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**THE UNIVERSITY OF THE WEST INDIES**

St. Augustine

**CENTRE FOR GENDER AND DEVELOPMENT STUDIES**

With the support of the

**CIDA Gender Equity Fund & ISLE**

## **POLICY ROUND TABLE**

**To Report On Research/Action Project**

**"Building Gender Approaches Towards  
Sustainable Livelihoods:  
The Nariva Swamp: A Gendered Case Study"**

**Dec 14, 2000**

**the Normandie Hotel, Port-of-Spain**



**Dr. Rhoda Reddock,  
Head/ Senior Lecturer at the Centre for Gender and Development Studies**



**Participants at the Nariva Swamp Policy Round Table**

**University of the West Indies**  
**(St. Augustine)**  
**CENTER FOR GENDER AND DEVELOPMENT STUDIES**

**POLICY ROUND TABLE**

*On*

**“Building Gender Approaches Towards Sustainable Livelihood:**

**A Case Study of the Nariva Swamp”**

*Dec 14, 2000*

**1. Welcome and introductions:**

Dr. Grace Sirju-Charran chaired the meeting which started late due to the change of location. In her welcome she apologized for this and for the absence of the community members, who were inadvertently delayed. She advised that the meeting would end at about 1.00p.m. after which lunch would be served. She informed the meeting that the CIDA project Fund co-ordinator would arrive shortly.

She described the meeting as a milestone in the research, adding that in the previous week the Centre had hosted a conference to present findings of the project and commented that some of those present were also present at that conference. She welcomed the old and new faces and hoped that on behalf of the Centre they would have a productive session. She felt that this meeting could be described as a landmark, since it brought together the researchers, community and policy makers in one forum to talk and formulate policies relevant to the specific needs of the Kernahan/Cascadoux area.

She ended by asking everyone to introduce themselves. (Appendix 1)

## 2. Background to the project and aims of the round table.

Dr. Reddock then gave a brief overview of the project (Appendix 2)

She briefly introduced the Centre and its' initiative, touching on it's regional foundation. The Centre has always had an inter and multi disciplinary focus. As part of the Centre's outreach programmes, this project was developed as a way of doing research and influencing change. She then introduced the ISLE project, which was also funded by CIDA and through which the project was initially started. The Centre was first introduced to the community in 1997, when it hosted the first ISLE Gender Workshop in which professor Peter Bacon, who has been working in the Nariva area for more than 20 years was involved. The Nariva Swamp at this time was at the center of controversy and contestation and this was identified as a useful site for the application of a gender analysis in a case study.

In 1998, the Centre did a pilot study in the Kernahan/Cascadou community and formally began this project in April of 1999. The goals of the project being:

- ◊ To empower the communities and women of the Nariva swamp through a greater awareness of the bio-physical environment and their relationship/knowledge of the natural resources;
- ◊ To generate research data that incorporates a gendered analysis into an interdisciplinary frame;
- ◊ To critically examine "the Scientific Method" to research and exploration.

The project was divided into three broad components to examine: 1) the biophysical characteristic of the Nariva swamp; 2) gendered power relations and governance at the community and national levels 3) gendered social relations, economic patterns, and cultural traditions and practices occurring within and affected by the natural ecosystem where these communities are located.

The primary goal of the project was to empower the community with particular emphasis on women through a greater awareness of the biophysical environment and their relationship/knowledge of the resource base. Crucial to this research effort was the use of participatory methodologies, which facilitated the involvement of the community in the collection and analysis of information about themselves. Central to the epistemological framework was a critical examination of the scientific

approach to research and exploration of the means and possibilities for incorporating social, historical, political and economic concerns into an ecological assessment.

Dr. Reddock then discussed the techniques used to collect the data, which ranged from being quantitative to qualitative in nature. She then touched on the Project's indicators and outputs indicating that some were achieved while others were not. Finally, she ended her presentation by introducing the research team (including their areas of training and expertise) and the project coordinators.

### 3. Impact of policy interventions on communities, livelihoods and the Ecosystem: A retrospective

Nicola Cross briefly described the history of development in the Kernahan and Cascadoux area. She noted that the first settlers in the area in the 1940's were men, who came looking for land to cultivate or to work on the coconut estates and war gardens. These settlers were primarily Indo-Trinidadian males and Hindu. The 1950's saw the inkling of subsistence farming and the migration of more males from the south of the island. In the 1960's large rice farming and cascadura fishing began. This decade also saw the declaration of the Bush Bush area as a wildlife sanctuary and the migration of the first women to the area.

In the 1970's the area was hit by hurricane Alma, which according to the villagers was responsible for mass deforestation of the area. In this decade the government revitalized the rice scheme that began in the 60's. The Ministry of Agriculture introduced the OCTA plan and Bacon et al. began their biological survey of the Nariva swamp. This important decade saw the formal migration of entire families into the area. Government subsidies for rice production began in the 1980's leading to increased rice production and human settlement. As a result, the landscape of the area changed to facilitate the large production of rice and watermelon, which was becoming an increasingly popular crop in the area. This era saw the formal declaration of Bush Bush as a prohibited area and a NEDECO summary of all research and development plans for the Nariva swamp. The family migration that began in the previous decade continued, with most of the migrants converting to Pentecostalism and the first Centre for worship built- the Sai Baba temple.

The 1990's was a very active and important period for the Nariva Swamp, which was placed on the RAMSAR convention and MONTREAUX record. A national wetland committee and a 200-hectare buffer zone were established. An Environmental Impact Assessment and management plans for the Nariva swamp were developed in the latter part of this period. At the Kernahan/Cascadoux community level, water tanks were located, roads were upgraded, electricity introduced and legalisation of land tenure began. Many NGO's began projects in the area.

### Comments and Responses

Many of those in attendance were very familiar with the area and sought to provide very pertinent clarifications, comments and questions concerning what was presented. The discussion began with participants adding their views on the natural, social and cultural history of the Nariva swamp and its' surrounding communities. Dr. Carol James commented on the deforestation in the swamp, attributing it in part to the Ministry of Agriculture's provision that allowed farmers to harvest timber for matchwood production in the 1970's and 1980's. While Ms. Sylvia Kacal noted that the area once housed a vibrant Amerindian village and was known as a hunting and gaming reserve. She also added that the first recorded conservationist activity occurred in 1765.

Key points were raised concerning the gender differences in the use of resources for daily living and on a seasonal basis, as well as environmental health issues and the use of the area in vaccine trials.

The Team responded to the questions and comments by providing details of the gender differences in the allocation and use of resources. They also noted that this as well as other factors such as space and personal development was well documented in the final project report. They justified their start date for the historical survey and informed the gathering that issues of state policy and governance would be dealt with in a subsequent presentation.

#### 4. Summary of Findings and Related Policy Issues and Implications.

The summary of the research findings was presented based on the three components of the project: bio-diversity, governance, and socio-economic, the main findings in these categories were presented and some of the main points presented are as follows:

##### Gender Analysis of Natural Resource Use in Kernahan and Cascadoux:

- It was revealed that men in the community have a close relationship and interact directly with the environment.
- Women because of their lower spatial mobility and domestic responsibilities tend to have less interaction with the biophysical environment.
- Environmental knowledge is not passed on from the elders to the younger generation.
- Earning a livelihood takes precedence over environmental protection.
- Land use may be affected by the legality of tenure.
- Electrification of the village has begun, leading to an influx of people. This may have a negative impact on the environment.
- Villagers want improved collaboration with governmental organisations with respect to eco-tourism projects, environmental management etc.
- RAMSAR has contributed to improved environmental awareness in the community.
- Access to natural resources is gendered.
- Definite gender roles exist with respect to agricultural practices, recreation and perceptions of safe and appropriate places for men and women.
- Participation in community activities is limited by livelihood practices, particularly so for women who have the double productive and reproductive role.

## Gender Analysis of State Policy and Governance in Kernahan and Cascadoux:

### *Decision-making*

- Decision making in the household is directly related to the different roles men and women have in the household.
  - Men are responsible for financial, work-related, recreational and socialising matters. They control the decision making for high cash crops.
  - Females on the other hand make decisions related to childcare, family welfare and tending livestock. Women make the decisions for lower cash crops.
- Decision making in shared households are related to access to and control of resources. The final decision lies in the hands of the patriarch or matriarch of the family.
- Community decision-making is restricted to the groups within the community (village council, religious groups, community interest groups etc). The following dynamics were revealed:
  - Primarily males control these groups
  - There is an unequal distribution of power and influence among males and females in these groups
  - The village council is the most significant group to impact on the community, but it is by no means the final representative of the community
  - The religious groups in the village are internally organised by women but externally controlled by men.

### *Community participation:*

There is a low level of community participation, which can be attributed to:

- Projects being externally developed
- Selective participation by external stakeholders
- Conflicting interest groups
- Gate keeping
- Bad past experiences
- The expectation of immediate results

### *Gender roles:*

Definite gender differentiation exists with respect to the control of resources, labour, space, use of the natural eco-system and livelihoods.

### *External intervention:*

Many projects are going on in the area. Most of these were developed by state agencies and non-governmental organisations. Often there is no collaboration among these organisations, which leads to duplication and waste of resources.

### Socio-Economic, Cultural and Gender Analysis of Kernahan and Cascadox:

- Villagers with higher levels of education have access to more livelihood options than those who are less educated.
- Middle-income farmers do not consider education a priority for their children. The whole issue of education is taken more seriously by the most wealthy in the village, Afro-Trinidadians and 'douglas' households
- Women have less employment opportunities than men with similar skills
- Access to credit is limited
- Women and the poor rely heavily on networks. Women's practical, but not the strategic gender needs are met by social networks
- The majority of conflicts that arise in the community are left unresolved
- There exist many gendered sanctions and cultural norms in the community that give rise to; reproductive control being considered women's business, girls marrying at an early age and women being isolated physically and socially, and living with domestic violence.

## 5. Discussion and Clarifications:

Questions were posed concerning the transfer of knowledge between the generations, the quality and access to resources by the different sexes, the reasons for the discrepancies in the population of male and females in the two communities, reasons for migration into and out of the villages and ownership of the research.

The team responded that the younger generation is more aware of the environment and asks more questions. It was suggested that the two groups get together to discuss issues as a means of transferring knowledge. In terms of the difference in the access and control of resources between the sexes, men have greater control to these resources than women. Men can leave the community to work outside while women's only avenue to leave the community is through marriage to persons who live outside the communities.

The population discrepancies among the sexes in the communities occasioned a very lively discussion. Where it was suggested that this might be because the females marry out, the existence of marijuana plantations and more male babies are being born. Dr. Reddock noted that historically there has tended to be a larger percentage of females in the towns in Trinidad, where women would go in search of domestic type work. The participants suggested that this issue could be an important gender based topic for further research.

A discussion then ensued on the existence of internal, historical, familial and social conflict within a community. Ms. Lall of the EMA felt it was important to look at these when mapping social relations since it can have a very negative effect when using participatory research methods adding that conflicts are important to social relations. She believed that understanding these dynamics could greatly help future projects and research initiatives. Ms. Gabrielle Hosein from the research team stressed that in the mapping exercise of social relations in the community, relationships between community members, households and networks were shown. Such conflicts can lead to inaccurate information flows in focus groups discussions. It is important that meetings etc be held in neutral territory. Ms. Hosein noted that inter-household conflicts occur because of alcoholism, violence, baby-sitting services, gossip, sexual relations among the youth, lack of mobility, lack of proper boundaries with respect to land, etc. Ms. Kacal added that outside intervention that

concentrates on conservation-minded individuals might have the adverse effect of actually polarising the society and thus increasing conflict.

Migration was another topic, which occasioned a lively debate. Out migration was compared between both communities, where it was revealed that residents allow their children to stay with relatives who live in other towns to experience life outside. However, such internal familial support does not exist in Cascadoux. Both men and women have different experiences with migration. Men migrate to develop their skills, in areas such as welding, auto-mechanics etc. While women migrate for low-income jobs

A clarification was made concerning the influx of people into the area due to the recent electrification programme. It was said that the people coming into the area are not new but were just residing with family outside the area. These people are now returning to live since the community is acquiring better infrastructure. It was suggested that residents feel threatened by external intervention, a threat that may decrease when they acquire land tenure. As such, both infrastructure and land tenure affect what residents may farm.

Mr. Laydoo of UNDP GEF small grant programme commented that a vital critical component was missing from the presentation that is the context for the gendered case study. He asked if the community is one as defined in the classical sense or is it a conglomerate of family based units, what are the characteristics of the community that distinguishes it from other communities and if the same study was to be done in another community would the findings be the same or different and why. The head of the Centre assured the representative that the larger context of the study was provided in the final published project results and added that the researchers were asked to pull out certain key issues for policy recommendation. A team member responded that the area could be seen as a unique community dominated by a few family systems. It is a swamp community, that has been impacted on by several pieces of legislation and historically, has experienced emigration from several other communities. It was added that the people see themselves as a community at different times.

Ms. DeBique of the CIDA Gender Equity Fund saw research in general as being very important in helping policy-makers grapple with participation and ensuring that people's lives are truly

represented in policy which can be carried forward to change their lives. Additionally it was pointed out that this research, using gender analysis within a context of participatory approaches is highly duplicable. The methodology used was able to pull out many truths, which may otherwise have been lost. What is needed now is other studies like this to be done in other communities.

Ms. Durbal explained her finding that RAMSAR had increased environmental awareness in the community by detailing the numerous employment positions that were awarded to residents through the Ministry of Agriculture because of the convention, namely that of fire wardens, honorary game wardens etc. Such positions had increased the environmental consciousness of the community. She added that because of this thrust, other NGO's were able to build viable projects. As such, the communities are now beginning to see themselves as custodians of a valuable entity, and through the efforts of researchers in the communities are beginning to appreciate the importance of the wetland and of their role as its keepers and protectors.

Ms. Lall made the final point on the intervention of different groups in the area. Most of the groups conducting projects in the area do not take the time to explain their projects to the residents. Most of the residents are unaware of the group's presence and of the reasons for their presence in the community. As such, intervening groups need to be aware of the gatekeepers in the community and to keep them constantly informed of their activities.

## **6. Presentation of Policy issues and Implications emanating from the Study**

The presentation began with a brief mention of the stakeholders present in the community and their roles (Appendix 3). Mr. Rishi Basdeo then discussed the group dynamics in the village explaining that such groups can be classified as formal or informal groups, which can be either internal or external (Appendix 3). The influence of the community on decision making as well as the governance of groups was shown through the use of diagrams (Appendix 4). Following this the key problems of the community as identified by the community itself were presented. These were poor roads, praedial larceny, lack of financial support, unemployment, wet season flooding, absence of fishing permit to fish in the sanctuary, destruction of the area by fires set by hunters, inadequate

transportation, overfishing by outsiders, lack of a school within the community and no pipe borne water.

He clarified the point about lack of financial support by stating that older members of the community see such support coming from the government. He stressed that the fire wardens in the community are afraid of the older men in the village and cannot implement what they were trained to do properly. He added that there were women fire wardens, however there existed a gendered division of labour between what is done by male and female fire wardens.

Solutions to these problems identified by the community were: establishment of windbreaks, training and educating people on the proper management of the resources, addressing the literacy problem, providing agricultural training, building community spirit and increasing the number of honorary game wardens in the village and the extent of their power. The presenters explained that the community sees the wind belt as affecting their livelihood. In terms of education, literacy and skills training were identified together with environmental education as being important. Agricultural training for crop and livestock operations was stressed.

Ms. Hosein added that networking, training and support were other key areas with serious policy implications. Training was important in the creation of alternative employment, such as in craft, eco-tourism and livestock rearing. For such training to be successful, extended support towards the establishment of micro-enterprises is important. There was also a need for capacity building, leadership training, increasing access to information and gender sensitisation. In terms of gender sensitisation, personal empowerment programmes are needed in order to raise awareness and encourage equity in household decision-making.

Mr. Basdeo felt that another important issue was the need for the stakeholders in the community to collaborate. The different projects of these stakeholders are stretching the available resources of time, finances etc. while not yielding any benefits towards improving the livelihood of the people. Recently however, there have been some projects that are attempting to bridge the gap namely the duck-rearing programme implemented by the MALMAR and funded by the government administered Community Development Fund and the eco-tourism project of the CNIRD with funding provided by BP-AMOCO. Projects that do not support community development may not be

supported by the community. Therefore, it is necessary to involve the community from conception, implementation and evaluation of future projects.

Nicola Cross added that gender sensitisation must not only be addressed within the community but also within the institutions themselves. Additionally, a formal database of the all research in the area needs to be created. This central body of data on the area would be essential towards informing the development of projects for the area and can act as a clearinghouse for information on Nariva. The community, because of the enormous amount of research done on it is tired and has become complacent. As such the community members must now be encouraged to become pro-active, to ask questions and to deal with issues themselves. All projects have had some measure of 'hand holding' that has fostered a climate of dependency. This must now be corrected.

Ms. Hosein commented that women in the village need to become more involved in the environment. The findings have revealed that the development of women's networks can be an important medium through which environmental knowledge can be imparted to females. Since women assume the role of caretaker and educator of the children, what they learn through these networks can then be passed on to their children.

Mr. Basdeo stressed that many conflicts arise in the community and are left unresolved leading to numerous long-term problems. A mechanism for the resolution of conflicts needs to be established. Finally, the infrastructural development of the area was addressed. Throughout its 60-year history, the development of amenities and infrastructure has been slow. The residents are now beginning to see themselves as permanent and recognising their right to basic amenities such as water, roads, telephones, recreational facilities and educational establishments. Improving access to education through the introduction of primary or pre school facilities in the community is imperative. If schools cannot be located in the community, then the linkages between the community and outside schools need to be improved.

In concluding the presenters reiterated the need for training, collaboration, networking and sensitisation as a means towards empowering the people and increasing their capacity base. They added that policies developed to address the needs of the community must be part of an integrated plan and that they had attempted to give a picture of the socio-economic reality in the village that

may inform policy, which leads one into thinking about the development and environmental challenges facing the area.

#### **7. Responses:**

Dr. Reddock explained that the project design is a methodology for integrating some of the findings of the Nariva type community with that of other similar communities worldwide. This intent was part of the ISLE project, which involved researching communities that depend on contested coastal sites for their livelihood. Communities in the Philippines and Indonesia have also been studied. The results of these findings would now be integrated into a whole document in which the three experiences could be compared. The Nariva project basically concentrated on the biophysical relationship between the human community and their environment in an integrated manner.

Mr. Wilson from CARDI commented on the issue of gender sensitisation. He added that in his opinion the project did not attempt to analyse the rationale of the people for their gender roles and questioned whether gender sensitisation wouldn't interfere with the community dynamics overtime. He wondered how this sensitisation would affect the traditional roles of the sexes and what would be the case when the researchers leave the community.

In responding to the concerns raised by Mr. Wilson, Dr. Reddock pointed out that gender relations are not static but ever changing. The study was able to map the aspirations of men and women and challenged to a degree the gendered structures that exist. He asked if the study was able to determine the rationale for the respected and fundamental gender roles. In answering this question the team explained that the issue of gender roles was explored. The research looked at what males and females do, why they do these things and what are the implications of their action. Use was made of gender timelines. Males' and females' access to and control of resources, space, networks etc. were looked at in an effort to determine the power structures existing in the household and the community. They stressed that only part of the study concentrated on empowerment and gender sensitisation and that the whole issue of gender sensitisation can be considered as a 'win win' situation for both sexes.

Dr. Reddock explained that there exists a certain degree of acceptance and recognition of the different roles of men and women occurring in all communities and many women are not satisfied with these roles for themselves and certainly not for their daughters. Even being exposed to the young female researchers working in the community affected the aspirations of the residents, where they wanted to have careers in spite of their lack of education. Not all women in the community were accepting of their gender roles, which strengthen the sense of inequity in the village and make women feel powerless. It is necessary to keep in mind that roles and responsibilities may vary among communities, but generally there is the trend for females to be associated with the lower level tasks. However, this may not be the case in some societies.

Dr. James of the UNDP commented that according to the presentation, a value system was used that placed the community at the top and all things external to the community at a lower level, some being even negative. She added that it is necessary to remember that the community is part of a larger national context and if one wants to develop policy for the area, then external intervention must be ascribed a higher value. She cited the examples of flooding and forest fires, explaining that the area is naturally prone to flooding, because it is a swamp, therefore solving the problem of flooding would be more or less impossible and may have adverse effects on the fragile ecosystems of the swamp. The windbelt was destroyed by the activities of the community and this now provides an opportunity for the community to learn as well as earn some revenue, i.e. planting economically viable tree crops.

She stressed that in an effort to address the problems of the community, one needs to look at the larger policy issues of the country based on the problems identified by the community, hence the issues need to be addressed as part of a larger context. The community seems to be caught up in a dependency syndrome. She ended by saying that it would be difficult to implement policies for the community unless a regional and national policy perspective is reviewed. She therefore stressed the need for a collaborative effort with negotiation on both sides. She also informed those present that the EMA is establishing a National Environmental Information System, which would act as a database of all environmental research in the nation.

With respect to the forest fires in the area, Mr. Ram, the Lands Officer for the area commented that the fires are mainly set by fishermen in order to clear channels to fish and not by hunters. Also, in

the dry season, villagers use fire to clear land in the Swamp to plant watermelon. Fishing permits were granted to the fishermen to fish in the sanctuary, but had to be revoked because of indiscriminate practices. He added that the outsiders who come into the area to fish and hunt are often invited friends and relatives of residents. He informed the group that the MALMR had surveyed and cleared a piece of land for recreational activities. Within a very short time period, houses were erected on the cleared area. It was also suggested that community policing might be effective for dealing with the incidence of violence in the community.

Mr. Driver, programme coordinator of the Agricultural Sector Reform Programme, touched on the Ministry's extension services, alluding to that fact that a wealth of information exists on the area and added that the area is under state land control. He added that the issue of gender sensitisation is not addressed by the extension service of the Ministry. He questioned the role of the Regional Corporation as the provider of infrastructural amenities, which are poorly developed in the area. Information linkages must be developed as a means of data sharing. He concluded his contribution by exploring the use of participation in policy making, and said that techniques and methods exist that can be used in the participatory policy process. How do we approach the issue of participation in the policy process? Would national consultations be wise? Those affected by the policies are not participating enough in the policy making process. Additionally, one must look at conflicts among different policies and between and within ministries. Such conflicts must be resolved before the policy becomes law. Most importantly, politicians need to be involved in these participatory methodologies in policy discussions.

Final comments were made by Mr. Laydoo who advocated the use of lobbying and selling techniques, as a mean to influence policy makers, who must be educated and made aware of the reasons, needs and importance of particular policies. He ended by saying that policies must be influenced from all angles and that the present gathering consisted mainly of policy advisors.

## **8. Closing comments**

The chair announced the final part of the workshop by inviting participants to make closing remarks before official closing comments were made. The research team was commended for their

innovative approach and sensitivity for the well being of the community. It was felt that such research needed to be highlighted more. It was rationalised that research was needed to inform policy at all levels and that such research must be manifested in a manner that can be easily understood by policy makers. It was revealed that most of the time policy makers get reports from such research out of context, leading to mis-interpretation.

The representative for CARDI commented that his organisation would like to use the multi-disciplinary approach methodology of this study in one of their projects and wondered whether the final report would be made available to help them plan their study. The UNDP representative expressed his appreciation for the opportunity to attend the workshop and congratulated the team and its leadership for a job well done. The challenge he saw for the team now is to communicate their findings to policy makers and developmental partners in a manner that will seek to address the issues. He wanted to know what was the role of CIDA in disseminating the results of the study. He enquired about the absence of the Regional Corporation, being a primary stakeholder and wondered how such learning experiences can be translated into developmental activities that are participatory and have real meaning.

Ms. DeBique made the final closing comments by expressing on behalf of the Canadian High Commission their pleasure to be engaged with the university in such a challenging study. It's not usual to see gender in the environment studied. She commended the team and its leaders on their worthy effort. She recounted the early trials experienced during the planning stages, namely the High Commission's questioning whether 'Gender' was an "add-on" and how would the community be empowered and benefit from the research. The challenge left now is to communicate the results and to determine how we can work with the people in the community to connect them with the resources that they want. She ended by congratulating the team and the Centre on behalf of the Acting High Commissioner.

The chairman thanked everyone for the patronage, solidarity and support and then adjourned the meeting.

Meeting Resources  
of the  
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Ghana

# The University of the West Indies St. Augustine

The Centre for Gender and Development Studies  
in collaboration with CIDA and ISLE

Policy Round-Table  
Research Project

The Nariva Swamp: A Gender Case Study  
14<sup>th</sup> December, 2000

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## THE NARIVA SWAMP: A GENDERED CASE STUDY<sup>1</sup>

### Background paper - Policy Round-table

14, December 2000

#### 1.1 Background to the Study

The Island, Sustainability, Livelihood and Equity Programme (ISLE) is an integrated programme that has the sustainable development of island states as its' primary research focus and is funded by the Canadian International Development Agency (CIDA) and was started in 1995. The principal objectives of the programme included:

- ▶ Promotion of sustainable development in small island jurisdictions
- ▶ Provision of a forum for collaboration and sharing information and experience among island and archipelagic states
- ▶ Improving the policy environment for sustainable development in islands via the promotion of links between policy makers, communities and other stakeholders and
- ▶ Development of the institutional capacity in ISLE partner universities in delivering programmes of teaching, research, policy analysis/advice and community service.

The Centre for Gender and Development Studies (CGDS) in collaboration with ISLE held the first workshop on Gender and the Environment at The University of the West Indies (U.W.I) St. Augustine in 1997. After this workshop the Nariva Swamp was chosen as an ideal site for research on gender and the environment as it was the centre of concern and controversy at the time. There was a great degree of conflict between the need to preserve the ecology of the wetlands and the commercial and subsistence use of the Swamp by farmers for large scale rice cultivation, logging and fishing.

The impact of resource exploitation in the Nariva Swamp has been and continues to be addressed but primarily from a biophysical stand point. This study sought to integrate the socio-economic, cultural, political and ecological dimensions of the sustainable use of the swamp's resources in order to produce a more comprehensive, yet gendered, multi and interdisciplinary body of research. The aim of this research, therefore, was to provide a more holistic and gendered understanding of how the community co-existed with their environment as a pre-requisite for developing an approach to sustainable utilization of the Nariva eco-system. It is further hoped that this case study would provide a gender sensitive database, which would ensure that policy initiatives emanating would be empowering to women as well as the communities at large.

The CGDS also wished to obtain information that would help to:

- ▶ Develop methodologies for integrating natural science and scientific concerns into inter-disciplinary research that can be applied to environment and ecological concerns;

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<sup>1</sup>The actual field study was performed in the Kernahan and Cascade x communities.

- ▶ Use a gender perspective to explore people's relationship with their bio-physical environment from the differential and cross-cutting experiences of race/ethnicity, class and geographical considerations;

▶ Explore the history of governance and policy related to the Nariva Swamp and surrounding areas and the countervailing interests of various stakeholders incorporating a gender analysis;

▶ Explore the possibilities for action/research which facilitates a complementary relationship between the people and the Nariva eco-system;

▶ Document the process of developing an interdisciplinary, gendered, research/action programme using the natural and social sciences.

### Introduction to the Study

This research study was envisaged as an innovative one that challenged accepted traditions of research and action in environmental research. It brought together a team of young researchers trained in agriculture, ecology, economics and interdisciplinary gender studies who worked with more experienced scholars in natural sciences, social sciences and gender studies and took place over the period April/May 1999 to December 2000.<sup>2</sup> The project was funded through the CIDA Gender Equity Fund and the ISLE Programme.

The primary project goals as laid out in the original project document were as follows:

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

In addition to the general aim of deriving data, the development of methodologies for carrying out this kind of interdisciplinary and action research was also an important goal.

This project is divided into three broad components. The first focuses on the bio-physical characteristics of the Nariva swamp and seeks to obtain an understanding of the gendered relationships between/within human communities and the resources of the Kernahan and Cascadoux communities, using the following themes as guidelines, income generation/livelihoods, cultural practices/beliefs/meanings/rituals, ecotourism, food, leisure and esthetics.

The second area examines power relations and governance at the community and national levels and specifically explores, the history of state policy to this area over the 20<sup>th</sup> century and the culture of governance in the communities. It also explores the identification of the major stakeholders and their roles, the possibility of co-management and sustainable use and the role of men and women in governance issues. This study affords us a unique insight into the understanding of the Kernahan and Cascadoux communities and the manner in which their

<sup>2</sup>Fieldwork took place over the period May 1999 to June 2000.

Local administrative and control structures function to develop a community existing in a volatile natural, political, economic and social environment.

The final component brings together data on gendered social relations, economic patterns, and cultural traditions and practices occurring within and affected by the natural eco-system where these communities are located. In examining gendered social relations, we focused on power relations among men, women and children within and among households with regard to control and use of land and space, the negotiation of social networks and exchange of social capital and decision-making at a community level or among sub-groups.

The primary project goal was to empower the communities with particular emphasis on women through a greater awareness of the bio-physical environment and their relationship/knowledge of the resource base. Secondary goals of the project were to generate research data that incorporates a gender analysis into an inter-disciplinary frame within which three major themes of equity, sustainability and livelihood could be explored.

This project is founded on a gendered and interdisciplinary examination of the socio-economic, cultural, political and ecological factors affecting the sustainable use of the Nariva swamp. Using a multi-method approach, it aimed to generate data within which three major themes of equity, sustainability and livelihoods can be explored. Our vision is that this data can facilitate the empowerment of the communities and women living in the Nariva swamp by increasing their awareness of the biophysical environment, and their relationship to and knowledge of the resource base.

Central to the epistemological framework was a critical examination of the scientific approach to research and exploration of the means and possibilities for incorporating social, historical, political and economic concerns into an ecological assessment to facilitate the primary goal of empowerment. Crucial to this research process was the use of participatory methodologies such that the communities were involved in the collection and analysis of information about themselves, which would assist in transforming their resource-value and perceptual knowledge base and aid them in creating/developing sustainable/viable social and economic alternatives for themselves.

The methodologies informing the research process were also influenced by the interdisciplinary nature of the project. Our methods of gathering and validating data were based in both natural and social sciences. For example, research incorporated and revised participatory rural appraisal (PRA) techniques while also being primarily ethnographic. As well, a critique of 'objectivity' emerged from the research process and issues more grounded in action research and reflexivity developed. These approaches were facilitated by residence near the community for nine months.

## Research Methods Used

### *Socio-Cultural, Economic and Gender Analysis*

- Qualitative e.g. Unstructured interviews, participant observations; historical mapping;
- Quantitative e.g. Questionnaires, population counts;
- Action Research e.g. lectures by and collaborative work with representatives of various institutions and stakeholders;
- Ethnographic methods;

- Genealogies

### *State Policy and Governance*

- Work sharing (participating in community activities);
- Villager and shared presentations;
- Development of social maps;
- Semi-structured interviewing;
- Direct observation;
- Focus groups;
- Key informants;
- Local stories/oral testimonies;
- Interviews with governmental officials past and present;
- Analysis of government documents and reports.

### *Natural Resource Use*

- Gendered resource use maps;
- Historical mapping;
- Seasonal charts;
- Transect walks;
- Lectures and field trips with representatives of key stakeholders and institutions eg. UWI-EMA, Caribbean Chemicals, retired game warden;
- unstructured interviews;
- questionnaires;
- water testing;
- resource access profile and benefits flow analysis;
- Participant observation;
- Local stories.

### **Project Indicators**

This project was limited in time, financial and human resources yet it had expected indicators and outcomes some of which were and others which were not accomplished. These are as follows:

*Goal 1- To empower the communities and women of the Nariva Swamp through a greater awareness of the bio-physical environment and their relationship to/knowledge of their resource base.*

1. Increased Awareness among women and the communities involved of issues such as: resource availability; economic alternatives; resource use patterns; resource access/control; possibilities/opportunities for transforming gender relations; possibilities for networking and training opportunities.
2. Community participation in the research process re: implementation and use of a

## Participatory Research/Action Methodology;

*Goal 2 - To generate research data which incorporates a gender analysis and is derived from an interdisciplinary frame*

3. A completed interdisciplinary and gendered case study document for use as instructional material;
4. Case Study for use in masters degree programmes e.g. the M.Sc in Environmental Studies at the UWI, Mona campus as well as in other ISLE partner universities;
5. Documentation and evaluation of the research experience;
6. Presentation of research results to key stakeholders, community members and relevant policy makers;
7. Policy-makers equipped with tools and frames of analyses which will facilitate more gender sensitive policy and guidelines.

*Goal 3 - To examine the scientific approach to research and explore the means and possibilities of incorporating social, historical, political and economic concerns into its research frame.*

8. Documentation and analysis of the research processes, debates and discussions as a means of developing a preliminary frame of reference for achieving interdisciplinary work between the social and natural sciences;

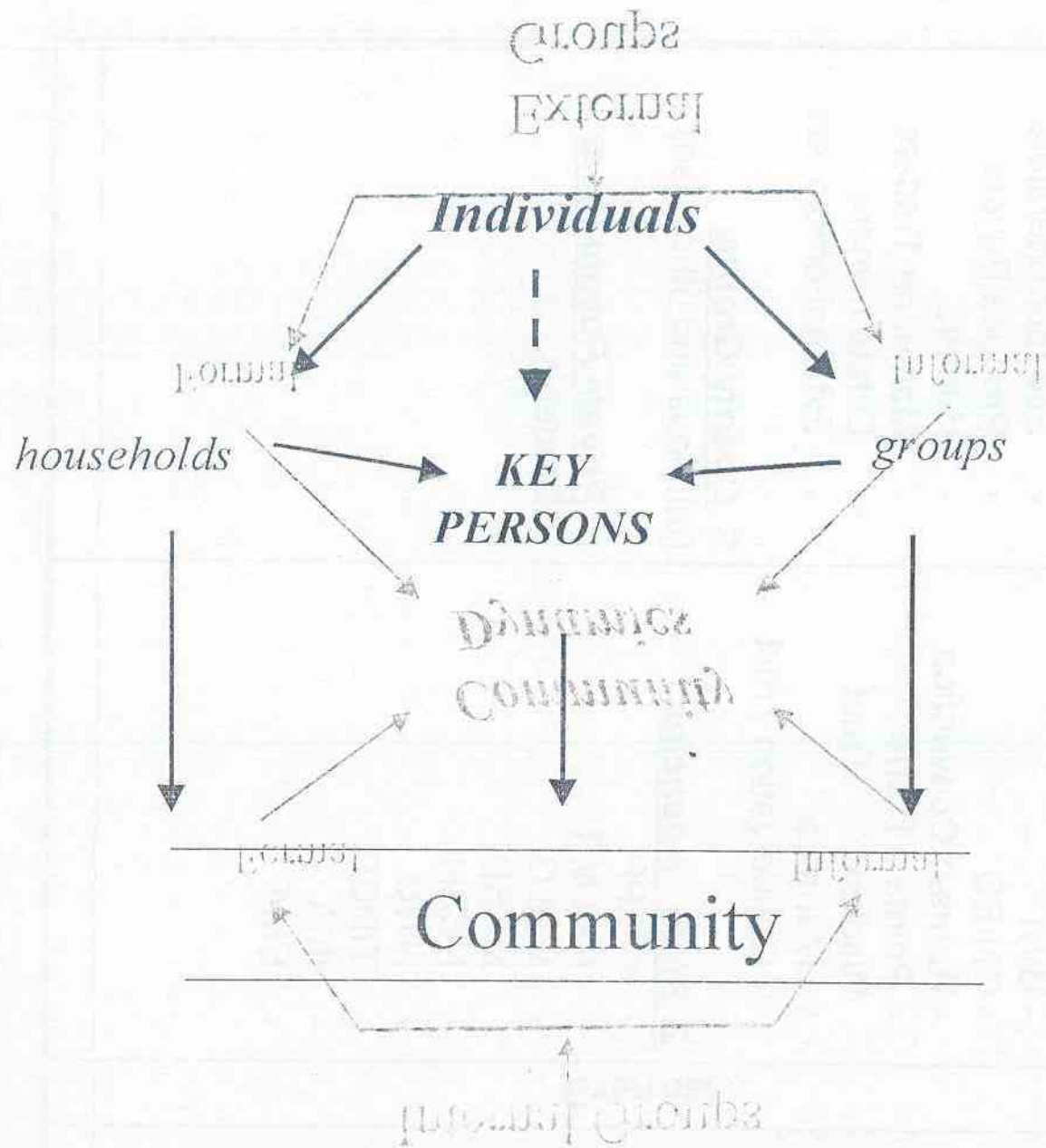
## Project Outputs

- A gendered and interdisciplinary Case Study Report;
- National Conference to present research findings;
- Workshop to present policy implications to policy makers;
- Research team with practical experience/modality in gender and interdisciplinary research regarding the Swamp as an ecosystem;
- Historical and contemporary mapping;
- A gender-sensitive geographic information systems database;
- Material for use in a graduate curriculum for teaching on gender and the

environment;

GROUP STRUCTURE	
Material for use in developing policy and interventions in Kernahan, Cascadoux and the Nariva area.	1. Village Council
A community more aware of the value of its ecosystem.	2. Nariva Environmental Watch Society (NEWS)
3. Economic (livelihood) Research Team	3. Nariva Eco-Tours (NET)
4. Social Researchers	4. Churches/Temples
Sharda Durbal - Gender and Natural Resource Use in Kernahan and Cascadoux Rishi Basdeo and Cheryl Lans - Gender Analysis of State Policy and Governance Nicola Cross and Gabrielle Hosein - Socio-Cultural, Economic and Gender Analysis	
<u>Project Administrators</u> Dr. Grace Sirju-Charran - Project Coordinator, Snr. Lecturer Dept. of Life Sciences, UWI Dr. Rhoda Reddock - Head, Centre for Gender and Development Studies, UWI	
Eco tour operators Produce Buyers Hunters Marjans Traders Estate owners External employers	- Rannar Convention - Pointe a Pierre - Wildowl Trust - Manatee - Conservation Trust
<u>2 Charity Groups</u> (religious and otherwise)	<u>3 State Agencies</u> YTEPP MALMR MOES MSCD NSH NWC JIDCO IMA EMA
<u>3 Private Researchers</u> Centre for Gender and Development Studies St. Augustine campus December 2000	

<b>GROUP STRUCTURE</b>			
<b>Source of Control/</b>	<b>Internal</b>	<b>Formal</b>	<b>Informal*</b>
		<b>Internal</b>	<ol style="list-style-type: none"> <li>1. Village Council</li> <li>2. Nariva Environmental Watch Society (NEWS)</li> <li>3. Nariva Eco-Tours (NET)</li> <li>4. Churches/Temples</li> <li>5. Women's Group</li> <li>6. Farmers Group</li> </ol>
<b>External</b>	<ol style="list-style-type: none"> <li><u>1. NGO's and Institutions</u> <ul style="list-style-type: none"> <li>- UWI</li> <li>- CNIRD</li> <li>- Ramsar Convention</li> <li>- Pointe a Pierre Wildfowl Trust</li> <li>- Manatee Conservation Trust</li> </ul> </li> <li><u>2. State Agencies</u> <ul style="list-style-type: none"> <li>- YTEPP</li> <li>- MALMR</li> <li>- MOLG</li> <li>- MCSD</li> <li>- NCSH</li> <li>- NWC</li> <li>- TIDCO</li> <li>- IMA</li> <li>- EMA</li> </ul> </li> </ol>	<ol style="list-style-type: none"> <li><u>1 Private Sector (Companies and individuals)</u> <ul style="list-style-type: none"> <li>- Eco tour operators</li> <li>- Produce Buyers</li> <li>- Hunters</li> <li>- Marijuana Traders</li> <li>- Estate owners</li> <li>- External employers</li> <li>-</li> </ul> </li> <li><u>2 Charity Groups</u> (religious and otherwise)</li> <li><u>3 Private Researchers</u></li> <li><u>Students</u></li> </ol>	



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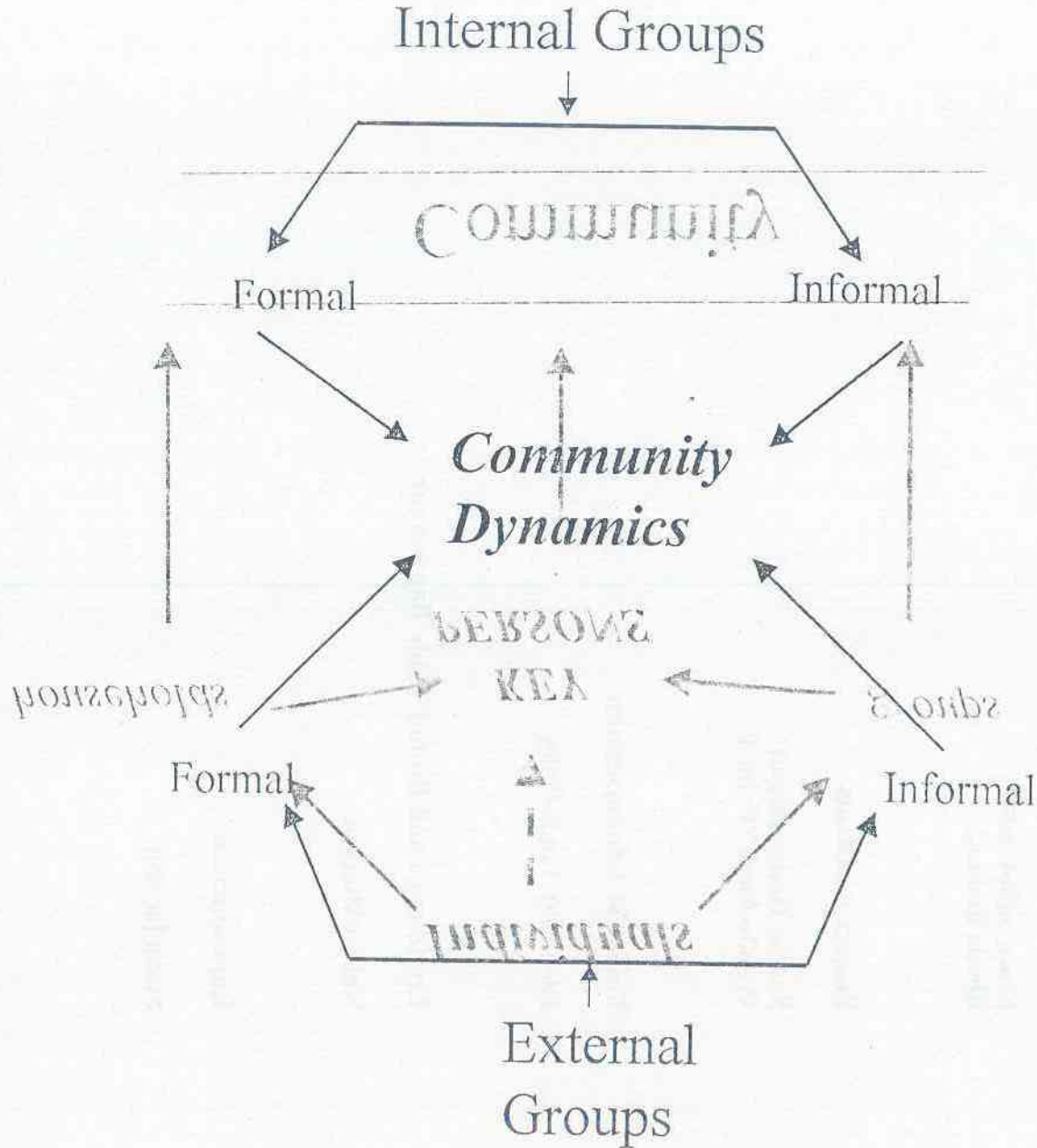
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# Community influence and Decision Making

# COMMUNITY INFLUENCES AND DECISION MAKING



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## Appendix 5

### Project Staff

#### Researchers

Rishi Basdeo  
Nicola Cross  
Sharda Durbal  
Gabrielle Hosein  
Cheryl Lans  
Amar Wahab (April - June 1999)

#### Project Administrators

Grace Sirju-Charran  
Rhoda Reddock

#### Project Assistants

Sharon Hodge-Biggart  
Wendy-Ann O'Connell

#### Financial Administration

Glenda St. Louis-Ottley

#### Conference and Round Table Rapporteur

Neisha Mungroo

#### Reproduction

Susan Jacelon



Participants at the Nariva Swamp Policy Round Table



Researchers : Ms. Gabrielle Hosein , Rishi Basedo (left)  
 Dr. Grace Sirju-Charran, the Project Co-ordinator (right)