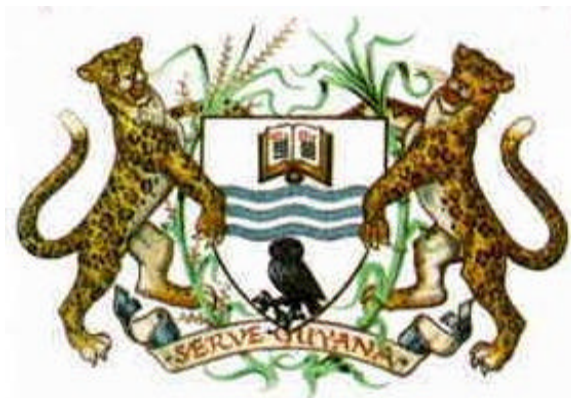




REPUBLIC OF GUYANA

NATIONAL REPORT ON HIGHER EDUCATION

UNAMAZ/UNESCO

DERYCK BERNARD, (Senior Lecturer in Geography)
ADEOLA SIMON-SAIGOO, (Planning Officer)
PHILLIP DA SILVA, (Senior Lecturer in Biology)
JENNY LA ROSE (Lecturer in Health Sciences)

UNIVERSITY OF GUYANA
P.O BOX 101110
GEORGETOWN, GUYANA
SEPTEMBER, 2002

TABLE OF CONTENTS

	<u>Page No.</u>
Introduction	3
Historical Development of Higher Education	3-6
The Principal actors in Higher Education	
➤ The Education System of Guyana	6-8
Other Post Secondary Institutions	8-9
Tertiary and Higher Education	10-16
Higher Education Structure and Management University Governance	16-17
University of Guyana: General Description	17-19
Staff Appointment and Promotion	19
Resources at International and National Level	20-24
Online Information and Communication Networks	24-26
Higher Education Financing	26-30
Relation between National Budget and Higher Education Budget	31-32
Research and Higher Education Research Centres and Institutes	33-39
Volume of International and National Resources allocated to Research	39
Place and Role of the New Information and Communication Technologies In Higher Education	39-52
Bibliography	53

INTRODUCTION

This study is prepared to capture the nature, trend and characteristics of the Higher Education landscape and market in Guyana. It should be noted from the very beginning of this analysis that while in recent times there has been a rise in private institutions that offer University level training, the higher education landscape in Guyana continues to be dominated by the public University, the University of Guyana, instituted in 1963 by an Act of Parliament.

HISTORICAL DEVELOPMENT OF HIGHER EDUCATION

Higher Education in Guyana is of relatively recent origin. The colonies that eventually became Guyana were not regarded by the colonial power as places in where Europeans should settle in large numbers. As a result there was a very low investment in the cultural and intellectual infrastructure found in other European colonial settlements. In the 19th and 20th century, the education development included secondary institutions for the training of the children of expatriates and the local Creole elite, which were largely imitations of the British secondary grammar, school model. This not only reflected the aspirations of the colony and respect for the ideals of British education but also the functional necessity of providing a level of education, which would allow expatriate British officials and the planter class access to university education for their children in Europe. Both state run and church owned institutions subscribed to this approach that subsisted until, the pre independence era of self-government. The system of education therefore accepted that higher education could only be obtained by travelling to the metropolis, which in this case usually meant the United Kingdom. Very few were able to make use of this route. Access was obviously limited to the children of the plantocracy, the children of British officials and there was a very small number of scholarships, one each year by which persons who did not fit into these groups and who were desirous of higher education. In addition, a very small number of persons were able to acquire external degrees of London University by home study. Though these persons were often

outstanding in terms of their contribution to the education system in particular and national cultural and political development as a whole, they represented a very small elite group of trained professional personnel. In this context therefore, the higher education pool was restricted to those persons who were from privileged groups and the small number of scholarship beneficiaries and external graduates. Persons without any tertiary training frequently managed senior levels of the education system and bureaucratic structures.

An important change in conditions of access to tertiary education for Guyana came with the establishment of the University College of the West Indies in Jamaica, now the University of the West Indies in Jamaica in 1955. The University of the West Indies was an initiative of the British colonial government which emerged as a result of the recommendations of the context of the Asquith Commission. (-) This commission set up by the colonial office of the British government had advocated the replication of the British Higher education model in the colonial territories as preparation for development and self-government. The University College had three effects on Guyana's access to higher education and eventually to its social and educational development. Firstly, it made higher education more affordable for the large number of Guyanese who had completed secondary education but were unable to afford university education. Secondly, it facilitated higher education in a regional environment which was similar to that in which the graduates originated and in which they were destined to function. The cultural alienation and ethnic discriminations, which accompanied university education in Britain and Europe, could thus be avoided. Thirdly, the university of the West Indies facilitated access by the award of open scholarships to candidates from British Guiana and in addition the Guiana government also facilitated the admission of an increased number of students.

The fundamental event in higher education in Guyana was the establishment of the University in Guiana by the British Guiana government in 1963. () This initiation was in defiance of the assumption that the University of the West Indies was designed to and capable of meeting the higher education needs of Guyana, a view still advocated by some contributors to the debate on tertiary education that Guyana's

population and economy cannot sustain an independent higher education infrastructure. The arguments for establishing a university in Guyana can be summarised as follows.

- The University of the West Indies was unable to provide access to the number of Guyanese willing and able to access higher education
- The admission requirements of the university of the West Indies by and large conformed to the admission requirements which were based on the British advanced level examinations which exclude from higher education persons who were prepared by their secondary education and maturity to make use of higher education. The contrast with land grant colleges in the United States which accepted Guyanese with British ordinary level qualifications was particularly poignant and arguments which alleged that the American qualifications were inferior added to the perception that the British admission standards were elitist and inefficient.
- There was the argument that the British orientation of the UWI including the organisation of its departments, the contents of its programmes and the orientation of its research made it irrelevant to many of the important research and human resource development needs of Guyana as perceived at that time.

The university opened in 1963 with 140 students. The British mathematician and philosopher Prof Lancelot Hogben was the first Vice Chancellor and Principal. It had no specialist campus or facility but utilised the classrooms of the leading secondary school Queens College, as lecture rooms and laboratories. The staff houses of the school were used as the administration and library facilities. The specialist campus at Turkeyen on the eastern edge of Georgetown began construction in 1967 and was completed in 1970 on a site donated by Booker Sugar Estate. The Booker Sugar Company, the largest commercial entity in Guyana donated acre site. During its formative years it acquired a reputation for relevance and a commitment to be flexible and responsive to the need of the national human resource strategies. As a result, the model that emerged in Guyana reposed the entire human resource at tertiary level in the state funded university and it accepted responsibility for tertiary training at

certificate and diploma as well as baccalaureate levels. Graduate studies have remained relatively limited, the throughput at Masters level being small and there being no doctoral programmes. In essence, the higher education strategy in Guyana is to attempt all baccalaureate training with very few exceptions at the university but to utilise additional alternate resources for graduate training externally.

THE PRINCIPAL ACTORS IN HIGHER EDUCATION

THE EDUCATION SYSTEM OF GUYANA

Administration:

Guyana is divided into eleven administrative education districts. Ten of these Education districts correspond with the administrative and geographical regions of the country, while the capital, Georgetown, is treated as a separate education district.

The Chief Education Officer is the professional Head of the Education system. Three Deputy Chief Education Officers, one each for Administration, Development and Technical Education, assist him. There are also four Assistant Chief Education Officers with functional responsibility for nursery, primary, secondary education and an Inspectorate unit. Each Assistant Chief Education Officer functions at a national level within his/her sphere of responsibility.

The Assistant Chief Education Officer, Georgetown and Regional Education Officers are responsible for monitoring and supervising all educational activities within their respective education departments. The teams for the administration of these departments include District education Officers and Education Supervisors. The number and types of schools that fall within its boundaries as well as its demographic make-up Determine the number of District Education Officers and Education Supervisors assigned to a department.

Organisation And Structure:

Guyana's education system span of control includes institutions at all of levels and types i.e. Nursery, Primary, Secondary, Technical and Vocational, Post Secondary, Teacher Training, and University.

Post Secondary Level

Technical education and vocational training at the Post secondary level are offered in three technical institutes in Guyana, an Industrial Training Centre, the Carnegie School of Home Economics and the Craft Production and Design Division. These institutions train both male and female students above the age 16 years in a range of technical and vocational areas. Admissions to these studies is generally once per year and most courses are of a two-year duration, leading to a technical certificate, a technician diploma or a certificate of proficiency. The Guyana Industrial Training Centre offers craft courses on a full time and part time basis. The Carnegie School of Home Economics is responsible for training persons in food preparation and service and for the hospitality industry. The Government Technical Institute and the New Amsterdam Technical Institute offer craft and technical courses on a full time and part time basis.

Guyana School Of Agriculture

The Guyana School of Agriculture has as its mission to promote and support agricultural development through education and training of young men and women interested in a career in Agriculture and/or Forestry. The School was established on September 9, 1963 to meet the long felt need for a National Agricultural Training Institution in Guyana. The Subject coverage includes Agriculture and related subjects leading to the Certificate in Agriculture, Certificate in Forestry or Diploma in Agriculture.

Regional Education Programme For Animal Health Assistants (REPAHA)

This institution provides training at pre-university level for Caribbean students and to support the goals of the Caribbean Economic Community, primarily in the area of Agricultural development. It offers courses in Veterinary Public Health, Animal Health, Livestock Production and Management. It offers two- year Diplomas, one two- year certificate course and several short courses. Some courses are offered via distance mode.

OTHER POST SECONDARY INSTITUTIONS

Teacher Training

Teacher training is effected by the Cyril Potter College of Education, the National Centre for Educational Resource Development and the University of Guyana. The Cyril Potter College of Education, has its main campus at Turkeyen near the University and centres at New Amsterdam and Linden, Rose Hall, Anna Regina, Vreed-en-Hoop and Georgetown offers programmes, which fall into two categories:

- (a) In-service Training for teachers already in the service.
 - Nursery Teacher Training Programme (2 years).
 - Primary Teacher Training Programme (2 years).
- (b) Pre-Service Training for individuals intending to make teaching a Career.
 - Nursery Teacher Training Programme (2 years)
 - Primary Teacher Training Programme (2 years)
 - Secondary (Pre-Vocational) Teacher Training Programme (3 years).

The National Centre for Educational Resource Development (NCERD) provides on the job and close to the job educational institutional programmes for practicing teachers. Its focus is on the acquisition of resource material, hence creating opportunities for teacher and teacher educators to interact with a wide variety of resources for self-development and to improve teaching abilities.

The University of Guyana offers a two-year Certificate programme and a first-degree programme in the Faculty of Education. In addition there is also one graduate diploma programme and a Master's Degree programme.

The Georgetown And New Amsterdam - Schools Of Nursing

Three Nursing Programmes are offered viz., Nursing Assistant, Professional Nursing and Post Basic Midwifery. Clinical experience for students includes Hospital and Community work. Subject Coverage includes Medical-Surgical Nursing, Psychiatric Nursing Paediatrics, Pharmacology, Nursing Process, Fundamentals of Nursing, Nutrition, Microbiology, Maternal and Child Health, Management Psychology, Community Health Nursing.

Critchlow Labour College

The Critchlow Labour College was established in 1967 as the educational arm of the trade Union Movement. Its primary objectives are:

- (1) To develop the College into a Public Adult Education Centre and
- (2) To contribute to institutional capacity building through a combination of consultancies, research and collaboration in the design and conduct of training programmes related to workers education.

Course include:

- (a) A Certificate in Industrial and Social Studies (one year).
- (b) Caribbean Examinations Council Secondary School Certificate Upgrading (one or two years).
- (c) Professional short courses (three months).
- (d) Training for Trade Unionists (three and five day modules).

Kuru Kuru Cooperative College

This college was established in 1970 to enhance and promote business education and training and cooperative action and more specifically to conduct training in cooperative management as a means of meeting the economic and social needs of society.

TERTIARY AND HIGHER EDUCATION

Planning For Education

According to the 1995 State Paper on Education policy, “the nature of the task of the education enterprise, it is imperative for those responsible for delivering the service to set goals for achievement of the education objectives.

Issues And Concerns

Guyana needs a significant proportion of its adult population to be educated at The tertiary level in the arts, sciences and technology necessary for its development. Emphasis, however, should be more on the acquisition of the relevant expertise and skills necessary for national development than on certification.

Policy Goals

To forge a new role for the University of Guyana to meet the demands of the 21st century in light of:

- (i) the national development needs and the burgeoning technological culture;
- (ii) the need to provide greater access to tertiary education;
- (iii) The demand for new thrusts in other tertiary institutions;
 - To introduce measures that would make the operation of the university cost-effective;

Structure and Functioning of Higher Education

2.1 Types of Higher Education institutions found in Guyana can be classified as

- Pre University which includes the Technical and Vocational training institutions, the teacher training institutions the cooperative college, the Trade union education institution, the Critchlow Labour College.
- The State University of Guyana
- The Private degree offering distance and off shore colleges
- Private InfoTech colleges
- Commercial and business training centres

- The religious schools and theological colleges.

- 2.2 The only university type institution is the University of Guyana and two private offshore colleges. The other post secondary institutions are non-university
- 2.3 The issues of private versus public educational institutions has not yet been an important policy matter since the dominant institution is the state owned one and private education is only in its experimental and incipient stage.
- 2.4 There are no general laws or statutes under the Education Act; The University of Guyana is regulated by the University of Guyana Act that governs the registration and regulation of higher education in general. There are however laws and statutes governing the regulation and registration of particular professions such as medicine, pharmacy and engineering and surveying which have implications for higher education.
- 2.5 The University of Guyana is a state owned institution governed by a council appointed by Cabinet. The statutes of the university name institutions which are represented on the council and therefore entitled to make nomination. The university falls under the general orbit of the Ministry of Education but operates as an independent body setting its programmes, determining its curricula, and awarding its degrees without reference to the government. The governmental reference relates in particular to matters of university financing. The university was for many years tuition free but since 1994 changes tuition fees have been required. 70 % of students are financed by student loans negotiated with the government and the approval, disbursement and reconciliation of this process represents the primary point of interaction and conflict between government and the university. Government exercises general influence on the university through those persons nominated by the government to sit on the university council but has no formal role in the day-to-day governance of the institutions. The non-tertiary post secondary institutions are managed by boards appointed by the government except for the Labour college which is governed by a board nominated by the Trades Union Congress.
- 2.6 The university offers masters degrees in Education, Literature, History, Geography, and Natural Sciences. It also offers postgraduate diplomas in Education, International Relations, Development Studies and Translation.

2.7 A national system of accreditation is at present being constructed. A previous accreditation system largely concerned with the assessment of the equivalency of externally obtained qualifications. The current energy for accreditation is driven by the developing single market and economy in the Caricom countries that among other things foreshadows a free market and movement in labour including skilled professionals. The accreditation and equivalency issues are therefore important and initiatives through the Caricom secretariat and the ACTI (Association of Caribbean Tertiary Institutions) are at present being negotiated. The university of Guyana is currently reintroducing the use of external examiners to referee the work of its third and fourth year courses as an instrument of quality control and assurance. The Critchlow Labour College uses the Faculty of Social Sciences as its external moderation for similar purposes.

3.0 Access to Higher Education and Its Demographic Coverage

Because of the paucity of information governing the private delivery of higher education, probably due to its unstructured introduction and development, and competitive fears, this section draws its information exclusively from the University of Guyana.

3.1 Requisites and Practices of Access to Higher Education

Persons eligible for admission to the University of Guyana must satisfy the following general criteria in addition to the specific requirements of the Faculty to which they have applied. Admission to a Bachelor programme, is open to candidates who:

1. Have attained the age of 16 in the calendar year for which admission is sought.
2. Possess a minimum of 5 subjects (grades 1 to 3) at one sitting or 6 subjects (grades 1 to 3) at two sittings of the Caribbean Examination Council (CXC) examination or equivalent, inclusive of Mathematics and English.

3. Have been properly admitted to, and have been attending a regular degree programme at a recognized University. Such candidates may be admitted as a transfer student upon verification of their status on the recommendation of the Board of the faculty to which they are seeking admission.
 4. Have satisfied the requirements for the award of a certificate or diploma from any one of the University certified feeder institutions, outside of the regular school system. These include, the University's Institute of Distance and Continuing Education (IDCE), the Government Technical Institute, The Guyana School of Agriculture, the Teachers' Training College, the Critchlow Labour College.
- Admission to any of University post-graduate programmes is contingent upon the attainment of a Bachelors degree from a recognized University.

3.2 Access by entrance exams at the national and /or institutional level

All potential students applying to the University of Guyana must possess the required number of passes at the regional Caribbean Council Examinations (CXC) or certificates/diplomas from an approved national feeder institution. However, an interview and or portfolio may be required for admission to some programmes.

3.3 Demographic coverage

3.3.1 Rates of Schooling of Population Aged 17 – 24

Students age 17 – 24 represent an average 60% of the yearly intake of the University of Guyana. Of this amount, female students represent an average 55% and male students 45%.

3.3.2 Evolution of Schooling in Higher Education since 1990.

While data with respect to the age of applicants was not captured prior to 1998, institutional knowledge indicate that since the 1990's, the University of Guyana has been attracting a higher proportion of the out-of-school population to its programmes

Table 1 Admissions to the University of Guyana 1998 – 2001

Year	Sex	Age 16 - 25	Above 25	Total	Grand Total
1998/99	M	997	582	1579	3772
	F	1,321	872	2,193	
1999/00	M	948	510	1,458	3771
	F	1,477	836	2,313	
2000/01	M	1,117	430	1,547	3708
	F	1,380	781	2,161	

Source: Admissions Department, University of Guyana: Application Statistics

3.4 Schooling Demands, years of study per degree course or minimum courses passed

The University of Guyana offers 4 years Bachelors programmes, 1 year post graduate diploma programmes and 2 years Masters programmes. The required credits for successful completion vary from faculty to faculty.

3.5 Average Study Time

The average contact hours per course is 4 hours per week. On average a student carries a total of 4 courses per semester giving an average study time of 16 hours per week

Access by entrance exams at the national and /or institutional level

The university administered an entrance examination for all undergraduate admissions at its inception but this was discontinued in 1983. All potential students applying to the University of Guyana must possess the required number of passes at the regional CXC examinations or certificates/diplomas from a certified national feeder institution. However, an interview and or portfolio of practical work may be required for admission to some programmes.

Students age 17 – 24 represent an average 60% of the yearly intake of the University of Guyana. Of this amount, female students represent an average 55% and male students 45%.

3.6 Schooling Demands, years of study per degree course or minimum courses passed

The University of Guyana offers 4 years Bachelors programmes, 1 year post graduate diploma programmes and 2 years Masters programmes. The required credits for successful completion vary from faculty to faculty..

3.7 Average Study Time

The average contact hours per course is 4 hours per week. On average a student carries a total of 4 courses per semester giving an average study time of 16 hours per week

Schooling Demands, years of study per degree course or minimum courses passed

The University of Guyana offers 4 years Bachelors programmes, 1 year post graduate diploma programmes and 2 years Masters programmes. The required credits for successful completion varies from Faculty to Faculty.

Average Study Time

The average contact hours per course is 4 hours per week. On average a student carries a total of 4 courses per semester giving an average study time of 16 hours per week.

HIGHER EDUCATION STRUCTURE AND MANAGEMENT UNIVERSITY GOVERNANCE

The University of Guyana Act governs the management of the University of Guyana. The general governing body is the Council which is chaired by a Chancellor, an honorific appointment and in the absence of a Chancellor, a Pro Chancellor, also honorific. The chief executive office of the university is the Vice Chancellor and Principal who exercises broad the executive powers of a Principal along the lines of such a position in the UK system of university administration. The Vice Chancellor is assisted by a Deputy

Vice Chancellor appointed from among senior academics and a Registrar whose department is responsible for the general administration of registration examination, admission and general university administration issues.

The Academic Board consists of professors, Deans of Faculties and Heads of Departments and Coordinators of Divisions manages the academic policy of the university. The Academic Board has statutory powers for all matters pertaining to the research, teaching and assessment activity of the university.

An appointments committee of academics makes appointments and promotions of academic staff but on which the council is compulsorily represented. Financial responsibility is with the Finance and General Purposes Committee of the Council and administered by a Bursar who is the chief financial officer.

The university is divided into faculties, which are governed, by faculty boards and faculty coordinating committees. Faculties are headed by Deans selected from amongst senior professors. Academic department and divisions are headed by Heads of Departments and Coordinators. The university staff is represented by two unions one representing academic and one non-academic staff. Students are represented by a student society. Both staff and student organisations are represented on the academic board and the council.

UNIVERSITY OF GUYANA:GENERAL DESCRIPTION

The University of Guyana occupied its present site at Turkeyen, in October 1969. At its inception the University offered only general degree programmes confined to the Faculties of Arts, Natural Sciences and Social Sciences. To date enrolment over 3,000 students, pursuing more than 60 full time and part-time undergraduate and graduate programmes. These programmes are conducted in seven Faculties – Agriculture, Arts, Education, Health Sciences, Natural Sciences, Social Sciences and Technology. There is also an Institute of Distance and Continuing Education.

The mission of the University of Guyana is “to provide a place of education, learning and research of a standard required, and expected of a University, of the higher standard, and to secure the advancement of knowledge and the diffusion and extension of arts, sciences and learning throughout Guyana”. The Faculty of Arts now includes the Departments of History, English, Modern Languages, Geography and Mathematics and the Division of

Caribbean Studies, (1975) and Creative Arts, (1975) as well as an Amerindian Research Unit, established in 1972. In 1993 Tourism Studies was started in the Faculty. Additionally, Graduate programmes in History and Geography were established in 1973 and 1984 respectively. The **Faculty of Education** was established in 1976 offering a Post Graduate Diploma in Education. The Faculty now offers a full range of undergraduate and graduate programmes. A Certificate Programme was introduced in 1972, the Bachelor of Education in 1975, and a Master's in 1976. Additionally, a Certificate in Nursery Education, (1979); one in Technical Education, (1981); and another in Special Education, (1982), were also introduced.

In 1976 a Department of Extra-Mural Studies was started in the Faculty of Education. This was upgraded to an **Institute of Adult and Continuing Education**. In 1987 the institute offered its first Diploma Programme in Occupational Health and Safety. This institute now provides courses in English among others, for students in Linden and Berbice and Essequibo through its Distance Education Programme.

In 1981 what was previously the Department of Health Sciences, established in the Faculty of Natural Sciences, (1974) became the **Faculty of Health Sciences** offering a wide variety of Diploma programmes. In 1985 it began training for Medical Practitioners. The Faculty of Natural Sciences entertained applications for Graduate Degrees in Biology and Chemistry in 1976 and 1977 respectively and in 1993 the Department of Biology began a Graduate Programme in Bio-Diversity with an M.Sc. in Forest Biology. In 1994, the Environmental Studies Unit was established.

The Faculty of Social Sciences has been the most dynamic Faculty in the University, changing its departmental structure from Economics and Business Administration, Government and Public Administration, and Sociology to Economics, management Studies, Political Science and Law and Sociology. The Faculty subsequently introduced an Institute of Development Studies (1975), and Diploma programmes in Public Administration, 1966; Social Work, 1971; Public Communication, 1975; Accountancy, 1979; Personnel Management, 1981; and Marketing, 1983. In 1970 the first year Programme leading to the UWI Law Degree was started locally. Graduate programmes in Economics and Political Science were introduced in 1977 and 1978 respectively, while a Women's Studies Unit was established in 1987. Beginning 1993

the faculty now offers the full Law Degree Programme.

The Faculty of Technology was started in 1969 offering the General Technical Diploma and the Higher Technical Diploma in Architecture and Building Technology; and Civil Engineering and Building Technology. In 1978 this structure was modified to a Diploma in Technology and Degrees in Engineering as well as Architecture programmes. At the Same time the Diploma Programme has been expanded to accommodate studies in agricultural engineering, mining and surveying.

In a country with an economy that is essentially agriculture based it was perhaps inevitable those agricultural programmes would, sooner or later, be established. **The Faculty of Agriculture** was opened in 1977 and offers an Agriculture Programme leading to the Bachelor of Science in Agriculture. At present the Faculty offers a wide variety of courses including Horticulture and Fruit technology; Crop Production; Applied Soil Science; Animal Nutrition; Livestock production; Animal and Plant Breeding; Animal and Plant Physiology; Cytogenetics; Micro-Biology; Biochemistry; Agriculture Extension and Rural Sociology as well as Agriculture Economics.

In the near future it is planned to reorganize the Faculty to accommodate the Departments of Agriculture Economics and Extension; Animal Science; Crop Science; and Soil Science. Plans are also afoot for the introduction of a Graduate Programme with specialist training in any one of these fields. In 1969 the Faculty of Technology became the first Faculty to offer a full-time Programme. This policy was adopted across campus in 1973 but a part-time Programme was re-introduced in 1987. The Faculty of Agriculture adopted the semester registration system in 1987. They were followed by the Department of political science and Law in 1989 an the Faculty of Social Sciences and Education in 1993. The entire campus adopted the semester system in 1994.

STAFF APPOINTMENT AND PROMOTION

Subject to the overriding authority of Council (Statute 12), the legal responsibility for appointments other than the appointment of Officers of the University is vested in the **Appointments Committee**. However, the Vice-Chancellor, can on behalf of the Appointments Committee, of which he is Chairman, make appointments other than the

appointment of Officers and present such appointments to this Committee for ratification. Statutory provisions (Statute 21) also require the Appointments Committee to recommend to the Council whether the appointment of a member of the UA staff should be maintained. This is either by renewal of contract, extension of contract or indefinite tenure. Further, the Appointment Committee is mandated to consider and approve applications for promotions from staff members and recommendations for the award of Annual Increments, if any. Accordingly, the Appointments Committee convenes once annually as an Annual Staff Review Committee to consider recommendations of Faculties, IDCE and Library and other relevant Sections with respect to the following:

RESOURCES AT INTERNATIONAL AND NATIONAL LEVEL

6.1 Libraries

Guyana is a one-University State and the University of Guyana Library (UGL) is a dual-campus entity. There are two libraries within the University of Guyana establishment – the longer and more established main library that is situated at Turkeyen, Greater Georgetown and the more recently established one at Tain, Berbice Campus on the Corentyne Coast. The primary function of the university library is to provide and management resources and services which support the University's intramural teaching, learning and research programmes. In a one-University state such as Guyana the university library plays a crucial secondary role – that which encompasses extramural functions. The university library is by far the best-endowed library in Guyana and therefore must play a pivotal role in national development. In this regard the services of the university library are very important and indispensable to the support of programmes of the University's Institute of Distance and Continuing Education (IDCE) – the extramural arm of the University of Guyana. The extramural thrust of the university library is not limited to the IDCE as the University's resources and services are integral to the following:

- Resource-based projects undertaken by external researchers and users, such as students of further education.

- Rural development and rural education projects, such as leadership in the establishment and organizing of community libraries.

The extramural role of the University is also seen in the coordination of and participation in, national and regional projects and cooperative ventures, aimed at the control and dissemination of information at the macro level, for example the Caribbean Medical Literature (MEDCARIB) Project.

The library serves approximately 6000 patrons at Turkeyen and a further 1000 at Tain, using, to a greater extent, traditional mutual library systems and services. There are approximately 400,000 print and non-print items, including more than 600 periodical titles. There is a Learning Resource Centre (LRC) at the Turkeyen Campus where the non-print materials are housed and managed. The university library serves a vital role as a major research collection in the country, and has the general role of supporting research for and in higher education and other educational institutions, and for the benefit of government agencies, commerce and industry.

Of special importance also are the Caribbean Research Library which is an extensive collection of materials on Guyana and the Caribbean, considered, because of its many unique holdings, to be perhaps the largest collection of materials on Guyana. There is limited access to the Internet for academic staff at the University and students have access to the Internet on Campus via the University's Computer Centre. Recognising that a library which fails to utilize the various information and communication technologies for the improvement and extension of existing services, as well as for the creation of new services, fails to meet the needs of its clients, and the wider needs of the Universal Availability of Publications (UAP) the University has seen the need to increase its connectivity to the Internet and at the same time improve and expand the services it currently offers.

The Guyana National Library

The National Library of Guyana in Georgetown had its origins in the Public Free Library service, which was established in 1909. In 1950 an act of the Legislative Council empowered the Library authority to extend the library services beyond Georgetown, initiating the rapid development of a countrywide service; The Law Revision Act of 1972 empowered the National Library to perform the dual functions of both a National and a Public Library. The Law also designated the National Library a Legal deposit library, which entitles it to one copy of every local imprint, and it published the Guyanese Bibliography from 1972. The National Library provides service through the operation of several units. There are now branch libraries within and outside of the Capital City of Georgetown and there are also bookmobiles that are operational.

The resources of the national library total in excess of 800,000 items including manuscripts and phonograph records and a special collection or research material on Guyana. There is no INTERNET connectivity at the national library. This absence is no reflection of a need that is not recognized. In fact there are current efforts underway to seek to amend this and so improve the service that is offered.

Special Libraries

The Medical Science Library, the Library of the Guyana Geological Mines and Commission (GGMC) and the Guyana Parliamentary Library are among the largest and best-organized special libraries in the Country. Although primarily committed to serving the organizations to which they are attached, these libraries do provide a service to the wider community and to persons involved in Higher Education. The Guyana Parliamentary Library provides a research service to members of parliament and to parliamentary committees. There is also some limited access to researchers in Higher Education. Its collection includes comparative Parliamentary documents, official publications, reference materials, current affairs journals and other similar publications. Available parliamentary records include Bills, Acts, Notice Papers, Order Papers, Budget Speeches, Estimates, Government Policy Papers, Hansard, and the Laws of Guyana, Resolutions, Standing Orders and Special Reports, official gazettes, law subsidiary, legislative papers and documents on the Commonwealth, US Congressional Records and

other research material. The library is equipped with a computer centre, which is linked up to the Internet that operates under an authorized access policy.

6.2 Documentation Centres

The Caricom Documentation Centre of the Caribbean Community Secretariat (CARICOM) supports the needs of officers concerned with the development in the Caribbean at the regional level. Limited service is also given to researchers and students from the University of Guyana. This service began operation in the early 1970's as a small service section to catering to CARICOM officers needs but has since grown. Currently the documentation centre is located within the Information and Communication Programme and within the Integrated Information Systems sub-programme. The documentation centre has over 9000 catalogued documents and a large number of uncatalogued documents.

In terms of services and support for higher education, the CARICOM Documentation other higher education stakeholders. The Documentation Centre is also involved and responsible for the marketing of CARICOM publications. The following facilities are available: Intranet, Web Interface, an Internet Web site and a searchable database and bibliography that is ideal for facilitating research. All CARICOM publications and documents can be found here along with other major regional publications.

The Iwokrama International Centre for Rainforest Conservation and Development has an established Information and Communication Unit (ICU) that has a Documentation Centre.

6.3 University Publishing Department

In reality the University does not operate a publishing department. University publications are done using established publishing houses. A significant amount of the University's publications by staff is done using the Institute of Development Studies (IDS) publications facility. As an outlet for the IDS and the University's academic

studies and findings, the IDS publish the journal *Transition*, the *IDS Bulletin* and a Working Paper Series. These publications document its work and progress, as well as the scholarly work of its associates. **Transition** is a progressive, multidisciplinary journal oriented towards Third World problems and issues. It provides a primary outlet for the work of researchers, teachers and others. Articles in *Transition* have a strong theoretical-scientific and/or empirical base. **IDS Bulletin** is intended to keep the scholarly community informed on the work of the IDS. It also focuses on initiatives being taken, ongoing research and recent endeavours. **The Working Papers** series is an outlet for findings and thoughts on the dynamics of economic and social development efforts in the developing world and in the Caribbean in particular. The IDS also publishes proceedings, special studies reports and monograph series.

6.4 ONLINE INFORMATION AND COMMUNICATION NETWORKS

Information Technology and by extension, the Internet, can and should play a pivotal role in Guyana's development. Integral to such development is a network of learning resource centres equipped to provide support services for education and training across formal, non-formal and informal sectors. Such an approach is known to provide significant benefit to formal education training and higher education institutions.

The University of Guyana has recognized the potent role of IT to leverage its intellectual capital by reaching a much larger student body. This role is even more recognized given the University's link to research activities and instructional programmes as well as its ability to deliver supplemental services, training and content development and extensive social reach through its distance education arm (IDCE) and existing campuses. If the University is to achieve its perceived potential and play a pivotal role in the development of the country, emphasis must be placed on developing the Information Technology infrastructure of the University. This would allow for the improved delivery and creation of a learning environment that not only improves the instructional infrastructure but also promote the use of IT in its distance learning and teaching programme for University

level programmes, improved computer and Internet access, enhanced capacity for geographic information systems curriculum delivery in natural and environmental sciences and augment the library resources with electronic resources, automation of inventories, catalogue and material sourcing.

The Information Technology infrastructure currently in place is grossly inadequate to service the needs and vision of the University. This lends itself to:

- Stress and frustration of staff and students who are often unable to access the facility;
- Severe limitations on the role that the University can play in the field of education and development.
- Inability to enhance the University's capacity to upgrade and expand its equipment and develop Internet and multimedia technology.

Overall the University can realize the potential through the following:

- Setting up of an ISP operation system and equipment;
- Setting up the relevant equipment to afford access through the network; and
- Setting up dial-up accesses through a modem bank.

6.5 The higher education institutions' level of connectivity with the Internet

Internet connectivity is not very much realized by higher education institutions. Web pages exist for many of the related institutions as well as the supporting libraries and documentation centres. The University of Guyana has its own web page which is currently maintained by the University's Computer Centre. Most of the institutions with such a set-up have the basic information on the organization as well as what the organization does in terms of service. There were plans over five years ago to implement an ISP service. This saw the acquisition of some equipment but this programme did not materialize. As a result the equipment purchased is now obsolete and so attempts at this ISP service will require new updated equipment. There are plans to develop a service

location on the Turkeyen Campus to increase the level of connectivity to the Internet. It is proposed to develop a service location that would be housed, monitored and controlled at the Turkeyen campus and would provide both network and dial-up access from this location. Such a development will not only increase the level of connectivity with the Internet, but will also allow for the:

- provision of electronic communications network and equipment for teaching, research and administration.
- expansion of the centre for Information Technology into non-traditional training and course delivery – Telecentre/Learning Resource Centre activities;
- development of specialized IT-supported courses;
- establishment and promotion of the Business arm of the University of Guyana;
- develop the capacity to establish online interlibrary infrastructure between the Turkeyen Campus and the Berbice Campus as well as IDCE centres and any new University satellite campuses in the future;
- strengthen, expand and diversify its service sectors to generate growth and improve its status locally, regionally and internationally;
- strengthen its mandate – re: human development of Guyana, by virtue of its involvement in provision of information, training and advisory services;
- increase the cadre of graduates who are knowledgeable and exposed to current information technologies and capable of using these technologies to benefit their organizations.

HIGHER EDUCATION FINANCING

7.1 Sources of Financing

The operating expenses of the University of Guyana is financed from diversified sources including an annual government subvention, student fees, rental of real estates, endowment funds, consultancies, funding from resource projects and other donor programmes.

7.2 The State's Procedures for allocating resources to public and private higher education institutions.

There are no government support mechanisms for private institutions, which receive their funding primarily through student fees. However, with regards to the public university, the University of Guyana is required to submit its budget estimates to the Ministry of Education at which stage the budget details are deliberated upon for possible justification and or adjustments. This revised budget is then incorporated into the larger Education Sector budget and submitted to the Government of Guyana through the Ministry of Finance. This agency has the responsibility for determining government allocation amongst the various sectors based on government budget estimates and priorities. The final approved budget for all sectors of the economy is then delivered in parliament on Budget day. Following parliament's approval of the country's budget the Ministry of Finance would then issue quarterly releases to the University through the Ministry of Education on the basis of justified expenditure/utilisation.

7.3 Management Strategies and use of Financial Resources at an Institutional and national Level

The Bursary is responsible for the management of the University's financial resources, inclusive of the establishment and maintenance of sound financial systems and to advise on all financial aspects of the University's operations.

At the institutional level, the University operates a zero based budgeting system whereby faculties and departments submit their budgeted requires to the University Bursary. The Bursary convenes a budget estimates meeting where faculties and departments are required to discuss their programme schedule, resource requirements and how these fit into the larger University core activities of teaching and research, and the general aims and direction. Final estimates are then forward to the Ministry of Finance through the Ministry of Education.

7.4 National funds for financing higher education and scholarships.

The procedures for accessing funding for higher education are as outline at 7.2 above. With regards to the financing of scholarship programmes, the government of Guyana has since the early 1990s been forced to suspend the financing of scholarship programmes for human capacity building, because of the need to exercise stringent budgetary and financial control of the economy. However, it is to the government's credit that a number of bilateral scholarship programmes have been negotiated and established to help fill the void created by government inability to finance such programmes for its citizens. These programmes are managed through the Public Service Ministry in the Office of the President.

7.5 Average cost of Registration in the public and private higher education institutions

Students desirous of attending the University of Guyana pay a standard application processing fee of G\$600. However, at time of registration the student is required to pay a cautionary deposit, laboratory and examination fees and student dues to the University Student Society totalling on average G\$5000.

7.6 Higher Education Budget

While data dating back to the 1990s is unavailable, the core object of spending remains the development its core functions of teaching and research. For the 2000/2001 financial year general teaching and research was afforded over 50% of the budgeted expenditure with some 14% allocated to the development of science and technology infrastructure of the University. The library services benefited from an allocation of 5.5% of the budgeted expenditure. Administration and central expenditure including capital works to develop the physical stock at the University to create an environment conducive to learning, teaching, and research, accounted for the remainder of the budgeted expenditure.

7.7 Higher Education Budget in Relation to the National Education Budget

Table 2 shows the relationship between higher education budget and that for the wider education sector. The figures for the period 1998 to 2001 shows that the budgeted expenditure for University education represents between 1.4 and 1.6% of government allocation to the education sector. The education sector as a whole accounts for between 12 and 17% of total expenditure by central and regional government.

**Table 2 RELATION BETWEEN NATIONAL BUDGET AND HIGHER
EDUCATION BUDGET (000's of Guyana \$)**

	1998	1999	2000	2001
National Budget	46,918,567	52,842,272	65,575,867	65,608,851
Expenditure-Education	5,702,428	6,921,647	9,527,210	11,173,894
Expenditure-University of Guyana	678,000	755,000	958,000	1,090,000
Education as % of National Budget	12.15	13.09	14.5	17.4
UG as % of Education Expenditure	1.4	1.4	1.3	1.6

Source-Planning Unit, Ministry of Education

7.8 Higher Education budget in relation to the Gross Domestic Product (GDP) and its Evolution since 1990

The analysis of the figures of the relationship between higher education budget based on expenditure on the University of Guyana and GDP is shown in Table 3. Education expenditure represents from 6.3% to 9,9 % in the years from 1998 to 2001 with a steadily rising trend. Higher education represents .74 % to .97 % of GDP for 1998 to 2001, again with arising trend in these years.

Table 3 The Relationship between Higher Education Budget and GDP

GM\$

	1998	1999	2000	2001
University Budget	670	755	858	1091
National Education Budget	5,702	6921	9527	11,173
GDP	90471	105,095	108,087	112,219
University as % of GDP	.74	.71	.79	.97
Education as % of GDP	6.3	6.5	8.8	9.9

Sources: University of Guyana: Planning Unit, Ministry of Education;

Guyana Bureau of Statistics

9.1 RESEARCH AND HIGHER EDUCATION: RESEARCH CENTRES AND INSTITUTES

Undergraduate Research

A number of faculties in the university have a compulsory final year undergraduate research dissertation. Areas of research are dependent on the student's own ideas or on the availability of staff and staff research interest.

9.2 SCIENTIFIC, TECHNOLOGICAL AND HUMANISTIC RESEARCH IN HIGHER EDUCATION

In the Faculty of Social Sciences research is conducted mainly as a part of the post-graduate programmes in Economics, Political Science, International Relations, Development Studies and Social Sciences and also via its link with the Institute of Development Studies (IDS).

The Institute of Development Studies (IDS), which was opened in 1974, operates as the research arm of the Faculty of Social Sciences. In the Faculty of Natural Sciences the Centre for the Study of Biological Diversity (CSBD) operates. The goal of the CSBD is to document, study and conserve the biological diversity of Guyana. The CSBD is unique in that it seeks to coordinate the efforts of scientific research, education and conservation to accomplish its goal. Managed by a steering committee comprising representatives from the University of Guyana, the Smithsonian Institution (SI) and the Environmental Protection Agency (EPA) of Guyana it has developed into the key institution in Guyana for the care and housing of the national biodiversity collections.

At the IDS research is multidisciplinary and oriented towards both theoretical development and analysis of public policy. In-depth research on the problems of development and structural transformation in Guyana, the Caribbean and the Third World is undertaken. Currently the research focus of IDS is as follows:

- Balance of payments, money supply and inflation

- Energy use patterns in Guyana
- Human resource development
- New forms of regional development
- New social movements
- Privatisation
- Public accountability
- The role of the industrial social welfare benefits in Guyana's development
- The social effects of structural adjustment
- Structural adjustment policies and economic crises
- Sustainable development and environmental issues
- Women and development issues

Major research studies undertaken in the past include:

- Preparation of multidisciplinary texts for teaching Caribbean Social Science e.g. The poor and the Powerless – Economic Policy and Change in the Caribbean by Clive Y. Thomas
- Caribbean technology policy studies
- Caribbean public enterprises and the role of the state
- Labour and social movements
- A wide range of topics in the field of finance under the aegis of the Regional Programme of Monetary Studies (RPMS)
- Preparation of monographs

In the Faculty of Natural Sciences there is the Masters Degree in Forest Biology and the MSc – Natural Products Chemistry, which was offered previously, is now receiving attention to be resuscitated. The MSc Forest Biology postgraduate programme offers opportunities for the career-scientists to develop research and professional expertise in various branches of biology, particularly forest biology, biodiversity, environmental

botany and selected areas in animal and microbial biology. Forest biotechnology is currently receiving some attention under this programme for inclusion in the areas of research.

Research in the following areas have been given high priority:

- Floristic Diversity
- Species richness
- Inventory
- Effects of logging
- Population structure
- Population dynamics
- Growth and development
- Productivity
- Plant physiology
- Environmental studies
- Forest economics

9.2.1 Research Centres and institutes

The Institute of Development Studies (IDS) is a research centre which focuses on the analysis of public policy in Guyana, the Caribbean and other developing nations. It works in the realms of academic research, training and consultation services to enhance decision-making, study and understanding of Guyana, the Caribbean and the wider Caribbean and the wider developing world.

The IDS had over the years provided a supportive atmosphere for its local and visiting researchers and scholars to pursue a deeper understanding of the socio-economic environment of Guyana and the developing world. In the execution of this aspect of its operation the IDS has been assisted by its linkages to regional and international agencies and institutions, as well as a philosophy favouring regional and international cooperation

in research. To allow for such continuity the institute is modelled in order to guarantee academic integrity, organizational flexibility and research continuity.

The IDS contributes to the general higher education at the University of Guyana and the wider community. It provides teaching, advisory and technical services to the University community and also mounts training programmes that are open to the public. The IDS also offers teaching staff at the University of Guyana and in other higher education institutions the opportunity to participate in research. Wherever possible, the IDS activities are geared towards complimenting those at the University of the West Indies' Institute of Social and Economic Research (ISER). Two main collaborative efforts of the IDS have been the Regional Programme of Monetary Studies (RPMS), jointly administered with ISER for Central Banks of CARICOM, and the Industrial Social Welfare Benefits (ISWB) project with Dalhousie University, a project funded by the International Development Research Centre in Canada. The IDS connects consulting services and training programmes with academic rigor to inform decisions of policymakers, engineers and non-governmental organizations. This is especially possible since the IDS has a vast wealth of experienced research skills and so can offer independent evaluation to both public and private sectors. A Director, who has full status within the Faculty of Social Sciences, heads the IDS. There are major sub-departments within the IDS – Publications headed by a General Editor and Relations with International and other research institutes which fall under direction of the Deputy Director. There are two categories of research staff. One includes researchers recruited by the University and who work within the University establishment and the second include those staff recruited specially to work on projects which the IDS is executing. Such projects are entirely funded outside the University of Guyana Budget.

As an outlet for the Institute's academic studies and findings, the IDS publishes the journal *Transition*, the IDS Bulletin and a Working Paper Series. These publications document its work and progress, as well as the scholarly work of its associates.

Transition is a progressive, multidisciplinary journal oriented towards Third World problems and issues. It provides a primary outlet for the work of researchers, teachers and others. Articles in *Transition* have a strong theoretical-scientific and/or empirical base. The IDS Bulletin is intended to keep the scholarly community informed on the

work of the IDS. It also focuses on initiatives being taken, ongoing research and recent endeavours. The Working Papers Series is an outlet for findings and thoughts on the dynamics of economic and social development efforts in the developing world and in the Caribbean in particular. The IDS also publishes proceedings, special studies reports and monograph series.

The Centre for the Study of Biological Diversity (CSBD) is located on the Campus of the University of Guyana and operates through the Faculty of Natural Sciences in close collaboration with the Department of Biology. It was established in 1991 through a grant from the WWF and received supporting funding from USAID from 1995 to present and was founded through the unique collaborative efforts of UG and the Smithsonian Institute of Washington, USA. The CSBD was the first such research centre to be established in this part of the region and has remained a centre of excellence which promotes and supports local biodiversity research. The goal of the CSBD is to document, study and conserve the biological diversity of Guyana. The CSBD is unique in that it seeks to coordinate the efforts of scientific research, education and conservation to accomplish its goal. Managed by a steering committee comprising representatives from the University of Guyana, the Smithsonian Institution (SI) and the Environmental Protection Agency (EPA) of Guyana it has developed into the key institution in Guyana for the care and housing of the national biodiversity collections. The CSBD has as its main programme areas of operation:

Research – support is given to University of Guyana students who have to complete final year undergraduate research thesis; to staff members who are involved in research in the area of biodiversity and conservation studies; and visiting scientists undertaking research into Guyana's biodiversity.

Education and Training – is a part of the mandate and is accomplished by taking Guyanese students and staff on expeditions, teaching courses and general assistance with research thesis. The small grants programme is also geared to assist in this programme area. Two parataxonomy courses were conducted for indigenous groups and individuals involved in local ecotourism activities.

Public awareness – is achieved through the encouragement of visitation to the centre for schools, UG staff and students and the public.

The CSBD serves as a resource for students from UG as well as other learning institutions both local and foreign. Guyanese and visiting research scientists use the collections as well as the library to study the plants and animals. The results of these investigations serve as a source of information for locating future expeditions and for conservation planning. The comprehensive collections and the library are used by CSBD and its collaborators to generate data that are used by the Government of Guyana and the EPA, Conservation groups and scientists in an effort to gain an understanding of the biodiversity of Guyana and how this biodiversity compares regionally and globally.

Through the CSBD much research into the flora and fauna of Guyana has been conducted. Although this research is concentrated on inventories and taxonomic work its contribution and importance in attaining sustainable development in the Amazon is not limited. Through such information not only does one know what is found in Guyana, one also knows the status and condition of the resource. It therefore is a vital piece of the puzzle that is so necessary for the development and designing of conservation management measures. Through the CSBD scientific collaboration with the Royal Ontario Museum (ROM), The University of Missouri, The Philadelphia Academy of Sciences and the CEIBA Biological Research Station has really grown over the years.

Tangible output from this collaboration has been an increase from the zero point in some instances to a point where now the identity of approximately 60% of the plants, 90% of the mammals and birds and 60 – 70% of the rest of the vertebrates is known. Progress is being made on learning about the distributions of plants and vertebrates. Publications and checklists of mammals, avifauna and herpetofauna, fishes and plants have been produced. These are highly prized by ecotourists, environmentalists and conservation biologists. Having an accurate checklist is the beginning of understanding biodiversity. These checklists have been used by the Environmental Protection Agency of Guyana in the preparation of estimates of biodiversity and for evaluation of environmental impact

statements. Further, the lists are used to evaluate the level of knowledge for each group and to determine the amount of study needed to complete census of the particular group. Staff and student research is encouraged by a Small Grants programme that was promoted by the CSBD where support is granted to researchers through the offering of small amounts of money to facilitate some research. Such research conducted and information generated not only enriches the scientific literature of Guyana but it allows for regional bodies to have access to information which is useful in planning conservation education programmes and on which to make informed decisions at the national and regional policy levels.

9.3 VOLUME OF INTERNATIONAL AND NATIONAL RESOURCES ALLOCATED TO RESEARCH

The University of Guyana Research and Publications Committee facilitates staff research. This committee has a fund that is approximately three million Guyana dollars annually. This is disbursed to staff members on the basis of proposals that are submitted that meet the basic requirements set out by the committee.

Outside of this funding staff members can also benefit from funding sources that they themselves can source. In addition there are other agencies such as UNESCO that also fund specific projects. These do not always have a fixed amount and neither are they awarded annually as a rule. They are primarily based on availability and programme area of interest.

10 PLACE AND ROLE OF THE NEW INFORMATION AND COMMUNICATION TECHNOLOGIES IN HIGHER EDUCATION

The Institute of Distance and Continuing Education is the extension arm of the University of Guyana and is one of the major adult education institutions in Guyana. Established in

January 1976, it was the Department of Extra Mural Studies, a former unit of the Faculty of Education. It was expanded into the Institute of Adult and Continuing Education (IACE) in December 1983. In November 1992, the IACE launched the first Distance Education Programme offered by the University of Guyana – the Pre-University English Course. Then in August, 1996 in keeping with a new mandate to assist the University to become dual mode, the Institute was re-designated the Institute of Distance and Continuing Education (IDCE).

The objectives of the Institute are:

- To enhance the potential of the University of Guyana in creating and influencing change within the context of national aspirations;
- To provide learning opportunities which would help to develop the capacity of the adult individual to participate more effectively in the process of change;
- To increase the awareness of the interaction between formal and non-formal education and to provide facilities for a continuum of educational integration and interaction;
- To identify areas of research for which there is need and to ensure that the results of research are made available to the community at large;
- To provide training courses for trainers engaged in continuing education;
- To assist in the development and coordination of existing resources in continuing education.

In fulfilling its objectives, the Institute provides leadership in the field of Adult and Continuing Education develops and implements a variety of educational programmes. It operates within communities and in collaboration with Faculties of the University, Government, as well as non-Governmental agencies.

10.1 Virtual and distance education programmes in higher education.

In Guyana, access to higher education is difficult for some persons, especially those whose jobs do not permit them to attend traditional classroom based programmes of study. The University of Guyana has recognized the importance of human resource development for members of this group.

Currently there are no virtual education programmes offered in higher education in the University of Guyana. The University aims to address these challenges of reaching these persons and use of virtual education tools through the development of a cohesive and relevant distance education programme. This will offer increased access to relevant, functional and high quality credit and non-credit on-line courses.

The approach proposed will entail:

- Phased development and delivery of modularised university level distance education programmes and modularised bridging of feeder programmes. Such programmes will seek to address national and regional priority areas as identified in the National Development Plan.
- Design and conduct of training programmes for university academic, clerical and technical staff.
- Establishing infrastructure to facilitate access to on-line programmes.
- Effective maintenance of programmes and equipment.

10.1.1 Types of programmes in which virtual education is carried out according to area of knowledge, academic level (graduate, postgraduate)

There are no virtual education programmes delivered by the University of Guyana. At the moment there are some lecturers who have developed web pages for some of the courses taught by them. These are maintained by the individual lecturers and they

provide information on lectures, assignments and other materials that the lecturer sees as necessary and useful for the particular course.

The University of Guyana is proposing to change this by developing an ISP service which would allow for the:

- provision of electronic communications network and equipment for teaching, research and administration.
- development of specialized IT-supported courses;
- strengthening, expansion and diversification of its service sectors to generate growth and improve its status locally, regionally and internationally;
- strengthening of its mandate – re: human development of Guyana, by virtue of its involvement in provision of information, training and advisory services;
- increase the cadre of graduates who are knowledgeable and exposed to current information technologies and capable of using these technologies to benefit their organizations.

10.1.2 Estimate of the volume of students who participate in training processes via virtual means and professors involved in this method

Since there are no training processes offered by the University of Guyana via virtual means there are technically no students and professors involved in this method.

10.2 Methodologies and resources used for virtual education

The IDCE has identified a number of strategies to enable the achieving of the successful implementation and use of virtual means. These include the following:

Material Development – this will be influenced by the existence of protocols for course sharing. Thus, inter alia, the Open and Distance Learning Data Base of the Commonwealth of Learning will be utilized to access information and materials, thus resulting in a materials adaptation process. It is envisaged that where necessary, courses will be prepared by university personnel and its partners. The conduct of training workshops cum production workshops will facilitate both the adaptation and full course development process.

Programme Delivery – It is envisioned that course delivery strategies will vary. In the early stages of the development the strategy will comprise two basic components – a printed, asynchronous element and an online student support process with both synchronous and asynchronous elements. Later there will be fully interactive on-line courses. In the absence of the necessary telecommunications infrastructure, programmes will be delivered on audio/video cassettes and/or CD-ROMs.

Infrastructural Development – It is envisioned that not many students would have access to computers; hence resource centres would have to be equipped with terminals to facilitate students.

Training – While there already exists within the IDCE considerable capacity in the preparation of interactive learning materials, there will be a need for training in the development and delivery of on-line programmes to enhance this skill base.

Strategic Linkage – The University/IDCE will seek to forge links with overseas-based distance and continuing education institutions with considerable expertise in the development and delivery of on-line courses.

11 Higher Education's Relation with Society

11.1 Relation with Rest of Education System

The University of Guyana since its inception remains committed to its stated aim of securing the advancement of knowledge, and the diffusion and extension of this knowledge throughout Guyana. To this end the University has maintained a proactive approach in articulating the value and role of higher education and the need for improved education administration with the stakeholders in the wider education sector. These drives include:

- The formation of a local chapter of the Association of Caribbean Tertiary Institutions from among key stakeholders in the national education landscape, headed by the Vice-Chancellor, University of Guyana. The objective of the Guyana Chapter are to:
 1. Facilitate co-operation and collaboration between the institution in a wide range of academic, administrative and other areas of mutual interest and benefits
 2. Facilitate more effective utilization of scarce resources in seeking to enhance access, mobility and quality in tertiary level education;
 3. Facilitate articulation amongst the institutions
 4. Assist in identifying and meeting the ongoing tertiary educational needs of the region and individual territories
 5. Provide a professional forum for discussion and problem solving
 6. Facilitate the development/delivery of particular programmes and services to meet market demands

The local chapter is working towards extension of its membership, formulation of an action plan emphasizing quality assurance, institutional

accreditation, equivalency and articulation while attempting to produce an updated register of tertiary institutions in Guyana.

- The University of Guyana continues to give invaluable service to the Caribbean Examination Council (CXC) and Caribbean Advance Proficiency Examination Systems (CAPE). These institutions are responsible for administering the regional level examinations, which are the basic entry requirements for entering post secondary education institutions, for senior secondary school students. Many University personnel serve as examiners and or curriculum advisors to these bodies.
- The University of Guyana continually seeks to enhance its quality assurance and accreditation process governing programmes offered by its feeder institutions such as the Crichton Labour College and accepted for admission to the University. This end, the University performs critical advisory services for administrative and curriculum development to these institutions through active presence on their governing boards and councils.
- The Faculty of Education serves as the premiere local institution for the production and development of the critical masses of educators and education professionals and administrators. Faculty staff also played a pivotal role in the administration of national education by functioning as resource personnel to the National Centre for Education Research and Development (NCERD), inclusive of the moderation of the Secondary School Entrance Examinations (SSEE). Faculty members also served as consultants or resource persons to the Primary Education Improvement Project (PEIP), the Guyana Basic Teacher Training Programme (GBETT) and for the Commonwealth of learning activities in Guyana.

11.2 Relation with the Economic System

From its inception the University has crafted programmes for the benefit of local employers and the society in general. The University operates a

number of affiliate programmes to meet the continuous training needs of the workforce. These include

- The Medex Certificate Programme
- The Public Health Nursing Certificate Programme
- Occupational Health and Safety Programme

Additionally, all programmes offered by the University of Guyana benefit from the input of both public and private employers through their advisory role on faculty' advisory committee and are designed to meet the job requirements of the labour market. For example, the Banking and Finance programme was a direct offshoot of discussions between the Banking Association of Guyana and the Faculty of Social Science.

Most faculties have institutional ties with a number of individual employers and employers' association that employs their graduates. These collaborative agreements result in job placement opportunities for students, scholarship awards for outstanding students and present an empirical research laboratory for faculty members.

11.3 Relation with the Social and Cultural System

The University of Guyana has instituted a number of programmes for social and community development inclusive of a benevolent programme for children living within its immediate environs. The University community, private citizens and business contribute maintenance of this programme.

Several faculties and department operate their own outreach programmes some of which are outlined below.

1. Amerindian Research Unit (ARU)

The Unit attracts and serves visiting scholars from other institutions, for example, teams undertaking fieldwork in Guyana. Its strengthening will lead to the ARU as a research centre, a source of information and a reservoir of knowledge about Amerindian affairs.

ARU Programmes

- The ARU has begun to run the course Introduction to Indigenous Peoples of Guyana. This course serves the Tourism, Environmental Studies, Natural Sciences, Education and Technology.
- The ARU took responsibility for the design and presentation of a Proposal for the Waiver of Tuition Fees for Amerindian students at UG, for submission to the University Council.
- The ARU undertook a research project funded by UNESCO on a programme for effective education of Amerindians called the Amerindian Education Project
- Work on the Amerindian Legislation Project
- A major project located in and carried out by the Unit: the Development of Area Development Strategies for Communities in Guyana.

The compilation of the ARU comprehensive files on the subjects of Amerindian affairs and the collection of publications, document, scholarship and research is very widely consulted by visitors, students and researchers.

2. The History Department

Research findings are published through the Department's daily radio broadcast "Living History" and in the weekly "History This Week" column in the Stabroek News, one of our local newspapers.

Members of the Department continue to make significant contributions to public service in the areas of religion, volunteer and service organisations.

3. The Institute of Distance & Continuing Education (IDCE)

The role of the IDCE is to extend the educational services of the University to the Guyanese Community. The programme is capable of flexible and rapid responses to defined local needs through short courses, seminars and workshops in different parts of the country. IDCE conducts needs survey to ascertain the educational needs of a particular community and the findings determine the educational programme to be organised. This has led to the establishment of several projects in different areas, some with core objectives being:

- To develop the literacy, numeracy skills of participants in a low income community
 - To enhance the parenting skills of participants
 - To equip participants with anger management and conflict resolution strategies
 - To establish a network of support to link participants with small loan agencies or employment agencies.
-
- Projects are expected to:
 - Contribute to the reduction of the scourge of functional illiteracy in communities
 - Combating poverty through education
 - Develop the educational level of women

And includes the use of well-designed modules in literacy, numeracy and entrepreneurial skills.

4. Social Sciences

The Faculty of Social Sciences has maintained its outreach activity and has held public seminars and published articles on societal issues. A few are:

- seminar on New Research in the Social Science in Guyana

- symposium in recognition of the International Day Against Violence Against Women
- lunch in celebration of International Women's Day
- panel discussions on issues such as the Post-Election Crises
- held panel discussions in collaboration with the Canadian High Commission, on the Summit of the Americas
- co-ordinate workshop on Conflict Resolution in Guyana

- Research conducted on:
 - road fatalities in Guyana: An economic approach
 - impact of aircraft noise on house and land values in Guyana
 - assessment of the impact of Monetary Policies on the Balance of Payments of Guyana
 - determinants of Core Inflation in Guyana
 - Econometric Model of Investment
 - Money Supply Stock: with reference to the Excess Liquidity Problem in Guyana

- **Institute of Development Studies (IDS)**
 - Researchers in this department have made contributions in the area of international development and its effects on the Caribbean, social sector economics, and agricultural sector economics, with special reference to sugar. Researchers have made several publications:
 - Caribbean Sugar in the age of Globalisation
 - The Social Policy Framework: A New Vision for Social Development in the Caribbean
 - "Guyana: What lies ahead"
 - Community Consultations, prepared for UNDP.
 - Baseline Study: Poor Rural Community Support Services Project (PRCSSP), prepared for the Ministry of Agriculture
 - Agency, Teacher Effort, Incentives and Teacher Compensation: A Review and Proposal, IDS Working Papers

- Fiscal Policy, the State and Well Being: Analytical Aspects of Government Failure in Post-1989 Guyana, IDS Working Papers Series

IDS has networked with a number of organisations, as well as played host to a number of scholars and researchers visiting Guyana, sometimes for very short periods, in connection with their research activities.

Department of Sociology

In order to ensure students are properly trained to serve society, students were taken to Washington DC for training on social issues such as HIV/AIDS, abuse of females and the elderly.

The Department, as part of its Outreach Programme, conducts seminars, workshops, and conferences including a Women's Studies Unit Seminar on a University Working Together To Promote A Violence Free Society and a Seminar on AIDS. It conducts Research on Needs assessment of primary schools in villages, and street Children in Georgetown, Guyana

5. Social Sciences

The Faculty of Social Sciences has maintained its outreach activity and has held public seminars and published articles on societal issues. A few are:

- seminar on New Research in the Social Science in Guyana
- symposium in recognition of the International Day Against Violence Against Women
- lunch in celebration of International Women's Day
- panel discussions on issues such as the Post-Election Crises
- held panel discussions in collaboration with the Canadian High Commission, on the Summit of the Americas
- co-ordinate workshop on Conflict Resolution in Guyana

- Research conducted on:
 - road fatalities in Guyana: An economic approach
 - impact of aircraft noise on house and land values in Guyana
 - assessment of the impact of Monetary Policies on the Balance of Payments of Guyana
 - determinants of Core Inflation in Guyana
 - Econometric Model of Investment
 - Money Supply Stock: with reference to the Excess Liquidity Problem in Guyana

6. Institute of Development Studies

Researchers in this department have made contributions in the area of international development and its effects on the Caribbean, social sector economics, and agricultural sector economics, with special reference to sugar. Researchers have made several publications:

- Caribbean Sugar in the age of Globalisation
- The Social Policy Framework: A New Vision for Social Development in the Caribbean
- "Guyana: What lies ahead"
- Community Consultations, prepared for UNDP.
- Baseline Study: Poor Rural Community Support Services Project (PRCSSP), prepared for the Ministry of Agriculture
- Agency, Teacher Effort, Incentives and Teacher Compensation: A Review and Proposal, IDS Working Papers
- Fiscal Policy, the State and Well Being: Analytical Aspects of Government Failure in Post-1989 Guyana, IDS Working Papers Series

IDS has networked with a number of organisations, as well as played host to a number of scholars and researchers visiting Guyana, sometimes for very short periods, in connection with their research activities.

Bibliography

1. **Education Policy in British Tropical Africa: Memorandum by the Advisory Committee on Native Education in British Tropical African Dependencies**, (1924.25), Cmmd 2374, xxi, 27
2. Lord Asquith, **Report of the Commission on Higher Education in the Colonies**, June 1945, HMSO
3. Dennis H Irvine, **The responsibility of the Caribbean University to Its Community, Elitism and Democratisation**. Third Annual Meeting of the Association of Caribbean Universities and Research Institutes, December 1972, Kingston Jamaica
4. Sir Lancelot Hogben, **A University in a Changing Society: an Inaugural Dissertation**, Georgetown, October 1963
5. Dennis Irvine, **The Role of the University in the Third World with particular Reference to Developing Countries**, Unpublished paper, November 1970
6. **Acts and Statues of the University of Guyana.**