

**INSTITUTES AND
RESEARCH CENTRES
LOCATED AT MONA**

Year ending July 31, 2002

ADVANCED TRAINING & RESEARCH IN FERTILITY MANAGEMENT UNIT

**Professor the Hon. Hugh Wynter, OJ, CD, MD *Lond*, FRCOG,
FICS, FACS, FACOG – Director**

WORK OF THE DEPARTMENT

Mission

The mission of the Advanced Training and Research in Fertility Management Unit (ATRFMU) is to promote, develop and deliver training, research, outreach and clinical services in the areas of Reproductive Health (including family planning) and Health and Family Life Education throughout Cariforum countries.

Overall Objectives

To implement and evaluate the effectiveness of reproductive health/family planning/health and family life education programs, in pursuit of the national development goals of CARICOM and other countries.

Training

MSc Counselling via Distance Education

Eighty-six students commenced this programme (academic year 2002/2003) from the following sites – Jamaica (Mona/Mandeville), Cayman, Belize, Bahamas, Trinidad (Mount Hope), Barbados, St. Vincent, St. Lucia, Dominica.

- Workshop for Tutors/Coordinators from nine countries conducted at Mona, June 16-20, 2003.
- Four week Summer School for eighty-six students from the M.Sc. Counselling via Distance Education was conducted at Mona, June 30 - July 25, 2003.
- Student manuals and books of readings were written, edited and distributed to eighty-six students and tutors at all the sites.
- Plans are being made for the commencement of the second year of the programme academic year 2003/2004.

Course SY21P - Reproductive Health and Family Life Education

The course SY21P was conducted during Semester I of the academic year 2002/2003. Twenty-eight students from Faculties of Arts and Education, Social Sciences and Pure and Applied Sciences attended. All were successful.

OUTREACH

- Two volumes of HFLE materials prepared in the Training Workshops during the recent three-year UNDP funded HFLE project were prepared and distributed to all University Centres.
- The Outreach Coordinator is a curriculum Development Committee member of UWI HARP
- The Outreach Coordinator and Training Officer attended a Training of Trainers Workshop, May 4-7 which initiated revision of relevant courses in order to strengthen the HIV/AIDS content and use of participatory methodologies that encourage behaviour change.
- Planning is ongoing for the proposed HFLE – HIV/AIDS projects to be undertaken by the ATRFMU. This would strengthen HFLE in schools used by Teacher Training Colleges for practice teaching.

CLINICAL SERVICES

- The following clinical services were offered during the period under review

- Contraceptive methods
 - Pills
 - Injections
 - Intra-Uterine Device (IUCD)
 - Norplant
 - Condoms
- Surgical Procedures
 - Tubal Ligation - Laparoscopy
 - Culdoscopy
 - Laparoscopy - Diagnostic and Operative Hysteroscopy

Infertile Women

- Infertile women for Diagnostic and Operative Laparoscopy are counselled pre and post operatively and referred to the Gynaecology Out Patients for follow up.

RESEARCH

- Evaluation of breast feeding programme Ministry of Health/UNICEF. The final report was submitted
- HIV/STI Study - CCMRC HIV/STI risk perception study among antenatal and family planning clients completed. Final report submitted

RESEARCH IN PROGRESS

- Tracer Study in collaboration with the Women's Centre of Jamaica Foundation, among Women's Centre IUCD recipients from the ATRFMU and other clinics during the period 1991 - 2001.
- A review of the female sterilizations done in the Unit over twenty years.

PAPER PRESENTED

Hamilton, Pansy

“Breastfeeding dynamics between antenatal and post natal clients”,
Nursing and Midwifery Conference, Department of Advanced Nursing
Education, UWI Jamaica Pegasus Hotel, May 15, 2003

PUBLICATION

Refereed

Meade, Joan

- * “Beyond the Conventional Unmet Need for Family Planning.”
The Jamaican Nurse 40, 2,3 (2002), 15-22

PUBLIC SERVICE

Professor the Hon. Hugh Wynter, OJ

- Member, Board of Trustees Wolmer’s Schools

M. Jean Munroe, OD

- Member, National Family Planning Board
- Member, Board of Gallimore McPherson Senior Citizens Home, St. Margaret's Church, Liguanea
- Member, University Hospital Trust
- Member, Dental Council of Jamaica
- Member, Lion's Club of St. Andrew, Central
- Member, Jamaica Association of Health Service Executives

Pansy Hamilton

- Vice President, Young Women's Christian Association
- Vice President, Jamaica Association of Health Service Executives (Education)

- Member, Board of Directors Whole Person Resource Centre
- Member, Congregational Board, Webster United Memorial Church
- Member, The American Studies Association of Jamaica
- Member, Population Association of America

Lillith Williams

- Member, The Psych Group, U.W.I.
- Member, Jamaica Association of Mentally Handicapped Children
- Member, Jamaica Red Cross Association

Joan Meade

- Member, Association of Health Service Executives
- Chairman, Health Services Committee, Lions Club of St. Andrew Central
- Member, Heart Foundation of Jamaica

Amy Lee

- Family Counsellor, Barbican Baptist Church
- Family and Adolescent Counsellor at Family Court and Women's Crises Centre

Elaine Jackson

- Member, the Psych Group, U.W.I
- Member, National Intercessory Prayer Network of Jamaica
- Director for Music Ministry, Word of Life Christian Fellowship

CATEGORIES OF STUDENTS

Clinical Training

During the period under review the following were trained

Post Graduate (Doctors pursuing DM (O&G)/MRCOG)	10
Undergraduate (Medical Students)	83
PupilMidwives	39

DISTINGUISHED VISITORS

Dr. Karlene Chin-Quee, MD, FACOG}

Mr. Robert Longman, Heartbeats of the World, Inc. (HOW)

Mrs. Thelma Johnson, Heartbeats of the World, Inc. (HOW)

Miss Penelope Campbell, UNICEF

Dr. & Mrs. David Redford, Royal Shrewsbury Hospital

**Professor Robert Shaw, Past President of the Royal College of
O&G**

AGRICULTURE UNIT

Dave G. Hutton, BSc UWI, MSc C'nell, Diploma (Nematology)
Universidad Centrale de Venezuela – Agriculture Representative

The Faculty of Science and Agriculture (FSA), formerly Faculty of Agriculture and Natural Sciences (FANS), of The University of the West Indies at St. Augustine, Trinidad is comprised of the Schools of Agriculture (SoA), and Natural Sciences. The Agriculture Unit (AU), Mona i) represents the SoA at the UWI Mona Campus; ii) undertakes outreach to agricultural and related communities in Jamaica and elsewhere, on behalf of the SoA; iii) coordinates the SoA's External Programme in Agriculture (EPA) and the University Certificate Programme in Agriculture (UCPA) in Jamaica; and iv) carries out adaptive research.

Under a Memorandum of Agreement (MoA) concluded in May 2001 between FANS and the Faculty of Pure and Applied Sciences, UWI/Mona and approved by the Principal, UWI/Mona and endorsed by the Vice-Chancellor, the Agriculture Representative (AR) was appointed Honourary Lecturer in the Department of Life Sciences, Mona; himself and AU staff are now integrated into Life Science's teaching, research, outreach and other programmes. The AU relocated to Block C, Life Sciences in October 2002.

WORK OF THE UNIT

Relevant to the SoA

The AR coordinated the SoA's 10-week Internship Programme (Course AG 233) in Jamaica by negotiating assignments, interviewing the five students and supervisors at their worksites, and processing evaluation documents.

Administrative support was given to SoA students officially in Jamaica.

Materials, information, etc. from the SoA were routed through the Unit to various Jamaican interests.

The SoA participated as an exhibitor at the Denbigh Agricultural Show, for the first time. The AR coordinated the visit of the SoA's representative to Denbigh, and demonstrated at the Show.

The Unit promoted the SoA through exhibitions/presentations on careers in agriculture at career symposia at various high schools.

The Unit continues to maintain breadfruit germplasm procured from Hawaii under the "Breadfruit Improvement Project", carried out in Jamaica by the Dept. of Food Production, SoA, to characterize local, and assess introduced germplasm, and identify, multiply and distribute improved local and introduced cultivars.

The AR taught 15 hours of Economic Nematology to MSc Crop Protection students at FSA, St. Augustine.

The AR participated in a two-day retreat of the SoA which deliberated the theme "Developing a Strategic Agenda - the Way Forward to 2007"; this was held in Trinidad.

A three-member Technical Assistance Mission, including the AR, visited St. Vincent for three days, responding to an appeal from the Windward Islands Farmer's Association (WINFA) for assistance to manage destructive nematodes, and weeds, affecting banana productions in those islands, this in December 2002. In May 2003, the AR returned to St. Vincent for five days to train farmers and technicians in taking and processing samples for plant nematode isolation and identification.

Relevant to UWI/Mona

The AR sat on the Planning Committee, and the Unit participated in the UWI/Mona 2002 Career Expo; an exhibition on the SoA and on careers in agriculture was mounted in collaboration with the Rural Agricultural Development Authority (RADA).

The AR served as University Examiner for Course BL20M.

The AR's teaching responsibilities pertained to the following courses:-

BT37Q (Plant Health); 2 weeks

BL05B (Preliminary Biology); 2 weeks

Z32G (Pest Management); 1 week.

The AR prepared profiles on eight plant parasitic nematodes, and presented these at an FAO "Regional Workshop on the Identification of Pests of Major Phytosanitary Significance in the Caribbean", held in Trinidad, November 2000.

Outreach

The AR collaborated with the Research and Development Department, Ministry of Agriculture (MINAG) on various research initiatives.

The AR made presentations on the benefits of soil solarization, particularly as an alternative to methyl bromide, at workshops put on by the National Environmental and Planning Agency (NEPA), these for the benefit of public and private sector interest groups. The Unit, NEPA and RADA cooperated to demonstrate this and other soil disinfestation methodologies at the annual Denbigh Show.

The AR is a member of the National Youth in Agriculture/RADA Schools' Agricultural Programme Committee, whose major objective is to reintroduce and/or reinforce the integration of agriculture into schools' curricula, and to encourage Jamaican youth to recognise agriculture as an honourable and profitable career, and their involvement in the study/practice of it. This Committee staged relevant competitions for schools and youth groups, these culminating at the annual Denbigh Agricultural Show. Each year, the main prizes are scholarships to the FSA, or the College of Agriculture, Science and Education (CASE). For 2002/2003, no scholarship winner entered FSA, due to the sponsor's change in policy; four scholarship winners were at CASE.

The AR sat on interview panels for the Youth in Agriculture and the Capital and Credit Merchant Bank scholarship awards.

The AR trained field and laboratory staff of the Banana Board in Plant Nematology methodologies.

The AR participated in several events staged by the National Food and Nutrition Co-ordinating Committee of Jamaica (NFNCCJ), which promotes the improvement of household foods availability and the nutritional status, particularly of at-risk groups in Jamaica's population. The AR served as coach to the Jamaican team which placed third in the Caribbean Nutrition Quiz, sponsored by the Caribbean Food and Nutrition Institute (CFNI). The AR participated in a seminar, "The Safe and Effective Use of Pesticides", put on by NFNCCJ and the Food Storage and Prevention of Infestation Division (FSPID), for farmers, householders, students and other interest groups in St. Mary.

The Unit, RADA and Bellevue Hospital (BH) are cooperating to establish an income generating agricultural project at the BH, this under the aegis of the Bellevue Hospital Foundation of Friends.

Soil and plant samples were analyzed for noxious nematodes for several farmers, householders, institutions or agencies (including the Sugar Industry Research Institute (SIRI), NEPA, RADA, etc.) and relevant nematode control recommendations or assistance with addressing plant nematode problems given.

The AR attended/participated in several conferences, seminars, field days, training days, workshops, symposia and other such events hosted by UWI, MINAG, CARDI, IICA, NEPA, the Jamaican Society for Agricultural Sciences (JSAS), The Coconut Industry Board, the Jamaica Organic Agriculture Movement (JOAM), etc.

The AR sat on sundry MINAG Committees set up to address topical issues.

The External Degree Programme in Agricultural and Rural Development (EPA), and the University Certificate Programme in Agriculture (UCPA).

Both programmes are offered from FANS by distance. Thirty six students were enrolled in the EPA for 2002/2003, twenty four in the MSc, eight in the Post-Graduate Diploma, and four in the Certificate Course disciplines, and three in the UCPA. The Unit administers these programmes in Jamaica, being the contact point for students, providing information, advice, supervision, counselling or administrative support, and interaction with St. Augustine.

RESEARCH IN PROGRESS

- Lethality of certain disinfectants, plant residues or extracts to plant or free living nematodes *in vitro*, or in soil.

Several disinfectants, or plant extracts have proven to be quite lethal to plant-parasitic and free living nematodes. Investigation of these and other “safe” products is ongoing.

- Persistence in soil of disinfectants used as nematicides, and investigation of their herbicidal effectiveness.

The forementioned disinfectants have proven to be as persistent in soil as traditional nematicides, but somewhat less effective in suppressing soil and root populations of destructive nematodes. Their herbicidal effectiveness is being investigated, since they were injurious to several crops in previous trials.

- Confirming pathogenicity of *Phomopsis dioscoreae* to yam.

Pathogenicity tests confirmed this fungus, not previously reported from Jamaica, to be the cause of a leaf spot disease affecting yam plants in a Westmoreland district. A “new disease” report is being revised for resubmission to an international journal.

PAPERS PRESENTED

Hutton, D.G. and Jane E. Cohen. 2003. Herbicidal effectiveness of three household disinfectants – preliminary findings. The Sixth Conference of the Faculty of Pure and Applied Sciences, the University of the West Indies, Mona, Jamaica; March 18-20, 2003.

PUBLICATIONS

Refereed

- * Hutton, D.G. and F.L. Edman. 2002. Cause of anthurium (*Anthurium andraeanum*) root rot and decline in Jamaica. Trop. Agric. (Trinidad) 79 (3) 61-167.

PUBLIC SERVICE

- Life Member, the Jamaican Society for Agricultural Sciences;
- Vice Chairman, the National Food and Nutrition Co-ordinating Committee of Jamaica (NFNCCJ);
- Member, National Youth in Agriculture/RADA Schools' Agricultural Programme Committee;
- Member, Publications Committee, Research and Development Dept., Ministry of Agriculture;
- Member, Minister of Agriculture Standing Committee on Research;
- Member, Bellevue Hospital Foundation of Friends.

DISTINGUISHED VISITORS

Prof. (of Tropical Horticulture) **Jeffery Atherton**, UWI, Cave Hill

Dr. Sam Rawlins, CAREC, Trinidad.

CENTRE FOR GENDER AND DEVELOPMENT STUDIES, MONA UNIT

**Professor Barbara Bailey, BSc, BSc (Med. Microbiology) PhD,
Dip. Ed – Head (interim)**

THE WORK OF THE UNIT

During the academic year 2002/3, the Mona Unit, Centre for Gender and Development Studies continued to fulfill its mandate of Teaching, Research and Outreach. Professor Barbara Bailey headed the Unit along with a staff complement of four comprised of. Ms. June Castello, Lecturer, Mrs. Shakira Maxwell, Asst. Lecturer, Mrs. Beverly Shirley, Senior Administrative Assistant, and Ms. Suzanne Charles, Research Assistant.

Teaching

Six undergraduate courses were taught during the 2002/3 academic year:

AR20A: Gender in Caribbean Culture I

AR21A: Introduction to Women's Studies I

AR20B: Gender in Caribbean Culture II

AR21B: Introduction to Women's Studies II

AR20M: Introduction to Men and Masculinities in the Caribbean

SY37G: Sex, Gender and Society

The courses were presented by Ms. June Castello and Mrs. Shakira Maxwell.

The Unit also participated in the Summer School programme in which three undergraduate courses – AR20M, SY37G and AR20A, were offered to students. All three courses were taught by Miss Castello.

Postgraduate Teaching

January to May 2003, Miss Castello also taught in the new distance mode *Certificate in Gender and Development Studies* programme, offered through the Regional Coordinating Unit of the Centre for Gender and Development Studies.

Miss Castello lectured to the graduate students of the Institute of Cultural Studies, February 12, 2002. The lecture was entitled “Gender: A Necessary Construct or Category of Analysis in Culture Studies”.

Other Teaching

Mrs. Shakira Maxwell represented the Mona Unit at a *Training of Trainers* workshop which dealt with curriculum development and offered strategies to facilitate the inclusion of HIV/AIDS related issues in three undergraduate courses in the first semester of academic year 2003/4. The workshop was hosted by the UWI HARP Program, Runaway Bay, St. Ann, May 4-6, 2003.

The Mona Unit was represented by Mrs. Shakira Maxwell at the annual Summer Institute hosted by the University of Maryland, College Park, held at Towson University, Maryland, June 30- July 3, 2003. The meeting was convened to review the achievements of the participants of the last two years and to determine ways in which future collaborations can be advanced.

New Course

The Mona Unit has put forward the proposal for a new undergraduate course **Philosophy of Gender** to be introduced as part of its course offerings. The original course has, on recommendation of the Gender Board of Studies, been re-formatted as two independent semester long courses each attracting six credits. The **Philosophy of Gender** course is expected to form part of the Minor in Gender and Development Studies.

SY37G – Sex, Gender and Society

As of academic year 2003/4, the undergraduate course SY37G will be offered in both semesters. This decision was taken because of the heavy student subscription to the course as well as the need to make the course more accessible to a wider cross-section of the student population, both full-time and part-time students.

Dorian Powell Prize

The Unit successfully hosted its fourth annual Dorian Powell Prize-giving ceremony, held December 16, 2002. The Prize of J\$10,000 was awarded to **Ms. Jenese Dawson** who was selected by a committee comprised of Professor Barbara Bailey, Professor Wilma Bailey and Dr. Clinton Hutton.

Mini Seminar

The Mona Unit hosted a seminar presentation by Dr. Linda Sturtz, entitled **Gendered White: Women in Eighteenth Century Jamaica** held in the Dean's Conference Room, Sir Alister McIntyre Building, March 6, 2003.

Lucille Mathurin Mair Public Lecture

Plans are underway for the Mona Unit to host its fourth biennial Lucille Mathurin Mair Public Lecture to be held in Commemoration of International Women's Day, March 11, 2004. The lecture will be delivered by Professor Michael Kimmel.

RESEARCH IN PROGRESS

New Project

- Funding is being sought to commence work on a the project entitled **“Untying the Noose; Mental Health Issues in the Caribbean: An Exploration of the Gendered Realities of Suicide in the Caribbean”**.

Caribbean Gender Ideologies: Influence, Transformation and Impact

- Ms. Suzanne Charles, Research Assistant of the Mona Unit, is the designated project coordinator for “Caribbean Gender Ideologies: Influence, Transformation and Impact”. The project is being spearheaded by the Regional Coordinating Unit and funded by the Ford Foundation. Training for focal points and field researchers was hosted in Barbados, February 11-12, 2003.
- The project examines the extent to which the lived realities of Caribbean women (and men) have changed over the last two decades, since they were studied and recorded by the *Women in the Caribbean project* (WICP).
- Mrs. Shakira Maxwell sat on the steering committee of a Project **Root Causes of Gender Based Violence** being spearheaded by the Regional Coordinating Unit.

Outreach

- Miss Suzanne Charles organized and chaired a programme in observance of the International Day Against Violence Against Women, held at the Rex Nettleford Hall, November 25, 2002. The programme discussed Gender Based Violence, with specially invited panelists from Women’s Media Watch, the University Health Centre and the Women’s Bureau. The programme was aired in part, on RJR.
- The Mona Unit and the Jamaica Family Planning Association (FAMPLAN) collaborated in the project **Men against Gender-Based Violence**. Both Ms. June Castello and Mrs. Shakira Maxwell conducted a training workshop for the FAMPLAN staff and associates. The workshop included pre- and post- evaluation of the participants’ knowledge and attitudes regarding gender. It also facilitated the development of coping skills pertaining to contemporary issues of gender based violence. The training session took place over a period of two days, May 29-30, 2003.

PAPERS PRESENTED

Maxwell, Shakira

- “Easy Prey? Female Victims of Crime in Jamaica in the late Nineteenth and Early Twentieth Centuries” History Staff/ Postgraduate Seminar: UWI: November 15, 2002.
- “Violent Women: Rebuked and Scorned? Society’s Response to Female Criminals in Jamaica in the late Nineteenth and Early Twentieth Centuries” Gendering the Diaspora: Women, Culture and Historical Change in the Caribbean and the Nigerian Hinterland conference, Dartmouth College, New Hampshire, USA: November 21-24, 2002

Charles, Suzanne

- “Caribbean Ideology and Imagination, empowering Caribbean Development” at Caribbean Studies Association Conference, Belize CA: May 26-31,2003.

PUBLICATIONS

- * Maragh-Maxwell, Shakira and Phillips, Marva: “Globalization and the Role of the Trade Unions” in *Human Resource Development and Workplace Governance in the Caribbean*: Cowell, Noel and Branche (eds): Ian Randle Publishers: 2002

PUBLIC SERVICE

June Castello

- Member, Training Committee of the Women’s Political Caucus.
- Member, Women’s Manifesto Committee

CATEGORIES OF STUDENTS

Undergraduate

Six courses were offered to undergraduate students during the academic year.

		AR20A	AR20B	AR21A	AR21B	SY37G	AR20M
Student enrolment	71	21	20	27	166	35	340

The pre-requisites of these courses remain the same and all courses carry three credits.

Postgraduate supervision

Ms. June Castello supervised the MSc thesis of Ms. Andrea Murray, graduate student of the Regional Coordinating Unit.

Miss Castello also supervised research entitled 'Kin Oonoo Teet' an' 'Tan Like a Propa' Lady: Contradictions in the performance of Femininity in Miss Cauldwell 2003, carried out by Sarah Glover, a student from the School of International Training.

DISTINGUISHED VISITORS

Dr. Linda Sturtz, Associate Professor, History Department, Beloit College, Wisconsin, USA.

Ms. Pamela Golah of the Gender Unit, the International Development Research Centre (IDRC), Canada.

CENTRE FOR GENDER AND DEVELOPMENT STUDIES – REGIONAL UNIT

Professor Barbara Bailey, BSc, BSc (Med. Microbiology) PhD,
Dip. Ed – Regional Coordinator

WORK OF THE CENTRE

Introduction

The Centre for Gender and Development Studies (CGDS) has completed its ninth year as an Interdisciplinary Centre, conducting teaching, research and outreach. Although the staff establishment of the Regional Coordinating Unit (RCU) has not changed since the institutionalization of the Centre in 1993, the volume of its work has very significantly increased. The Centre has continued to grow in stature nationally, regionally and internationally since 1986, when it began as a *Project of Cooperation in Teaching, Research and Outreach in Gender and Development Studies*, supported by the Government of the Netherlands (GON) with grant funding of approximately US\$2,575,000 over three phases to develop the Gender Studies programme.

Prof. Bailey, for example, plays a pivotal role in activities related to the design and implementation of a strategy, developed by the Caribbean Community (CARICOM) Secretariat, for main-streaming gender in programmes related to human resource development, health and labour. She also continues to be involved in writing project proposals for funding some of its activities, and is, at times, invited to be responsible for the implementation of regional projects. Despite its limited resources, the work of the Centre continues to be accomplished, mainly through:

- Teaching and Research
- Consultations and training workshops
- Executing regional projects on behalf of multi-lateral agencies.

Staff

The Unit was established in 1993 with one Academic Staff member on the establishment. In addition, the Unit has had the benefit of the service of one Research Assistant, whose employment was supported by the co-operant programme of the Canadian Government through the Canadian International Development Agency (CIDA) and CUSO, a Canadian Development Agency. She has been of invaluable service from the time of her arrival in June 2001; however, she has returned to Canada.

Representations made by Prof. Bailey to the Vice-Chancellor about the volume of work in the Unit, and the impossibility of fulfilling the terms of a contract with the Government of the Netherlands to offer a Certificate Programme in Gender and Development Studies by 2002/03, resulted in the temporary appointment of Yasmeeen Yusuf-Khalil, an expert in Instructional Design, Curriculum Development and Distance Education, to coordinate the development and presentation of the 18-Month Distance Certificate Programme in Gender and Development Studies. This appointment was very timely, and she has been working tirelessly at editing, rewriting and assessing courses for the programme.

Teaching & Curriculum Development

Graduate Teaching

Dr. Bailey continues to be the Coordinator of the Graduate Programme of the Centre, which offers MSc, MPhil., and PhD degrees. She also teaches and is first examiner for the course GS63B: *Gender, Education, Training and Work*.

The MSc Programme, has suffered some setbacks as several students to whom places had been offered, failed to take up the offer, or for varying reasons, have asked for postponement, or have dropped out. Three MSc students, Two MPhil. and four PhD students remain. The MSc students are preparing their research papers for submission.

Supervision of Graduates Students

Professor Bailey supervises two students from the School of Education. One MSc Student, Ms Aba Polson has submitted her thesis, titled: *Principals, Teachers and Students' Perception of Certain Attributes of the Rose Curriculum*, for examination. The other is an MPhil/PhD student, Ms

Marcia Stewart whose research towards *An Evaluation of the Associate Degree in Business Studies, Offered by Jamaican Community Colleges*, is ongoing.

Certificate Programme

The development of a 3-semester part-time Certificate Programme in Gender and Development Studies, funded by the Government of the Netherlands, continued. Course material for the second semester is to be prepared by the Curriculum Specialists Barbara Bailey and Yasmee Yusuf-Khalil in collaboration with The University of the West Indies Distance Education Centre (UWIDEC). The programme, originally scheduled for delivery in 2001/2002, was offered for credit in Semester II of the academic year 2002/2003. Preparation of course and support material continues.

Project Proposals Developed

Gender Differentials in Performance at the Secondary and Tertiary Levels of Education Systems in Member Countries of the CDB, specifically: *An In-depth Study of Socio-Political Factors and Schooling* (CDB)

Recognising the importance of carrying out this research, the Centre continued to seek funding from various agencies, and the original proposal to the Caribbean Development Bank (CDB) was separated into sections and new proposals written by Prof. Bailey, which resulted in the following:

Funding:

- *An In-depth Study of Socio-Political Factors and Schooling* (CDB-US\$212,000).
- Establishment and analysis of a *Database on Enrolment, Participation and Performance Indicators at the Secondary and Tertiary Levels of Education Systems of CARICOM Member States* to identify significant gender differences. Canada/Caribbean Gender Equality Fund (CCGEF), Barbados and the Organisation of Eastern Caribbean States (OECS) - US\$7110.69
- Four Specialist Studies on Gender Differences related to *Outputs versus Outcomes; Alternative Pathways to Tertiary Education; Attrition/Dropout; and Demographics of School Population in Caribbean Education Systems*. Regional Canada/Caribbean Gender Equality Fund (CCGEF) CDN\$90,000. (US\$54,694)

- *Demographic Study of School Populations in Selected High Schools in Jamaica* The UWI, Mona Campus, Research and Publications (R & P) Committee (US\$4,050).

Funds from a *Project of Support of Teaching, Research and Outreach in Gender and Development Studies* sponsored by The Government of the Netherlands through the Royal Netherlands Embassy (GON/RNE-US\$6,250) provided a research grant which has facilitated the preparation by Mrs. Lynda Quamina-Aiyejina, Documentalist at the School of Education, St. Augustine, of an *Annotated Bibliography on Gender Issues in Education*. The data in this bibliography will factor into the design of the research instrument for the in-depth study cited above. The projects have all started and are ongoing.

Other Departmental Professional Activities

Prof. Bailey attended and participated in the following conferences, workshop and other related activities:

- A meeting of African Diaspora working group drawn from the USA, Brazil, Africa and Jamaica to look at issues of religion, gender and poverty sponsored by Princeton University Seminary, New Jersey, USA in Jamaica July 2003.
- A Panel on ‘Advancing Women’s Studies Trans-nationally: A Dialogue’ at a Conference on Educating for the Future: Crossing Boundaries, Building Coalitions in Graduate Women’s Studies Around the World. June 29-July 3, 2003. University of Maryland, Townson, Maryland.
- A Joint Programme Identification Study to guide the Caribbean Education Sector HIV/AIDS Response Capacity Building Programme Technical Cooperation Project hosted by CARICOM/UNESCO/IDB. April 22-23, 2003.
- A workshop on Gender and Child Labour at the 1st Caribbean Labour Policy Conference jointly organised by The Labour Studies Programme, Mona School of Business, UWI and the Centre for Industrial Relations, University of Toronto. April 2-5, 2003.
- The 6th Special Meeting (Ministers of Education) of the Council for Human and Social Development (COHSOD) where she presented a *Strategy and Work Plan for Main-streaming Gender into*

Education Systems of CARICOM Member States at. Port-of-Spain, Trinidad. March 31-April 1, 2003.

She also

- Facilitated a meeting to train field researchers from Antigua, Barbados, Belize and Guyana for data collection on a research project *Caribbean Gender Ideology: Influence, Transformation and Impact*
- Attended Consultative Committee of United Nations Fund for Women (UNIFEM) as representative of Government of Jamaica. New York. February 2003.
- Attended a UNECLAC sponsored Meeting on *Gender Socialisation and Violence in the Caribbean: Development of A Research Agenda* and presented a “Report on a Review of Gender Socialisation Research in Jamaica”. Port of Spain. December 9-10, 2002.
- Attended Seventh Meeting of the Council for Human and Social Development (COHSOD) as member of CARICOM Task Force on Gender Main-streaming. CARICOM Secretariat. Georgetown, Guyana. October, 2002.
- Attended Transformational Leadership Learning Community Workshop. UNIFEM, UN House, Barbados. October, 2002.
- Presented Strategy from CARICOM Task Force on Gender Main-streaming at Second Meeting of Directors/Coordinators of Women’s/Gender Bureaux. St. George’s, Grenada. September, 2002.

Mrs. Emmanuel attended a *Project Identification, Formulation and Management Workshop* held by the UNDP to familiarise clients with the United Nations (UN)/UNDP’s reformed approach to project identification, formulation and implementation, preparation of project reports, and to clarify the concept of logical framework analysis. Kingston, Jamaica, Knutsford Court Hotel, 16-18 July 2003.

Outreach

The Outreach Programme, one of the most important of the Centre's activities since its beginnings in 1986 as a project, continues to

expand. One of the major activities undertaken over this period is the implementation of the third and final phase of the *Women in Micro-enterprise Project*, report on below:

Training Workshops

Women in Micro-enterprise Project

This final phase aimed to empower rural women entrepreneurs by training them to run their businesses more successfully. Six workshops were held - the last two in December 2002, in partnership with the Jamaica Network of Rural Women Producers. This partnership has helped to strengthen the Network, and facilitated the marketing of the training manual, which has been reprinted, and which they use for training.

The workshops have proven to be very beneficial in providing practical advice on record keeping and information about sources of financing, and a forum where business problems could be discussed with other women entrepreneurs. A very informative news bulletin, as well as another print run of the manual have been done. Sale of the manual has earned money for the Centre, and Micro-Enterprise Financing Ltd, a micro-business financing company, has expressed interest in having the Centre conduct in-house training for their clients. The Project has now ended and a report was made to the Japanese Government through the United Nations Development Programme.

RESEARCH IN PROGRESS

Research continues in the areas of Gender Issues in Education, Development of Masculinities and Femininities, Gender-based Violence.

Caribbean Gender Ideology: Influence, Transformation and Impact – The Ford Foundation(US\$70,000.00)

This interdisciplinary research project examined the way in which the ideologies around masculinities and femininities have shifted in the last decade, factors that have influenced any perceived shifts, the impact of these ideologies on gender relations in the region, and the influence that this could have on policy formation. Data collection began in January 2003 in Guyana, Belize, Antigua and Barbados and a debriefing meeting was held in March by teleconference. The preliminary report was discussed in May at a focal point meeting, held in Jamaica.. A preliminary report on the

findings was prepared and submitted to Ford Foundation through the office of Prof. Wayne Hunte, Pro-Vice-Chancellor, Research. Five specialist papers have been completed and will be peer reviewed and published. The comprehensive report to the funding agency is also in the final stage of completion.

Root Causes of Gender-Based Violence – Canada Caribbean Gender Equality Fund (CCGEF) - CDN\$48,279

The issue of violence against women was one of the critical areas of world-wide concern in the *Platform for Action* emerging from the 4th *World Conference on Women* held in Beijing in 1995. This view was further reflected in a report prepared by CARICOM on the *Status of Women in the Caribbean* where it was identified as one of the five critical issues affecting women in the region.

The Regional Coordinating Unit therefore secured funding from the Local Gender Equality Fund to gather data on the possible root causes of gender-based violence in Jamaica. This research, which is ongoing, is expected to identify some of the indicators of this “culture of violence” and contribute to an understanding of the phenomenon with a view to taking action to reduce the incidence of such violence. The long term aim of the research is “to inform national policy and to promote public education programmes, and interventions aimed at significantly reducing the occurrence of gender violence”.

Gender Training and Research (Japan Fund for Women – US\$200,000)

The Regional Coordinating Unit of the CGDS was invited by the Embassy of Japan to submit a proposal to support the Centre’s distance education programmes, the development of a database and web site which will allow access to current research on Caribbean issues to policy analysts, planners, and international development agencies. The Japan/Women in Development (WID) Fund, has provided funding for the proposal, which includes as well, a research project to examine gender-based violence as it relates to *Gender Socialization, Violence and the Education System*. Project activities began in June 2003.

Canada/Caribbean Gender Equality Fund (Jamaica)/UNIFEM.
Development of Gender Training Modules for Women in Middle Management
US\$48,539.00

Awareness of the need to use Gender analysis as a strategy for bringing about change and transformation in organisational structures is growing both internationally and regionally. In response to long-term plans put in train by certain United Nations agencies and the World Bank, to enable national planners to formulate gender-responsive, pro-poor, and environmentally sustainable policies, programmes and projects, the CGDS/RCU has sought to meet this need regionally by holding a training workshop to enhance the skills of writers of training material for dual mode delivery. These writers have developed one module - *Gender and Management* and are in the process of completing the second - *Gender Issues in the Caribbean*. They will be edited and published and used for training of Middle level managers.

PAPERS PRESENTED

Bailey, Barbara

- “A Case Study on Gender-Sensitive Educational Policy and Practice in Jamaica”. Education for All Global Monitoring Report. International Bureau of Education (IBE). UNESCO: Geneva, Switzerland, May 2003.
- (with Heather Ricketts). “Gender Vulnerabilities in Labour Market Relations and Decent Work Provisions: Policy Implications and Direction”. First Caribbean Labour Policy Conference jointly organised by The Labour Studies Programme, Mona School of Business, UWI, Mona, Jamaica, April 2-5, 2003.
- “Relations of Gender in the Caribbean: Education, Work and Citizenship”. Regional Workshop on Gender Analysis for the Association of Oil and Natural Gas Industry in Latin America and the Caribbean (ARPEL). Kingston, Jamaica. March 12-13, 2003.
- “Educational Outputs: Links to Economic, Political and Citizenship Outcomes for Caribbean Women”. UNESCO’s Regional Consultation on Main-streaming Gender for Development. UWI, Mona. January 30-31, 2003.
- (with Elsa Leo-Rhynie) “Engendering Governance: Strategies for Promoting Gender Equity” (with special reference to increased participation of women in government). Mona Academic Conference 2002. UWI, Mona Campus, August, 2002.

- “Women, Work and Wages in the Private & Public Sectors: The Links to Educational Attainment.” Jamaica Teachers’ Association 38th Annual Conference, Women’s Caucus. Renaissance Jamaica Grand Resort, Ocho Rios, St. Ann, Jamaica. August 20, 2002

PUBLICATIONS

Refereed

Bailey, Barbara

- * “Globalisation and labour market transformation: Implications for women’s human resource development”. In: (eds.) Noel M. Cowell and Clement Branche. *Human Resource Development and Workplace Governance in the Caribbean*. Kingston, Jamaica: Ian Randle Publishers, 2002.
- * “Gendered education, fact or fiction: the realities in a secondary level classroom”. In: (ed.) Mohammed, P. *Gendered Realities: Essays in Caribbean Feminist Thought*. Kingston, Jamaica: The UWI Press, 2002.
- * *A Review of Gender Issues in the Dominican Republic, Haiti and Jamaica*. Report No. 21866-LAC. Washington, DC: The World Bank.

Non-Refereed

- * “Gender as a Cross-Cutting Theme in Human and Social Development”. In: *Caricom View: Investing in Our Human Resources*. Georgetown, Guyana. CARICOM Secretariat. 2003. pp.12-14
- * “The Feminisation of Tertiary Education”. In: A Woman’s Place. *YouWe: Quality Education Forum*, No.8. 2002. Kingston, Jamaica: The University of the West Indies. pp.3-5.
- * “Educational Outputs: Links to Economic, Political and Citizenship Outcomes for Caribbean Women”. Paper presented at UNESCO’s *Regional Consultation on Main-streaming*

Gender for Development. Mona Campus, University of the West Indies. January 30-31, 2003.

PUBLIC SERVICE

- Member, Project Advisory Committee for Jamaica of the Canada/Caribbean Gender Equality Fund (CCGEF)
- Member, UNFPA Planning Committee for launch of 2002 State of the World Population Report
- Government of Jamaica’s representative, Consultative Committee of the United Nations Development Fund for Women (UNIFEM).

CATEGORIES OF STUDENTS

Postgraduate Students

Three MSc students
Two MPhil
Four PhD

Distance Certificate Students

First intake of 15 students

DISTINGUISHED VISITORS TO THE CENTRE

The Hon. Mrs. Justice Norma McIntosh, Supreme Court of Jamaica

Mr. Naresh Singh, CIDA, Ottawa

CENTRE FOR MARINE SCIENCES

George F Warner, BSc *London*, PhD *UWI* – Director

WORK OF THE CENTRE

Coastal habitats, in particular coral reefs, continue to be the focus of our work which includes pure and applied research as well as management issues, addressed through both academic routes and public service.

Examples of our involvement in management and applied research issues include help provided to NEPA by Scientific Officer **Mr Peter Edwards** in the matter of mangrove replanting in Kingston Harbour; Data Manager **Mrs Dulcie Linton's** invited and fully funded participation in international coastal management workshops in Miami and the Philippines; Discovery Bay Marine Laboratory Head, **Dr Norman Quinn's** editorial work on the book *Aquatic Knowledge and Fishing Practices in Melanesia*, undertaken with colleagues in Papua New Guinea; and Chemistry graduate student **Ms Debbie-Ann Ramsay's** poster on groundwater seeps into Discovery Bay which won the Top Poster Prize in the UWI Mona Science Faculty Conference, March 11-13, 2003.

New facilities and equipment at DBML

Improved facilities at Discovery Bay have included the conversion of the old Library into a lecture room, while the Library itself has been moved into one of two new rooms constructed in the adjacent corridor. This room now doubles as a financial office, providing better security for the Library. The second "corridor room" is available for small group meetings. The new lecture room has been receiving favorable comments from visitors.

An informal ceremony was held at DBML in August 2002 to name the four new “Workskiff” aluminum boats purchased for us by UWI. The Rev. Donald Lawrence gave the blessing and named each boat as follows: *Scomber* i.e. “mackerel” (23ft), *Panulirus* i.e. “lobster” (21ft), Seahorse (21ft) and *Dasyatis* i.e. “sting ray” (16ft). In attendance were the Principal of the Mona Campus Professor Kenneth Hall, Deputy Bursar Mr Herman McDaniel, Dean of FPAS Professor Ronald Young, Emeritus Professor Ivan Goodbody, a contingent from the US Peace Corps including new volunteers, and staff, students and friends of CMS and DBML. After the naming, trips around the bay in the new boats were provided by Lab staff.

Staff matters

August 2002 was the final month of Ms Cho-Ricketts’ part-time employment in CMS working as Research Assistant on our joint project with the University of Delaware (see below, course development). She left to take up appointment as Director of the Coastal Zone Management Institute in Belize. Data Analyst Tatum Fisher left in June 2003 after two years with our Caribbean Coastal Data Centre (CCDC) to take up a job as Science Officer in the Turks and Caicos Islands. We congratulate them both on their career advancement and look forward to future collaboration. We welcome Mrs Samantha Cowan who joined DBML in June as Administrative Supervisor, replacing Mrs June Lawrence who has resigned to relocate to the USA. We thank Mrs Lawrence for 10 years of exemplary service and wish her well in her new life.

Workshops and Seminars

CMS Seminar Series

Nine seminars were presented during Semesters 1 and 2, the series being organized by Mr Peter Edwards. These were:

- A brief study of the coral reef fisheries at Ocho Rios: Dr Warner, CMS.
- 2002 report on the state of the coral reefs in the Northern Caribbean: Mrs Dulcie Linton, CMS.
- Geological features of the Cayman Trough: Ms Debbie-Ann Rowe, Geology.

- Beach sand analysis of Jamaican beaches: Ms Shakira Khan, Geology.
- The recent dredging of Kingston Harbour: Mr Sean Green, NEPA
- Port Royal as a Focal Point for Marine Biodiversity: Professor Ivan Goodbody, Life Sciences.
- Nutrient Concentrations in Discovery Bay: Dr Anthony Greenaway, Chemistry.
- Highlights of the Integrated Coastal Management course held during January at the University of Miami: Mr Marlon Hibbert, CMS, and Mr Jerome Smith, NEPA.
- Investigations in the deep sea around Jamaica: Professor Ivan and Mrs Charlotte Goodbody, Life Sciences.
- The status of crocodiles in Jamaica: Ms Josette La Hee, NEPA.

Seminar on the Discovery Bay Ecosystem Management Project (DBEMP)

Presentations were given at DBML concerning the environment of Discovery Bay.

- Historical perspective and review of DBEMP: Dr Jeremy Woodley, CMS Associate.
- Nutrient contamination in Discovery Bay: Dr Anthony Greenaway, Chemistry.
- DBML and its efforts with fishers in the Fisheries Improvement Programme: Mr Peter Gayle, DBML.
- Analysis of sediment cores from Columbus Park Reef: Dr William Precht, Northeastern University, USA.

In attendance were a group of Executives from Kaiser Bauxite, staff of CMS and DBML and other visitors to DBML. DBEMP was funded by Kaiser Bauxite in 1995-98 and we hope that this seminar will mark the resumption of closer collaboration between DBML and Kaiser.

Workshop and Seminar on “Impact and Amelioration of Sediment and Agrochemical Pollution in Caribbean Coastal Waters” June 13 and 26, 2003.

These events were organized by CMS through our DFID-funded project of this name which terminated in June. Participants at the Workshop included our colleagues on the project (CARDI, Caribbean Coastal Area Management, Chemistry Department, CMS, Life Sciences Department, MRAG UK Ltd., Pesticide Control Authority Jamaica, and representatives from St Lucia) and at the Seminar also included MAFF, NEPA and RADA to disseminate the findings to a wider audience. Presentations at the Seminar included those by Dr D. Webber (Life Sciences), Mr P. Edwards (CMS), Mr L. Simpson (CARDI) and Prof T. Dasgupta (Chemistry).

Workshop to create the Jamaica Coral Reef Monitoring Network (JCRMN).

As one of the activities under our UNEP grant, a meeting was organized in July 2003 by the CCDC at DBML to bring together all those in Jamaica who are involved in coral reef monitoring. Representatives of the following organizations participated: CMS, Coast Guard, DBML, Institute of Jamaica, Jamaica Sub-Aqua Club, Mainstreaming Adaptation to Climate Change, Montego Bay Marine Park, National Environment and Planning Agency, Negril Marine Park and the University Sub-Aqua Club. Each organization gave a brief presentation, and this was followed by a general discussion on gaps in knowledge and constraints to monitoring. An e-group has been formed and a plan for future monitoring will be developed by CCDC.

GRANTS & DONATIONS

Coordination and reporting of coral reef monitoring

50,000 \$US to the CCDC from the United Nations Environment Program (UNEP) to coordinate the Northern Caribbean and Atlantic Node of the Global Coral Reef Monitoring Network (GCRMN), establish reporting links, facilitate coral reef monitoring, report coral reef status in the region and to prepare a proposal for sustainability of these activities.

Pelagic Fishery Development - A Long-Line Training Programme

US\$2600 donated to DBML from the Peace Corps Special Projects Assistance Program to train Discovery Bay fishermen in techniques of offshore fishing and marketing options and to collect data on pelagic fish stocks.

The International Society for Reef Studies (ISRS) Library Awards for 2003.

The following books: *Corals of the world* by JEN Veron and M Stafford-Smith; *Soft Corals and Sea Fans* by K. Fabricius and P. Alderslade; *Systema Porifera* by J Hooper and R van Soest; *Proceedings of the 9th International Coral Reef Symposium*, Bali, Indonesia, 2000; *Perspectives on Coral Reefs* edited by D Barnes, and subscriptions to the ISRS journal *Coral Reefs* and ISRS newsletter *Reef Encounter* for the triennium 2003-05; were awarded to DBML by ISRS based on criteria of relevance of our mission to coral reef studies, the number of people who would be likely to make use of the materials, the quality of arrangements for access and the track record of contributions made by the institution so far.

Ford Explorer donated by CWIP (USAID/GOJ)

This 1999 vehicle, bought in early 2000 for our CWIP projects in coastal water quality monitoring and implementation of community initiatives in coastal zone management, has now been signed over to CMS, UWI, and will be used initially at DBML to facilitate transport to research sites along the north coast.

RESEARCH IN PROGRESS

Mr P M H Gayle

- Coastal ecosystem monitoring under the CARICOMP protocol.
- Video-monitoring of deep reefs.

Dr A M Greenaway & students

- Water quality in the Great River, Black River and other coastal sites including Discovery Bay.

Dr M P Haley & students

- Habitat use by reef fishes of artificial reefs.

- Grazing patterns of different species of sea urchins on algae-covered reefs.
- Studies on coral abundance on offshore coral reefs.

Mrs D M Linton

- Management and analysis of coral reef and other coastal monitoring data.

Dr N J Quinn

- Settlement of lobsters and corals.
- Temperature fluctuations in coastal waters, including Papua New Guinea.
- Melanesian fishing practices.
- Pelagic fish stocks off Discovery Bay.

Dr G F Warner & students

- Taxonomy and ecology of black corals on Jamaican reefs.
- Breeding of pelicans in Kingston Harbour: effects of pollution and management issues.
- Grazing of herbivores (parrot fish, sea urchins) on coral reef algae.

**Dr D F Webber & collaborators in CMS, CARDI,
Dept of Chemistry and students**

- Coastal oceanography in embayments
- Impact and amelioration of sediment and agrochemical pollution on Caribbean coastal waters.

PAPERS PRESENTED

- Campbell, K.P. & Greenaway, A.M. “Water quality of the Great River watershed”. 6th Biennial Conference of the Faculty of Pure & Applied Sciences, UWI Mona. March 18-20, 2003.
- Creary, M., Walling, L., Green, S. & Wilson Kelly, P. “Coral reef monitoring for climate change impacts”. National Scientific Conference on the Environment (JIEP), April 9-10, 2003, Kingston.

- Edwards, P.E.T. & Fisher, T.C. “Coral reefs, are they really that important?” SRC 16th Annual Conference: Science and Technology for Economic Development: Towards health, Wealth and Knowledge, November 28-30th 2002, Kingston.
- Gayle, P.M.H. “CARICOMP monitoring at Discovery Bay”. CARICOMP Site Directors Meeting, Nov 30-Dec 6 2002, Grand Cayman. (Funded by CARICOMP).
- Gayle, P.M.H. “Transplantation of benthic species as a strategy for mitigating the anthropogenic impacts of coastal development”. 31st Scientific Meeting of the Association of Marine Laboratories of the Caribbean, 14-18 July, 2003, Trinidad.
- Gayle, P.M.H., Wilson-Kelly, P. & Green, S. “Dredging and coral relocation at Rackham’s Cay”. National Scientific Conference on the Environment (JIEP), April 9-10, 2003, Kingston.
- Gayle, P.M.H., Woodley, J & Sary, Z. “Fisheries management measures instituted at Discovery Bay, Jamaica, with special reference to establishment of the fisheries reserve and subsequent activities to develop the local fishery”. National Scientific Conference on the Environment (JIEP), April 9-10, 2003, Kingston.
- Greenaway, A.M. “The Great River Water Quality Monitoring Programme”, AGM Great River Watershed Management Committee, 6th November 2002, Montego Bay.
- Greenaway, A.M. “Nutrient removal technologies and wastewater management. AND Nutrient dynamics and the impact of nutrients on the marine environment”. UNEP/IMA's Regional Training workshop, 9-13 December 2002, Trinidad.
- Greenaway, A.M. “The CWIP Port Antonio Coastal Water Quality Monitoring Programme: a report of the results. AND A framework for an effective Governance system: The Annotto River Streambelt”. CWIP workshop, April 30-May 1, Port Antonio.
- Linton, D.M. “Participant. Reefs at Risk in the Caribbean: Threat Assessment Workshop”. Oct 22-24 2002, Miami, Florida. (Funded by Reefs at Risk).
- Linton, D.M. “Progress at the Caribbean Coastal Data Centre”. CARICOMP Site Directors Meeting, Nov 30-Dec 6 2002, Grand Cayman. (Funded by CARICOMP).

- Linton, D.M. “The Caribbean Coastal Data Centre: Regional Data Archiving, Information Generation and Dissemination for Sustainable Management of Coastal Resources”. International Tropical Marine Environmental Management Symposium (ITMEMS) March 17-20 2003, Manila, Philippines. (Funded by UNEP).
- Quinn, N.J. “Biological evidence for diminished nursery capacity in Discovery Bay marine communities”. 6th Biennial Conference of the Faculty of Pure & Applied Sciences, UWI Mona. March 18-20, 2003.
- Quinn, N.J. “Have good land management practices protected essential coastal nurseries? Case Study: Discovery Bay, Jamaica”. National Scientific Conference on the Environment (JIEP), April 9-10, 2003, Kingston.
- Quinn, N.J. “Using *Panulirus argus* pueruli as a biological indicator of inshore marine community health”. 1st International Conference on Coastal Zone Management, 5-7 May 2003, Cuba.
- Quinn, N.J. “More evidence that Caribbean *Acropora* coral populations are in trouble – a view from the maternity ward”. 31st Scientific Meeting of the Association of Marine Laboratories of the Caribbean, 14-18 July, 2003, Trinidad.
- Quinn, N.J. & Kojis, B.L. “Biological evidence for diminished nursery capacity in Discovery Bay”, Jamaica. 55th Annual Meeting of the Gulf & Caribbean Fisheries Institute, Xel-Ha, Mexico, 11-15th November 2002.
- Townsend, S.E., Maxam, A.M. & Webber, D. “The dispersal of phytoplankton along the coastal embayments, Hellshire coastline, St. Catherine, Jamaica”. 6th Biennial Conference of the Faculty of Pure & Applied Sciences, UWI Mona. March 18-20, 2003.
- Warner, G.F. “US-Caribbean Cooperation in Integrated Coastal Management”. ALO (USAID) Synergy in Development Meeting 12-14 August 2002, Washington DC. (Funding from ALO Grant).
- Warner, G.F. “CARICOMP, the Caribbean Coastal Marine Productivity program”. Netherlands Antilles Coral Reef Initiative meeting, Oct 23-29, 2002, Curacao. (Funding from Reef Care Curacao).

- Warner, G.F. “Protection of the marine environment with special reference to fisheries”. Jamaica Fishermen Cooperative Union Ltd meeting: Fishing for Prosperity and Sustainability, 7 November 2002, Kingston.
- Warner, G.F. “Mangrove Wetlands: Use and Abuse”. World Wetlands Day at, Birdlife Jamaica and the Montego Bay Marine Park, Feb 1 2003, Montego Bay Marine Park
- Warner, G.F. “The Work of the Centre for Marine Science”, SRC Research & Development Group meeting, Feb 12 2003, Kingston.
- Warner, G.F. “The CARICOMP Data Centre”. Caribbean Sea Environmental Assessment workshop, 26-30 May, 2003, Trinidad. (Funding from The Cropper Foundation).
- Warner, G.F. “Occurrence and distribution of black corals (Antipatharia) from Jamaican deep reef environments”. 31st Scientific Meeting of the Association of Marine Laboratories of the Caribbean, 14-18 July, 2003, Trinidad.

PUBLICATIONS

Refereed

- * CARICOMP [GF Warner *et al*] (2003). Status and temporal trends at CARICOMP coral reef sites. pp 325-330 in MK Kasim Moosa, S Soemodihardjo, A Nontji, A Soegiarto, K Romimohtarto, Sukarno and Suharsona, (eds). *Proceedings of the 9th International Coral Reef Symposium*.
- * CARICOMP [DM Linton *et al*] (2003). The Caribbean coastal marine productivity program (CARICOMP) database: potential for data mining and comparisons of Caribbean-wide datasets. pp 901-908 in MK Kasim Moosa, S Soemodihardjo, A Nontji, A Soegiarto, K Romimohtarto, Sukarno and Suharsona, (eds). *Proceedings of the 9th International Coral Reef Symposium*.
- * Cho, L.L. & Woodley, J.D. (2003). Recovery of coral reef at Discovery Bay, Jamaica and the role of *Diadema antillarum*. pp 331-338 in MK Kasim Moosa, S Soemodihardjo, A Nontji, A Soegiarto, K Romimohtarto, Sukarno and Suharsona, (eds). *Proceedings of the 9th International Coral Reef Symposium*.

- * Crabbe, M.J.C., Mendes, J.M. & Warner, G.F. (2002) Lack of recruitment of non-branching corals in Discovery Bay is linked to severe storms. *Bull. Mar. Sci.* 70: 939-945.
- * Cumming RL, MA Toscano, ER Lovell, BA Carlson, NK Dulvy, A Hughes, JF Koven, NJ Quinn, HR Sykes, OJS Taylor & D Vaughan (2003). Mass coral bleaching in the Fiji Islands, 2000. pp 1161-1168 in MK Kasim Moosa, S Soemodihardjo, A Nontji, A Soegiarto, K Romimohtarto, Sukarno and Suharsona, (eds). *Proceedings of the 9th International Coral Reef Symposium*.
- * Haley M. and Clayton A. (2003) The role of NGOs in environmental policy failures in a developing country: the mismanagement of Jamaica's coral reefs. *Environmental Values*, 12:29-54.
- * Linton, D.M. & Warner G.F. (2003). Biological indicators in the Caribbean coastal zone and their role in integrated coastal management. *Ocean & Coastal Management*, 46: 261-276.
- * Woodley, JD and Z Sary (2003). Development of a locally-managed fisheries reserve at Discovery Bay, Jamaica. pp 627-634 in MK Kasim Moosa, S Soemodihardjo, A Nontji, A Soegiarto, K Romimohtarto, Sukarno and Suharsona, (eds). *Proceedings of the 9th International Coral Reef Symposium*.

Non-Refereed

- * Clayton A. & Haley M. (2003) Policy Problems and the Protection of the Marine Environment; are NGOs the solution...or part of the problem? *The Gleaner*, January 17.
- * Haley, M. & Clayton, A. (2002). Fishing is destroying Jamaica's coral reefs. E3, *The Gleaner*, December 18.
- * Linton, D., Smith, R., Alcolado, P., Hanson, C., Edwards, P., Estrada, R., Fisher, T., Gomez Fernandez, R., Geraldles, F., McCoy, C., Vaughan, D., Voegeli, V., Warner, G. & Wiener, J. (2002) Status of Coral reefs in the Northern Atlantic and Caribbean Node of the GCRMN. pp 277-302 in C. Wilkinson (ed) *Status of Coral Reefs of the World: 2002*. Australian Institute of Marine Science.

- * Quinn, N.J. & Downer, E. (2002) The 2002 Jamaican Game Fishing Tournament Results. *DBML Technical Report* 02/01, pp. 22.
- * Quinn, N.J. & Kojis, B.L. 2002. Biological evidence for diminished nursery capacity in Discovery Bay, Jamaica. 55th Annual Meeting of the Gulf & Caribbean Fisheries Institute, Xel-Ha, Mexico, 11-15th November, Abstract, p119.
- * Quinn, NJ & Lawrence, J (eds.) *Discovery Bay Marine Lab Annual Report* 2003. pp. 12.

PUBLIC SERVICE

P.E.T. Edwards

- Scientific Advisor, Kingston Harbour Mangrove Replanting Steering Committee

P.M.H. Gayle

- Member, Ocho Rios Environmental Advisory Group

D.M. Linton

- Member, Steering Committee, Caribbean Coastal Marine Productivity program

N.J. Quinn

- Member, Jamaican Hotel and Tourist Association, Ocho Rios
- Member, St. Ann's Bay Chamber of Commerce

G.F. Warner

- Member, National Council for Ocean and Coastal Zone Management
- Member, Scientific Authority for CITES
- Member, Advisory Board, Natural History Division, Institute of Jamaica
- Member, Steering Committee, Caribbean Coastal Marine Productivity program

STUDENTS AND TEACHING

Postgraduate students registered with CMS, 2002/3

	MPhil	PhD
Conducting fieldwork	3	1
Writing up	2	1
Submitted	2	2
Awarded degree in 2002/3*	–	1
Total	7	5

*The PhD Degree in Marine Sciences was awarded to **Judith Mendes**. Her thesis research “Skeletal density banding in the stony coral *Montastraea annularis*” was supervised by Dr J.D. Woodley.

Teaching contributions by CMS

- Marine components in the Life Sciences MSc Biological Approaches in Ecosystem Management
- Coral reefs in BL31F Benthic Marine Communities
- BL20L Diving Technology for Aquatic Scientists
- Underwater Photography courses at DBML

Course development

Masters Level distance-learning module in Integrated Coastal Management, in collaboration with the Centre for the Study of Marine Policy, University of Delaware, USA (funded by ALO, USAID).

EARTHQUAKE UNIT

Margaret D. Wiggins-Grandison BSc UWI, MS *Atl. U*
– Research Fellow in Seismology

WORK OF THE DEPARTMENT

The beleaguered old building housing Stony Hill seismograph station was completely refurbished at a cost of about \$536,000.00. Globe Insurance Company W.I., Ltd. donated the money in September 2002 and the station was re-opened on March 12, 2003. The structure was strengthened, fitted with a slab roof, re-wired, painted, and the floor was tiled. In addition, a metal door was installed and the building was insulated and air-conditioned to protect the instruments not only from possible intruders, but also from excessive temperature fluctuation and humidity. It was quite a unique opening ceremony as seido-karate instructor, Tony Robinson broke a cement block (JBS certified) with one deft stroke of his bare hand as Globe's Managing Director, Evan Thwaites, other Managers of Globe, EQU staff and journalists observed. Jamaica's first **broadband seismograph** and various other earthquake recording equipment were displayed and their uses explained to the audience. A plaque was placed near the entrance to the building commemorating Globe's contribution to its restoration.

Also in 2003, the Earthquake Unit (EQU) was designated **Jamaica's National Data Centre (NDC)** of the United Nations' Comprehensive (Nuclear) Test-Ban Treaty Organization (CTBTO). As such the EQU will be linked by VSAT to the CTBTO's International Data Centre (IDC) in Vienna, and have direct access to near-real time data from the CTBTO's International Monitoring System (IMS). The IMS consists of globally distributed networks of state-of-the-art geophysical instruments providing uniform monitoring of seismic, hydroacoustic, infrasound, and radionuclide energyfields. Through the EQU, interested Jamaican

Government agencies and research institutions can have access to these data. The site for the VSAT has been selected and approved by the CTBTO Communications Manager who visited the Unit in July. Local estimates for its preparation were obtained, license applications were submitted to the local authorities, and a timetable for establishing the link was prepared.

Earthquakes recorded

Four hundred and thirty (430) earthquakes were recorded by the Jamaica Seismograph Network (JSN) during this period. Just over half of these occurred in Jamaica (171) and near to Jamaica (48 within approximately 400 km), 61 within the Caribbean Basin, and 90 were extra-regional events (see double pie chart). The remaining 60 events were attributed to local explosive operations, possibly mining or road construction. One hundred and fifty-four (70%) of the local and near events were located, including eight felt events, three of which occurred in close succession on August 10, two in October, and one each in January, May and July 2003 (see table of felt earthquakes). The largest of these was the event of August 10 at 01:22 am EST that had a magnitude of 4.6, which was strong enough (Intensity V) to awaken many in eastern and central parishes.

Jamaica Seismograph Network (JSN)

The islands first broadband seismograph was installed in March 2003 at Stony Hill to coincide with the re-opening of that station. This instrument is expected to boost significantly the earthquake detection and research capabilities of the JSN and the EQU. The station at Portland Cottage (PCJ) was upgraded to three-components on June 26, 2003, increasing the number of three-component stations within the JSN to four. Eighty (80) trips were made during this period to improve, maintain and repair remote seismic and telemetry equipment. Four stations, STH, GWJ, HOJ and YHJ performed well in spite of inclement weather conditions (see station performance bar chart). These stations and MBJ showed improved performances compared to the same period last year. In particular, HOJ and YHJ improved markedly, with YHJ recording over 50% of earthquakes recorded for the first time. Seven stations had declining performances recording less than 50% of the earthquakes. For MCJ and PCJ the declines were significant as they both recorded over 50% in 2001-2002. BBJ, BNJ, CVJ, NEJ and MBJ continued to perform below

par. We continued to experience problems associated with our north-eastern stations as CMJ in Castle Mountain, Portland, recorded nothing over the past two years. This year the problem was exacerbated as BBJ in Bamboo, St. Ann, and BNJ in Bonny Gate, St. Mary, also failed to record any earthquakes. This was caused by the unfortunate disconnection in July 2002 of the power supply (which is the responsibility of the agency leasing the building) at BNJ, which is the retransmission node for BBJ and CMJ signals. These three stations have underperformed in the past because of transmission difficulties due to poor line-of-sight in this mountainous part of the country. As technical staff continue to wrestle with this issue, portable instruments were installed at two of the sites. The digital portable ORION instrument at Green Hill was damaged apparently by lightning and was repaired by the manufacturers at cost of over USD1400.00 (some of which is to be recovered from insurance).

Jamaica (Digital) Accelerograph Network

The remaining two digital accelerographs were installed in Mandeville and Port Antonio bringing the number of these instruments installed across the country to eight, seven Etna-types and one K2. The accelerographs at STH and Mona Campus recorded the earthquakes of August 10, 2002 at 01:22 and 01:58 a.m. representing one of our first digital acceleration recordings of a strong earthquake since the installation of the instruments (see accelerogram attached). Unfortunately, the instrument at Port Antonio did not record the earthquakes, as it was out of order at the time due to protracted power problems at the site. One Etna instrument has been damaged by lightning and needs to be sent to the manufacturers for repair.

Global Positioning System network

In collaboration with Professor Charles de Mets of the University of Wisconsin at Madison, USA, a network of 20 Global Positioning System monuments has been established across Jamaica starting in 1999. Geodetic-grade receivers are installed at these sites to collect precise location data, which is used to study crustal velocities and ultimately, the neotectonic behaviour of Jamaican faults. Continuous recording takes places at two sites, in south and central Jamaica, from which data are collected monthly. During this period, the portable instrument was installed in turn at eleven sites, where it is normally left for seven to ten days each. The portable receiver was unavailable for a few months as it was damaged and had to undergo repair at the manufacturer.

Staff

Raymond Stewart (BSc-Geology) was appointed Seismic Analyst in January 2003. Raymond had been acting in the post since May 1999. Karleen Black (BSc-Geology) was recruited in an, 'acting' capacity bringing the staff complement to six, but it is hoped that her eventual appointment will strengthen the research capability within the EQU. Florin Ionica spent three months study leave in Romania, where he continued working towards a PhD in the field of seismic data transmission.

Teaching

During Semester II, Jan to April 2003, M. Wiggins-Grandison taught 'Applied Geophysics' (GL36A) at the Department of Geography and Geology. Seven (7) students completed the course.

RESEARCH IN PROGRESS

Wiggins-Grandison, M.D

- Inversion of local earthquake primary and secondary wave travel times to develop an average flat-layered crustal velocity model for Jamaica.
- (with Ojeda Carriazo, A) Mapping lateral heterogeneities in the Jamaican crust using local earthquake tomography.
- Receiver function analysis to determine the depth and nature of the crust-mantle transition for Jamaica.
- Determining the Jamaican crustal stress regime from inversion of earthquake fault-plane solutions.
- (with DeMets, C.) Determination of slip velocities on local faults that may be associated with local tectonic activity and wider Caribbean – North American Plate motions.

Ionica, F.

- Expanding the capabilities for data downloading in the Jamaica Strong Motion Network using GSM modems in the frame of existing GSM networks in Jamaica.

PAPERS PRESENTED

- * DeMets, C and **Wiggins-Grandison, M.D.** “Measurements of Slip Rates on Jamaican Faults”, Faculty of Pure & Applied Sciences, Mona, Conference, March 18-20, 2003, Mona Campus, UWI, (poster).
- * **Wiggins-Grandison, M.D.** and Ojeda Carriazo, A. E., A First Tomography of Jamaica, Seismological Society of America AGM, April 29 to May 2, 2003, San Juan, Puerto Rico, 17 pp.

PUBLICATIONS

Refereed

- * “Crustal velocity model along the southern Cuba margin: implications for the tectonic regime at an active plate boundary”. B. Moreno, **M. Grandison**, K. Atakan. *Geophysical Journal International* 151 (2002): 632-645.

OUTREACH

- November 2002 - Old Dramatic Theatre, UWI, (staff) Annual Earth Day exhibition organized by the Department of Geography and Geology
- November 2002 – CTBTO Caribbean Workshop, Runaway Bay HEART Academy, Jamaica, (Wiggins-Grandison) an invited talk on Seismic Monitoring in Jamaica, hosted by the Ministry of Foreign Affairs and Foreign Trade.
- January 12 to 18, 2003, Earthquake Awareness Week activities:
 - Media interviews:* (Wiggins-Grandison) Jamaica Observer, KLAS FM89 - First Edition (host Easton Douglas); JIS TV; KLAS FM - My Place (host Tony Young); Power106 - Nationwide (Cliff Hughes).
 - Talks:* (Wiggins-Grandison) “Jamaica's Vulnerability to Earthquakes”: 2:00 pm, St. Andrew High School Geography Club; 4:00 pm, Registrar of Companies

Tours of the Earthquake Unit and Central Recording Station by School Groups: (Staff)

School of Hope (22 students, 3 teachers)

Holy Childhood High School Geography club (15 students, 1 teacher)

Drewns Avenue Primary School (5 students 1 teacher)

Green Park Primary and Junior High, Sandy Bay, Clarendon (25 students, 4 teachers)

St. John's Primary School, Spanish Town (104 students, 3 teachers)

Allman Hill Primary and Junior High School (26 students, 1 teacher)

Donald Quarry High School (18 students, 2 teachers)

- March 30 to April 4, 2003: M. Wiggins-Grandison attended the seventh “Introductory On-site inspection training workshop at the (United Nations) Comprehensive (Nuclear) Test-Ban Treaty Organisation (CTBTO) in Vienna, Austria, nominated by Ministry of Foreign Affairs & Foreign Trade
- June 2003, Disaster Preparedness Month (staff), exhibition “Risk Management: the new culture”, at the Portmore Mall, organized by the Office of Disaster Preparedness and Emergency Management (ODPEM)

DISTINGUISHED VISITORS

Gordon Arnold, Marketing Manager, Globe Insurance Company (W.I) Ltd.,

Ambassador Wolfgang Hoffman, Executive Secretary, United Nations Comprehensive (Nuclear) Test-Ban Treaty Organisation (CTBTO), Vienna, Austria,

Ali Bi, CTBTO Preparatory Commission, Vienna, Austria

Sheila Sealy-Monteith, Ministry of Foreign Affairs & Foreign Trade, Jamaica

Gerald Desmuelles, Communications Dept., CTBTO.

Felt Earthquakes

Date	Time (EST)	Location	Magnitude & Industry	Felt Areas
August 10, 2002	01:22 am	Offshore eastern Jamaica	4.6 maximum intensity V	Kingston & St. Andrew, Portland, St. Catherine & Clarendon
August 10, 2002	03:58 am	east Jamaica	4.2	Kingston & St. Andrew, Portland, St. Catherine & Clarendon
August 10, 2002	03:59 am	east Jamaica	3.7	Kingston & St. Andrew, Portland and St. Catherine
October 8, 2002	10:27 pm	Red Hills, St. Andrew	2.7	Kingston & St. Andrew
October 10, 2002	05:57 pm	Blue Mountain Ridge, Portland	3.4	New Kingston, St Andrew
January 30, 2003	10:14 am	Silver Hill Peak, Portland	3.8 Intensity III to IV	widely felt in Kingston & parts of St. Andrew
May 14, 2003	08:54 pm	Cockpit Country, Trelawny	3.7 maximum intensity IV to V, in Trelawny	Kingston & St. Andrew, St. Catherine, Clarendon, St. James and Trelawny
July 19, 2003	06:07 pm	Eastern Jamaica	3.4 intensity II	felt by a few favourably placed individuals in the parish of St. Andrew

ELECTRON MICROSCOPY UNIT

Klaus W. Wolf, PhD – Head of Unit

WORK OF THE UNIT

The Electron Microscopy (EM) Unit, Mona has been instrumental throughout the 2002/2003 academic year in helping Researchers and other Interest Groups to achieve their goals of obtaining results in and gaining a better understanding of Electron Microscopy. Transmission Electron Microscopy (TEM), Scanning Electron Microscopy (SEM), Optical Microscopy (OM) and one case of Macrophotography (MP) were all used to benefit Researchers on and off the Mona campus, Postgraduate-, Undergraduate-, and High School-students, recent Inductees to the University of the West Indies and Representatives of an international producer of scientific instruments. Tables 1 and 2 indicate respectively, services that the EM Unit has provided and Interest Groups that have gained improved understanding of EM, via tours and demonstrations conducted at the EM Unit.

Tab. 1: Services provided by the EM Unit during the academic year 2002/2003

Specimen	Technique	U.W.I Institution / External Partner
Corixid insect	OM	Scientific Research Council, St Andrew
Fungi in yam tubers	OM	Dept. of Life Sciences, U.W.I., Mona
Human red blood cells	OM	Dept. of Basic Med. Sciences, U.W.I., Mona
Penicillium slides	OM	Dept. of Life Sciences, U.W.I., Mona

Plant parasitic nematodes	OM	Dept. of Life Sciences, U.W.I., Mona
Soil particles	OM	University of Technology, St Andrew
Weld pellets	OM	University of Technology, St Andrew
Coconut embryos	OM	Coconut Industry Board / Dept. of Basic Med. Sciences, U.W.I., Mona
Whelks (marine snails)	MP	Centre for Marine Sciences
Black corals	SEM	Centre for Marine Sciences
Ceramics	SEM	Dept. of Physics, U.W.I., St Augustine
Fossilized crustacea	SEM	Dept. of Geology & Geography, U.W.I., Mona
Marine carbonate sand	SEM	Dept. of Geology & Geography, U.W.I., Mona
Rat femur	SEM	Dept. of Basic Med. Sciences, U.W.I., Mona
Fungi in yam tubers	TEM	Dept. of Life Sciences, U.W.I., Mona
Organo-metallic compound	TEM	Dept. of Chemistry, U.W.I., Mona
Zinc oxide crystals	TEM	Dept. of Chemistry, U.W.I., Mona

Tab. 2. Tours of the EM Unit conducted with various groups

Tour Group	Location	Number of Persons
Ardenne High School	St. Andrew	14
Calabar High School	St. Andrew	10
Holy Childhood High School	St. Andrew	6
Graduate Students of Chemistry	UWI, Mona	15
Inductees to the Campus	UWI, Mona	18
Microbiology Students	UWI, Mona	ca. 200
Researchers and Technologists	University of Technology, St. Andrew Northern Caribbean University, Manchester	5

Laboratory classes were conducted with undergraduate students. Over a two-week period, Dr Wolf delivered lectures and conducted tutorial and laboratory sessions in the course “Cells, Biomolecules and

Genetics (BB10A)". From Oct.17 to 25, 2002, Dr. Wolf conducted a practical course focusing on the preparation of biological specimens for the TEM at the Mount Hope Medical Center, Port of Spain (Trinidad). Two lectures were done during that time. The EM Unit contributed to the Research Days of the Mona Campus by providing posters for a booth in the Assembly Hall and tours of the EM Unit, during the course of the Research Days.

The research conducted by the staff of the EM Unit, focused on surface morphology of insect eggs and resulted in the publication of one peer-reviewed article. In addition, five papers were presented. Collaborations, previously established with researchers on-campus and abroad (Table 3), were maintained.

Tab. 3 Collaborations with the EM Unit during the academic year 2002/2003

Subject	Collaborator
Morphology of filamentous material covering egg batches of a moth	Cell Biologists at the Institute of Molecular Biotechnology, (Jena, Germany)
Visualization of the tymbal organ of moths, using SEM	Entomologists at the Dept. Life Sciences, U.W.I., Mona
Surface morphology of moth eggs	Entomologists at the Dept. Life Sciences, U.W.I., Mona
Morphology and composition of radular teeth in a freshwater snail	Ecologists at the Dept. Life Sciences, U.W.I., Mona

RESEARCH IN PROGRESS

- Gamete structure and development in insects using diverse microscopic techniques

PAPERS PRESENTED

- “HABITAT partitioning, diet and radular structures of *Neritina punctulata*, Bussu, in two Portland rivers.” **Martin, T.R.**, Wolf, K.W. and Hyslop, E.J. In: Proceedings of the sixth biannual conference. Faculty of Pure and Applied Sciences. Eds.: Coore, D. and Lancashire, R., published by the Faculty of Pure and Applied Sciences, Mona, p.63, 2003.

- “An optical illusion in scanning electron micrographs of the chorion of the tiger moth *Are druryi* (Lepidoptera: Arctiidae).” **Wolf, K.W.**, Murphy, K., Reid, W. and Garraway, E. In: Proceedings of the sixth biannual conference. Faculty of Pure and Applied Sciences. Eds.: Coore, D. and Lancashire, R., published by the Faculty of Pure and Applied Sciences, Mona, p.83, 2003.
- “Filamentous material covering egg batches of the moth *Spodoptera pulchella* (Lepidoptera: Noctuidae).” **Wolf, K. W.**, Reid, W. and Watson, A. In: Proceedings of the sixth biannual conference. Faculty of Pure and Applied Sciences. Eds.: Coore, D. and Lancashire, R., published by the Faculty of Pure and Applied Sciences, Mona, p.83, 2003.
- “Depth Reversal, a Type of Optical Illusion, in Scanning Electron Micrographs of Biological Material.” **Wolf, K. W.**, Reid, W. In: 96 Jahresversammlung der Deutschen Zoologischen Gesellschaft und der Deutschen Gesellschaft für Parasitologie, June 9 to 13, 2003 Berlin (Germany). Abstract Volume p. 129, 2003.
- “Chorion Morphology in Tropical Insects: Examples from the Lepidoptera and Hemiptera with a Note on Optical Illusions in Scanning Electron Micrographs.” **Wolf, K. W.** Seminar at the Department of Genetics – Institute of Entomology of the Czech Academy of Sciences on June 16, 2003.

PUBLICATION

Refereed

- * “Optical Illusions in Scanning Electron Micrographs: The Case of the Eggshell of *Acrosternum (Chinavia) marginatum* (Hemiptera: Pentatomidae).” **K.W. Wolf**, W. Reid., M. Schrauf. *Micron* 34, 57- 62, 2003.

PUBLIC SERVICE

Dr. K.W. Wolf

- acted as ad hoc referee for “The Ohio Journal of Science”

DISTINGUISHED VISITORS

Dr. H. Karlic, Ludwig Boltzman Institute of Leukemia Research,
Vienna, Austria

Dr. P. Jeppesen, Roslin Institute, East Lothian, Scotland

Prof. J.R. Wolff, Dept. of Developmental Neurobiology, Center
of Anatomy, University of Göttingen, Germany

INTERNATIONAL CENTRE FOR ENVIRONMENTAL AND NUCLEAR SCIENCES (ICENS)

Professor the Hon. Gerald C. Lalor, OJ, CD, MSc *Lond-UCWI*,
PhD *Lond* – Director General

WORK OF THE DEPARTMENT

The programmes currently being undertaken by the Centre are based on environmental geochemistry which provides data and knowledge that contribute to agriculture and health. Collaborations from various sectors, and especially the Ministry of Agriculture, Ministry of Health, Rural Agricultural Development Agency (RADA) and the UWI Faculty of Medicine have greatly assisted this programme.

Small Research Reactor Workshop

The Centre held a Inter-regional Workshop on Small Research Reactors during the period of January 13 - 17, 2003. There were twenty participants from fifteen countries. The main topics were: the small reactor concept and design, neutron activation analysis and other applications, possibilities for fund raising, the future of small reactors and final decommissioning.

The well-attended opening ceremony was addressed by the Vice-Chancellor. Those present included Ministers of Government and ambassadors from the participating countries. Funding for the Workshop was provided by the IAEA.

Staff Recognition

Dr. Mitko Vutchkov, Senior Research Fellow received the Gleaner Award in the field of Science and Technology, for his work on lead in the Kintyre area. He was nominated by the principal of the Kintyre Basic School.

Professor Gerald Lalor was inducted as a Fellow of the Institute of Jamaica.

Database and Information Systems

The Jamaican Government has made available IKONOS satellite imagery which covers the entire island. This satellite produces multispectral and grey scale images at 4 metre and 1 metre resolution respectively.

The information systems have improved greatly. The database now contains over 200,000 analytical data entries on over 14,500 samples of soils, rocks, surface and ground water, stream sediments, air particulates, food, blood, animal and human kidney and liver tissues. The data are complimented by the satellite imagery, geographically referenced information on topography, climate, vegetation, land use, geology, mineral deposits, and plant productivity.

Equipment

A custom-built total reflection x-ray fluorescence unit made by the Atominstitut in Vienna was presented to the Centre by the IAEA. This machine will enable us to quantify ultra trace levels of various elements and open new opportunities for work on medical aspects of heavy metals in human tissue.

Students and Interns

ICENS continues to support the usual undergraduate programmes on request. The normal summer programme was, however, restricted to only two students because of a lack of funds and a very heavy staff workload. One was an Applied Chemistry student performing his work assignment, the other from the University of Michigan who funded all her expenses.

Paul Wright obtained his PhD in Environmental Chemistry from the University of the West Indies in 2002. His thesis supervisor was Dr. Anthony Greenaway.

Funding

The following grants were received by the Centre:

- Agricultural Support Services and Productive Projects Fund:
J\$1,425,000.00 to assist with sampling of soil and root crops.
- Caribbean Development Bank:
US\$90,000 for short-term consultants in support of the project on food and health.
- Environmental Foundation of Jamaica:
J\$4,875,000 to examine the blood lead levels of children island-wide.
- International Atomic Energy Agency:
 - US\$150,000 for equipment, experts and visits of staff to other centres.
 - US\$ 35,000 to support the international workshop held January 13 – 17, 2003.

Visiting Fellowships

Dr. R. Garrett Canadian Geological Survey visited for 4 weeks. He assisted with the interpretation of gold results in Jamaican soils and in data base manipulation.

Dr. Nimal de Silva visited for two weeks to assist in the analyses for mercury.

Dr. Brian Davies visited for two weeks to convert soil type information into digital maps.

Dr Toyin Arowolo, University of Agriculture, Nigeria, was a Third World Academy of Sciences Fellow. He worked on the distribution of cadmium and zinc as a function of particle size in soils.

RESEARCH IN PROGRESS

Our main programmes in progress are Food and Health and Blood Lead Levels of Jamaican Children:

(a) Food and Health

The programme contributes to small farmer agriculture in Jamaica. Very interesting results are being obtained on heavy metals in soil, their entry into the food chain and eventually into people. The socio-economic and health aspects are also under investigation.

(b) Lead Mitigation

Following on the work in the Kintyre community an island-wide blood lead screening of basic school children is underway. Over two hundred and eighty children have so far been examined, and in many cases the results exceed the presently accepted blood lead limits. In these cases, environmental interventions and lead safe training have been provided or are planned, and in a more limited number of cases medical interventions are being arranged.

(c) Other programmes underway include:

Soil Geochemistry
Air Quality
Inter-laboratory Comparisons

PAPERS PRESENTED

Robert G. Garrett and Gerald C. Lalor

- The Fe/Na ratio, a framework for interpreting trace elements in Jamaican soils, 7th International Conference on the Biogeochemistry of Trace Elements, Uppsala, Sweden, June 2003.

PUBLICATIONS

- * “Dry-ashing preconcentration for micro-reactor-based neutron activation analysis of food and plant samples”. Gerald C. Lalor,

Percy C. Onianwa and Mitko K. Vutchkov. *International Journal of Environmental Analytical Chemistry*, 83 (5), 367-374 (2003).

- * “Thermoluminescence Dosimetry in the Caribbean”. C.N. Grant, G.C. Lalor, J.E. Thomas. *West Indian Medical Journal* 52 (2), 118-123, 2003.
- * “Essential Elements in Jamaican soils Part 2: Cobalt”. Lalor, G.C., and Vutchkov, M. *Jamaican Journal of Science and Technology* 12 & 13 35-47 (2002)
- * “Essential Elements in Jamaican Soils Part 1: Phosphorous”. Campbell, V., Lalor, G.C. and Rattray R. *Jamaican Journal of Science and Technology* 11, 13-22 (2000)
- * “Heavy Metals in Jamaica Part 5: Reduction of Blood Lead levels of Children in a Mine-Waste Contaminated Area” Lalor, G.C., and Vutchkov, M. *Jamaican Journal of Science and Technology*, 11, 23-35 (2000)

PUBLIC SERVICE

Professor Gerald Lalor

- Director of Gleaner Company;
- Member, Board of Governors of the ICWI Group Foundation
- Member, Council of the Third World Academy of Sciences (TWAS); Commission on Science and Technology for Sustainable Development in the South (COMSATS);
- Member, National Commission for Science and Technology (NCST);
- Member, Technical Committee of the Scientific Research Council.
- Member, Editorial Board, *The Science of the Total Environment*; *Environmental Geochemistry & Health*; and *Jamaica Journal of Science & Technology*

Dr. Robin Rattray

- Secretary, Council of the Jamaican Society of Scientists and Technologists
- Member, Air and Water Quality Subcommittee, NRCA
- Director, Lions Club of Mona

Dr. Mitko Vutchkov

- Agro-Industry Projects Committee Member, Scientific Research Council.

Dr. Gladstone Taylor

- Member: Executive Council, Inter-American Institute for Global Change Research.

Mr. John Preston

- Member, Land Information Council of Jamaica
- Member, Telecommunications Appeals Tribunal.

Mrs. Joan Thomas

- Member, Radiation Protection Advisory Committee of Jamaica.
- Member, Inner Wheel Club of Kingston.

DISTINGUISHED VISTORS

Professor C.N. Rao, Board of Governors, ICENS

H.E. Edward Malayan, Ambassador for the Russian Federation

H.E. Rafael Jover, Ambassador for Spain

H.E. Rocio Maneiro, Ambassador for Venezuela

H.E. I.V. Chopra, High Commissioner, India

Professor Peter Wobrauschek, Atominstitut, Vienna

Professor Christina Streli, Atominstitut, Vienna

Hon. Errol Ennis, Minister of State, Ministry of Agriculture

SIR ARTHUR LEWIS INSTITUTE OF SOCIAL AND ECONOMIC STUDIES (SALISES)

Professor Neville Duncan, BSc, MSc *UWI*, PhD *Manc*
– Campus Director

WORK OF THE INSTITUTE

Overview

This was a highly productive year for the Institute. **Dr. Patsy Lewis** won the Mona Principal's book prize for the Faculty of Social Sciences, for 2002, for her book, *Surviving Small Size: Regional Integration in Caribbean Mini States*. **Dr. Aldrie Henry-Lee** (along with Professor Wilma Bailey and Clement Branche) won the Mona Principal's award for the Distinguished Researcher in the Faculty of Social Sciences for 2002. **Dr. Nikolaos Karagiannis** had two books published during the academic year. Overall, there were 22 refereed publications, 19 forthcoming publications, and 8 not refereed. Thirty four papers were presented at academic conferences. Further physical improvements to the Institute and its grounds were achieved as well as improvements in office equipment. Several social, political and economic reports on Jamaica were undertaken in this period (19 in all) – maintaining our reputation for relevant research. Congratulations go to **Annie Paul** for the modern design and choice of colours for the cover of the new SES Journal for 2003 and beyond. Congratulations also go to **Sheron Barnes-Wilmot** and her team of administrators from SALISES, Cave and SALISES, St. Augustine for the publication of our institutional magazine *SALISES VOICE*, vol. 1, 2003. Janice Brooks, subscriptions clerk, has resumed duties after a year on study leave. She is currently in the final semester of the BSc in Public Administration. Mrs. Beverly Lothian and Ms. Olamaie Christie continue their degree programme in library studies.

The Degree Programmes

The second cohort of students (42) was admitted to MSc programmes, continuing MSc students numbered 23, leading to 65 MSc students in all.

Postgraduate Students' Statistics 2002-2003

Degree Programme	No. of Students from 2001-2002	No. of New Students 2002-2003	Total
MSc Full Time	6	22	28
MSc Part Time	17	20	37
PhD/MPhil Full time	3	4	7
PhD/MPhil Part Time	13	7	20
CGS (continuing PT)	—	3	3
Total	39	56	95

Subject to the successful completion of their research papers this Summer, the Institute expects to graduate up to 40 students in the MSc Programmes. This is the end of the second year of the MPhil/PhD programme which now has 16 students continuing from 2001 and 11 from 2002 with three continuing from the Consortium Graduate School.

The Documentation Centre (DDC)

The most significant event for the past year has been the successful experiment to introduce a user-friendly web-based interface for access to the group of databases which comprise the online public catalogue. Preparatory work to assess the journal collection prior to reducing the current number of subscriptions began with identifying titles where articles appear as full-text in the campus electronic databases. The well-recognized trend of a regular significant annual prices increase as well as devaluations have translated into million dollar payments by SALISES, Mona. The move towards a type of formal consortium of tertiary (or perhaps UWI only) libraries for the purchase of (admittedly costly) electronic databases is slow but a partnership model is the inevitable outcome. Joint decision-making and pooling of funds will result in orderly and profitable resource-sharing within the consortium.

Outstanding tasks were completed in respect to:

- stock-taking of the Archival collection which consists of reports, papers, publications, etc. written by staff of the Institute and, to a lesser extent, the Faculty of the Social Sciences.
- converting the 'upper-case only' older SWTP database records in preparation of our switch-over to a web-based interface.
- re-doing the signage for journals on shelves of the Reading Room.

The database of records of articles, book reviews, notes and comments which appeared in the Institute's journal for the first 50 volumes of the SES is undergoing a final round of scrutiny. From this database, author, subject, chronological and other groupings may be derived for print or online output.

The Derek Gordon Data Bank (DGDB).

Technical advice to students continues to prove most time-consuming. MSc students from SALISES and from Dept. of Sociology preparing research papers and using our datasets need considerable assistance, from the simple to the more difficult tasks/issues of data analysis. Data acquisition was low in 2002-2003. SALISES signed a contract with Jamaica Conference Board for acquisition of consumer business confidence data but those data have been slow in coming. Along with persons in the Department of Economics, the DGDB has been trying to negotiate for other datasets but has not received any others, to date. We now have new software – EVIEWS; and Adobe Acrobat Reader. The latter will facilitate our move towards Web-based teaching. There has been considerable improvements made to our website and it is an important medium for communication between SALISES' lecturers and students with notices and course notes. Also we experienced increased usage including demands from overseas for data. We need to establish a system so that data can be sent to persons paying with a credit card. There is a demand for extended opening hours. An informal arrangement has worked sufficiently well so far and will be continued. The Data Bank was rented to Ministry of Health for training.

Publication Section

This was a productive year for the section with several publications added to our list. The unit continued to sell books on a walk-in basis, occasionally holding book sales to coincide with the beginning of a new semester or conferences and other symposia. The income recorded by the publications section for the period September 2002 to August 2003 was \$1,367,973.62.

Journal (Social and Economic Studies (SES), 2002-2003)

There has been the successful completion of a new cover design for the journal. The design, which has been a personal project of Annie Paul for some time, was inspired by and based on the intricate, labyrinthine patterns produced by the reef-building brain corals of the Caribbean. Like the coral reefs of the region, Social and Economic Studies can be viewed as a bank of valuable research material produced by regular deposits of scholarly sediment over the last fifty years. In the last academic year the following issues came off the press or were in production during the course of the year:

- i. Vol. 51/3 September 2002: Special issue “Managing Health Care in Jamaica” guest edited by Alvin Wint.
- ii. Vol. 51/4 December 2002: Special issue on “Vulnerability/Coping Strategies” guest edited by Aldrie Lee.
- iii. Vol. 52/1, March 2003 came out under the new cover. Feedback has been very positive.

Vol. 52/2, June 2003 is at the printers. Vol. 52/3 the special Gender issue guest edited by Professor Rhoda Reddock in commemoration of 10th anniversary of the Centre for Gender and Development Studies is in production now. Vol. 52/4 will be a special issue on Community guest edited by Dr. Patricia Anderson.

We are in the process of revising our subscription rates which have not been changed for some years now. Pending a check of the actual cost of producing the journal it is proposed that the individual foreign rate move from US\$40 to 60; the foreign institutional rate from US\$60 to 90; the local individual rate from J\$1600 to J\$3000; the local institutional from J\$2400 to \$5000. The price of single copies would move from J\$350 to J\$600 locally with a 20% discount for students.

Book publication

The highlight of the year under review was the publication of **Erna Brodber's** *Standing Tall: Affirmations of the Jamaican Male – 24 Self-Portraits*. This book, publication of which had been in gestation for over 20 years, is already seen to be a seminal work and is a fitting launch for the revival of the institute's book publishing activities. Also published in this period was the new edition of **Patrick Bryan's** *Philanthropy and Social Welfare in Jamaica*, a book which has been in steady demand especially in the departments of sociology and social work where it is a required text. Arrangements were finalized for the co-publication, along with Ian Randle Publishers, of a new edition of Velma Newton's *The Silver Men*. The book is due off the press in October 2003. In the editing stage of production at year end was Jimmy Tindigarukayo's *Evaluation of Local Government Reforms in Jamaica*, scheduled to go to press in October 2003.

With some help of the UWI Legal Department, a new Standard SALISES publishing contract was drafted and then finalized in the year under review. This contract will now be used by all three SALISES campus branches. During the year a comprehensive *catalogue* of all publications produced by the three campus branches of SALISES was produced. The usefulness of this document as a record of our publishing output as well as a marketing tool was already evident at year end. Work output from this division also included the substantive copyediting of the first *SALISES Graduate Studies Handbook*, published in August 2002, and the proofing of this year's revised edition, published in April 2003.

Future Projects

SALISES has a number of projects in the pipeline for production in the academic year 2003-2004.

SALISES publications were displayed at the following overseas/international conferences:

- Caribbean Publishers Network (CAPNET) First Regional Book Fair, Trinidad, November 2002
- "The Sovereignty of the Imagination: The Writings and Thought of George Lamming", UWI, Mona, June 2003

The Institute's books were part of joint CAPNET displays at the following events:

- Frankfurt Book Fair, October 2002
- Caribbean Studies Association (CSA), 28th Annual Conference, Belize, May 2003
- Association of Caribbean Universities Research and Institutional Libraries (ACURIL) Conference, San Juan, Puerto Rico, June 2003

A selection of our titles was included in the overall CAPNET catalogue produced for the first time in 2002.

Academic Teaching and Research

(Research completed)

Dr. Philip D. Osei

- Evaluation of Jamaica’s National Poverty Eradication Programme as part of a team. GOJ, JASPEV, March 2003 to July 2003.
- ESRC Governance Project (UK) with the Public Sector Group, Department of Political Science, University of Hull. January-July 2003, “Globalisation and the Governance Agenda in Small States: The Case of the Commonwealth Caribbean”, (a collaborator).

Ms. Kristin Fox

- Evaluation of Jamaica’s National Poverty Eradication Programme, as part of a team for GOJ, JASPEV.
- The Belize Poverty Survey, as part of a research team.
- Assisted Ministry of Health with a WHO designed study of Human Resources in Health
- Working with Family Health International on establishing an appointment system at Comprehensive health centre.

Dr. Aldrie Henry-Lee

- Conflict Management, Gender and Reproductive Health in Two Inner City Communities in Jamaica (funded by Ford Foundation).

- Gender and Equity Issues Among Cancer Patients (funded by PAHO)
- Government Expenditure on Basic Social Services in Grenada (funded by the OECS)
- Pals Base-Line Study in Trench Town and Flankers Basic Schools, Jamaica, W.I. (funded by CIDA)

Dr. Patsy Lewis

- “The Future of Special and Differential Treatment in the FTAA”, July 2003, study commissioned by the Association of Caribbean States, research team: Drs. Patsy Lewis, Lucy Eugene, Pat Northover and Don Marshall

Dr. Patricia Northover

- “The Future of Special and Differential Treatment in the FTAA”, July 2003, study commissioned by the Association of Caribbean States, research team: Drs. Patsy Lewis, Lucy Eugene, Pat Northover and Don Marshall

Dr. Jimmy Tindigarukayo

- Evaluation of Jamaica’s National Poverty Eradication Programme, as part of SALISES team (Commissioned by GOJ, JASPEV), March 2003 to July 2003.
- Evaluation of Local Government Reform in Jamaica (1993-2000).
- A tracer Study of Graduates of the National Youth Service Programme in Jamaica: 2001/2002 (commissioned by Ministry of Education and funded by IDB).
- A Critical Review of Public Service Reform in Jamaica

RESEARCH IN PROGRESS

Professor Neville C. Duncan

- National Poverty Eradication Programme Review, Jamaica, with Dr. Aldrie Henry-Lee, Kristin Fox, Dr. Philip Osei, Dr. Jimmy Tindigarukayo, JASPEV, GOJ, July 2003.
- Millennium Development Goals, Jamaica, with Dr. Aldrie Henry-Lee, JASPEV and UNDP (Jamaica), GOJ, July 2003.
- Jamaican Attitudes to Regional Integration: A Survey Report, with Dr. Patsy Lewis, Dr. Aldrie Henry-Lee, Ms. Kristin Fox, and Dr. Jimmy Tindigarukayo, Sir Arthur Lewis Institute of Social and Economic Studies (SALISES), UWI, Mona, Kingston, Jamaica, July 2003.

Dr. Aldrie Henry-Lee

- Chief Investigator: *An assessment of the impact of imprisonment of women on their children* (Sponsored by CIDA and the Planning Institute of Jamaica)
- Chief Investigator: An Evaluation of the PALS Programme in High Schools and Basic Schools. (Sponsored by CIDA).
- Researcher: *Status Report for Jamaica on the Millennium Development Goals* (sponsored by the United Nations Development Fund)
- Researcher: Evaluation of the National Poverty Eradication Programme In Jamaica. Sponsored by DFID and the Government of Jamaica.
- Fieldwork Coordinator: *Assessment of Jamaicans' Attitudes to political integration* (Sponsored by the Principal's office).
- Researcher: Feasibility Study for the project: Policy and Implementation of User Fees and the Impact on Health Seeking and Coping Behaviour of Patients in Jamaica. (Sponsored by Pan American Health Organization)
- Project Historian/Analyst for *The Civic Dialogue Project* (funded by the UNDP)
- Researcher/Fieldwork Coordinator- Social Assessment in Belize (funded by DFID)

Dr. Jimmy Tindigarukayo

- A Survey of Jamaican Attitudes towards Regional Integration, as part of a SALISES research team.
- Effectiveness of the Executive Agency Model in the Public Sector of Jamaica.

PAPERS PRESENTED

Professor Neville C. Duncan

- “Governance in Small Societies: The Importance of Strong Democracy”, Mona Academic Conference, Mona Campus, UWI, Jamaica, 2002
- “Radicalism and Caribbean Transformation”, Lloyd Best Conference, UWI, St. Augustine Campus, Trinidad and Tobago
- “Review of paper by Audrey Ingram Roberts on “The Cultural and Socio-political Context of Leadership in the Caribbean”, United Nations Development Fund for Women (UNIFEM), Transformational Leadership Conference, United Nation’s House, Bridgetown, Barbados, October 3-4, 2002. Independent reviewer.
- “Examining the Impact of Poverty Programmes on Poverty Alleviation: Limitations and Strengths”. Regional Workshop of the Social Network of Latin America and the Caribbean, February 26-28, 2003, JSIF, Ocho Rios, Jamaica
- Roundtable, “Strategic Discussion on National Framework for Sustainable Development”, GOJ, March 12, 2003, Terra Nova Hotel, Kingston
- “Reformed local government and local development: towards a better model”. Forum on Local Governance in Small States: Issues, Experiences and Options. St. Vincent and the Grenadines, April 14-15, 2003 “Caribbean Local Government: Development and Economic Issues”.
- “Reflections o the World Today and Tomorrow and the Caribbean in it: training, education and learning responses”, Keynote Address, The School of Continuing Studies, the

University of the West Indies, St Vincent and the Grenadines Country Conference, “Beyond Walls: Multidisciplinary Perspectives”, May 22, 2003

- “The Social Dimensions of Globalisation in the Anglophone Caribbean and the Dutch-Speaking Caribbean: Towards Appropriate Responses and Corrective Activities”. World Commission on the Social Dimensions of Globalisation, A Caribbean Dialogue, hosted by the ILO, at the Sherbourne Conference Centre, Barbados, April 9, 2003.

Dr. Aldrie Henry-Lee

- “Chronic Poverty in the urban ghettos in Jamaica”. University of Manchester, UK, April 2003. Conference entitled “Chronic Poverty and Development”.
- “Challenges to social development in Jamaica”. Caribbean Studies Association Annual Conference in Belize, May 25 to June 2, 2003.

Dr. Nikolaos Karagiannis

- “Key economic and politico-institutional elements of modern interventionism: A post-Keynesian synopsis”, *State and Society Special Seminar*, Institute of Social Studies (ISS), The Hague, on 27 November 2002.
- “Towards a Caribbean Developmental State framework”, 4th annual conference on Economic and Social Development of Small Islands in the Era of Globalisation, SALISES, UWI, Cave Hill, Barbados, January 15-17, 2003.
<http://www.uwichill.edu.bb/papers/W10QJCL/Karagiannis.rtf>

Dr. Patsy Lewis

- “Tourism as an Alternative to Banana Production: the Windward Islands”, Conference on the Role of Government in Tourism: Enhancing Human and Economic Development”, UWI, Mona, September 25-28, 2002.
- “Expanding the National Space into Regional Integration: Freedom of Movement in the Caribbean Single Market and Economy”, tabled at Seminar, “Politics of Integration and the

- Future of the Caribbean”, PUCMM, Dominican Republic, December 9-10, 2002.
- “Negotiating with Unequal Partners: Small States in the New Global Economy”, Fourth Annual Conference of the SALISES, Cave Hill, Barbados Sherbourne Centre, Barbados, January 15-17, 2003.
 - “Expanding National Space into the Regional: Freedom of Movement in the Caribbean Single Market and Economy”, Ist Caribbean Labour Policy Conference, UWI, Mona, April 2-5, 2003.
 - “Regionalism and Identity in CARICOM”, 28th Annual Conference of the Caribbean Studies Association (CSA), Belize City, Belize, May 25-30, 2003.
 - “The Limits of Sovereignty in the New Global Order: Small States and the European Union”, 28th Annual Conference of the Caribbean Studies Association (CSA), Belize City, Belize, May 25-30, 2003.
 - “The Future of Special and differential treatment in the FTAA, Possible Mechanisms and Specific Measures for its Implementation”, presentation of study jointly prepared with Drs. Patricia Northover, Lucy Eugene and Don Marshall, to the Association of Caribbean States (ACS) and the Economic Commission for Latin America and the Caribbean (ECLAC) Workshop-Seminar, July 14-15, 2003, Port of Spain, Trinidad and Tobago.
 - “Increasing Tourism’s Impact in the National Economy: Case Study of the Banana Producing Countries of the Eastern Caribbean”, Foundation for Democracy in Africa’s 6th Annual AfriCANDO Trade and Investment Symposium, July 22-26, 2003, Miami, Florida.

Dr. Philip D. Osei

- “Financing Poverty Reduction in Jamaica: The Role of Remittances”. 28th Caribbean Studies Association Conference. Belize City, Belize. 26-30 May, 2003.

- “African Development in the Context of the Post-Washington Consensus: The Case of Ghana”, with Patricia Northover. 25th All African Students Conference on 22-24 May, 2003. Mona Campus, Kingston, Jamaica.
- “Legal and Institutional Framework of Local Government in the Eastern Caribbean”, Organisation of American States and UNDP organised Workshop on Decentralisation and Local Governance in Small States. St Vincent and the Grenadines. 13-15 April 2003.
- “New Employment Contracts and the Future of Work in the Caribbean Public Sector: Implications for Policy and Institutional Development”. Caribbean Labour Conference, Mona, Kingston, Jamaica, 5-7 April 2003.
- “Examining the Prospects for Good Governance and Development under ‘The New Partnership for Africa’s Development’ (NEPAD)”. Sir Arthur Lewis Institute of Social & Economic Studies, Seminar Series, 26 March 2003.
- “Regulation in a Flux: The Development of Regulatory Institutions for Public Utilities in Ghana and Jamaica”. 4th Sir Arthur Lewis ISES Conference Sherbourne Conference Centre. January 15-17, 2003.
- “Re-engineering Poverty Reduction in Jamaica: What has been the Role of Partnerships”. Conference on Poverty Reducing Strategies in the Caribbean. Havana, Cuba. November 4-6, 2002.
- “Tripartite Social Partnerships in Small States: Barbados and Jamaica in Comparative Perspective”. Annual Conference of the British Academy of Management. Novotel Hotel, Hammersmith, London. September 9-11, 2002.

Ms. Annie Paul

- March 21, 2003, “Dancehall in Jamaica: On Babylon, Violence, ‘Poor Taste’ and the Disappearance of Jonkonnu”, XXII Annual West Indian Literature Conference: University of Miami, Coral Gables, Florida.

Dr. Kimberly Robinson-Walcott

- “A Matter of Taste: Popular Jamaican Fiction and the Role of a Cultural Elite”. 22nd Annual Conference on West Indian Literature, University of Miami, 20-22 March 2003.

Dr. Patricia Northover

- ‘New Institutional Economics and the Explanation of Economic Performance’, Caribbean Studies Association Conference, Belize, 2003.
- ‘African Development in the Context of the Post Washington Consensus.’ With P. Osei, at the 15th Annual All-African Student Conference, Mona, Jamaica.

Dr. Jimmy Tindigarukayo

- “Why Political Order has been Elusive in Uganda”, conference on The Quest for Political Order and Stability in African Countries, held at Makerere University, Kampala, on December 5-10, 2002.

PUBLICATIONS

Refereed

Dr. Aldrie Henry-Lee

- * (Guest editor) Special Issue on Vulnerability and Coping Strategies. *Social and Economic Studies*, Vol. 51, No.4. UWI.
- * (with Figueroa Peter). November 2002. Research and Policy: Essential National Health Research in Jamaica W.I. *Caribbean Journal of Public Sector Management*. Vol. 4., Number 1.
- * December 2002. Economic Deprivation and Private Adjustments: The Case of Security Guards in Jamaica. *Social and Economic Studies*, Vol. 51, No.4. University of the West Indies.
- * (with LeFranc, Elsie). December 2002. Poverty and Gender in Barbados and Guyana. *Social and Economic Studies*, Vol. 51, No.4.

Dr. Patsy Lewis

- * *Surviving Small Size: Regional Integration in Caribbean Ministates*, (University of the West Indies Press: Jamaica, Barbados, Trinidad and Tobago) 2002, 240 pages (ISBN 976-640-116-0).
- * “Is the Goal of Regional Integration Still Relevant Among Small States? The Case of the OECS and CARICOM”, in Cynthia Barrow-Giles and Don Marshall (eds.), *Living at the Borderlines: Issues in Caribbean Sovereignty and Development*, Ian Randle Publishers, Jamaica, 2003.
- * “¿La integración regional es todavía un objective adecuado para los Estados Pequeños? Los casos de la OECS (Organización de los Estados orientales) y del CARICOM (Comunidad del Caribe), pp.317-344, in Joaquín Roy, Roberto Domínguez Rivera, Rafael Valasquez Flores (eds.), *Retos E Interrelaciones de la Integración Regional Europa y America*, Plaza y Valdes (PYA), University of Miami, 2003.

Ms. Annie Paul

- * “Sound Systems Against the “Unsound System” of Babylon: Rude/Lewd Lyrics vs. Nude Tourists in Jamaica”, in “Créolité and Creolization: Documenta11_Platform3”, edited by Okwui Enwezor et al., Ostfildern-Ruit, Germany: Hatje Cantz Publishers, 2003, pp. 117-136.
- * “‘The Enigma of Survival’: Travelling Beyond the Expat Gaze”, *Art Journal*, Volume 62, Number 1, Spring 2003, pp. 48-67.

Dr. Philip Duku Osei

- * “Tripartite Partnerships in Small States: Barbados and Jamaica in Comparative Perspective”, in Ann Marie Bissessar ed., *Globalisation and Governance: The Challenges of Small States*, McFarland Press, USA, 2003, *forthcoming*

Dr. Nikolaos Karagiannis

- * *A New Economic Strategy for the Bahamas*, the University of the West Indies Printers (Mona, Jamaica), 2002.

- * *Developmental Policy and the State: The European Union, East Asia, and the Caribbean*, Lexington Books (Lanham, Maryland: Rowman & Littlefield Publishers), December 2002.
- * *Economic Strategy for Jamaica*, with D. Alleyne, Arawak Publications (Kingston), July 2003.
- * “An alternative development policy framework for the Caribbean”, *Pensamiento Propio*, Vol. 15, 2002.
- * “Key economic and politico-institutional elements of modern interventionism”, *Social and Economic Studies*, Vol. 50:4, 2002.
- * “Developmental Intervention: A Contemporary Perspective”, *Caribbean Journal of Public Sector Management*, Vol. 4:1, November 2002.
- * “Tobin tax: Its potential and feasibility for the Caribbean”, *IDEAZ*, Vol. 1:2, December 2002.
- * “Tourism, linkages and economic development in Jamaica”, *International Journal of Contemporary Hospitality Management*, Vol. 15:3, May 2003.
- * “Tourism and economic development in the Caribbean and Jamaica: Towards an alternative developmental state framework”, pp. 39-55 in the book *Tourism and Change in the Caribbean and Latin America*, (eds) Boxill I., Taylor O. and J. Maerk, Kingston: Arawak Publications, December 2002.

Dr. Kimberly Robinson-Walcott

- * “Claiming an Identity We Thought They Despised: Contemporary White West Indian Writers and Their Negotiation of Race”, *Small Axe* 14 (Sept 2003). 93-110.

Dr. Jimmy Tindigarukayo

- * “The Squatter Problem in Jamaica”, *Social and Economic Studies*, 51:4, 2002, pp. 95-125
- * “Public Participation in Local Government in Jamaica”, in Selwyn Ryan and Ann Marie Bissessar, eds., *Governance in the Caribbean*, SALISES, St. Augustine, 2002, pp.89-101.

Not Refereed

Professor Neville C. Duncan

- * “Radicalism and Caribbean transformation”, in Selwyn Ryan, ed., *Independent Thought and Caribbean Freedom: Essays in Honour of Lloyd Best*, Sir Arthur Lewis Institute of Social and Economic Studies, St. Augustine, Trinidad and Tobago, 2003, pp.163-174
- * Governance in Small Societies: The Importance of Strong Democracy”, in Kenneth Hall and Denis Benn, eds., *Governance in the Age of Globalisation: Caribbean Perspectives*, Chapter 9, Ian Randle Publishers, Kingston, Jamaica, 2003, pp.164-174

Ms. Annie Paul

- * “The Turn of the Native: In Different Times” in *Post Issues: Strategies of Contemporary Creation*, Dialogos Iberoamericanos IV, Museo de Bellas Artes de Valencia, Generalitat Valenciana: Valencia, Spain, 2003, pp. 62-73.
- * “Earth Angels” article on Jamaican ceramicist Gene Pearson *Maco Magazine: Caribbean Living*, Volume 5, Issue 1, Summer 2003, pp. 72-79.
- * Interview with Christopher Cozier, *Bomb* magazine (cultural quarterly), 594 Broadway, Suite 905, New York, NY 10012 Americas/Caribbean issue, Winter 2002/2003, pp. 66-73
- * “Framing the Postcolonial: Annie Paul on Christopher Cozier” in *New Internationalism*, Danish Centre for Culture and Development: Copenhagen, Denmark, 2002, pp. 60-74.

Dr. Kimberly Robinson-Walcott

- * “Conversations on the Edge”. *Bearing Witness 3: the Best of the Observer Arts Magazine 2002*. Anthology of short stories and poems. Kingston: Jamaica Observer. 202-209.
- * “Winkler's Lunatics”. *Caribbean Beat* (Sept - Oct 2002): 40-45

Supervision of PhD/MPhil Students

Professor Neville Duncan 7; Dr. Aldrie Henry-Lee 5; Dr. Nikolaos Karagiannis 2; Dr. Patricia Northover 1; Dr. Jimmy Tindigarukayo 2; and Dr. Philip Osei 6.

Supervision of MSc Research Paper

Dr. Osei 5; Dr. Aldrie Henry-Lee 6; Dr. Patricia Northover 2, Dr. Patsy Lewis 6, Dr. Jimmy Tindigarukayo 4.

PUBLIC SERVICE

- Associate editor, of *Small Axe: A Caribbean Journal of Criticism*, Indiana University Press.
- Director, Board of JAMCOPY, Jamaican Copyright Licensing Agency.

Dr. Kimberly Robinson-Walcott

- Literary Adjudicator, Jamaican Cultural Development Commission's Annual Literary Competition.
- Editor, Institute of Jamaica's publication, *Jamaica Journal*.

Ms. Audrey Chambers

- Adjunct Faculty, DLIS
- Member, Planning Committee for the First Caribbean Labour Conference, April 2003.
- Mentor, Mentorship Programme
- Member, Executive Committee, Library and Information Association of Jamaica.
- Chair, Information Technology Working Party, Library and Information Association of Jamaica.
- Member, Information for All Advisory Committee to the UNESCO National Commission for Jamaica.

Ms. Norma Davis

- Member, Planning Committee for the First Caribbean Labour Conference, April 2003.
- Acquisitions Liaison Staff member, SALISES - UWI Library.
- Liaison Officer, for SALISES - UWI (Mona) & Community Co-op Credit Union.

THE BIOTECHNOLOGY CENTRE

Prof. M. Ahmad, BSc *Bhagal*, MSc, PhD *LARI* – Director

WORK OF THE CENTRE

The Biotechnology Centre, with the cooperation and dedication of its staff, advanced the work of the Centre through education, supervision and training of postgraduate and undergraduate students in its ongoing effort to disseminate information on Biotechnology and to improve Human Resource capacity in Biotechnology.

During the summer of 2003 two students from the College of Agriculture, Portland, were accepted for short term internship at the Biotechnology Centre. Their period of study and work lasted eight (8) weeks. They were taught Biotechnology techniques and other scientific methods under the supervision of **Dr. Sylvia Mitchell**. In addition, five High School students spent two weeks during the summer learning tissue culture techniques. One Graduate Student sponsored by the Jamaica National Building Society was guided and supervised by Dr. Mitchell to determine the source of bacterial infection in turmeric, analyzed neem oils, and initiated ginger and turmeric into tissue culture.

Dr Roye was awarded a Fulbright fellowship from the Council for International Exchange of Students (CIES) through the United States Embassy in Kingston Jamaica. This fellowship allowed Dr Roye to visit the International Laboratory for Tropical Agricultural Biotechnology in St Louis, Missouri for three months - May 18 – August 17th, 2003. She worked under the supervision of Dr Claude Fauquet, renowned virus taxonomist, where she investigated the “Molecular investigations of recombination between cabbage leaf curl virus and *Macropitilium* golden mosaic virus, a weed-infecting geminivirus from Jamaica”.

In April 2003, she also received the American Phytopathological Society (APS) International Travel Award. An abstract entitled “Cabbage leaf curl disease includes a mixed infection with CabLCV from Florida and a recombinant virus between CabLCV and a weed-infecting geminivirus in Jamaica” was presented in August at the ASP annual meeting in Charlotte North Carolina.

Dr. Helen N. Asemota, Senior Lecturer in the Department of Basic Medical Sciences and the Biotechnology Centre was promoted to the post of Professor of Biochemistry and Molecular Biotechnology, with effect from May 28, 2003.

Professor Asemota holds the Doctor of Philosophy (Ph D) degree from the University of Benin/ Frankfurt University and had joined the Biotechnology Centre in 1991 as a volunteer Lecturer. She was appointed Lecturer in the then Department of Biochemistry in 1996 and promoted to Senior Lecturer in Biochemistry and Biotechnology on indefinite tenure in 1998. Since 2002 she has served as International Consultant, General Organization for Seed multiplication, Tissue Culture Laboratories in Aleppo, Syria under the UN-FAO Technical Cooperation Programme. Prof. Asemota was also a visiting Professor in the Department of Biological and Agricultural Engineering at North Carolina State University in Raleigh, USA and she has served the UN-FAO as International Consultant for Biotechnology in the Republic of Tajikistan.

Dr. Paula Tennant, hosted by Dr. Dennis Gonsalves, visited the U.S. Pacific Basin Agricultural Research Center in Hawaii - May to July, 2003 and assisted with a USAID project on setting up international protocols on the deregulation of transgenic papaya for lesser-developed countries.

Miss Icolyn Haye, a PhD candidate in Biotechnology was awarded a Commonwealth Scholarship. Miss Haye spent a year at the John Innes Centre in the United Kingdom under the supervision of Dr John Stanley investigating “the distribution diversity and recombination among of geminiviruses infecting *Macroptilium lathyroides* from Jamaica”.

Funding

The Biotechnology Centre was awarded a contract for US\$150,992 from the Ministry of Agriculture under the Citrus Replanting Project for Research Sciences in pathology of citrus diseases. The team leader and principal investigator are Drs. Wayne McLaughlin and Paula Tennant,

respectively. The contract commenced in February 2003. It is for three years, and is part of a larger project of the Ministry of Agriculture to control citrus diseases in Jamaica.

In March 2003 Dr Marcia Roye and her research team received funding in the sum of USD36,000.00 the UWI New Initiative Funding to support the project on Molecular Investigations of Recombination between Crop and Weed-infecting Geminiviruses from Jamaica. The fund total is to be applied over a three year period.

Prof. Helen Asemota obtained funding valuing USD2000.00 for studies on the assessment of the glycemic indices of different yam varieties and other tuber crops in Jamaica and other Caribbean countries from the University of the West Indies School of Graduate Studies and Research. These studies are being undertaken by Perceval Bahado-Singh's, an M Phil candidate at the Centre.

RESEARCH IN PROGRESS

Prof. M. H. Ahmad and Dr. Sylvia Mitchell

- The use of neem oil as biopesticide
- Tissue Culture of medicinal plants

Dr. Paula Tennant

- Development of transgenic papaya with resistance to papaya ring spot virus (PRSV)
- Pathology of Citrus Diseases

Dr. Wayne McLaughlin

- Molecular biology, epidemiology of whitefly-transmitted geminiviruses infecting tomato and peppers in the Caribbean

Dr. Marcia Roye

- Molecular biology and epidemiology of whitefly-transmitted geminiviruses infecting crops and weeds.

Dr. Helen Asemota

- Bioengineering of yams and biochemical studies on yam extracts for medicinal value

- Protoplast isolation and gene manipulation from plant cell culture

Dr. Andrew Wheatley

- Commercial production of yam plantlets through tissue culture
- Molecular basis of sprouting in yam and the characterisation of Jamaican yam starches.

PAPERS PRESENTED

Proceedings of the Sixth Conference of the Faculty of Pure and Applied Sciences UWI, Mona. March 18-20, 2003

- Lowell L. Dilworth, Felix Omoruyi, Helen Jacobs, Errol Y. Morrison and Helen N. Asemota. “Anti-Nutritional factors and mineral contents in some Caribbean tuber crops: Effects of Processing”.
- Simone T. Earle-Barrett, Kathleen Lobban, Andrew O. Wheatley and Helen N. Asemota. “Genetic variation and cultivar identification of *Dioscorea alata* using Random Amplified Polymorphic DNA and Amplified Fragment length Polymorphism”. p. 78
- Mellisa P. Powell, Andrew O. Wheatley, Paula F. Tennant, Felix O. Omoruyi, Helen N. Asemota, Dennis Gonsalves, Errol Y. Morrison and Mohammad Ahmad. “Effects of consumption of Transgenic papaya (*Carica papaya* L.) on rat intestinal disaccharidases”. p. 48
- Kathleen S. Lobban, Andrew O. Wheatley, G. Osuji and Helen N. Asemota. “Application of RFDD in the Determination of Genes triggered during the sprouting of yam tubers (*Dioscorea sp.*)”. p. 51
- Cliff K. Riley, Andrew O. Wheatley, Ishmael Hassan, Mohammad H. Ahmad and Helen Asemota. “Morphological Characterization of Starches Extracted from six Jamaican Yam (*Dioscorea spp.*) species”. p.76

- Powell, M., Wheatley, A., Tennant, P., Omoruyi, F., Asemota, H., Gonsalves, D., Morrison, E., and Ahmad, M. H. (2003). "Effects of consumption of transgenic papaya (*Carica papaya* L.) on rat intestinal disaccharidases".
- Roberts, M., Minot, D., Tennant, P., Jackson-Malete, J., and Gonsalves, D. (2003) "Comparative evaluation of transgenic and non-transgenic papaya (*Carica papaya* L.) fruit developed for the control of Papaya ringspot virus in Jamaica".

Proceedings of the Fifth Conference of the Faculty of Pure and Applied Sciences, Mona, Jamaica, March 17-19

- Webster S., Mitchell S., and M.H. Ahmad (2003) "*In vitro* propagation of some medicinal plants of commercial value".
- Millar M. K. J., S. M. Mitchell, M. H. Ahmad and K. G. Golden (2003) "Azadirachtin levels of commercial Neem oils and neem seed grown in Jamaica".

11th Annual Research Conference, Faculty of Medical Sciences, UWI, Mona

- Melissa P. Powell, Andrew O. Wheatley, Paula F. Tennant, Denis Gonsalves, Felix O. Omoruyi, Helen N. Asemota and Mohammad H. Ahmad. "The effects of consumption of coat protein transgenic papaya (*Carica papaya* L.) on liver and kidney enzymes function in rats". West Indian Medical Journal. 52 (Suppl. 41): 18

18th International Diabetes Foundation (IDF) Congress in Paris, August 24-29, 2003

- Andrew O. Wheatley, Cliff K. Riley, Perceval S. Bahado-Singh, Thornia S. Smith, Errol Y. St. A. Morrison, Mohammad H. Ahmad and Helen N. Asemota. "Relationship between amylose content and the in vitro digestibility and glycemic index of some Jamaican yam (*Dioscorea spp.*) starches".

Jamaica Institute of Environmental Professionals 1st national scientific conference on Environmental Management and Sustainable Development: Medicinal Plant Utilization, Jamaica

- Mitchell S.A., M. Millar and M.H. Ahmad (2003). “Advancing environmental knowledge towards decision making in sustainable development”, April 2003.

Institute of Food Technologists. Annual General meeting, Chicago, Illinois,

- Roberts, Madeen, Minott, Donna A., Tennant, Paula F., and Jackson, Jose C. (2003). “Comparison of selected nutritional and anti-nutritional components of transgenic and nontransgenic papaya fruit (*Carica papaya* L.) in Jamaica”. July 12-13.

PUBLICATIONS

- * Turner, Shawna-Gae, Tennant, Paula, and. Ahmad, M.H. (2003) Evaluation of wild *Carica* species for resistance to Papaya ringspot virus isolates from Jamaica. JAGRIST (The Bulletin of the Jamaican Society For Agricultural Sciences) 15: 20-25
- * Mitchell S. A. and M. H. Ahmad (2003). Agricultural Biotechnology in the Caribbean. AgBiotech (ABN 106)
- * Mitchell S.A. and M.H. Ahmad (2002). The Wonders of the Neem Tree. Health, Home and Garden Magazine, Jamaica pg 78-80
- * Powell, M., Wheatley, A., Tennant, P., Omoruyi, F., Gonsalves, D., Asemota, H., and Ahmad, M. H.W. (2002). The effects of consumption of coat protein transgenic papaya (*Carica papaya* L.) on liver and kidney enzyme functions in rats. West Indian Medical Journal Supplement 51 (4): 18
- * Tennant, Paula, Ahmad, M. H., and Gonsalves, Dennis. (2002) Transformation of *Carica papaya* L. with virus coat protein gene for studies on resistance to Papaya ringspot virus from Jamaica. Tropical Agriculture (Trinidad) 79: 105-113

PUBLIC SERVICE

Prof. M. H. Ahmad

- Board Member, National Commission on Science and Technology (NCST)
- Member, National Biosafety Committee of the NCST

Dr. Wayne McLaughlin

- Board Member , Scientific Research Council
- Member, National Biosafety Committee (NCST)

Dr. Helen Asemota

- International Consultant, Food and Agriculture Organization (FAO) of the United Nations
- Member, Steering Committee for the Development of a Caribbean Food Composition Programme Organized by the Caribbean Food and Nutrition Institute (CFNI) and PAHO.

Dr. Paula Tennant

- Board Member, Papaya Growers Association
- Member, National Biosafety Committee (NCST)

Dr. Andrew Wheatley

- Member, National Watershed Management Committee

CATEGORIES OF STUDENTS

The enrollment status of Mrs. Melaine Chin-Randle was upgraded in October 2002 from MPhil to PhD in Biotechnology. Mrs. Chin-Randle is examining the “Biological and molecular characterization of the Papaya ring spot virus (Type-P) isolates from selected areas in Jamaica”

Miss Simone Pinnock commenced research on her MPhil project in September 2002. Ms. Pinnock is being supervised by Dr. Paula Tennant and is examining the genotypic and phenotypic comparison between the transgenic and non transgenic papaya trees.

Mr. Seymour Webster was enrolled for the MPhil degree in Biotechnology in September 2002 and will be examining the regeneration of some woody medicinal plants via somatic embryogenesis and RAPD analysis of regenerants for genetic stability. He is being supervised by Dr. Sylvia Mitchell.

In September 2002, two graduate students – Latanya Fisher and Franklin McKenzie are working on citrus diseases and cotton transformation respectively. Both students are registered in the Department of Life Sciences and are being supervised by Dr. Paula Tennant.

DISTINGUISHED VISITORS

Messrs Trevor Campbell and **Reginald Nugent**, Directors of Global Bridges, California and part of the delegates at a UWI conference entitled '*Structuring for the Commercialization of Science and Technology*' visited the Biotechnology Centre February 2003. The conference was organized by the Mona School of Business and Messrs Campbell and Nugents visit to the Centre was hosted by Prof. M. H. Ahmad and Dr. Sylvia Mitchell.

INSTITUTES IN THE FACULTY OF PURE AND APPLIED SCIENCES, MONA

The increasing need for the Faculty of Pure and Applied Sciences to identify sources of income other than that provided by, eg. the University Grants Committees, and the increased commitment by the University to serve the development needs of the region, have resulted in the establishment of two Institutes with complimentary objectives, the Mona Institute of Applied Sciences and the Natural Products Institute. Since February 2003, both Institutes have been housed in a newly refurbished building that previously accommodated the Agricultural Unit at Mona.

Detailed reports for both Institutes are given:

THE MONA INSTITUTE OF APPLIED SCIENCES

Howard O. N. Reid, BSc (Hons.), PhD *UWI* – Director

WORK OF THE INSTITUTE

The Mona Institute of Applied Sciences, launched in 2001, is a self-financed legal entity, inter-dependent with the Faculty of Pure and Applied Sciences, but operating within its own financial systems. The emphasis of the institute has been on interacting with the “marketplace”, particularly in promoting research and the education of persons in the pure and applied sciences. Critical to this endeavour has been facilitating the development of new technologies, processes or products that are deemed to have the potential for providing increased employment and increased foreign exchange earnings or savings within business, government and the wider society of Jamaica and the Caribbean.

The year 2002/2003 turned out to be one of consolidation, continued development of new programmes and the establishing of the Institute's name in the marketplace. This was done again under our three areas of operation (i) training, (ii) research and development, and (iii) analytical services. The activities of the Institute continued to grow, with operational revenue growing from J\$2,641,174 in 2001/2002 to J\$3,028,952 in 2002/2003. **Mr. William Saunders** the Institute's first Executive Director resigned in September, Mr. Saunders was thanked by the Board of Directors, MIAS for the direction and focus with limited resources he had brought to the Institute during his tenure. **Dr. Howard Reid**, Manager, Mona Institute of Applied Sciences was appointed Executive Director in October.

Staff of the Institute increased from two to four, with Ms. Celia Alleyne (Training Programmes) and Mr. Dayton Outar (Information Technology and Projects), joining Dr. Reid and Mr. David Simons (Accounting) as fulltime employees of the Institute. For the year Departments of the Faculty of Pure and Applied Sciences earned J\$317,400 for rental of classrooms and computers (a total of J\$544,350 since August 2001), while members of the FPAS and graduate students of the UWI have been paid J\$775,766 for teaching on our professional training programmes (a total of J\$1,667,141) since August 2001.

The Certificates in Information Technology Programmes are our major source of income. Figure 1.

Figure 1.

Sources of Income for the MIAS 2002/2003.

The Institute acquired permanent office space at the Old Agriculture Unit through the intervention of the Dean, Faculty of Pure and Applied Sciences, Prof. Ronald Young and Principal, Mona Campus, University of the West Indies, Prof. Kenneth Hall. Renovation of the section of existing building allocated to the MIAS and construction of additional office space was completed in January 2003 and we moved in during February 2003.

Training

Following up on the decision in 2001 to focus initially on training, given the University's experience in this area and that it showed the greatest potential for generating income, we have been developing a series of certificate and post-graduate diploma programmes targeted for launch during our first three years of operations. The courses are geared to meet the needs of persons who do not at this time want to register for the University's Degree programmes but require formal quality training which would give them certification attesting to marketable skills on the job market.

It was felt that training should be offered initially in those areas where the participant needed little academic pre-qualifications for participation. Certificate courses have been or are being developed in Information Technology, Computer Hardware Engineering, Instrument Repair Technology, Pesticide Management and Food Sciences.

Certificate Courses

Information Technology

The MIAS information technology programme is aimed at fulfilling the needs of persons who do not intend to register for the University's degree programmes in Computer Science, but require formal quality training in the use of computers at various levels: introductory (Part 1), intermediate (Part 2) and advanced (Part 3), which will give them certification attesting to marketable skills on the job market.

The MIAS offered four Certificates in Information Technology this year, up from two 2001/2002. Introduction to Computers, our foundation certificate programme, introduces participants with no or limited knowledge of computers to computer fundamentals, the applications in the Microsoft Office Suite and the use of the Internet. There are two Part II programmes, Introduction to Programming and Introduction to Web Site Design; and one Part III post Computer Science B.Sc. programme Advanced Java which introduces participants to applications of Java in advanced programming technologies such as object-oriented programming including the Internet, Graphical User Interface (GUIs), Databases and Component-based Software Engineering. 189 students participated in the certificate programmes.

Figure 1. Number of students registered for each cycle of the Certificates in Information Technology 2002/2003.

MSc Computer Science

The Mona Institute of Applied Sciences and the Department of Mathematics and Computer Science will be running a **MSc Computer Science** starting January 2004. The programme will be self-financing and lecturers from the Mathematics and Computer Science will be complimented by adjunct faculty from industry.

Post Graduate Diplomas

An exciting new **Post Graduate Diploma in Information Technology** targeted at non Computer Science first degree holders who wish to enter the Information Technology industry has been developed in conjunction with the Department of Mathematics and Computer Science. This course will run over a twelve month period inclusive of a two month project. The targeted start-up date for this programme is September 2004. The course will only be offered initially part-time in the evenings.

Two other post graduate diplomas are being developed to meet the needs of graduates who require additional training to supplement their skills or who have come from non-technical background and are seeking career changes. They are: (i) Post Graduate Diploma in Pesticide Management with the Departments of Life Science and Chemistry and (ii) Post Graduate Diploma in Embedded Systems and Industrial Application of Computers with the Department of Physics.

Programmes To Be Launched During the Next Year

Other certificate/professional programmes that have been developed or which are in advanced stages of development, which are scheduled to come on stream in the next eighteen months, are:

- (i) Certificates in Web Development and Administration (a Part 3 IT certificate) developed with the Department of Mathematics and Computer Science
- (ii) Two certificates in Computer Hardware Technology developed with the Department of Physics
 - (i) Certificate in Computer Technology, Part 1
 - (ii) Certificate in Computer Technology, Part 2
- (iii) MSc Food Science

Research and Development

The major project taken from research conducted within the faculty, for promotion and started in 2001 was the *Tilapia Project*.

Tilapia Project

The Tilapia Project builds on work done by a research team, lead by Dr. Dunbar Steele, in the Department of Life Sciences, which involves the acclimation of freshwater tilapia fingerlings to seawater and a protocol for farming them in the sea in cages. The project started in October 2002 and will run for a year, with the view of finalising some experimental work and securing the intellectual property rights before commercialising the research.

Other Projects

In addition, development of plans to establish a centre for writing computer software and incubating software engineering firms at the UWI have been ongoing, with several information technology firms, over the last year. The first step in this process is already well advanced by way of a working relationship with Advanced Integrated Systems (AIS) to write computer software and provide them with technical support. A number of

smaller projects; web page development and web hosting services involving the Department of Mathematics and Computer Science; designing and making of specialised electronic equipment with the Physics Department for an industrial client; and compilation of CD's of two of the FPAS's Emeritus Professors in the Department of Life Sciences are in progress.

Analytical Services

Negotiations are currently in progress or have been completed with industry/private sector partners to work with them on several projects.

Bureau of Standards Jamaica

The Mona Institute of Applied Sciences and the Bureau of Standards, Jamaica (BSJ) signed a Memorandum of Understanding (MOU) on Friday November 22, 2002 at 11:00 a.m. in the New Chemistry Building in the Faculty of Pure and Applied Sciences. The relationship with the BSJ will involve cooperation on standards and metrology, training for industry, and participating in the analytical work currently being done by BSJ.

Regional Analytical Laboratory

Development of plans for the establishment of a Regional Analytical Laboratory to carry out complex analytical projects such as testing for drugs (equine and human), pesticide residue, heavy metal, waste effluents and risk assessment analysis is currently under discussions with a number of industry partners. If successful this may involve equipping a dedicated laboratory.

The Future

The Mona Institute of Applied Sciences continued to grow during the 2002/2003 academic year with activities again mainly centred on training. For the next year, training will probably continue to dominate the income of the MIAS, with new products ready to come on stream to a large extent coming from this section. Research and development, and analytical services should make a more substantial contribution during the next year.

DISTINGUISHED VISITORS

Mr. Ray Chang, CI Fund Management Inc., with headquarters in Toronto, Canada, Canada and member of the Board of Governors, Ryerson Polytechnic University.

The Hon. Phillip Paulwell, Minister of Commerce, Science and Technology.

Dr. Nigel Clark, Director of National Commercial Bank, Jamaica Ltd., Jamaica Broilers Group of Companies and Seprod Jamaica Limited

Prof Ronald M. Lee, Professor of Electronic Commerce, College of Business, Florida International University.

THE NATURAL PRODUCTS INSTITUTE

Trevor H. Yee, BSc (Hons.), PhD *UWI*, MBA (Hons.) *Nova*
– Executive Director

WORK OF THE INSTITUTE

The Natural Products, in its fourth year of operation, has been focusing on its own innovative research and development activities for (a) the extraction, separation and identification of bioactive and economically important compounds from selected plants and animals, (b) the assaying of compounds and formulas (NPI's and its collaborators' and clients') for their pharmaceutical, biochemical, physiological, toxicological, aromatic and pesticidal properties, (c) the development of laboratory-scale technology for production of these products, and the development of the technology for commercial manufacturing, (d) the identification of markets and development of marketing strategies for the products and technologies developed, and (e) the development of methods for the sustainable use of local flora and fauna.

Furthermore, NPI has been developing income-generating client services. These are (a) determination of chemical contents and physiological and toxicological properties in herbal products, (b) the development of possible sponsored research programs for other departments, institutes, and centres in the Faculty, and (c) teaching degree courses and organizing workshops.

Most of the NPI's activities are in collaboration with other Departments, Institutes, and Centres in the Faculties of Pure and Applied Sciences, Medical Sciences, Social Sciences, in Mona and the Faculty of Engineering, UWI, St. Augustine.

During the year, the Institute hosted an international conference for ethnomedical scientists and practitioners and also a workshop on Composting and the Utilization of Agricultural and Agro-Industrial Wastes.

RESEARCH IN PROGRESS

- Investigation into the value addition of an exported raw material by means of extraction and chemical characterization of the local plant. **Dr. Trevor Yee**, Prof. Helen Jacobs
- Investigation of a number of plants as potentially new sources of essential oils. **Dr. Trevor Yee**, Dr. Roy Porter
- Investigation into the development of a number of plants and other sources of dyes and colouring materials. **Dr. Trevor Yee**, **Dr. Rupika Delgoda**, Prof. Helen Jacobs
- Characterisation of a local plant as a nutraceutical. The chemical and physiological profiles of the plant for the presence of bioactive compounds are being investigated. **Prof. Ajai Mansingh**; **Prof. Ronald Young**; **Dr. Trevor Yee**; **Ms. Arlene Wilson**
- Testing of natural products as possible targets for the treatment of tuberculosis. **Dr. Rupika Delgoda**; Prof. Edith Sim, Dr. Andrew Munroe, Prof. Helen Jacobs, Prof. Paul Reese
- The study of drug-herb interactions. Dr. Rupika Delgoda; Prof. Gordon Roberts; Prof. Roland Wolfe
- Drug metabolism. **Dr. Rupika Delgoda**, Prof. Barrie Hanchard, Dr. Lisa Lindo, Prof. Gordon Roberts
- Development of botanical pesticide formulations for the management of vegetable and coffee pests and ticks of cattle and other animals. **Prof. Ajai Mansingh**; Dr. Dwight E. Robinson; **Ms. Arlene Wilson**

CLIENT SERVICES

The following client services were initiated/undertaken:

Identification and vitamin characterization of several local herbs.

Testing of a local fruit active against diarrhoea.

Development of nutraceuticals from local ethnomedical formulations.

The use of Chinese herbal medicines in Jamaica.

The development of byproducts from banana fibre.

The assessment of a natural product formulation for anti-cancer activities.

Investigation into the breeding of other varieties for the local horticultural industry.

PAPERS PRESENTED

- Delgoda, R. (2002). 'New and emerging pharmacological issues in drug toxicity', 17th Annual Medical Symposium, October 2002, Kingston
- Delgoda, R. (2002), 'Drug metabolism: a multidisciplinary approach and the relevance to Jamaica', Natural Products Institute, bimonthly seminar series, UWI.
- Delgoda, R. and Yee, T. (2002), 'Natural Products Institute, UWI', Scientific forum on Caribbean ethnomedicine and medicinal plants, Montego Bay, December 2002.

PUBLICATIONS

- * **Delgoda, R** Prof. Agamuthu Periathamby. (2003) *Utilization and Management of Agricultural and Agro-Industrial Waste*. 145pp. ISBN- 983-2085-29-2.

Refereed

- * **Delgoda, R.**, Lian, L.Y., Sandy, J., Sim, E, NMR investigation of the catalytic mechanism of arylamine N-acetyltransferases from *Salmonella typhimurium*; *Biochemica Biophysica Acta*, 2002, 25473, 1-7.

International Symposium

The Natural Products Institute in collaboration with Blue Cross of Jamaica hosted an international symposium entitled, "Towards global collaboration in ethnomedicine and medicinal plants research and

development”. The symposium was held in Montego Bay, Jamaica, from December 6-7, 2002. Ethnomedical practitioners and scientists from local, Caribbean and International affiliations participated.

Workshop

A workshop entitled, “Utilization and Management of Agricultural and Agro-Industrial Wastes” was organized by the Natural Products Institute, with expert instructions provided by Professor Agamuthu from the University of Malaya. Through the workshop the Institute hosted over 50 local and Caribbean participants from academia, industry and non-governmental organizations. Sponsorship was secured from the Caribbean Regional HRD Programme for Economic Competitiveness (CPEC) and the Ridge to Reef Watershed Project.

GRANTS RECEIVED

Dr. R. Delgoda received a grant of Swedish Crowns 92,000 (US\$12,000) to carry out the metabolism of natural products by drug metabolising enzymes in human liver tissue, by the International Foundation for Science, Sweden.

ASSISTANCE FROM THE GOVERNMENT OF INDIA

The Government of India, under its International Technical and Economic Cooperation programme, has approved an aid package to the NPI for the establishing of a Toxicology Laboratory. His Excellency Mr. I. V. Chopra, the Indian High Commissioner to Jamaica, who visited the NPI on July 30, 2003, stated that a large quantity of the requested equipment should be available within the year. This would be followed by the posting of an Indian expert in toxicological studies at NPI/UWI for several years.

The ITEC programme will also facilitate visits by NPI’s staff and its collaborators, to visit a number of world-renowned Indian Institutions.

PUBLIC/ACADEMIC SERVICE

Dr. Trevor Yee

- Treasurer, International Society for the Development of Natural Products

- Member, Executive Committee- the Natural History Society of Jamaica
- Member, Advisory Panel for Complimentary Medicine, Ministry of Health
- Member, Steering Committee – Towards a National Bioprospecting Programme, National Commission on Science and Technology, Office of the Prime Minister
- Chairman, Cosmetics Technical Committee, Jamaica Bureau of Standards

Prof. Ajai Mansingh

- Secretary, International Society for the Development of Natural Products
- Secretary (Founding), Jamaica Council for Interfaith Fellowship
- Editorial Board, Insect Science & Its Application: a monthly international Journal (Publ. Int. Cent. For Insect Ecol. & Physiol. Nairobi.)

Ms. Arlene Wilson

- Member Steering Committee, Jamaica Young Scientist Forum, facilitated by the National Commission on Science and Technology

SUPERVISION OF STUDENTS

Postgraduate

Two MPhil. students are working jointly with the Natural Products Institute and the Department of Chemistry and are being supervised by Dr. Trevor Yee, Professor Helen Jacobs, and Dr. Roy Porter.

Undergraduate

Two students in the Biochemistry Department were supervised by Dr. Delgoda on their final year project and 2 theses were presented.

Seven final year pharmacy students from University of Technology were supervised by Dr. Delgoda on 2 research projects.

Technical assistance was provided by Miss Arlene Wilson to three students of Chemistry (UWI) and two CAPE students.

Dr. Yee lectured in the BSc final year Food Chemistry course at UWI.

Drs. Yee, and. Delgoda and Prof. Mansingh coordinated and taught the Herbal and Complimentary Medicine course to B. Pharmacy final year students at the University of Technology.

DISTINGUISHED VISITORS

Professor Jiang Zoujun, Vice Governor of the Province and Professor of Medicine led by a 7-member Chinese delegation from the Anhui Provincial Government of China and the Anhui College of Traditional Chinese Medicine

Dr. Alberto Barcelo, Regional Advisor World Health Organization

Prof. Jeff Atherton, Professor of Tropical Horticulture, Cave Hill, U.W.I.

Prof. Agamuthu Periathamby, Professor of Waste Management and Resource Recovery, Univ. of Malaya

Dr. Virender Sheorain, General Manager, National Rums of Jamaica

Prof. Hiroshi Morishima, Nagoya City University, Japan

Mr. Koichi Hagiwara, Industrial Development Officer, UNIDO, Toyko

His Excellency Mr. I. V. Chopra, High Commissioner of India.

UWI CENTRE FOR ENVIRONMENT & DEVELOPMENT (UWICED)

Professor Al Binger, PhD *University of Georgia* – Director

WORK OF THE CENTRE

UWICED is the University Centre tasked with providing technical assistance to the Small Island Developing States (SIDS) of the Caribbean to address the formidable challenges of environmental protection and sustainable development. It was established in 1993 arising out of the Rio de Janeiro World Summit on Environment and Development (UNCED) held in 1992. In 1997, at the Summit of the Americas, the Regional Heads of Government and the President of the United States designated UWICED as a regional focal point for sustainable development information in the Caribbean.

UWICED focuses on assisting the region to develop/strengthen capacity for sustainable development. This includes providing technical assistance (information, resource mobilization, policy guidance, training, and advice), in six key areas identified from the 1994 Barbados Plan of Action (BPoA) for the sustainable development of Small Islands Developing States (SIDS). These are:

- Climate Variability and Change
- Sustainable Energy
- Land, Water and Biodiversity Resources Conservation
- Integrated Waste Management
- Sustainable Tourism
- Integrated Coastal Zone Management

During the year under review, the major global activity in sustainable development was the convening of the “World Summit on Sustainable Development” which was held in Johannesburg, South Africa in August/September 2002. This Summit was attended by over a hundred world leaders, corporate leaders and NGOs and was characterized by the Johannesburg Plan of Implementation, representing the ongoing commitment to sustainable development by all member countries of the United Nations.

UWICED in collaboration with the Caribbean Community Secretariat (CCS) was tasked to provide technical assistance and support to the Government Negotiators during the preparatory meeting leading up the Summit, the final one of which was held in Bali, Indonesia in May 2002. Additionally, UWICED/CCS was asked to provide technical assistance to the Chair of the Alliance of Small Islands States (AOSIS).

In the focal areas noted above the major activities were concentrated in the areas of Waste Management, Climate Variability and Change, Sustainable Energy, and Land, Water and Biodiversity Conservation. Additionally, a number of activities focused on strengthening UWICED institutional capacity in training and information support were also undertaken.

Climate Change

Regional Climate Change Centre: – The Caribbean Community Climate Change Centre (CCCCC) has now been formally established in Belmopan, Belize. The Board of Director had its first meeting and the Government of Belize has seconded a senior climate change professional to act as Interim Executive Director. This represents another successful outcome of the first regional climate change project, Caribbean Planning for Adaptation to Climate Global Change (CPACC), funded by the World Bank/GEF and implemented by UWICED in partnership with the OAS. The CARICOM Heads of Government in February 2002 approved the establishment of the CCCCC which has as its mission to assist the region in addressing the challenges to sustainable development that will result from climate change and sea level rise. UWICED, which represents the University on the Board of Directors, continues to assist the CARICOM Secretariat in the institutional development of the CCCCC.

Preparation of Regional Climate Change Report: – In partnership with the United Nations Environment Programme (UNEP)

and the CCS, UWICED completed the final draft of the report entitled “Climate Change in the Caribbean”. The report is currently under review and is to be published for the United Nations International Meeting on Development of Small Islands States to be held in August 2004. The report examines the likely consequences of climate change and sea level rise for the region and concludes that the region is extremely vulnerable. Also included in this report are policy recommendations as well as proposed scientific research and technology development to assist the region in building resilience. The objective of this document is to bring to the forefront the high vulnerability of countries in the region to the phenomena of climate change and sea level rise resulting from the emission of greenhouse gases and addresses specifically:

- The existing social, economic and environmental conditions of the Caribbean;
- The likely impact on the countries in the region arising from climate change and sea level rise;
- Options for minimizing and reducing vulnerability and strengthening resilience.

Mainstreaming Adaptation to Climate Change (MACC): – Mainstreaming Adaptation to Climate Change is the new regional climate change project undertaken by the CCS, the University of the West Indies, and Member Governments to help the region to continue to develop the capacity to address the pending impacts from climate change and sea level rise. The new project started in July 2003, as a follow up to the previous project (CPACC) which provided the region with capacity building resources over the period 1997 to 2001. The MACC will provide some US\$10 million in funding over the next four years from the World Bank/GEF to develop capacity and gather information to address climate change and sea level rise issues. The MACC project will be implemented by the CCS with UWI as member of the Steering Committee and will be managed out of the CCCCC in Belize.

UWICED, in addition to giving support to the MACC as a member of the Steering Committee, is focused on vulnerability reduction and resilience building including the identification of adaptation and mitigation technologies (with the support of the UNDP).

Land, Water and Biodiversity Resources Conservation

Inter-regional and Regional Workshops: – UWICED coordinated two regional meeting for the year in this area. The first was held from March 13-16, 2002 in Belize, to explore the development of an inter-regional mechanism to improve collaboration between the Caribbean and Central America countries, on matters related to environmental and sustainable development, including biodiversity, the implementation of international conventions and treaties, coral reef protection and cooperation among bodies such as CITES, the IWC and Ramsar.

The second meeting was held in Coya Coco, Cuba, from November 25-29, 2002. The goal of the workshop was to strengthen regional capacity by providing a forum for representatives of organizations and institutions who are responsible for the protection/conservation/ management of biological resources to exchange experiences (lessons learned, good practices, impacts and benefits) and use those experiences as the basis to develop a long-term needs driven strategy for strengthening regional capacity through collaboration. The MacArthur Foundation, the UNDP Country Office, and the Cuban Ministry provided support for this workshop entitled “*Towards Sustainable Development in the Caribbean Islands: Capacity Building for Managing and Protecting Biological Resources*”.

Sustainable Energy

Energy Expert Meeting

As part of the preparatory process for the United Nations International Meeting for the Review of the Implementation of the Barbados Plan of Action (BPoA) for the Small Island Developing States (SIDS), UWICED in partnership with UNDESA and the Government of Nuie and with support from the UNDP conducted a week long meeting of energy experts in July 7-11, 2003. The goal of the meeting was to develop an energy agenda for SIDS that will help them to address the growing vulnerability associated with increasing dependence on petroleum for the provision of energy services. This agenda will be presented for discussion at the SIDS Meeting in the Bahamas in January 2004 and if adopted, it will become part of the decisions for the SIDS International Meeting in Mauritius to be held in August 2004.

Caribbean Renewable Energy Development Project: – Negotiations with the UNDP/GEF continues regarding the implementation of this US\$15 million project to foster the development of renewable energy resources in the region. The Project suffered a major set back as a result of the last minute decision by the Caribbean Development Bank not to establish a dedicated funding window to support financing for renewable energy projects. UWICED, who chaired the Steering Committee that developed the project, continues to provide technical support to the CARICOM Secretariat in finalizing the reformulated project which will be resubmitted to the UNDP/GEF in December 2003.

Technical Assistance to the Dominican Government: – The report “*The Potential of Renewable Technologies: Diversifying Dominica’s Energy Supply – UWICED, July 2002*” has provided a foundation for the development of partnerships with the OAS, and private sector entities interested in the development of renewable energy in Dominica. UWICED continues to provide technical advice to the Government.

Cogeneration Project for the UWI and UHWI: – This project which was developed with the goal of helping to minimize energy cost on the Mona Campus and at the hospital remains in abeyance. Discussions continue with the Jamaican Government about implementing the project at a different scale for the hospital.

Development of Energy Efficiency in the Caribbean: – Although energy efficiency initiatives are potentially of great benefit to the region, and could contribute to the reduction in petroleum imports and greenhouse gas emissions, projects in this area have encountered barriers to implementation, related to policy, regulation, financing, market development, public awareness and human capacity constraints. Under the Caribbean Energy Efficiency Project (CEEP) being developed with support from the UNDP by a team of regional organizations consisting of CARILEC (Caribbean Electricity Utilities Corporation), OLADE (Latin American Energy Organisation), CEIS (Caribbean Energy Information System) and UWICED, resources will be sought from the Global Environmental Facility (GEF) to undertake activities to identify and remove barriers to energy efficiency in the region.

Development of Web Based Graduate Programme in Energy Management: – Work continues on the development of the graduate curricula in collaboration with external organizations.

Integrated Waste Management

Regional Waste Management Project: – Through a grant from the Foster-Wheeler Corporation, UWICED has undertaken a multiple-pronged project designed to assess the current status of wastes, method of disposal and their impacts in the Caribbean, develop a database on waste management systems and technologies, developing commercial-scale demonstration projects that convert waste to valuable products, and initiate graduate training courses in sustainable waste management for regional practitioners. The first commercial demonstration is being done in Jamaica in collaboration with the CANCO Jamaica Ltd and the Jamaica Government through the Scientific Research Council (SRC). The commercially demonstration-scale agro-industrial waste composting project is intended to verify the appropriate scale for the production of organic fertilizer from plant derived waste. The objectives of the project are the development of technology to convert ackee-processing waste produced by CANCO Jamaica Ltd. into high quality compost; and the documentation of the methodologies employed for commercial scale operation. CANCO Jamaica Limited in St. Thomas is one of the major producers and exporters of canned ackees in Jamaica. During the peak season for ackee production up to 40 cubic yards of ackee waste (ackee pods and seeds) are produced per day. Estimates are that this factory produces approximately 3,000 cubic yards of ackee waste annually. Presently this material is dumped into a nearby landfill. This project proposes to develop a technology for converting this waste into high quality compost, which can be sold commercially.

STRENGTHENING UWICED'S INSTITUTIONAL CAPACITY

Upgrading of The University's Technical Capacity to Provide Training in Environmental Management: – Through a NORAD (Norway Aid Agency) grant and associated initiatives, during the last few years UWICED developed and equipped a classroom in the Centre building, to support web-based, multimedia and teleconferencing instruction in environmental management.

Small Islands Developing States Information Network (SIDSNet): – In partnership with the United Nations Department for Economic and Social Affairs (UNDESA) UWICED is implementing a three year project that started in July 2003 to improve the availability and

access to information on sustainable development by the island states of the region. The establishment of a regional SIDSNet node will strengthen the collection, organization and dissemination of information on good practices to address biodiversity conservation, climate change responses and international water management issues among AOSIS Member States, and to foster inter-SIDS sharing of experiences on the use of information technology as a sustainable development tool in the context of ecosystem management. As part of the Project Information Coordinators terms of reference SIDSNet Focal Points will be established in seven non-campus countries to assist with the development and provision of information.

Development of Graduate/Professional Training in Environmental Management – Web-based Graduate Curriculum Development for Integrated Waste – Over the past several years, through a Rockefeller Foundation planning grant, and in collaboration with Faculties and the Graduate School, UWICED has worked to help develop a programme for a University-wide Masters in Environmental Management; parts of which is now being implemented.. Currently, the Centre is coordinating the development of the Waste Management specialization for this programme. The curricula consisting of sixteen units at the graduate level have been completed and are currently undergoing peer review. Also completed are some six case studies in various aspects of waste management that will serve as resources material.

Development of Web Based Project Cycle Management Course:
– As a pilot-scale initiative under the above framework, UWICED developed a web based course. The course was successfully tested at two web-based technical workshops, in Project Cycle Management, for environmental practitioners in Jamaica, involving a total of fourteen participants active in sustainable development-related institutions. Participants in the workshops explored the links between projects and sustainable development, and how to identify, develop, appraise, finance, implement and evaluate such projects. These workshops served to test and further develop the Centre's web-based environmental management training capacity.

RESEARCH AND TECHNICAL ASSISTANCE ACTIVITIES IN PROGRESS

Small Island Developing States Vulnerability Study: – UWICED is coordinating a global study of the environmental, economic and social vulnerabilities of SIDS in light of emerging global and regional trends, under a service agreement with UNDP. The first draft of the report was presented to a workshop in May 2002. The final report was completed and submitted to the UNDP in June 2003. As part of the process to sensitive governments about the results of the study a regional briefing was held in Grenada, during the period May 14 –16, 2003, sponsored by the UNDP, the CARICOM Secretariat, and the Government of Grenada. During the coming year UWICED will continue work in this areas in partnership with the UNDP and the CARICOM Secretariat.

Conservation and sustainable use of biodiversity in the Caribbean: – UWICED, under a MacArthur Foundation Grant, continues to investigate and assess the stresses on the region's ecosystems linked to political, social and economic trends. This project aims to define the challenges, build capacity and facilitate the formulation and implementation of regional strategies for the comprehensive development and protection of biological resources, and effective compliance with international environmental treaties. As part of this efforts two reports are under preparation, specifically:

Threats to Biodiversity in the Caribbean

The objective of this research paper is to:

- To provide information on our biodiversity and the main threats to their conservation and sustainable use.
- To increase awareness and aid policy development
- To facilitate dialogue on planning and developing effective, long-term regional biodiversity conservation strategies and sustainable development.
- To encourage research.
- To encourage dialogue between individuals and institutions in the region that is concerned with biodiversity.

Uses of Biodiversity in the Caribbean

The objective of this paper is to:

- Provide information on our biodiversity – its present and potential uses
- Provide information on the sustainable use of Caribbean biodiversity.
- Increase awareness.
- Facilitate dialogue on planning and developing effective, long-term regional biodiversity conservation strategies and sustainable development
- Encourage research and dialogue between individuals and institutions in the region that are concerned with biodiversity.
- To aid in documentation efforts.

Energy Consumption patterns, Climate Change and the Economy: – Research is being carried out to investigate the links between Balance of Payment Constrained Growth and the Consumption of Energy, and the relationships between Economic Growth and Climate Change.

Sustainable Energy: – Research into the impact of privatisation on the energy sector in five Caribbean Countries is being conducted.

Strengthening of Negotiations Skills for SIDS in the Context of International Treaties: – Research has been carried out into the methods employed by SIDS in international negotiations and the levels of success achieved. This study will also identify more effective negotiating strategies were applicable.

Caribbean Environmental Outlook for the Wider Caribbean Region

In partnership with UNEP, UWICED is preparing a regional report on the state of the environment with particular emphasis on marine resources. The purpose of this report is to provide information for policy-makers on the status and vulnerabilities of the marine and coastal areas and the present policy activities and options for the Wider Caribbean Region (WCR). This will be the second report in partnership with UNEP on the Caribbean region. The first publication had significant gaps in data

and as such UWICED in collaboration with UNEP is compiling data for the new report.

PAPERS PRESENTED

Prof Al Binger:

- Electric Utility in the Caribbean – Caribbean Association of Regional Energy Companies (CARILEC) Meeting, St. Lucia, November 2002
- Ocean Thermal Energy Conversion (OTEC) – As the Sustainable Development Technology for Small Islands Developing States (SIDS), Pacific Island Water Forum, Palau, October 2002
- Global Public Goods – Presented to the UN ECOSOC, United Nations, New York, USA, April 2003

Maurice Mason:

- “The Jamaican Economy: A Case for Cogeneration” presented at the workshop “Environmental Economics for Civil Society” hosted by SEDU (Cave Hill Campus) June 26, 2003.

PUBLICATIONS

- * *Vulnerability of Small Island Developing States* – UNDP Policy Journal Vol 1 August 2002.

PUBLIC SERVICE

Professor Al Binger

- Member United Nations Economic and Social Commission (ECOSOC), Committee For Development Policy (CDP).
- Chairman, Project Committee, Board of Directors, Environmental Foundation of Jamaica

Maurice Mason

- UWICED representative to the National Steering Committee on Biodiversity.
- UWICED representative to the National Steering Committee on Solid Waste Management.

UWI DISTANCE EDUCATION CENTRE (UWIDEC)

**Christine Marrett, BA, MA *UWI*, Dip Ed *U of Surrey*, Dip Mgt Stds,
Dip Mass Comm *UWI* – Campus Coordinator &
Senior Programme Officer**

WORK OF THE CENTRE

At the end of July 2003, the UWI Distance Education Centre bade farewell to Director, **Professor Badri Koul**, who was instrumental in drafting the plans for the reengineering of distance education at UWI. One aspect of this plan implemented during the period 2002/2003 was the formation of the Academic Programme Committee, which held its first meeting in March 2003.

Programmes

The total number of students pursuing courses through UWIDEC across the Caribbean rose to 2,511, an increase of 6.28% over the previous year.

Two new programmes were launched – the **Certificate in Gender Studies**, and the **B.Ed. Secondary programmes**, the latter sponsored by the Ministry of Education and Culture in Jamaica to deliver courses in 10 disciplines for students across Jamaica. Other programmes delivered were: MSc (Family Medicine), MSc (Counselling), Advanced Diploma in Construction Management, BSc (Management Studies), BSc (Agri-business Management), B.Ed. (Educational Administration), Certificate in Business Administration, and Certificate in Public Administration. The M.A. (External Programme in Agriculture) also made use of the teleconference facilities as did the Masters in Law programme, involving the three campuses.

The BA with Major in French was restarted in 2002-2003 with UWIDEC facilitating the survival of this initiative, in cooperation with the Department of Language, Linguistics and Literature at Cave Hill. This initiative began in 1998, for students who are teachers of French in Dominica, St. Lucia, Grenada, St. Vincent and St. Kitts.

Although the print materials remain the mainstay of the delivery mode, UWIDEC continued to equip itself for the introduction of other media, such as WebCt and Just-In-Time-Learning (JIT-L), which are expected to be used in course delivery in 2003-2004. Led by colleagues in St. Augustine, various components of six courses (SY14G – Introduction to Sociology, FD10A – English for Academic Purposes, MS23B – Caribbean Business Environment, SY22E – Survey Design and Analysis, EC22A – Topics in Economic Development and SY32E – Industrial Sociology) were put on-line. An e-learning team comprised of staff from the curriculum development units of the three campuses, the Web Administrator, Graphic Designer, Research Officer and Academic Programme Officer has been formed to review quality assurance issues related to the establishment of guidelines for on-line course development.

The distribution of course materials from each campus went reasonably well, with fewer delays and omissions than in the previous year. Problems, however, continued and included the delay in obtaining registration figures which negatively affected timely distribution and failure of duplicating equipment. Customs regulations in Jamaica also slowed down the distribution process. Where materials were sent electronically, some site staff experienced difficulty in downloading the materials for students.

EC14C was again without a UWIDEC-produced course package, so textbooks had to be purchased for use by students.

Examinations are now being held at each of the Centres in Jamaica and the cost is now being charged to UWIDEC.

Summer programme

The Faculty of Social Sciences and UWIDEC attempted a more organized approach to the offer of Summer Programmes, guided by similar attempts on campus to streamline the management of summer programmes.

Non-UWI and non-certificate programmes

The Diploma in International Shipping Logistics offered by the Caribbean Maritime Institute was run on a limited basis with in-country delivery in Dominica and Guyana.

Non-certificate or outreach programmes included:

- The sixth renewal of the Regional Schools Food and Nutrition Quiz hosted by the Caribbean Food and Nutrition Institute (CFNI), which took place in November 2002. Eleven countries participated with Bahamas emerging as the winning team and St. Vincent student, Jenese Ashton, as the individual champion.
- Regular teleconferences of the Caribbean Council for Family Physicians and the Department of Child Health. The Vice Chancellor and the University Registrar also continued regular use of the network for administrative meetings.
- The discussion series for sixth formers, held in March 2003, which was adapted to accommodate the introduction of the Caribbean Advanced Proficiency Examinations (CAPE). The Caribbean Examinations Council assisted with the suggestion of topics and presenters.

Library services

Library services continued to be provided through the distance education librarian, Ms. Evadne McLean, Mona Library. Throughout the year, the library actively served learners in the Northern Caribbean as well as the 10 intra-Jamaica sites enrolled in the Social Sciences and Education programmes, including the B.Ed. Secondary programme, which came on stream in January 2003.

In an attempt to make the services offered to the distance learning community mirror those provided for on-campus students, there was a further strengthening of some on-site collections for the Social Sciences and Education programmes, as well as document delivery and book loans to staff and students. Requests for past examination papers have been greatly reduced as students and tutors are now able to access these directly from the on-line catalogue.

Challenges

Challenges persisted in the limitation of space especially at some of the centres throughout Jamaica, difficulty at some sites in identifying qualified persons to tutor some of the second and third level courses for the degree in Management Studies, and the late release of examination results in some courses. Inconsistent participation of tutors in orientation teleconferences with course coordinators was also a problem. It is proposed to make attendance by tutors at these teleconferences obligatory.

The Ocho Rios Centre got approval to convert two containers into four classrooms.

Mona Summer Workshop for Distance Education Students

The Office of Student Services (OSS) at Mona once again hosted the Summer Workshop for distance education students in the week of July 7, 2003. Students from various centres in Jamaica participated in activities organized by the OSS to better integrate the distance education students into campus life.

Bursary

The second recipient of the Osmond A. Tomlinson Scholarship Trust Fund bursary to assist a student in the parish of St. Ann registered through the UWI Distance Education Centre was made on August 29, 2002. The bursary, valued at \$15,000 was awarded to Percival Bernard, a returning education student at the Ocho Rios centre.

Telecommunications Network and Web development

The total number of programming hours for which the teleconference network was used was 2,090 with 1,321.5 hours (63.23%) used for teaching purposes and 768.5 hours (36.77%) for non-teaching purposes. This represents an increase of some 35% or 545.5 hours over the previous year's usage of some 1,544.5 hours.

The network also experienced increased usage for e-mail, electronic file transfer and the introduction of on-line course delivery using the WebCT Web environment. The increase in computer mediated communication in UWIDEC's delivery and administration highlighted the need to replace the existing obsolete computers and the need to

increase the bandwidth to the Internet and the bandwidth within the UWIDEC network.

In March 2003, as part of a pilot project, the network in Trinidad and Tobago was migrated to frame relay. The goal of the project was to determine the capability of the frame relay network for carrying the audio conference traffic without any reduction in quality. On July 24, 2003, a contract was signed with Cable & Wireless to migrate all the current international network connections to international frame relay at a reduced recurrent monthly cost of US\$28,576.50. The current monthly cost of international network connections is US\$40,896.00.

In July 2003, a contract was signed with Western NRG Inc. in California USA to provide maintenance for all the routers in the 16 country network at an annual cost of US\$15,605.

A concerted effort was made to improve the UWIDEC Web pages by way of improving their design and adding a few new functionalities. The envisaged improvements, however, are subject to the outcome of the initiatives taken by the three campuses to rationalize all Web publishing.

The centre at Vere Technical High School in Jamaica was provided with leased circuits, thus all the centres in Jamaica are currently on leased circuits.

The temporary, part-time lab technician in Ocho Rios, Mr. Bryan Walcott, was instrumental in the development of a student database used for disseminating information via email to students' cellular telephones. It is hoped to replicate this at the other centres in Jamaica.

Projects

B. Ed. Secondary Programme

Delivery of the B.Ed. Secondary courses began in January 2003 under the Ministry of Education and Culture-funded project to offer programmes in 10 disciplines over the course of 11 years. This project is managed out of the Faculty of Humanities and Education, with the involvement of UWIDEC in the training, development and delivery aspects of the project. UWIDEC is also represented on the Project Advisory Committee.

Starting in February 2003, both the Curriculum Development Specialist (Acting), Ms. Charmaine McKenzie, and the Web Administrator, Mr Howard Smith, have been participating in meetings of the Electronically Enhanced Teaching/Learning Task Force convened by the Project Coordinator, Mrs. Gloria Morgan. These meetings seek to discuss and assess the viability of various delivery modes in an effort to move expeditiously towards the use of on-line delivery modes for the courses.

Just-In-Time Lecture (JIT-L)

In continuation of the OAS project for the provision of equipment and training in the use of the Just-In-Time Lecture software, which enabled the combination of PowerPoint presentations, video clips, frequently-asked-questions, and other computer-based applications for teaching purposes, regional workshops were held in Trinidad, June 3-6, 2003, and Jamaica, June 24-27, 2003. The workshops covered the JIT-L and the issues associated with using the technology. The audience included a cross-section of Site Coordinators, Technicians, Course Coordinators and Tutors across the region. Dell Servers provided for the three campuses in this phase of the project were still to be implemented.

Gender and Development Studies

The delivery of courses for the Certificate in Gender and Development Studies began in January 2003.

UNESCO/Japanese Funds in Trust

In January 2003, a project agreement was signed with UNESCO for the Caribbean Universities Project for Integrated Distance Education (CUPIDE), a collaborative project for human resource development in electronically enhanced teaching, administration and material distribution. Funded through the Japanese Funds in Trust for Capacity Building and involving five universities (UWI, University of Technology [Jamaica]; Anton de Kom University of Suriname, University of Guyana, and Quisqueya University [Haiti]), the UWI is the executing entity, with the Mona Campus Coordinator and Senior Projects Officer, Christine Marrett, as project manager. Miss Carol-Marie D'Azevedo was hired as project assistant in February 2003.

Two major activities undertaken for the period under review were the selection of Mr. Ken Sylvester as the Information Technology Consultant in July 2003, and work on the establishment of a regional association for distance education. Further information can be gleaned from the project Web-site at www.cupide.org.jm.

EDSAT-Americas

The EDSAT-Americas Project to establish hemisphere-wide telecommunication infrastructure to support collaboration in health and education came to a standstill.

Training/Orientation

Training activities organized by UWIDEC included (i) orientation sessions for students (ii) tutor training workshops; (iii) course writers' workshops; and (iv) orientation/training sessions for teaching at a distance, including managing a teleconference session, good audio-teleconferencing techniques and various logistics related to distance delivery.

During July 24-27, 2003, two regional training workshops were held supported by the OAS on Just-In-Time Lectures (JIT-L). The workshops were intended to introduce the participants to the JIT-L technology and their potential role in its implementation when it forms part of the UWIDEC course package. The first in the series targeted Technicians and Administrative Staff, while the second targeted Tutors and Course Coordinators.

Mr Howard Smith, Mona's Web Administrator, attended a training course in Course Development in Atlanta, Georgia in February 2003.

Counselling the Adult Learner

In response to a request by UWIDEC site staff in Jamaica to have training in counselling, UWIDEC arranged a short course in Counselling the Adult Learner, presented by Mrs. Lilith Williams, Coordinator of the MSc Counselling Programme. The module was adapted from the course of the same name, which had been offered as part of the Certificate in Adult Education. Staff who completed the programme by passing the end of module test were awarded a certificate of completion, while those who

did not sit or pass the test but attended at least 3 of the 5 teleconferences were given a certificate of participation.

Legal Issues in Distance Education

Ms. Charmaine McKenzie, Ms. Christine Marrett and Ms. Jerome Perkins attended a seminar organized by the Legal Unit and supported by the Ford Foundation, titled “Legal Issues in Distance Education”, on February 27, 2003. The presenter was Dr. Johnathan Alger.

Computer training programme

Following the successful training of UWDEC staff in computer applications by distance the previous year, the Mona Institute of Applied Sciences (MIAS) began offering a similar training programme for the public.

Exhibitions

Mr. Donovan Grant, Graphic Artist, was instrumental in UWIDEC’s participation in

- Research Day, Mona Campus February 2003
- Joint Committee for Tertiary Education Conference, Jamaica Pegasus Hotel, May 1, 2003

Meetings and Conferences

The UWIDEC senior staff attended several meetings and conferences including:

- *UWIDEC Senior Staff Retreat* September 30 – October 2, 2002, in Trinidad and Tobago.

Academic Programme Committee

Ms. Vilma McClenan and Ms. Christine Marrett attended the first meeting of the Academic Programme Committee, Barbados, on March 14, 2003.

CARADOL Constitution Sub-Committee

Ms. Vilma McClenan co-chaired the first meeting of the CUPIDE Constitution sub-committee for the establishment of CARADOL – the fledgling Caribbean Association for Distance and Open Learning. She drafted the Constitution for this association and presented it to CUPIDE, under which project the initiative to establish the regional association falls.

Jamaican Association for Distance and Open Learning (JADOL)

UWIDEC is an institutional member of JADOL and its office at Mona continued to serve as the mailing address. Ms. Marrett serves as Treasurer and convenor of the membership committee. Ms. Vilma McClenan, Ms. Charmaine McKenzie and Mr. Derrick Thompson are members.

Ms. Marrett was integrally involved in the planning and staging of activities for JADOL Week, October 20-25, 2002.

Ms. Marrett also assisted in the organization of a public lecture held in Mandeville, presented by Mr. Seymour Riley on distance education in support of adult education in March 2003, and a panel presentation by distance learning students in July 2003.

RESEARCH IN PROGRESS

Christine Marrett

- Faculty participation in distance education at the University of the South Pacific, the University of Swaziland and UWI.
- Institutional collaboration in distance education at the tertiary level as an aspect of human resource development in the small, developing countries of the Caribbean (Ph.D. thesis)

Staff

At the UWIDEC office, Mona, the Senior Programme Officer, Christine Marrett, continued in the role of Campus Coordinator. For the third year in succession, the Editor, Miss Charmaine McKenzie, continued to act as Curriculum Development Specialist. A part-time Editor, Ms. Paulette Bell, joined the section in February 2003 for a period of six months. Miss Monica Wint continued to work as Production Assistant

and Miss Pauline Osbourne, the section's second Production Assistant, went on maternity leave in June 2002 and returned in October 2002. Mrs Annika Lewinson-Morgan worked in her stead over the period. Mr Donovan Grant continued in the post of Graphic Artist.

The post of Web Administrator (filled by Mr. Howard Smith), which had previously been financed from extra-budget funds, was included in the budget for 2002/2003. Mr. Derrick Thompson continued as Deputy Telecommunications Manager. Funding for part-time computer lab technicians for the intra-Jamaica sites was approved for academic year 2002-2003. However, the posts had not been advertised up to the end of the period. It is anticipated that this will be done early in the new year.

Mr. Sheldon Cardoza joined the technical staff at UWIDEC Montego Bay, November 1, 2001, and Mr. Yhan Campbell joined the technical staff at Mona in February 2003.

Following the week of Orientation activities for new and returning distance students, the Academic Programme Coordinator, Vilma McClenan proceeded on local leave for semester 1, primarily to carry out some training and to do writing in intensive workshop sessions. Her duties were undertaken by Mr. Orville Beckford. (Mr. Beckford also acted as Administrative Officer, Ocho Rios, while Ms. Perkins was on study leave February-March, 2003). Mrs. Beryl Cunningham and Ms. Alecia Walters continued working as part of the team responsible for the delivery of programmes.

Other staff members at the UWIDEC Office, Mona, were Ms. Elaine Bolton, Administrative Assistant; Ms. Dionne Cope, Receptionist; Ms. Brigette Frazer, Chief Office Attendant; and Mr. Howard Williams, Senior Office Attendant.

For the year under review, the person appointed by the host institution to oversee the management of the Centre in Mandeville, Mr. Karlem Mair, handed over responsibility for UWIDEC matters to Ms. Carmen Bailey. Mr. Cardovan Jackson, Principal of Paul Bogle Junior High School assumed position as the Morant Bay Site Coordinator with effect from November 1, 2002, following on the retirement of Mrs. Ivet Russell.

Ms. Aneisha Welsh (Administrative Assistant, Morant Bay) completed her B.Sc. degree, while Ms. Rhona White, Site Coordinator, Mona, completed the Diploma in Population and Development.

The Administrative Assistants in Ocho Rios, Brown's Town, Mandeville, Vere and Savanna-la-mar continued their studies in B.Sc. Management by distance. Ms. Jerome Perkins, Administrative Officer, Ocho Rios, was on leave of absence from her doctoral programme. Mr. Howard Smith, Web Administrator, continued the Masters in Information Systems, Ms. Christine Marrett continued her PhD with the Sir Arthur Lewis Institute for Social and Economic Studies, and Ms. Charmaine McKenzie registered for the M.Phil History. Ms. Monica Wint continued as a part time student at the Mona Campus pursuing the Certificate in Social Services and Social Work.

PAPER PRESENTED

Vilma McClenan

- “Violations to the Right to Education of Persons with Disabilities”, at an International Tribunal convened by the ICAE in September 2002 in Montreal.

Christine Marrett

- “Challenges of teaching-learning at a distance”, presentation to Mona campus staff, August 22, 2002.

PUBLICATIONS

- * McClenan, Vilma et alia, (2003) *Carlton Primary Integrated Studies Year 1*; “Getting to know me” and “Getting to know my body”; Carlton Publishers (Caribbean) Ltd.
- * Austin, I and Marrett, C. (Eds) (2002) *Adult Education in Caribbean Universities*, UNESCO.
- * Marrett, C and Turner, G. (2002) “Open learning and adult education in Jamaica: the case of the University of the West Indies (UWI) and the University of Technology, Jamaica (UTech)”, in Austin, I and Marrett, C. (Eds) *Adult Education in Caribbean Universities*. UNESCO.

Tributes

UWIDEC joined with other members of the university community in mourning the passing of Ms. Pam Morris and Dr. Peter Whitely, both of whom had contributed to distance education at UWI.

PUBLIC SERVICE

Charmaine McKenzie

- Member, Jamaican Historical Society – Editor of its Bulletin
- Member, Jamaican Association for Distance and Open Learning (JADOL)
- Member, St. Hugh's Past Students' Association (SHPSA) – Co-editor of its Newsletter
- Editor, Grade Kennedy Foundation in Lecture, 2003

Jerome Perkins

- Member, Association of Caribbean Higher Education Administrators (ACHEA).
- Executive Member, Caribbean Tertiary Level Personnel Association.
- Member, American College Personnel Association.

Vilma McClenan

- Caribbean Vice-president, Executive of the International Council for Adult Education (ICAE)
- Member, Jamaican Council for Adult Education's (JACAE) Adult Education Week Committee
- Member, Jamaican Association for Distance and Open Learning (JADOL)
- Member, special committee to redefine JAMAL's Mission and to decide upon a new name

- Member, Steering Committee of the Early Childhood Environmental Resource Centre of Shortwood Teachers' College.

Christine Marrett

- Treasurer, Jamaican Association of Distance and Open Learning (JADOL)
- Convenor, JADOL Membership Committee
- Secretary, Proprietors' Strata Plan 375
- Executive Member, Proprietors' Strata Plan 65
- Executive Member, St. Hugh's Past Students' Association and Member of its public relations and other committees
- Director, St. Hugh's Past Students' Foundation
- Member, Association of Caribbean Higher Education Administrators (ACHEA)

Derrick Thompson

- Member, Jamaican Association for Distance and Open Learning

AWARDS

Vilma McClenan

Received a citation from the Jamaican Council for Adult Education (JACAE) in December 2002 “to honour her considerable contributions to adult education at the national, regional and international levels.”

Jerome Perkins

Awarded a Fellowship for university administrators by the Embassy of the United States of America (USA) in February/March 2003. She undertook an assessment of higher education in five states in the USA.