed that rice-farming activity within the Swamp was one of the main economic generating activities in the Nariva area and in the absence of such the area had not only become a "ghost town" but also opened up avenues for illegal income generating activities. She informed the workshop participants that at present she and her family were farming at the Caroni Swamp, where they are trying to legally access ownership rights to the land.

As a farmer she noted that she only administered chemicals which were approved for use. Farming for Ms. Akaloo was not simply a productive enterprise but part of a heritage to be left for her children.

Key Points of Discussion

Based on the earlier presentations which articulated the lack of a clear wetland policy, as well as, Ms. Akaloo's presentation which reinforced earlier assertions that various political regimes did support illegal rice-farming activity, the question of government's responsibility for environmental use and policy arose. This question was responded to by Ms. Robyn Cross, Acting Conservator of Forests, who attempted to outline the various Ministerial bodies involved in the management of the environment in Trinidad and Tobago. This was not only an attempt to clarify the Government's responsibility to preserving Nariva's eco-system, but also to show how the number and cross-section of institutional stake-holders (often at variance with each other), could eventually lead to what may be seen as policy paralysis and inertia. The following is a list of the stakeholders identified:

Overview of Responsibility for Environmental Issues Related to Nariva

Prepared by: Ms. Robyn Cross
Conservator of Forests
Forestry Division
Ministry of Agriculture, Land and Marine Resources

A. Ministry of Agriculture, Land and Marine Resources

DIRECT JURISDICTION IN NARIVA SWAMP

1. LANDS AND SURVEYS DIVISION

Responsibility for state lands, allocation of leases; eviction of illegal occupants; surveying boundaries etc.

2. FORESTRY DIVISION (Wildlife Section)

Wildlife Sanctuary "Bush Bush" in the Nariva Swamp.

Forestry:- Legislation for Prohibited Area Status- policing

Proposed Natural Parks Status

Windbelt Reserves outside area affecting environment.

Focal point for Ramsar Convention (Wetland and waterfowl habitat)

3. AGRICULTURAL DIVISION- Policy for farming and allocation of lands in area

- Development of infrastructure re: farming e.g.. drainage access roads
- Extension operations to farmers

4. FISHERIES DIVISION

■ Legislation re: Marine Areas Preservation and Enhancement Act (can declare protected areas in marine and coastal areas)

■ Activities in swamp may affect coastal fisheries, as swamps are breeding and spawning grounds for many marine and commercial fishery species.

5. NATIONAL WETLAND COMMITTEE

Multisectoral but coordinated by the Ministry of Agriculture.

B. MINISTRY OF PLANNING AND DEVELOPMENT

2. Town and Country Planning Act- Broad land use perspectives. National Physical

Development Plans

Changes in Land Use (not agricultural)

2. Environmental Management Authority:

■ Act can declare Environmentally Sensitive areas and environmentally sensitive species

■ Developing regulation for pollution

3. TIDCO Development of Tourism attractions re: Conservation Area.

C. MINISTRY OF COMMUNITY DEVELOPMENT

Youth Training re: YTEPP

Co-ordinate Rural Development initiatives e.g.; electricity, water, funding1

Association of Village Councils

D. MINISTRY OF NATIONAL SECURITY

Weed-eater operations re: illegal marijuana cultivation

E. MINISTRY OF LEGAL AFFAIRS/ ATTORNEY GENERAL'S OFFICE

Drafting and passage of legislation

F. NARIVA/MAYARO REGIONAL CO-OPERATION

Cleans, clears and maintains various sites used by the public in the area.

G. NGO'S INVOLVEMENT

Pointe-a-Pierre Wildfowl Trust/Toco Foundation.

CFCA Caribbean Forest Conservation Association

Fishing Pond CBO

San Juan Rotary- Manatee Project

H. TOUR GUIDING OPERATIONS

e.g. Asa Wright Nature Centre

Other Private Tour Companies e.g. Wildways South East Eco-Tours

I. FARMERS ASSOCIATION e.g. TIRGA

Trinidad Island-wide Rice Growers Association

community farming organisation e.g. Plum Mitan

J. The University of the West Indies, St. Augustine

Research (Ecological/Social)

K. IMA:- Institute of Marine Affairs

Environmental Impact Assessment on Nariva

Where Are We

At the end of this session, the workshop's facilitator performed an update exercise which asked the participants to identify what their thoughts were in relation to the issues under discussion and what they thought needed to be done in the rest of the workshop. The following is a list of issues identified.

- The need to isolate the issues for in-depth, interdisciplinary research
- Identify the component elements of the research
- Swamp conflict-management (legitimacy, values, justice)
- The non-involvement of people in swamp management and planning
- Need to channel experiences into concrete proposals
- Obtain an institutional diagrammatic representation of all the actors in the Swamp
- Need to locate a working framework which identifies all the stakeholders and actors within the Nariva community

Saturday 14th February, 1998

Ms Nicholla Johnson

Saturday morning began with a "fish bowl discussion"², on the possible levels of interaction which could exist between gender and the natural sciences. The first discussion piece was given by Ms. Nicholla Johnson, whose presentation focused on her graduate research which looks at the population dynamics of the Royal Palm (*Roystonea Oleracea*) in the Nariva Swamp. She identified the aims and objectives of her research as an attempt to:

- 1) Identify the regeneration capacity of the *Roystonea Oleracea*
- 2) Identify the mortality rates of the seedlings, juveniles and adults
- 3) Identify the possible abiotic factors related to the above mortality
- 4) Identify the growth rates and fecundity of three populations of *Roystonea Oleracea*
- 5) Identify the existing population in Nariva and their population structure
- 6) Generate a population matrix
- 7) Identify critical life stages
- 8) Make recommendations for management and restoration of remnant populations.

The four sites chosen for Nicholla's work were, Kernahan, Casacdoux Trace, North of the Macaw roosting site, and, south east of the Bush Bush Wildlife Sanctuary.

A lively discussion covering a number of far reaching issues ensued from the presentation. Among these were:

- Science as gendered phenomena rather than a neutral construct
- Need to measure human impact on bio-physical activity
- Inter-relation between issues of eco-feminism and plant population ecology
- The need for scientific intervention which would make agricultural technology (e.g. use of pesticides) more user friendly
- How can the community be motivated to participate in bio-physical maintenance
- Links between palm growth and other elements of the bio-physical environment
- Need to incorporate the many ways of knowing in the process of research (e.g. psychological; physical etc.)
- Need to recognise that interaction with the people and their needs should be the basis of scientific knowledge
- Possible links between research and public policy
- Economic and aesthetic worth of the palm e.g. sale to Cuba/Brazil
- Observation that the predators of the palm is a gender question

² The "fish bowl" method placed the presenters (Prof. Bacon; Dr. Sirju-Charran and Nicholla Johnson) in a smaller fish bowl with other participants (Balfour Spence, Angela Alleyne and Dr. Dave Dolly) who discussed the points debated in the presentations while the larger fishbowl sat on the outskirts. The larger fishbowl was later allowed to voice the points which they wished to make based on the inner fish bowl discussion.

One of the conclusions which came out of the discussion was that there are many ways of knowing, which transcend the traditional scientific approach to knowledge. The observation was made that even within objective approaches there is a subjective element and that an either/or approach would lead to polarisation. Further, the group observed that it is necessary to combine many ways of knowing (physical; psychological; etc.) for effective research to be conducted.

Saturday Afternoon

A very significant advance came out of the workshop deliberations. A draft case-study outline was prepared by Marian Binkley based on the discussion which were held and this was further refined and amended in small workshop discussion groups. The following reflects the case-study guide which was generated by the workshop participants in the Saturday afternoon session. This guide can be adapted for use by different ISLE partners in the preparation of the individual case studies.

A) Environment

Resources: What, Where, When, Quantity

- Include land, water, air (i.e. soil, minerals etc.); plants, animals, birds and fishes;
- Seasonality of Resources
- Include life cycle and multiple habitat of species and their needs. Question of symbiosis?
- Changes over time of physical and biological environment

See Humans as Part of Environment

- Permanent modification of environment e.g., Impact of built environment, for example sheds, houses, canals, hydrology, etc.
- Demography of population by community include age, gender, ethnicity, household composition etc.
- Document changes throughout time, history of settlement, impact of external factors

Methods

Maps of resources etc. bio-diversity survey, historical methods including oral histories, and primary and secondary written documents, local knowledge through interviews, household census

B) Exploitation of the Environment

Level of technological base

- pluralistic subsistence economic base which may include farming, fishing, hunting and gathering, other exploitation
- wage labour/ employment
- large scale industrialised farming/fishing

For each type of technological base ask

- What resources are available? Method of exploitation? Level of technology used?
- Are resources common or private? Form of tenure/property rights?
- Division of Labour? Based on gender, age, generational transfer, kinship ties, waged community? Who decides how, when and where labour is used?
- Access to resources?
- Access to technology?
- When are resources exploited? Seasonality? Environmental friendly? Economic and social costs? Sensitive to life cycle of resources? (e.g. not collecting conch during breeding season?)
- How are resources distributed once produced/gathered?
- Environmental impact of resources exploitation?
- Use conflicts?

Have these practices changed over time? Document changes? What was the reasons for these changes?

Methods

Environmental Impact Assessment, Land use maps, Seasonal calendar, historical methods including primary and secondary documents and life histories, local knowledge, interview, and participation and observation.

C) SOCIAL ORGANISATION AND ECONOMICS

Ask of each community

- How is the community organised? How are decisions made?
- How is community divided? Gender, kinship, religion, age etc.
- Who are the leaders and how are they legitimated? Leaders de facto or de jure?

Ask within households

- How is household organised? How are decisions made? How is domestic space, labour, control and responsibility divided among household members?
- How is income generated? By whom?
- How is unpaid labour utilised?
- How are non-monetary systems used in survival strategies? What networks are involved (e.g. kinship, friendship)?
- Who has responsibility for children and other dependent members of household/kinship network/community?
- Income levels by household and sources of income?
- How is income and other resources (e.g. food) distributed and used within and outside household? Who has access to income and other resources?
- What credit is available? Who has access to credit within and outside of household?
- Question of power relations in household?

How are the above questions affected by and affects the internal/external environments? That is laws and government policies, global economy etc.

Have these practices changed throughout time? Document changes? What was the reasons for these changes?

Methods

Interviews, participation and observation analysis of primary and secondary documents

D) IDEOLOGY

Notions concerning:

- environment and resources (e.g. common property vs. Private; definitions of what food is, relationship to environment)
- femininity and masculinity (e.g. proper division of labour)
- children and the use of their labour
- education
- conspicuous consumption
- employment/subsistence and livelihood

Have these beliefs changed through time? Document changes? What was the reasons for these changes?

Methods

Interviews and participant observation

E) FUTURE POLICY

Analysis of the above material

Recommendations

WORKSHOP EVALUATION

At various points during the three day workshop period a total thirty eight individuals participated in workshop's activities and deliberations. The workshop evaluation however was filled out and returned by the seventeen participants who were present on the final day of the workshop's proceedings.

The workshop evaluation form (See Appendix Three) comprised twelve questions and addressed issues such as the relevance of the topic to the participants' individual research; organisation; methodology etc. The following is a summary of the responses which were given by question. Question one asked the respondents to state their institutional affiliation. A comprehensive listing of the institutions and departments represented at the workshop can be found in Appendix Two.

Question Two

**To what extent do you think the workshop objectives were adequately achieved ?
(Please rate on a scale of one to five with five being the most adequate and one being the least adequate)**

The participants felt that objective one, which wished to develop a shared understanding of where the research on the Nariva Swamp stood, was the most successfully achieved objective. Twelve of the participants gave this objective a rating of four or five and three participants gave a rating of three. There were two none responses for this objective. On the other hand, participants felt that objective three which aimed to develop inter-university collaboration was not sufficiently achieved. Twelve participants gave a rating of two and three to this objective, reflecting minimal success, while three participants gave a rating of four. There were also two non-responses for this objective.

Participants however responded more favourably to objective two, which aimed to achieve a measure of intra-university collaboration. Five of the participants felt that the workshop had successfully given an entrance point for collaborative research among UWI research teams. Seven participants felt that this was fairly achieved (Rate:3) and two participants held the view that this component was not adequately addressed within the workshop. There were three non-responses for this objective.

Participants were also asked to rate the level of success which the workshop had in interacting with key governmental and non-governmental institutions involved in research in the Nariva Swamp. This objective was seen as having been successfully achieved by six participants. The majority of the workshop participants (8), felt that this objective was only fairly achieved (ratings of three and two). There were two non-responses for this objective.

Among its objectives the content derived from the workshop was also intended to contribute to the ISLE Programme and its capacity to develop research in the area of wetland research and coastal resources use. Ten of fifteen responses submitted (two non-responses) felt that this objective had been adequately achieved. While five of the participants gave this objective a rating of two and three.

The final objective which participants were asked to assess was the extent to which they felt the workshop had encouraged them to incorporate a gender analysis to their research. Nine of the workshop's participants affirmed that this was indeed done, while six respondents felt that this objective was only fairly achieved; again there were two non-response for this objective.

Question Three

To what extent do you think the workshop objective will further assist you in realising your research interests?

There were four non-responses for this question. However, all other workshop participants felt that the workshop had broadened their understanding of the need to incorporate gender concerns into their research. Interestingly, two of those respondents felt that it was not feasible to incorporate these concerns at the present stage of their research but acknowledged their intent to do so in future research projects. There were two recurring theme among the respondents. Firstly, participants felt that this component of the workshop served to unmask the complexity of the issues and considerations which formed part of environmental management. Secondly, some researchers voiced the view that examining the need to address gender concerns in their research encouraged them to view research with other lens and incorporate more social concerns into scientific research.

Question Four

Which Session/s did you find most useful?

There were a range of responses for this question. However, the sessions held on Saturday 14th February, addressing issues of Gender and Science were deemed to be the most useful sessions. A combined total of eleven participants felt that this session was the most useful. Four participants felt their needs had had been served by the session on People and the Environment and a combined total of four participants felt that Day Two, which addressed governance and policy issues, was most useful. There were four non-responses for this question.

Question Five

Please state why you found this session useful:-

Those participants who found Day One useful, felt that it contributed significantly to providing them with a clear idea of the real life issues and complexities surrounding the Nariva Swamp. The residents' contribution was also commended for outlining their perceived community needs and their presentation of a background to the problem.

Day Two was highlighted for exploring the hidden elements which are rarely recognised in the formulation of policy. Day Two was also acknowledged for bringing into focus the current issues which are to be confronted by practitioners in the research field.

Similarly, participants thought that Day Three brought the gender issues into focus. Participants also felt that Day Three highlighted the need for an inter-disciplinary approach as well multiple approaches to natural resource management.

Question Six

Which sessions did you find least useful?

Excluding the four non-responses which were identified for this question, the majority of participants (8) were unable to identify any session as being unhelpful. For those respondents who were able to identify sessions which were not particularly helpful, the Saturday morning session of Gender and Science was identified by three participants; while one participant felt that the sessions on governance and policy required more focus.

Question Seven

Please state why you did not find this session useful:-

The participants who identified the Saturday sessions as their least useful sessions, felt that the discussion was polarised and as such did not come to a resolution. One respondent, specified that the Saturday afternoon session, which attempted to point the case-study forward, was given too little time and was seen as a “wearisome climax” to the workshop’s activities. The participant who voiced dissatisfaction with the session on Governance and Policy, indicated feeling overwhelmed by the seeming hopelessness of adequately impacting upon policy.

Question Eight

Do you think that the workshop methodology facilitated an adequate analysis of the research issues?

All seventeen respondents affirmed that the workshop methodology did adequately address and treat the research issues at hand.

Question Nine

If no, please suggest an alternative methodology which you think may have been more effective?

Based on the positive responses for question eight, this question was not applicable.

Question Ten

To what extent has the workshop helped you to better incorporate gender and other equity issues (e.g. age/ethnicity etc.) into your research? 1 2 3 4 5

Nine respondents felt that at the end of the workshop they were better able to incorporate gender and other equity issues into their research. For those respondents who did comment, they highlighted the fact that the workshop sensitized them to importance of incorporating social issues into research and the need to adopt a more inter-disciplinary approach to research. Five respondents felt that this aim was not adequately achieved during the course of the workshop. The two respondents who did comment pointed to a limited discussion of gender in the workshop, while the other individual did not feel convinced that there was any benefit to be derived from incorporating gender and other issues of equity into their research. There were three non-responses for this question.

Question Eleven

Please comment on the following aspects of the workshop:-

Timing :

The word "timing" was interpreted by some respondents to refer to the length of the sessions, while others interpreted this as a calendar reference and others responded to both possibilities. Regardless of the interpretation given, fourteen of the respondents felt that the timing of the workshop was appropriate. The dry season was seen as a good time, as it facilitated the field site visit; while others thought that if the workshop had to be held during the semester, the time identified (12th-14th February) was the best possible choice. The three respondents who did not find the timing of the workshop appropriate felt that any event such this should be held during the semester break, as it placed too much pressure on the participants and hosts. One other participant objected to the use of Saturdays for workshop sessions. There was one non-response for this question.

Organisation:

The organisation of the workshop came in for very high praises from the participants. Fifteen of the respondents felt that the workshop was very well organised and planned. One participant while acknowledging the excellent organisation of the workshop, suggested that a little more time be given for relaxation and recuperation. There was one non-response and one respondent felt that the organisation of the workshop was a bit "awry".

Content:

The content of the workshop was also highly commended by nine of the respondents. Others felt that there should have been greater involvement from people who were actually doing research in the Swamp, thereby leading to more concrete activities as opposed to what was referred to by one participant as "academic chat". One respondent was of the opinion that a more greater focus on gender should have been paid to gender in the structuring of the workshop. There was one non-response for this session.

Facilitation:

The workshop was felt to have been well-facilitated by eleven of the respondents. Others were of the opinion that the sessions were occasionally too structured and rigid. The observation was made by two respondents that the facilitation would have been more effective had the facilitator had a better grasp of ISLE and it's long term objectives. While one other participant described the facilitation as "distracting". There was one non-response for this question.

Discussions:

The discussion was seen by many participants as one of the high-points of the workshop. Among the responses given were:

- *“Open climate and variety of views respected”*
- *“Entertaining, educational and as expected controversial”*
- *“enlightening and quite informative”*
- *“Highly interesting and collaborative”*

There were two non-responses for this question and one participant felt that the discussions would have been further enriched by a stronger governmental and non-governmental presence at the workshop.

12. Any other comments/recommendations

Eight respondents did not reply to this item. Very useful comments were however given by some of the other participants. One respondent felt that a greater effort should have been made to broaden the range of stakeholders in attendance; while another suggested that the workshop proceedings be compiled and published for public use. It was also suggested that a full time rapporteur be assigned to future workshops thereby giving the Facilitator more time to participate and stimulate discussion. Finally, the workshop was commended and the organising bodies thanked and congratulated on a job well-done.

The workshop came to a close with a few brief remarks by Dr. Barbara Bailey; Dr. Rhoda Reddock and Dr. Gary Newkirk.

Submitted by

Ms. Michelle Rowley

APPENDICES

February 2000

Workshop Program

- 1. Introduction of Workshop's Methodology
- 2. Workshop Facilitator
- 3. Participants
- 4. Participants Analysis
- 5. Participants Interest

Appendix One:

WORKSHOP PROGRAMME

Workshop Objectives:

- 1) To develop a shared understanding of where the research on the Nariva Swamp presently stands.
- 2) To explore the possibilities for intra-university (UWI) collaboration on research related to the Nariva Swamp.
- 3) To develop inter-university collaboration in wetlands research and coastal resource management among ISLE Partner Institutions.
- 4) To interact with key governmental and non-governmental institutions and stake-holders involved in the work on the Nariva Swamp.
- 5) To contribute to the ISLE programme in the area of wetlands research, in the context of coastal resource use.
- 6) To encourage researchers to incorporate a gender analysis into their work.

Methodology

This workshop is organised along a participatory interactive style which we hope will yield concrete results at the end of the process. All participants are invited to be part of this process and to feel free and open to contribute to the sharing of ideas, knowledge and experience in a collaborative framework..

The programme presented below is therefore mainly a frame which could be adapted to meet the needs of the process.

Day One

Thursday 12th February, 1998

9:00 - 10:30 Opening Ceremony

11:00-12:30

Session One: Explanation of Workshop's Methodology

Workshop Facilitator

- Introductions
- Expectations Analysis
- Research Interests

12:30 - 1:30 LUNCH

Day One cont'd

Session Two

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Day One con't

Session Two: 1:30- 3:30

Theme: People and the Environment

Presentations:

Villagers (Biche and Kernahan)
Amar Wahab and Neisha Mungroo,
Researchers, Centre for Gender and Development, UWI, St. Augustine

Small Group Discussions

Plenary

WHERE ARE WE NOW (WOW)

Day Two

Friday 13th, February

Theme: Governance and Policy Issues/Economics

Morning Session

9.00 - 10.30

Roundtable - Dr. Carlyle Pemberton
Ms Cheryl Lans
Ms Camille Fortune-Rollock

10.30 - 10.45 - Break

10.45- 11.45 - Small Group Discussions

11.45 - 12.30 - **Plenary**

12.30 - 1.30 p.m. **LUNCH**

Thursday 14th, February

Day Two

Friday 13th, February con't

Afternoon Session

Afternoon Session

1.30 - 2.30 - Panel Discussion

Representative of State/Parastatal Organisation
Representative of Rice Farmers
ISLE Partner
Discussant - Dr. Asad Mohammed

2.30 - 3.30 - Small Group Discussion

3.30 - 4.30 - **Plenary**

WHERE ARE WE NOW (WOW)

Day Three

Saturday 14th, February

Theme: Gender and Science and their Implications for the Bio-Physical Environment

Morning Session

9:00 - 12.00

Fish Bowl Discussion

Presenters: Prof. Peter Bacon
Ms Nicholla Johnson
Dr. Grace Sirju-Charran
Prof. Margarita de la Cruz

12.00- 1.00 - **LUNCH**

Saturday 14th, February

Theme: Gender and Science and their Implications for the Bio-Physical Environment

Afternoon Session

Conclusions and Recommendations

1.00 -1.15 Review of the aims of the Workshop

1.15- 2.30 Small Group Discussions to identify recommendations on:

1. The Way Forward : Research Questions aimed at a holistic Research Agenda incorporating a gender perspective exploring the relationship between people and their bio-physical environment form the differential and cross-cutting experiences of race/ethnicity, class and geographical considerations

2.30 -4:15

Plenary

- Mechanisms for Research Collaboration
- Mechanisms for information sharing,
- Mechanisms for intra-university collaboration
- Mechanisms for intra ISLE Partner collaboration

Brief Closing Ceremony

Closing Remarks - Dr. Gary Newkirk
Dr. Barbara Bailey
Dr. Carlyle Pemberton
Representatives of the Participating Institutions

Appendix Three:

Workshop Evaluation Form
“The Nariva Swamp: A Gendered Study in Wetland Resource Management”
12th - 14th February, 1998

1. Please State your Department/Institution/Organisation and Interest in the Workshop:-

2. To what extent do you think the workshop objectives were adequately achieved (Please rate on a scale of one to five with five being the most adequate and one being least adequate):

- a) To develop a shared understanding of where the research on the Nariva Swamp presently stands. 1 2 3 4 5
- b) To explore the possibilities for intra-university (UWI) collaboration on research related to the Nariva Swamp. 1 2 3 4 5
- c) To develop inter-university collaboration in wet-land research and coastal resource management among ISLE Partner Institutions. 1 2 3 4 5
- d) To interact with key governmental and non-governmental institutions and stake-holders involved in the work on the Nariva Swamp. 1 2 3 4 5
- e) To contribute to the ISLE programme in the area wetlands research, in the context of coastal resource use. 1 2 3 4 5
- f) To encourage researchers to incorporate a gender analysis into their work. 1 2 3 4 5

3. To what extent do you think the workshop objectives will further assist you in realising your research interests?

4. Which session/s did you find most useful?

5. Please state why you found this session useful:-

6. Which session/s did you find least useful?

7. Please state why you did not find this session useful:-

8. Do you think that the workshop methodology facilitated an adequate analysis of the research issues? YES NO

9. If no, please suggest an alternative methodology which you think may have been more effective?

10. To what extent has the workshop helped you to better incorporate gender and other equity issues (e.g. age/ethnicity etc.) into your research? 1 2 3 4 5

Please Comment:-

11. Please comment on the following aspects of the workshop:-

a) Timing (both length of session and within the calendar year):-

b) Organisation:-

c) Content:-

d) Facilitation:-

e) Discussions:-

12. Any other comments/ recommendations:
