

UG5/1/12
Acc. No. 12/16

PREFACE

The implementation of the University's Strategic Plan began during the year. Some of the noble achievements have been the institution of a number of graduate fellowships through donations by a number of organisations; the grant from the Valco Trust Fund to build a Graduate Students' hostel; the start of buildings to provide facilities for non-residential students; a number of lecture room facilities and a number of computer facilities through the World Bank.

Since May, 1994 as part of its computerisation efforts, the Balme Library, started using CD-ROM facilities to enable researchers and students access up-to-date bibliographic sources. Through the assistance of IDRC and PADIS, E-mail facilities are being installed in the Balme Library and other points on campus to enhance access to and exchange of information. It is hoped that within the coming year, usage of these facilities will increase appreciably.

Preparations for receiving the first batch of students from the Senior Secondary School engaged considerable attention during 1993/94.

Government has also provided funds for the purchase and installation of a PABX telephone equipment to improve the telephone network in the University.

Government subvention for running the University remains inadequate. The University is therefore very grateful for the supplementation it continues to receive from the private sector, foreign governments and alumni. On its part, the University will intensify its effort in the various income-generating ventures upon which it has embarked.

We hope the University can continue to rely on public and private support in the discharge of its three-fold functions of Teaching, Research and Extension.

George Bennet
Vice-Chancellor

Legon
March 10, 1995

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FOCUS ON RESEARCH

Researcher: Dr. Nana Apt Van Ham,
*Senior Lecturer and Co-ordinator, Social Administration Unit, .
Department of Sociology*

During 1994 I embarked on new areas of research in conjunction with two faculty members in the Unit.

The Missing Gender: An Explanation of the Low Enrolment of Girls in Ghanaian Primary Schools

The results of the study have linked the low primary school female enrolment rates to the economic role played by women and girls in Ghana. It has stressed that female drop out rates are not explained simply by costs of education but rather it is the opportunity cost of female earnings foregone which explain the lower enrolment rates of females as compared to males. Girl children are to be found at the centre of a web of economic and domestic responsibilities which militate against their school attendance. The economic pressures to drop out of school are compounded by the present unattractiveness of the low income school room experience in Ghana.

The results of this study will be published (1995) in *International Journal of Educational Development*.

The Role of Children in Refuse Disposal and Water Provisioning in Ghana

A study in supplement of household organisation research conducted on behalf of the Overseas Centre, Transport Research Laboratory, United Kingdom has been undertaken. The results of the study have demonstrated that children in urban Ghana are currently involved in household sanitation tasks in a manner that maximises the possibilities of cross infection. These sanitation arrangements which depend on the labour of children have major consequences for environmental degradation and are likely to have negative effects on educational performance. It is argued that children's knowledge of disease transmission is inadequate given the sanitary responsibilities they carry and that the resources necessary to achieve 'best practice' even where such knowledge exists are poor. It is suggested that households should separate out these tasks and simultaneously ensure that the same individual does not undertake 'clean' and 'dirty' tasks.

Legislation Affecting Older People in Ghana

This study funded by the International Federation on Ageing (IFA) and the International Exchange on Ageing, Law and Ethics (EAGLE) was undertaken by me. The results of the study have been published alongside other studies by EAGLE in collaboration with IFA European Region) under the title: *A Study of Legislation Affecting Older People in Developed and Developing Countries: UK, India and Ghana*.

Current and ongoing research being undertaken by me in conjunction with other staff members of the Unit in collaboration with RESPONSE (a Ghanaian NGO to protect Street Children) and funded by UNICEF are as follows:

A. Children in Difficult Circumstances (with Stephen Wilson)

The Objectives of the Study are:

- (1) To identify the existing arrangements surrounding children's presence in institutional settings;
- (2) To identify the legislation which contributes to the institutionalisation of children and

- (3) To make policy recommendations in respect of opportunities to improve existing arrangements.

B. Girls on the Street (with Professor Margaret Grieco).

The objectives of the study are:

1. To allow girls on the street to provide information on their experiences on the street and to investigate, in particular what they perceive to be the serious problems confronting them in this context.
2. To enable these girls to participate in the designing of feasible solutions to these problems;
3. To evaluate the evidence and to propose policy options to make programme recommendations to assist girls on the street.

The above studies are nearing completion and are expected to be submitted to UNICEF by April, 1995.

PLEC Research in West Africa

Researcher: Professor E.A. Gyasi,

Department of Geography and Resource Development

The University of Ghana is the primary host for the West Africa component of the United Nations University (UNU) Programme of Collaborative Research on Population, Land Management and Environmental Change (PLEC).

PLEC addresses the question of the inter-relationships between population dynamics and environmental change, and seeks to examine and disaggregate the processes of adaptation of indigenous resource management and land use systems through a series of field-based research projects in key agro-ecological zones of tropical environments, with emphasis placed on the role of diverse small-farming agro-ecosystems in conservation of biodiversity that is central to biophysical sustainability. Its ultimate aim is to provide researched options for the better management of land and its related resources for small-scale producers. PLEC operates through a network of regional groups, of which the West African cluster is one.

PLEC work in West Africa started with a 1993 pilot study into environmental changes and farmers' adaptations in the southern sector of Ghana's forest-savanna ecozone. The pilot study was carried out by a multidisciplinary University of Ghana team led by Professor E.A. Gyasi, leader of WAPLEC (West Africa PLEC). Its findings were published in abbreviated form in the PLEC Newsletter. An extended version of the findings is due to feature in *Global Environmental Change*, an international journal. The pilot study findings were a basis for a workshop on Environment, Biodiversity and Agricultural Change in West Africa, which was hosted jointly by PLEC and the United Nations Institute for Natural Resources in Africa (INRA) in October 1994 at the University of Ghana. The workshop was attended by policy makers, farmers and other environmental actors and parties. It is intended to publish the workshop presentations in the form of a book.

Forward plans include deepening of research in the southern forest-savanna ecozone of Ghana, and extension of research activity into middle and northern Ghana, through sub-research groups based at the University of Science and Technology, Kumasi, and at the University for Development Studies, Tamale. Collaborative work with the University of Conakry and the University of Ouagadougou is envisaged. WAPLEC plans to consolidate the emerging linkages between its researchers and the farmers, government organizations, and non-governmental organizations so as to render the work more relevant to policy and agro-environmental needs.

The Prevalence and Severity of Iodine Deficiency Disorders in Ghana

Researcher: Dr. E. Asibey-Berko,
Department of Nutrition and Food Science

The main objectives of this project were to determine the prevalence and aetiology of Iodine Deficiency Disorders (IDD) in Ghana and make recommendations for their control.

The three-year study was conducted with financial support to the University by the International Development Research Centre (IDRC), Canada and support to the Ministry of Health by UNICEF.

The University research team comprised Dr. E. Asibey-Berko (Principal Investigator) Department of Nutrition and Food Science, Dr. G.T.M. Kwadzo - Department of Agricultural Economics, Professor R. Orraca-Tetteh - Department of Nutrition and Food Science, Mr. Kodjo A. Senah - Sociology Department, Mrs. Anna Lartey - Department of Nutrition and Food Science and Mr. Isaac Odoom Department of Computer Science.

Approximately one in every 4 districts of Ghana was surveyed for IDD. This amounted to 27 districts (out of 110) selected with systematic random sampling to represent the entire nation.

The 27 districts were distributed throughout all regions, all major soil types and virtually all ecological zones of the country.

The researchers developed five questionnaires which were used for field data collection.

- 1) **Goitre Prevalence:** The presence or absence of goitre was checked in 1000 people (500 women: 15-45 years and 500 children: 10-19 years) in each district, making a total of 27,000 people nationwide. Urine samples were checked for iodine in 10% of these people.
- 2) **Knowledge and Attitudes:** People's attitudes, understanding and treatment of IDD were checked. To enable the country prepare for the possibility of iodizing salt to solve the IDD problem:-
- 3) **Salt Consumption:** Average salt (NaCl) consumption per person per day in Ghana was checked.
- 4) **Salt Production:** The sources and production of salt nationwide were studied.
- 5) **Salt Marketing:** The distribution and Marketing of salt nationwide were studied and salt marketing and distribution maps generated.

Results

The results have been presented at a National Workshop and recommendations for tackling the problems submitted to the Honourable Minister of Health.

- i) Goitre prevalences were found to range from 7.6% (urine iodine 10.4 μ g/dl) in Shama Ahanta in South Western Ghana to 56% (urine iodine 1.3 μ g/dl) in Bongo in the Upper East Region of Ghana.
- ii) Nine out of the 27 surveyed districts were found to have serious (mild, moderate and severe) IDD problems. This indicates that at least 33% of the districts of Ghana have serious IDD problems.
- iii) Goitre prevalence was found generally to increase as one moves Northwards, away from the sea.
- iv) Average salt consumption/person/day was found to be about 10g.
- v) It was found that only 2% of all interviewees knew the major cause of IDD - i.e. iodine deficiency in the diet. Two per cent (2%) attributed IDD to supernatural causes. Seven per cent (7%) attributed it to heredity. Eleven per cent (11%) attributed it to Natural causes, 12% to a combination of some factors while 66% acknowledged ignorance of the causes.

vi) Five maps (sample below) have been generated at the department of Agricultural Economics, putting together all the known production and distribution of salt in Ghana.

CRITICAL (Emergency) (7.4%)	MODERATE (Urgent) (22.2%)	MILD (Important) (3.7%)	ALMOST NORMAL (66.7%)
1. Bongo (UER) 2. Jirapa (UWR)	3. Nkwanta (VR) 4. Kwahu South (ER) 5. Adansi West (Ash) 6. Bole (NR) 7. Zabzugu, Tatali (NR) 8. East Mamprusi	9. Hohoe (VR)	Represented by 18 districts

It was recommended that iodised oil capsules be distributed without delay in the 9 districts identified with serious IDD problems. Possibly, the districts immediately surrounding them may also need iodised capsule distribution if resources permit. This will ensure about 2 years control of the problem in these districts while Ghana looks into the more permanent solution of salt iodization.

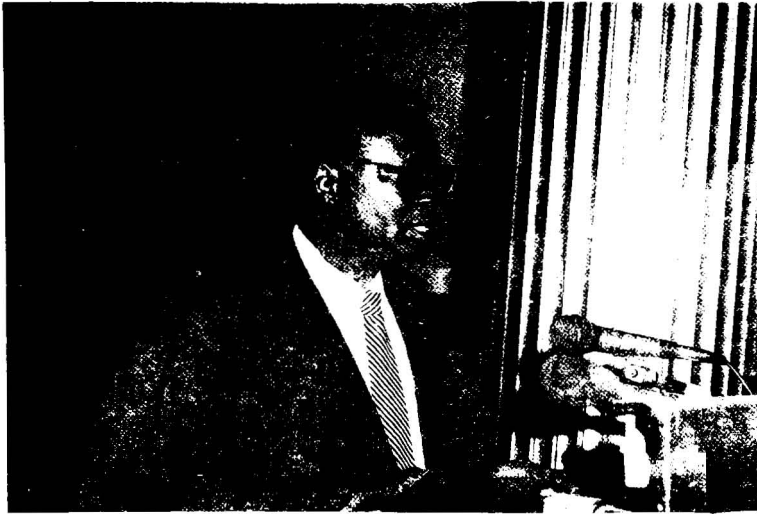
In the two Upper regions, the problem is an emergency and must be so treated if the population of cretins (mentally retarded) among newborns is to be kept low. The Ministry of Health and UNICEF have already done some distribution of iodine capsules in these regions on the basis of earlier pilot studies.

Even though many nations consume far more salt than Ghana, the average salt consumption of 10g/person/day in Ghana is high. To keep hypertensive diseases low, WHO recommends that salt consumption/person/day be kept at 6g or less around the world. Public education will be needed to attain this.

The unbelievably low level of knowledge (2%) about IDD and its causes in Ghana also calls for intensive public education.

The following is a sampling of some of the recommendations from the National IDD workshop which were submitted to the Minister of Health.

- i) Salt iodization within the next year must be given a priority. Public education to use iodised salt must begin now.
- ii) Information, Education and Communication (IEC) programmes must be developed to correct public misconceptions about IDD.
- iii) The development of an iodized salt industry must be underpinned with research to solve accompanying problems eg: possible instability of iodine in salt under different storage and usage conditions in Ghana.
- iv) A National Task-force on Micronutrient Malnutrition must be set up to deal with Iodine Deficiency as well as the equally widespread deficiencies of iron (causing anaemia) and Vitamin A (causing increased infant sicknesses, blindness and mortality).



Prof. G. Bennet, Vice-Chancellor, (top) addressing freshmen at the Matriculation Ceremony held on February 11, 1995



	Water Resource Study (On-going)
	Evaluation of Surface Irrigation on Vertisols.
Mahama, A.A.	Improvement of the Tractive Force on the West African Short-horn Bullock (On-going).
Jostah, M.	Design, Development and Evaluation of a Yam Miniset Cutting Machine - (On-going).
Bani, R.J.	Energy Conservation in Building
	Post-Harvest Technology and Food Security in Ghana.
	Energy Alternatives in Agriculture.
Kra, Eric	Development of Capacitive Sensing Elements for Moisture Content and Irregular Body area Determinations/ Measurement.

Agricultural Economics Division

Dadson, J.A.	Investment, Employment and Income Generating Opportunities in the Lower Volta Basin (On-going).
Al-Hassan, Ramatu	Analysis of Farmers' Strategies for Food Security - A Project of the Dutch Sponsored Research Project on Sustainable Food Security in Central West Africa (SADAOC).
	- Study of the Dynamics of Small Holder Agriculture in the Guinea Savannah Zone. A collaborative study with Wye College of the University of London - Sponsored by the Overseas Development Administration (ODA) of the United Kingdom.
Kwadzo, G.T-M	Production and Marketing of Salt in Ghana Funded by IDRC, Canada.
	Public Goods and Food Security Studies, Funded by the Netherlands Government.
	Roots and Tubers Marketing in Ghana. Funded by FAO.
	An Evaluation of Eight PAMSCAD Projects. Funded by CIDA.
	Assessing the Self Reliance of Togolese Refugees in Ghana: Funded by WFD and UNHCR.
	Socio Economic Study of Component of the Natural Resources Management and Sustainable Agricultural Project (NARMSAP).
Fosu, K.Y. and Others	Effects of Public Goods and Services on Food Security in Ghana.

Publications

Agricultural Engineering Division

Seidu, M.	Appropriate Engineering Technologies for Sustainable Land Use in the Northern Region. Paper presented at Land Use Workshop at Tamale, May, 1994.
	Consideration of the Environment in the Planning and Design of Water Resource Projects. Paper presented at the National Conference on Agricultural Engineering: U.S.T., Kumasi, Sept., 1994.

Josiah, Malcolm National Conference on Agricultural Engineering. U.S.T., Kumasi: Sept., 1994.

Agricultural Economics Division

Al-Hassan, Ramatu Reseau Ghaneen Seminar on Sustainable Food Security in West and Central Africa. GIMPA: 23rd Feb., 1994.
Workshop on the Research on the Development of Cassava Storage Technology. Organised by Post-Harvest Development Unit of the Ministry of Food and Agriculture, Kumasi: June, 1994.
University of Ghana Research and Conferences Seminar on Poverty. Legon: Sept., 1994.
Africa Regional Training Workshop on Techno-Economic Evaluation of Food Irradiation in Africa. Addis Ababa: Nov., 1994.

Kwadzo, G.T-M. Reseau Ghaneen Seminar on Sustainable Food Security in West and Central Africa, GIMPA: Feb., 1994.
National Workshop on Iodine Deficiency Disorders in Ghana. Accra: July, 1994.
National Agricultural Research Strategic Plan. Launching Workshop. Accra: Nov., 1994.

Seidu, Mahama Training on the Operation and Maintenance of Irrigated Farm: For Christian Builders Association, Matse: Volta Region.

Al-Hassan, Ramatu Ghana Target Group Survey for the Ghanaian German Agricultural Extension Project in the Northern Region. Designed and conducted the Survey.

Department of Agricultural Extension

Staffing

The staffing position is as follows:

Dr. J.K. Geker	Senior Lecturer & Head of Department
Dr. F.Y.M. Fladjoe	Lecturer
Mrs. Vincentia Canacoo	Lecturer (Leave of Absence)
Mr. O. Sakyi-Dawson	Lecturer (Study of Leave)
Mr. P.B. Atengdem	Lecturer (Study of Leave)

Teaching

The Department offered courses to students pursuing degree and diploma courses in the Faculty of Agriculture. The breakdown of the class is as follows:

1. M.Phil Agric. Extension Part I
2. M.Phil Agric. Extension Part II
3. B.Sc. Agric. Level 300
4. B.Sc. Agric. Level 400

5. National Diploma in General Agric. Part I
6. National Diploma in General Agric. Part II
7. National Diploma in Agric. Mechanization Part I
8. National Diploma in Agric. Mechanization Part II
9. National Diploma in Animal Health Part I
10. National Diploma in Animal Health Part II
11. National Diploma in Post Harvest Tech. Part I
12. National Diploma in Post Harvest Tech. Part II
13. National Diploma in Home Science Part I

Field Extension

The Department continued to organise extension work in its field laboratory which extends about twenty miles from the campus.

A technical officer stationed at Danfa visited farmers regularly and offered advice in general crop husbandry. Transportation difficulties made student visits to the villages in the field laboratory irregular.

The Department continued to make available to the farming public extension bulletins on crops and animal production.

Activities of Individual Senior Members

Geker, J.K.

Research Interest

Curriculum Review for Agricultural Colleges and Farm Institutes of the Ministry of Food and Agriculture.

Fiadjoe, F.Y.M.

Research Interest

Delivery of Extension Under the Unified Extension System.
Transfer of Agricultural Technologies to small-scale farmers.

Workshops attended and papers delivered

Eastern Region - Regional Extension Liason Committee.

Topic: Making Animal Production Innovations available to farmers

University of Ghana Research Committee Workshop on Poverty

Topic: Agricultural Policy Implication for the Small-scale farmer

Department of Animal Science

Staff and Teaching

During the year, the Department lost the services of its newly-recruited lecturer in Poultry Science to the University of Ghana Medical School's Department of Pathology, and this completely disrupted both its teaching and research programmes in this vital area of animal science. Teaching and research in other specialities however continued and staff offered services to sister Departments in various areas of Zoology, Crop, Soil and Home Science.

Research Activities

Research in the department continued unabated, with staff improvising in both materials and funding. However, the problem of access to current journals which had made research work extremely difficult for both staff and post-graduate students alike, was somewhat eased by the generous donation of several years' back-copies of many relevant journals by former students of the department. Among the areas of research undertaken by staff were the following:

- Livestock marketing and meat production in the Accra-Tema Metropolis.
- A study of kid and lamb wastage in backyard sheep and goat enclosures.
- A study of the management, reproductive performance and health status of pigs on certain selected commercial farms.
- Ensilage characteristics and nutritive value of wild *Sorghum* fortified with *Leucaena*.
- Straw ensiled with poultry manure: chemical composition and digestibility.
- Nutritive evaluation of selected natural pastures under tree-crop plantations.
- Nutritive value of urea-molasses block; Chemical composition and dry matter intake.
- Effect of inclusion of silage in the diet of growing pigs on liveweight change and back fat thickness.

Publications

Rege, J.E.O., Aboagye, G.S.
and Tawah, C.L.

Shorthorn cattle of West and Central Africa I: Origin, distribution, and population statistics, *World Anim. Rev.* 78: 2-13.

Shorthorn cattle of West and (1994 Central Africa II: Ecological settings, utility, management and production systems. *World Anim. Rev.* 78: 14-21.

Shorthorn Cattle of West and Central Africa III: Physical adaptive and special genetic characteristics, *World Anim. Rev.* 78: 22-32.

Shorthorn Cattle of West and Central Africa IV: Production characteristics. *World Anim. Rev.* 78: 33-48.

Rege, J.E.O., Aboagye, G.S. Afah,
S. and Ahunu, B.K.

Crossbreeding Jersey with Ghana Shorthorn and SokotoGudali cattle in a tropical environment: Additive, reproduction and calf-growth traits. *Anim. Prod.* 59: 21- 29.

Ahunu, B.K., Kabuga, J.D., Gyawu,
P. & Teye-Ayam, G

A comparison of non-linear models for describing growth of N'dama cattle. *Discovery & Innovation* 6: 78-83.

Ahunu, B.K. and Kabuga J.D.
(1994) 1

A study of the gamma function for describing Friesian lactation records in Ghana. *Bull. Anim Hlth Prod. Afr.* 42: 147-152.

Conferences/Seminars

Aboagye, G.S.

FAO/UNEP/ILCA Course on Management of Databanks and Genebanks in Africa, 16-25 May, 1994, ILCA (Addis Ababa), Ethiopia, (Paper read: Animal Genetic Resources of Ghana).

- Flanu, F.K. 18th Biennial Conf. of Ghana Science Association, University of Ghana, Legon, Aug. 1-6, 1993, (Papers read: (i) "Developing food securities in Africa: Some lessons from the advanced countries," (ii) A Justification for an agricultural landuse administration scheme for Ghana", (iii) "Reflections on lack of food security in Africa.")
- 14th Annual Cong. of Soil Science Society of Ghana, Univ. of Cape Coast, 14-17 Sept., 1993, (Paper read: "Search for Sustainable Farming Systems; Grassland Agriculture in tropical Africa").
- Australian-Pacific Conf., Surfer's Paradise, Australia, Oct. 12-14, 1993, (Paper read: "Culturally-rooted barriers to the adoption of livestock innovation in tropical Africa").
- Awumbilla, B. 20th Congress of the Ghana Veterinary Medical Association, Sunyani, Ghana, 7-9th Sept., 1994, (Paper read: "Sero-Prevalence of bovine brucellosis in a cattle market in Ghana").
- Assoku, R.K.G. First National Inaugural Congress of Post-graduate Associations of Universities in Ghana, University of Cape Coast, 24-25th January, 1994, (Invited Paper: "The Demands of Graduate Studies").
- Ahunu, B.K. Proc. 5th Wld Congr. Appl. Livest. Prod. 20: 464-467 August 7-12, 1994, University of Guelph, Canada. "Cattle crossbreeding in Southern Ghana" (With G.S. Aboagye and P.F. Arthur).
- "The influence of age at Weighing on growth curve parameter estimates in N'dama Cattle; Proc. Ghana Anim. Sci. Assoc. Symp. 22; 123-130 (With R. Osei-Amponsah).

Department of Crop Science

Overview

The Department continued to fulfil its functions of teaching, research and extension. On teaching, it ran programmes in Doctorate, Master's as well as Bachelor's and Diploma for students. The Postgraduate programme continued to receive good patronage from both within and outside Ghana.

50 percent of the final year BSc. agricultural students specialized in Crop Science. The National Diploma in Postharvest Technology (NDPHT) programme was transferred to the Department from Department of Economics and Farm Mechanisation.

On research, some members continued to participate in the National research programme on plantain and pineapple. In addition, all the staff continued to carry out their individual research.

On extension, most members were involved in public work thus promoting the image of the University. Some too attended conferences to interact and present their research findings.

The Department's problems continued to be:

- Inadequate space for staff and increasing student numbers
- Inadequate tools and equipment, especially microscopes and computers
- Lack of departmental transport

Unavailability of water in the departmental farm for dry season farming and also for student projects.

Courses

Courses offered at the undergraduate and postgraduate levels include:

Basic courses in Microbiology, Entomology, Plant Pathology, Genetics and Statistics
Basic and applied course in Plant Physiology, Crop Production/Agronomy, Breeding and Protection (Field and Storage) of various Tropical crops.

Student Numbers

Student enrolment in the various courses were as follows:

Ph.D	6	NDA II	21
M.Phil. II	12	NDA I	28
M.Phil. I	10	NDPHT II	10
BSc. II (Final Yr.)	10	NDPHT I	10
2nd Year Agric. Degree	62		
1st Year Agric. Degree	39		

Staffing Position

- 1 Professor (on contract)
- 1 Associate Professor
- 4 Senior Lecturers
- 4 Lecturers
- 1 Lecturer (on study leave)

Dr. E.Y. Danquah returned in February, 1994 from study leave during which he earned Ph.D degree from University of Cambridge, England. Dr. E. Blay also returned from sabbatical leave in June 1994.

Research

The following were the main areas in which staff of the department conducted research:

Crop and Plant Physiology

- Nutrition and irrigation needs of maize and bambara groundnut in the Accra plains
- Assessment of nodulation potential of legumes grown in soils from different ecological zones of Ghana
- Induction of flowering in yams and Aroids
- Promotion of male sterility in bambara groundnuts

Crop Production/Agronomy

- Fertilizer trials on plantain in Eastern and Central regions of Ghana
- Intercropping and alley cropping studies
- Seed quality control studies
- Mulching studies

Genetics/Plant Breeding/Crop Improvement

- Crop improvement studies
- Evaluation of cultivars of okro, cowpea, yam, sweet potato, cocoyam and cassava including yellow cassava.

Protection (Plant Pathology and Entomology)

Diseases of plantain with special reference to Black Sigatoka
 Aetiology of new diseases of crops especially Fusarium wilt of oil palm and virus diseases of legumes
 Survey of diseases of vegetables and ornamental plants
 Storage diseases of crops especially root and tubers and maize
 Cataloguing of insect pests of bambara groundnuts
 Evaluation of traditional methods of grain protection in storage
 Use of appropriate polythene bags for grain preservation
 Development of *Aracecerus fasciculatus* on cassava chips.

Publications

- Kumaga, F., Danso, S.K.A. and Zapata, F. Time - course of nitrogen Zapatam F. (1994) fixation in two bambara groundnut (*Vigna subterranea*) cultivars, *Biol. Fertil. Soils*, 18: 231-236.
- Oduro, K.A. *et al* Standard specification for fresh kolanut (Export). Ghana Standard GS 504. *Technical Paper* prepared for Ghana Standards Board, Accra. 7 pp.
- Ofori, I. Correlation and path coefficient analysis for yield and components of yield in bambara groundnut. Submitted to *EUPHYTICA* (Oct. 1994).
 The growth and yield of garden eggs intercropped with cowpea on the Accra Plains. Submitted to *Farming Systems Journal* (Oct. 1994).
- Adjetei, J.A. Effect of depth of placement of urea on Nitrogen uptake and yield of maize (*Zea mays* L.) grown on the coastal savanna zone of Ghana. (Accepted for presentation at the 2nd International Conference for Southern and Eastern Africa, Feb. 1995 in Malawi).

Conferences/Seminars

- Doku, E.V. Farmers Forum organised by Ghana Association of Agricultural students, (GAAS) Legon Branch on 16th Nov. 1993 at Brekuso. *Paper Read*: Crop Production.
 LECIA Seminar Oct. 27, 1993, Accra. *Paper Read*: Movement of Food Crops around the world.
 PANAFEST 1994. Colloquium, Accra. *Paper Read*: Feeding the growing population of Sub-Saharan Africa.
- Ayertey, J.N. March, 1994. IITA Benin. Project Planning Workshop on Integrated Control of the Larger Grain Borer (*Prostephanus truncata*).
- Oduro, K.A. Farmers Forum organised by (GAAS) - Legon Branch on 16th Nov. 1993 at Brekuso. *Paper Read*: Crop Protection.
 Workshop on Pasture Development organised by Agro-Tech consultancy services for MOFA staff. 28 Feb. - 18th March. Accra. *Paper Read*: Pests and diseases in pasture establishment.
 BMTRM Workshop organised by Ministry of Food and Agriculture (MOFA) March, 1994. Accra. *Paper Read*: Diseases of six selected vegetables.

	Workshop on Root and Tuber Crops Production and Research organised by MOFA. 5 - 18th April, 1994, Cape Coast. <i>Paper Read:</i> Diseases of yam, cassava, cocoyam and their control.
	Seminar on Project Planning on Cassava research for McKnight Foundation: funding organised by Crop Research Institute and University of Minnesota, USA, 30th May 3rd June, 1994, Kumasi (Invited as Advisor).
	Workshop on Ecologically sustainable Cassava Plant Protection (ESCapp) organised by ESCapp Ghana and MOFA. Oct. 30-10 Nov. 1994, Kumasi. <i>Paper Read:</i> Diseases of Cassava and their control.
Kumaga, F.K.	Sixth Conference of the African Association for Biological Nitrogen Fixation (AABNF) University of Zimbabwe, Harare, Zimbabwe 12-17 Sept., 1994. Zimbabwe.
Danquah, E.Y.	Fifth International Congress for Computer Technology in Agriculture, 29th June - 5th July, 1994 at Churchill College, University of Cambridge, England.
Adjetey, J.A.	International Seminar on "Towards Rice Self Sufficiency in Ghana" organised by CIDA/JICA. 7th June, 1994, Akosombo.
Ofori, I.	Workshop on Biological Diversity and Plant Genetic Resources 21-24th Nov. 1994, Koforidua. <i>Paper Read:</i> Intergenotype competition and border effects in bambara groundnuts.

Department of Home Science

Overview

The Department continued its teaching functions, emphasizing the family as the focus of its programmes. It also conducted research on family related issues and undertook extension activities to help improve the quality of rural life. The Department's outreach programmes were however, severely constrained by lack of funds. It could, therefore, not reach as many families as it had wanted to.

Courses

- a. 2 year non-degree diploma in Home Science
- b. 3 year BSc in Home Science
- c. M.Phil in Home Science

Students

BSc.	1st year	22
	2nd year	19
	3rd year	15
	Total	56
Diploma	1st year	10
	2nd year	9
	Total	19

M.Phil 1st year	2
2nd year	4
Total	6
Total No. of Students	81

Staff

Senior Members	7
National Service	2
Senior Staff	1
Junior Staff	6

Ms. Christina Nti, a former student of the Department, joined the Department as a Senior Member in the academic year. Mrs. Paulina Ansah and Dr. (Mrs.) C. Anokwa, a Senior Clerk and a Senior Member respectively, resigned from the services of the University at the end of the academic year.

Research (On-going)

Hevi-Yiboe, Laetitia	Division of Labour in Urban and Rural Ghanaian Homes. Household Work Organization by Ghanaian Homemakers. Time Use in the Ghanaian Home Unskilled Migrant Women in Accra - a Study of the Activities, Problems and Aspirations of Kayayo Women in Central Accra.
Opare-Obisaw, Clara	An Evaluation of the World Bank Nutrition Project in Akwakwa in the Central Region.
Nti, Christina	Snack Types consumed by some adolescents in Ghana.
Flanu, Docea A.G.	IDRC Sponsored Soybean Utilization Project in Ghana. The Effect of Sunlight on the Colour and Strength of Ghanaian Printed Cotton Fabrics. The Perception of Ghanaian Consumers of Textiles and Clothing Labels. A Study of Changes in Ashanti Female Funeral Clothing The Case of Kumasi Central Market Women Traders. Male Junior Secondary School (J.S.S.). Students Preference for Topics Under the Subject "Life Skills". A Study of Wayside Seamstresses.
Williams, Nabilla	The Effect of Transfer on the Ghanaian Civil Servant. Motivational Factors that Influence Parents to Enrol their children in the Home Science Nursery School.
Francots, Edith	Field Trial of "Fidua Fuel". The fuel from oil seed waste for domestic use.

Research Papers in Press

Hevi-Yiboe, Laetitia	The Urban Ghanaian Women's Day - A Study of Families of University of Ghana Workers Living at the Staff Village - Legon. Division of Labour in the Urban Ghanaian Home: A Summary of Case Studies of Ten Families in Ghana.
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- Rural Families and Family Planning in Ghana. The Case of Whuti in the Volta Region. (All submitted to Ghana Journal of Home Economics).
- Opare-Obisaw, C. and Flanu, Docea A.G.
Nti, Christina A. (Co-author),
Changes in Family Food Habits: The Role of Migration. Chemical and Biological Characteristics of a West African Weaning Food Supplemented with Cowpeas (To Plant Foods for Human Nutrition).
Cowpea Inhibition of Human and Bovine Protease Activities and the Effects of Processing. (To Journal of Nutritional Biochemistry).

Publications

- Opare-Obisaw, C. (Co-author)
The Zinc, Calcium, Copper, Manganese Non-starch Polysaccharide and Phytate Content of Seventy-Eight Locally Grown and Prepared African Foods S.J. of Food Composition and Analysis. Vol.6, pp. 001-013, 1993.
The Zinc Nutriture of Preschool Children Living in Two African Countries J. of Nutrition. 124:1487-1496, 1993.
Seasonal Food Consumption Patterns and Dietary Diversity of Rural Preschool Ghanaian and Malawian Children. J. Ecology of Food and Nutrition. Vol. 29 pp.219-234, 1993.
- Francois, Edith
"Women and Household Production: An Ecosystem Perspective with Comparison of Two Studies from Africa" in *Women Femintism and Development* McGill Queenil University Press Montreal Canada. Ed. Aulette Degenais and Denise Piche, 1994.

Conferences/Seminars/Workshops

- Hevi-Yiboe, Laetitia
6th Ghana Energy Symposium. La Beach Hotel, Accra, Nov. 1994.
- Hevi-Yiboe, L and Flanu, Docea A.G.
Conference on the Dissemiantion of Family Planning Information held at the Teachers' Hall, Accra, Oct. 28, 1993.
- Hevi-Yiboe, L., Flanu, Docea A.G. and Opare-Obisaw, C.
Seminar on Poverty in Ghana in Ghana; 29-30th Sept., 1994.
- Opare-Obisaw, C. and Flanu, Docea A.G.
National Workshop on Iodine Deficiency Disorders in Ghana ,27th-28th July, 1994.
- Francois, Edith
All Africa:
a) Home Economics Conference in Harare, Zimbabwe. Elected Vice President for Anglophone West Africa. August, 1993.
b) Pre-Conference Workshop on Reorientation of Home Economics in Africa. August, 1993.
c) Post-Conference Workshop on Twinning Partnership of Home Economics Associations, August, 1993.

- International Federation of Home Economics (IFE) Executive Meeting in Paris. Jan. 1994.
- Home Economics Association of Africa (HEAA) Executive Meeting in Nairobi. March, 1994.
- International Conference for Consumer Association Leaders in Africa in Kadoma, Zimbabwe. March, 1994.
- Chief organizer of the Ghana Home Economics Association National Conference for the International Year of the Family at Legon, Ghana. April, 1994.
- International Federation of Home Economics (IFHE) Council Meeting in Sheffield, England. Elected Vice President, for Africa Region.
- Seminar on Street Foods. 16th Dec. 1993.
- Initial Planning Workshop on IDRC Soybean Utilization Project at IITA, Ibadan, Nigeria. Nov. 28th - Dec. 1, 1994. Paper presented: Status of Soybean Production and Utilization in Ghana.
- Resource Person at a Seminar on "Strengthening The Family" - The Role of the Media. Organized by the Family and Development Programme (FADEP), University of Ghana/UNFPA and The Ghana Journalists Association sponsored by Population Council, New York. Dec. 6, 1994. Paper presented: "Single Parents and Their Coping Strategies in the Family" Williams, N.; and Amissah, N.M.
- Participated in ECA/FAUDO Symposium on The Role of Non-Governmental Organizations (NGOs) in the Implementation of the UN New Agenda for the Development of Africa in the 1990s (UN-NADAF). Dakar-Saly, Senegal. Nov. 9-11, 1994.
- Participated in a Seminar on National Consensus Building towards the 4th World Conference on Women 1995 at the British Council Hall. Oct. 24, 1994.
- Resource Person of the Follow-Up Training on Early Childhood Education, Care and Development. Sponsored by GNAT/BUPL/GES/UNICEF. Oct. 7-14, 1994.
- Participated in the 14th World Congress of the International Organisation of Consumer Unions (IOCU). Theme: "Consumers in the Global Market" held in Montpellier, France. Sept. 26-30, 1994.
- The following Senior Members attended the National Conference of the Ghana Home Economics Association, 12th-18th April, 1994. The papers presented were:
- Hevi-Yiboe, Laetitia
- The Urban Ghanaian Women's Day A Study of Families of University of Ghana Workers Living at the Staff Village Legon.
- Division of Labour in the Urban Ghanaian Home: A Summary of Case Studies of Ten Families in Madina.
- Rural Families and Family Planning in Ghana. The Case of Whuti in the Volta Region. (All submitted to Ghana Journal of Home Economics).
- Opore-Obisaw, C.
- Changes in Family Food Habits. The Role of Migration.

- Nutritional Care and Socio-economic situation of the Elderly in Ghana.
- Flanu, Docea A.G. A Pilot Study on Traditional Methods of Controlling Insect Pests in Stored Cowpea (*Vigna Unquiculata*) Seeds at the Household Level.
- Male Junior Secondary School (J.S.S.) Students' Preference for Topics under the subject, "Life Skills."
- Motives of University of Ghana Students for Buying Second-hand clothing.
- Williams, N.& Addison-Sackey, R. Problems Facing Working Single Mothers at the University of Ghana.
- The Child's Right to Quality Early Childhood Education in Ghana.

Extension Activities

- Hevi-Yiboe, L. Completed Product Development Project on Dzomi for Lever Brothers. Jan. 1994.
- Organised Dodome Women Group in the Volta Region in their income generating activities by helping them to get funds to expand their production of palm and kernel oils.
- Flanu, D.A.G and Hevi-Yiboe, L. Moderators of Home Economics questions in Textiles and Clothing, Food and Nutrition and Home Management for WAEC.
- Opare-Obisaw, Clara Gave 3 separate lectures at the Dzorwulu Presbyterian Church, Accra
- Topics The Effect of Divorce on Women, Children and the Society.
- Temptations of the Youth.
- Living with step parents.
- Guest speaker at Annual Harvest of Boso Youth Association (1-9-94).
- Topics The Family - The Key to Community Development.
- Nabilla Williams Member of Review Group on Nutrition Facts for Ghana.
- Guest Speaker at a Seminar organized by (GAAS - Legon Branch) on the Theme: "The Role of the Youth on the Environment." May 12, 1994.
- Guest Speaker at a Seminar organized by Dagbon Ninneem Karimzong at Tamale. Theme: "Children and Environment." July 3, 1994.
- Guest Speaker at SOS Mothers Course organized by University of Ghana, Social Administration Unit. Spoke on: 1) Stages of Child Development. 2) Issues in Child Development.
- Francois, Edith Students Clothing & Textiles Exhibition June, 1994.
- Fidua Fuel at "Do it Herself" Exhibition at the British Council Hall, Accra. June, 1994.

Resource Person for International Training Workshop for YWCA Women leaders in West Africa: Paper presented "Women and the Environment. Sept. 1994.

Awards

Francois, Edith

Presbyterian Church of Ghana Foundation Human Award. Nov. 1993.

Ghana Home Economics Association Highest Award "JEWEL OF GHEA". April, 1994.

Ghana Police Church Human Award as a member of the Building Committee. July, 1994.

Department of Soil Science

Overview

The Department of Soil Science continued to focus its teaching and research on problems of soil fertility and productivity. The collaboration with international agricultural research organisations and national institutions continued during the year.

Courses

The Department went through the new "Semester/Course Credit System" for the First and Second Years successfully: Undergraduate degree courses taught in the Department, namely, Soil formation and development, soil chemistry and fertility, soil biochemical, soil microbiology, soil physics, pedology; soil classification and survey, soil Morphology were completely revised to meet the challenges presented by the new system. Diploma and graduate courses were similarly revised during the year.

Staff

The Department successfully completed its programme for the year with five out of eight established staff. Mr. S.G. Adiku, the only soil physicist in the Department is still on study leave in Australia. The Department continued to rely on Dr. Mensa Bonsu from University of Cape Coast for the teaching of soil physics to students at both undergraduate and graduate levels.

Research

Research and extension activities in the Department continued to be strengthened by linking with both national and international agricultural research institutes.

The British Overseas Development Administration (ODA) project on Vertisols Management Technology, in collaboration with IBSRAM, continued with on-farm trials. Farmers are obtaining between 30-45% increase in yield of maize on Vertisols with proper land forms technology which had previously been developed through the research on efforts by the Department. The FAO/LAEA coordinated research on the enhancement of the agronomic effect of phosphate rock materials on acid soils through biological processes took off during the year.

Other research activities carried out by staff either alone or in collaboration with national institutes included:

Pineapple research on the Coastal Savanna (funded by NARP).

- Environmental endangerment in the southern forest-savanna ecozone of Ghana (in collaboration with Department of Botany, Remote Sensing Unit and Department of Geography and Resource Development.
Phosphorus availability in some major soils of Ghana.
- Characterisation of Vertisols in the Accra Plains.
Pedogenic changes in soils under agroforestry.
Azolla research.

Extension Work

Extension services were provided by the Department to the following institutions and organisations:

- (1) Crop Service Department of Ministry of Food and Agriculture.
- (2) Twifo Oil Palm Plantation.
- (3) Ghana Atomic Energy Commission (Biotech. & Nuclear Agric. Res. Institute).
- 4) Some Departments within the University.

Donations/Benefactors

The Department received one Tractor M.F.375 accessories worth £20,000 sterling plus additional amount of US\$9,000 from the ODA towards the ODA-funded IBSRAM Vertisols Project. Chemicals and materials worth \$4million were also donated by IAEA, Vienna towards FAO/IAEA CRP on phosphate rock.

Publications and Reports

- Owusu-Bennoah, E. and Abekoe, M.K. 1993
Changes in inorganic and organic soil phosphorus fractions after long-term phosphorus fertilizer application in concretionary soils from northern Ghana. *Proced. Soil Sci. Soc. Ghana*. Vol. 12 & 13: 43-49.
- Owusu-Bennoah, E and Acquaye, D.K. 1993
Effect of liming on mineralization of crop residues in some acid soils of south-western Ghana. *Proced. Soil Sci. Soc. Ghana*. Vol.12 & 13: 113-119.
- Tiessen, H. Abekoe, M.K. Salcedo, I.H. Owusu-Bennoah, E. 1993
Reversibility of Phosphorus sorption and by ferruginous nodules *Plant and Soil* 155: 113-124.
- Dua-Yentumi, S., Owusu-Bennoah, E., Oteng, J.W., Acquaye, D.K. and Ahenkorah, Y. 1993
Improving the management of vertisols for sustainable cropping - Report on the major season trial with maize on Vertisols of the Accra Plains. In. Reports of the 1992 Annual Meeting on Africaland Management of Vertisols in Africa. IBSRAM Thailand, Bangkok. Network Document No. 3 pp.19-23.
- Owusu-Bennoah, E and Visker, C. 1993
Organic wastes hijacked - a study on the use and potential of organic wastes in Ghana. *ILEIA Newsletter* 10: 12 & 13.

- Owusu-Bennoah, E and Acquaye, D.K. 1994
Review of some chemical characteristics of some typical acid soils of south western Ghana. *Ghana jnl. agric. Sc.* (In press).
- Mermut, A.R., Dowuona, G.N.N. and Krouse, H.R. (1993)
Stable isotope geochemistry of sulfate salts. p. 227- 243. In: M.J. Hendry and H.R. Krouse (Editors) *Sulfur Transformations in soil systems*. National Hydrology Research Institute, Saskatoon, Canada.
- Dowuona, G.N.N., Nartey E., Tissen, H. and Mermut A.R. 1994
Pedogenic changes and phosphorus distribution in soils of northern Ghana (abstracts). *Canadian Journal of Soil Science* 74:351.
- Ahenkorah, Y, Amatekpor, J.K., Dowuona, G.N.N. and Dua-Yentumi, S. 1994
Soil and Water Resources of A.R. (1994) Ghana: Their Conservation, Management and Constraints to their Utilization for Sustainable Development. United Nations University Institute for Natural Resources in Africa Book Series A-1, UNU/INRA, University of Ghana, Legon. 131pp.
- Ahenkorah, Y., Oteng, J.W. and Asuming-Brempong, S. 1994
Soil and agricultural practices towards the Economic Recovery Programme of Ghana. *Soil Chemistry and Fertility impact*. *Proced. Soil Sci. Soc. Ghana*. Vol.12-13: p.89-94.
- Dua-Yentumi, S. 1993
Environmental implication of agricultural development. *Proc. Soil Sci. Soc. Ghana*. Vol.12 & 13: p.81-87.
- Asuming-Brempong, Stella 1993
The growth of *Azolla* as affected by the pH of the floodwater of the Akuse soil (Vertisols). *Legon Agricultural Research and Extension Bulletin* (In press).

Conferences/Seminars/Workshops and Papers read

Members of the Department also participated actively in various conferences, seminars and workshops at which papers were read:

- Dowuona, G.N.N.
The Clay Minerals Society 31st Annual Conference, Saskatoon, Canada August 13-18th, 1994. Paper: Mineralogy and Chemical composition of Ferruginous soils in Northern Ghana.
Workshop on Scanning Probe Microscopy of Clay Minerals, Saskatoon, Canada -13th August, 1994.
- Owusu-Bennoah, E.
XII International Plant Nutrition Colloquium, 21 - 26th September, 1993. Perth Western Australia.
Poster: Greenhouse evaluation of agronomic potential of different sources of phosphate fertilizer in a typical concretionary soils of Northern Ghana.
FAO/IAEA, French government, Coordinated Research Programme on the use of nuclear and related techniques for evaluating the agronomic effectiveness of phosphate fertilizers, in particular rock phosphate 1 - 5th November, 1993. Vienna, Australia.

IFDC - Africa journee de mobilization de resources, 7- 8th April 1994. Lome, Togo (Paper read: IFDC Africa's partnership approach: Relationships to the agricultural priorities of Ghana.

Environmental. Biodiversity and Agricultural change in West Africa. PLEC/INRA/University of Ghana. 25 -27th October, 1994, Legon, Accra (Paper read: Change in the Biophysical environment of Ghana's southern forest savanna zone: soils.

National Agricultural Research Strategic Plan Agriculture Research for Sustainable Development 15 - 18th November, 1994, Accra. Paper Read: Research-Extension-Farmer-linkages - Experience of Pineapple research.

Agricultural Research Station, Kade

Overview

The station continued to lead the Faculty of Agriculture in the execution of the National Agricultural Research Project's (NARP) plantain development programme.

Officers from the station also continued to give lectures at the Crop Science Department, Legon in their areas of specialisation. They also acted as resource persons for the Ministry of Food and Agriculture.

Under the International Institute of Tropical Agriculture (IITA)/West Africa Plantain Project (WAPP), Dr. Afreh-Nuamah, the principal collaborator, participated in two national surveys for the Assessment and Control of Biotic Plantain Pests and Diseases from 25th October to 13th November 1993 and then from 16th May - 17th June 1994.

From 16th - 20th of May 1994, Dr. K. Afreh-Nuamah paid a study visit to the Center for Research on Banana and Plantain (CRBP), Cameroun, as part of the IDRC Plantain Development Project, in Ghana.

Dr. Godfred K. Ofofu-Budu joined the staff of the station as Research Officer in September 1994. Dr. K. Afreh-Nuamah, Senior Research Officer-In-Charge was appointed member of the Oil Palm Research Institute Management Board and member, advisory committee, Department of Development and Environment of the Christian Council of Ghana.

Research

The following Research activities were continued at the station, during the period:

- (a) Oil Palm Fertilizer Trial
- (b) Integrated Pest Management Strategies
- (c) Pesticide Management and Application Techniques
- (d) Citrus Based Cropping System
- (e) Integration of Sheep under Plantation Crops
- (f) Clonal Characterization of Para Rubber
- (g) Multilocational trials of Plantain/Banana Clones against the Sigatoka disease.

Publications

Afreh-Nuamah, K. 1993

Laboratory rearing of the Plantain Stem Borer (*Cosmopolites sordidus*). *MusaAfrica* No. 2, 2-3.

- 1994 Factors responsible for the lodging of Plantain at the University of Ghana Agricultural Research Station-Kade. *MusAfrica* 5, 2-3.
- Osei, J.K. 1994 Fruit setting and yield of nine-year old *Cola nitida* clones. *Tropical Science* (In Press).

Conferences/Seminars

- Afreh-Nuamah, K. Third International Conference on I.P.M., Dakar, Senegal, 28th March to 4th April, 1994.
3rd Meeting of the West African IPM Working group. Dakar, Senegal. 1st April, 1994
Third International Conference on Tropical Entomology, Nairobi, Kenya. 30th October - 4th November 1994
Launching Workshop of the National Agricultural Research Strategic Plan. Accra International Conference Center, Accra. 15th - 18th November, 1994.
- Osei, J.K. and Ahiekpor, E.K.S. First National Workshop on Food and Industrial Crops, Kumasi, Ghana. October 25 - 27 1994.
- Osei, J.K. First National Workshop on Biodiversity and Plant Genetic Resources, Koforidua. November 21 - 25 1994. NARP Plantain Open day at Offinso.

Conference/Seminar Papers

- Afreh-Nuamah, K. Farmer Implemented IPM on Vegetables. *Paper presented during the 3rd meeting of the West Africa IPM Working Group.* 1st April, 1994.
Farmers Implemented IPM in Africa: Prospects and Constraints. *Paper presented during the 3rd International Conference on Tropical Entomology, Nairobi, Kenya.* 30th November-October 4, 1994.
- Afreh-Nuamah, K.; Bobblah, M.; Timbilla, J.E.; Paa Kwesi E. and Adams, E. (1994). Evaluation of some biopesticides on Lepidopterous pests of Eggplant. *Paper presented during the 1st National Workshop on Food and Industrial Crops. KTI, Kumasi, Ghana.* 24th -27th October 1994.
- J.K. Osei. The Cucumber mosaic virus infect plantain cultivar in Ghana. *Paper presented during the 1st National Workshop on Food and Industrial Crops, Kumasi, Ghana.* October 5-27, 1994.
Genetic Resources of *Cola*, Plantain and Citrus in Ghana. *Paper presented during the National Workshop on Biodiversity and Plant Genetic Resources, Koforidua.* November 21-25, 1994.

Agricultural Research Station, Kpong

Staffing

There are two Research Officers at post namely: Dr. J.W. Oteng and Dr. E.O. Darkwa. Dr. Charles Oti-Boateng is on leave of absence till September, 1995 and Mr. K.D. Nyalemegbe is expected back early this year from study leave at Reading, UK after completing a Ph.D degree in Agronomy.

Research

The Station continued with its collaborative studies with INGER (International Network for Genetic Evaluation in Rice) and WARDA (West Africa Rice Development Association) to evaluate suitable varieties for the irrigated and rainfall lowland ecologies.

The most outstanding varieties with yields ranging between 6.5 and 7.5 t/ha are: 19970, TOX 960-42-1. After nearly two years of intensive trials the Station is ready to release a new variety (GRUG 8) with high yielding qualities 7.5 t/ha for the irrigated rice ecology. This variety has excellent grain qualities: it is medium to long grain. The grains are slender and crystalline and cook flaky. It possesses excellent swelling properties and will compete effectively with any imported variety of rice.

NARP

The Station has been awarded \$1.5 million by NARP to carry out a research project titled "Actual Evapotranspiration of Irrigated Rice Crop" which is due to start early March, 1995.

Azolla/Grain Legumes

Studies in Azolla and Grain Legumes (Cowpea and Soya bean) have been temporarily suspended because of the absence of the Research Staff but work will commence in the two areas as soon as the officers assume duties.

Beef Cattle Improvement Programme

The Artificial Insemination Programme aimed at improving the genetic make up of the local breeds with exotic ones such as Santa Gertrudis and Red Poll came to a halt during the year under review due to lack of semen. In the course of the year 30 calves of the crosses were calved and until fresh semen are imported the programme will suffer irreparable loss as a result of the delay.

Meteorological Station

Through the assistance of the ODA sponsored IBSRAM Programme, the Station's weather station is fairly well equipped and is currently providing accurate weather data for crop studies and contributing information to the National Synoptic Weather Stations.

Crop Protection

Studies on the control of *Cercospora spp* on various vegetables which commenced two years ago are still in progress. No major breakthroughs have been reported.

As part of NARP countrywide studies toward the control of Sigatoga disease control in Plantain and Banana, a trial has been initiated on the Station under irrigated conditions.

International Board for Soil Research and Management (IBSRAM)

The above programme sponsored by ODA continued through 1994. The year's work culminated in a Field Day at ARS, Kpong on November 29, 1994 involving the general public, researchers, extensionists, farmers, donors and policy makers. The activity received extensive coverage in both the print and electronic media. Five farmers cooperated with the programme and the number is expected to increase to 15 in 1995.

Publications

Kranjac-Berisavljevic (1994). Rainfall Pattern Analyses at A.R.S., Kpong (1955-91)
Agroclimatological Study The Ghana Engineer, Vol. 14 No. 1. 7-14.

Conferences/Seminars/Workshops

Oteng, J.W. Presented a Paper: "Rice Production and Development in Ghana", Eighteenth Session of the International Rice Commission, F.A.O. Rome, Italy. September 5-9, 1994.
Presented a Paper: Research Strategies Towards Increased Rice Production in Ghana. Volta Hotel, Akosombo Ghana., June 7, 1994.

Agricultural Research Station, Legon

Overview

The Agricultural Research Station, Legon, continued to provide facilities for practical classes for students of Animal Science Department, in particular and Agriculture Students of the Faculty of Agriculture in general. Second cycle schools also visited the station as part of the requirements for G.C.E. "O" Level and "SSS" in Agricultural Science. Practising pig, sheep and cattle farmers acquired breeding stocks from the station. The slaughtering-processing complex building was completed and is awaiting the provision of basic processing equipment to enable the station add value to the pork sold. The station's rehabilitated 50ha dam continued to water the livestock of the station and the surrounding villages as well as provide drinking water, especially during the dry season, to residents of the station, Madina, Ashale-Botwe, Katamanso and the nearby villages. Research activities concentrated on the manufacturer and use of readily available and inexpensive dry season feeds for ruminants as well as the manipulation of pig diets so as to produce lean carcasses. The urea molasses blocks (for dry-season feeding of ruminants) produced by the station was highly patronised by both large and small scale farmers.

To circumvent the inadequate Government subvention for research, animal production activities and the general running of the station, a 33,000 egg capacity hatchery was rehabilitated. A 54 KVA stand-by generator costing ₵13.0m was acquired (courtesy the University of Ghana) to provide uninterrupted electricity supply to the hatchery. The total indebtedness to the main creditors of the station stood at ₵13,735,920.00.

Courses

Officers from this station continued to give lectures at the Animal Science Department of the Faculty of Agriculture of this University. Three courses in Animal Traction Technology were

organized on the station for practising and would-be farmers. These were the "Beginner's Course", "Refresher Course" and "Trainer of Trainers" Course. In all about 35 farmers from both state and private organisations participated in the trainings. Financial assistance for the trainings was provided by the German Development Service.

The farmers' Training Programme of the station continued to train farmers in practical poultry and livestock production. The 5th batch of trainees graduated (after 10 months' stay on the station) in December, 1994. The programme continued to enjoy funding from the Leventis Foundation, London.

Staff

Retirement, resignation and death of staff decreased the nominal roll of the station from 90 (approved by Government) to 81. The manpower ceiling was, however, again raised to 90 following the Manpower Budget hearing in September, 1994. Approval was given for the station to engage 3 Senior Research Assistants. In line with the Research-Extension Linkage, the Agricultural Engineering Services Department of MOFA continued to second an Extension Officer to the station as a counterpart to the German Development Service Personnel responsible for the Animal Traction Programme of the station. Dr. E.C. Canacoo continued his Master's Programme at the James Cook University, North Queensland, Australia. Rev. K. Amaning-Kwarteng was made the substantive head of the station in October, 1994.

Research

Research Projects in progress include the following:-

The potential of ammoniated low-quantity roughages as dry-season feedstuff;

Urea-molasses blocks as multi-nutrient supplement;

Effect of silage in the diet of pigs on liveweight change and backfat thickness;

use of leguminous fodder trees as sources of supplementary feed for small ruminants in the coastal savanna of Ghana;

Effect of manipulation of ruminant diets on milk yield and composition; and

Use of artificial insemination to improve the milking potential of local cattle.

Workshop and Conferences

- | | |
|---------------------------|--|
| Naazle, A. and Offei-Addo | Choice feeding in commercial broilers: Is it viable?
22nd Animal Science Association Symposium Cape Coast, 8-13th August. |
| Naazle, A. | Computer as a Research Tool in the Animal Sciences, National Agricultural Extension Project (NAEP) Training Workshop on Small Ruminant Production; Akim-Oda, 21-27 August. |
| Amaning-Kwarteng, K. | Feed Resources of Ruminants in Ghana, interventions to improve quality and quantity. NAEP Training Workshop on Small Ruminant Production; Akim-Oda, 21-27 August. |

FACULTY OF ARTS

Overview

The Faculty of Arts comprises the Departments of Classics, English, Linguistics, Modern Languages, Philosophy and Religions, as well as the Language Centre and the School of Performing Arts. The latest addition is the International Centre for African Music and Dance which is a unit within the School of Performing Arts. Students studying for the Bachelor of Arts degree select courses offered by Department and Units in the Faculty of Law and the School of Administration.

During the year under review, the various Departments and units in the Faculty continued to offer undergraduate and postgraduate courses to students. Some departments also offered diploma courses. The Department for the Study of Religions continued to co-ordinate the programmes of a number of Colleges and Seminaries situated outside Legon while the Department of Modern Languages played a similar role for the School of Translators, Accra.

The Academic staff of the Faculty continued to present their research findings at Departmental seminars and Intra-Faculty Lectures. One issue (Vol. VII) of the *Legon Journal of Humanities*, the academic journal of the Faculty was published during the year. Preparations for the admission of the first intake of Senior Secondary School products were also completed.

Inadequate office space and lecture rooms continued to put a severe strain on the staff in most of the Departments in the Faculty. It is hoped that the abandoned Faculty of Arts complex will be revived, with appropriate modifications, to provide large lecture rooms and some offices for students and Faculty.

Department of English

The Department of English continued in the 1993/94 academic year to provide courses leading to B.A. and M.Phil degree programmes for increasing numbers in the Humanities.

Student Population

The breakdown for '93/'94 was as follows:

FUE:	98
Part I:	63
Part II:	46
M.Phil (Year one)	5
M.Phil students writing theses	5

Teaching

The introduction of the course credit semester system provided the Department with an opportunity to concretise trends that have marked teaching and research in the Department, especially over the last decade, trends aimed at making humanistic training and education even more relevant to the local, cultural situation. These positive developments are taking effect though they remain limited by the formidable resource constraints faced by the Department.

Headship

Mr. Aloysious Denkabe took over as Head of Department from Dr. S.A. Dseagu on 1st January, 1994.

Staff

With 4 members of staff away on either Study or Sabbatical Leave, the Department had to cope with an increased student population but with only 6 members of staff on the ground. Fortunately the Department could draw on the expertise of Prof. Kofi Anyidoho, Director of the School of Performing Arts, Prof. John Lemley, Hamilton College (a Fulbright spouse), Dr. Kofi Owusu, Carlton College, (who spent Semester I with us), and Dr. James Gibbs, who although formally attached to the School of Performing Arts, kindly agreed to help us out with some courses.

Physical Improvements

The Department completed some physical improvements during the year. The Office of the Head of Department was rehabilitated. The departmental library which had been housed there, was moved downstairs into a new room: the result of the knocking down of a dividing wall. The Department has, as a result, an adequate office for the Head which can also be used for meetings and seminars. The Department has additionally a spacious library where students can sit and study. Finally, the Department has been able to refurbish its general office.

Research

The main thrust of research in the Department concentrated on English in Ghana and Ghanaian Literature in English.

Benefactions

The Department received a donation of €200,000 from GHACEM for the purchase of books. A donation of books was made to the Department by Prof. John Lemley, Visiting Scholar. Prof. Anne Adams, Visiting Fulbright Professor, also made a donation of books to the Department.

Language Centre

Introduction

The Language Centre of the University of Ghana was established in 1970 as a centre for applied linguistics, with the status of a department within the Faculty of Arts. It carries out research aimed at the analysis of practical language performance in Ghana, and the dissemination and application of language research findings into the educational system of the country and within the university. Its teaching programmes are directly related to these aims.

Staffing Position

In 1993-94 the academic staff of the Centre comprised a Director, two senior research fellows, seven research fellows of whom six were at post, a junior research fellow and a tutor. One Senior Research Fellow retired at the end of the year. The academic staff were supported by eight senior staff, including one chief technician, one senior administrative assistant and five principal instructors.

Teaching Programmes

The Centre's teaching programmes comprise African Studies for FUE students (Ghana

Language Option), Certificate in English Proficiency, Language and Study Skills and Special Courses in English. The Diploma in Advanced Study of Ghanaian Language Teaching was phased out at the end of the academic year.

Extension Activities

Members of the Centre continued to serve on panels for Ghanaian Languages and English at the West African Examinations Council, and on committees of the Bureau of Ghana Languages. Several Fellows and Instructors continue to serve as Trainers in workshops for Senior Secondary School teachers.

Publications

Owusu-Sekyere, G. with Addo-Danquah, A.
Senior English Language Master, Presbyterian
Secondary School, Legon, Accra

J.S.S. ENGLISH WORKBOOK I, II and III, published by
Quick Service Books Ltd., Box 15403, Accra-North.

Odamtten, Helen

Joint paper with A. Denkabe, English Department and E.
Tskata, School of Administration, on "Problems of English
Language Skills at the University Level", published in the
Legon Journal of Humanities, Volume VII, 1994.

Department of Linguistics

Admissions

The Department admitted the following numbers:

First Year	- 150 students
Second Year	86 students
Third Year	46 students
Postgraduate	1 student
Occasional student	1 student

Staff

Professor L.A. Boadi took over the headship of the Department from Professor A.S. Duthie when the latter was granted sabbatical leave. Dr. A. K. Dzameshie and Dr. (Mrs). L.A. Anyidoho returned from study leave after obtaining the degree of PhD from the University of South Carolina and Texas, respectively.

Dr. S.G. Obeng was granted leave of absence at the end of year.

Conference

Most members of the Department attended the Annual Conference of the Linguistic Society of Ghana held at the University of Cape Coast from 7 to 9 May, 1994. The following papers were presented by members:

Anyidoho, L.A. (Mrs.)	"Dialogue Genres: The Case of Contemporary Akan Funeral Dirges".
Boadi, L.A.	"A Minor Rule of 'Grave' Concern in the Volta-Comoe Languages".
Dzameshie, A.K.	"Communicative Competence and Code Choice".
Obeng, S.G.	Akan Procristics

In addition, Professor F. Dolphyne attended the International Conference on Competence and the Role of English as a Second Language held at the University of Ibadan from 15 to 17 December, 1993 and read a paper entitled: "The English Language in Ghana." She also attended the Twenty-fifth Annual Conference on African Linguistics at Rutgers University, USA, and read a paper: "A Phonological Study of Downdrift and Downstep in Akan." Dr. (Mrs.) L.A. Anyidoho attended the Pan-African Historical Festival Colloquium on The Re-Emergence of African Civilization at the University of Cape Coast on 12-16 December, 1994. She read a paper entitled: "Verbal Art in Ghana as a Weapon Against Cultural Imperialism."

Professor L.A. Boadi attended the International Workshop on Syntax at the University of Trondheim from August 22 to 25, 1994 and read a paper on "Verb Serialisation."

Dr. A.K. Dzameshie presented the following papers at conferences: (a) "Facework and Face-Threatening Acts: The Key Features of Christian Sermonic Discourse" at the Spring Meeting of SECOL/LAVIS in Auburn, Alabama, USA, April, 1993. (b) "Chi-rua Achebe: the Man, his Motivations and his Novels" at a Colloquium to Faculty Members and students of the English Department at Midlands Technical College in Columbia, SC, USA, April 15, 1993. (c) "Politeness Strategies as Discourse Management Moves in Christian Sermons" at a Colloquium in the Department of Linguistics, University of Ghana, Legon on 25th May, 1994.

Public Lectures

Professor L.A. Boadi delivered the 27th J.B. Danquah Memorial Lectures in Accra from 22 to 24 February, 1994. His theme for the three lectures was "Linguistic Barriers to Communication in the Modern World."

Visit

In November, 1993 Professor Lars Hellan of the Linguistics Department, University of Trondheim, visited the Department and gave a seminar. His subject was "The Architecture of Grammar."

Publications

Dzameshie, A.K.

"The Use of Politeness Strategies as Solidarity and Difference Moves in Christian Sermonic Discourse." *The SECOL Review*, 17. (1993), 113-126.

Anyidoho, L.A. (Mrs.)

"Gender and Verbal Art: The Case of the Akan." In Robin Queen and Rusty Barrett (eds.). *Proceedings of the First Annual Symposium about Language and Society*, Texas, *Linguistic Forum* 33 (1993), 222-233.

Tradition and Innovation in Nwonkoro: an Akan Funeral Verbal Genre" *Research in African Literatures*, 25, 3 (1994) 141-159.

Stylistic Features of Nwonkoro." Kwesi Yankah (ed) *Text: An Interdisciplinary Journal for the Study of Discourse* (Special Issue on Africa) Forthcoming.

Department of Modern Languages

There were 26 lecturers for a total of 630 students. The Department continues to offer courses at the undergraduate and postgraduate levels to students in the various languages as follows (i.e. Levels 100, 200, 300 and 400).

French	- 266
French (M.Phil)	2
Spanish	69
Russian	92
Arabic	- 111
Swahili	90

Research

Research work went on in most of the Language Sections during the year under review. Among the research projects are the following:

Dr. Mohammed S. Saeed	The Influence of Arabic on Wale.
Dr. J.J. Achiriga	Politics in A Cesaire's <i>Une Saison au Congo</i>
Dr. K.A. Bilson	Metaphoric Models and Inner-Speech Form in Russian
Mr. F.A. Acqaye	Language and Politics: The Kiswahili Experience
Prof. K. Britwum	Politics and the Contemporary Franco-Phone African Novel.

Conferences

Dr. V.A.O. Lamptey	Read a paper, "Critical Thoughts on Afro-Hispanic Literature from the Anglophone Perspective," at a UNESCO-sponsored Conference held at the University of Alcala, Spain, May-June, 1994.
Prof. K. Britwum	Read a paper, "Colonial Discourse, Geography and Politics in A. Fantoure's <i>Le Cercle des Tropiques</i> ," at the 20th Annual Conference of the African Literature Association of America held at Accra, 28th March - 2nd April, 1994.

Benefactions

The Spanish Section received books and magazines from the Spanish Embassy.

The Supreme Council for Islamic Culture and Research refitted one office for the use of the Coordinator of the Arabic Section.

The French government is still the Department's principal benefactor. Last summer it offered 2 short-term Research Fellowships tenable in France to two members of the French Section. It has also granted scholarships to two Ghanaian Lecturers of the French Section who are currently studying in France for the PhD. In addition to providing 2 French Lecturers for language teaching at the Department and in the Department's French Outreach Programme, the French government continues to donate to the Department books, periodicals and various equipment for teaching and research.

Department for the Study of Religions

Staffing

The number of academic staff during the 1993/94 academic year was eight. Four Teaching Assistants helped with the Levels 200, 001 and 041 tutorials. The support staff was three. The student numbers both at the undergraduate and graduate levels increased and this was a clear indication that the departmental establishment of nine academic staff was not adequate. The

Department continued to request for an increase in its establishment. Two of its former graduate students applied for lectureship in the department. It is hoped that their applications will be considered as soon as possible.

Students

A total of 375 students pursued courses in the Department. The breakdown was as follows:

Level 200	213
Level 300	76
BA Part II	42
MA/MPhil I	8
MA/MPhil II	8
Level 001	14
Diploma II	14

Extension Work

Faculty members of the Department continued to engage in a variety of extra-curricula activities both within and outside the University. The Department was represented on Ghana Broadcasting Corporation Advisory Committee. Some members taught courses for the Degree Division of the Institute of Adult Education; others helped with the teaching at Trinity College, Legon and St. Paul's Catholic Seminary, Sowutuom. The Clergy in the Department had pastored oversight of university community congregations as well as some in town.

As usual, the Department co-ordinated the University of Ghana Special Relations Schemes with five Seminaries, namely

- 1) Trinity College, Legon
- 2) St. Victor's Major Seminary, Tamale
- 3) Christian Service College, Kumasi
- 4) Baptist Seminary Abuakwa, Kumasi
- 5) St. Peter's Major Seminary, Pedu, Cape Coast.

Conferences, Seminars and Workshops

Braimah, B.A.R.

A Joint Round Table Workshop on Religion and Politics organised jointly by Konrad Adenauer Foundation and the University of Ghana Legon. 10th August, 1994. Read paper on *Religion and Culture*.

Seminar on *Religion and Politics* as a member of the organising committee and as Chairman and Moderator. Legon. 17th-19th October, 1994.

Amoah, Elizabeth

Consultation on "Democratisation and Development, organised jointly by All African Conference of Churches and the World Council of Churches, Nairobi. 1st-5th August, 1994. Read paper "Times of Crises, a Theological Reflection on the Book of Habakuk on the African Situation".

Workshop on "A Spirituality of Life: Women Struggling against Violence" An International Dialogue between First World and Third World "Theological Reflections on Militarism".

Christianity In Africa Project - West African Conference, Accra, 12th-16th Sept., 1994.

- Dovlo, Elom
- "Christianity and Nation Building in Ghana: Religious Perspectives".
- i. Ghana Conference - GIMPA, May 20th, 1994
 - ii. West African Conference: Hotel de Joko, 14th-18th Sept., 1994.
- Organizers: Christianity in Africa Project. (Edinburgh University, Akrofi-Christaller Memorial Centre, Ghana; Fourah Bay College, Sierra Leone).
- "Religion, Culture and Pluralism." Round Table Workshop on Religion and Politics in Ghana. Organizers: Konrad Adenauer Foundation and University of Ghana. 10th August, 1994.
- "Religion and Politics: The Role of Religious Bodies in Ghana's Political Development Process." (Keynote Address). Joint Seminar on Religion and Politics. Organizers: University of Ghana and Konrad Adenauer Foundation . 17th-19th October, 1994.
- Quarshie, B.Y.
- Abokobi Society of Switzerland Consultation/Seminar on some Presbyterian Church of Ghana Agricultural Projects: (Switzerland, 9th-30th Nov., 1993).
- 1st Presbyterian Church of Ghana Consultation on Evangelism (Ramseyer Training Centre, Abetifi, 1st-4th March, 1994).
- Presbyterian Women's Centre, Abokobi, Seminar on "Women and Empowerment" (Abokobi, 9th-13th March, 1994). Presented a paper on "Men, Women and God: A Theological perspective on Gender Relations."
- Christianity In Africa Project National Conference on "The Role of Christianity in Nation-Building in Ghana Historical, Religious and Theological Perspective" (GIMPA, 19th-21st May, 1994).
- Christian Council of Ghana Seminar for Church Leaders on "The Church, Ethnicity and Democracy in Ghana" (Osu, 28th July, 1994).
- Akrofi-Christaller Memorial Centre for Mission Research and Applied Theology, Akropong, 4th Presbyterian Church of Ghana Pastors Mission Workshop on "Exporting the Reformed Tradition: the Centrality of the Word of God" (Akropong, 25th-29th July, 1994). Presented a paper on "Jesus as Preacher."
- Ammah, Rabbiatu
- Seminar organised by Programme for Christian Muslim Relations in Africa (PROCURA) at Abokobi, Sept., 1993. Presented a paper on "The Status of Women in Islam".
- Conference organised by Circle of African Women in Theology at Abokobi. Dec., 1993. Presented a paper on "The Islamic Understanding of Creation: The Place of Woman".

Ganusah ,Rebecca Consultation on "Democratization And Development": Nairobi, Kenya (1st-5th Aug., 1994). held by All African Conference of Churches and World Council of Churches. Paper presented: "Social Integration and Social Development in Contemporary Africa: A Christian Theological Perspective."
 Christianity In Africa Project: West Africa Conference (12th-16th Sept., 1994).
 Symposium on Culture of Violence: 5th-7th Dec., 1994. Held by Chaplains and Imams of the Ghana Armed Forces, Burma Hall. Paper presented "Violence: A Christian Viewpoint.

Research and Projects

Amoah, Elizabeth Working on A Directory of Religious groupings in Ghana.

Publications - Articles

Amoah, Elizabeth "Sacrifice and Taboos" in *Dictionary of Feminist Theologies* Westminster/John Knox Press (forthcoming).

"African Theology - Feminist Perspective" in *Encyclopaedia of Religion in Africa* (forthcoming).

Dovlo, Elom "The Evangelical Presbyterian Church West of the Volta River", in *The Trinty Journal of Church and Theology*, Vol. 3 No. Dec., 1993, pp. 36-46.

"Religious Pluralism and Nation Building in West Africa." In *The Trinity Journal of Church and Theology*, Vol.4 No. June, 1994. pp.10-19.

Quarshie, B.Y. "St. Paul and the Contextualization Imperative: The Christian Faith, Religion and Culture", *Trinity Journal of Church and Theology*, Vol.3, No.2, Dec., 1993, pp.1-16.

"The Role of Religion in Nation-Building in West Africa: An Overview of some Areas of Concern", *Trinity Journal of Church and Theology*, Vol.4, No.1, June, 1994, pp.20-30.

Ammah, Rabbiatu "Muslim Women and Culture". in *Culture, Women and Theology* ed. John Pobee, Delhi, I.S.P.C.K., 1994.

Ofosu-Adutwum "The Old Testament and Nation Building", in *Trinity Journal of Church and Theology*, Vol.4, No.1, June, 1994. Trinity College, Legon, pp.1-9.

"Batch in the Old Testament," *Legon Journal of the Humanities*, Vol.vii, 1994 pp.73-93.

Ganusah, Rebecca "Widowhood Beliefs And Practices Of The Avatime: Viewed from A Christian, Philosophical And Ethical Perspective."
 "Circle of Concerned African Women Theologians", World Council of Churches, Box 2100, 1211, Geneva, Switzerland. (forthcoming).

"Teenage Pregnancy, Puberty Rites And The Church in Ghana." *Trinity Journal of Church And Theology*. (forthcoming).

"Social Integration And Social Development In Contemporary Africa: A Christian Theological Perspective." c/o All Africa Conference Of Churches Publications (forthcoming).

Benefactions

In April, 1994, the Department received a Cheque for £5,000 being the grant for desktop publishing equipment for the use of the Department and Trinity College, Legon. So far, two Computers, two Printers and One UPS have been bought and installed in the Department.

Appointment

Rev. Dr. Ofosu-Adutwum has been appointed the Synod Clerk of the Presbyterian Church of Ghana. He will leave the Department at the end of the first semester of the 1994-95 academic year.

Death

At the end of 1994, the Department lost Prof. Emeritus C.G. Baeta, the first African Head of Department.

School of Performing Arts

General Overview

The School of Performing Arts still operated under the Faculty of Arts of the University of Ghana. The inadequate accommodation facilities at the School are shared by five (5) different units, namely: Music Department, Drama Section, Dance Section, Abibigromma Theatre Company and Ghana Dance Ensemble of the Institute of African Studies. The School's main laboratory, The Drama Studio, is shared by the School, the University Community, and outside groups.

Under these extreme conditions of congestion, the School's training programme strives to provide a core of courses based on the three (3) disciplines of Drama, Music and Dance. Music offers undergraduate and post-graduate courses while Drama offers only undergraduate courses, but Drama is drawing up course schedules for M.Phil and MFA (Master of Fine Arts) programmes. Dance has got approval to mount a BA degree programme and this will be started in the 1995-96 academic year. The School also provides opportunities for the training of occasional students, both Ghanaian and Non-Ghanaian.

The School's work for the year under the review has received quite a favourable reception from many quarters and there is a general recognition of the productivity of the efforts of the School.

Department of Theatre Arts

Courses Taught

The Drama Section offered Programmes leading to the award of BA in Drama and Theatre Studies, and a 3-year Diploma in Drama. Programmes at both levels covered a wide range of academic and practical courses including:

Play Analysis and Interpretation
 History of the Theatre
 Dramatic Theory and Criticism
 Performing Arts in Traditional African Cultures
 Drama in African Societies
 Contemporary African and Modern Drama
 African Plays and Playwrights
 Radio, TV and Film
 Speech

The Theatre Arts

Costumes, Set, Lighting Design, Stage Craft, Stage Lighting)
 Acting
 Drama in Education
 Theatre For Extension Communication (T.E.C.)
 Playwrighting
 Directing
 Production Participation
 Theatre Lab.
 The Body and Voice

Student Population Distribution

F.U.E.	66
BA Part I	26
BA Part 2	35
Diploma Part 1	24
Diploma Part 2	22
Diploma Part 3	19

In addition courses were offered to Occasional Students from Europe, USA, Asia and other African countries.

Publications

Arkhurst, S	Communication: Preparing Stories and Scripts for Selected Target Groups. Traditional Customs likely to have effect on Water and Sanitation Project. Grassroot Communication for Rural Development: Folk Theatre Medium. Code of Conduct in Development Communication: DO'S and DONT'S. Communication Resources and Infrastructure in Ghana.
Owusu, M.	From myth to the stage: Creative Options for the Playwrights. Production of "The Story Ananse Told" (Video Documentation). Production of "Python" (Video Documentation). Africa: A Choreo-Poem.

Extension and other Activities

The Drama Section jointly and severally undertook several important extension activities including outreach programmes like The Theatre Season in collaboration with the National Theatre, Theatre for Development, Play productions, Drama in Education and Scenic design for the National Theatre.

Dance Section

During the 1993/94 academic session the Dance Section was made up of three Senior Lecturers and one Lecturer. One Senior Lecturer was on Sabbatical Leave.

Courses

Courses offered in the Dance Section were in the following areas:

- Dance in World Culture
- Dance as Theatre Art
- Dance Notation and Documentation
- Dance as Aesthetic Activity
- Anatomy and Phystology for the Dancer
- Traditional Dance and Music Performance
- Dance/Movement Technique

Students

Number of students who took courses in dance was 108. The breakdown was as follows:

Diploma in Dance I	5
Diploma in Dance II	8
Diploma in Dance III	6
Diploma in Drama I	22
Diploma in Drama II	21
BA (Drama) Part II	1
Exchange American Students	45

Publications

Adinku, W. Ofotsu 1994	African Dance Education in Ghana, Accra, Ghana Universities Press.
Kwakwa, P.A. 1994	"African Dance and Women" Sage Atlanta, Georgia Vol.8 No.2
Newman, S.A. August 1994	"Dance In African Worship" In Step Magazine Australia, ICDF.

Research Activities

The following research activities were undertaken during the 1993/94 academic session:	
Adinku, W. Ofotsu	Dance in Secondary School Education.
Kwakwa, P.A.	Compiling and annotating video recordings on traditional African dance and music.
Newman, S.A.	Dance in Christian Worship in Africa. Development of African-derived movements for dance technique.

Workshops/Conference

Mr. S.A. Newman attended two workshops on dance in Christian Worship in Bali, Indonesia and York, United Kingdom during the session.

Extension Activities

The Dance Section, over the years, initiated traditional dance teaching programmes in some selected primary and secondary schools in the Accra Metropolitan area. During the 1993/94 academic year pupils and students of "Look and Learn" nursery school at Dome and Achimota Secondary School benefitted from the Section's extension programmes. Mrs. Abloso, Principal Production Assistant carried out instructions. She was assisted by Miss Marian Amekudi and Mr. Kafui Gbewonyo, both National Service Personnel.

Department of Music

With the appointment during the year of Dr. N. Flagbedzi, the teaching staff position of the Department stood at 10. Out of this, Dr. S.D. Aslana and Mr. M.O. Okra were on part time. Prof. Catherine Melhorn and Mr. Kay Stonefelt who were Visiting Fulbright Research Scholars from Mount Holyoke College Massachusetts and Indiana University respectively have both left at the end of their stay, leaving eight at post. Miss Stella Agra, Mr. Clemence Kosi Adom and Alex Kwabla were appointed as National Service personnel.

Courses Taught

The Department offered all its approved academic courses during the year. The individual courses and the student population distribution were:

F.U.E.	3
B.A./B.Mus Part I	2
M.A. (Musicology)	1
M.Phil Part I	3
M.Phil Part II	1
Diploma in General Music Part I	10
Diploma in General Music Part II	5
Diploma in General Music Part III	11
Diploma in African Music Part I	2
Diploma in African Music Part II	4

Extension and Other Activities

The Department continued its "Growing with Music" outreach programme in which young children from the University community received weekly lessons on piano and "atenteben" playing. Owing to the disruption of the academic year, it was not possible to organise the usual annual concert of piano, "atenteben" and choral music.

Dr. Melhorn conducted a two-day mini-workshop on Fundamentals of Choral and Instrumental Conducting to students and the general public.

Dr. Willie Anku participated in a two-day conference on African Music: Traditions and Innovations sponsored by United States Information Service at the Martin Luther King Jr. Library in Accra.

Under the baton of Dr. Catherine Melhorn, the Department of Music together with a guest choir from the University College of Music Education and the National Symphony Orchestra, Accra presented the performance of Vivadi's *Gloria* to the University community at the Drama Studio, Legon.

At a choral concert, the Department featured its Departmental choir, the choir of the E.P. Church, Ho, and the Mawuli Estate Choir in a joint performance of original compositions by Dr. Gyimah Labi, Messrs. C.K. Adom and Moses K. Gbagbo Lecturer and M.Phil students of the Department.

Likewise the Department performed Mauder's oratorio *Olivet to Calvary* for its usual Easter concert.

Research Activities of Staff

Staff of the Department were involved in research in various areas. These include:

Formal structure in African and Western Music.

Piano compositions by Nigerian and Ghanaian composers.

Ghanaian Folk songs and Instruments and their Bearing on

Contemporary Music Education

Choral conducting in Ghana.

Music and Dance Traditions of the Akamba of Kitui District, Kenya.

Publication

Labi, Gyima "Five Dialects in African Pianism" Accra: Afram Publishers Inc. for ICAMD ISBN: 9964-70-1462. Also available on Cassette (released by City Rock., Accra).

Conferences

Flagbedzi, N. Attended a UNESCO conference of Representatives of Musical Institutions in Africa in Niamey, Niger, in December, 1994.

Labi, Gyima Participated in a mini-conference on Africa in the Wider World of Music and Dance organised by the International Center for African Music and Dance, Department of Music, School of Performing Arts, Legon.

FACULTY OF LAW

Overview

The Faculty continued to function satisfactorily during the 1993/94 academic year. Recent improvements in the arrangements for quality of teaching and research were maintained. The physical plant of the Faculty remains in an unsatisfactory state of repair while the urgent need to expand the Library and update its collection especially of Journals remained.

Academic Programme

Admission

83 students including mature students were admitted for F.U.E. during 1993/94 academic year. 40 out of the number were selected to read for the LL.B degree course whilst 15 were selected to read for B.A. with Law. Selection into the streams was based on the students' performance in the F.U.E.

BA/LLB Programme

In the June 1993/94 examinations, of the 41 students presented for the LLB, 10 obtained 2nd Class Upper Division and 30 obtained 2nd Class Lower division.

Staff

1. Prof. A. Sawyerr is on leave.
2. Dr. E.N.A. Kotey went on the Legon/Leiden programme
3. Ms. Johanna left for the United States to do further graduate work at Harvard University.
4. Dr. E.V.O. Dankwa was promoted Associate Professor.

Publications

Mensa-Bonsu, H.J.A.N. and
Dowuona-Hammond, C. (eds.)

"The Common Legal Problems of the Child in the Legal Aid Clinic" in *The Rights of The Child in Ghana Perspective* pp.53-59 Woeli Publishing Services, Accra 1994.
The Constitutional Provisions of the Fourth Republic The Tasks Ahead ibid pp. 59-66.

Kuenyehia, Akua

Regional Enforcement of Women's Human Rights: The African System pages 95-99 - *Claiming One Place: Working The Human Rights System to Women's Advantage*: Ed. Margaret Schuler published by Institute for Women Law and Development.

The Impact of Structural Adjustment Policies on the Human Rights of Women: The Ghanaian Example: Human Rights of Women: Ed. Rebecca Cook, University of Pennsylvania Press 1994, pp.422-436.

Seminar and Conference Papers

Law and Family Life in Ghana - Seminar organised by Presby Women's Fellowship on Marriage, Divorce and Remarriage and Children in Ghana Abokobi - April 1994.

- Legal Aid and Services to Poor and Low Income Women under FIDA Ghana Programme Seminar on Poverty organised by the Conferences and Research Committee of the University of Ghana - September-October 1994.
- Organising for Women's Rights - The experience of Women, Law and Development in Africa - Conference organised by the Institute for Women, Law and Development. There from the Basic Needs to Basic Rights Kuala Lumpur, Malaysia - September-October 1993.
- Mensah Bonsu, H.J.A.N. (Mrs.) The Annotated Criminal Code of Ghana Black Mask 1994.
- The Rights of the Child in Ghana Perspectives (Edited with C. Dowuona-Hammond) Woelt, 1994.
- "Aids? The Ghana Legal System has "AID" (Inter-Faculty Lecture)
- The Child with the Ghanaian Family - A Legal Perspective (FADEP) Ghana Universities Press 1994.
- "Protecting the Child Through Criminal Legislation in *The Rights of the Child in Ghana* Woelt, 1994.
- Sarpong, G.A. "Enforcement of Economic, Social and Cultural Rights by Non-Governmental Organisations: Some Reflections." (Paper prepared for NGO Seminar, University of Nigeria, Enugu Campus (July 1994) organised under the auspices of Social Sciences Research Council, USA. Accepted for publication in Vol. 18 *REVIEW OF GHANA LAW*
- "From Stockholm to Rio: Some Ghanaian Responses to the Problems of the Environment." (Inter-Faculty Lecture, May 1994). Accepted for publication in Vol.19 *UNIVERSITY OF GHANA LAW JOURNAL*

FACULTY OF SCIENCE

State of the Faculty

The 1993/94 academic year started with the second batch of the Level 200 students on the new course structure. In all about 180 students were registered in the four major areas of Mathematical Science, Physical Science, Earth Science and Biological Science, out of a total of more than 320 who were originally offered admission.

At the end of November, the former Dean, Prof. M. Dakubu, retired from the Deanship after two consecutive terms of three years each. He however agreed to help in gradually handing over to the new Dean, Prof. Ivan Addae-Mensah, who therefore eventually assumed full duty from January, 1994.

The Faculty, like other Faculties and Institutes of the University, has been operating under extremely difficult circumstances during the recent past, and this year has been no exception. Whereas costs have been rising astronomically, subventions have not risen commensurately to match up. Hence most departments have found it extremely difficult to meet their normal teaching obligations. All indications are that the financial and other constraints under which the Faculty has been operating, have got worse. Resources that would normally be barely adequate to run the Faculty for just about two months, had to be stretched to cover the whole year.

Strategic Plan

Last year, the Faculty, in line with current University policy, produced a comprehensive strategic plan forming part of a general University Strategic Plan. The plan outlines the Faculty's goals up to the year 2000. Aspects of the plan are already being implemented. The Faculty is considering launching its own Endowment Fund within the framework of the University plan, so as to be able to carry out certain rehabilitation projects on some of its equipment and infrastructure.

Development Projects

Last year, the Faculty was placed on the Government's plan for certain projects in line with the Tertiary Education Reform Programme. Several departments were to benefit from equipment and building grants from the World Bank and the African Development Bank. Although almost all departments affected sent all the requisite information to the Ministry for processing, there have been some delays in implementation. As of now, the following projects have either started, or are about to take off.

- (i) The African Development Bank (ADB) loan for the completion of the Chemistry Building is in the process of being disbursed. State Construction Corporation (SCC), the contractors, have re-entered the site to work. Unfortunately, because the loan of \$1.5 million falls far short of actual cost, several cuts in the facilities have had to be made. Completion date is set 24 months after commencement of work, i.e. July 1996.
- (ii) The ADB Equipment loan to Chemistry has also been processed. It is expected that contracts will soon be awarded.
- (iii) The World Bank-Financed rehabilitation of the Mathematics building and the construction of the Statistics Building, are also due to commence. Work was due to start by August, 1994.
- (iv) Unfortunately, the World Bank Equipment loan programme, from which most departments were to benefit except Chemistry, has been beset with many delays due to the *modus operandi* of the World Bank. The Faculty's projections therefore are that no equipment is likely to come in within the next 18 months from this facility.

Staffing

The position slightly improved last year, with a number of departments recruiting Ghanaians working abroad who decided to return home. However, departments such as Oceanography and Fisheries, Computer Science, Mathematics and Statistics, continue to experience serious staff constraints, in the face of increasing student numbers. The Faculty must therefore view with concern, the decision by the Ministry of Education to adopt a new system of determining departmental establishments which, short of meeting the needs of the envisaged large increase in student population, has actually led to a cut in the current establishment of most departments. The University needs to look seriously at this situation, discuss it with Government, so as to avoid sinking further, the low morale of the overworked and grossly underpaid staff of the Faculty. For a Faculty in which much of the work involves several hours of practicals and fieldwork, it is imperative that staff strength be increased before the pressure of student number increase sets in.

One worrying factor in our staffing position is the average age of the staff. Over 60% of the staff is over 40 years. Very soon many will be retiring. Prospects of replacement with younger blood don't look very encouraging.

Promotions

This academic year, the Faculty has done very well in its staff promotions. There have been two Full professorship, three Associate Professorship and several senior lectureship promotions in the last twelve months. A few more professorial and senior lectureship promotions are also expected to go through within the next few months.

Research/Conference/Publications

Research in the faculty is showing an upward trend despite all the serious constraints various departments face. Several departments have successfully negotiated fruitful links with a number of external universities and research Institutes to their mutual benefit. Institutions that currently fund research or have links with various departments include NUFU, TWAS, DANIDA of Denmark, IDRC of Canada, the Missouri Botanical Gardens of USA, and a number of Universities in especially the Scandinavian countries. Locally, help has been obtained from NCR, ASTEK, SHELL Foundation, as well as individuals who have instituted various scholarships for postgraduate work.

The Faculty's major problem is access to current journals, which makes research work extremely difficult. Most departments are up to ten years behind schedule in very essential journals. Departments are therefore trying to use personal and other contacts to obtain back-copies of journals where possible. Meanwhile, the journal subscriptions obtained through World Bank assistance have begun to arrive. But like all foreign aid packages, what happens when the 4-year period expires? How do we sustain these journal subscriptions? Do we go back to square one? These are pertinent questions that need to be addressed.

There is the need therefore for the Faculty to answer positively the call for revival of our local journals, particularly the *Ghana Journal of Science*, to serve as an avenue for publication especially for the younger lecturers. Fortunately, the Faculty has agreed to contribute an amount of ₵500,000 towards the clearing of the backlog of the *Ghana Journal of Science* and subsequent issues of the journal. Research programmes of individual departments are as outlined in the individual departmental reports.

The Annual Faculty Colloquium

The Faculty Colloquium, instituted six years ago to serve as an avenue for faculty members to know what their colleagues are doing in the various departments, and to offer an opportunity for research results to be presented and discussed within the faculty, in order to stimulate further research, continues to grow in importance. The colloquium is also an opportunity for

the Faculty to take an annual stock of itself. The 1993/94 colloquium was sponsored generously by the following organisations and individuals:

Akuaba Ltd.

Mr. A.V. Obeng of FAO

Labora Ltd.

Paracelsus Pharmacy & Marketing Limited

Kankam Da Costa Forex Bureau

Anonymous donor

Mr. Ben Klu

MES Equipment

Ghana Bottling Company

ABC Brewery

Technolink Ltd.

African Concrete Products

DHL has also promised to contribute towards publication of the proceedings. Our sincere thanks go to them all for their kind gesture.

Extension/Outreach

Senior members of the Faculty have continued to serve on several local and international bodies, offering consultancy, technical and professional advice. Prof. D.A. Akyeampong (Mathematics), former Pro-Vice-Chancellor, was elected Fellow of the Third World Academy of Sciences and a Member of the Executive Board of the International Council of Scientific Unions (ICSU). Prof. Laing serves as Secretary of COSTED/ICSU. Prof. Ivan Addae-Mensah continued to serve as a Member of the W.H.O. Expert Advisory Panel of the International Pharmacopoeia.

Members continued to serve in various capacities for the West African Examinations Council, and as External Examiners for Universities in and outside Ghana.

Through the initiative of some members of the Faculty, a series of TV programmes in Mathematics, Physics and Chemistry for Secondary Schools was started by the GBC. The future of this programme however seems to be in danger for lack of sustained sponsorship. However, the Unilever-sponsored Science and Mathematics quiz programme, initiated and run by members of this Faculty, has caught on very well with the general public, and seems to be assured of a future.

A number of Faculty members have been involved in the preparation of textbooks and implementation of the new educational reform programmes.

Several International Workshops have been organised by various departments, including the Biochemistry and Molecular Biology Workshop by the Biochemistry Department in collaboration with Pennsylvania State University, USA the IOCD-sponsored bioassay techniques Workshop by Chemistry and Biochemistry, various food-processing workshops by Nutrition and Food Science Department, and Industrial and Artisanal training for food processing industries and rural women also by Nutrition and Food Science.

The Department of Nutrition and Food Science continues to be a Centre of Excellence of the United Nations University. The Ghana Herbarium at the Botany Department continues to offer services on plant identification to Government and research institutions and the general public. The Botanical Gardens, however, seems to be developing more into a Sanctuary for spiritual upliftment, rather than a haven for serious scientific research. The Faculty needs to take a long and sober look at the garden, to see how best it can be developed to serve the many purposes for which it was created, including education, research, leisure, and moral and spiritual inner-satisfaction.

The Zoology Department's programme with the Museum of Zoology, University of Bergen, and the Institute of Aquatic Biology (CSIR), to study freshwater entomology in Ghana, has taken

off, and so has the African Regional Post Graduate Programme In Insect Science (ARPPIS) of the International Centre for Insect Physiology and Ecology, jointly run by Zoology and Crop Science.

Geology and Chemistry departments continued to provide services to the mining industry. With Ghana selected as the next venue for the 6th International Chemistry Conference in Africa (6th ICCA) in 1995, the Chemistry and Biochemistry departments are intimately involved in planning this conference.

Prof. C.J. Vanderpuye, Head of the Department of Oceanography and Fisheries, has been appointed Chairman of the Fisheries Commission.

Department of Botany

Staffing Position

Prof. G.T. Odamtten returned from Sabbatical Leave.

Courses and Student Numbers

Level 100 Biology group	294
Level 200	220
Level 300	12
Level 400	5
M.Phil I	7
M.Phil II	9
Ph.D	2

Research Activities

Individual Researches

Laing, E.	Genetics and heritability of Cowpeas (<i>Vigna unguiculata</i>).
Clerk, G.C.	Development of Rhizobium-carriers for bio-fertilization.
Odamtten, G.T.	Post-harvest storage pathology of economic crops
Oteng-Yeboah, A.A	Biodiversity studies
Enu-Kwesi, L.	Antecology of some timber tree species in Ghana.
Jumah, A.H.	Genetics of nodulation in the Cowpea. Studies on the morphology of pollen flora in Ghana Revegetation project on disturbed areas of the Teberebie Gold Fields.
Markwei, C.M.	Semiochemicals in okro Nodulation in some legume trees used in agroforestry. Effect of UV-radiation on growth of some indigenous forest tree seedlings.
Acheampong, E.A.	<i>In vitro</i> multiplication of plantain, cocoyam and other root tubers.
Ameka, G.K.	Ecology of aquatic macrophytes.
Yankson, Mary F.	Regeneration of some ornamental plants: <i>Bougainvillea</i> and <i>Ixora</i> spp.
Amoah, C.M.	Biological components of sewage. Appropriate sewage treatment technology and effluent standards for Ghana.
Adomako, J.K.	Field and laboratory studies on the regeneration of <i>Piptadeniastrum africanum</i> .

Group Researches

- G.C. Clerk, Odamtten, G.T and Allotey, J.
Oteng-Yeboah, A.A. and Enu-Kwesi, L
Maize Stackburn in Ghana (continuation from 1992/93).
- Oteng-Yeboah, A.A., Enu-Kwesi, L. Abbiw, D.K. and Adomako, J.K.
UNESCO-CIPSEG Northern Ghana (continuation from 1992/93).
Effects of different harvesting practices on biological diversity in selected high forest ecosystems in Ghana (continuation from 1992/93).
- Oteng-Yeboah, A.A., and Jumah, A.H.
Studies of revegetation on disturbed areas of the Teberebie Goldfields.
- Enu-Kwesi, L and others
in PLEC (People, Land and Environment): Project in the Eastern Region.
- Ameka, G.K., Adomako, J.K., de Graft-Johnson, Cheek, M., and Swalne, M.D.
Rheophytes of Ghana.

A survey of rheophytes (plant species of the beds and banks of streams and rivers) of Ghana, began in early 1994. The project is being undertaken by Department of Botany, University of Ghana, Department of Plant Science, University of Aberdeen, Institute of Aquatic Biology and the Royal Botanic Gardens, Kew.

The purpose of the survey is to assess whether rheophytes can be used as indicators of pollution from for example effluents from human settlements and farming activities. An identification guide of Ghanaian rheophytes is to be produced.

Conference Attendance

- Oteng-Yeboah, A.A.
6-17 June 1994. Bulawayo, Zimbabwe. Workshop on Desertification Control for SADC Countries.
26 June - 1 July 1994. Nairobi, Kenya, African Academy of Sciences Symposium
- Oteng-Yeboah, A.A and Abbiw, D.K.
August 1994. Wageningen Netherlands AETFAT Conference.
- Oteng-Yeboah, A.A.
September 1994. Chiang Mai. CIFOR Conference.
- Oteng-Yeboah, A.A. and Adomako, J.K.
November-December 1994. Nassau, Bahamas. 1st Conference of Parties to the Convention on Biological Diversity.
- Enu-Kwesi, L. and Adomako, J.K.
8-17 October 1993. Geneva, Switzerland. ICCBD Meeting on Convention on Biological Diversity.
- Enu-Kwesi, L.
24-28 January 1994. Kumasi, Ghana: Forest Landuse Options: Conflicts and solutions.
25 May 5 June 1994, Chiang Mai, Thailand. UNU, Population, Land and Environment Complex (PLEC) Project General Meeting.

- 26 June - 4 July 1994, Nairobi, Kenya. Earthcare Africa Project Methodology Meeting.
- 24-28 October 1994, Nairobi, Kenya. African Ministerial Conference on the Environment (AMCEN) on the Convention on Biological Diversity.

Publications

Clerk, G.C.

Microbiology: *Ghana National Biodiversity Country Study*. 155pp.

Commissioned by Ministry of Environment, Science and Technology, Ghana. (Participants: Prof. G.C. Clerk, Department of Botany, University of Ghana, Legon; Prof. G.T. Odamtten, Department of Botany, University of Ghana, Legon; Dr. E.K. Collison, Department of Nutrition and Food Science, University of Ghana, Legon. Dr. L.A. Ollenu, Cocoa Research Institute of Ghana, Tafo; Mr. F.O.K. Seku, Department of Botany, University of Ghana, Legon).

This is an account of the viruses, cyanobacteria (blue-green algae) of terrestrial habitats, mycoplasma-like organisms of plants, and bacteria and fungi of the soil and sub-aerial environment of Ghana.

Cyanobacteria of soils, semi-aquatic habitats and concrete structures, tidepools, lagoons and estuaries, mangroves, artificial harbours and salt pans and those in mutualistic associations are distributed among three orders, namely Chamaesiphonales, Chroococcales and Nostocales. The greatest number of species were recorded for the genera *Schizothrix*, *Anabaena* and *Oscillatoria*.

The 180 fully identified bacterial species belonged to mixed microbial communities of the soil and food products and to saprophytic and parasitic flora of animals, human and plants. The Gram-negative facultatively anaerobic rods formed the largest group of 114 species.

The total number of fully identified fungal species and yeasts recorded to far stands at 1,072. They had been isolated from food products, plants, animals, human, wood and wood products. They are distributed among 324 genera; the vast majority belonging to the Higher Fungi. Hundreds of the fungi recorded in Ghana are parasites of plants. In wild plants the fungal diseases are one of the factors that help to maintain the biologic balance. In agriculture, they could determine the success or failure of crops. And, in all the regions of Ghana, fungi have a good deal to do with the quality of the crop harvested.

Viruses are pathogenic agents. Two categories of much concern in Ghana are the viruses which attack human and the viruses of cocoa. Considerable studies have, therefore, been made on the strains of such human viruses as Echovirus, HIV (Human Immunodeficiency Virus), Poliovirus and Coxsackievirus. More than 70 strains of the Cocoa Swollen Shoot Virus have been identified.

The report discussed the economic importance of the microorganisms in Ghana and recommended the direction of future studies on microbial diversity.

Oteng-Yeboah, A.A.

and Enu-Kwesi, L. 1993

Ecological Ethnobotanical, Physiological and Eco-physiological investigations into three traditional groves in Northern Ghana: A baseline study report. 133pp.

A UNESCO-CIPSEG Project commissioned to the Department of Botany, University of Ghana, Legon. With participation from D.K. Abbiw, J.Y. Amponsah, G. Labi (Senior Staff) and Beloved M. Dzomeku, J. Ahedor, S. Boateng and Eunice Osei (graduate students).

The report is on the conduct of ethnobotanical, eco-physiological and other related ecological studies within the defined project sites of three groves situated at Malshegu (West Dagomba District) Tale (Tolon-Kumbungu District) and Yiworgu (Savelugu-Nandom District).

A total of 220 species belonging to 69 angiosperm plant families were encountered. The

grove at Tale showed the highest species diversity of 183 followed by Malshegu, 121 and Yiworgu 108.

Therophyte life forms (i.e. animals) was predominant representing over 50% of the entire life from spectrum in the sites.

The plants from the three groves were noted to account for 14 out of every 18 categories of medicinal uses as per the international classification of Health Problems in Primary Care. Eight non-medicinal use categories were also assembled including food for both human and animal, domestic energy source, crafts, rafters, etc.

All plants showed high to very high rates of transpiration. Four patterns of diurnal transpiration rates were evident.

Oteng-Yeboah, A.A. *Terrestrial Ecological Survey: a report on the Takoradi Thermal Generating Plant*. 37pp. With participation from Dr. S.K. Yeboah, Department of Zoology, UCC, Cape Coast and Mr. David Kpelle, Dept. of Game and Wildlife, Accra. The survey was commissioned by the Volta River Authority with the following objectives:

to provide information on the occurrence and status of the flora and fauna at a site near Aboadze for the proposed Takoradi Thermal Generating Station.

to identify potentially sensitive habitats for rare and/or endangered plant and animal species within the area, and

to recommend methods of mitigation to avoid and/or lessen the potential impacts of the thermal generating project.

The following vegetation zones were identified at the site, namely: Coastal strand, seasonal swamp, grassland and coastal thickets. A total of 34 bird species, six small mammals, three reptiles and one amphibian (frog) were observed in the site. Over 75 flowering plant species, in different life form habits were also observed.

None of the faunal nor floral species recorded in the sites were endangered. In addition, none of the habitats within and without the proposed site were also in danger.

However, the need for adequate precautions to prevent leakage of spillage of discharges from the thermal plant into the surrounding areas, was strongly suggested.

Oteng-Yeboah, A.A. 1994

Plant Ecological Base-line of:

1. Muni-Pomadze Ramsar site 54pp.
2. Sakumo Ramsar site 45pp.
3. Densu-Delta Ramsar 54pp.

All three studies were part of the Ghana Coastal Wetlands Management Project of the Department of Game and Wildlife. The plant ecological base-line studies were to carry out floristic inventories, identifying significant endemic or rare elements, documenting those that are useful for habitat management/enhancement or important to local communities for food, fuel, medicine or other traditional use, providing indications for following studies on key taxa, and outlining a monitoring requirement for rare or threatened taxa.

A total % 133 (Muni-Pomadze), 114 (Sakumo) and 136 (Densu-Delta) flowering plant species were identified. None of the species were found to be endemic to Ghana.

Herbaceous life forms was represented 50 - 60% in life form composition.

The vegetation on the flood plain were distinguished into salt marsh, mangrove swamp and fresh water marsh.

Senecium portulacastrum, *Paspalum vaginatum* and various combinations of *Cyperus Articulatus*, *Sporobolus virginicus* and *Imperata cylindrica* dominated in the flood plain.

Research strategies involving the placing of permanent quadrats in specific locations, and monitoring requirements to ensure that habitat destruction by encroaches is kept to the minimum, were outlined.

Quite a large number of local community derive essential plant materials for various purposes from the sites, despite the encroachment by developers.

Oteng-Yeboah, A.A. 1994

Botany: Ghana National Biodiversity Country Study 143pp.

The study was commissioned by the Ministry of Environment, Science and Technology, Ghana, with contributions from Dr. E.G. Quaye, Department of Botany, UCC, Cape Coast and Mr. D.K. Abbiw, Department of Botany, University of Ghana, Legon.

The study considered the floristic elements of Ghana, the phytogeography of Ghana, the Plants of Economic and Social Values, and the taxonomic impediment in the Ghanaian flora.

A new vision for the extensive study of the Ghanaian flora was advocated. The immediate establishment for a National Herbarium and a National Botanic Garden were recommended. These were to ensure the availability of taxonomists (the main stay of the basic knowledge of a country's biodiversity) and the provision of adequate research knowledge of the Ghanaian indigenous flora and any changes in the Ghanaian floristic landscape.

Department of Chemistry

Student Numbers

The number of students in the Department increased, putting further pressure on the limited facilities at the disposal of the Department. The Department recorded one of its highest number of postgraduate students in recent times, with up to 18 students engaged on M.Phil programmes and one part-time Ph.D. student. Undergraduate student numbers are as below:

Level 200	218
Level 300	24
B.Sc. Part II (old regulations)	20

The Department submitted, as part of its strategic plan, recommendations to the University authorities to meet the envisaged further increase in numbers for the 1994/95 academic year when the first batch of SSS leavers enter the University. Without such measures being put in place, it will be an impossible task for the Department to cope with any further increases in numbers.

Appointments and Resignations

Mr. S. Asunka, on completion of his M.Phil programme, was appointed a teaching assistant pending the commencement of his Ph.D programme during the 1994/95 academic year. Dr. S.O. Ukerun left the Department to return to Nigeria after almost 2 years in the Department.

Research

Research activities in the department continued to increase in pace. The Natural Products group and the Environmental Chemistry group were the most active. The Environmental Chemistry group undertook studies in some of the mining areas including Obuasi and the Tarkwa area. Work on the biogas plant at Appolonia also continued.

A paper presented at the APPAM conference on Essential Oils in Digne-Le-Bains, France, as part of the IDRC-sponsored project involving universities of Benin (Togo), Benin (Republic of Benin), Legon (Ghana) and Quebec (Canada), won first prize at the conference for its scientific content. Prof. Addae-Mensah is the coordinator of the Ghana section of the project which is aimed at creating small enterprises through the development of essential-oil-bearing plants. Collaboration with the Universities of Erlangen and Wurzburg in Germany, the National Cancer Institute and the Missouri Botanical Gardens in the USA, in Natural Products Research, also continued.

Conferences

Members of the Department participated in various national and international conferences.

Asomaning W.A., Oppong I.V., Addae-Mensah I. Attended the annual conference of the Ghana Chemical Society in Cape Coast.

Asomaning W.A. Presented a paper on the Mass Spectra of some novel isoflavones from *Milletta thonningii* and Dr. F.L. Phillips presented a paper on "Teaching with Microcomputers" at the 1994 Faculty of Science Colloquium.

Prof. I. Addae-Mensah attended the annual conference on Essential oils in Digne-les Bains, France and presented a paper.

Dr. C.K. Akpabli attended and presented a paper at the 18th Biennial Conference of Ghana Science Association at Legon.

Dr. C.K. Akpabli attended "International School in Photochemistry" organized by International Centre for Science and High Technology (ICS) in Trieste, Italy.

Dr. C.K. Akpabli attended International Conference on "Lasers in Chemistry", organized by International Centre for Science and High Technology (ICS) and International Centre for Theoretical Physics (ICTP) in Trieste, Italy.

Extension Services

Members of the Department continued to offer consultancy and extension services to various organisations. Drs W.R. Phillips, W.A. Asomaning, C.K. Akpabli and a number of postgraduate students acted as examiners for the West African Examinations Council. Dr. W.A. Asomaning continued to offer services to the Ministry of Education in the Education Reform Programme. He was also one of the consultants on the Brilliant Maths and Science Quiz for Secondary Schools, and the GBC TV Science education programmes. He was also an external Examiner to University of Cape Coast and University of Technology, Kumasi. Dr. D. Carboo and Prof. I. Addae-Mensah assisted the University of Cape Coast in running some of their undergraduate and Postgraduate courses respectively. Members of the Department continued to serve on various National Boards and Committees including committees of the Ghana Standards Board (Drs C.K. Akpabli, D. Carboo and C.T. Beni).

Dr. D. Carboo and others continued to offer consultancy services to the mining companies and other industrial organisations.

Prof. I. Addae-Mensah was re-appointed to serve on the W.H.O. Expert Panel of the International Pharmacopoeia and Pharmaceutical Preparations for another 4 years after an initial six-year stint.

Dr. C.K. Akpabli continued to serve on Interview Panel for the Fulbright Junior Staff Development Program for USIS, Embassy of the United States of America.

Honours

Dr. W.A. Asomaning was inducted as a Fellow of the Ghana Chemical Society during its annual conference in Cape Coast.

Dr. C.K. Akpabli (chosen by the class of 1999) has been awarded the Best Lecturer Award for the 1993/94 Academic Year by University of Ghana Medical School Students' Association.

Visitors

Visitors to the Department included Dr. Michael Bassegy of IDRC, Dakar, and Prof. F.X. Garneau of University of Quebec, Chicoutimi, Canada, to hold consultations on the IDRC-sponsored Essential Oil project in which the Department is involved.

Publications

The following are some of the publications and conference presentations of members of the Department during 1993/94.

Addae-Mensah I.

The Potential for Commercialisation of three African *Lippia* species as sources of Essential Oils for Perfumery and Medicinal Purposes.

Proceedings of the Colloquium "Valorisation de la Biomasse Vegetale par Les Produits Naturels", University of Quebec, Chicoutimi August 1993 (with J.W. Mwangi, R.M. Munavu and L. Liwande).

L'anilpe Chimique d'Huiles Essentielles de Plantes Aromatiques Du Togo-Benin-Ghana.

Actes des 13^{èmes} Journées Internationales Huiles Essentielles (Digne les Bains). *Rivista Italiana EPPOS*. (1994) pp. 338-351 (1994) (with K.H. Koumaglo, M. Moudachirou, F.X. Garneau, H. Gagnon and F.I. Jean).

Antimicrobial Activity of Essential Oil of *Lippia* species.

Discovery and Innovation Vol.6. No.1 (1994) (with J.W. Mwangi, E.W. Njonge, R. Munavu and W. Liwande).

C.K. Akpabli

"Aggregate Formation by Cyanine Dyes: Influence of Substrate, Medium, and Effect of Concentration on the Electronic Spectra of Cyanine Dyes", paper presented at the 18th Biennial Conference of Ghana Science Association and accepted for publication in a refereed Conference Proceedings, 1994.

"Studies on Lindane Residues in a Maize Ecosystem", a joint paper with Yeboah, P.O.; Klake, R.K.; and Montford, K.; 3rd FAO/IAEA Research Coordination Meeting on Adverse Effect on Flora and Fauna from the use of Organochlorine Pesticides on the African Continent, Uppsala Sweden, October, 1993.

Asomaning W.A., Oppong I.V., Phillips W.R.,

Amoako C.A. and Addae-Mensah I.

"Mass Spectra of some Isoflavones", *Ghana Journal of Chemistry*, 1 (10) 445-451, 1994

Department of Computer Science

Overview

The Department of Computer Science continues its unsteady existence with the barest minimum of staff and equipment, and a continuing pressure from more and more students to register for computer science programmes and courses.

The equipment we received last year from the Project Management Unit of the Ministry of Education are still not fully operational. The suppliers of the equipment, International Computers Limited (of Reiss & Co., Ghana Ltd) have still not installed the systems software that would enable the UNIX and DOS-based systems to communicate. ICL have assured us that the installation will soon be completed, but it is not at all certain how "soon" this will be.

The department needs more machines. It is our hope that the requests made in our 1995 budget will be approved and funded, otherwise we shall have to continue turning away large numbers of students.

Student Numbers

	1992/93		1993/94		1994/95	
Level 200: B.A.	10		12		14	
BSc.	41	51	41	53	37	51
Level 300: B.A.	7		10			
BSc.	18	25	33	43	36	46
Level 400: B.A.	10		5		10	
BSc.	22	32	17	22	31	41
Total	108		118		138	
Service Courses					88	

The increasing trend in total enrolment is clear.

Graduates

	1993	1994
First Class Honours	1	5
Second Class Upper	5	4
Second Class Lower	20	11
Third Class	6	
Pass		
Total	32	21

Staff

Mrs. Caroline D. Kitcher, the longest serving lecturer in the department was granted a year's leave of absence without pay. She is expected back at the end of this year.

Currently, the teaching staff are:

Full-Time: Mr. Isaac Odoom	Lecturer
Mr. Mohammed S. Abdulai -	Lecturer
Dr. K.A. Owusu-Ansah	Department of Physics
Part-Time: Mr. K.A. Debrah	Bank of Ghana
Mr. J.A. Aryeetey	W.A.E.C.

and Four Teaching Assistants.

Research and Extension Activities

Mr. Mohammed-Saani Abdulai is co-ordinating a number of student projects on Information Systems for

the Academic Office

the Personnel Section of the Central Administration, and

the University Hospital

Mr. Isaac Odoom presented a paper, at the 6th Faculty of Science Colloquium, in July 1994, on "A Students-Records System" which he has designed for teaching departments and Faculty Offices.

Mr. Odoom will this year instal the system at the Department of Computer Science and at

the office of the Dean of Science.

Donations

The department has just received a generous donation of over 50 books through the Head of Chancery at the Ghana High Commission in Canada. The books were delivered to the Department by Mr. Joseph Y. Aboagye of the Minerals Commission.

The British Council Library continues to support the department with donations of back copies of some current journals.

The department is grateful for these gifts.

Department of Mathematics

Staffing Position

There was no improvement in the staffing position in the Department during the year under review, with only three Senior Members at post. One Teaching Assistant, Daniel Adjetej Sowah, and four National Service personnel (David Odoom, A. Toporira, J. Yartey and Twumasi Ankrah) helped with tutorials for which we are very grateful).

Courses offered in the Department

Courses taught

The Department taught its approved undergraduates programme to all year groups. In addition it continued to give service courses to other departments as indicated in 3 below. For obvious reasons no postgraduate courses were offered.

Student Numbers

In the first semester, 144 students offered first year courses, 54 read 300 Level courses and 13 read Part II courses. In the second semester, 123 students were admitted into the first year programmes, 83 in the 2nd year and 14 in the final year.

The breakdown is as follows:

Undergraduate	Arts	Science	Total
1st Year			
1st Semester	40	104	144
2nd Semester	31	92	123
Part I			
1st Semester	6	48	54
2nd Semester	17	66	83
Part II			
1st Semester	1	12	13
2nd Semester	1	13	14

Two of our students, Emmanuel Alamou and Ebenezer Okyere, obtained Second Class Upper degree in Mathematics and Computer Science, and Mathematics and Statistics, respectively, in the BSc. Final degree examinations.

Service Courses

Service courses in Introductory Mathematics and Statistics were given to the following 1st Year students.

Science	69
Agriculture	37
Medicine	71
Home Science	25
Diploma in Medical Laboratory	12

Research

Senior Members continued their individual research work in the fields of Statistic Mechanics, Unified Field Theory and Quantum Gravity. Progress has been slow in view of the heavy teaching load.

Extension Work and other activities

Professor D.A. Akyeampong served as the University's representative on the West African Examinations Council and Dr. S.A. Adjel served as a moderator for the A'level Mathematics of the W.A.E.C.

Benefactions

The Department acknowledges with thanks the following donations:

Journals under the International Campus Book Link.

Research Publications on Theoretical Physics and Mathematics from the International Centre for Theoretical Physics, Trieste, Italy.

Department of Nutrition and Food Science

Staffing Position

- | | |
|---------------------------------|---------------------------|
| 1. Prof. S. Sefa-Dedeh | Head of Department |
| 2. Prof. R. Orraca-Tetteh | Associate Professor |
| 3. Dr. E. Asibey-Berko | Senior Lecturer |
| 4. Dr. G.S. Ayernor | Senior Lecturer |
| 5. Mrs. Anna Lartey | Lecturer |
| 6. Dr. O. Boeh-Ocansey | Lecturer |
| 7. Mrs. Agnes Budu | Lecturer |
| 8. Dr. E.K. Collison | Lecturer |
| 9. Dr. W.A. Plahar | Lecturer (Part-Time) |
| 10. Dr. Tony Mensah | Lecturer (Part-Time) |
| 11. Ms. E. Mensah* | Lecturer |
| 12. Dr. Armar-Klemesu (NMIMR) | Lecturer (Part-Time) |
| 13. Ms. Julliana Yartey (NMIMR) | Lecturer (Part- Time) |
| 14. Dr. E.C. Okeke | Senior Lecturer(Visiting) |
- * On Study Leave

Academic Programmes

The Department offered Programmes leading to the award of B.Sc., M.Phil, and Ph.D degree in Food Science and Nutrition. The student population was:

Sessional Programmes

B.Sc Part II	14
M.Phil Part I	
Food Science	5
Nutrition	1
M.Phil Part II	
Food Science	7
Nutrition	1
Ph.D	
Food Science	2
Nutrition	3

Semester Credit System

Nutrition

NUTR. 201	Introductory Nutrition I	172
202	Introductory Nutrition II	104
301	Nutrients and their Metabolism I	30
302	Nutrients and their Metabolism II	25
303	Nutritional Physiology	25
304	Animal Experimentation in Nutrition	7
305	Nutritional Physiology Laboratory	25
306	Food Analysis I	30
308	Food and Social Factors in Nutrition	9
312	The History of Nutrition	9

Food Science

FDSC. 201	Introductory Food Science	45
301	General Microbiology	45
302	Thermal Processing of Foods	20
303	General Microbiology Practicals	23
304	Thermal Processing Practicals	20
305	Physical Principles in Food Processing	32
306	Plant Products Processing Technology	30
307	Heat and Mass Transfer in Food Processing	23
308	Animal Products Processing Technology	31
309	Biometry	28
312	Food Commodity Processing Practical	28

Postgraduate Training Fellowships

The postgraduate research programmes in the department had support through three foreign-funded projects for five students to spend part of their research time in foreign institutions.

1. Mr. F. K. Saallah and Miss Yvonne Kluitse spent four months at the University of Georgia, Centre for Food safety and Quality Enhancement, Griffin, USA. This was through the Bean/Cowpea CRSP Research Project.
2. Two students, Mr. William Amegatse (Mphil Nutrition) and Miss Josephine Nketsia-Tabiri (PhD Food Science) spent three months each in the laboratories of the Institute of Nutrition, Directorate of Fisheries and the Centre for International Health, University of Bergen. They were sponsored through the NUFU-funded project on "Processing of protein foods to improve health".
3. Mr. W. K. Amoa-Awua is spending 18 months in the laboratories of Prof. M. Jakobsen, Department of Dairy and Food Science, Royal Veterinary and Agricultural University, Denmark. He is being sponsored by DANIDA.

Research Activities

The Department continued to undertake research projects on various topics.

Topic	Researcher(s)
Iodine Deficiency Disorders in Ghana.	Asibey-Berko, E. Lartey, Anna (Mrs.)
Processing of protein foods to improve nutrition and health.	Orraca-Tetteh, R. S. Sefa-Dedeh Matilda S. Asiedu E. K. Collison
Improved processing technologies to increase cowpea utilization and improve nutrition.	S. Sefa-Dedeh Matilda S. Asiedu E. K. Collison
Nutritional influences on pregnancy outcome.	J.A. Allotey (Zoology) Lartey, Anna (Mrs)
Chemical and microbiological characteristics of indigenous spices	E. C. Okeke E. K. Collison S. Sefa-Dedeh
Evaluating the nutritional status of pregnant women.	Orraca-Tetteh, R.
Thermoplastic extrusion of cereals and legumes.	Sefa-Dedeh, S.
Improvement of traditional food processing systems and products.	Sefa-Dedeh, S.
Solid-phase micro-extraction technique in the evaluation of fermentation of cassava.	
Enhancing effectiveness of food processing systems.	Sefa-Dedeh, S. Boeh-Ocansey, O.

Publications

- Boeh-Ocansey, O. Education and Training for the Informal Sector Vol.1 & II. Simon McGrath, King, K.; Carr Hill, R.; Boeh-Ocansey, O. and others. Overseas Development Administration (ODA), London (1994).
- Product Quality and Human Resources in Small Food Processing Enterprises in Ghana", In: Small enterprise: Flexibility and networking in an African context, McCormick, D. and Pedersen, P.O. (Editors) Centre for

- Development Research, Copenhagen (1994).
 Government of Ghana Country Proposals on vocational skills and informal sector support project. Boeh-Ocansey, O.; Ahadzie, W.; Asante, S.; and others. Government of Ghana/World Bank (IDA), Washington, Accra (1994)
 Post-Structural adjustment strategies for small and medium-sized Industries in Ghana" Boeh-Ocansey, O. Workshop Report AGI.GAC/EEC/MFED, Government of Ghana, Accra (1994).
- Asibey-Berko, E. Asibey-Berko, E. (1994). Prevalence and severity of Iodine Deficiency Disorders in Ghana. (Proceedings for the National Workshop on Iodine Deficiency Disorders in Ghana - Pg.15. Workshop at the Golden Tulip, Accra, July 27-28, 1994).
- R. Orraca-Tetteh R. Orraca-Tetteh (1994) An overview of Iodine deficiency disorders. (Proceedings for the National Workshop on Iodine Deficiency Disorders in Ghana - Pg.15. Workshop at the Golden Tulip, Accra, July 27-28, 1994).
- Ayernor, G.S. Ayernor, G. S. Utilization of Legumes (2nd Edition). Crop Management Guide 47, pp.23. Pub. CRI. Training Publication and Communication Unit, Kumasi, Ghana.
 Analysis of Traditional Food Technology: Case Studies in Cassava Processing. Presentation for international publication on Status of Cassava Processing. Secretariat CFP (TAM). Centre OSTROM de Montpellier B.P 5045. 34032 Montpellier, France (June, 1994).
- Sefa-Dedeh, S., Nketsia-Tabiri, J. and Collison, E.K. Traditional Fish Processing Technology, Quality and Evaluation. Proc. of Workshop on seeking improvements in fish technology in West Africa. Pointe-Noir, Congo.
 Process and product characteristics of agbelima. Tropical Science. UK. (In Press).
- Akrapunam, M.A. Sefa-Dedeh, S. Traditional lactic acid fermentation, malt addition and quality development in maize-cowpea blends. Food and Nutrition Bulletin. United Nations University, Tokyo (In Press)
- Sefa-Dedeh, S. and Nketsia-Tabiri, J. Post-production issues and aquaculture development in Ghana. ICLARM. Philippines.

Conferences

AFROFOODS Conference, Accra 19-23 September, 1994

The Conference was attended by Prof. S. Sefa-Dedeh, Prof. R. Orraca-Tetteh, Dr. G.S. Ayernor, Dr. E. Asibey-Berko, Dr. Matilda S. Astedu and Dr. E.K. Collison. The following presentations were made:

Prof. S. Sefa-Dedeh	History of Afrofoods
Dr. G.S. Ayernor)	Food Analysis and food
Dr. E.K. Collison)	composition data in

Dr. Matilda Asiedu) Ghana

Workshop on Iodine Deficiency Disorders. Golden Tulip Hotel, July 27-28, 1994

This was attended by Dr. E. Asibey-Berko, Prof. R. Orraca-Tetteh, Dr. Matilda S. Asiedu, Dr. E.C. Okeke, Mrs. Anna Lartey, Prof. S. Sefa-Dedeh and Mrs. Agnes Budu. The following presentations were made:

- R. Orraca-Tetteh An overview of Iodine deficiency disorders.
E. Asibey-Berko Prevalence and severity of Iodine deficiency disorders

Bean/Cowpea CRSP Regionalization Workshop, University of Ghana, October 12-14, 1994.

The Department hosted this workshop. It was attended by Prof. S. Sefa-Dedeh, Dr. E.K. Collison and Dr. Matilda S. Asiedu.

Preparatory Workshop on Phase 2 of the Ghana/Netherlands Artisanal Fish Processing and Applied Research Project. Golden Tulip Hotel, April, 1994

Prof. S. Sefa-Dedeh, Prof. R. Orraca-Tetteh, Dr. G. S. Ayernor, Mrs Agnes Budu, Dr. E. O. Okeke and Mrs Anna Lartey attended this workshop.

DANIDA/FAO Programme for integrated development of artisanal fisheries in West Africa Workshop on seeking improvements in fish technology in West Africa. Pointe-Noir, Congo.

Dr. E. K. Collison attended and presented a paper entitled "Traditional Fish Processing Technology. Quality and Evaluation" co-authored with Prof. S. Sefa-Dedeh and Josephine Nketsia-Tabiri.

Conferences

Prof. S. Sefa-Dedeh attended the Institute of Food Technologists, Annual meeting and Food Expo., Georgia. World Congress Centre, Atlanta, Georgia, U.S.A.

Papers presented

1. *Effects of steaming and storage on physico-chemical properties of cowpeas (Vigna unguiculata) seeds and flour (co-author B. Demuyako).*
2. Optimization of process conditions and quality of salted dried tilapia (*Oreochromis niloticus*) using response surface methodology (co-author, J. Nketsia-Tabiri)
3. Application of response surface methodology to cowpea fortification of fermented cereal steamed cake (co-author, A.K. Osei)

Dr. G.S. Ayernor attended the first National Workshop on Food and Industrial Crops. October 25-27, 1994, Kumasi.

Paper presented

Quality evaluation of cassava roots.

Dr. O. Boeh-Ocansey attended the Overseas Development Administration (ODA), London; University of London's Institute of Education and Centre for African Studies, University of Edinburgh, International Seminar on Education and Training for the Informal Sector.

Paper Presented

Education and Training Needs of the Informal Sector in Ghana.

Dr. O. Boeh-Ocansey attended the Expert Consultation on Training for Self-Employment through Vocational Training Institutions. International Labour Organization (ILO) Turin, Italy.

Prof. R. Orraca-Tetteh attended the International Union of Nutritional Sciences Council meeting. Wageningen, The Netherlands, January 1994.

Dr. G. S. Ayernor participated in Agriculture Policy Meeting. Ministry of Agriculture, held at Takoradi, August 10-12, 1994.

Mrs. Agnes S. Budu participated in a workshop on women and food processing in sub-Saharan Africa. Accra

Extension

Seventh Training Course in Artisanal Fish Processing

The Department co-hosted the 7th training course in artisanal fish processing under the Ghana/Netherlands Artisanal Fish Project. Participants from different African countries attended.

Executive Seminar on Strategic Food product Development

Through the University Consultancy Centre, Legon, The Department organised a one-day Executive Seminar on "*Enhancement of Corporate Profitability through strategic food product development*". The Seminar was attended by senior management of some food industries.

United nations University Affiliate Institute

Activities under the United nations University System continued with the training of one Fellow. Dr. Badifu spent six months as a UNU Fellow in the Department working with Prof. S. sefa-Dedeh on food fermentations.

Dr. G. S. Ayernor organised and participated in: Training Women in Food Processing to combat Food Losses: Fruit and Glut Tomato Processing. A training workshop held at Agormanya, Odumase-Krobo (May 5-9, 1994)

Dr. Ayernor participated at CRI/IITA Crop Management Course in Legumes (Lectures) Ghana Grains Development Project. Crop Research Institute, Kumasi, Ghana.

Prof. R. Orraca-Tetteh, served as a Nutrition Consultant in the World Food Programme. "Technical Review Cum Approval Mission" on Project Ghana 4932/00. Supplementary feeding of pre-school children.

Benefactions

The Government of the Kingdom of the Netherlands provided through the Regional Training and Applied Research Project for Artisanal Fish Processing, the following:

- (a) Funds for the complete refurbishment of the Department painting, etc.
- (b) Zeos 486 66DX Computer with Hewlett Packard 4L Laser Printer.
- (c) Canon NP-1550 Photocopier.
- (d) Two Asia Topic Mini Buses

USAID-funded Bean/Cowpea Collaborative Research Support Program (CRSP) provided \$58,835.60 for the fiscal year 1994.

The Norwegian Universities' Committee for Development Research and Education (NUFU) provided funds (\$120,000) for the purchase of:

- (a) Three Apple Macintosh LCIII Computers complete with accessories.
- (b) One Deskjet colour Printer.
- (c) One Laserjet Printer

- (d) Picotag Waters Amino Acid Analysing System complete with Computer.
 IDRC-funded Iodine Deficiency Disorders Project
 (a) \$62,997.10 for equipment and reagents and local research expenses.

Department of Oceanography and Fisheries

The staffing situation continues to be poor. There are only two full-time and one associate member. The Department has a total of seven post-graduate research students, comprising three M.Phil and four PH.D students. Research visits under the British Council (ODA) link arrangement with the University of Newcastle have continued. Research projects currently in progress are:-

1. Biomonitoring of heavy metals in coastal waters.
2. Studies on the biology of *Engraulis encrasicolus* (anchovy) in Ghanaian waters.
3. Diversity of benthic macrofaunal communities in Ghanaian waters.
4. Biochemical discrimination in the freshwater catfish, *Chrysichthys* sp.
5. Marine zooplankton ecology.
6. Sandy - shore ecology.

Publications

Armah, A.K. (1993).

Sea-level rise: implications for the coastal zone of Ghana. In: Report of the National Workshop on Climate Change and its impact on water, oceans, fisheries and coastal zones .p.211-222. Pub. Ghana National Committee for the International Hydrological Programme (IHP) WRR/CSIR, Accra.

The Coastal Zone of the Greater Accra Region. Proceedings of the World Coasts Conferences. Noorwijk, The Netherlands. 15pp. (In Press).

Department of Physics

Staffing Position

Mr. J.B. Darko, Lecturer, won a Commonwealth Scholarship to study for the Ph.D degree in the University of Wales as of 1st October 1994. Mr. J.K. Arthur, Assistant Lecturer, has joined the Department to strengthen the electronics section, so staff strength still remains at ten. We look forward to recruiting three more staff members to make up our establishment of 14, and additional staff member for the level 100 work which begins in the 1994/95 session.

Student Numbers by Category

Student numbers at the beginning of the 1994/95 session are as follows:

(a) Level 100 Mathematical/Physical/Earth Sciences Options	60
(b) Level 100 Biological Sciences Options	308
(c) Nursing	26
(d) Level 200 Mathematical/Physical/Earth Sciences Options	86
(e) Level 200 Biological Sciences Option	233
(f) Level 300 (2nd Year)	68
(g) Level 400 (3rd Year)	42

(h) M.Phil Part I	6
(i) M.Phil Part II	2
(j) Ph.D	3

Research Activities

These continues at a snail's pace in the Department, with two students working on their M.Phil dissertations and two others working for the Ph.D degree. The Department continues to lack a number of basic research equipment which is stifling research effort. If the situation is not rectified in the near future enthusiasm for research may wane.

Research work continues in the fields of energy, atmospheric physics, remote sensing, geochronology, radiation physics, microelectronics, solid state/materials science.

Publications

Dr. K.G. Adanu	<p>"Promoting photovoltaic electricity wage in developing countries - Experience from Ghana" Solar Energy Materials and Solar Cells 34, 67-71, 1994.</p> <p>"Supporting Ghana's Energy base of sustainable development" Paper presented at the Seminar on Energy and Development, Copenhagen, Denmark, March 1, 1994.</p> <p>"Critical scattering of conduction electrons around the Neel temperature of alphas manganese thin films." Materials Letters, Vol.18 (1994) 320-326 (with Boakye and Grassie).</p> <p>"The Energy Burden of the Poor." Paper presented at the centre on Poverty organized by the University of Ghana Research and Conferences Committee held at Legon, Accra, Sept. 29-30, 1994.</p> <p>"Background sound level survey and sound attention studies at Effasu and surrounding area in Ghana." Study report presented to the Ghana National Petroleum Corporation, Tema, Ghana, Oct. 1994.</p> <p>"Energy efficiency in the food preparation process." Paper presented at the 6th Ghana National Energy Symposium, Accra, Ghana, Nov. 29-Dec. 2, 1994 (with Per Sieverts Nielson).</p> <p>"Performance of a 268 Wp stand-above PV system test facility." Paper presented at the First World Conference on Photovoltaic Energy Conversion, Hawai, Dec. 5-9, 1994.</p>
Mr. V.C.K. Kakane	Rainfal Calibration for Ghana (The TAMSAT Method) FAO Technical Paper No. 3 (1994) Accra, Ghana, (with A.A. Hooijer).
Mr. J.K.A. Amuzu-	"An Eyring Model for Plastic Flow in Polymeric Films." Submitted to Portugallae Physica.
Dr. K. Oduro-Afryite	Estimating Rainfall Erosivity Indices in Ghana Using the Fournier Index (Submitted for Publication in Journal of UST).
Prof. G.K. Tetteh	"Radionuclide Evaluation of Brain Liver and Thyroid Disorders in Ghana. Accepted for publication in Journal of UST, Jan. 1994.

Department of Statistics

Accommodation

After 15 years of waiting, work has finally resumed on the Department of Statistics building, for which the foundations were laid in 1979. Our information is that the project will be completed in 12 to 18 months. This will certainly ease the great pressure we are currently experiencing with respect to classroom accommodation and offices for teaching staff. The shortage of office accommodation in the Mathematics building, which we share, is really acute. If either department were to employ one new lecturer now, there would be no office for him in the building.

Teaching

In the year 1993/94 the department of statistics recorded the highest enrolment of students (296 altogether) in its history. In that same year our teaching staff was reduced effectively to only three (3).

However, we were still able to accomplish our normal teaching programme with the assistance of Dr. N.N.N. Nsawah-Nuamah of ISSER, one part-time lecturer and five National Servicemen. To do this, we had to cut back drastically on assignments to be handed in and the tutorials that should go with them.

Student Numbers

		1993/94		1994/95	
Level 200	BA	69	64		
	BSc.	64	133	84	148
Level 300	BA	46			29
	BSc.	68	114	29	58
Level 400	BA	25	28		
	BSc.	21	46	62	90
TOTAL		293		296	

Graduates

	1992	1993	1994
First Class Honours	NIL	1	2
Second Upper	13	6	11
Second Lower	30	28	26
Third Class	9	9	6
Pass	1	1	1
Total	53	45	46

Graduate Programmes

Our graduate programmes are gradually picking up again. This year we have two candidates registered for M.Phil and one candidate for the Graduate Diploma. Three other applicants who were offered admission to M.Phil did not turn up.

It is the Department's policy to increase enrolment into these programmes, but this is proving difficult in the face of unplanned increases in undergraduate enrolment, unexpanding

staff numbers, and the generally difficult economic conditions under which graduate students have to work.

Research and Related Activities

Odoom, S.I.K. Risk Theory and Life Contingencies.
Danso-Manu, M.E. Impact of Credit Unions on Individuals and Households in Ghana.

All members of the department are, currently, very actively engaged in writing up their lecture notes into publishable books.

Already Completed

Odoom, S.I.K. Statistical Methods Basic Principles and Selected Applications.

In Preparation

I.G. Akar Sampling Techniques.

Publication

Odoom, S.I.K., Biritwum, R.B. Application of Markov Process Modelling to Health Status Switching Behaviour of Infants - to appear in International Journal of Epidemiology Vol.24, No.1, 1995.

Department of Zoology

Courses Taught/Student Numbers

The Department mounted courses at all levels.

Diploma in Medical Laboratory Technology	12
FUE Medicine/Dentistry	74
FUE Science	70
BSc Level 300 Courses	36
BSc Part II	11
M.Phil Part I	12
M.Phil Part II	4
Ph.D	1

Research Grants

Prof. J.K.M. Hodasi Was awarded a research grant of 1,000,000 cedis by the National Agricultural Research Project to continue studies on the Biology, ecology and domestication of the giant African land snails (*Achatna* and *archachatna*)

Prof. J.S. Djangmah Was awarded \$12,000.00 research grant by the AAU jointly with Dr. Nil Kwaku Sowa and Dr. Amos Anyimadu to research into Postgraduate Training and Research in African Universities with particular reference to Ghana.

Dr. John. Kpikpi

Received a research grant of \$12,179 from the DANISH BILHARZIAZIS LABORATORY for research into the control of snail hosts of *Schistosoma* parasites. Grant is for equipment and support for an M.Phil Research student.

Ms. Millicent Cobblah

Evaluation of biopesticides against lepidopterous pests cabbages and garden egg.

Taxonomy and biology of *Cylas* spp.

Dr. Joseph Allotey

Completed the following research projects during the year 1994.

Population increase of *Stophilus zeamais*, *Phyzopertha dominica* and *Cryptolestes ferrugineus* on white and yellow stack burn and non-stack burn maize and damage caused to the food commodities by the pests under ambient laboratory conditions. (ECDGXII funded).

Studies on hidden infestation in white/yellow stack and non-stack burn maize from selected warehouses in Accra and Tema. (ECDGXII funded).

Steam treatment process to control infestation of cowpeas by *Callosobruchus maculatus*. (USAID-funded CRSP-Cowpea Project). Jointly with Prof. Sefa-Dedeh of the Department of Nutrition and Food Science.

Deltamethrin treatment of stored husked maize: residue life and protection against infestation by *Protephanus truncatus*. Jointly with Dr. W.S.K. Gbewonyo of the Department of Biochemistry, Mr. A. Ofosu and Mr. R. Boxall, both of Post-Harvest Division, Ministry of Agric., Ghana.

Development of *Cercyra cephalonica* (Staint), *Ephestia cautella* (Wlk.) and *Tribolium cataneum* on 17 varieties of soya beans under ambient laboratory conditions.

Dr. D.N. Wilson

Biological Control of Water Hyacinth

Biological Control of Sweet Potato Weevils

Insecticidal activity of local plants

Participated in the rearing release and monitoring of water hyacinth weevils for control at Jewi Wharf, Western Region of Ghana. Monitoring of sweet potato fields at Weija for weevil infestation with local farmers.

Conferences, Study Leave and International Assignments

The Department has continued its collaboration with the Museum of Zoology, Bergen, University of Bergen and the University of Bergen and the Institute of Aquatic Biology of the CSIR. Mr. Fred Ansah (Chief Technician) benefitted from a 4-month study leave at the Museum of Zoology, Bergen. The Department has furnished a graduate study room.

Dr. Yaa Nūmoa-Baidu was appointed to serve on the following international committees:

Councillor (Africa), BirdLife International Council.

Member, International Ornithological Congress Committee.

Member, Scientific Programme Committee for the XXII International Ornithological Congress.

Member, Scientific and Technical Review panel of the convention on Wetlands of International importance especially as Waterfowl Habitat, Ramsar convention.

She attended the following conferences:

- World Congress of Birdlife International, August 1994, Rodenheim, Germany.
- 21st International Ornithological Congress, August 1994, Vienna, Austria.
- Second meeting of the Ramsar Scientific Review Panel, September 1994, Hungary.
- Prof. J.S Djangmah Benefitted from an IDA grant to visit a number of science education projects in the United States sponsored by Carnegie Corporation of New York and implemented by the American Association for the Advancement of Science (AAS), Stanford University and Rice University.
- Ms. Millicent Cobblah Presented Country report on farmers' perception of integrated pest management in rice at Integrated Crop Protection Conference at Buake, Cote d'Ivoire.
- Read paper entitled: Evaluation of biopesticides and the control of lepidopterous pests of egg plant at First National Workshop on Food and industrial crops at CROPS RESEARCH INSTITUTE (CSIR), Kumasi.
- Dr. Joseph Allotey Bean/Cowpea CSRP Regionalization Workshop, University of Ghana, Legon.
- Workshop on: The use of the fumigant Phosphine and contact insecticides for the protection of durable food commodities organized by NRI (UK), Zoology Department, Univ. of Ghana.

Publications

- Prof. J.S. Djangmah Was lead consultant in a team comprising Dr. Yaa Ntimoa-Baidu and Dr. John Kpikpi for a study on Zoological aspects of Biodiversity commissioned by the Ministry of Environment, Science and Technology. Prepared a report entitled: Ghana Country study on Biodiversity (ZOOLOGY). 120 pp.
- Dr. Yaa Ntimoa-Baidu Trends in the use of Ghanalan Coastal Wetlands by migrating Knots *Calidris Cannutus*. Ardes 81: 71-79.
- Terns in coastal Ghana. In L. Bennun, ed. Proceedings of the 7th Pan African Ornithological Congress, Nairobi, Kenya. 1988 pp. 37-43.
- Kpikpi, J.E.K. and Ansah, E. A study of the Chemoreception profile of *Biomphalaria pferri*, a snail intermediate host of intestinal schistosomiasis. Faculty of Science Colloquium University of Ghana, June 1994.
- Dr. Christopher Gordon The effect of fibre on the feeding behaviour and efficiency of estuarine plankton in the Thames Tideway of Herh. Internat. Limnol. 25: 988-990 with Barki, A.W. and Bailey, R.G. 1993.
- Ghana Coastal Wetlands Management Project Environment Baseline Studies on Aquatic Ecology. 3 Volumes:

Volume I Densu Delta 58.
 Volume II Sakumono 40p
 Volume III Muni Pomadzi 40p
 Government of Ghana

- Allotey, J. and Goswami Damage caused to maize and groundnuts by the moths *Phodta interpunctella* (Hubn) and *Ephetta cautella* (Wlk.) and control using local plant materials. *Insect Sci. Applic.* 15 (3) ppxxx - xxx.
- Allotey, J. and Unanaowa, I.E. Aspects of the biology of *Lastodema serricone* (F.) on selected food media. *Insect Sci. Applic.* 14 (5/6), 595-601.
- Allotey, J. and Omus, M.O. Some aspects of developmental biology of *Stotophilus zeamais*. Motsch on stored maize and rice. *J. Zool. Res.* 5 (1), xxx .xxx (accepted 23.3.94).
- Allotey, J. and Abitey, M. Consultancy Report for Chemico Ltd, Tema: Gastoxin/Delta trials: A comparison of the efficacy of phosphine from two sources against *Corcyra cephalonica* (Staint.) and *Tribolium castaneum* (Herbst) in stored cocoa beans. 26pp.

Volta Basin Research Project

Staffing Position

The staffing position of the Project was strengthened with the appointment of Mr. Ted. Y. Annang as Research Fellow to the Project attached to the Botany Department. Dr. Chris Gordon also rejoined the staff after successfully completing his Ph.D programme at King's College, London. Thus four full-time Research Fellows were at post during the 1993/94 session. Two part-time Researchers (Senior Members), one from the Department of Sociology and the other from the Department of Agricultural Economics and Farm Management, also worked on the Project. These Senior Members were supported by five Technicians and two National Service Personnel. One of the Research Fellows, Mrs. C. Amoah, spent the last year of her two-year Sabbatical leave working on a project with the Water Resources Research Institute, Accra.

Teaching

All the four Research Fellows at post continued teaching undergraduate courses in their various Departments. Some of the Fellows also supervised dissertation projects in the Departments.

Research

Research activities continued on the hydrobiology and fisheries, microbiology, bacteriology, ecology and general limnology of the Volta Lake and three coastal wetlands of Ghana. Investigations on soils, landuse, land degradation and the socio-economic status of the Lower Volta Area and of the catchment areas of the three Coastal Wetlands of Ghana were also carried out during the 1993/94 session. The specific areas of research were:

- Amatekpor, J.K Characteristics of soils in the Lower Volta floodplain.
 Soils, landuse and land degradation in the catchment areas of Sakumo, Densu Delta and Muni Coastal Wetlands.
- Gordon, Chris The ecology of coastal lagoons and wetlands.

- Annang, Ted Ecotoxicology of aquatic invertebrates of commercial value. Aquaculture of shrimps and prawns and environmental impact analysis.
- Darpaah, G.A Pollution indicator bacteria of the Lower Volta Area and its health implications.
- Amoah, Cecilia The ecology, biology and culture potential of two local shrimp species, *Penaeus, notialis* and *Pkarathurus* in the Lower Volta estuary.
- Kumekpor, T.K.B. & Dadson, J.A. - Appropriate Sewage Treatment Technology and Effluent Standards for Ghana: Biological components of domestic sewage.
- Socio-economic survey of the Lower Volta area: Resettled and now-resettled villages.

Publications

- Amatekpor, J.K. Reconnaissance Studies on Soils, Landuse and Land Degradation in the Sakumo, Densu Delta and Muni Ramsar Sites, Gov't of Ghana, Dept. of Game & Wildlife. 35p.
- Environmental Baseline Studies on Soils, Landuse and Land Degradation in the Sakumo Ramsar Site. Govt of Ghana, Dept. of Game & Wildlife. 65p.
- Environmental Baseline Studies on Soils, Landuse and Land Degradation in the Densu Delta Ramsar Site, Govt of Ghana, Dept. of Game & Wildlife. 61p.
- Environmental Baseline Studies on Soils, Landuse and Land Degradation in the Muni-Pomadze Ramsar Site. Govt of Ghana, Dept. of Game & Wildlife. 46p.
- (With Y. Ahenkorah, G.N.N Dowuona & S. Dua-Yentumi). Soil and Water Resources of Ghana: Their Conservation, Management and Constraints to their Utilization for Sustainable Development. United Nations University, Institute for Natural Resource in Africa. Book Series No. IA 131p.
- Gordon, C. The effect of fibre on the feeding behaviour and efficiency of estuarine plankton in the Thames tideway. Verh. Internat. Verein. Limnol: 25:988-990.
- The aquatic ecology of coastal wetlands of Ghana. I. Reconnaissance Studied on Densu Delta, Muni-Pomadze and Sakumo Ramsar sites. Govt of Ghana 35p.
- The aquatic ecology of coastal wetlands of Ghana. II Baseline Studies on Densu Delta Ramsar site. Govt of Ghana. 58p.
- The aquatic ecology of coastal wetlands of Ghana. III. Baseline Studies on Muni-Pomadze Ramsar site. Govt of Ghana. 40p.
- The aquatic ecology of coastal wetlands of Ghana. IV. Baseline Studies on Sakumo Ramsar site. Govt of Ghana. 40p.

Amoah, C., Odamtten, G.T.
and Agbodze, D.A.

Bacteriology quality of Water and Clam (*Egeria radtata*) from the Volta River in relation to Human Health. Water Research (Forthcoming).

Conferences/Workshops

Amatekpor, J.K.,

Soil Sci. Soc. Ghana 14th Gen. Meeting, Cape Coast. Sept. 1993. *Paper presented:* Current data on Ghana soils: Their adequacy for international correlation.

C.T.A. Int. Seminar on Sustaining soil Productivity. Accra. Nov. 15-19, 1993.

World Vision Int. Conference on Natural Resource Management. Sogakope, Jan. 10-14, 1994.

I.T.C. Int. Workshop on New Waves in Soil Science, Harare, Zimbabwe, Sept. 11-19, 1994. *Paper presented:* Effect of the Volta dam on properties of two soil series in the Lower Volta Floodplain.

Cornell CIIFAD Int. Workshop on Integrated Watershed Analysis & Management. Ithaca, N.Y. and Santo Domingo, D.R. Sept. 23 Oct. 14, 1994. *Paper presented:* Reconnaissance studies on Soils, Landuse and land degradation in the catchment areas of three coastal wetlands (Ramsar sites) in Ghana.

Gordon, C.

15 Int. Seminar on Environmental assessment and Management. Aberdeen, U.K. Sept. 1993.

Global Forum 1994: Cites and Sustainable Development. Manchester, U.K., April, 1994.

Amoah, C.

Int. Conference on Water Africa 1994: Water and Environment. La Beach Hotel, Accra, May 2-5, 1994.

Extension Work

Dr. C. Gordon served on the Technical Committee of the Ghana Coastal Wetland Management Project (CWMP). He also co-ordinated research activities for the CWMP.

At the request of the Volta River Authority (V.R.A.), Mr. Ted Annang helped in the chemical analysis and biological identification of some biofouling substances on the turbines of the Volta River Authority hydroelectricity generating station at Akosombo.

Dr. J.K. Amatekpor continued providing pedological data and information to researchers and farmers who approached the Soil Science Department for advice.

Benefactors

The Ecotoxicology Research Group of the Division of Life Science, King's College, London, donated a quantity of plastic tubes and containers to the Hydrobiology Unit of the V.B.R.P. We are very grateful for the donation.

Visitors

Ms. C. Billa from the University of Turin, Italy, worked with Dr. C. Gordon on the macro-invertebrate fauna of the Lower Volta River for a period of 5 weeks. Other visitors to the Project were Dr. H. Eswaran, Leader Soil World Resources, U.S.D.A. Washington, D.C. and Prof. N. Upphoff, Director, Cornell, CIIFAD, Ithaca, N.Y.

FACULTY OF SOCIAL STUDIES

Overview

The Faculty of Social Studies is made up of nine full-scale Teaching Departments (Archaeology, Economics, Geography and Resource Development, History, Library and Archival Studies, Nursing, Political Science, Psychology and Sociology) as well as five Institutes and a School engaged mainly in research and extension work, a modicum of teaching (Adult Education, African Studies - Social Studies Sector, Legon Centre for International Affairs, ISSER, RIPS, and the School of Communication Studies).

During the 1993/94 academic year, Senior Members of the Faculty numbered 173, the majority (60%) belonging to the teaching departments.

The Faculty's affairs were administered by the Faculty Board under the Chairmanship of the Dean, Professor J.R. Anquandah, Mr E.T. Osabutey served as Assistant Registrar/Faculty Secretary.

Teaching Programmes

During the 1993/94 session, over 4,000 students took various courses offered in the Faculty's teaching programmes. As in previous years, a number of departments, especially Sociology, Economics, Geography, Political Science and History enrolled large student numbers, in some cases individual classes numbered over 300. As a result there were problems of inadequate classroom space, short-falls in lecturer-student ratios etc.

As usual, all students taking first year (ie Level 200) courses in the departments of the Faculty were obliged to take the Faculty Basic Statistics course.

The Faculty must place on record its appreciation of the work of Dr. A. Essuman-Johnson, Lecturer in Political Science, and Dr. R. Akuamoah-Boateng, Lecturer in Psychology, who have since 1986, handled the lectures, tutorials and examinations related to the Faculty Basic Statistics course.

Research/Publications

As evident in the reports provided by individual departments and institutes, Faculty Academic Staff carried out some measure of research in their various areas of specialisation in spite of meagre levels of funding. The year also produced a crop of publications resulting from Faculty research. Notable among Faculty publications for 1993/94 are the following:

- (a) *State of the Ghanaian Economy in 1993* published by ISSER (1994)
- (b) *Basic elements in Social Research Project Development* published by RIPS (1994)
- (c) *Population and development in Ghana* published by *Population Impact Project* (1994)

Conference/Seminars/Workshops

As part of efforts to implement that aspect of the Faculty's strategic plan (1992-2000) which deals with improvement of research skills of academic staff, the Faculty obtained financial support from the Valco Trust Fund, The British Council and the University of Ghana Research and Conferences Committee which facilitated the organisation and mounting of a five-day inter-university Seminar and Workshop on the theme "Whither Social Science Research?" on July 25-29, 1994.

The seminar keynote address was delivered by the Vice-Chancellor, Professor George Benneh. The workshop was led by Visiting Consultant, Professor Margaret Peil, of the Centre for West African Studies, at Birmingham University, England. The participants, numbering 140, included academic staff from the three Universities in Ghana as well as scholars from governmental institutions.

A variety of scholarly papers presented at the seminar are due for publication shortly.

Visitors

The Faculty received a number of visitors during the academic year. Notable among them were the following:

Rosie Bowers Lyon	Macmillan Publishers
Prof. Razzia Abbas	Allama Iqbal Open University, Islamabad, Pakistan
Rosemary Arnott	British Council, Accra
Helen Cooks	Toledo Summer School
Dr. Madzokere	University of Zimbabwe, School of Social Work
Dr. William Lyakurwa	A.E.R.C., Nairobi, Kenya

Department of Archaeology

Teaching

During the year under review (1993/94) there were five Senior Members at post. Among them they handled 13 courses at the undergraduate level. There were 155 Archaeology students. The breakdown is as follows:

Level 200	78
Level 300	54
B.A. Part II Final Year	8
Year Abroad Students	15
Total	155

Professor J.R. Anquandah continued with the modular course on "Historical Demography of Africa" at the Regional Institute of Population Studies.

Research

As usual, the Department undertook research activities during the Easter and Summer Vacations.

Bredwa-Mensah, Y.	Directed a ten-day Field School for training students at an early 19th Century Danish Plantation settlement at Bibease, north of Legon.
Crossland, L.B.	Conducted excavations at the Wulff's House-Christiansborg. A project sponsored by the Danish Embassy aimed at restoring the Wulff's house regarded as one of the best preserved early 19th century architectural pieces in Ghana.
Anquandah, J.R.	Undertook for the Midwest Universities Consortium for International Activities (MUCIA) research, data collation and illustrated documentation on the theme "Four thousand years of Ghanaian history". The resource material was utilized for designing and mounting a permanent exhibition at Cape Coast Castle Museum.

Joint Research

A preliminary investigation of the Asante Military Cemetery Site, Kumasi was undertaken by Mr. Osei-Tutu Brempong, Mr. Y. Bredwa-Mensah and Dr. K. Gavua in January 1994.

Publication

Anquandah, J.R.

"Origins and nature of dependency material culture"
The Culture of Dependency. Proceedings of the Ghana
Academy of Arts and Sciences. 1994

Conferences/Seminars/Workshops

Professor J.R. Anquandah attended the following Conferences, Workshops and Seminars.

Conference at Cape Coast on the historic preservation of Elmina and Cape Coast Castles/
Forts.

Lectures presented in Accra/Legon at different times of the year on *The Archaeology and
Early History of Africa and Ghana* for the following programmes:

- (i) School of International Training Lectures 1994.
- (ii) Loyola University Fulbright Hayes Project Abroad 1994.
- (iii) Toledo Summer School 1994.
- (iv) Krokobite International Summer Institute 1994.
- (v) Maryland Museum of African Art Visiting Scholars.
- (vi) National Council for Black Studies.

Association of African Universities Consultative Meeting and Workshop on Professional
Development for Academic Staff of African Universities.

Mr. Brempong Osei-Tutu attended the British Council Seminar 9492 on the Heritage Education
and Archaeology at Southampton, England from October 12-19 1994. The trip was sponsored
by the British Council, Accra and the University of Ghana, Legon.

Extension Work

Mr. Y. Bredwa-Mensah continued with a series of lectures at the National Film and Television
Institute (NAFTI), Accra.

Department of Economics

Staffing

The staffing position remained stable. Mr. Barfour Osei went on study leave, while Dr
Kwabia Boateng returned from study leave. Excluding part-timers the number of lecturers
stood at 12.

Courses Taught

Level 200

- Elements of Economics
- Economy of Ghana
- Elements of Maths/Stats

Level 300

- Microeconomics
- Macroeconomics
- Growth and Development
- Applied Mathematics and Statistics for Economists

B.A. Part II

Economic Theory
Money and Banking
Labour Economics
Industrial Economics
Econometrics
International Economics
Public Finance
Economic Planning
Agricultural Economics

M.PHIL Economics

Microeconomic Theory
Macroeconomic Theory
Introduction to Computer Application
Quantitative Methods - Econometrics and Mathematics for Economists
Money and Banking
International Economics
Environmental Economics
Public Finance

There are several courses in both the undergraduate and graduate curriculum which are not offered due to lack of staff.

Student Statistics

	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94
F.U.E.	180	185	317	199	266	
B.A. PT.I	100	106	125	157	200	150
B.A. PT.II	84	102	106	117	136	117
M.PHIL I	3	6	6	6	7	15
M.PHIL II						5

AERC Collaborative Masters Programme for Anglophone Africa(excluding Nigeria)

The year saw the commencement of the AERC sponsored Collaborative Master's Programme involving 17 Anglophone countries. University of Ghana was selected among 5 universities whose master's programme was recognised and supported by the AERC. The Department benefited from substantial funding from the AERC.

Eleven of the master's students were sent to the AERC Joint Facility for Electives (JFE) in Nairobi for 3 months to take to additional elective courses between July and October 1994.

Two lecturers from the Department - Dr. K.A. Tutu (Environmental Economics) and Dr. Kwabla Boateng (Labour Economics) - were invited by the AERC to take up Visiting Lecturership positions at the Collaborative Programme's Joint Facility for Electives in Nairobi.

Dr. A. Baah-Nuakoh (Head of Department) was elected Chairman of the Academic Board of the AERC Collaborative Master's Programme for a two-year term.

Research Activities and Publications

Baah-Nuakoh, A.

Obstacles to Growth of Manufacturing Enterprises in Ghana: Results of a Firm Level Survey. Paper presented at the University of Ghana Social Science Workshop held at Legon.

- with Tutu, K.A. Environmental Effects of Economic Growth of the Western Region of Ghana. Paper submitted to the World Bank as part of the Ghana Western Region Study.
- Skill Acquisition and Training in the Informal Sector of Ghana. Submitted to **Legon Journal of Management Studies**.
- Employment and Working Conditions of Workers on Plantations in Ghana. Paper prepared for ILO, Geneva. (with E. Aryeetey, T. Duggleby, H. Hettige and W.F. Steel)
- Supply and Demand for Finance of Small Enterprises in Ghana** World Bank Discussion Papers, Africa Technical Department Series. No. 251.
- Economic Potential for Local Manufacturing of Food Processing and Agricultural Equipment in Ghana. TOOL of the Netherlands, FIT Working Document No. 2. June 1994.
- "The Industrial Sector", Chapter 6, **The State of the Ghanaian Economy in 1993**, ISSER, July 1994.
- Participated in World Bank, RPED Wave III Survey of Manufacturing Enterprises in Ghana being conducted by the Department of Economics, Legon and Oxford University Centre for the Study of African Economies.
- Sowa, N.K. "Labour in an Era of Adjustment: The Case of Ghana" Chapter 9 in **Labour in an Era of Adjustment** (S. Horton, R. Kanbur and D. Mazumder eds).
- "Fiscal Deficits, Output Growth and Inflation Targets in Ghana", **World Development**, vol 22, 1994, pp.11105-11118.
- From Direct to Indirect Monetary Control.
- Demoeconomic Analysis of Growth Prospects in Ghana.
- Financial Liberalization and Macroeconomic Stability.
- Boateng, K. Labour Supply in the Canadian Labour Market. Forthcoming in **Legon Economic Studies**.
- Moonlighting Behaviour in the Canadian Labour Market. **Journal of Human Resources** (forthcoming)
- Labour Market Performance in Ghana.
- Poverty - Measurement and Alleviation Policies.
- Tutu, K.A. **Structural Adjustment and its Effects on Ghanaian Worker**, published by Friedrich Ebert Foundation.
- Factors determining Internal Migration in Ghana.
- Case Study of Trade Liberalization in Ghana.
- Structural Adjustment and Labour Market in Ghana. (with A. Baah-Nuakoh) Environmental Effects of Economic Growth of the Western Region of Ghana. July 1994. Paper submitted to the World Bank as part of the Ghana Western Region Study.
- Ayivor, Eddie An Economic Analysis of the Demand for Antenatal Care in Ghana.

Anyemedu, K.

An Econometric Study of Factors Influencing the Choice of Health Care Facilities during Child Birth.
Economic and Social Determinants of the Demand for Child Health Care Services in Ghana.
Review of 1994 Budget in West Africa.
Review of Economic Management in Ghana during first year of First Republic in West Africa.
Third World Multinational Companies in Ghana.

Visitors

The Department received several important visitors. Dr. R. Kanbur was a frequent visitor and gave lectures to our MPhil students

J. Dirck Stryker, Professor of International Economic Relations, Fletcher School, Tufts University, U.S.A. presented a paper on "Costs and benefits of Eliminating Institutional Constraints on the Expansion of Non-Traditional Exports".

Professor Andrew Brimmer of the U.S.A spoke on "International Competition for Capital and the Financing of Economic Development". April 12, 1994.

Professor Anne Krueger, of Stanford University presented a paper on "Trade Policy and Comparative Economic Development", December 7, 1993.

Ms. Aida Kimenia, the A.E.R.C. Programme Manager from Nairobi, Kenya visited the Department in connection with the A.E.R.C.

Department of Geography and Resource Development

Introduction

The Department of Geography and Resource Development has continued to offer undergraduate and post-graduate courses in the areas of Population, Resources, Environment and Development. The Staff of the Department have also continued to carry out research and extension activities into these areas. The following projects have also experienced much progress.

- (i) Remote Sensing Applications Unit (RSAU) -See Appendix A
- (ii) Population Impact Project (PIP) - See Appendix B
- (iii) Family and Development (FADEP) - See Appendix C
- (iv) Ghana Population Agenda (GPA) - see Appendix D.

The Remote Sensing Applications Unit was established as a self-accounting Unit in the Department of Geography and Resource Development in July 1993 with Dr. G.T. Agyepong as the first Director. The World Bank has provided funds for the construction of the second phase of the building of RSAU. The construction is in progress and should be completed by April 1995. The Ecological Laboratory which is fully equipped with funds from Danish International Development Agency (DANIDA) and technical assistance from the University of Copenhagen, Denmark, is also functioning well. Both RSAU and the Ecological Laboratory have Advisory and Technical/Research Committees made up of representatives from various Departments in the University as well as key user Government Ministries in town. The Department is therefore in a good position to develop into a centre of excellence on Population, Resources, Environment and Development.

Staffing Position

The staff of the Department comprise fourteen (14) Senior members, four (4)-senior staff and five (5) Junior staff. Prof. Raymond Bagulo Bening of the Department has been appointed Acting Vice-Chancellor of the University for Development Studies (UDS), Tamale.

Student Numbers by Category

- | | |
|--------------------------|-----|
| 1. Year 1 (SSS) | 85 |
| 2. Year 2 (A 'Level) | 176 |
| 3. Year 3 | 136 |
| 4. Year 4 | 128 |
| 5. M.Phil - Year 1 | 12 |
| 6. M.Phil - Year 2 | 10 |
| 7. Ph.D. | 4 |
| 8. Police Administration | 2 |
- External Examiner, Dept of Planning, UST, Kumasi.
 - External Examiner, Centre for Development Studies, University of Cape Coast.
 - Member, Panel of Interviewers to admit students to the University for Development Studies, Tamale.

Research Activities

Nabila, John S.

- Ghana Population Agenda: Efforts to Improve the Implementation of Population Programmes In Ghana.
- Adolescent Fertility and Reproductive Health In Ghana.
- Population, Mining and the Environment in Ghana.

Songsore, Jacob

- Health and Environment Data Linkage and Monitoring in Accra.
- Mining and the Environment in Ghana.
- Gender, Environment and Epidemiology in Accra.

Addo, S.T. (Currently on Sabbatical).

Gyasi, E.A.

- Leader, West African component of UNU research project on Population, Land Management and Environmental Change (PLEC).
- Research in Agricultural Change and Rural Development.

Agepong, G.T.

- Research into land use and environmental resource management of forest and savanna lands.

Ardayflo-Schandorf, E. (On Sabbatical in 1994).

Yankson, P.W.K.

- The application of Satellite remote Sensing to urban land cover change in Accra. (with Lasse M. Jensen of the Institute of Geography, University of Copenhagen, Denmark).
- Informal mechanisms and urban management in Ghana (initial phase of a research project).

Awadzi, T.W.

Research on the effects of agricultural modernisation in shallot farming areas on the soils and water resources.

Kufogbe, S K.

a) Land use and Remote Sensing Applications

Conferences and Workshops Attended

Nabila, J.S.

Third Consultative Conference on Health Research Development In Ghana: organised by the Ministry of Health, ODA and WHO presented paper on: "Health System Research In Ghana Universities" 13-14 Jan., 1994.

Presented Paper on: "Sources of Funding for University Based Health Research In Ghana."

"The Effect of Population On Development And Natural Resources In Northern Region: The 21st Century Perspective" Paper presented at Seminar on Land Use Conflicts and Deforestation In the Northern Region; organised by the Forestry Dept. and the Northern Regional Administration. 24th-28th May, 1994.

"Population and Land Degradation In the Upper East Region of Ghana" paper presented at seminar on Deforestation, Land Degradation and the Threat of Desertification In the Upper East Region Organised by Regional Administration. 24-28 July, 1994.

"Population, Land Use and Conservation In A Savanna Environment: A Case Study of Three Sacred Grove Communities In the Tolon-Kumbungu and Savelegu-Nanton Districts of Northern Region" Paper presented with Dr. G.T. Agyepong at Inter-University Seminar on Social Science Research. July 25-29, 1994.

"Forces Driving the Environmental Change and Adjustment Strategies In the Forest-Savanna Ecotone; Population Growth And Urban Demand" Paper presented at The PLEC/INRA Regional Workshop on Environment, Biodiversity and Agricultural Change In West Africa, Legon 25-27 October, 1994.

Songsore, J.

Seminar on Decentralization and the Environment, 9th-13th January, Wa, Ghana, I presented a paper titled: "Population Growth and Ecological Degradation in Northern Ghana"

Colloquium on Growth Strategy for the Western Region, organised by the World Bank and the Government of Ghana, 8-9 March 1994. I presented a joint paper with P.W.K. Yankson and G.K. Tsikata titled: "The Tarkwa-Aboso-Nsuta Mining Complex: An Analysis of Environment-Economy Linkages"

Workshop on Environment and Health in Developing Countries: an analysis of intra-urban differentials in Accra Ghana and Sao Paulo, Brazil, 13-15th April 1994, Sao Paulo. I was one of the discussion leaders on the topic: "Gaps in the planning database with specific reference to community needs".

HABITAT Workshop on Community Based Environmental Management Information System (CEMIS), Accra, Ghana, 3-6 May 1994 Accra. I made presentations on: "Analytical Background Information for the CEMIS project; and the CEMIS Framework and Operations".

WHO Informal Consultation to Discuss HEDLAMP Methods and Field Studies, 31st August-2nd September 1994, Geneva. I presented a HEDLAMP Case Study titled: "Health and Environment Data Linkage and Monitoring Project (HEDLAMP) Field Studying in Accra."

Addo, S.T. (Currently on Sabbatical).

Gyasi, E.A.

Steering Committee Meeting, South-South Cooperation Programme on Environmentally sound Socio-Economic Development in the Humid Tropics, 25-29 May 1994, Chiang Mai, Thailand.

PLEC General Meeting, 30 May-2 June 1994, Chiang Mai, Thailand.

PLEC/INRA Regional Workshop on Environment, Biodiversity and Agricultural Change in West Africa, 25-27 Oct. 1994.

Agyepong, G.T.

The Third Conference on Environmental Security: Population/Environment Equation: Implications for future Security 31 May - 4 June 1994, Boston (Melford, Ma, USA).

Paper: "Population and land use in a West African savanna ecosystem: A case study of environmental management and conservation in the Tolon-Kumbungu District of Northern Ghana."

Inter-University Seminar Workshop on Social Science Research, University of Ghana, Legon, Legon 25-29 July 1994, Accra.

Joint papers:

(i) "Assessing the spatial patterns of land cover and land degradation in the Upper East Region of Ghana, using satellite images".

(ii) Population, Land Use and Sustainable Development in a Savannah Environment. A study of Grove Community areas in the Tolon Kumbungu District".

PLEC/INRA Regional Workshop on Environment, Biodiversity and Agricultural Change in West Africa, 25-27 October, 1994, Accra.

Joint papers

(i) "Land use and cover change in the Southern forest-savanna transition zone in Ghana: A sequence model."

(ii) "General land use and cover patterns in the southern forest-savanna transition zone in Ghana.

Policy Workshop on tsetse and Trypanosomiasis control:

Paper

"Remote sensing and land use planning in tsetse infested/oncho free areas in Ghana"

Joint Seminar on Halting the Decline in the Guinea Savanna Ecosystem in the Upper West Region: Technical Opportunities and Community Challenges, Wa.

Paper

"The use of Geographical Information Systems (GIS) for identifying and resolving potential conflicts in Land use".

Yankson, P.W.K.

1. International Conference on Urban Governance and Urban poverty in Angolphone West Africa. (Organized by Centre for African Settlement studies and Development (CASSAD) in Collaboration with FORD foundation and Friedrich Ebert Foundation).Ibadan, Nigeria, May 16-18 1994.

Paper presented Title: Urban Governance and urban poverty in Ghana.

Kufogbe, S.K.

- a) National Seminar on Remote Sensing and GIS Applications for Sustainable development and environment protection in Ghana, Accra International Conference Centre, 31st Oct-3rd Nov. 1994.
- b) Soils, Land Use and Land Degradation: Ghana Coastal Wetlands Management Project. Environmental Reconnaissance Studies, I Muni/Pomadze, Sakumo and Densu delta

Ramsar Sites. Report prepared for the Department of Game and Wildlife, Government of Ghana. (GW/A/285/Sf.2/29) January, 1994. (With J.K. Amatekpor).

"Land use and cover change in the southern forest Savanna transition zone in Ghana: A sequence model" Paper presented at the PLEC/INRA Regional Workshop on Environment, Biodiversity and Agricultural Change in West Africa, organised by the United Nations University (UNU) Programme on Population, Land Management and Environmental Change (PLEC) and UNU Institute for Natural Resources in Africa (UNU/INRA) University of Ghana, Legon 25-27 October, 1994. (With G.T. Agyepong).

Assessing the Spatial Patterns of Land Cover and Land Degradation in the Upper East Region of Ghana using Satellite Images. Inter-University Seminar/Workshop on Social Science Research, University of Ghana, Legon. 25-29 July, 1994. (With G.T. Agyepong).

Publications

- Nabila, J.S. "Management, Follow-up and Evaluation of Population Projects", in *Basic Elements In Social Research Project Development* RIPS Occasional Publication No.9 Feb. 1993 pp.123-139.
- "The Frontier and Ocho-Freed Zone: Hope For the Future" in *Internal and International Migration In Ghana*. Ghana Statistical Service (Forthcoming)
- Songsore, J. Gordon McGranahan & Jacob Songsore, "Wealth, Health and the Urban Household: Weighing Environmental Burdens in Accra, Jakarta and Sao Paulo," *Environment*, Vol. 36, No.6, July/August 1994.
- "Health and Environment Analysis for Decision-Making (HEAD-LAMP) Field Study in Accra, Ghana, forthcoming, *World Health Statistics Quarterly*, January 1995 issue.
- Gyasi, E.A. With J.S. Ayivor, "Rural-rural migration in Ghana: the case of Likpe seasonal migrant rice farmers" *Malaysian Journal of Tropical Geography* 23 (1) 1992.
- "The Adaptability of African Communal Land Tenure to Economic Opportunity: The Example of Land Acquisition for Oil Palm Farming in Ghana" *Africa* 64 (3) 1994.
- "Research execution: experiences of a social scientist" *Proceedings of a Seminar on the Conduct of Research: From Formulation to Dissemination*. Nov. 6-7, 1992, edited by M.E.K. Dakubu and F.S. Tsikata, University of Ghana, Legon. 1994.
- With others "Production Pressure and Environmental Change in the Forest-Savanna Zone of Southern Ghana", forthcoming *Global Environmental Change*.
- Agyepong, G.T. The morphological significance of the beach rock at Prampram, Ghana. *Ghana Journal of Science*, Vol. 22-28, No. 1-2, pp. 77 - 84.
- Yankson, P.W.K. With Lasse Moller Jensen "Assessing the land cover change of Accra using Landsat TM data" *Danish Journal of Geography* 1994, pp.21-25.
- "Improving urban environmental management in Ghana. What role the informal sector?" *Greenhill Journal of Administration* (Forthcoming).

- Oori-Sarpong, E. 'Some environmental constraints on agricultural development of Kenya's arid and semi-arid lands.' (Journal of third World Studies), Vol. 199, March, 1995
'Analysis of February-April 1993 rainfall over Kenya.' (Weather Magazine), Vol. 199, June 1995.
Some aspects of land degradation in the Upper East Region of Ghana. Co-authored (Scottish Geographical Magazine). September 1995.
- Kufogbe, S.K. Assessing the spatial patterns of land cover and land degradation in the Upper East Region of Ghana using satellite images: (Forthcoming: Proceedings of the Inter- Univ. Seminar/Workshop on Social Science Research, Legon. 25-29 July 1994 (with G.T. Agyepong).
Land use and cover change in the southern forest savanna transition zone: A sequence model (Forthcoming: Proceedings of the UNU/PLEC/INRA Regional Workshop on Environment, Biodiversity and Agricultural Change in West Africa, Legon. 25-27 October, 1994 (with G.T. Agyepong).

Benefactions

The Department continues to receive books and current journals from the Institute of Geography, University of Copenhagen, Denmark, with funds provided by DANIDA. A number of books were received from the Department of Geography, University of Canterbury, Christchurch, New Zealand, through Prof. E.A. Gyasi when he was on sabbatical leave in New Zealand last year.

The following past students of the Department donated books to the Department during the year:

Mr. Roger Leh, Norway (4 books).

Mr. Edmund Odoi, Norway. He has subscribed the National Geographic Journal for 1994-1995 for the Department.

APPENDIX A

Remote Sensing Applications Unit (RSAU) Department of Geography and Resource Development

Overview

The Remote Sensing Applications Unit was formally established in the Department of Geography, University of Ghana in July 1993 to undertake teaching, research and service function within and outside the University. The Unit, over the past year taught an introductory course on remote sensing to a group of 15 graduate students from the Departments of Geography and Resource Development, Soil Science, Geology and Botany. Staff recruitment, training and preparation for the execution of a project on land use and cover mapping for Ghana commissioned by the Environmental Protection Agency constituted a major activity of the Unit.

Teaching and research

A group of 15 graduate students from the departments of Geography and Resource Development, Geology, Soil Science and Botany were taught an introductory course on remote sensing.

The teaching and research laboratory provided facilities for two members of the teaching staff of the Departments of Physics and Geography and Resource Development for image processing in connection with their Ph.D thesis. Three graduate students wrote thesis proposals which will involve image processing.

The RSAU has recruited 3 team Leaders, 6 field officers, 1 equipment technician, 1 office manager, 1 office assistant and 1 driver. These together with the Director, constitute the complement of staff that will undertake the land use and cover mapping of Ghana at the scale of 1:250,000, using satellite images.

Five of the staff, including the Director underwent external technical training in remote sensing and GIS in the UK and Denmark.

Research

Ongoing research included:

The use of remote sensing in forestry management by Dr. G.T. Agyepong.

Land use change in Accra by Dr. P.W.K. Yankson.

Land Use and Environmental Change in the Afram Plains by Mr. S.K. Kufogbe.

Cold Cloud Temperature. Estimation and crop monitoring by Mr. V. Kakane.

Conferences/Seminars/Workshops

Gyamfi-Aldoo, J.S. Duadze, G. Astedu, F. Mensah, G.T. Agyepong: The 12th Euro-carto Conference, Copenhagen, 10-13 Nov., 1994.

G.T. Agyepong: Policy Workshop on tsetse and trypanosomiasis control. Paper: Remote Sensing and Land use planning in tsetse infested/oncho free areas in Ghana, Accra.

F. Mensah: Halting the decline of the Guinea Savanna Ecosystem in the Upper West Region - Technical opportunities and community challenges.

Paper by G.T. Agyepong, was presented.

Publications

L.M. Jensen and P.W.K. Yankson "Assessing the land cover change of Accra using Landsat TM data. Danish Journal of Geography pp.21-25.

APPENDIX B

Population Impact Project

Population Impact Project (PIP) an outreach programme of the University of Ghana, is managed by the Department of Geography and Resource Development in collaboration with the Futures Group of Washington with funds provided by the United States Agency for International Development (USAID). The current focus of the project is on Population, Resources, Environment and Development. PIP continues to make available relevant information on population and development interrelationships to the public, particularly policy makers, in the form of RAPID presentations using audio-visual equipment and a micro-computer.

Seminars and Workshops

In conformity with its objectives, PIP actively participated in a number of seminars and workshops which were organised on population-related issues. The key seminars organised were:

Seminar for Editors and Journalists in the Southern Sector on the Draft Revised National Population Policy and the Media at the Ghana International Press Centre, Accra - 19th February, 1994.

Seminar on Population and the Environment in the Eastern Region at Eredec Hotel, Koforidua - 10-11th March, 1994.

Seminar on Population and the Environment in the Volta Region at Woezor Hotel, Ho - 7-8th July, 1994.

- Seminar for Journalists from the Eastern, Ashanti and Brong-Ahafo Regions on the Revised National Population Policy and the Media at City Hotel, Kumasi - 14-15th July, 1994.

Extension

PIP staff continue to serve on the Technical Advisory Committees of the National Population Council (NPC). It also provides Technical Assistance to the NPC on various programmes such as the Revision of the 1969 Population Policy and the development of Action Plans for Implementing the Policy.

Publications

PIP in collaboration with the Futures Group, Washington has published a booklet on *Population and Development In Ghana*.

Visitors

Mr. Dan Kress of the Futures Group International, Washington D.C., U.S.A.

Mr. Chuck Pill and Ms. Jane Cover of Options, Washington D.C., U.S.A.

Ms. Sasha Lofredo of the Population Reference Bureau, Washington D.C., U.S.A.

Prof. Linda Lacey of the Carolina Population Centre, University of North Carolina, U.S.A.

Mr. Charles Lewellyn of USAID, Accra.

APPENDIX C

Family and Development Programme (FADEP) 1993-1994

Introduction

The Family and Development Programme (FADEP), a University of Ghana project, is supported by the United Nations Population Fund (UNFPA). As a project of Capacity Building, Research and Policy Assessment, it has successfully pursued its objectives under the outlined workplan for the academic year.

Capacity Building

Research Collaboration

In the area of capacity building, FADEP works with multidisciplinary research teams from all the three major universities in the country in its research activities. It also works with relevant sector ministries and non-governmental organizations to update them on issues on the family and to exchange ideas.

Technical Assistance

The Population Council of New York, continues to backstop the project through a sub-contract with the University of Ghana.

Research Programme

Four literature reviews on the family were successfully completed during the academic year. All the empirical studies have also been commissioned, out of which one is already finalized.

The Family Resource Centre

Within the FADEP offices, a Family Resource Centre has been set up since the inception of the project. The Centre acts as research centre and is patronized by students, and lecturers from the universities, consultants, sector ministries and other several agencies.

FADEP Publications

Book Publication

The book entitled "Family and Development in Ghana", published by the Ghana Universities Press for the Family and Development Programme, was launched in Accra. The book is available to institutions and the general public through the University Bookshop, Legon.

Booklets

Booklets, which are essentially brief summary of major findings of the FADEP researchers, were published by FADEP for distribution. These include:

Family and Development in Ghana: Issues about the Ghanaian Family.

Facts about the Ghanaian Family.

The Child Within the Ghanaian Family.

Gender Roles in Household Allocation of Resources and Decision-Making.

Visitors

The Population Council, New York, representative in the person of Dr. Cynthia Lloyd, visited the project. The Council representative in Kenya, Dr. Aya Ajayi, also visited. There were also visits from the UNFPA technical support services based in Addis Ababa. The most important among this was the visit by Dr. Miriam Were, the director of the Team, which explored the ways and means the universities could collaborate with the UNFPA effectively in the implementation of its activities.

APPENDIX D

Ghana Population Agenda

Introduction

The Concept of African Population Agenda was initiated in 1989 out of concern for delayed implementation of population programmes in Africa, and based on the World Bank's analysis of successful population programmes which had indicated that the common elements in such programmes were public and political commitment, meeting clients' needs and clients' own involvement in the design and the implementation of the programme. It is jointly sponsored by the World Bank, UNFPA and IPPF.

The Agenda's goal is to improve the implementation of population programmes and build public consensus and commitment to population activities by:

- Obtaining the views of the beneficiaries, implementors and policy-makers on how to improve population programme implementation and bring them together to draw up and implement action plans;
- Sharing programme, experiences among countries with similar socio-cultural conditions;
- Making African Institutions and experts responsible for the Agenda to accelerate the (d)
- Allowing countries and donors to develop long term policies for the 1990s and beyond on the basis of the Agenda's results.

The Agenda is guided by an African Population Advisory Committee made up of 16 leading African population professionals, academicians and policy maker from both francophone and anglophone countries.

Ghana Population Agenda

The Ghana Pilot Exercise

The Ghana Population Agenda began with a pilot exercise conducted in four districts of the Central Region, in 1990. The districts were:

- Abura/Asebu/Kwamankese District
- Ajumako/Enyan/Essiam District
- Cape Coast District
- d) Awutu/Effutu/Senya District.

From its very inception the Agenda sought to involve policy-makers, opinion leaders, implementers and beneficiaries in the design and implementation of population programmes that affect the quality of life of the people.

The Expanded Agenda Exercise

Following the success of the pilot project in the Central Region and the community projects that have evolved from it, it was decided that the Agenda Exercise be expanded to cover 10 districts in five more regions. These are:

- Sunyani and Dormaa Districts in Brong Ahafo Region.
- Tamale and West Gonja Districts in Northern Region.
- Nzema East and Shama-Ahanta Districts in Western Region.
- Hohoe and Adidome Districts in Volta Region.

- (e) Tema and Dangbe West Districts in Greater Accra.

The last two districts have been selected purposively to cover the region in which the national capital is located and to make possible the inclusion of policy makers, implementers, and opinion leaders at the national level.

The project is jointly managed by the Population Impact Project (PIP) and the Demographic Unit, University of Cape Coast.

Status of Project

Field data collection has been completed in all the ten districts. Currently data processing and analysis is progressing steadily and expected to be completed by June 1994.

Benefactions

The Ghana Population Agenda Project is funded by the United Nations Population Fund (UNFPA). Apart from the financial support the following have been provided by the UNFPA:

Four-wheel drive Toyota Land Cruiser.

Two computers and accessories.

Ten bicycles for distribution to communities as part of action-oriented programmes which will emanate from the Agenda Exercise.

Department of History

Staffing Position

The Department of History has an establishment of 14. There are seven teaching staff at post, four teaching assistants and three national servicemen. One member of the Teaching Staff is on Study Leave.

Students

Undergraduate enrolment of the session is as follows:

Level 100	94
Level 200	320
Level 300	139
Level 400	54
Total	487
Postgraduates: M.Phil	5
Ph.D	7
Total	2

Research

Individual research in the Department focussed on:

Fynn, J.K.	A Political History of Ghana, 1950-1992
Van Dantzig, A.	Research activities concentrated on the National Archives to find more material on the Forts and Castles, as well as town development in the late 19th and early 20th century.
Kwamina-Poh, M.A.	Christian Missionary activities in Ghana with special reference to Basel and Scottish Missions. Development of Education in Ghana since 1974.
Perbi, Akosua (Mrs.)	Indigenous Slavery in Pre-Colonial Ghana.

Publications

- Fynn, J.K. "Nigeria: A Case Study in World History: Perspective on the past". Focus on Africa (ed) Edward Reynolds. D.C. Heath and Company, USA.
"The State of American Studies in the University of Ghana." Paper delivered at American Studies Conference, Volta Hotel, Akosombo, 11-13 August, 1994.
Keynote Address on Yaa Asantewaa's Vision, Commitment and Its Relevance to Ghana.
- Van Dantzig, A. Book Review Yann Defontaine: *Gierre et Societe au Royanne du Fetu (Efutu)* in *Revue Francaise Paris d'Histoire d'Outre-Mer lxxx* (1993).
Art and Architecture as Tools for the History of Ghana: Inter-University Seminar/Workshop Faculty of Social Studies. University of Ghana, Legon July 1994, p.231, Accra.
Forts and Castles of Ghana Inc: Around Ghana, 1994, p.31, Accra.
African History in Maps, Longman, 1982: Sale of Japanese translation rights to Kokon Shao in via Tettle-Mori Agency, March 1994.
The Mother of Our Schools: A History of the Presbyterian Training College, Akropong Akuapem, and Biography of the Principals 1848-1993
Biographical Details
Part I: From the Basel Mission period through the Scottish to the era of Ghanaian Administration.
Part II: Biographical Sketch of Twenty Principals. Contribution: 4 chapters in Part I (the fifth chapter and the biography by two others. In addition made the necessary revision and correction ready for two readers, before sending for typeset and printing.
Place of Publication
i. Typeset by *Mechanical Lloyd*, Accra.
ii. Printing by *Fine Print*, Accra. Date of Publication: Ready March 1995.
- Addo-Fening, R. One of the contributing Authors to Edward Reynolds (ed.) *Focus on Africa*, Heath & Co. San Diego, 1994.

Conferences/Seminars/Workshops/Colloquium

- Fynn, J.K. Attended American Studies Conference organized by United States Information Service (USIS) at Volta Hotel, Akosombo, 11-13th August, 1994.
Attended a Seminar on Nana Yaa Asantewaa organized by African House, a Non-Governmental Organization (NGO) at the National Theatre, Accra, on Saturday, August 27, 1994.

- Van Dantzig, A. Attended an International Colloquium on "The Slave Route" Oudah/Cotonou, September, 1994.
- wamina-Poh, M.A. Guest Speaker: *Guan Congress*, Accra, on 'The Need to Preserve Guan Historical and Material Culture', February 26, 1994.
Symposium in Accra on the theme. *Basel and Bremen Missions in Ghana*: Paper presented: *Basel and Bremen Missionaries - Social and economic contributions in Ghana*, July 1994.
Faculty of Social Studies Inter-University Seminar/ Workshop on 'Whither Social Science Research: in attendance, July 25-29, 1994.
- Addo-Fening, R. Attended West African Conference on "Christianity and Nation Building" held in Accra, September 12-14, 1994.
Read a paper entitled: "Christianity and Nation Building: Historical Perspective (Ghana)".
Participated in a Seminar: Ghana Academy of Arts and Sciences symposium on "Conflicts in Africa" November, 1994. Presented a paper entitled "Pre-Colonial and Colonial Conflicts in Africa".
- Perbi, Akosua (Mrs.) "A History of Indigenous Slavery in Pre-Colonial Ghana". Seminar paper presented to the Faculty of the Center for African-American Studies, University of Texas at Austin, USA on 17th November, 1993.
Participated in a Workshop on Slavery and the Slave Trade organized by the Milwaukee Board of Public Schools, USA from 21-24th April, 1994 in Milwaukee. Presented three papers on the: (a) Indigenous Slavery in Ghana, (b) Ghana's Ethnographic History, (c) Ghana and the Atlantic Slave Trade.
Participated in the Joint Workshop of the Social Science Research Council International Pre-dissertation Fellowship Program/Program on African Studies, New York, USA and the Department of Political Science, University of Ghana, Legon from 29th August - 2nd September, 1994. Presented a paper on "A Comparative Historical Analysis of Indigenous Slavery across Pre-Colonial Ghana".

Legon Centre for International Affairs (LECIA)

During its fifth year of existence, LECIA, continued to train post-graduate students in interdisciplinary academic work; organize seminars on specified subjects on current international interest; and, to research and publish in areas of International Affairs, International Relations, Law and Practice.

Admission

During the year under review, 16 students were admitted to the programme. The breakdown was as follows:

Ministry of Foreign Affairs	5
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General Applications 8
Foreign Students 3

Of the Foreign students, one was an Ethiopian and two were Americans on Rotary International sponsorship. The male-female ratio was 9 to 7.

Graduation of Students

Results of 24 past students were determined during the year. The analysis of the past performance of students by year is as follows:

Year	Number of Students		Number of Dissertations/Results		
	Admitted	Examined	Determined	Corrected/Pass	Fail
1989-90	9	9	9	8	1
1990-91	14	13	13	1	
1991-92	14	12	9	5	
1992-93	15	15	11	5	
TOTALS	52	47	42	29	1

Staff

Prof. G.K.A. Ofofu-Amaah continued as Interim Director. He ran the Centre with an Assistant Registrar and six support staff.

Dr. G.K. Bluwey, transferred from the Department of Political Science to LECIA with effect from 1st April, 1994. LECIA, however, continued to depend heavily on part-time lecturers to run its programme. A series of advertisements has resulted in a number of applications which are pending before the Appointments Board.

LECIA Library

The existing LECIA library is designed essentially for reference to support the work of Senior Members and students in their research and course work.

LECIA continued to stock the library with current books and journals on International Affairs. A good number of these publications were donated by friends of LECIA and other related organisations while others are on loan.

Research

Ms. Pamela Pensock, a Visiting Scholar from March to September, 1993, completed her research on Human Rights. The Centre is currently awaiting a printed copy of her paper.

Dr. Bluwey's research on Ghana's Foreign Policy since 1972 was on-going. There are facilities for research at LECIA which have so far not been utilized because of lack of staff.

Seminar Series

The year's Seminar series were on topical issues of International Affairs. Participants included the Ambassador of USA, Deputy to the Japanese Ambassador, Senior Civil Servants and Senior Members of the University.

LECIA Bulletin

The LECIA Bulletin has been used in the past to document the previous year's seminar series. The 1993 Bulletin, which should have issued in 1994, was delayed due to technical problems. It is now in print.

Gifts to LECIA

The following gave gifts to the LECIA Library.

Lt.-General E.A. Erskine	500 pounds worth of Journals
Prof. Ofuately-Kudjoe	61 Books
Dr. Akwesi Osei	60 "
Dr. Bafour Agyeman Duah	15 "
Mr. Gibbons	14 "
Ms. Pamela Pensock	13 "
Prof. Kwamina Panford	12 "
Mr. Paul Martin	11 "
Geoth Institute	Language books, dictionary and cassettes - 22 items
CODE	2 Boxes of Books
USA Ambassador	3 Books
UNHCR	3 "
USIS	3 "
ISSER	3 "
WWF International	2 "

Department of Library and Archival Studies

Overview

The staffing position continues to be the major problem of the Department. The number of courses was increased to ten with at least five subjects in a course. The student population also rose to 141 (one hundred and forty-one). The work load should have been handled by about 15 (fifteen) full-time members of staff. But there were only 6 full time members at post and two part-time lecturers. This situation left members of staff especially, those in the Archives Section overburdened. Work however, continued and members of staff performed all duties efficiently without complaining. The old building is gradually collapsing and the tiles in both the new and old buildings are also giving way. A major repair work needs to be undertaken immediately.

Courses

The Department increased the number of courses run to ten. These are:-

1. Diploma in Librarianship
2. Diploma in Archives Administration

These two are one calendar year courses which students with a Certificate qualification undertake by project work. This year marks the end of this course.

Diploma in Librarianship Part I

First Semester

1. Introduction to Librarianship
- ii. Organization and Library Routines
- iii. Preservation of Documentary Materials
- iv. Collection Development
- v. Research Methodology

Second Semester

- i. Information Sources
- ii. Cataloguing
- iii. Introduction to Information Science
- iv. Reprographics
- v. Rural Information Services

Diploma in Librarianship Part II (Old Programme)

- i. Library in Society
- ii. Reference and Information Services
- iii. Technical Services
- iv. Introduction to Information Science
- v. Library/Information Systems

Diploma in Archives Administration Part I

First Semester

- i. Introduction to Records Management
- ii. Introduction to Archives Administration
- iii. Preservation of Documentary Materials
- iv. Africa Since 1500
- v. Research Methodology

Second Semester

- i. Introduction to Information Science
- ii. Reprographics
- iii. Organization of Records and Information
- iv. Acquisition and Processing of Archival Materials
- v. Rural Information Services

Diploma in Archives Administration Part II (Old Programme)

- i. Records Management
- ii. Archival Administration and Preservation Management
- iii. Introduction to Administrative History
- iv. Introduction to Information Science
- v. Project Work

Graduate Diploma in Library Studies (Old Programme)

Part I

- i. Management of Libraries/Information Centres
- ii. Technical Services
- iii. Information Science
- iv. Reference and Bibliographical Services

Part II

Written Project

Graduate Diploma in Archival Studies (Old Programme)

Part I

- i. Records Management
- ii. Archives Administration
- iii. Information Science
- iv. Administrative History

Part II
Written Project.

M.Phil in Library Studies Year 1 (Old Programme)

- i. Information in Society
- ii. Advanced Information Science
- iii. Techniques of Research in Information Studies
- iv. Information Retrieval

M.Phil in Library Studies Year 2 (Old Programme)

Thesis.

Student Numbers

Diploma in Librarianship (1 Year)	20
Diploma in Archives Administration (1 Year)	12
Diploma in Librarianship Part	28
Diploma in Librarianship Part II	27
Diploma in Archives Administration Part I	20
Diploma in Archives Administration Part II	12
Graduate Diploma in Library Studies	10
Graduate Diploma in Archival Studies	6
M.Phil in Library Studies Year 1	2
M.Phil in Library Studies Year 2	4
TOTAL	141

Staff

The very difficult staffing position, especially, in the Archives section of the Department was worsened this academic year when Mr. H.A. Akussah was offered a year's study leave to pursue a Master's in Information Science programme in the School of Library, Archive and Information Studies, University College London. The courses in the section therefore fell on the shoulders of Messrs S.K. Agyei and Pino Akotia. Mrs. M.I.S. Boye was granted sabbatical leave whilst Dr. A.A. Alemna rejoined the Department. Out of the proposed establishment of 15 (fifteen) because of the increase in courses run - there were 6 (six) full time lecturers and 2 (two) part-time lecturers. These are:

Full Time Lecturers

Mr. S.K. Agyei,	Senior Lecturer & Acting Head of Department
Mr. D.E.M. Oddoye	Senior Lecturer
Dr. A.A. Alemna	Senior Lecturer
Dr. R.C. Nartey	Lecturer
Mr. P.T. Akotia	Lecturer
Mr. E.E. Badu	Lecturer

Part-Time Lecturers

Mrs. C.O. Kistedu	University Librarian
Dr. L. Kwasitsu	

Research

Mr. Agyei and Professor Albert Van Dantzig published the research they undertook last year on behalf of the University Consultancy Centre, Legon. The title is 'The Forts and Castles of Elmina and Cape Coast.' Dr. Alemna successfully completed his Ph.D programme in African Studies. Dr. Nartey has completed work on the Statistical microstructure of the Ga Language.

Publications

- Alemna, A.A. Libraries and Information Provision in Ghana, Accra: Typeco Publishers, 1994, 119p.
"African Library Science Journals: The missing link". Scholarly Publishing Vol.25, No.1, 1993, pp.48-52.
"Agricultural Information Provision in Ghana: The role of the Library". QBIAALD Vol.38, No.1 1993, pp.22-26.
"The factor of Publishing as a criterion for establishing the status of academic librarians in Ghana". Af. Jnl of Lib. Arch. & Inf. Sc. Vol.3, No.2, 1993, pp.133-140.
"Library and Information Science Research in Africa:Obstacles and opportunities". Int. Jnl. of Inf. & Lib. Res. Vol.5, No.1, 1993, pp.47-55.
-. "Nature and trends in research and journal literature in Africa". Int. Info. and Lib. Review. No.26, 1994, pp.19-30.
"Alternative approaches to funding of university libraries in Africa". New Lib. World Vol.95, No.1112, 1994, pp.15-17.
- Akussah, H.A. "A Calender of Kwame Nkrumah Papers in the Documentaton Centre of the Institute of African Studies, University of Ghana 1935-1948, **History in Africa** 21 (1994), 389-402, No.61, 1993.
"The Management of Microforms in the Balme Library, University of Ghana, Legon, "**African Journal of Library, Archives and Information Science**, Vol.4, No.1, 1994.
A Guide to the Post Independence Ministerial Records in the National Archives of Ghana 1920-1988", **African Research and Documentation**, No.64, 1994.
"Legal Records in Accra" In. Twining, W & Quick E.V. (edt.) Legal Records in The Commonwealth, Singapore, Dartmouth Publishing, 1994.
- Agyei, S.K. "Teaching Preservation to Prospective Librarians and Archivists in Ghana: Problems and Prospects," Paper read at the Seminar on Conservation of Books and Archive Materials at G.I.M.P.A., November 22-24, 1993.
"Training the Professional Archivist in Africa: Some Observations," Paper read at the Pan-African Conference on Archival Policies and Programmes in Africa, Abuja, October 31 - November 5, 1994.
- Nartey, R.C. "Library Research: Sampling and Questionnaire Design," Paper read at the Ghana Library Association Workshop on Library Research, 8-9 September, 1994.

"The use of Information Technologies in Libraries and Information Centres," Paper read at the Ghana Library Association Workshop on Use of Computers in Libraries, held at Martin Luther King Centre, Accra.

Conferences/Seminars

All members of staff attended the Seminar on Conservation of Books and Library Materials at the Ghana Institute of Management and Public Administration, November 22-24, 1993. They also attended the Inter-University Seminar on Social Science Research at Legon, July 25-29, 1994. Members of the Library Section attended a Seminar on Library Research, 8-9 September, 1994.

Dr. A.A. Alemna attended two other seminars during the year. These are the Seminar/Workshop on University Teaching held at University of Cape Coast, 7-11 July, 1994 and the PADIS Workshop for University Lecturers teaching Library and Information Science, held in Gaborone, Botswana, 5-16 December, 1994

Dr. R.C. Nartey attended a Seminar/Workshop for MICRO/ISIS Trainers at Nsitori, Kenya, 12-23 September, 1994, sponsored by the German Foundation for International Development (DSE).

Mr. S.K. Agyei attended the Pan-African Conference on Archival Policies and Programmes in Africa, held in Abuja, Nigeria from October 31 to November 5, 1994.

Benefactions

The Department took delivery of text-books and journals to the value of over £2,000 (Two Thousand pounds) to supplement the collection in the Departmental Library. This was through the Link Programme between the Department and the School of Library, Archive and Information Studies, University College London in addition to the usual exchange of visits by lecturers.

Department of Nursing

Overview

The staff of the Department of Nursing in the 1993/94 academic year continued to be overstretched in fulfilling their obligations to the Department and the University. There were four (4) Senior Members teaching 16 courses in the BA/BSc. programme and 10 courses in the Diploma programme. The remaining Departmental courses were handled by part-time lecturers. In addition, they were responsible for training and supervising concurrent practicals during the academic year, as well as long vacation practicals. The Senior Members were assisted in the practical training by two Nurse Technicians, while two were on study leave.

Student population in the BA/BSc. programme however, continues to increase, though the Diploma intake remains small as per allocation by the Quotas Committee.

The Department's facilities in the form of classrooms have been in great demand, both by other Departments in the University and by private organizations from within outside the University, both during the week and on Sundays. The chairs are not enough.

Courses

Enrolment in the BA/BSc course in the 1993/94 academic year

Year	Total	Male	Female
Level 200	24	5	19
Level 300	22	10	12
Level 400	24	10	14

Enrolment in Diploma Course

Part I	6	6
Part II	5	5

Seminars/Workshop Extension Activities

A number of Workshops were organized in the Department.

A two-week Training Skills Course for 15 Reproductive Health Professionals, from September 19 -30, 1994.

A two-week Clinical Skills Training Course for 15 Service Providers from October 3-14, 1994. Both workshops were sponsored by Johns Hopkins Programme for International Education in Gynaecology and Obstetrics (JHPIEGO) and Two International Consultants were present for both.

Senior Members of the Department participated in several workshops and Seminars organized by the Ministry of Health, Nurses and Midwives Council and the West African College of Nurses (WACN), one of which was held at the premises of the Department. The subject of the Seminars included review of the R.S.N. programme, and planning of Inservice Education Programme for Nurses throughout the country.

Link Relationships

During the year, Miss Ayodele Akiwumi, Head of the Department visited the United Kingdom under a programme organized by The British Council, to identify a University-based School of Nursing to establish links with. Seven Universities were visited, namely: University of South Bank, South London, Caledonian University, Glasgow, Queen Margaret College, Edinburgh, North East Wales Institute of Higher Education (NEWI) Wrexham, Wales, University of West England, Bristol, University of Wales, City of Wales and University of Ulster, Coleraine, Northern Ireland. Since then two of the institutions, the Universities of South Bank and Ulster have been invited to visit Ghana in March 1995 to plan the programme for the link relationship.

Research

Ayodele, Akiwumi	Evaluation of the BA/BSc. programme. Survey of Criteria for admission into Schools of Nursing Introducion of Primary Nursing to Selected Hospitals in Accra Metropolitan Area. Supervised six (6) student research projects.
Osei-Boateng, Margaret	Supervised six (6) research projects of the Department's BA/BSc. students. Started a study on Adolescent Parenthood aimed at finding out teenage mothers and what problems they experience.
Laryea, Joanna,	Supervised seven (7) research projects of the Department's BA/BSc. students. AIDS: Infection control practices among nurses at Korle-Bu Teaching Hospital.

Publications

- Akiwumi, A. (Edited) *"Nursing Education for the 21st Century"* Accra, WOELI Publishing Services, 1994.
"In Search of the 21st Century Nurse for Ghana" *International Journal of Nursing* July/August 1994 pp.118-122.
"Individualized Total Patient Care" - A Study conducted at the Korle-Bu Teaching Hospital, Presented at a Seminar/ Workshop on Social Research. July 20- 29, 1994 for publication.
- Osei-Boateng, Margaret "Family Planning and Nursing Education in Ghana" in Akiwumi Ayodele (ed.) (1994) *Nursing Education in Ghana for the 21st Century*. Accra, WOELI Publishing Services 1994, pp.109-115.
- Laryea, Joanna "Integration of HIV/AIDS Education into the General Nursing Curriculum in Ghana" in Akiwumi Ayodele (ed.) (1994) *Nursing Education in Ghana for the 21st Century*. WOELI Publishing Services pp. 85-108.
"A Study on the Barriers to the Implementation of the Nursing Process at Korle-Bu Teaching Hospital". Accepted for Publication in the Journal of the West African College of Nursing.

Benefactions

The following items were donated by Johns Hopkins Programme for International Education in Gynaecology and Obstetrics (JHPIEGO) with which the Department has cooperative relations.

- 1 Digital Computer
- 1 Colour Monitor
- 1 Keyboard
- 1 Laser Jet Printer
- A number of software

Teaching Aids

- 1 Colour Television
- 1 Video Deck
- 1 Overhead Projector
- 1 Slide Projector
- 1 Camcorder
- A number of Video Cassettes
- A number of Family Planning Models
- A number of books

Donation of Books

One crate and nine boxes of books were donated by Dr. & Dr. (Mrs.) Bonnie & Vern Bough, 17543 Mayall Street Northridge, GA 91325, U.S.A.

Department of Political Science

Overview

The staff and students of the Department went through the year under the same familiar constraints of inadequate, drab and dilapidated physical facilities, ancient equipment as well as shortage of current books and journals. These notwithstanding, the Department, once more, had a very productive year which was characterised by conferences and seminars, and a couple of publications.

Courses

The following courses were offered:

Part I

Semester 1

- Basic Statistics
- Elements of Political Science
- Political Institutions

Semester 2

- Introduction to international politics
- Introduction to the study of Ghanaian politics

Year 2

Semester 1

- Ancient and medieval political thought
- Introduction to the theory and practice of political research
- Government and politics in Ghana since independence (1)
- Introduction to Public Administration
- Nature, growth and role of international organisations
- Organisation theory

Semester 2

- Modern western political thought
- Public Administration in Ghana
- Africa and the global system
- Methods of political research
- Development administration in Ghana
- The political ideas of J.S. Mill
- The military in Ghanaian politics
- International integration

Year 3

Semester 1 & 2

- Government and Politics in Ghana
- Comparative Politics
- Social and Political Theory
- Political Sociology
- Development Administration in Ghana
- Africa in world Politics

Regional and Local Government and Politics in Ghana
Politics of International Economic Relations

M.Phil

Methodology of the Social Science
Strategies of Development in Africa
Public Policy Analysis
International Organisations
Theory and International Politics
The Making of Foreign Policy

Students

The number of students offering Political Science at various levels of study continued to increase. Compared to the previous year's there was an increase of 12%; that is, from 739 to 828. The breakdown is as follows:

Undergraduate

Year 1 (Level 200) students	337
Year 2 (Level 300) students	272
Year 3 (Level 400/Final Year) students	210

Postgraduate

M.Phil Year 1	5
M.Phil Year 2	3

Staff

The Department retained its previous staff strength of 12. Two of these proceeded on a year's leave at universities in the United Kingdom.

Research

Apart from individual research activities, the Department organised a major research on the 1994 district level elections.

Publications

The Department published another collection of conference papers titled *Intellectual Freedom in Ghana* (Edited by Amos Anyimadu) Accra, Anansesem Publications 1994. Individual publications and conference papers include the following:

Anyimadu, A.K.	"Freedom and relevance in higher education: On the notion of a performing university" in Anyimadu <i>Ibid.</i> "Introduction" in <i>Ibid.</i> "Concept and structure in Ghana's Democratisation" <i>PICA SEMINAR SERIES</i> Program of African Studies, Northwestern Universities, USA, February, 1994.
Ayee, J.R.A.	<i>An Anatomy of Public Policy Implementation: The Case of Decentralisation Politics in Ghana.</i> Aldershot: Avebury, 1994. "Divesting powers to the District Assemblies: The Issues" in S.A. Nkrumah, (ed.) <i>Decentralisation Administration Under the Fourth Republic</i> , Legon, School of Administration, 1993, pp. 28-42.

- "Decentralisation and conflict: The case of Ghana's decentralisation programme, 1987-1990". *Occasional Paper* No. 57, 1993, pp. 11-19, Africa Institute of South Africa.
- "Complexity of Joint Action: The implementation of Restructuring of Ministerial Organisation Under the PNDC in Ghana", *Africa J. of Public Administration and Management*, Vol. II No. 2 July, 1993, pp. 25-43.
- "Enhancing the public policy-making process: The executive president under Ghana's Fourth Republican Constitution" *J. of Management Studies* (UG) 3rd Series Vol. 10 Jan-Dec., 1993, pp. 1-9.
- "Notes on the Commission on Human Rights and Administrative Justice under the 1992 Ghanaian Constitution" *Verfassung Und Recht In Ubersee*, Univ. of Hamburg, Germany, Vol. 1 No.2 1994, pp. 159-170.
- "Corporate plan and performance contract as devices for improving the performance of state enterprises: The experiences of the Volta River Authority of Ghana", *Africa J. of Public Administration and Management*, Vol. III, No. 1 Jan, 1994 pp. 72-91.
- "Circumventing Ghana's Constitution", *Africa Insight*, Vol. 24, No. 3, 1994, pp. 200-205.
- Boafo-Arthur, K. "The impact of political changes on intellectual freedom in Ghana" in A. Anyimadu, *Ibid.*
- Essuman-Johnson, A. "Environmental refugees in Ghana: The politics of assistance to Sahel refugees" *Legon J. of Humanities*, Vol. 1, Jan. 1994.
- Ninsin, K.A. "University of Ghana: The anatomy of unfreedom" in Anyimadu, *Ibid.*
- Oquaye, M. "Kwame Nkrumah, politics, ideology and academic freedom in a developing nation" in Anyimadu, *Ibid.*

Conferences/Seminars

The Department organised a 3-day conference on the theme "Intellectual Freedom and Development in Ghana" at the British Council Hall, Accra. Individual members of staff also attended seminars, workshops, and conferences in and outside the country.

Benefaction

The Friedrich Ebert Stiftung donated an amount of six hundred thousand cedis towards the rehabilitation of the Department's lecture room.

Department of Psychology

Overview

The Department of Psychology was established in 1967. The Department offers basic and applied training in Psychology to a large number of young men and women. It also services several Departments in the University like the Department of Nursing, Home Science and the Social Administration Unit of Sociology Department. The Department has graduated over 500

students since its inception. The patterns of change being produced by economic and social reforms makethe study of Psychology more relevant now than ever before and the field has increased in popularity in recent years.

Courses

The Department offered a wide range of courses at the undergraduate level. Some of the most popular courses included: "Introduction to General Psychology" (Level 200), "Theories of Psychology (Level 200), "Learning" (Level 300), "Statistics for Psychologists" (Level 300), "Human Growth and Development" (Level 300), "Social Psychology" (Level 400), "Industrial and Organizational Psychology (Level 400), "Guidance and Counselling" (Level 400). At the postgraduate level, the Department offered M.Phil programmes in Developmental Psychology, Social Psychology, Industrial and Organizational Psychology, and Clinical Psychology.

Student Numbers

	Level 200	Level 300	Part I	Part II	Total
B.A.	200	100		75	375
B.Sc.	50	50		5	105
M.Phil			7	6	13
Total	250	150	7	86	493

Staff

The staffing situation continued to be precarious and the Department had to rely on staff on post-retirement contract.

Research

Members of staff continued with their individual researches. Some of the researches undertaken included:

- Opoku, J.Y. and O'Neil, Mike Learning strategies among University students.
- Akotia, C.S. Ofori-Atta, A.L and Sefa-Dedeh, A Some Psychological Problems of refugees rehabilitation.

Publications

- Opoku, J.Y. Some psychological and educational implications of receiving school instruction through a foreign language. Accepted for publication in *Research Review*, Institute of African Studies, Legon.

Conferences/Seminars

- Akotia, C.S. and Naidoo, J. Positive and negative experiences of refugees in accessing a settlement service in Southern Ontario, Canada. (Paper presented at the 12th Annual Congress of the International Association of Cross-Cultural Psychology, Pamplana, Spain, July, 1994).
- Opoku, J.Y. Building a model of bilingual semantic memory: The joys and frustrations of a psychologist. (Paper presented at an Inter-University Seminar/Workshop on Social Science Research, Legon, July, 1994).

Benefactions

The Department continued to receive free copies of the British Psychological Society Journals as well as Child Development, The Quarterly Journal of Experimental Psychology and Psychophysiology. This was made possible through the benefaction of former students and international scholars associated with the Department. In particular, the names of Professors Gustav Jahoda and Jasper Brener must be mentioned.

Department of Sociology

Overview

The Sociology Department continues to be one of the most active and well patronised outfits in the University. Its vision of providing sound academic instruction, is combined with researches and extension services that enable a public appreciation of the role of sociology in transitional societies. With greater resources and logistical support, such activities will be extended and expanded in the near future.

Courses

The following courses are currently offered in the Department.

B.A. degrees in Sociology, and Social Work. Diploma courses in Police Administration, and Social Administration, and Certificate course in Prisons Administration. Arrangements are being made to upgrade this certificate course to a diploma level.

Student Numbers

Sociology: Level 100	53
200	277
300	157
400	151
Social Work: Level 200	38
300	48
400	34
Graduate Dip. in Sociology	2
M.A. in Sociology	2
M.Phil in Sociology I	5
M.Phil in Sociology II	6
Ph.D in Sociology	2
Diploma in Social Administration I	25
Diploma in Social Administration II	25
Diploma in Police Administration I	2
Diploma in Police Administration II	2
Certificate in Prisons Administration I	10
Certificate in Prisons Administration II	

Staff

The staffing situation has been very delicate, taking into consideration the enormous responsibilities entailed in running two degree programmes, the various sub-degree courses, and the servicing of other departments. There are 12 Senior Members, 2 Senior Staff and 11 Junior Staff.

Research

The heavy teaching schedule of senior members, and the acute logistical problems, are making it difficult for senior members to do more research. Nevertheless, researches are being undertaken in areas including:

- (a) environmental management
- (b) ageing and its social implications
- (c) population problems
- (d) drug use and abuse
- (e) AIDS and its cultural and social impacts.

Publications

- Nukunya, G.K. Nukunya "Insider Anthropology: The Case of the Anlo Ewe" in *ETNOFOOR*, Vol.7, No.1: 24-40.
- Ohene-Konadu, K. "Rural Poverty and Suffering: The case of Ghana, Inter-Faculty Lecture, University of Ghana, Legon, 18th March.
"People, Disease and the Health Delivery, System: The case of Ghana in Kalpeni, E. and Thiuri, P (eds). *The Political Economy of Health Care in Sub-Saharan Africa*.
"Use of some selected Research Methods in the Study of Rural Poverty and Suffering Inter-University Seminar/ Workshop on Social Science Research, University of Ghana, Legon. July 25-29.
- Abotchle, C. "Cultural Goals in Ghana: Significance and Impact on Economic Criminality" in *The Criminologist*, Vol. 18, No.4 pp 210-220: Barry Rose Law Periodicals East Row, Little London, Chichester, West Sussex PO19, IPG, U.K. 1994.
- Fayorsey, Clara Korkor "Poverty and Adolescent Fertility in Ghana", Joint project by Professor John Nabila, Professor A.F. Aryee and Dr. Clara Fayorsey for the Family and Development Programme (FADEP), Department of Geography and Resource Development/United Nations Fund for Population Activities (UNFPA), Ghana.
"Situation survey on Population in Ghana, 1960-1994" for the Japanese Organization for Cooperation in Family Planning Inc. (JOICEP), collaborated by UNFPA, New York; UNFPA CST, Addis Ababa; and UNFPA Field Office, Accra.
Conference on Anthropological Demography Brown University, organized by David Kertzer and Thomas Fricke.
Second Conference of Social Science and Medicine in Africa. African Health in crisis: Which way? Douala, Cameroun.
"The State of the Arts in Social Science and Health in Ghana".
Seminar on Poverty in Ghana, 29th-30th September, 1994. "Poverty and the Commoditization of the Life Cycle".
Fourth Annual Conference of the Pan African Anthropological Association, held in Buer, Camerouns. "Ga Women's Antomony: A critique of the concepts and Economy of the household and Family".

"Preliminary report A: The Social organization in Kassena-Nankana District: Assessing the contexts for reproductive change in a traditional African society." Maternal and Family Planning Project Documentation Note No. 3. Research Report presented to the Navrongo Health Research Centre

"Preliminary Report B: The socio-cultural contexts of reproduction and family planning among the Kasena-Nankana of the Upper East Region of Ghana. "Working Paper for Maternal and Child Health implementation programme of the Navrongo Health Research Centre (NHRC) presented to the Population Council, New York.

March, 1994. Report on "The Accra Declaration for the International Conference for Population and Development" Joint conference report on Youth Forum 1994 by Dr. Clara Fayorsey and Dr. Awusabo-Asare of the University of Cape Coast for the United Nations Fund for Population Activities, Accra and New York. Report has just been accepted for inclusion in the Global report for International Conference on Population and Development to be held in Cairo, Egypt, September, 1994. Reference: Dr. T. Seyoum, UNFPA, Country Director, Accra, Ghana.

Social Structure and the Diffusion of Fertility Behavior in Ghana" - (Case studies of Kasoa, Tubaman, Frami and Dutch Komenda in the Central Region of Ghana. Research Project for the Centre for Population Studies, Brown University, Rhode Island, U.S.A.

During the year 1994, the Sociology Department became the happy recipient of a \$20,000 endowment fund, established by Mrs. Bernistine L. Christmon, of the University of Rutgers, USA. This endowment is in memory of her late husband, Professor Kenneth Christmon, who had been professor of Social Work at Rutgers. From the Fund an amount of \$500 dollars will be awarded annually to the best student in Sociology and/or Social Work.

In addition to this award, Mrs. Christmon also kindly donated 2 electric typewriters and a number of valuable books and periodicals to the Department.

The Sociology Department received a number of distinguished visitors from several universities in Europe and America. Discussions centered particularly on student, and faculty exchange arrangements, as well as prospects for collaborative research.

INSTITUTE OF AFRICAN STUDIES

Courses Taught/Student Numbers

The Institute's main teaching programme is in Graduate Studies leading to the M.Phil and Ph.D degrees in African Studies. Areas of specialization include Societies and Culture, Language/Literature and Drama, Music and Visual Arts, History and Politics in Africa, and Development and Gender Studies.

During the year under review 14 students were admitted to the M.Phil, and two (2) to the Ph.D courses, in addition to 35 M.Phil and 6 Ph.D continuing students. At the under-graduate level, 1,515 students registered for the 1993/94 F.U.E. courses in African Studies. Opportunity is also given students to acquire knowledge and practical skills in African Music, Dance and Drama through participation in Demonstration classes.

During the year under review the Institute also received about 50 Occasional and Affiliate students and another 30 students who participated in the Institute's long vacation (July/August) or Christmas Inter-session short programmes.

In the course of the year the Institute also organized staff and Graduate Seminars covering the various aspects of the Institute's teaching and research programmes. Topics/Themes covered included:-

Reflections on the Development of African Studies by Professor Ivor Wilks of North Western University, USA.

Creative Performance as Discourse in Japanese Festival, Professor Kofi E. Agovi of IAS, Legon.

News Values and Marginalisation of Women: The Case of the Ghanaian Media by Ms. Boatema Boateng, Legon.

Modernisation, Culture and Changes and City Museum: An Accra Perspective by Mr. K.A. Labi, IAS, Legon.

"Fear Woman The Image of Women in Contemporary Video Films" by Mrs. Est Sutherland-Addy, IAS, Legon.

Nobel Laureates, Derk Walcott and Toni Morrison: African Diaspora Literature and the Nation of Universality by Prof. A.V. Adams, Cornell University, USA.

Non-formal Education as a Tool for Community Development by Philip Awekega, M.Phil student, IAS, Legon.

Christian Attitude to Traditional Medical Practice: A Case Study of Traditional Medical Practice at Mampong Akuapem by Oku-Afari Opoku, M.Phil student, IAS, Legon.

The Attitude of Muslim Women towards the Activities of Women's Organisations: A Case Study of the Muslim Women of Tamale, by N. Suhugini, M.Phil student, IAS, Legon.

The Apo Festival of Wenchl as Drama, by Hall-Baidoo, M.Phil student, IAS, Legon.

Music in Christian Worship: Comparative Analysis of the Musical Traditions of the Older Mission Churches and the New Churches in Ghana, by A.A. Agordoh, Ph.D student, IAS, Legon.

The Relevance of Education to Socio-Economic Development in Rural Communities - A Case Study of the Ahanta West District by Robin Andrew Fladzo, M.Phil student, IAS, Legon.

Traditional Religion and Environmental Conservation: A Study in the Adonten Division of the Akuapem Traditional Area by Bruce K. Akoto, M.Phil student, IAS, Legon.

The Participation of NGO's in Environment and Development with particular reference to the Volta Region by Lambert Okrah, M.Phil, IAS, Legon.

Visitors

Prof. Ivor Wilks, Visiting Professor from North Western University, USA Prof. A.V. Adams from Cornell University, USA.

Gifts and Donations

The Institute and the Sections received many gifts and donations to its Library and Archives from the following sources:

Two computer units, their components and soft wares from Pan-African Association of Anthropologists, University of Yaounde, Cameroon.

One Electronic Calculator by Prof. Kofi Agovi of the Institute of African Studies, University of Ghana, Legon.

Musical Instruments from Mr. Jonathan Ticker of 26 Cross Road London E1, 3JE.

Mrs. Peggy Joe Appiah of Kumasi donated some valuable books of her late husband, Mr. Joe Appiah.

Biomass Energy and Coal in Africa edited by D.O. Hall and Y.S. Mao were donated to the Institute by Farouk Sohawan of 2ED Books 7 Cnythis Street, London.

Books/Pamphlets/Periodicals/Journals. The Institute also received 220 books, 110 pamphlets, 3 periodicals/journals. It also purchased 48 books, 6 pamphlets and 2 periodicals/journals.

Improvements/Addition to Existing Facilities

During the year under review the Institute undertook major renovation of its plant and equipment, including the repairs and repainting of the Institute's entire building, and its chalets at South Legon. It also installed a water reservoir at the chalets with a storage capacity of 900 gallons. The Institute also took delivery of a 15-seater air-conditioned Mazda Bus at the cost of 14.5 million cedis. This amount was paid from the Institute's own resources. It also entered into an agreement with IC ROM (International Centre for the Study of Preservation and Restoration of Cultural Property, Rome, Italy) to host a ten-month course in Preservation of Cultural Material in Tropical Africa (PREMA), starting in March, 1995.

Arhin, K. (Nana Arhin Brempong).

Research Activities

"The Economic Implications of Transformations in Akan Funeral Rites". *Africa*, 64, No. 3, 301-322.

"The Re-accommodation of Ghanaian Returnees from Nigeria in 1983 and 1985" editors, Tim Allen and Hubert Morsink *When Refugees Go Home*, UNRISD in association with James Currey, London. pp. 265-275.

"Sanctions Against Abuse of Authority in Pre-Colonial Africa", in D. Brokensha editor, *A River of Blessings Essays in Honour of Paul Baxter*, Syracuse University, pp. 148-159.

"Monetization and the Asante State" in Jane I. Guyer editor, *Money Matters: Instability, Values and Social Payments in the Modern History of West Africa Communities*, James Currey, London, Heinemann, NH, pp. 96-110.

Research Reports

The Institutional Framework of Collaborative Forest Management, Department of Forestry, August.

The Historical and Anthropological Dimensions of the Accra

	Peri-Urban Area Institute for Development Anthropology, November.
Conference Paper 1994	"Tradition and Democracy". Paper read at NGOs Conference on Democracy on Whose Terms. Stockholm, Sept., 24-28, 1994 (to be published).
Keynote Address	"A View of the Educational Reforms" Regional Triennial Delegates Conference, GNAT, Accra, 6-7th October, 1994. Lecture to the African Studies Centre, University of Liverpool. "Prospects for Democracy in Ghana", June, 1994. International Conference on <i>The Contribution of Traditional Authority to Development in Africa 2nd-6th Sept., 1994</i> , organized in collaboration with the Department of Political Science, University of Calgary, Canada, African Studies Centre, Leiden, Chieftaincy Secretariat, Accra.
Extension Activities	
Academic	Consulting Editor, <i>Africa</i> , International African Institute
National Assignments	Member, Council of State Chairman, Board of Directors, Ghana Cocoa Board Chairman, Board of Directors, Nwabiagya Rural Bank, Bare-Kese
On-Going Work	The Political Systems of Ghana
Current Research	Stool Debts and Stool Treasuries: The Changing Political Economies of the Traditional States of Ghana. The Gyase Organisation: Patrimonialism among the Akans.

Bame, K.N.

Staff on contract under New University Guidelines,	
Conferences Attended	Inter University Seminar/Workshop on Social Science Research July 25-29, 1994, Theme: "Whither Social Science Research."
Research in Progress	Paper Read "Health Education in Ghana: The Use of Traditional Media - Two Studies Two Decades Apart". Health Education in Ghana: The Use of Traditional Media. (This is being funded by African Development Foundation in Washington, D.C. (USA). Social Adjustment and Health Problems of Refugees in Ghana.
Publications	"The use of indigenous entertainment Forms in Development Communication in Ghana in <i>Indigenous African Communication Systems</i> edited by K. Ansu Kyeremeh (forthcoming).

Brempong, O.

Teaching	"African Popular Culture; Festivals and Funerals" Course A.6 (F.U.E.) "Culture and Development" Course A.2 (F.U.E.). M.Phil course "African Social and Political Systems". "Orientation Course for Norwegian Students".
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- Research** Festivals of Ghana, Folklore and Socio-Linguistics.
Folklore and Anthropology. Oral Histories, Mythology.
Histories of Traditional Deities Atano - Folktales of Ghana.
- Activities** "Techiman Yam Festival" Video Documentation.
"Revival of Apoo Festival" Video Documentation.
"Traditional Medicine of the Central Region of Ghana" paper presented to the Ghana National Museums and Monuments Board 1994.
Social and Political Systems of the Central Region of Ghana". paper presented to the Ghana National Museums and Monuments Board", 1994.
"African Traditional Religion" on *Life* Television Programme G.B.C. Television, November, 1994.
"A Programme for Documentation of Folklore in Ghana: A Preliminary Report" for the National Folklore Board of Trustees, 1994.
- Conferences** National Seminar on Folklore, Tamale, August, 18, 1994. Paper presented: "The Runner and the Chaser, The Illusion of Catching Up".
"Ghanalan Folk Religion with Special Demonstration by Nana Boo Tabiri Priestess" - Cape Coast, December 14, 1994.
- Publications** *Apoo Songs with English Translations and Interpretations* Research Review 130 pages forthcoming.
Oral Tradition in Ghana: The History of Bonokyemptm and Techiman Politics Research Review Supplementary No. 1.
"Twi Etymology: A Study in Ethno-Linguistics" Research Review, Vol 7, Nos. 1 and 2 Research Review.
"Language As A Factor in Ethnographic Research" Research Review, Vol. 8, Nos. 1 and 2.

Nana Dr. Akwasi Abayie Boaten I

- Publications** "The Queenmother and the Conservation of the Environment in Ghana: A Study in Ecofeminism" IAS Research Review No. 10 Vols. 1 & 2 1994.
Stool Regalia: Special Emphasis on Linguist Staffs; IAS R.P. Supplement No.11.
- Conference Paper** The Third International Social Science Studies Conference - June 27th- 29th 1994 Nairobi, Kenya.
"Environmental Management for Sustainable Development": Creating Environmental Awareness in Primary Schools- Syllabus for Upper Primary on Environmental Studies".

Awedoba, A.K.

- Activities** Teaching: M.Phil seminars and supervision of M.Phil theses. Research on Linguistics and Socio-medical issues.
- Projects** Focused Ethnographic study of Acute Respiratory Infections in Upper-West and Brong-Ahafo Regions. Funded by WHO/MOH (Ghana).

- Multi-Country Study of the Importance of Onchocercal Skin disease (Aowin-Suaman District of Western Region). Funded by WHO.
- Workshops**
 Two workshops on Multi-Country Study of the Importance of Onchocercal Skin disease . Ibadan (January, 1994), and Kaduna (October 1994), Nigeria: WHO sponsored. Read papers on results of a Pilot Study of Onchodermatitis in Aowin-Suaman.
 Workshop for textbook writing for Senior Secondary Schools, sponsored by MOE Ajumako (March 1994). Read papers on "Report on Psycho-social Importance of Onchocercal Skin Disease in Aowin-Suaman District of Ghana" and "The Meaning of Onchodermatitis Symptoms Across African Sites".
- Conferences**
 Annual conference of Pan-African Association of Anthropologists, Buea , Cameroon, August, 1994.
 Social Science and Medicine in Africa Network (SOMA-Net) biennial congress, Douala, Cameroon, October, 1994.
- Gifts**
 Two computers donated to Network of African Medical Anthropologists to establish an E-Mail link and also for teaching purposes.
- Publications**
 "The Meaning of Onchodermatitis Symptoms Across African Sites" to be included in the WHO publication, The Importance of Onchocercal Skin Disease by the Pan-African Study Group on Onchocercal.

Guarcoopome, S.S.

- Publication**
 "Urbanisation, Land Alienation and Politics in Accra" RESEARCH REVIEW Vol. 8 Nos. 1 & 2, 1992 pp. 40-54. Published in September 1994 by the Institute of African Studies, University of Ghana, Legon.
- Conferences/Seminars**
 Participant, Toledo-excel peace initiative exchange programme, University of Toledo, Ohio, 16th October 1st November, 1994.
- Papers Presented**
 "Christianity, Economics and the Justification of the Atlantic Slave Trade".
 "A comparative overview of the Institution of Slavery in African and the New World"
 "Africa in the Modern World."

Hagan, G.P.

- Publications**
 "Academic Freedom and National Responsibility in an African State: Ghana' in Mamadou Diouf and Mahmood Mandau: (editors), *Academic Freedom in Africa*. CODESRIA Book Series, 1994.

Lectures given on Video at the University of Trondheim, Norway.

Kwame Nkrumah in the Context of African Nationalism (1 hr 45 mins).

African Chiefs and Modern Development (1 hr 30 mins)
 produced by Africanus Aveh.
 Obubu Communications, 1993.
 Africa: The Quest for a Democratic Culture (1 hr 25 mins)
 New Religious Movements: Some Underlying Cultural
 Features (1hr 20 mins). Produced by AFRICANUS AVEH.

Research Interests Swedru Research
 Exchange Spheres in Akan Culture.

Asiama, S.D.

Teaching and Supervision : M.Phil African Musicology.
 F.U.E. African Studies Course B.2 (African Music).
 Part-time teaching courses in the Department of Music,
 School of Performing Arts.

Research Research into the musical interests and tastes and their
 diffusion among the youth is still in progress. We examine
 how young people come to learn to play instruments and
 how they come to form themselves into listening groups.
 A study of song texts of Akan Popular Music; an
 Examination of Highlife songs.

The Music Archives The tapes, discs and other material from the music archives
 have been made available for use, throughout the year by
 students, lecturers, research fellows and people from
 outside the University, e.g. Ministry of Education, National
 Commission on Culture.
 The project of redocumenting and redubbing of material
 in the archives with aid from the German Embassy still
 continues with Dr. Asiama as supervisor, Messrs. Henaku-
 Pobi, John Collins and E. Achea as technicians, and Ms.
 Victoria Honu as Secretary. We are expecting new
 equipment from the German Embassy soon to enable us
 start the second phase of the project.

Amu, M.

Research Work on Female Traditional Musician still continues.

Agovi, K.E.

Overview

The Head of Section, Prof. K.E. Agovi, returned from a two-year sabbatical leave where he was concurrently a Fulbright Scholar and Professor of English and Comparative Literature at Northwestern University and The Japan Foundation Fellow and Visiting Professor at Meiji University, Tokyo. In February, 1994, Prof. Agovi was invited to participate in the Rockefeller Foundation Residency Program at Bellagio, Italy, to begin work on a new book. Prof. Anne Adams of the Africana Studies Centre, Cornell University, USA, who was a Visiting Fulbright Scholar to the English Department, University of Ghana, transferred to the Section to help with courses on the literature of the Diaspora.

Courses, Student Numbers and Staff

The normal (3) Graduate courses in African Oral Literature, Written Literature, Drama in African Societies and (1) Undergraduate course, Our Heritage Through Literature, were taught. Three students registered for the graduate course with five more students from the English Department, while about 300 students registered for the Undergraduate Course. Since staff strength was reduced to only two, we had to resort to "term-teaching", temporary staff on visit to the University and help from colleagues in cognate departments.

Conferences, Seminars and Workshops

In the course of the year, Prof. K.E. Agovi participated in nine local and international conferences, workshops and seminars in various capacities. He read papers at the following:- Workshop on Strengthening Human Rights, Democracy and Development organised by the Institute of Economic Affairs at Takoradi, November 18-20, 1993. Paper read was on "developing the Western Region through resource mobilisation".

Presented a paper on "Governance in contemporary Africa" at a Roundtable organised by the Institute of Economic Affairs in Accra on 7th December, 1993.

Special Seminar on African Literature organised by the Dipartimento di Scienze del Linguaggio e Letterature Moderne e Comparete, Università di Torino, Italy. Paper read was on "New Directions in African Literature", 24th February, 1994.

International symposium on Africa on the threshold of the 21st Century organised by the Pan-African Writers Association in Accra from 26-28 September, 1994. Paper read was on "Democracy and Democratisation under Nkrumah: Lessons from the Independence Struggle".

Read a paper on "The Historical Imagination in Japanese Festivals" at the Kyoto International Conference on Japanese Studies organised by the International Research Centre for Japanese Studies and The Japan Foundation held in Kyoto, Japan, from 17-22 October, 1994.

Guest speaker at the Second Subregional Colloquium organised by the West Africa Print Press Foundation for Integration (FOAPEI) held in Accra from 1-3 December, 1994.

International Pan-African Colloquium on The Re-Emergence of African Civilisation held as part of PANAFEST '94 at the University of Cape Coast from 12-16th December, 1994.

Research

During the year, Prof. K.E. Agovi completed two on-going projects. The first was on Gender Songs in Nzema society and the second on Festival and Theatre Traditions of Japan and Ghana which was undertaken in Japan in 1993.

Publications

"Communication Discourse in Japanese Festivals", Transactions of the International Conference of Orientalists in Japan No. XXXVIII, pp. 43-45. Tokyo: The Toho Gakai. "Women's Discourse on Social Change in Nzema (Ghanaian) Maiden Songs", Oral Tradition Vol. 9:1. Lee Haring (Ed). Columbus, Ohio: Slavica Publishers. Also reprinted as a monograph, FORUM II. Pretoria, South Africa: Centre for Development Analysts (CDA). 32 pp.

"Governance in Contemporary Africa", UHURU MAGAZINE Vol. 6:7, pp. 23-25. Accra-North: Uhuru Communications.

INSTITUTE OF ADULT EDUCATION

Overview

The Institute of Adult Education offers university-based adult education for Ghanaian citizens in both the urban and rural settings. It is thus the main extension wing of the University of Ghana. The Institute comprises 3 academic Units, 10 Regional Centres, 2 district offices and one Residential Adult College from where activities are co-ordinated by the Directorate.

Staffing Position

The Institute has 17 Academic Senior Members. The Resident Tutors head the various units and centres and at the same time engage in teaching, research and extension.

Formal Programmes

The Institute runs formal adult education courses leading to MA/M.Phil, Diploma and Certificates. The Certificate course, run at the Awudome Residential Adult College (ARAC), successfully completed its first year, during the year under review. The student numbers for the various courses were as follows: MA/M.Phil 9, Dip.1 20, Dip.11 14 and Certificate 18.

Apart from courses certificated by the University, the Regional Centres of the Institute continued to organise various GCE courses at both "ordinary" and "advanced" levels. Total student numbers for Accra Workers' College alone was 3558 for 1992/93 as against 3369 for 1991/92.

Non-Formal Programmes

In most non-formal programmes, the objectives have been to bring the people of target communities to identify problems and needs; to mobilise available resources and devise plans for learning and social action; and to strengthen existing organisations, while creating new ones to facilitate the task of solving community problems identified and studied.

With these objectives, the various regional centres, in the past year, consolidated ongoing programmes and initiated new ones. The most significant of these programmes, have been with pottery workers in Volta, Central and Upper West regions with support from IIZ/DVV, Germany; women in oil palm and soap industry and fisherfolk in Central Region, Beekeeping industry in Volta, Upper West and Brong Ahafo Regions; literacy in almost all the regions but properly related to ongoing projects. The needs of mechanics in the Eastern and Western Regions also received attention.

Mass Media Support for Adult Population Education Project

The Mass Media support for Adult Population Project has just completed its second year of work. Its objective has been to produce appropriate messages for the education of adults on population issues. The Project Unit undertook a number of training programmes for rural newspaper stringers and correspondents and a production workshop for collaborators all guided by a baseline study undertaken in all the pilot areas. The Second Tripartite Meeting of project executors, project implementors and UNFPA has commended the project.

Environmental Management and Literacy Project

The Environmental Management and Literacy Project funded by CIDA with Lakehead University and Confederation College, both of Canada, and the Institute of Renewable Natural

Resources, UST as collaborators is specifically designed to assist the local communities in combating the problems of severe environmental degradation in the Upper East, Upper West and Northern Regions.

In the past year, primers, facilitators' guide and instructional manuals were pretested, after which two training workshops were held in Canada and Ghana to train project officers and literacy facilitators respectively. The second meeting of the International Project Management Team, held in Canada commended the progress made so far.

Community Newspapers

As reported last year, the community-based programmes in some of the centres continue to receive community newspaper support. The two new additions "Enkaakyre" for the Brong Ahafo Region, and 'Daworo' for Upper West Region have continued to do well. The others are, the 'Labare and 'Gurune' both of Upper East, and 'Kpodoga' of the Volta Region.

Annual New Year And Easter Schools

In the year under review the Institute successfully organised the 45th Annual New Year School at the University of Cape Coast. The theme was "Population and Development".

The 1994 Easter School was held at Wa from 26th March to 31st March, 1994 on the theme "Population and the Family in Northern Ghana".

Research/Publications

Late last year, two staff collaborative researches were begun. These are "Sustainability for Future Generations: The Relevance of Intergenerational Transfer of Knowledge for Health and Population Programmes"; and "Women's Reproductive Rights and Choices: Implications for Adult Education". These are in addition to ongoing research being undertaken by students and staff in the area of Adult Education.

Collaboration

The Institute maintained its links with other organisations which are committed to adult and continuing education. These include the Ghana National Council of Adult Education (GNCAE), Non-Formal Education Division (NFED) of the Ministry of Education, Planned Parenthood Association of Ghana, Department of Community Development, Ghana National Association of Teachers, Trades Union Congress etc. External collaborators include the African Association for Literacy and Adult Education, the West African Distance Education Association (WADEA), Commonwealth of Learning (COL), Lakehead University, Canada, Confederation College, Canada, Canadian Organization for Development Through Education (CODE) etc. Special mention is made of the German Adult Education Association (DVV) which offered and continues to offer technical assistance to the Institute.

NOGUCHI MEMORIAL INSTITUTE FOR MEDICAL RESEARCH

Overview

The Noguchi Memorial Institute for Medical research continued to undertake research into communicable diseases and nutrition. Specific areas of research included: vaccine preventable diseases, diarrhoea nutrition disease complex, HIV, schistosomiasis, malaria, toxicity of traditional medicinal plants and aflatoxins as well as antiviral chemotherapy.

The Institute continues to enjoy support of the Japan Government through JICA. Through a series of quinquennial research project agreements, very sophisticated scientific equipment have been donated to the Institute and a high level of technology has been transferred through exchange of experts and training. The current agreement, Noguchi Memorial Institute Project Phase II, will expire in September 1996.

Staff

Research Scientists	19
Technical Support staff	40
Services and other Support staff	63

Research

The research activities undertaken by the units of the Institute in the 1993/94 academic year, as listed below, include collaborative research projects funded mainly from external agencies:

Epidemiology

Epidemiology of malaria in two different ecological zones in southern Ghana.

Randomized controlled trial of the heat stable pertussis, diphtheria and tetanus (APDT) vaccine in infants in Southern Ghana.

An epidemiological study of lymphatic filariasis along the coast of Ghana.

Immunity to merozoite surface antigens of the malaria parasite *plasmodium falciparum* with particular reference to maternally *derived antibody and strain-specific immunity*.

Clinical Pathology

Determination of heavy/trace metals in selected industrial effluents in Tema, Part I.
Studies into the relationship between aflatoxins, glyoxalase-I activity and pancreatic beta cell function.

Aqueous extract of *Khaya Senegalensis* (The Mahogany Plant): effect on erythropoiesis in anaemic rats.

Assessing effectiveness of herbal preparation of AM-1 in malaria patients.

The screening of some selected plants for anti-malarial activity.

Bacteriology

Antimicrobial activity of fermented maize dough.

Feeding during acute diarrhoea - a study with accelerated lactic acid fermented food.

Enteropathogens and severity of diarrhoeal diseases in children in Southern Ghana.

Immunology

Seroprevalence of antibodies to *Treponema Pallidum* in HIV infected and uninfected individuals in Ghana.

Clinical controlled trial of the Acellular Pertussis Vaccine combined with diphtheria and tetanus toxoids in Southern Ghana.

Accra-Copenhagen malaria project.

Surface patterns of Lymphocytes and expression of Interleukin-2 Receptor Alpha (CD25) during measles infection.

Laboratory Animals

Microbiological monitoring of laboratory animals

A comparative study of the reproductive system (anatomy and physiology) of the grasscutter (*Thryonomis swinderianus*), the laboratory rat, rabbit and guinea pig.

Parasitology

Preliminary studies on the effect of some saponifying and arrow poison plants, sapindaceae and apocynaceae, on schistosome snail hosts in Ghana under laboratory conditions.

Studies on the epidemiological, socio-cultural, economic and behavioural factors associated with urinary schistosomiasis in three defined rural areas in Ghana.

TDR Malaria Project B. A study of the malaria vector in relation to the transmission in coastal, forest and savannah areas in Southern Ghana.

Evaluation of the efforts of permethrin impregnated bednets on child mortality in the Kassena-Nankana district of Ghana.

Virology

HIV isolation and characterization from AIDS patients in Ghana.

Use of locally isolated HIV isolates as antigen in the diagnosis of HIV/AIDS in Ghana.

Clinical trial of high dose EZ and AIK-C measles vaccines in infants below 9 months of age.

Isolation and characterization of viruses from suspected cases of chronic fatigue syndrome.

Antiviral chemotherapy studies.

Nutrition

Cereal based Oral Rehydration Therapy studies.

- Prevalence of iron deficiency anaemia in urban and rural women and children in Ghana.

The determinants and patterns of growth and nutritional status in the first year of life: A study of selected rural communities in Ghana.

The glycaemia indices of some Ghanaian diets in volunteers and non-insulin dependent diabetics.

Persistent Diarrhoea and Immune Dysfunction.

Immunocompetence in protein-energy-malnutrition.

Electron Microscopy

Serotyping of rotavirus isolates by immune - electron microscopy.

Enteropathogens and severity of diarrhoeal diseases in children in Southern Ghana.

Ultrastructural studies of antigenic components of *P. falciparum* circumsporoid antigen.

Conferences/Workshops

Nkrumah, F.K.

Attended the "Conference to Monitor Emerging Infectious Diseases" in Ghana, Accra 10th to 15th September 1993.

Consultative Group Meeting on "Children's Vaccine Initiative" as a member of the Management Committee in Kyoto, Japan, 7th - 9th November, 1993.

Regional WHO Task Force on Immunization in Africa Lusaka, Zambia, 15th - 19th November 1993.

WHO/EPI Regional Programme Managers Meeting (as chairman of WHO Regional Task Force on Immunization) Yamoussoukro, Cote d'Ivoire, 16th - 20th March, 1994.

4th Annual Public Health Forum on Vaccination, London, 17th - 20th April 1994.

Meeting on Emerging Diseases Geneva, 25th - 26th April, 1994.

Member, Health Mission of the WHO/AFRO to the Republic of South Africa, 16th - 26th June, 1994.

Regional WHO/AFRO Task Force on Immunization in Africa. Cape Town, Republic of South Africa, 14th - 19th November 1994.

Afari, E.A.

15th African Health Sciences Congress held at Nairobi, Kenya 1994. Presented a paper entitled "In vivo assessment of Plasmodium falciparum sensitivity to chloroquine in Southern Ghana." Was member of the Steering Committee of the Conference Organization.

8th International Congress of Parasitology (ICOPA VIII) at Izmir, Turkey in October 1994. Presented paper "Malaria infection, morbidity and transmission in two ecological zones in southern Ghana."

Applied Diarrhoeal Disease Research Project and Data Analysis Workshop in Ibadan, Nigeria 5th - 21st December 1994.

Attended with Dr. Koram the Seminar on Poverty in Ghana.

Koram, K.

Attended with Mr. George Mensah the workshop on "Management and Analysis of Longitudinal Data" at the Health Research Navrongo station, from 10th to 24th May 1994.

Amar-Klimesu, Margaret

Attended with Ms. J. Yartey the National Workshop on Iodine Deficiency Disorders (IDD) with the theme: Towards the elimination of IDD by the year 2,000, Accra, 27th - 28th July 1994.

Seminar on Poverty in Ghana. Organized by the University of Ghana Research and Conferences Committee. Legon, 29th - 30th September 1994. Paper presented: Food and nutrition situation of farming households in Northern Ghana.

16th International Vitamin A Consultative Group (IVACG Meeting. Chiang Rai Thailand, 24th - 28th October 1994. Paper presented: Food habits, consumption patterns and Vitamin A intake by pre-school in a rural Northern Ghana community.

National Workshop on Food Security and Nutrition Monitoring in Ghana. Accra 12th - 13th December 1994.

Yartey, J. (Ms)

3rd Commonwealth Conference on Diarrhoea and Malnutrition, Shatin, Hong Kong.

11th - 14th November 1994. Paper presented: Management of acute diarrhoea with fermented maize gruel in Ghana: practical application and implications.

Symposium on the celebration of the Silver Jubilee of Oral Rehydration Therapy (ORT) Discovery, Accra, November 30th 1994. Paper presented: Accelerating the use of ORT in diarrhoea management in Ghana: the problems, challenges, achievements and lessons learned.

15th African Health Sciences Congress. Nairobi, Kenya. 7th - 11th February, 1994. Paper presented: Clinical trial of fermented maize gruel for the management of acute diarrhoea in children in Ghana.

Regional Workshop on the Integrated Family Planning, Nutrition and Parasite Control Project (PANFRICO IV) in Banjul, The Gambia. September 27 - October 1, 1993 Paper presented. Integrating Family Planning with MCH services: Nutrition as an integral part (country paper).

2nd National Conference on Integrated Family Planning, Nutrition and Parasite Control Project. Accra, January 1993. Paper presented: Nutrition, Environmental conditions and health status of children in an integrated project area (Awutu District).

Dunyo, S.K.

- Seconded Officer from Ministry of Health.
- Workshop on the Development of Rapid Assessment Procedures (RAP) for Lymphatic Filariasis held at the Health Research Centre, Navrongo. 6 - 7 June, 1994.

Akpedonu, Patience

15th International Symposium of the International Committee on Food Microbiology. Food Micro 1993 Bigen, Germany (IFS) August 31 - September 3, 1993. Paper read: Antimicrobial substance from fermented maize dough: a partial characterisation.

Training Workshop in Biotechnology and Genetic Engineering. University of Zimbabwe, Harare, December 6 - 20th 1993.

Member of the Ghana Buruli Ulcer Mission to Havana, Cuba. June 20 - 1st July 1994. 3rd Commonwealth Conference on diarrhoea and Malnutrition. Shatin, Hong Kong. 11th to 14th November 1994. Gave the Key Note address on: "Infant Food fermentation and food microbiology." Nominated member of the Commonwealth Association of Nutrition and Gastroenterology.

Member of the Planning and Report Writing Committees of the Symposium on the celebration of the Silver Jubilee of Oral Rehydration Therapy in Ghana, Accra. 29th - 30th November 1994. Member of panel at the Symposium on "Diarrhoeal diseases, causes and Prevention."

Publications

Osamu Hishida, Nana K. Ayisi, Michael Aidoo,

James Brandful, William Ampofo,

Mubarak Osei-Kwasi et al.

Serological survey of HIV-1, HIV-2 and human T-cell leukaemia virus type 1 for suspected AIDS cases in Ghana. *AIDS* 1994, 8 (9): 1258 - 1261.

Tatsuhiko Igarashi, Masahiro Yamashita,

Tomoyuki Miura, Mubarak Osei-Kwasi,

Nana K. Ayisi et al.

Isolation of and genomic analysis of human T lymphotropic virus Type II from Ghana. *AIDS Research and Human Retroviruses* 1993 9 (10): 1039 - 1042.

- A.K. Nyarko, A.A. Sittle
M.E. Addy
Alexander K. Nyarko,
Marian E. Addy.
- The basis for the antihyperglycaemic activity of indigofera arrecta in the rat. *Phytotherapy Research* 1993; 7(1):1-4
- In vitro screening for the anti-anaphylactic agent in *Thonningia sanguinea*. *Journal of Ethnopharmacology* 1994 41: 45 - 51.
- Lars Hvuid, Ibrahim M.
Elhassan, Daniel Dodoo et al.
- Differential T-Cell expression of LFA-1 in residents from Africa and Denmark. Description of the phenomenon and its possible basis. *Immunology Letters* 1994 39: 147 - 151.
- Ben Gyan, Marita Troye -
Blomberg et. al.
- Human monocytes cultured with or without interferon-gamma inhibit plasmodium falciparum parasite growth in vitro via secretion of reactive nitrogen intermediates. *parasite Immunology* 1994; 16: 371-375
- H. Hori, E.A. Afari, B.D. Akanmori,
Y. Kamiya, H. Sakatoku, F.K. Nkrumah,
H. Kamiya, Chazono and K. Fukai
- A randomised controlled trial of two acellular pertussis-diphtheria-tetanus vaccines in primary immunization in Ghana: antibody responses and adverse reactions. *Annals of Tropical Paediatrics*. 1994; 14: 91 96.
- G.E. Armah, J.A.A. Mingle,
A.K. Dodoo, A. Anyanful,
R. Antwi, J. Comney, F.K. Nkrumah-
- Seasonality of rotavirus infection in Ghana. *Annals of Tropical Paediatrics* 1994, 14: 223 - 230.
- M.A. Appawu, Aba Baffoe Wilmot,
E.A. Afari, F.K. Nkrumah,
V. Petrarca.
- Species composition and inversion polymorphism of the Anopheles Gambiae complex in some sites of Ghana West Africa. *Acta Tropica* 1994 56:15-23.
- M.A. Armar-Klimesu, T. Rikimaru,
D.O. Kennedy, Y. Kido, E.K. Harrison
E.E.K. Takyi
- Food Habits, consumption patterns and Vitamin E intake by pre-school children in a rural Northern Ghana community. In: *Abstracts of the 16th International Vitamin A Consultative Group (IVACG) Meeting*. October 1994, Chiang Rai, Thailand.
- N-A. Ankrah, F.A. Ekuban.
- Evaluation of Alpha-1-Antitrypsin, Alpha-1-Acid glycoprotein and pre-albumin in serum of Ghanaian subjects. *East African Medical Journal* 1994; 71 (7):429-431
- N-A. Ankrah, T. Rikimaru,
F.A. Ekuban, M.M. Addae.
- Decreased cysteine and glutathione levels: possible determinants of liver toxicity risk in Ghanaian subjects.

- The *Journal of International Medical Research* 1994; 22:171-176.
- J. Yartey, F. Nkrumah, H. Hori,
K. Harrison, K. Kamiya, K. Kishi
Fermented maize gruel for the management of acute diarrhoea in children in Ghana. In: *Abstracts of the XV International congress on Nutrition*. Adelaide, Australia. September 1993.
- B.D. Akanmori, Seiji Waki,
Mamoru Suzuki
Immunoglobulin G_{2a} isotype may have a protective role in plasmodium berghel NK65 infection in immunised mice. *Parasitol. Res.* 1994; 80: 638-641.
- E.E.K. Takyl, Toru Rikimaru,
Eric Harrison, David O. Kennedy - Vitamin A Status and nutrient intake in a rural community in Southern Ghana. *West African Journal of Medicine* 1994; 13 (1): 34 - 36
- E.A. Afari, B.D. Akanmori,
T. Nakano, D. Ofori-Adjel,
In vitro responses of P. falciparum parasites to chloroquine in two ecological zones in Ghana. *Central Africa Journal of Medicine*. 1993; 39 (7): 136 - 140.
- Nii-Ayi Ankrah, P.G.A. Addo,
C.A. Abrahams, F.A. Ekuban,
M.M. Addae
Comparative effects of aflatoxins G₁ and B₁ at levels within human exposure limits on mouse liver and kidney. *West African Journal of Medicine* 1993; 12 (2): 105 -109.

Benefaction

The Japanese International Co-operation Agency as usual continued to donate equipment and laboratory consumables to the Institute during the year under review. Special mention should be made of the following:

- 2 Nissan Patrols;
- Facscan Flowcytometer;
- 180KVA Hawker Siddeley Genset;
- Automated Clinical Chemistry Analyser (Analyzer Super Z).

INSTITUTE OF STATISTICAL, SOCIAL & ECONOMIC RESEARCH

The Teaching Programme - (Certificate/Diploma in Statistics)

The Teaching programme has continued to progress steadily:-

(i) Fifty-one students completed the Diploma in Statistics programme in 1993/94 compared with thirty four in 1992/93, an increase of fifty percent.

(ii) Admissions for the certificate programme have remained stable, around 30 - 35 students.

Due to the quota system and accommodation constraints, the Long Vacation Course in Statistics (Certificate) has enjoyed very increased patronage. Seventy-five students completed the long vacation programme in 1993/94, compared with thirty seven in 1992/93, an increase of one-hundred percent.

Food Security Research

Under the umbrella of the Reseau SADAOC, the Institute is executing a research project on "household food security and resilience. The project which uses the first and second rounds of the Ghana Living Standards survey is modelling household vulnerability with respect to food security. In addition to household modelling a socio-economic data bank has been set up in the Institute. Work on the preparation of a Social Accounting Matrix (SAM) has been started. A computer network has been set up to allow researchers to work from their offices. Some of the research outputs that have been generated from the project include papers on income and expenditure profiles of Ghanaian households; determinants of the health and nutrition status of Ghanaian children; labour productivity of men and women in Ghana; analysis of poverty in Ghana; background to food security in Ghana. A book on household vulnerability and coping mechanisms is also under preparation.

Health Social Sciences Research

The Health Social Sciences Research Unit is carrying out research into the behaviour of households with respect to seeking malaria care and determining the disease - specific impact of user charges in Ghana. Using results from the research, the unit has prepared monographs in the area of cost of malaria care; the demand for malaria care; classification of malaria care seekers; and the knowledge, attitude and perceptions of people towards malaria.

A study into the behaviour of people towards the acquisition and disposal of drugs in Ghana has just been launched.

National Family Planning Programme Client Record Data Project

The Ghana Family Planning Programme of Ghana has collected data on family planning activities on a relatively regular basis since 1970. The project is aimed at assessing how and what effect an increased level of information would have on accuracy and reliability of family planning client evaluation.

State of the Ghanaian Economy Report

The Institute prepares an annual report on the State of the Ghanaian Economy. The report looks at the sectoral performance of the Ghanaian economy during the previous year. A chapter is devoted to the discussion of topical issues - the 1992 report discussed environment and development, the 1993 report discussed population and development, and the 1994 report will have a chapter on labour and employment.

Policy Analysis Matrix

The study uses a policy analysis matrix approach to investigate the impact of policy reforms on Ghana's agriculture. The major objective of the study is to determine the impact of key policy reforms, both macro and sectoral, on Ghana's agricultural sector. The study will assess the impact of policy changes on the efficiency of agricultural production in the light of the agricultural production systems that exist in Ghana.

Family and Social Change in Africa

Traditional family values are changing in sub-saharan Africa. Family roles and responsibilities are becoming increasingly ambiguous. The aim of the research was to examine how the family is changing within the context of social change.

The study reviewed the ethnographic, anthropological and demographic literature about the family in Ghana. Detailed data on several families was collected using qualitative research techniques. The data was analysed to provide descriptions for the family.

West African Sub-Regional Seminar on Enterprise Credit

Under the auspices of the British Council, Accra the Institute is organising a 3 day seminar on "Enterprise Credit in West Africa" in Accra, 15 - 17 March 1995.

Seminar on Agricultural Policy Analysis

In conjunction with the Economic Development Institute (EDI) of the World Bank, the Institute with the help of some local agencies is organising a 2 - week seminar on agricultural policy analysis in Accra for participants from West Africa for September 1995.

Nyanteng, V.K.

The Prospects of the Ghana Cocoa Industry in the 21st Century

A paper prepared and read on my behalf at an International Conference on Cocoa Economy, organised by Indonesia Cocoa Association and CIRAD in Bali, Indonesia, 19 - 22 October 1993. [To be published in the Proceedings of the Conference]

Structural Adjustment and Agriculture in Ghana

A paper presented at an international workshop on Structural Adjustment and African Agriculture held at Institute of Development Economies, Tokyo, Japan, 7 - 12 March, 1994 and Published in Africa Research Series, No.6, Institute of Developing Economies, Tokyo, Japan, August 1994.

Provision of Agricultural Services in the Light of Structural Adjustment Reforms in Ghana

A Background Paper prepared for Food and Agriculture Organisation of the United Nations, January 1994.

Promoting Non-Farm Rural Activities in Rural Areas of Ghana: Problems, Prospects and Policies.

A paper presented at a National Seminar on Employment Planning and Labour Market Information, organised by Ministry of Employment and Social Welfare and UNDP/ILO Umbrella Programme (GHA/89/007) at Volta Hotel, Akosombo, 23-26 May 1994.

Published in Seminar Proceedings entitled "Ghana: Towards A Policy for Sustained Employment Generation" Min. of Employment and Social Welfare/UNDP/ILO, Umbrella Programme, September, 1994.

Asenso-Okyere, W.K.

W.K. Asenso-Okyere, I.K. Hagan, I. Osei and A.W. Setni, 1994 - Services in Ghana, United Nations conference on Trade and Development, Geneva, Switzerland.

W.K. Asenso-Okyere, 1994 Fertilizer Pricing and Distribution Policy in Ghana. In Steven A. Breth (ed.) Issues in Africa Rural Development, Winrock International Institute for Agricultural Development, Arkansas, U.S.A.

B.L. Bumb, J.F. Teboh, J.K. Atta and W.K. Asenso-Okyere, 1994 - The Policy Environment and Fertilizer Sector Development in Ghana. International Fertilizer Development Centre and Institute of Statistical, Social and Economic Research.

W.K. Asenso-Okyere, 1994 - Socio-economic Factors in Malaria Control. World Health Forum, Vol.15.

W.K. Asenso-Okyere and Janet A. Dzator, 1994 - Household Cost of Seeking Malaria Care. A Retrospective Study of Two Districts in Ghana. Monograph Series No.4, Health Social Sciences Research Unit, ISSER, Legon.

W.K. Asenso-Okyere, 1994 Attended a regional meeting for the coordinated African Programme for Technical Assistance in Services (CAPAS), Nairobi, 2 5, May 1994. Presented the paper, Services in Ghana.

Batse, Z.K.M.

Major Activities in 1993/94 - Academic Link Programme

Established an Academic Link in Maternal and Child Health with University of Wales College of Medicine and the Welsh combined Centres for Public Health. The main objectives of the link programme are to improve ISSER's capacity for good quality Epidemiological research and to undertake collaborative research activities.

Research

Started a comprehensive study on the Capacities of the District Assemblies to carry out their present functions and undertake decentralized population policy formulation, planning and implementation, research, monitoring and evaluation in line with Government decentralization policy. The study was commissioned by the National Population Council and funded by UNFPA and ILO. The study also has the support of USAID. The study is expected to contribute to the realization of clause 4 of the Fourth Republican Constitution of 1992 which enjoins Government to maintain a population policy consistent with the aspirations, development needs and objectives of Ghana, and to ensure that population issues are given the prominence they deserve in the country's development plans and programmes.

Nsowah-Nuamah, N.N.N.

Books

Nuamah, N.N.N. (1993) Statistics and Probability for Senior Secondary Schools (Mathematics Core), Amayem Press, Accra. 96 pages.

Nuamah, N.N.N. (1994) Statistical and Demographic Measures for Population Studies, RIPS, Legon. 266 pages.

Conference/Seminar Paper

Nsowah-Nuamah, N.N.N. Amuah, E.E. (1994) Health Systems Research, An Integrated Research Methodology, paper presented at Inter-University Seminar/Workshop on Social Science Research, July 25 - 29, 1994.

AIDS in Ghana: Searching for Appropriate Modelling Techniques, Fourth Autumn Course on Mathematical Ecology, International Centre for Theoretical Physics, Trieste, Italy, 24 October 11 November 1994.

Kumekpor, M.L.

Seminars/Colloquia/Workshops

The Seminar on Female Genital Mutilation, jointly organised by NCWD and Ghana Association for the Welfare of Women, 15 Sept. 1994, Accra, Ghana.

National Consultative Meeting on Safe Motherhood, MCH/MOH, November 14-15, 1994, Accra, Ghana.

The Seminar on National Consensus Building toward the 4th World Conference on Women-Beijing China, 1995: 14th October, 1994. Accra, Ghana.

The 2nd Pan-African Historical Theatre Festival, COLLOQUIUM ON THE RE-EMERGENCE OF AFRICAN CIVILIZATION, "UNITING THE AFRICAN FAMILY." Paper presented

The Ghanaian Bead Tradition: Materials, Traditional Techniques, Archaeological and Historical Chronology, Bead Usage and Socio-Cultural Meaning by M.L. KUMEKPOR, YAW BREDWA-MENSAH, J.E.J.M. VAN LANDEWIJK.

Current Research

The National Family Planning Client Data Project, jointly supported by ISSER, University of Ghana and the GNFPs, Ministry of Finance and Economic Planning.

Social Dimensions of Women in Development, with reference to Single Parenthood and Health Issues.

Science and Technology with reference to the Bead-tradition in Ghana.

Anarfi, J.K.

Publications

Anarfi, J.K. (forthcoming), "HIV/AIDS in Sub-Saharan Africa: Demographic and Socio-economic Implications". Forthcoming as African Population and Environment Institute's African Population Paper No.3, 1994.

Caldwell, J.C., Anarfi, J.K, and Caldwell, Pat. "Mobility, Migration, Sex, STDs and AIDS: An essay on sub-saharan Africa with other parallels". Forthcoming in an IUSSP volume edited by Prof. Gilbert Herdt.

Conferences/Seminars/Workshops attended

Workshop on Sexual Networking, STDs, AIDS and Interventions 22 - 25 August, 1994. Ondo State University, Ado-Ekiti, Nigeria. Paper presented: "The Condition and Care of AIDS victims in Ghana"

British Society for Population Studies Conference,

31 August - 2 September 1994 at St. Aidan's College, University of Durham. Paper presented: "Coping with AIDS in Ghana: the AIDS sufferer, the household and the community"

Seminar on Poverty, University of Ghana, Legon. September 29 - 30, 1994. Paper presented: "The Social and Economic Condition of Ghanaian Female Migrants in Abidjan, Cote d'Ivoire.

Seminar on Women, Poverty and Demographic Change, Oaxaca, Mexico, 25 - 28 October 1994 (No paper was presented).

Sensitization Workshop for Media Personnel on the Family, Ghana Journalists International Centre, Accra, 6 December, 1994. Paper presented: "AIDS and the Family".

REGIONAL INSTITUTE FOR POPULATION STUDIES (RIPS)

Background Information

The Regional Institute for Population Studies was established in February 1972 on the basis of an agreement signed between the United Nations and the Government of the Republic of Ghana in 1971, to provide facilities for demographic training and research to English-speaking sub-Saharan African countries. The membership of the Institute currently comprises Botswana, Ethiopia, The Gambia, Ghana, Kenya, Lesotho, Liberia, the Libyan Arab Jamahirriya, Malawi, Mauritius, Namibia, Nigeria, Seychelles, Sierra Leone, Somalia, Sudan, Swaziland, Uganda, the United Republic of Tanzania, Zambia and Zimbabwe. The objectives of the Institute are as follows:

- (1) To provide classroom training in population and related fields;
- (2) To organise and undertake research on all aspects of population and related fields in member countries;
- (3) To organise, in co-operation with appropriate national services and specialised agencies, workshops, seminars and meetings on national, subregional and regional population problems;
- (4) To provide advisory services at the request of member states;
- (5) To provide population information documentation and dissemination to member states.

Overview

During the 1993/94 academic year the Institute carried out its regular activities of (1) classroom training (2) research (3) provision of advisory services (4) population information documentation and dissemination and (5) the provision of advisory services. These activities were carried out against the backdrop of a programme of restructuring initiated for the Institute in September, 1992, with a view to reducing its operational costs and rendering its activities more affordable for the African member states who are the direct beneficiaries of its programmes.

As part of the restructuring programme, responsibility for the management of the Institute which had hitherto been the prerogative of the Population Division of the ECA, has been conferred on the local UNDP office in Accra with expectation of greater involvement by the member states of the Institute, particularly in the funding of its programmes. In view of this development, the University of Ghana has now assumed greater role in the management of the Institute with representation of the Vice-Chancellor on its governing body. The Institute has subsequently ceased to function as a subsidiary body of the ECA and has now assumed the status of an ECA-sponsored Institution.

Other reforms currently being carried out under the restructuring programme have involved revisions in the statutes, staff regulations as well as the curricula of the Institute; revision in the salary scale and conditions of service of staff and reorganisation of the Institute's administrative management structure to cut down cost of operation.

Regarding the curricula of the Institute, changes have been made in the syllabus of the 12 months M.A. Population Studies programme following its revision in June 1993 by the Institute's Advisory Board on Studies and Research, upon recommendation from UNFPA. The restructured syllabus will now provide students with greater exposure to the population and development problems of member states. It also provides more courses in Economics and a considerable trimming down of courses to essentials to make more hours available for independent individual library studies and research. The 1993/94 batch of students were the first to receive training under the revised syllabus.

Formal Classroom Training

The Institute enrolled 23 candidates, 6 females and 17 males from 9 of its member countries, namely Cameroun, Ghana, Kenya, Liberia, Malawi, Nigeria, Tanzania, Uganda and Zambia for the 12 months M.A. in Population Studies programme. The courses taught embraced Basic Demographic Techniques, Substantive Demography, Advanced Demographic Techniques, Population and Development Interrelationships, Research and Computational Methods, Dissertation and Research Seminar as well as Introductory Courses in Basic Mathematics. All the 23 students passed the M.A. in Population Studies examination of the University of Ghana.

During the year the Institute also enrolled two candidates, one from Nigeria and the other from Uganda for the Master of Philosophy degree programme. Two other candidates from Nigeria, also enrolled for the Doctor of Philosophy programme. The students are carrying out research into population problems in their respective countries. Three candidates, two from Ghana and one from Ethiopia, who gained admission to the Institute in January 1993, completed work on their M.Phil theses. The results of two of the candidates have since been published by the University whilst that of the remaining candidate has been passed subject to correction of minor errors.

Due to scarcity of time and resources, the Institute was unable to carry out any short-term training activities. This circumstance was partly occasioned by movement of professional staff due to the restructuring exercise and partly by the need for available staff to concentrate their attention on delivering formal training.

Student Research

In the area of research the Institute was particularly constrained by lack of research materials and human resources. As a result of this the recommendation on research could not be adequately implemented. However basic research activities normally carried out as part of the classroom training programme were embarked upon. The M.A. students carried out their annual field survey at Mamfe- Akwapim, a town located about 30 kilometres from Accra. The purpose of the survey was to study the socio-economic and demographic characteristics of the town. Each student was assigned special responsibility including the administration of a questionnaire which they designed for the study. The results of the survey are now being processed and will form the basis of further student and staff research in the near future.

Staff Research

Staff members carried out individual research programmes in the following areas:

Ohadike, P.O.	Population Dynamics, Policies and Development in Africa Household Structure and Fertility in Africa. Global Perspective on International Migration and Economic Development.
Sembajwe, I.	Evaluation of Demographic Data for Planning Analysis of Infant and Maternal Mortality in Africa. Analysis of Migration Factors in Africa.
Tawiah, E.O.	Study of Maternal and Child Health in Ghana. Analysis of Adolescent Fertility in Ghana.
Okoye, S.C.	Nuptiality Patterns in West Africa: A Comparative Study.

One significant development that provided encouragement for future research activities at the Institute was the installation of a set of 9 new Compaq PC's at a cost of US\$90,000.00, to replace the obsolete Wang Computer Mainframe which had also become expensive to maintain. The new computer configuration has come to augment the existing five Atari PC's, three AP

PC's, and two Canon A-55 printers. With the delivery of the computers it is expected that research activities at the Institute will be greatly facilitated.

Staffing

Mainly as a result of the restructuring programme and the transition to a new management structure the Institute has continued to experience a series of staff changes resulting in the temporary reduction of staff strength, increased volume of work for staff at post and continued dependence on the services of part-time lecturers to carry out the teaching programme.

The Director of the Institute retired at the end of June 1994 along with two other UN staff members leaving only two UN/Regional staff at post. In line with existing arrangement for the provision of staff under the UNFPA regionalised salary scale and conditions of service, two vacant positions including that of the Director are now expected to be filled. Efforts are continuing to recruit staff to fill these vacant posts.

The position regarding academic staff posts funded by the Ghana Government remained unsatisfactory. Out of the three University of Ghana staff members who provided services to the Institute, one proceeded on leave pending retirement while the second succeeded in moving from the Ghana Government to the UNFPA regionalised post. The third staff member currently on study leave in the United Kingdom is yet to return to post. These developments imply that the Institute is currently without the services of any academic staff member from the University of Ghana. The Institute has therefore sought the assistance of the University towards the recruitment of five new Lecturers/Research Fellows to fill these vacant positions.

A merger of the two administrative units that existed at the Institute (the UNFPA and the Ghana Government administrative units) has been made necessary due to the restructuring programme. Consequently all staff on board the administration and financial management are now national staff appointed by the University of Ghana. The staffing position regarding the administrative and technical support staff continues to remain adequate and encouraging.

Publications

- I. Sembajwe *Basic Elements in Social Research Project Development*
Proceedings of the Joint RIPS/UAPS Workshop on
Formulation and Writing of Research Proposals held at
the Regional Institute for Population Studies, Legon 5 - 17
May 1991 (Occasional Publication No. 9) 1994, 148 pgs.
- Ohadike and Kalu *Evaluation of Demographic Data: Some Selected Procedures.*
Monograph Series No. 8, Regional Institute for Population
Studies, 1993, 59 pages
*Critical Issues in Fertility Research for Development
Planning*, Monograph Series No. 10, Regional Institute for
Population Studies 1994, 273 pgs.
- N.N. Nsowa-Nuamah *Fertility and Reproduction in Nigeria*, Monograph Series
No. 11 Regional Institute for Population Studies 1994.
*Statistical and Demographic Measures for Population
Studies*, 1994, Monograph Series, No. 12. 273 pgs.

Meetings/Seminars Attended

During the period under review staff members of the Institute attended the following meetings and conferences.

- Ohadike, P.O. Conference on Reproductive and Family Health in Africa
organised by the Union for African Population Studies in
Abidjan, Cote d' Ivoire, 8 - 13 November 1993.

- Guest Lecture on Vital Registration: A Tool for Development Planning organised at the University of Ibadan by the National Population Commission of Nigeria, on 24 November 1993.
- Expert Group Meeting on Impact of Economic and Social Changes on the African Family organised by the ECA in Addis Ababa, Ethiopia, 13 - 17 December 1993.
- Meeting on Training of Demography and Population Development held in Dakar, Senegal, 14 - 16 March 1994.
- Eighth Session of the Joint Conference of African Planners, Statisticians and Demographers, Addis Ababa July 21 - 26 March 1994.
- Fifteenth Meeting of the Technical Preparatory Committee of the Whole (TEPCOW), Addis Ababa during 26 - 30 April 1994.
- The Twenty-Ninth Session of the Commission/Twentieth Meeting of the Conference of African Ministers Responsible for Economic and Social Development and Planning, Addis Ababa Ethiopia, 2 - 5 May 1994.
- Aryee, A.F. Workshop on Strengthening Population and Family Planning Policies for the 1990s, organised by Rapid IV USAID, Addis Ababa, 31 October - 8 November 1993.
- Sembajwe, I. The International Conference on Population and Development, Cairo, Egypt, 4 - 14 September 1994.
- Tawiah, E.O. Conference on Reproductive Health organised by the Union for African Population Studies (UAPS), Abidjan, Cote d'Ivoire, 8 - 13 November 1993.
- Press Seminar for Senior Editors and Journalists, Accra, February 19, 1994.
- Regional Seminar on Population and Environment in the Eastern Region, Koforidua, March 10 - 11 1994.
- Regional Seminar on Population and Environment in the Volta Region, Ho, July 15, 1994.
- Cantey, R.A. Seminar on Conservation of Books and Archives Materials organised by the Balme Library, University of Ghana, in conjunction with the Embassy of France held at the Ghana Institute of Management and Public Administration (GIMPA), Accra, 22 - 24 November 1993.
- Dovlo, K. Seminar on Use of Window Version of SPSS organised by Olydestone, Ghana Limited at the Golden Tulip Hotel, Accra, 24 - 25 March 1994.
- Action Plan Meeting REDATAM and GIS for Discussion support System Development in Africa, Ouagadougou, Burkina Faso, 10 - 11 October 1994.
- Kwaa, A.K. (Mrs.) Seminar on Higher Education Administration organised by the Committee of Vice-Chancellors at the University of Cape Coast, 7 - 8 April 1994.

Benefactions

During May - December 1994 the United Nations Development Programme (UNDP), Accra, carried out a series of rehabilitation work on the Institute building. Work done included repainting of the Institute building, replacement of old doors and locks and rehabilitation of the water supply system.

The United Nations Population Fund (UNFPA), Accra, assisted the Institute to procure and install a new set of a Compaq PCs to augment the existing computer facility at the Institute.

Through the benevolence of the Governments of the Republics of Malawi, Uganda, and Zambia, four candidates from these countries received sponsorship to study for the 12 Months M.A. in Population Studies degree programme.

The Institute is greatly indebted to the benefactors for their contribution to its activities.

MEDICAL SCHOOL

Department of Anaesthesia

Staffing Position

- | | |
|-------------------|---|
| a. Academic Staff | 3 |
| b. Senior Staff | 1 |
| c. Junior Staff | 1 |

Courses Taught/Student Numbers

Course	No. of Students
Medicine	
General Anaesthesia for Final Part 2 students	6-7 students did their rotation every 5 weeks throughout the academic year.
Total No. of Students	58

Research Activities

Drs. Amponsah and Appiah-Ankam undertook a research on Medical Conditions associated with Gynaecological patients for Elective Surgery in Korle-Bu Hospital.

Conferences Attended

- Society of Anaesthetists of West Africa (SAWA) 23rd 28th May, 1994.
- Workshop on TIVA (total intravenous anaesthesia) 28 31st March 1994, Cambridge, U.K.

Conferences Organised

Revision Course for Medical Officers 12th to 16th September, 1994.

Extension Services

Professor K.A. Oduro was involved in the provision of free medical care for patients at Kukurantumi and Pokuasi.

Benefactions

Dr. Brenda Phillips, a Consultant Anaesthetist and a past student of the Medical School and Ms. Audrey Pullens, Secretary Elect of AIDA donated a lot of anaesthetic accessories, journals and text-books to the department.

Visitors

- Prof. Nicholas Greene visited the department in connection with arrangement for overseas voluntary assistance to the department.
- Drs. Susan Geddes, Michael Forster and Frederick Davies visited the department and offered voluntary anaesthetic services to the department for varying short periods during the course of the year.

Department of Anatomy

Staffing Position

a. Academic Staff	6
b. Senior Staff	3
c. Junior Staff	3

Courses Taught/Student Numbers

Course	No. of Students
Medicine	
MB II	76
MB III	
Final Part I	
Final Part II	
Dentistry	
BDS II	9
BDS III	
BDS Final Part I	
Medical Lab. Technology	
DMLT I	
DMLT II	
Others	

Research Activities

- Cardiac/Salivary Gland Ultrastructure
- Studies on Wound Healing
- Comparative study of the Placenta in Different Haemoglobin Genotype

Conferences Attended

Dr. F.K. Addai, 5th Meeting of the European Placenta Group, U.K. 7th-11th September 1993.

Publications

Addai, F.K. Quashtie, F.J.K.
and Ockleford, C.D.

The mode of insertion of umbilical cord and vessels: association with maternal haemoglobin genotype, neonatal factors and placental component volumes. *Anat. and Embryol.* 189, 107-114.

Addai, F.K. and Ockleford C.D.

Effects of maternal haemoglobin genotype and neonatal factors on compartment volumes of placentae. Abstract presented at the 5th Meeting of the European Placenta Group, Manchester, England.

Studies on Wound healing in the Midbrain of the Chick Embryo. (Submitted to *Developmental Dynamics*) A.L. Lawson.

- Studies on Alcohol Induced Neural Tube Defects and Wound Healing in the chick embryo. (Accepted for publication in West African Journal of Anatomy) A.L. Lawson.
- Mensah K.M.O., Kesse W.K., Ayettey A.S.
- Ultrastructural features of the zona fasciculata of the adrenal cortex of the fruit-eating bat *Megaloglossus woermanni*. West African Journal of Anatomy 2:1-8.
- Kesse W.K. and Parker T.L.
- Autoradiographic Demonstration of Sympathetic Preganglionic Fibres in the Adrenal Gland. West African Journal of Anatomy. (Accepted)
- Dakubo G.B.D., Kesse W.K., Tagoe C.N.B., Ayettey A.S. and Yates R.D. (1994). Ultrastructure of Ventricular Myocardial Cells of the Fruit-Eating Bat *Megaloglossus woermanni*. West African Journal of Anatomy. (Accepted)
- The Sympathetic Preganglionic Innervation of Neonatal and Adult Adrenal Medulla : A Retrograde Transport Study with Horseradish Peroxidase. West African Journal of Anatomy.
- Anaglate E.S., Ayettey, A.S., Tagoe C.N.B. and Yates R.D.
- Some aspects of the ultrastructure of Cardiac Ventricular cells of the West African Sparrow, *Passer domesticus*. West African Journal of Anatomy 2: 32-39.
- Tagoe, E.N.B., Dennis, E. Ayettey, A.S.
- Morphometric characteristics as sinoatrial node cells of the bat *Pipistrellus* (Abstract). Experimental Biology.
- Ayettey, A.K., Tagoe, C.N.B., Dennis, E.E., and Yates R.D.
- Heterogeneity in cardiac cell morphologic features among mammals. Proceedings of the XI International Symposium on Morphological Sciences. Barcelona Spain.
- The relationship between mitochondrial morphology and myofibrillar content of myocardial cells in rats, hamsters and bats. Proceedings of the meeting of the Anatomical Society of Great Britain and Ireland and the Nederlandse Anatomen Vereniging. Journal of Anatomy.
- Fine structure features of the nodal and impulse-conducting tissue of the bat *Pipistrellus pipistrellus*. Federation of Anatomists. Meeting in Lisbon, Portugal.

Benefactions

ITT x TRA Computer and Genicom 3024 Printer. Tulane University Donation under our linkage.

Department of Basic Dental Science

Staffing Position

Academic Staff	5
Senior Staff	4
Junior Staff	4

Courses Taught/Student Numbers in 1993/94

Course	No. of Students
Dentistry	
BDS II	10
BDS III	2
BDS Final Part I	5

Research Activities

Ankrah G.A.	Coagulation Profile in Patients attending for dental extraction. Attitudes of Ghanaians towards Dentists. Self Report measures of Dental anxiety. Prevalence of Oral and Facial pain and its impact on behaviour. The minimum time required for pressure pack to control haemorrhage, following exodontia in Ghana. Acute myelocytic leukaemia presenting as Ludwig Angina. Oral Hygiene status in Pregnant women. (Interdepartmental with Obs. & Gynae.)
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Conferences Attended

Botchway C.A.	2 day Conference on the establishment of the Health Service in Ghana, at Novotel. (June 9th and 10th, 1994). 1 day Scientific Conference. Ghana Public Health Association. (6th August, 1994). 2 day Conference on Acquired Immune Deficiency Syndrome (AIDS). Organised by the Dental Division of the Ministry of Health, Accra.
Ankeah G.A.	1 day Scientific Conference. Ghana Public Health Association. (6th August, 1994). 2 day Conference on Acquired Immune Deficiency Syndrome (AIDS). Organised by the Dental Division of the Ministry of Health, Accra.

Benefactions

- a. Barclays Bank of Ghana Ltd. : Donation of Dental Chair/Unit.
- b. Valco Trust fund: Dental Laboratory Equipment.
- c. World Vision International : 33 copies of "A Colour Atlas of Periodontology".
- d. UTC of Ghana Ltd.: One Airconditioner.
- e. Consultancy Trade Contracting (CTK) : Finding donors for the BDS Department.
- f. State Insurance Corporation (SIC): One Million Cedis for the purchase of consumables.
- g. Dr. Selina Gyekye residing in Germany. Some filling Materials.
- h. Dr. K. Awadzi, WHO, Hohoe : Donation of Gloves and face masks.

Visitors

- a. Gunther & Co : Suppliers of Medical, Surgical, Dental Instruments and Equipment.
Visitor : Marina Ciesielski (15th June, 1994).
- b. Trueperch International Limited : Worldwide Procurement and Forwarding Services (W.W. Birch, International Director).
- c. Consultancy Trade contracting. (U.T.K.).
 - 1) Robert J.G. Evenhuis. Dentist
 - 2) Fred Azu
- d. Quayle Dental., Andrew Quayle, Director.
- e. Frasaco : Hans Berger, Marketing Manager.
- f. Sedco Publishing Ltd., C. Kwami Segbawu: Publisher/Managing Director.
- g. Visiting Lecturer in Operative Technique Course: Dr. O.P. Shaba, College of Medicine, University of Lagos. 30th July, 1994 to 31st August, 1994. (one month).
- h. Visiting Lecturer in Periodontics.
Dr. K.O. Savage, College of Medicine, University of Lagos. (5th September to 27th September, 1994). (3 weeks).
- i. Visiting Lecturer in Dental Materials Science: Dr. E.K. Kpedekpo (14th September to 31st October, 1994. (6 weeks).
- j. British Executive Service Overseas (BESO).
Visitor Mr. G. Baiden Aminsah. Local Representative.
- k. Prof. F.A. De Wet, Head of Dental Materials, Faculty of Dentistry, University of Pretoria, Sough Africa. (5th 10th December, 1994).

Department of Biochemistry

Staffing Position

Academic Staff

- 4 - One Senior Lecturer plus three Lecturers. Dr. A.G.B. Amoah holds a joint appointment in the Departments of Medicine (80%) and Biochemistry (20%). Dr. S.Y. Oppon joined the department in August, 1994.

Senior Staff

- 6 One Chief Technician, one Senior Technician, one Technician two Assistant Technicians, one Senior Administrative Assistant).

Courses Taught

Course	No. of Students
Medicine	
MB II	76
BDS III	
BDS Final Part I	
Dentistry	
BDS II	10
BDS III	
BDS Final Part I	
Medical Lab. Tech.	12
Postgraduate	
Teaching	12

Research Activities

Asante-Poku S.	<p>Hormone-Dependent Breast Cancer Variant MRNA in breast cancer, which was the second phase of the project could not start. However, with the six month stay of Dr. Asante-Poku at the University of Georgia, this work should take off in the 1994/95 academic year.</p> <p>Genetic Polymorphism of Drug Metabolism. More samples were sent to Herr Prof. Dr. Eichelbaum of the Margaret-Bosch Institute in the Federal Republic of Germany for further studies. Dr. Asante-Poku delivered the samples personally, on his way to the United States of America in August, this year (1994).</p> <p>Human Serum Para Oxonase/Arylesterase Polymorphism . Work on this topic was continued in the 1993/94 academic year.</p>
Asante S.O.	<p>Parasite Biochemistry (Malaria and Trypanosomes) Malaria - The stage dependent Action of Chloroquine on Plasmodium berghei NK6 in vivo. An M.Phil Thesis on the topic has been completed.</p> <p>Trypanosomes-Biochemical studies on the various trypanosome population - was started in the 1994/95 academic year. In vitro investigation of the trypanocidal activities of raw extracts of Strychnos dinklagei (a local herb). The second phase of the work was completed when Dr. Asante spent three months at the University of Tuebingen (Germany) working on the subject.</p>
Opong S.Y.	<p>Two research projects have been initiated.</p> <ol style="list-style-type: none">i. Malaria : A study of GPI Anchors.ii. Serum levels of Renin/Angiotensin in Normal and Hypertensive Patients.

Staff Development

- a. Dr. S.O. Asante was sponsored by the German Academic Exchange Programme (DAAD) for a three-month stay at the Institute of Biochemistry, University of Tuebingen, Germany.

This allowed him to work on the isolation of the active ingredients (chemical components showing trypanocidal activity) of *Strychnos dinklagei* (a local herb).

- b. Dr. S Asante-Poku was awarded a six month fellowship to work on the Molecular Biology of Sickle-Cell disease at the University of Georgia, U.S.A.

Benefactions

The department received regular supply of scientific Journals : Science, Trends in Biochemical Sciences

Visitors

A representative from the British Council, London Office visited the department on the 9th December, 1994 for an appraisal of the just ended Link engagement with the University of Leeds department of Biochemistry. At this meeting the department stressed the need for the continued support of the British Council in manpower and other infrastructural development of the department.

Conclusion

The department performed its teaching function with devotion senior members, senior and junior staff harmonised their efforts to achieve this. There were a lot of activities on the Research front involving senior members, which will translate into publications in the next academic year.

In the next academic year, senior members would have to look closely at Co-ordinating research efforts so as to promote collective development.

With the presence of Dr. S.Y. Oppong, who joined the department in August, 1994, one hopes to see a reduction in the teaching load and general enrichment of the departments' academic work.

Department of Centre for Tropical Clinical Pharmacology & Therapeutics

Staffing Position

- | | |
|-------------------|---|
| a. Academic Staff | 1 |
| b. Senior Staff | 6 |
| c. Junior Staff | 3 |

Courses Taught/Student Numbers

Course	No. of Students
Medicine & Clinical Pharmacology	
Integrated course	71
Final Part II	58
Pharmacology	
MB III	122

Research Activities

- a. Regulatory status of Oral Contraceptives in Ghana
- b. Development of Database to Monitor and Improve drug use

- c. Urban Malaria as seen in children
- d. Treatment Guidelines for Middle Level Health Workers
- e. Qualitative methods in drug use research

Conferences Attended

- a. 1st Asian Congress on Clinical Pharmacology and Therapeutics, Yogyakarta, Indonesia. 1-14 Nov. 1993.
- b. Annual Executive Meeting of the International Network for Rational Use of Drugs (INRUD) in Yogyakarta, Indonesia. 1-14 November, 1993.
- c. Society of Clinical and Experimental Pharmacology of the PTA Workshop and scientific Meeting, Arusha, Tanzania November 1-3 December 1993.
- d. Ministry of Health Consultative Meeting on Research, Policy and Implementation, Novotel, Accra, 13-14 January, 1994.
- e. The Health Foundation Training Workshop - Problem solving better health. Sogakope, Ghana, Feb. 1994.
- f. United States Pharmacopeial Convention's International Health Advisory Panel Meeting in Rockville, Maryland, USA, 9-11 June.
- g. 10th International Conference on Pharmacoepidemiology in Stockholm Sweden. August 29 to September 1 1994.
- h. Visit to the Cancer Research Campaign Department of Medical Oncology, University of Glasgow, 5th September, 1994.

Conferences Organised by Department

International Training Course in Promoting Rational Drug Use, 7th-18th March 1994.

Publications

- | | |
|--|---|
| Masele AY, Ofori-Adjet D and Laing RO. | A study of prescribing patterns with special reference to drug use indicators in Dar es Salaam Region, Tanzania. <i>Tropical Doctor</i> 1993;23:104-107. |
| Masele A.Y., Sayi J., Nsimba S.E.D., Ofori-Adjet D. and Laing R.O. | Knowledge and management of malaria in Dar es Salaam, Tanzania. <i>East African Medical Journal</i> 1993;70 (10):639-642. |
| Hogerzell H.V., Bimo, Ross-Degnan D., Laing R.O., Ofori-Adjet D., Santoso B., et al. | Field tests for rational drug use in twelve developing countries. <i>Lancet</i> 1993;342:1408-1410. |
| Ofori-Adjet D. and Mate-Kole M.O. | Spurious resistance of <i>P. falciparum</i> to quinine. <i>Ghana Medical Journal</i> 1991;25(1&2):331-333.
Collaborative Group on Drug Use in Pregnancy. Use of psychotropic drugs during pregnancy. <i>European Journal of Clinical Pharmacology</i> 1993;45:495-501. |
| Ofori-Adjet D. and Arhinful D.K. | The Impact of in-service training on the clinical management of malaria by medical assistants in Ghana. <i>Medicines: Meanings & Contexts</i> . Edited by Etkins N.L. and Tan M.L. Health Action Information Network. 1994 Philippines. |

Extension Services

- a. Offer Drug Information Services on an in-formal basis to doctors.
- b. Advice MOH on Pharmaceutical matters.
- c. United States Pharmacopoeia Inc. Advisory Panel on International Health - Chair, Formulary Group.
- d. Assist in the "Problem Solving for Better Health" effort of The Health Foundation by reviewing research proposals and assisting in research proposal development.
- e. Production of Newsletter of DURG-AFRO

Visitors:

- a. James Rankin, Director, Drug Management Program, MSH, Washington.
- b. Keith Johnson, Director, Durg Information Division, USP, USA.

Others

- a. Coordination of activities of INRUD in Ghana.
- b. Participation in the development process of the University of Ghana Strategic Plan.

Department of Chemical Pathology

Staffing Position

- | | |
|-------------------|---|
| a. Academic Staff | 2 |
| b. Senior Staff | 6 |
| c. Junior Staff | 3 |

Courses Taught/Student Numbers

Course	No. of Students
Medicine	
MB II	
MB III	80
Final Part I	
Final Part II	
Dentistry	
MB II	
BDS III	2
BDS Final Part I	
Postgraduates	6
Medical Lab. Technology	
DMLT I	12
DMLT II	14

Research Activities

- a. Reference values of female reproductive hormones
- b. Prevalence of hyperprolactinaemia among the infertile women at Korle Bu.
- c. Update of reference values of commonly determined analytes in body fluids.

- d. Lipoprotein fractions and Ischaemic heart disease among diabetics
- e. Incidence of diabetes mellitus and glucose intolerance and still birth
- f. Glucose level at birth at Korle Bu.

Conferences Attended

First AFRO-ARAB Congress of Clinical Laboratory, 25-28 April, 1994.

Publications

- a. Hormonal, Reference Values and Prevalence of Hyperchlolaetinaemia (In Press)
- b. Sugar tasting Threshold of Diabetics and non-diabetics (International Diabetics Digest, Vol. 5 number 3 1994).

Extension Services

- a. External Examiner in Chemical Pathology for U.S.T. University students.
- b. Co-ordinator, DMLT Programme
- c. President, Ghana Society for Laboratory Medicine
- d. Heavily involved in service work to Korle Bu Teaching Hospital.

Visitors

- 1. Professor P.J. Ojwang, Chairman, Department of Clinical Chemistry, University of Nairobi
- 2. Dr. N.A. Ankrah, Noguchi Mem. Inst. for Med. Research

Department of Child Health

Staffing Position

- | | |
|-------------------|---|
| a. Academic Staff | 8 |
| b. Senior Staff | 1 |
| c. Junior Staff | 3 |

Courses Taught/Student Numbers in

Course	No. of Students
Medicine	
MB II	
MB III	
Final Part I	53
Final Part II	
Dentistry	
MB II	
MDS III	
BDS Final Part I	
Medical Lab. Technology	
DMLT I	
DMLT II	

Research Activities

- a. Antibiotic choices for Children in the Developing world.
- b. Risk factors in epilepsy.
- c. Gall stones and Liver Pathology in Ghanaian Children with Sickle Cell Disease Ultrasonography.
- d. Clinico - epidemiological studies of Congenital Heart Disease seen Korle-Bu Hospital.
- e. Follow-up and Post-operative Growth Monitoring in Children undergoing Cardiac Surgery.
- f. Factors that influence incidence and outcome in babies born before arrival to Korle Bu Teaching Hospital, Accra.
- g. Neurodevelopmental Disorders in Ghanaian Children Part III.
- h. Haematology/Oncological problems in Ghanaian Children - including Burkitt's Lymphoma, Wilms tumor, and the Leukaemias.

Conferences Attended

- a. Prof. JOO Commey and Dr. J.T. Arthur attended the Annual General and Scientific meeting of the West African College of Physicians in Banjul, The Gambia in November 1993.
- b. Dr. J.T. Arthur attended the 3rd International Pediatric Congress in Luxor, Egypt in November 1993 where he read a paper titled "Spectrum of Childhood Heart Diseases in Ghana.
- c. Dr. J.T. Arthur was an Examiner in Paediatrics in the April and October Part I and II Examinations of the West African College of Physicians in Ibadan, Nigeria.
- d. Prof. JOO Commey and Dr. O.P Rodrigues participated in a W.H.O. Workshop on "Strengthening the Teaching of Diarrhoeal Disease in Medical Schools" held at the Diarrhoea Training Unit of the Ethio - Swedish Hospital in Addis Ababa in April 1994.
- e. Prof. JOO Commey attended a W.H.O. Acute Respiratory Infections Consultant Training Course in Nairobi in February 1994.
- f. Dr. O.P. Rodrigues attended a 2-day Seminar on Iodine Deficiency Diseases in Ghana at the Accra Golden Tulip Hotel in July 1994.
- g. Dr. Martin Anyebuno delivered a lecture titled "Perinatal Mortality in Ghana" to the Paediatric Society of Ghana in August 1994.
- h. Dr. J.E. Welbeck participated as a guest lecturer in the Postgraduate Endocrinology/ Oncology/Haematology Seminar organized jointly by the University of Ghana Medical School and Ohio State University in April 1994.

Publications

- Commey JOO, Rodrigues OP,
Akita FA, Newman M. Bacterial Meningitis in Accra, Ghana, East African Medical Journal 1994; 71(2) : 113-117.
- Commey JOO Childhood Mortality at Korle Bu Hospital, Accra : 1986-87. Ghana Medical Journal. 1991; 25 : 334-341.
- Commey JOO, Seizure Disorders/Febrile Seizures. Neurology Update, Accra. June 1992; 3-6.
- Armah GE, Mingle JAA, Dodoo AK,
Anyanful A, Antwi R, Commey JOO,
Nkrumah FK. Seasonality of Rotavirus Infection in Ghana. Annals Trop. Paediatr. 1991 4 (3) (In Press).
- Rodrigues O, Commey JOO. Basiotiobolomycosis in Ghanaian Children. Trop. Doctor (In Press).

Commey JOO, Dekyem P. Measles in Southern Ghana. 1985-1993. West African Journal Med. (In Press).

Commey JOO, The Role of the Basic Sciences: The Foundation. Journal Ghana Science Assoc. (In Press)

Commey JOO, Dekyem P. Childhood deaths from Anaemia in Accra, Ghana. West African Journal Med. (In Press)

Anybuno M. Perinatal Mortality in Korle Bu Teaching Hospital. Ghana Medical Journal (In Press)

Anyebuno M. A case of the "CHARGE" Association. Ghana Medical Journal 1991; 25: 328-330.

Rodrigues O.P. A case of Werdnig Hoffman disease Ghana Medical Journal (In Press).

Arthur J.T. Congenital asplenia in a Ghanaian Baby. Ghana Medical Journal. 1991; 25: 399-402.

Arthur J.T. A Togolese boy with Chylous ascites. Ghana Medical Journal. 1991; 25: 399-402.

Arthur J.T. Straight back syndrome. A case report and literature review. West African Journal Med. (In Press).

Arthur J.T. Sudden death: cardiac and non-cardiac children in Accra. West African Journal Med. (In Press).

Welbeck J.E. Holt - Oram Syndrome in a Ghanaian Infant. Ghana Medical Journal (In Press)

Department of Community Health

Staffing Position

a.	Academic Staff	4	
b.	Senior Staff	7	
c.	Junior Staff		23

Courses Taught/Student Numbers

Course	No. of Students
Medicine	
MB II	
MB III (Class of 1997)	70
Final Part I (Class of 1995)	68
Final Part II (Class of 1994)	58

Research Activities

Despite the limitation on the staffing situation, senior member/staff carried out a number of research activities during the year. These include;

Maternal Mortality Project (Departmental):

Collaborative Operations Research with the Department of Obstetrics and Gynaecology, started in 1989 and sponsored by the Carnegie Corporation. Aimed at designing programmes to reduce maternal death, it is now in its programme implementation stage.

The Health Problems of Danfa Rural communities (Departmental)

Through diagnosis of selected communities, participation in the Danfa Health Centre Clinical activities and visit to selected supportive programmes and institution - Abokobi Agricultural Project, Rural Bank, Mampong Deaf and Dump School, Mampong Hospital, students were exposed to the realities of rural medicine.

Registration of Birth and Deaths using Community Register (Mr. S.K. Avle).

Proposal jointly prepared by Birth and Death Registry, Ministry of Health Association of CDR, among others, has been accepted by the Ministry of Local Government for implementation in 1996 through Births and Deaths Registry.

Environment and Health

An analysis of Intra-urban Differentials using existing data (C. Stephen/S.K. Avle/Ben Doe, et al) : Collaborative Studies in Accra and Sao Paulo (Brazil) with London School of Hygiene and Tropical Medicine.

- e. Primary Health Care Project in Suhum (Prof. G.A. Ashitey)
- f. Drug compliance by parents/guardians of their wards (Dr. L. Osei/Prof. J. Commey, Child Health Department).
- e. Growth and Development of Pre-school children in Comoa Fetteh (Dr. r.B. Birtwum)
- g. Student's Survey (Class of 1997)
Topic : Sanitation and Health in Alajo, Accra.

Conferences Attended

- | | |
|--------------------|---|
| Prof. G.A. Ashitey | Problems-solving for Better Health Workshop, Sogakope, Ghana, January 30 February 6, 1994.
National Seminar on Intersectoral collaboration for urban Malaria Control, Accra , February, 1994.
Strengthening the Teaching of Diarrhoea Diseases in Medical School Workshop, Addis Ababa, Ethiopia, 11-16 April, 1994.
Evaluation and Planning Workshop Tool for Health Managers Course, Nairobi, Kenya, 18-21 April, 1994.
Poster Presentation 28th Global Conference of Lung Disorders Mainz, Germany , 14-17 June, 1994. |
| Dr. R.B. Birtwum | Annual General Meeting of West African College of Physicians; Banjul, Gambia, 10th-14th November, 1993. |
| S.K. Avle | Final Workshop : Intra-urban Differentials Study, Sao Paulo, Brazil, 12th-15th April, 1994. |

Seminars Organized

- PHC in Ghana - December 1993.
- Localisation of Public Health Training in Ghana -March, 1994.
- Health Seminar on Quality of Care, June 1994 in collaboration with the Health Research Unit of Ministry of Health.

Publications

- | | |
|--------------|---|
| Ashitey G.A. | Ghana Health -12 selected published papers - Bel Team Publications Ltd. Accra. ISBN 9988-7509-0-0.
Disease Control in Ghana Published by Ghana Universities Press. ISBN 9964-7509-0-0. |
|--------------|---|

- vii. Prof. G.A. Ashitey served on the following committees outside the University;
 Research Committee of Centre for Scientific Research into Plant Medicine.r PHC
 SCOPE
 National Advisory Committee for the National tuberculosis Programme of Ministry
 of Health
 Member of Team for the Development of the Strategic Plan for Health Development
 in Ghana, 1994.

Visitors

- Prof. A. Oyemade, Department of Preventive Social Medicine, University College Hospital,
 Ibadan, Nigeria.
 Prof. Ola Dantel, Department of Community College of Health Services, Usmanu Danfodiyo
 Univ. Teaching Hospital, Sokoto, Nigeria.

Others

Dr. R.B. Birtwum gave an Inter-Faculty Lecture on the topic "The Use of Models in determining
 disease prevalence" at Legon in April, 1994.

Department of Haematology

Staffing Position

- | | |
|-------------------|---|
| a. Academic Staff | 1 |
| b. Senior Staff | 3 |
| c. Junior Staff | 4 |

Courses Taught/Student Numbers

Course	No. of Students
Medicine	
MB II	
MB III Course I	65
MB III (Paraclncals)	59
MB III	2
Final Part I	
B.A./B.Sc. Nursing Part II	
Medical Laboratory Technology	
DMLT Course II	9

Research Activities

The department is engaged in Research on Haematological Neoplasms in Ghana through the
 Burkitts Tumor Project. The department also collaborates on Research into Sickle Cell Disease
 in Ghana.

Extension Services

The department participated in the International External Quality Assurance Scheme
 sponsored by the WHO

International Council for standardisation in Haematology

Others

Department is responsible for the Centre for Clinical Genetics Korle Bu and also for carrying out of Haematological investigations and diagnosis of patients for the Korle Bu Teaching Hospital. Urgent addition to staff needed.

Medical School Library

Staffing Position

a. Academic Staff	3
b. Senior Staff	
c. Junior Staff	8

Courses Taught

Course	No. of Students
Medicine & Clinical Pharmacology	
MB II	
MB III	
Final Part I	
Final Part II	
Dentistry	
MB II	
BDS III	

Conferences Attended

D.B. Adoo

- i. Electronic Networking for West African Universities organised by the American Association for the Advancement of Science (AAAS) and the Association of African Universities (AAU) Accra, 15-17 December, 1993.
- ii. Problem Solving for Better Health organised by The Health Foundation of New York. Sogakofe, Ghana. 30 January - 6 February, 1994.
- iii. The 3rd Board Meeting of the International Network for the Availability of Scientific Publications; London, 24-25 February, 1994.
- iv. Round Table Meeting on Computer Interfacing Development in Ghana organised by Ghana Atomic Energy Commission, Accra 15th March, 1994.
- v. Fourth Congress of the Association for Health Information and Libraries in Africa, Kampala, Uganda, 25-29th April, 1994.

Mrs. Adjepon-Yamoah & Ms. Sitsofe Dzansi

Annual Meeting of the Ghana Library Association, Accra, 3rd December, 1993.

Extension Services

D.B. Addo

- i. Member of the Board of International Network for the Availability of Scientific Publications.
- ii. Member of Advisory Board of the Ghana National Scientific and Technological Information

Network (GHASTINET).

- iii. Chairman, National Technical Committee on Documentation of the Ghana Standards Board.

The Library continues to issue its outreach publication; the Current Medical Literature which brings to the notice of medical practitioners current developments in the medical literature. This quarterly publication, which carries about sixty articles in each issue on diverse subjects, is circulated to over 1,000 doctors in the government, semi-government and private institutions.

Benefactions

The Library received donations from the following organisations:

- a. The Health Foundation of New York pays the annual subscription to the Medline database on CD-ROM and supports the production of the Current Medical Literature.
- b. Satelife supports the Healthnet electronic communication system.
- c. American Association for the Advancement of Science (AAAS) maintains subscription to ten current journal titles under its Journal Distribution Programme.
- d. The Overseas Development Administration (ODA) donated 530 volumes of books and a videodisc set up.
- e. The Honourable Minister for Education, Mr. Harry Sawyerr, donated ten copies each of the undermentioned titles to the School.
 - i. "Principles and Practice of Surgery including Pathology in the Tropics. By E.A. Badoe, E.G. Archampong and M.O.A. Jaja".
 - ii. "The Management of Health Services in a Developing Country (The Case of Ghana). By E.K. Ackon.
- f. American Academy of Ophthalmology continues to donate its continuous education publications to the School.
- g. Waverly Incorporations, a publishing house based in Baltimore, U.S.A. donated 25 volumes of books.

Visitors

Mr. Dieter Klein Satelife, Cambridge, Massachusetts, U.S.A.
Mr. Marc Lippman, WHO, Brazzaville.

Acquisitions

- a. Current Journal Titles received - 197
- b. Books added to stock 1,539

Department of Medicine and Therapeutics

Staffing Position

- | | |
|-------------------|----|
| a. Academic Staff | 15 |
| b. Senior Staff | 5 |
| c. Junior Staff | 8 |

Courses Taught/Student Numbers

Course	No. of Students
Medicine	
MB II	

Research Activities

Prof. J.H. Addy	Genetics of Hypertension Atopic Eczema in Pre-School Children Biology of Skin Pigmentation
Prof. S.R.A. Dodu	Patient Education Project - Mamprobi Polyclinic, Accra.
Prof. S.K. Owusu	Diabetes Mellitus and Thyroid Diseases
Dr. P.K. Nyame	Strokes, Epilepsy, Alcoholism
Dr. A.R. Neequaye	Clinical AIDS Asthma
Dr. D. Ofori-Adjei	Drug Epidemiology (Drug Utilisation Studies) Clinical Pharmacology of Drugs Used in Tropical Diseases especially Malaria. Epidemiology of Malaria
Dr. M.O. Mate-Kole	Causes of Nephrotic Syndrome in Ghana Causes of Acute Renal Failure in Ghana The Nature and Pathogenesis of Chronic Renal Failure in Ghana.
Dr. R.K. Affram	Diseases of the Kidneys Nuclear Medicine Techniques
Dr. H.A. Addo	Buruli Ulcer in Ga Rural District Contact Dermatitis Oral Lamisil in the treatment of Onychomycosis and Tinea Pedis Topical Retin-A in the treatment of Hydroquinone-induced Reactions. Acquagenic Pruritus A Clinical Study.
Dr. I.F.A. Hesse	Salt Metabolism in Ghanaian Hypertensive Chronobiology of Hypertension Genetics of Hypertension Asthma Epidemiology in Ghana.
Dr. A.G.B. Amoah	Insulin levels in newly diagnosed Diabetes Thyroid volumes and Urinary Iodine Level Obesity in Ghanaian Diabetes Metabolic and Anthropometric Assessment of first degree relatives of patients with Type 2 Diabetes Mellitus in 3 populations.
Dr. K. Boateng Jumah	The Relationship of Load Carrying on the Head and Cervical Spondylosis.
Dr. C.N. Kotel	Ultrasound Assessment of the Spleen in Ghanaians. Ultrasound Scanning Study of the Hepatobiliary System in Sicklers.

Liver Status and Aflatoxins - Ultrasound Scan in Selected Ghanaians.

Conferences Attended

- Addy J.H. 8th International Conference on Hypertension in Blacks, Yaounde, Cameroon, April 7 - 10, 1993.
Annual General & Scientific Meeting of British Association of Dermatologists July 6 - 10, 1993.
- Owusu S.K. 9th International Congress of Endocrinology held in NICE, France. 1992.
1992 - 2nd Pan African Diabetes Study Group Meeting in Lagos, Nigeria.
8 - 12 August 1993 - World conference on Medical Education held in Edinburgh, Scotland.
20 - 21 Nov. 1993 - Symposium on Aviation Medicine held at the CAA House, Gatwick, London.
- Nyame P.K. 2nd International Conference on Stroke, Geneva, Switzerland. 12 - 15th May 1993, West African College of Physicians' Annual General Meeting, Gambia, Oct.1993.
- Ofori-Adjel D. Problem Solving for Better Health - The Health Foundation Ibadan, Nigeria. 3-5 Nov. 1992.
National Workshop on Malaria organised by MOH, Golden Tulip and Riviera Beach Hotels, Accra. 16-20 November 1992.
Workshop on Clinical Management of HIV Infection in Adults organised by MOH, Clinical Lecture Theatre, Department of Medicine, Korle Bu, Accra. 15 - 19 February 1993.
Africa's Progress in Child Survival: A forum for Public Health Professionals, Senegal, Dakar, March 29 April 2, 1992.
INRUD Computer Training course for Drug Data Analysis in Lagos, Nigeria 19 - 24 April 1993.
Meeting on Community Based Health Work - SSNIT Guest House, Accra 21 - 22 June 1993.
Drug Rationalisation Seminar organised by PPME, MOH - North Ridge Accra. 16 September 1993.
Seminar on Human Rights and Health Issues, organised by Health Research Study Centre, Faculty of Law, University of Ghana - Novotel, Accra 17 September 1993.
Seminar on Delivery of Health Services in Ghana organised by MOH -Novotel, Accra. 1-2 October 1993.
National consultative Meeting on Improving the Health of Ghanaians -Accra International Conference Centre.
Annual Meeting of the International Health Advisory Panel of the United States Pharmacopoeial Convention Inc., Rockville, USA. 11-13 October, 1993.
- Dodu S.R.A. WHO Study Group on Epidemiology and Prevention of Cardiovascular Diseases in the elderly, Geneva: 11-18 Oct.1993.

Publications

- Addy J.H. Dissemintated Cutaneous Sporotrichosis associated with Anergic Immunosuppression due to Miliary Tuberculosis: West African Medical Journal of Med. 1992. 11, 216-220.
Abstract: Rapid Lowring of BP with Sublingually administered Calcium Blocker: International Conference of Hypertension in Blacks, Yaounde, Cameroon, July 1993.
- Owusu, SK; Asamoah EO.,
Ofori-Darko, HV Acute Intermittent Porphyrria - An often forgotten diagnosis in Acute Abdomen - West Afr. J. Med. 1992; 11, 162-164.
- Owusu, SK. Diabetes in the Yemen: - A Preliminary Study International Diabetes Digest 1992: 3: 101-104.
- Adubofour KOM, Ofel F.,
Mensah-Adubofour J., Owusu SK.- Diabetes in Ghana: a Morbidity and Mortality Analysis. International Diabetes Digest 1993, 4: 90 - 92.
- Nyame P.K. Profile of Neurological Conditions in Accra. Ghana Med. Journal (Accepted).
Symptomatology of Temporal Lobe Epilepsy in Accra. West African Med. Journal (Accepted).
Private Medical Practice in Ghana - Submitted to Ghana Med. J.
- R.J. Biggar; JE Neequaye,
AR. Neequaye et al: "The Prevalence of Antibodies to the Human T. Lymphotropic Virus I (HTLVI) in Ghana, West Africa". . AIDS Research and Human Retroviruses Vol.9 No.6 1993.
- Ofori-Adjet D and Parr SN. Halofantrine for Malaria in Ghana J. Pharm Med. 1992; 2:229 - 240.
- Ross-Degnan D., Laing R.,
Quick J, Ali H.M., Ofori-Adjet D.,
Salako L and Santoso B. A Strategy for promoting improved pharmaceutical use: The International Network for Rational Use of Drugs. Social Science and Medicine 1992: 35(11): 1329 1341.
- Ofori-Adjet D. Collaborative Group on Drug Use in Pregnancy: Medication during pregnancy an International Copperative Study: Int. J. Gyanecol Obstet. 1992; 39:185.196.
- Masele AY., Ofori-Adjet D.,
and Laing RO. A study of prescribing patterns with special reference to drug use indicators in Dar es Salaam Region, Tanzania, Tropical Doctor 1993, 23; 104 - 107.
- MO Mate-Kole, ED Yeboah,
RK Affram, TS Ghosh Anuric Acute Renal Failure due to Bilateral Accidental Ureteric Ligation during abdominal Hysterectomy. Int. J. Gynecol Obstet 1993, 41; 67 - 73.
- MO Mate-Kole, RK Affram, SJ Lee,
AT Home, J Michael and D Adu Hypertension and End Stage Renal Failure in Tropical Africa. Journal of Human Hypertension 1993, 7, 443-446.

MO Mate-Kole, ED Yeboah, RK Affram, TS Ghosh,	Anuric Acute Renal Failure due to Bilateral Accidental Ureteric Ligation during Abdominal Hysterectomy. Int. J. Gynaecol Obstet.1993, 41, 67- 74.
MO Mate-Kole, RK Affram, SJ Lee, J. Michael and D. Adu	Hypertension and End Stage Renal Failure in Tropical Africa. Journal of Human Hypertension 1993 7, 443 - 446.
Addo H.A.	A Survey of Skin Diseases Seen at Korle Bu Teaching Hospital, Accra Ghana Medical Journal, 1990 Vol.24, p.232. A Clinical Study of Topical Hydroquinone in Skin Bleaching in Ghana - Submitted to Ghana Med. Journal. Mycobacterium Ulcerans Infection (Buruli Ulcer) in Ga Rural District Area of Greater Accra Region - Submitted to Ghana Medical Journal.
Jumah, K.B.	Hysteroselppingography in Ghanaian Women. Ghana Med. J. Vol. 25 Nos. 1 & 2. 1991.
Kotei, C.N.	Duodenal Duplication: Two Cases - In Press Double Contrast Barium Enema Studies in A Saudi Arabian Hospital - In Press.

Department of Microbiology

Staffing Position

a. Academic Staff	5
b. Senior Staff	11
c. Junior Staff	10

Courses Taught/Student Numbers

Course	No. of Students
Medicine	
MB II	
MB III(Paraclinicals)	69
Final Part I	
Final Part II	
Medical Lab. Technolog	
DMLT I	
DMLT II	12
Postgraduate Lectures and revision Courses for Candidates on the Primary FWACP and FWACS Courses.	
Others	
B.Sc. Nursing	25

Research Activities

Chinery, W.A.	Ecological studies on parasitoses in the hospital - attending population in different geographical settings in Ghana.
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- Anteson, R.K. He supervised the projects of three DMLT students working on various micro-organisms and parasites in hospital attending population.
Nutritional status and intestinal parasitism.
A study of source, route of transmission and course of human cryptosporidiosis in Ghana.
- Mingle, J.A.A. Retrovirology
Diarrhoea in infants
Hepatitis 'B' virus infection in the Ghanaian population.

Conferences Attended

Abstracts of paper (vide infra) were submitted to conferences but due to financial constraints it was not possible to attend any conference.

Publications

- Chinery, W.A. Relationship between prevalence of *Entamoeba histolytica* infection and some pertinent ecological factors in Ghana. In abstracts. 25th July - 1st August, pp.24 No. 086.
Breeding patterns of some major mosquito vectors in running-water habitats in Accra, Ghana. In book of abstracts: xix Internat. Congr. of Ento. Beijing, China. June 28th - July 4th 1993 pp. 512 No.17.
Diagnostic Laboratory Parasitology - A stepping stone to medical research in Tropical Africa. J. of Hyg. Epid. Microbiol. and Immunol. 36 : 4 pp 356-61.
The Tropical African Ecosystem and Helminthosis. In book of abstracts. 1st Int. Congr. of Parasit. and Trop. Med. Kuala Lumpur, Malaysia 25-28 August 1994 pp 181.
- Anteson R.K. The role of chemotherapy in Parasite control. Proceedings, Second Nat. Confr. on the IP 35-41 1993.
- Mingle, J.A.A. Seasonality of Rotavirus infection in Ghana. Ann. of Trop. Paediatrics. Vol.4, No.3 pp 223-229. G.E. Armah; J.A.A. Mingle et al.
Presence of Human T-lymphotropic virus types I & II in Ghana, West Africa. AIDS Res. Hum. Retro (In press) Renu B. Lal, Sherry M. Owen, J.A.A. Mingle et al.
HIV seropositive cases presenting as urological patients at Korle-Bu Teaching Hospital, Accra. A preliminary Report. West Afr. J. of Med. 12 No.3 pp.158-61 E.D. Yeboah, E.R. Neequaye, J.A.A. Mingle et al 1993.

Boards and Committees

Senior Members of the Department served on various Boards and Committees including the Academic Board and Board of the Medical School. Others include the following:

- Chinery W.A. Superannuation and Provident Fund Scheme Committee; Education Committee; Committee and Sub-Committee on Technical Studies DMLT (Course) Infrastructure Committee on the establishment of the School of Allied Health Professions.

Anteson R.K.
Mingle, J.A.A.

Volta Basin Research Project Management Board.
M.D. Committee; Burkitts Tumor Project Management
Committee.

Extension Services

Senior Members were involved in various extension activities including the following:
Chinery, W.A.

External Examiner in Microbiology, B.Sc. Human Biol. Part III, and MB. Ch.B Final Part IA (Clinical Microbiol) at the School of Medical Sciences, UST; Head of Microbiology Labs. KBTH; Board of Governors, Ame. Biogr. Inst. Inc. USA ; Research Board of Advisors, Ame. Biogr. Insti. Inc. USA; Advisory Council, Int. Biogr. Assoc. UK.

Anteson R.K.

Consultant Parasitologist. The Integr. Fam. Plann., Nutr. and Parasite Contr. Proj. (IP) of the PPAG; Chairman Nat. Steering Committee of the IP.; Member; Medical Advisory Board, La. Mansaamo Kpee.

The Department mounted a three-months practical orientation course on quality control, sterilization, media preparation and identification of pathogens for a Quality Control Officer from GIHOC Pharmaceutical Corporation.

The Department also mounted an intensive training programme in diagnostic microbiology and parasitology for a Technician at the Obuasi Mines Hospital.

Three undergraduate students in Biological Science, UST, were also given a similar training in various areas of diagnostic microbiology and parasitology.

Benefactions

Copies of Japanese Journ. of Med. Sci. and Biol. Vols.45 and 46 and Supplement.

Department of Obstetrics and Gynaecology

Staffing Position

a. Academic Staff	10
b. Senior Staff	4
c. Junior Staff	4

Courses Taught/Student Numbers

Course	No. of Students
Medicine	
MB II	
MB III	
Final Part I	52
Final Part II	
Dentistry	
MB II	
BDS III	
BDS Final Part I	

Medical Lab. Technology

- DMLT
- DMLT II
- Others

Research Activities

- a. Anaemia and Sickle Cell Disease in Pregnancy
- b. Maternal Mortality Operations Research
- c. Syphilis in Pregnancy
- d. Teenage Pregnancy at the Korle-Bu Teaching Hospital.
- e. The Problem of Pregnancy induced Hypertension
- f. Perinatal Mortality
- g. Multiple Pregnancy
- h. Drug Use in Pregnancy
- i. Antibiotic Use in Obstetrics/Gynaecology
- j. Study of determinants of decision making to have induced abortion.

Conferences Attended

- a. West African College of Surgeons Annual Conference in Accra: All Consultants.
- b. FIGO Conference in Canada : Dr. Wilson, Dr. Apea-Kubi, Dr. Obed and Dr. Seffah

Visitors:

- 1. Dr. T.E. Elkins
- 2. Dr. J. Sclarra
- 3. Prof. J. MacVicar
- 4. Prof. C.N. Hudson
- 5. Prof. A.O. Lucas
- 6. Dr. Jim Nielson
- 7. Prof. L. Wall

The visitors mentioned above visited the Department in connection with the Carnegie-Ghana Postgraduate Obstetrics & Gynaecology Project.

Others

Three Residents namely; Drs. R.A. Kwame-Aryee, S.A. Obed and J.D. Seffah completed their postgraduate course successfully.

Department of Pathology

Staffing Position

- | | |
|-------------------|---|
| a. Academic Staff | 1 |
| b. Senior Staff | 5 |
| c. Junior Staff | 4 |

Courses Taught/Student Numbers

Course	No. of Students
Medicine	

MB II	
MB III	-65 (1996 Class)
	-71 (1997 Class)
Final Part I	52
Final Part II	59
Dentistry	
BM II	
BDS III	2
BDS Final Part I	
Medical Lab. Technology	
DMLT I	12
DMLT II	3

Others

BSc. Nursing Postgraduates

Research Activities

Autopsy study of AIDS patients HBV and HIV.

Extension Services

Forensic Pathology Service for Ghana Police Service.

Benefactions

Dr. Wiredu donated Computer and Software worth US \$3,550.00 to the department.

Department of Pharmacology

Staffing Position

a. Academic Staff	3
b. Senior Staff	2
c. Junior Staff	2

Courses Taught/Student Numbers in 1993/94

Course	No. of Students
Medicine	
MB II	
MB III	65
Final Part I	
Final Part II	
Dentistry	
MB II	
BDS III	5
BDS Final Part I	

Research Activities

- i. The screening of Medicinal Plants for clinical use.
- ii. The screening of Medicinal Plants for anti-infective action.

Extension Services

Research, Clinical Trials and Seminars at the Centre for Scientific Research into Plant Medicine - Mampong-Akwapim

Conclusion

The Department of Pharmacology is facing an acute shortage of staff, particularly the Academic grade, and equipment. With the imminent introduction of the semester system, it is hope that these problems will receive special attention.

Department of Physiology

Staffing Position

a. Academic Staff	6
b. Senior Staff	2
c. Junior Staff	3

Courses Taught

Course	No. of Students
Medicine	
MB II	76
MB III	
Final Part I	
Final Part II	
Dentistry	
MB II	10
BDS III	
BDS Final Part I	
Medical Laboratory Technology	
DMLT I	12
DMLT II	

Others

BSc/BA Nursing	
Postgraduates	21

Research Activities

- a. Sodium metabolism and its relationship to hypertension in Ghana.
- b. Investigation of sensorineural hearing loss in Ghanaians.
- c. Pharmacological investigation of medicinal herbs used in the treatment of hypertension.
- d. Role of calcium channels in the pathogenesis of hypertension. These projects have been stalled due to lack of equipment.

Extension Services

Pulmonary Function Test on patients from the entire Korle Bu Teaching Hospital.

Benefactions

The following institutions and person made the donation indicated against their names.

Agricultural Development Bank	€2m
National Investment Bank	€1m
Pioneer Tobacco Corporation	€1m
Chamber of Mines	€1m
Lever Brothers (GH) Ltd	Fax Machine
Electronic Typewriter	€1.7m
Merchant Bank - Sharp Photocopier	€4m
Commercial Associates	€500,000.00
NAMCO	€100,000.00
Mr. R.H. Hitti	€100,000.00
Ghana Commercial Bank	€250,000.00
Continental Acceptance	€100,000.00

Others

Rehabilitation project is more than half-way through.

Department of Psychiatry**Staffing Position**

a. Academic Staff	4
b. Senior Staff	
c. Junior Staff	2

Courses Taught/Student Numbers

Course	No. of Students
Medicine & Clinical Pharmacology	
MB II	
MB III	
Final Part I	60
Final Part II	52
Dentistry	
MB II	
BDS III	
BDS Final Part I	5
Medical Lab. Tech.	
DMLT I	
DMLT II	

Research Activities

- Psychiatric/Psychological Manifestations of HIV in Ghana.
- The effect of strengthening Mental Health Care in Care givers in the Upper West Region.
- Aspirations and Mental Health Status of Teenage female School Drop outs (In Collaboration with Dept. of Psychology, University of Ghana)

- d. Refugee Mental Health Problems at the Libertian Refugee Camp at Buduburam in collaboration with Department of Psychology, University of Ghana.

Conferences Attended

- a. Dr. S. K. Ohene: 147th Annual General Meeting and Scientific Conference : Philadelphia, U.S.A. - May JAMAICA, West Indies Psychology Unit
- b. Dr. S.N.A. Turkson: Pan African Psychiatric Association Meeting in Nigeria. - November.
- c. Dr. Araba Sefa-Dedeh: Conference on Intestinal Helminths and Cognitive functioning : New York, U.S.A. - January.
- d. Dr. Angela Lamensdorf Ofori-Atta: Conference on Cognitive and Educational Parts of the Partnership for Child Development - Yearly Meeting: Tarrytown, New York, U.S.A. February 1994.

Publications

- Turkson S.N.A. Psychological and Psychiatric problems associated with childbirth among Ghanaian women Accepted for Publication, Ghana Medical Journal.
- Lamensdorf, A.M. & Linder, W. Mental Health beliefs and Social Change in Ghana: Social Science and Medicine. In Press

Extension Services

- a. Psychological and Psychiatric counselling services for students in the University of Ghana.
- b. Public Lectures on Mental Health issues in Ghana.

Benefactions

From Dr. V.C.K. Doku, an Alumnus of the University of Ghana Medical School and a Postgraduate student in Psychiatry at Queens University of Belfast, Northern Ireland : Selected Journals, Books and Learning Materials.

Department of Surgery

Staffing Position

- | | |
|-------------------|----|
| a. Academic Staff | 27 |
| b. Senior Staff | 3 |
| c. Junior Staff | 4 |

Courses Taught/Student Numbers

Course	No. of Students
Medicine	
Final Year Part I	65
Final Year Part II	60
Postgraduate	18

Research Activities

- Thrombo Embolism
- Arteria Occlusive Disease

Colorectal Cancer
Infertility
Parenteral Nutrition
Gall Bladder Disease
Buruli Ulcer
Cancer of Breast
Cardiothoracic Disorders
Plastic and Reconstructive Surgery

Conferences Attended

All Senior Members attended the West African College of Surgeons Conference held in Accra 22nd-29th January, 1994.

The following Papers were read:

- Hodasi, W.M.. Retention of Urine and isolated Internal Iliac Artery Aneurysm by
Rare cases of keloids and post Herpes Ectropion in Ghanaian Children and Babies by A.G. Laing.
Reconstruction of the bladder and ureters by Prof. E.D. Yeboah
Human Bite - Problems Associated with Management in a Plastic Surgery Unit. By Mr. A.G. Laing.
Chemical Analysis of Gall stones in Ghanaians by Mr. Rudolph Darko and Prof. E.Q. Archampong.
Renal and Ureteric stones at the Korle Bu Teaching Hospital, Accra by Mr. G.O. Klufio, I.K. Bentsi, Prof. E.D. Yeboah and Prof. J.K.M. Quartey.
6th Scientific Meeting of the Ghana Surgical Research Conference May 1994. All Senior Members attended the conference. Paper presented:
- Naaeder S. Surgical infection. International Congress of Ophthalmologist, Toronto June 1994. Attended by Dr. C.T. Ntim-Amponsah.
- 4th World congress on impotence - singapore September 1994 - Prof. E.D. Yeboah and Prof. J.K.M. Quartey.
- 26th World Congress of Urologists Sidney - September 1994. Prof. E.D. Yeboah read a paper on Urethral Stricture and semen quality. Prof. J.K.M. Quartey read a paper on Vascular supply of Preputial skin.

Conferences Organised

- a. West African College of Surgeons Conference
22nd -29th January, 1994.
- b. Ghana Surgical Research Conference in Accra, May 1994.

Publications

- Naaeder S.B., Archampong E.Q. Cancer of the Colon and rectum. A 5 year prospective study: Dr. J. Surg. 1994, 81: 456-459
- Klufio G.O., Yeboah E.D. Bladder, Urethra and Penis - Practice of Surgery including Pathology in the Tropics by Badoe E.A., Archampong E.Q., Jaja M.O.A.

- Dr. C.T. Ntım-Amponsah Traditional Methods of Treatment of cataract seen at Korle Bu Teaching Hospital (Accepted for Publication by Journal of WACS).
- Mr. G.O. Kluflo
Esawi N.M., Pryor J.P., Kluflo G.O.,
Barnes C. and Pattern M.A. Genital Tract Function in men with Novana syndrome. Journal of Medical Genetics - Accepted for Publication.
- Mr. W.M. Hodasi Isolated Iliac artery aneurysm and urinary retention (under consideration).
- Principles and Practice of Surgery including Pathology in the Tropics Second Edition - July 1994.
- Editors E.A. Badoe, E.Q. Archampong
and M.O. A. Jaja PP 1249. Publishers University of Ghana Medical School.
- Prof. E.D. Yeboah Haematuria in principles and practice of Surgery including pathology in tropics pages 737.
Organised revision course for Part I and II examination of the West African College of Surgeons in 1994.
International Reconstructive Plastic Surgery Project sent Plastic Surgeons and equipment to the Department.

Out Patient Department

Case seen at Korle Bu Teaching Hospital were 132, 618 of which 17,500 were admitted and total of 11,695 operations performed. There were 415 deaths giving a mortality rate of 2.38%.

Visitors

The plastic Surgeons who visited the department were:

- a. Prof. J.C. Mustarde (from Glasgow, Dr. Chris Bainbridge (UK)
- b. Dr. Antonio Barrio Frojan (Spain), Dr. Le Plaza (Spain) and ten others. They carried out teaching and extension work by consolidating the International Plastic and Reconstructive Surgery Unit.
- c. Dr. A.G. Lain a Ghanaian plastic surgeon joined the Department as its own plastic surgeon.

Other Visitors

1. Dr. M. Ritcher Turn Traumatic Surgeon from Germany.
2. Prof. ~~RA. Olatunmbi~~ ~~NT Surgeon~~ Surgeon from Lagos.
3. Prof. Kayode Odusote Secretary, WAPMC.
4. Prof. M. Kwamena Woode from University of Virginia, USA.
5. Dr. Klaus Ellendorff, Ophthalmologist from Germany and
6. Dr. Ohene Boadie-Adjei Orthopaedic Surgeon.

Others

- a. External Examiners who visited the department was Prof. A.O. Adeyemi from Lagos and Prof. O.O. Ajao from Ibadan.
- b. Examination Results:
Final Part II M.B, Ch.B Surgery - 56 passed.
- c. Prizes awarded
 - i. Easmon Prize for Best Student in Surgery was won by Dr. Afua Boatema Agyepong.

- ii. Archampong Prize for best student in clinical surgery was won by Dr. J.A. Akama
- iii. Badoe Assay Prize in Surgery was won by Dr. J.A. Akama.

Postgraduate Examination

- a. Passes Primary FWACS Dr. Kyere, Dr. Appaedu Mensah, Dr. Vowotor
- b. Part I Final FWACS - Dr. Nyamuame, Dr. Ofori Kuma, Dr. Ohene-Yeboah they have become full fledged surgeons.

Conclusion

1993/94 was a vibrant year with revitalised under graduate and postgraduate teaching.

The second edition of the Book in Surgery, Principles and Practice of Surgery Including Pathology in the Tropics was launched on 13th July 1994.

For the first time in the history of the Department a successful comprehensive postgraduate revision course was conducted for the Ministry of Health. they resulted in very high pass rate and three of our postgraduates students qualified as surgeons by passing the final Part II examination of the West African College of Surgeons in April 1994.

The establishment of the plastic and reconstructive surgery unit has been consolidated with more extension services and teaching. The extension work which included 132,600 OPD cases, 17,500 admissions and 1170 operations for the Korle Bu Teaching Hospital has been limited by the renovation of the surgical wards and theatres.

New Equipment and Technology

With the commissioning of the CT Scan and the new endoscopy unit for the Department of Surgery we hope to offer quality patient care and improve the teaching and research activities of the department.

SCHOOL OF ADMINISTRATION

Overview

The School's academic programmes were successfully run during the academic year 1993/94. The total student enrolment was 717. This represents a 22% increase over last year's figure of 589. The distribution of students according to academic programmes was as follows:

Diploma Programmes

Diploma in Accounting I	49
Diploma in Accounting II	37
Diploma in Public Administration I	50
Diploma in Public Administration II	34

Undergraduate Programmes

Level 100	
Level 200	148
Level 300	134
Level 400	115

Postgraduate Programmes

MBA Part I	65
MBA Part II	26
MPA Part I	50
MPA Part II	9

Faculty Movements

There were 35 full-time lecturers at post, assisted by 10 part-time lecturers. The following members of faculty were on various types of leave during the year under review:

Mr. L.Y. Owusu-Frempong	Study Leave (Ph.D Programme)
Miss Katherine M Phillips	Study Leave (Ph.D Programme)
Mr. A. Gemegah	Study Leave (Ph.D Programme)
Mr. M.A.R. Bah	Study Leave (Ph.D Programme)

Returning from leave were: Mr. J.S. Arku and Dr. E.K. Boon.

New faculty appointments were made with respect to:

Mrs J. Davis Chin	Lecturer in Management
Dr G.O. Seshie	Lecturer in Accounting
Dr Bill B. Puplambu	Lecturer in Management

On-Going Research

Asibuo, S.K.

"Problems and Prospects of the Implementation of the New Local Government System Under PNDC Law 207".

- Donkor, A. Domestic Monetary and Financial Theory and Institutions.
- Boachie-Danquah, Y. Resource Mobilization for district level planning in Ghana.
Enhancing Policy Management in Public Sector Agencies in Ghana.
Non-governmental organizations in rural development in Ghana.
Social policy and structural adjustment in Ghana.
- Nkrumah, S.A. The Role of Accountants in the District Administration.
The Contribution of Decentralization to Democracy in Ghana.
Export Administration.
- Kwegyir-Aggrey, K.A. Community Participation in Reducing Cardiovascular Diseases in the Third World.
- Osei-Safo, K. The Cost and Benefits of Computerization.
Computer Applications in Marketing.
- Tsikata, J.E. (Mrs) Records Management Practices in some selected organizations in Accra-Tema.
Corporate Leadership Development in Ashanti Goldfields Corporation
Communication Problems and Initiatives in Organizations.
Management of Human Resources in Ghanaian Organizations.
Ghanaian Women Entrepreneurs: Challenges in the 1990s.
- Aboagye, A.G.G. The Ghana Stock Exchange and Corporate Financing.
Financial Sector Adjustment Programme (FINSAP) and Bank Restructuring.
- Takyi-Astedu, S. Application of Management Science to Management Decision Making.
Entrepreneurship and Economic Development.
- Woode, S.N. Ethics in Management.
Corporate Governance.
- Obuobi, A.A.D. Impact Analysts of the Staffing Norms for Ghana's District Hospitals - Joint Research with Mr. S.R. Collens, Lecturer, Comparative Health Systems, School of Administration.

Conferences/Seminars/Workshops

- K. Asibuo, S.K. "Central/Local Relationship in Local Government Administration." A Paper presented at Workshop on Budget Planning System in Local Government organized by Parliamentary Select Committee on Local Government and Rural Development/Friedrich Ebert Foundation at Volta Hotel, Akosombo, 27th to 29th October, 1994.
"The Concept of Decentralization and The Local Government Law." A Paper read at the Workshop on

- Revenue Generation at the District Level Organized by Volta Regional Coordinating Council/Friedrich Ebert Foundation at Ho, 4th - 7th October, 1994.
- "Effects of Structural Adjustment on Housing in Ghana." A Paper presented at Roundtable Discussion for Top TUC Executives Organized by Friedrich Ebert Foundation/TUC at Mariset Hotel, Osu on 19th May, 1994.
- Boachle-Danquah, Y. Senior Policy Workshop on Public Sector Reforms, Organized by the United Nations Economic Commission for Africa, 5-9 December 1994, Addis Ababa, Ethiopia. Paper Presented: "Public Enterprise Reforms and Privatization: The Experience of Ghana." Coordinated the 7th Annual Workshop on Decentralization on the topic: The Role of National and Regional Level Institutions of Decentralization in Ghana, organized by the Konrad Adenauer Foundation of Germany, the Ministry of Local Government, Ghana and the School of Administration, University of Ghana, Legon, Monday 26th September - Friday 30th September 1994 at Legon. Paper Presented: "District Management in the Decentralization Process in Ghana."
- Osei, K.A. African Economic Research Consortium Bi-Annual Workshop on African Economic Issues, Nairobi, Kenya, December 1993. Paper Presented: "An Analytical Study of the Major Factors of the Foreign Exchange Burden Market of Ghana." African Economic Research Consortium Bi-Annual Workshop on African Economic Issues, Nairobi, Kenya, May - June 1994. Paper Presented: "An Analytical Study of the Impact of the Forex Bureau System on Manufacturing and Trading Activities in Ghana." African Economic Research Consortium Publications Workshop on African Economic Issues, Nairobi, Kenya, November 2-5, 1994. Paper Presented: "The Efficiency of an Emerging Foreign Exchange Market: The Case of the Forex Bureau Market in Ghana."
- Donkor, A. African Economic Research Consortium Bi-Annual Workshop on African Economic Issues, Nairobi, Kenya, 28 May - 2 June, 1994. Paper Presented: "Monetary Targeting and Economic Development."
- Domfeh, K.A. Ghana Human Resource Development Assistance (HRDA) Project Planning Workshop, December 13-14, 1994.
- Publications**
- Asibuo, S.K. Effects of Structural Adjustment Programme on Housing in Ghana (Monograph: Friedrich Ebert Foundation) Accra, 1994.
- "Intergovernmental Relations in Ghana: The District Assemblies and the 1988 Local Government Law," *The Journal of Management Studies*, Third Series, Vol.10, January - December 1993, pp.54-64.

- Boachie-Danquah Y. Prepared a *Manual on Training for Training Managers* for the State Enterprises Commission of Ghana,, June 1993.
- Tsikata I.E. (Mrs.) "Improving Upward Organizational Communication: A Case Study of Ashanti Goldfields Corporation," *The Journal of Management Studies*, Third Series, Vol.10, January - December 1993, pp.42-53.
- (and John Masten) "Responses to Changes in the Competitive Environment: A Case Study of Three Ghanaian Exporters," *The Journal of Management Studies*, Third Series, Vol.9, January - December 1993, pp.1-13.
- Obuobi, A.A.D. "Elements of a National Strategy for the Management Training of Health Service Managers in Ghana," *The Journal of Management Studies*, Third Series, Vol.10, January - December 1993, pp.84-91.
- Osei-Safo, K. "Pineapple Production for Exports: Reducing the Production Constraints," *The Journal of Management Studies*, Third Series, Vol.9, January - December 1993, pp.78-85.
- Woode, S.N. *Ethics in Business and Public Administration*, Asempa Publishers, 1994, 64 pp.
- "The Passivity of Boards of Directors: A Subject for Research and Study," *The Journal of Management Studies*, Third Series, Vol.10, January - December 1993, pp.31-41.
- Donkor, A. "Monetization And The Behaviour Of Velocity: Evidence For Nigeria, 1960-1990," *The Journal of Management Studies*, Vol.8, June - December 1992.
- Nkrumah, S.A. Efficiency and Effectiveness of Local Government Finance in Ghana - Ghana Civil Service Journal, 1993.

BALME LIBRARY

Introduction

Like the previous year, 1993/94 was punctuated with industrial unrest, from the TEWU between May and July, and thereafter from the UTAG. The Library suffered some harassment at the hands of some TEWU members but did not experience any physical damage as it did the previous year. The Library was also not affected by the UTAG action. Senior Members in the Library continued to work full time, although their teaching and other colleagues in administration did it selectively.

Despite constraints in terms of financial and other resources, the library continued to discharge its academic support functions as circumstance permitted.

Staffing

The staffing situation at the Library Assistant level continued to be satisfactory, reflecting the situation of the previous year but improved only slightly at the Senior Member and Messenger/Cleaner levels.

At the Messenger/Cleaner level, established staff remains four (4) out of the 20 required. A team of seven casual (daily rated) cleaners was engaged in January, 1993. This improved the situation considerably, but we need to reinforce this team, in view of the expected large student intake in the 1994/95 academic year and its anticipated problems.

At Senior Member level, the numbers have gradually increased from four (4) to eleven (11), with staff returning from study leave. The recruitment exercise reported last year, remains at a stand still, although the shortlist of applicants was prepared and sent to the Dean of the Faculty of Social Studies in November, 1993. None of the applicants qualified for the 7 Assistant Librarian and one Deputy Librarian positions that were advertised, due to the new credentials required after Librarians were given academic status by the Academic Board in 1992. The shortlisted candidates will therefore be interviewed for the post of Junior Assistant Librarian.

Equipment

The library received considerable input of IT equipment by way of personal computers (PCs) and CD-ROM Readers and databases. Three PCs and one Dot Matrix Printer were received in connection with the automation programme. The Uninterruptible Power Supply (UPS) equipment to go with them has still not been received. However, in view of the pressure on us to use the PCs, they have been installed and stabilizers acquired to ensure equipment safety against unstable power supply while we wait for the UPSs to arrive.

The Library also procured five new CD-ROM Readers in addition to the one that was procured the year before, making a total of six. Four CD-ROM bibliographic databases have also been acquired by the library as a participant in a CD-ROM Project with other University Libraries in six other African countries. However, only three CD-ROM work stations have been established due to the insufficient number of PCs.

New Projects

CD-ROM Service

A CD-ROM Service (mentioned above) has been put in place since May, 1994. The project is an experiment whose objective is to assess the viability of augmenting or replacing the dwindling journal subscriptions of participant African University libraries with CD-ROM bibliographic databases. Members comprise university libraries in seven African countries including Ethiopia, Ghana, Malawi, Nigeria, Tanzania, Zambia and Zimbabwe. It is coordinated

by the AAAS and funded by the Ford Foundation and the Carnegie Corporation. The Project was launched at a Workshop organised by the AAAS in Dar es Salaam, Tanzania, in February 28th - March 2nd, 1994.

The terms of this arrangement are that for the next three years (1994-1996 inclusive) participant libraries can send titles identified on the six project databases (four for Legon) to the AAAS and will receive hard copies of corresponding articles free of charge. There is no limit to the number of articles a library can request so long as they came from the project databases. Ghana is said to top the list in terms of volume of requests.

As part of the terms of the Project, a Library/Enduser Committee chaired by the University Librarian, has been set up comprising senior library staff and faculty representatives. Its role is, among other things, to sensitize the academic community to the project and devise modalities for training the library staff and the user community in basic computer literacy to the project to take off and progress satisfactorily.

A training schedule has been designed by the Library's Principal Programmer. The Faculty of Agriculture Library has acted as a supplementary training post, with IT equipment (one PC, one CD-ROM Reader and databases) donated to the University/Faculty as a member of the National Agricultural Rehabilitation Project (NARP).

The service has become very popular, particularly with graduate and other research students, as a welcome solution to the problem of grossly inadequate research sources. This is corroborated testified by the volume of requests noted above.

Africana Rare Books Conservation

As a sequel to the seminar on conservation (please see under conference) organised jointly by the Balme Library and the French Embassy in November, 1993, the Balme Library is benefitting from the Ghana/France Culture Cooperative agreement which was launched by the Minister of Education in February, 1994. The Embassy has undertaken to assist the Library in the restoration and preservation of its (the Library's) rare but endangered Africana and other materials. A Consultant is expected to arrive in Ghana in June, 1995 to begin the process. The agreement also includes training one of the Library's staff in Paris in conservation.

Automating the Library's Housekeeping Processes

In the context of the Management Information System and related library automation programme of the University, the Balme Library received some IT equipment (please see under Equipment above). A committee comprising cataloguers mainly, has been put in place to design the framework for automating the library's cataloguing processes. Work has also started on the creation of a manual database of all theses held in the Balme Library, to be automated at a later date.

Current Contents Service

In the bid to maximize our inadequate journal intake, we introduced a *current contents service* in 1993. This service aims at providing photocopies of the contents pages of current journals received by the library, and circulating them to various departments, schools and institutes of the University to enable teachers, researchers and students to have foreknowledge of what titles are available in the library in their areas of teaching/research/interest before they visit the Library. This objective is to make visits to the library more purposeful.

The service was started in 1993, with 1992 journal issues. A list of journal titles was circulated to departments, etc., for members to identify those titles of interest to them. The service was thus title/department specific, i.e., the service was extended only to those department that responded to the circular and identified their areas of interest.

The project is being evaluated to find out its cost benefit, in view of the large inputs in terms of photocopying costs and staff time (copying, collation and distribution). The continuance of the project will depend on the outcome of the evaluation.

Commercialization of the Technical Service Unit of The Balme Library

In a bid to diversify the library's sources of income and to generate funds, it was decided to commercialize the operations and broaden the base of these operations. To this end, in December, 1993, a loan of four million two hundred thousand cedis (₵4,200,000.00) was obtained from the University at 26% per annum interest rate, payable in one year, to purchase new equipment and materials. Two hot-foil machines were acquired over the period, thus introducing for the first time in the history of the Balme Library, printing of complimentary and other cards. Lamination services have also been introduced in the Unit. An offset printing machine that had been standing idle for a long time was also activated. The venture has been advertised widely on campus and in one national newspaper.

The service picked up slowly. Progress was seriously thwarted by the industrial actions on campus in 1994, particularly the TEWU action which cost us two big orders. Progress is picking up again. We expect a more favourable environment next year.

Stock Acquisition

This consists largely of material from the World Bank assistance project.

Since the engagement of Messrs Blackwell in mid 1993 to handle our orders under the World Bank Project, the flow of acquisitions has been steady and satisfactory. A subsidiary of Blackwell, Safari, is handling our journal orders. That also has worked satisfactorily. Of the 400 journal subscriptions paid for the period, 1994-1996 (inclusive) under the World Bank arrangement, 250 have been received so far. It is expected that the total would have been received by the end of 1996. The AAAS continues to send 90 Scientific Journal titles every month.

As usual local purchases have not been significant due inadequate funding.

Exchange as a means of acquisition is being seriously resuscitated. We are actively acquiring multiple copies of publications from Departments of the University, including the Central Administration, and from other Ghanaian sources, to keep the exchange programme alive. Statistics on acquisitions are provided under a separate heading below.

Accommodation/Space

Accommodation is another serious problem in the Balme Library. Built to seat 500 readers, the Library faces the now impossible challenge to seat its vastly increased readership. There is always a stampede to appropriate seats when the Library opens at 9.00 a.m. each day. The extreme overcrowding also leads to rough handling and over exploitation of books and other materials in the library.

Space is needed for all kinds of things besides user reading and stack accommodation. We need space for the computer/CD-ROM lab, the photocopying service and for the Orders Department. We suggest, therefore, that at least two of the open quadrangles in the library be converted to reading rooms. The Chairman of the Board has been round the library to appraise the situation.

Staff Matters

Senior Members

Mrs. M. Amisah-Arthur who was granted two years' leave of absence without pay in March, 1993 resigned her post as Assistant Librarian towards the end of the leave period.

Mrs. C. O. Kisiedu, University Librarian, went on a Study Tour of some University Libraries in the U.S.A. from 11th March to 14th April, 1994. She was accompanied by Mr. Barfi-Adomako Owusu, Principal Programmer.

Under the I.D.A. Staff Training Programme, the following Senior Members went on attachment training overseas :

Mrs. V. Dodoo attended the Summer School organised by the Department of Information and Library Studies, University of Wales, in Aberystwyth, from 25th June to 20th August, 1994. She took advantage of an offer of a month's attachment at the Bodleian Library, Oxford University, after the Summer School.

Miss G. O. Boakye also attended the Study Seminar on Bibliographic Information on Development at the Institute of Development Studies (I.D.S.), University of Sussex, from August 22nd to September 16th, 1994. She also had a month's attachment at the IDS Library after the Study Seminar.

Miss Boakye who was granted 3-years' Study Leave to pursue MPA Degree on part-time basis in 1992, completed the programme in two years. She has since been awarded the MPA degree.

Mr. V.K. Fosu completed his second year on the M.Phil Course at the Department of Library and Archival Studies our part-time basis.

Mr. G.D. Aslagodo has completed his M.Phil Library Studies course at the Department of Library and Archival Studies.

Senior and Junior Staff

Appointments

The following appointments were made :

Messrs F. T. Kisseh, E.A. Asiedu and J. Anyim-Boateng who resigned their posts to pursue B.A. degree courses were re-engaged as Library Assistants after completion of their courses. Seven casual cleaners were also employed.

Miss Catherine Flanu - Junior Library Assistant Gd. III

Staff Training

Messrs R. B. Sam and D. Opoku have been awarded the Graduate Diploma in Librarianship, after one year study leave granted them in 1993 to pursue the course at the Department of Library & Archival Studies.

Mrs. Sarah A. Adinku and Mr. Samuel K.A. Aslamah who were granted study leave to pursue a B.A. degree course in 1991 have successfully completed their courses. They resumed duty on 15th September, 1994.

Mr. Barfi-Adomako Owusu, Principal Programmer, was the third beneficiary under the I.D.A. Staff Training Programme. He proceeded to Hampton University on attachment course in Library Automation from 4th September to 1st November, 1994.

Conferences

A seminar on the Conservation of Library and Archival Materials in Ghana was jointly organized on 22nd - 24th November, 1993 by the Balme Library and the French Embassy. All logistical inputs were provided by the Embassy which also flew in a consultant from Paris specifically for the seminar. Most of the intellectual inputs were provided or organized by the Balme Library. The Vice-Chancellor was Guest Speaker at the Seminar.

Mrs. C.O. Kisiedu, University Librarian, attended a Workshop in Dar es Salaam, Tanzania, from February 28th to March 2, 1994 on CD-ROM Project.

Mrs. Kisiedu attended the Inter-University Seminar on Social Science Research organized by the Faculty of Social Studies in July, 1994. She presented a paper jointly with Dr. A.A. Alemna titled: "An Examination of the Methodological Approach Adopted in A Survey of Past Post-Graduate Diploma Students of the Department of Library and Archival Studies of the University of Ghana, 1970/71 - 1990/91"

Senior Members and Library Assistants attended various meetings of the Ghana Library Association. These included a Microcomputer Workshop on "Computer Application in Libraries" which was held in March, 1994 at the USIS.

Publications

Kisiedu C.A.

A survey of past post-graduate Diploma Students of the Department of Library and Archival Studies of the University of Ghana: 1970/71-1980-81, **Journal of Information Science**, Vol. 19, No. 6, Dec., 1993, pp. 481-487.

Kisiedu C.A. Alemna A.

An Examination of the Methodological Approach adopted in the survey of past post-graduate diploma students of the Department of Library and Archival Studies of University of Ghana: 1970/71-1990/91. Paper submitted at the Inter-University Seminar on Social Science Research, organized by the Faculty of Social Studies, University of Ghana, Legon, July, 1994.

The Realities of Academic Librarian in Ghana with special emphasis on the University of Ghana (27p.) (accepted for publication in the Proceedings of the Second National Conference of African American Librarians held in August 5-7, 1994, Milwaukee at which it was presented on my behalf).

Boakye G.

Challenges and Frustrations of an Acquisitions Librarian in a Developing Country: the case of Balme Library. **Taking Stock**, Vol. 3, No. 1, May, 1994, pp. 26-30.

The Academic Libraries of Developing Countries: Towards Effective Book Provision In The Face of Austerity. **New Library World**, Vol. 95, No. 1116, 1994, pp. 12-17.

Statistics

Readers Services Department

No. of new readers registered	3,216
No. of books circulated	22,846
No. of photocopy orders made	129,157
No. of books borrowed from overseas	32

Acquisitions Department

No. of books purchased locally	28
No. of books received through World Bank Project	6,260
No. of Gifts received	
No. of books acquired through exchange	26
No. of books acquired through legal deposit	8
Total No. of books acquired	6,322
The Grand total bookstock now stands at approximately	- 352,526

Cataloguing Department

The department catalogued 3,503 volumes and reprocessed 171 volumes. It published only one issue of "Library Bulletin".

Africana Library

No. of volumes added 85
No. of volumes borrowed during the session were 15,560. These included books borrowed from the open shelves, Rare Books Room and Reserve Collection.

Students Reference Library

No. of volumes added	547
No. of volumes put on reserve	125
No. of books borrowed :	
Reserved Collection	19,654
Open shelf	1,402
Total	21,046

Periodicals Department

A total of 652 titles were added to our stock. This was made up as follows :

326	received on subscription
90	received as gifts
30	received as legal deposits
20	received on exchange

Technical Service Unit

No. of books bound for Balme Library	1,050
No. of books bound for other sections of the University	1,261
No. of periodicals bound for Balme Library	350
No. of periodicals bound for other sections of the University	567
No. of pamphlets, offprints and photocopies bound for Balme Library	15
No. of pamphlets, offprints and photocopies bound for other sections of the University	567
Total No. of items boarded	582
No. of theses bound	68
Total No. of items bound (books, periodicals, etc)	3,928
No. of items mended	150

Other notable services rendered during the session included 493 books blocked for customers.

A total of 7,133 complimentary, invitation, greetings and other cards were printed on the Hot-foil machine. 300 dance tickets, 9 certificate scrolls and 50 files were also produced.

Gifts

The Library continued to receive gifts and other forms of assistance from our traditional benefactors. Principal among them were: The British Council; United States Information Service/ American Association for the Advancement of Science (AAAS); The French Embassy (which funded the seminar on conservation); Canadian Overseas Development through Education (CODE) through Ghana Book Trust; International Development Research Centre, (IDRC) Canada. Others were The World Bank, The Ranfurly Library Services; the Church of Jesus Christ of Latter Day Saints, and the National Agricultural Research Project (NARP). Personal donations were also made by the following: Prof. George L. Crowell of Johns Hopkins University, Washington, D.C., and Dr. Kwamina Panford of Northeastern University, Boston, Massachusetts.

Conferences Attended

Mrs. Kisedu and Mr. J.O. Amekuedee attended the Ghana Library Association's three days Biennial Congress which took place at the City Hotel in Kumasi on 24nd - 26th November, 1994.

Visitors

Among distinguished persons who visited the Library were :

1. Mr. William S. Saint, World Bank, Washington, DC, U.S.A.

2. Mr. Alan MacDugll, Director of Library Services, Dublin City University, Dublin 9, Ireland.
3. Dr. David Brooks, Director, International Development Centre (IDRC), Ottawa, Canada.
4. Ms. Doris H. Clack, School of Library & Information studies, Florida, State University, U.S.A.
5. Dr. Canaan Sodindo Banana, First President of Zimbabwe, O.A.U. Eminent Person for Liberia.
6. Dr. Muta Ngadura Norman, O.A.U. Eminent Person for Liberia. 7. Ms. Lisbeth Levey, AAAS, Washington, D.C., USA
8. A Team of UNESCO Consultants on Distant Education led by Professor A. A. Kwapong.

COUNSELLING AND PLACEMENT CENTRE

Establishment	Staffing
Full-Time	
1 Director	C.V.L. Bannerman
1 Counsellor	E.E. Bonsi
1 Administrative Assistant	A. Wiafe (on National Service)
1 Clerk	E.E. Bondzie
1 Messenger	A. Akrong
Part-Time Counsellors	
Dr. J.B. Asare	Psychiatrist, Accra Psychiatric Hospital (1st Semester)
Dr. J.J. Lamptey	Psychiatrist, Part-time Senior Lecturer, University of Ghana Medical School: Psychiatrist-in-Charge, Valley View Clinic, Dzorwulu.
Dr. S.K. Ohene	Psychiatrist/Lecturer, University of Ghana Medical School (2nd Semester)
Dr. Araba Sefa-Dedeh	Clinical Psychologist/Lecturer, University of Ghana Medical School.

The Director was away from the periods September 27 to November 26, 1993 and January 17 to March 30, 1994 on leave of absence, during which periods Mrs. E.E. Bonsi acted. Dr. J.B. Asare was forced by an excessively heavy schedule to withdraw his services at the end of the first semester. He was replaced by Dr. S.K. Ohene.

Programmes

In spite of the protracted industrial action by the junior staff, most of the activities planned by the Centre for the session were implemented.

Orientation of Freshmen

The Centre as usual participated in the University's Freshmen's orientation week programme. Freshmen were introduced to the various services provided by the Centre, and taken to the Centre and shown around.

Counselling Service

The Counselling Service was available throughout the year to students of this University. A few students from other tertiary institutions, and occasionally, staff and their dependants were also assisted.

This service was delivered mainly in individual counselling sessions upon request. Group counselling sessions were organised to deal with specific common concerns eg. career choice, stress, poor study skills and interested students were invited by general notices to sign up for the sessions.

As in previous years, the following problems were recurrent and were presented to the Director and Counsellors during the academic year.

Anxiety arising from poor performance, lack of concentration and inappropriate study skills.

Stress resulting from various concerns of life.

Difficulty in choosing main course, and electives.

Dissatisfaction with courses (A number of freshmen were dissatisfied with courses offered them; and a few second year students were unhappy about not being allowed to continue with courses of their choice at Part I).

Social problems related to the development and maintenance of relationships.

Shyness.

Family concerns.

Depression caused by the loss of very close relatives or friends.

- Inadequate Funds - causing social problems and sometimes depression.

Disruption of academic programmes due to illness.

As usual, the largest number of students who sought counselling from the full-time staff were first year students, particularly in the first semester, when the main concerns presented were about courses assigned to students who had not chosen them: accommodation difficulties; work-load and requisite credits; and general adjustment problems.

Second year students were next in number, and their concerns were centered mostly on failure in some papers at FUE; choice of majors and subject combinations; and electives. The final year students were mainly concerned with career prospects and post-graduate opportunities.

The Psychiatrist and Clinical Psychologist, were presented mainly with minor psychiatric problems of various degrees of severity, most of which were anxiety related, or depressive states, with the majority complaining of headaches. At least four students had major psychiatric conditions including schizophrenia and major depressive disorder. Most of the students who consulted the Psychiatrists required medication, which appeared to be beneficial. Some just needed counselling on coping with stress, or organising their time. A small number had to be given permission to postpone impending examinations because of their mental state at the time.

Sex Difference In Attendants

As in previous years the number of women attendants was significantly lower than that of men, especially those who consulted the psychiatrists. The ratio was however much better in respect of those who saw the full-time counsellors with educational careers, or short-term personal concerns.

Preventive Counselling Seminars

A number of Preventive Counselling Seminars were organized for students. Topics discussed included the following which targeted specific groups though all sessions were open to all students:

- i. Life on Campus; Time Management; and Study Skills (For Freshmen).
- ii. Re-entering Academic Life (For Mature Students).

iii. Demands of Graduate Work (For Graduate Students).

Vacation Training

Vacation Training was not organized this year because of the shortness of the vacation. Instead, an appeal for vacation jobs was made to all the organizations that had in the past accepted students for vacation training. The response was however consistently negative. Individual introductory letters were therefore provided to interested students to look for jobs. This worked, as quite a few students did get jobs.

Career Orientation Programme

Seminars

Seminars on the following topics were held, and alumni of the relevant disciplines participated and talked about their respective careers and specifications of their jobs.

Careers for Science Graduates

Selected careers for Graduates in the Humanities

Colloquia between Employers and Students

A series of colloquia were organized and various establishments were invited to participate in the programme, following a general format provided by the Centre. The aim of this programme was to give students the opportunity to learn about the functions, structures, and operations of major establishments operating in this country as part of their general education. The programme was also intended to give students the chance to ascertain direct from successful executives, the occupational demands on management personnel, and what makes for success on the job.

Organizations that participated in this year's programme included:

Public Services Commission

Customs, Excise and Preventive Service

Ghana Armed Forces

Valco

Ghana Commercial Bank

Ghana Tourist Board

Ghana Tourist Development Corporation

Ghana Airways

The presentations at the colloquia were generally interesting. A few organizations used audio visual aids. Student attendance was good and those students who participated showed appreciation for the programme.

Career Planning

The career planning work-book was used extensively this year by students. Many students were helped in groups to identify their interests and abilities, and were informed about careers for graduates in their various subject areas.

Applications, Resumes and Interviews

Students were helped to acquire skills in writing resumes, application letters, and preparing for interviews.

(In addition to this preparation, students will need practical experience which can be acquired through mock interviews. It is proposed that such mock interviews will be organised next session, and appropriate personnel from Commerce and Industry invited to participate).

Entrepreneurship Development

Applied Integrated Development Incorporated, a private organization in Accra, in collaboration with the Centre, run a course for students on entrepreneurship development. A twenty-four week programme was provided. About forty students signed up for the programme which was presented on campus by two main facilitators once a week from 6.00 - 8.00 p.m.

Attendance dropped towards the end of each semester, possibly due to the impending exams.

The majority of the participants were final year and graduate students. There were a few freshmen and second year students, and one or two senior members. Two Senior Members who attended the course were very impressed with the programme. An entrepreneurship club was formed by the students and is expected to be registered next semester. The programme is projected to be offered again during the 1994/95 session.

Surveys

Advertisements

The on-going compilation of advertisements for posts for graduates and non-graduates was continued. The findings for the period January to June, 1994 were consistent with what was observed over the past three years:

- * The advertisements were prevalently from the private sector with a drastic reduction this year in the number from the public sector.
- * With respect to Graduates/Professional the highest demand was for Administrators Accounting, Business Administrators, Marketing and Sales Managers and Management Personnel in that order, followed by Engineers - Mechanical, Civil, Electrical, Chemical and Mining in that order, and Social Science graduates.
- * For Sub-degree personnel, the highest demand was for secretarial staff of various levels followed by technicians, accountants and accounts clerks.

Student Use of the Service Provided by the Counselling and Placement Centre and their Assessment of the Services

A survey to assess student use and evaluation of services provided by this Centre was undertaken during the session, however, the number of questionnaires retrieved was considered too small to provide a representative sample. A serious effort will be made this academic year to get a better response from students.

GRADUATE STUDIES

In general, graduate studies saw dramatic changes for the better in all aspects of higher degree programmes during the year under review.

Student Enrolment

Student enrolment showed a marked and significant improvement over the last couple of years, in stark contrast to what prevailed in the early and mid-eighties. For the 1993/94 academic year, 978 applications were received. Out of this number, 325 applicants made up of 241 males and 84 females were offered admission. 281 candidates, made up of 211 males and 70 females, eventually registered for the various graduate programmes.

Graduate Student Output

The academic year under review, 1993-94, saw the Board of Graduate Studies determining the results of 167 graduate students who had completed their various programmes. The number was made up of the following:

- i) 8 Ph.D candidates;
- ii) 60 M.Phil candidates;
- iii) 22 M.B.A. candidates;
- iv) 9 M.P.A. candidates;
- v) 48 M.A. candidates;
- vi) 44 Graduate Diploma candidates.

The spread of Faculty of these results were:

	Ph.D	M.Phil	M.A.	M.Sc	Grad. Dip
Faculty of Arts	2	14	3		
Fac. of Social Studies	4	22	45	1	44
Fac. of Science		19			
Fac. of Agriculture	2	5			4
Sch. of Administration		22 (MBA)		9 (MPA)	

Fellowship Benefactors

In the continuing quest to improve graduate studies in the University, various avenues were explored with the aim of significantly making it both academically and financially worthwhile for students to complete their higher studies locally. Assistance, in the form of fellowship awards, was therefore solicited from a cross-section of local industrial and commercial enterprises as well as some international donor agencies. Their positive and generous response has resulted in the institution of 21 relatively prestigious Fellowships for registered graduate students which took effect from the 193-94 academic year. These benefactors were:

USAID	6 FELLOWSHIPS
VOLTA RIVER AUTHORITY	4 FELLOWSHIPS
BROMKAMP (GERMAN)	2 FELLOWSHIPS
N.U.F.U. (NORWEGIAN)	2 FELLOWSHIPS
PIONEER TOBACCO COMPANY	1 FELLOWSHIP
ASHANTI GOLDFIELDS COMPANY	2 FELLOWSHIPS
UNILEVER GHANA LTD	1 FELLOWSHIP
SHELL (GHANA)	1 FELLOWSHIP
BARCLAYS BANK (GHANA) LTD	2 FELLOWSHIPS

Indeed positive results were achieved in the quest for the improvement and localization of more graduate programmes. These, however, have not been without problems. Increased student intake had, of course, not been accompanied by corresponding increases in facilities, such as classroom space and student accommodation. It is however, hoped that solution to these perennial problems would be found in the implementation of the Strategic Plan for Graduate Studies, with the support of both the Government and Private Business.

New Graduate Programmes and Additional Courses

During the session under review, processes were completed for two new graduate programmes to commence. These were a Master's degree programme in Public Health (MPH) and a Doctorate in Medicine (MD). For the MPH programme, ten (10) doctors and two (2) dentists were shortlisted to enrol as pioneer students for the next (ie. the 1994/95) session. Four (4) physicians were also registered for the new MD degree of the Medical School.

The Board also approved a new M.Phil programme for the Department of Nursing, during the period under review.

The Departments of Geology and Sociology revamped their M.Phil programmes, introducing an extra core subject each, while the Department of Soil Science re-introduced the Ph.D programme into their post-graduate offerings.

LINKS WITH OTHER UNIVERSITIES

Whilst the University of Ghana continued its activities with the traditional link institutions during the year under review, it entered into new arrangements with other institutions, including State University of New York (SUNY) at Brockport and University of Texas at Austin, to mention a few. Details are provided on a few of these below:

Council for International Educational Exchange (CIEE)

This is a consortium of American Universities which arranges student exchanges among Universities all over the World. Already, two batches of students have visited the University of Ghana under this arrangement. It is expected that this will enable the University of Ghana send a number of graduate students/staff to the USA for research/staff development purposes during the current year.

The CIEE has also paid for subscriptions of a number of core journals for academic departments and provides other facilities outside the terms of the agreement. There is a local director in the person of Dr. Michael Williams, to see to the implementation of the program.

PennState University

The Pennstate agreement has been going for over five years now. With the running out of the funds originally set aside for the link the terms of the agreement had to be renegotiated. An amended agreement, signed in January 1995; involves principally joint research work in the area of Molecular Biology and staff exchange visits.

A number of visits have taken place under this agreement, some of these are:

From Legon to PennState

- a. Mrs. Kissiedu, the Librarian and Mr. Baafi Adomako Principal Programmer.
- b. Prof. M. Assimeng (Sociology Department)
- c. Mr. J.M. Budu (Planning Unit)
- d. Prof. G.K. Nukunya (Pro-Vice-Chancellor)

From PennState to Legon

- a. Dr. Michael Dooris and Dr. Gregory Lozier (Office of Planning and Analysis)
- b. Dr. Lamarr Kopp (Office of International Programmes)
- c. Vernis Welmon (College of Business Administration)

North Carolina State University (NCSU)

The focus of this link arrangement is student/staff exchange as well as joint research in identified areas. Professors S.T. Addo and K. Asare-Opoku are currently at the NCSU on sabbatical leave. Under this agreement, it is expected that NCSU would mobilize funds to put up a students' hostel to alleviate the pressures on student accommodation. This hostel, it is hoped, would be used not only by International students but by Ghanaian students as well. NCSU also has separate link arrangements with the University of Science and Technology and the University of Cape Coast.

Tulane University

The Medical School has a number of active links with other Medical Schools including Tulane University. This link has been primarily with the Anatomy department but a recent visit by Prof. Yates of Tulane University was aimed at expanding the link to cover other departments within the Medical School. There is a possibility of including other departments outside the Medical School. The activities involved in this have been joint research, staff/student exchange and donation of books and equipment.

Department of Biochemistry

Overview

The vision of this Department is to be known as a Department of Biochemistry and Molecular Biology. Therefore, some of the activities of the Department for the 1993/94 academic year were geared towards developing the Molecular Biology aspects of the subject without compromising the other areas of Biochemistry.

During this period, our efforts in establishing the Molecular Biology wing were advanced owing to the activities of Dr. S.T. Sackey, whom we engaged as a part-time lecturer. Dr. Sackey used resources available at his institution to give our M. Phil. students and students from other Departments, a good practical course in Genetic Engineering/Molecular Biology. His efforts were a continuation of a modest start made towards achieving our goal with the organization of a workshop on Plant Molecular Biology, sponsored by the Pennsylvania State University during the previous year.

We also began making a more conscious effort to study viruses in our environment with the view to exploiting them in preparing some of the reagents we would require for our Molecular Biology work.

Thanks to the generosity of JOHNSON WAX GHANA LIMITED, the Department now has an insectary, a facility which is essential in its insect-related research activities. We see this gesture as the beginning of an ACADEMIA-INDUSTRY relationship which we intend to exploit and expand to include other industries which utilizes our expertise as well as our equipment and products, i.e. the graduates from this Department.

We are very proud to state that in this 1993/94 academic year, two of the six students who graduated with a First Class degree in the Faculty of Science, offered Biochemistry as a single subject. Another student who offered Biochemistry combined with another subject, also graduated with a First Class degree. We are very proud of them.

Courses

After running the course/credit system for two years, we had course to modify the course structure for our Level 300 courses and to make changes in our Level 200 courses. These were approved and are being run along with the Level 400 courses in the current academic year.

Student Numbers

The list below gives the student numbers. Most of the students taking the Level 200 courses are registered with the Faculty of Agriculture. A few are students taking a Diploma course in Medical Laboratory Technology.

Level 200	72
Level 300	59
BSc. Part II (3.2.1)	14
(3.2.2)	11
M.Phil. (Courses)	6
M.Phil. (Research)	5
Total	167

Staff

There were no new recruits to full time staffing positions. Mrs. Y.D. Osei is still on Study Leave and Dr. F.K. Rodrigues, who was on Leave of Absence, formally resigned his position as

a lecturer in the Department. The loss was not felt only because we were able to recruit Dr. Sackey on a part-time basis. As mentioned above, Dr. Sackey is a welcome addition to the Department because of his area of interest.

Research

There are four major areas of research by Senior Members in the Department.

Molecular Parasitology

Research in this area is aimed at the biochemical aspects of parasite-host relationships, especially that of the malaria parasite, *Plasmodium falciparum*, to be exploited in chemo-therapeutic interventions. The difficulty in this area of research has been that of culturing the malaria parasite successfully *in vitro*.

A new addition to this area of chemo-therapeutic intervention is the isolation of siderophores, iron-binding molecules of microbial origin, as effective anti-malarials because of their iron-chelating potential, which makes iron unavailable to the malaria parasite.

Plants of Economic Importance

This area covers research into medicinal plants, plants with insecticidal properties, plant proteins and other plant biomolecules. The analytical aspects of the research include analyses of plant materials some of which are considered "waste".

Plants under investigation are those used for the treatment or management of asthma and diabetes. Another area of current interest is the possible deleterious side effects of the medicinal plant including possible interaction between it as a drug and other drugs which the patient may take. There was one preliminary work on plants with anti-microbial activity.

The research on insecticidal activity of plants is tied in with Insect Biochemistry in general and analyses of insecticides in use in the country.

The taste-modifying principle in the sweet berry, is under investigation. The research is focused on the isolation and stabilization of the protein under local conditions. The protein has already been isolated by a Japanese group. However, the protein is very unstable and much of its activity is lost when the fruits are exported. The significance of this research is to find a way of isolating the protein in a stable form for export.

Molecular Biology

This area of research aims at developing the techniques of molecular biology locally in order to complement the work of other researchers and for transferring the technique to other institutions in the country. The relevant microbio-logical techniques of isolating viruses and culturing bacteria and yeast cells are being carried out. Yeast cells from the local palm wine is being used as eukaryotic material. DNA materials are being analyzed using restriction fragments length polymorphism (RFLP). We have been constrained in this area of research by the high cost of restriction enzymes. The most recent addition to this area of research therefore, is an attempt to isolate restriction endonucleases locally. Work has begun towards the molecular transformation of the cocoa tree.

Pollution monitoring by molecular techniques

This area of research is based on the use of biochemical techniques as a more sensitive tool to detect pollution long before the death of indicator organisms. The technique was shown to work using a tilapia species common to our water bodies, and has been used to monitor the pollution on two sites along the Volta lake, including a site close to the point of discharge from the Akosombo textile factory. The results indicate pollution of different nature up- and downstream the site of Akosombo Textile Limited.

Publications

- Nyarko, A.K. and Addy, M.E. *In vitro* screening for the anti-anaphylactic agent in *Thonningia sanguinea*. J. Ethnopharmacol. 41: 45-51.
- Addy, M.E. Pharmacological actions of *Desmodium adscendens*, a Ghanaian medicinal plant. Discovery and Innovation 5: 205-210.
- McManus, O.B., Harris, G.H.,
Giangiacomo, K.M., Freigenbaum, P.,
Reuben, J.P., Addy, M.E., Burka, J.F.,
Kaczorowski, G.J. & Garcia, M.L. - An activator of calcium-dependent potassium channels isolated from a medicinal herb. Biochemistry 32: 6128-6133.
- Gbewonyo, W.S.K. Candy, D.J.
and Anderson, M. Structure-activity relationships of insecticidal amides from *Piper guineense* root. Pestic. Sci. 37: 57-66.

Conferences/Seminar

"*Biotechnology Out of Africa?*" by Addy, M.E. Presented as the Keynote Address at the International Symposium on Biotechnology and Development in Africa, organized by (Foundation for African Development through International Biotechnology (FADIB), Enugu, Nigeria. September, 1994.

Benefactions

JOHNSON WAX, Ghana Limited, funded the cost of converting the Department's old animal house, which had been abandoned because it was too small to cater for the laboratory animals required for some of our research efforts, into an insectary.