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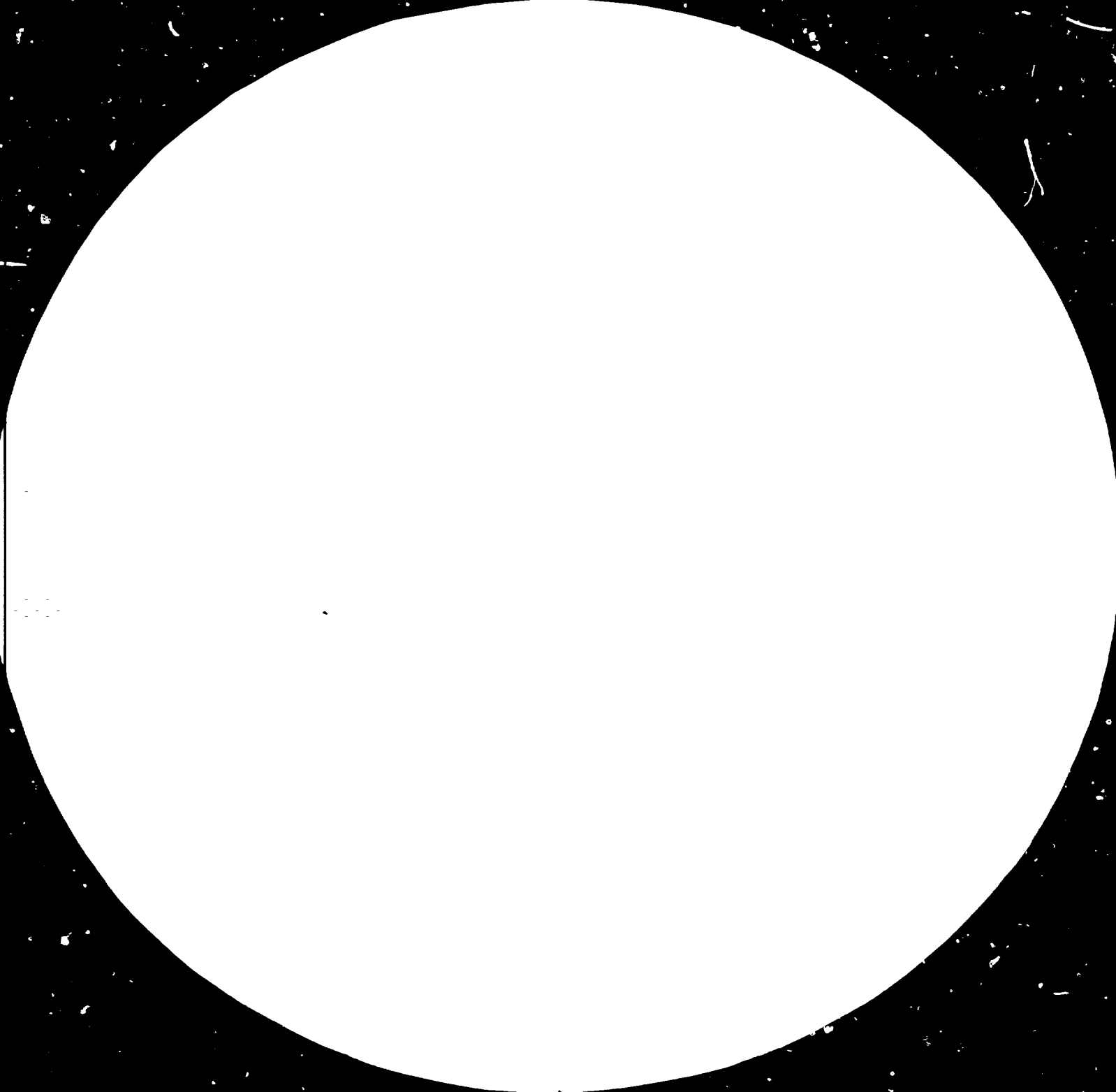
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UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

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**DIRECTORY
OF INDUSTRIAL AND TECHNOLOGICAL
RESEARCH INSTITUTES IN AFRICA.**

Prepared for
INTIB—The Industrial and Technological Information Bank
by the Industrial Information Section,
UNIDO Technology Programme

**- REPERTOIRE
DES CENTRES AFRICAINS DE RECHERCHE
INDUSTRIELLE ET TECHNIQUE**

Etabli par
la Section de l'information industrielle,
Programme de technologie de l'ONUDI,
pour INTIB—la Banque d'informations industrielles et technologiques

This document has been reproduced without formal editing.

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INTRODUCTION

As one of the recommendations of the Joint OAU/UNIDO Symposium on Industrial Technology in Africa held in Khartoum, Sudan, 5-11 November 1980, the secretariat of UNIDO was requested to identify on-going industrial and technological research activities in the various research institutions of African countries. This was seen as part of a programme aimed at strengthening national capacities for the development of industrial technologies in Africa. The present directory, prepared for INTIB, the Industrial and Technological Information Bank, is an attempt at establishing a preliminary inventory of such activities.

This directory is intended to provide basic information on the areas of industrial technology which are being investigated in the various countries and institutions of Africa. It gives data on current research programmes of each centre, on the budget and professional staff which are available to them, and on existing arrangements for co-operation with other research centres and institutes.

It is hoped that this publication will contribute to the Programme of Technical Co-operation among Developing Countries (TCDC) by facilitating further contacts and effective collaboration among centres working on similar projects, and helping to reduce duplication in research.

We express our thanks to those who have contributed information to the directory. Though every care was taken in compiling this work, we are aware that errors and omissions remain. Suggestions for changes or for inclusion of additional research centres in a future revised edition should be made by filling out the questionnaire found at the end of the directory, and sending it to:

Industrial Information Section - INTIB
United Nations Industrial Development Organization
PO Box 300
A-1400 Vienna, Austria

EXPLANATORY NOTES

This directory was compiled on the basis of responses to questionnaires which were sent in 1980 and 1981 to some 350 institutions in Africa. At the time of publication, 203 replies were received, of which 177 are here included. They cover 32 countries. As a rule we retained only those institutions which devote part or all their activities to research in areas relevant to industrial technology. Centres which are engaged exclusively in agricultural research, or in the surveying of natural resources were not included. The same applies to institutions involved primarily in socio-economic research and planning, feasibility studies, project evaluation, etc.

The directory has been produced as a computer print out, which accounts for a number of spelling simplifications (all diacritical marks are omitted) or mistakes (e.g. plural of words ending in 'y' in the 'Areas of interest' section).

The main section of the directory is arranged in alphabetical order by country, according to the United Nations terminology in English. Within each country, institutions are listed alphabetically in the languages used by respondents.

The full description of a research centre/institute includes the following data:

- Reference number.
- Name of centre/institute, acronym.
- Address.
- Telephone number, cable and telex address.
- Name of Head of the centre.
- Number of professional staff employed by the centre.
- Approximate budget of the institute, in US\$, for the current year.
- Areas of interest: Information from the questionnaires was indexed using descriptors from the UNIDO Thesaurus of Industrial Development Terms (now being revised), with some additional keywords. These descriptors are the basis of the subject index.
- Specific projects: Projects being carried out at the time of filling out the questionnaire.
- Joint projects: Institutions in the same country or other countries which collaborate with the centre.
- Number of the record in the LINK data base.

Subject, acronym and institution name indexes are provided to facilitate location of specific information in the main section of the directory.

The designations employed and the presentation of the material in this document do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of frontiers or boundaries.

INTRODUCTION

Conformément à l'une des recommandations du Colloque sur les techniques industrielles pour l'Afrique organisé conjointement par l'OEA et l'ONUDI à Khartoum, au Soudan, du 5 au 11 Novembre 1980, le Secrétariat de l'ONUDI s'est appliqué à faire le point des travaux de recherche industrielle et technique menés actuellement dans les diverses institutions de recherche des pays africains. Cet effort s'inscrit dans un programme visant à renforcer la capacité de ces pays en matière de mise au point de techniques industrielles. Le présent répertoire, établi pour la Banque d'information industrielles et technologiques (INTIB), constitue un premier inventaire de ces travaux de recherche.

Ce répertoire a pour objet de fournir des renseignements de base sur les orientations de la recherche industrielle et technique dans les divers pays africains et leurs institutions. Il donne, pour chaque centre, des indications sur les programmes de recherche en cours, sur le budget et le nombre de chercheurs dont ils disposent et sur leurs liens de coopération avec d'autres centres ou instituts de recherche.

Nous espérons que cette publication sera un instrument utile pour les responsables de la mise en oeuvre du Programme de coopération technique entre les pays en développement (CTPD), dans la mesure où elle permettra d'élargir les contacts entre les centres qui travaillent sur des projets analogues, de renforcer leur collaboration et d'éviter ainsi le double emploi dans la recherche.

Nous remercions tous ceux qui ont fourni des renseignements pour ce répertoire. Bien qu'il ait été établi avec le plus grand soin, nous sommes conscients qu'il peut y avoir des erreurs et des omissions. Toutes les suggestions concernant des modifications à apporter, ou de nouveaux centres de recherche à inclure dans une prochaine édition remaniée, peuvent être communiquées au moyen du questionnaire qui se trouve en fin du répertoire et que l'on enverra à l'adresse suivante:

Section de l'information industrielle - INTIB
Organisation des Nations Unies pour le
développement industriel
Boîte postale 300
A-1400 Vienne, Autriche

NOTES EXPLICATIVES

Ce répertoire a été établi à partir de réponses à des questionnaires envoyés en 1980 et 1981 à quelque 350 institutions africaines. Au moment de la parution du répertoire, 203 questionnaires ont été retournés dûment remplis. On a retenu 177 réponses provenant de 32 pays. En règle générale, seules ont été prises en considération les institutions qui consacrent tout ou partie de leurs activités à la recherche dans des domaines qui relèvent des techniques industrielles. Les centres dont les travaux concernent exclusivement l'agriculture ou le recensement des ressources naturelles n'ont pas été inclus. De même, les institutions spécialisées dans la recherche et la planification socio-économique, les études de faisabilité, l'évaluation de projets, etc., ne figurent pas ici.

Ce répertoire est publié sous forme d'un imprimé d'ordinateur, ce qui explique un certain nombre de simplifications et de fautes d'orthographe (absence de signes diacritiques, pluriel des mots anglais se terminant par "y" dans la section relative aux domaines de recherche).

La partie principale du répertoire est organisée suivant l'ordre alphabétique anglais des noms de pays, conformément à la terminologie adoptée par les Nations Unies. Sous chaque nom de pays, les institutions sont énumérées par ordre alphabétique dans la langue choisie pour répondre au questionnaire.

La description complète d'un centre/institut de recherche comprend les données suivantes:

- Numéro de référence.
- Nom du centre ou de l'institut et son sigle.
- Adresse.
- Numéro de téléphone, adresse télégraphique et numéro de télex.
- Nom du directeur de centre.
- Nombre de chercheurs employés par le centre.
- Budget approximatif du centre pour l'année en cours, en dollars E.-U.
- Domaines de la recherche: les informations contenues dans les questionnaires ont été indexées à l'aide des descripteurs du Thesaurus du langage du développement industriel de l'ONUDI (actuellement mis à jour) et d'un certain nombre de termes supplémentaires. Ces descripteurs ont servi à établir l'index des matières.
- Projets en cours: énumère les projets de recherche en cours d'exécution au moment où le questionnaire a été rempli.
- Numéro d'enregistrement de la rubrique sur la base de données LINK.

Les index des matières, des sigles et des noms d'institutions permettent de retrouver facilement telle ou telle information dans la partie principale du répertoire.

Les appellations employées dans cette publication et la présentation des données qui y figurent n'impliquent de la part du Secrétariat de l'Organisation des Nations Unies aucune prise de position quant au statut juridique de tel ou tel pays, territoire, ville ou région, ou de ses autorités, ni quant au tracé de ses frontières ou limites.

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ALMAHAD ALWATNY LE'DERASAT WA ABHATH ALGHERAN
INSTITUT NATIONAL D'ETUDES ET DE RECHERCHES - INERBA
MINISTERE DE L'HABITAT ET DE L'URBANISME - MHU

148 Avenue de l'A'N
Basse Caroubier, H. Dey
Algiers, Algeria

TEL: 77.30.67-77.09.91
TELEX: 52690 INERBA.DZ

DIRECTOR: M. Pac
PROFESSIONAL STAFF: 52
BUDGET 1981: \$5,000,000

AREAS OF INTEREST:

Urban planning, housing and public buildings
Building materials and techniques

SPECIFIC PROJECTS 1981:

Regulations for urban, rural and Saharian housing: urban
structure; organisation of housing in rural environments
Standards for building components and building machinery
Study of concrete making with /stabilized soil/
Rational utilization of /plaster/
Systems in the construction industry

JOINT PROJECTS WITH:

Organisme du controle technique de la construction, Chemin
prolonge, Keddour Rahim, H. Dey, Algiers
Laboratoire national de l'habitat et de la construction, 189,
rue de Tripoli, H. Dey, Algiers
Centre national d'animation des entreprises de travaux et de
traitement de l'information, 49, boulevard Mohamed V,
Algiers
Bureau central d'etudes de travaux publics, d'architecture et
d'urbanisme, BP 3, Birmerdreis, Algiers
Bureau national d'etudes economiques et techniques, BP 33, El
Biar, Algiers

LINK 0038#3

000002

DIRECTION RECHERCHE APPLIQUEE
SOCIETE NATIONALE DE SIDERURGIE

El-Hedjar BP 196
Annaba, Algeria

TEL: 83.22.46
TELEX: 81721

DIRECTOR: M. Hocine Hadjiut
PROFESSIONAL STAFF: 56
BUDGET 1981: \$1,820,000

AREAS OF INTEREST: Iron and steel industry, metallurgy
CURRENT PROJECTS, 1981-82

Tin plate quality slabs made by continuous casting
Use of /siderite/ in sintering and /blast furnace/ (the
Algerian iron ore deposit of Quenza contains a high
proportion of siderite not yet exploited. Appropriate
technology: mixing with /hematite/, /calcination/, etc.)
Use of blast furnace slag for building construction (at the
moment used only for roads construction, soon for cement),
building of houses

/Metal recovery/ of zinc electrolysis wastes: cadmium, lead,
copper and other elements (/beneficiation/)

System of stimulation of innovation in the Algerian steel
plants

AREAS FOR JOINT PROJECTS: TECHNOLOGIES, PROCESSES

Iron ore and fuel /beneficiation/

Sintering

/Pelletizing/

Coke making

Direct reduction

Iron making

Steel making

/Continuous casting/

Steel rolling

SERVICES, UTILITIES

Quality control and materials testing

/Waste treatment/ and recycling

ENGINEERING, TESTING PROCEDURES

Corrosion

ECONOMIC ASPECTS, MANAGEMENT

Rationalization and inventory

LINK 003301

000003

INSTITUT ALGERIEN DU PETROLE

Boumerdes, Algeria

DIRECTOR: M. D.J. Beghli

AREAS OF INTEREST:

Rubber, plastics in building materials and construction
industry

Energy, fuel and petroleum, petrochemicals industry

Plastics (processing and polymerization) and plastics

applications, for example in agriculture

SPECIFIC PROJECTS 1980:

Development of local fillers for Algerian plastics, for
example /olive stone flour/

Use of starch from desert crops in plastics

LINK 000332

000004

BOTSWANA TECHNOLOGY CENTER

PO Box 438
Gaborone, Botswana

DIRECTOR: Dr. Derek Medford
PROFESSIONAL STAFF: 10

AREAS OF INTEREST:

Alternate and appropriate technology, renewable energy
SPECIFIC PROJECTS 1980:
Renewable energy technology for water pumps and refrigeration
Small scale industry for rural areas

LINK 003680

000006

PELEGANO VILLAGE INDUSTRIES

PO Box 464
Gaborone, Botswana

CABLE: PELEGANO GABORONE

DIRECTOR: Frank W. Taylor
PROFESSIONAL STAFF: 3
BUDGET 1979: \$100,000

AREAS OF INTEREST:

Food technology, vegetable oils
Energy, energy conservation, fuel, solar energy and wind energy
Building materials and construction industry
Pharmaceuticals (herbal), medicinal plants
SPECIFIC PROJECTS 1980:
Village level technology, appropriate technology

LINK 003504

000005

**DEPARTMENT OF AGRICULTURAL RESEARCH
MINISTRY OF AGRICULTURE**

Private Bag 0033
Gaborone, Botswana

TEL: 52381 ext.76 CABLE: RESAGRIC GABORONE

DIRECTOR: Dr. K. Qind
PROFESSIONAL STAFF: 39
BUDGET 1981: \$3,000,000

AREAS OF INTEREST:

Dryland farming, sorghum, /cowpeas/, millet, /sunflowers/,
maize, wheat
Animal production research
SPECIFIC PROJECTS 1981:
Animal production and pasture research
Dryland farming research scheme
Evaluation of farming systems and testing of agricultural
machinery
Entomology, plant pathology, pest control
Crop screening (cereals)
Crop improvement (beans and oilseeds)
Fertilizer mobile unit
Vegetables crops

JOINT PROJECTS WITH:

ICRISAT, Patancheru, Andhra Pradesh 502 324, India
CIMMYT, Apartado Postal 6-641, Londres 40, Mexico 6, D.F.,
Mexico
IITA, PMB 5320, Ibadan, Nigeria
Swedish Agency for Research Cooperation (SAREC)
FAO

LINK 003814

000007

RURAL INDUSTRIES INNOVATION CENTRE - RIIC

Private 11
Kanye, Botswana

DIRECTOR: Dr. Elias M. Dewah
PROFESSIONAL STAFF: 4

AREAS OF INTEREST:

Renewable energy: wind energy, solar energy, biomass
Desalination
Food technology, stoves
Construction industry: building techniques, building
materials (concrete products)
Tanning
SPECIFIC PROJECTS 1980:
Vertical and horizontal windmills
Biogas using cattle dung (agricultural wastes)
Milling of sorghum
Solar /water heaters/, solar ovens and /cookers/
Tanning using local roots
Mud stoves
Concrete blocks production

LINK 003681

700098

CENTRE DE RECHERCHE DES UTILISATIONS DES ENERGIES ALTERNATIVES
- CRIFA
FACULTE DES SCIENCES
UNIVERSITE DU BURUNDI

BP 2700
Bujumbura, Burundi

DIRECTOR: M. J.-P. Trussart
PROFESSIONAL STAFF: 10
BUDGET 1982: \$200,000

AREAS OF INTEREST

Wind energy
Solar energy, /solar collectors/, solar drying
Biomass
Biogas
SPECIFIC PROJECTS 1981:
Flat plate collectors adaptation
Solar and wind potentials
Comparison of different driers
Adaptation of biogas /digesters/
Efficiency study of gas generator from local biomass
New measuring methods in meteorology

LINK 003808

700099

DIRECTION GENERALE DE LA RECHERCHE SCIENTIFIQUE

BP 2499
Brazzaville, Congo

TEL: 810507

DIRECTOR: Jean Nissouangane
PROFESSIONAL STAFF: 30
BUDGET 1979: \$378,255

AREAS OF INTEREST:

Food technology, vegetable oils
Wood, pulp and paper industry
Energy, fuel
Fertilizer, pesticides, pharmaceuticals
SPECIFIC PROJECTS 1980:
Analysis of local food in regard to its nutritional value
Solar energy
Phytopathology of locally cultivated plants
Medicinal plants

JOINT PROJECTS WITH:

FAO
UNESCO
Institut International d'agronomie tropicale, IITA
Groupeement d'etudes et de recherche en agronomie tropicale,
GEPDAT
Agence de co-operation culturelle et technique, ACCT, Paris
LINK 003514

000010

CENTRAL METALLURGICAL RESEARCH AND DEVELOPMENT INSTITUTE -
CMRDI
NATIONAL RESEARCH CENTRE

12 El-Tahrir Road
Dokki
Cairo, Egypt

TEL: 982 300 CABLE: RESEARCH CAIRO
TELEX: Narec UN 94022

DIRECTOR: Prof. Dr. A.A. Abdul Aziz
PROFESSIONAL STAFF: 68
BUDGET 1979: \$520,000

AREAS OF INTEREST:

Extractive, physical and mechanical metallurgy, metalworking
industry
Evaluation and beneficiation of ores
Extraction and refining of ferrous and nonferrous metals
Development of alloys and their heat treatment
Study of the physical, mechanical and chemical properties of
metals and alloys
Corrosion and its prevention; examination of failure
SPECIFIC PROJECTS 1981:
Evaluation of Egyptian phosphates for phosphoric acid and
phosphatic fertilizer production. Valley phosphate (Sabia
East ore)
Large scale washing and sintering tests of Baharia iron ore
Improving production of three types of steel in Egypt: free
cutting steel, spring steel, carbon steels for nuts and
bolts
Improving mechanical properties and hot corrosion resistance
of H.H. heat resisting steel.
Improving strength and toughness of commercial high strength
low alloy steels
Investigation of the relationship between "as cast" (casting)
structures of mild steel and subsequent rolling technique
Introduction of oxygen lancing in electric arc steelmaking
Preparation of /fluorides/ and /cryolite/ from fluo-silicic
acid and clay
Evaluation of Egyptian /bentonite/ for industrial use in
foundry, oil drilling and agriculture
Investigation of the possibilities of alumina production from
Egyptian /nepheline syenite/ and clay

Technical University of Clausthal, F.R. Germany

LINK 002154

000011

CHEMICAL DEPARTMENT
MINISTRY OF INDUSTRY

12, Remsis Street
Cairo, Egypt

DIRECTOR: Dr. Mahmoud El-Sayed Hassone

AREAS OF INTEREST:

Applied analytical chemistry
SPECIFIC PROJECTS 1980:
Chemistry of oils and fats and their allied products
Leather industry
Organic chemistry
Analysis of plastics, rubber and textiles
Carbohydrate chemistry

LINK 003771

000013

DEVELOPMENT RESEARCH AND TECHNOLOGICAL PLANNING CENTER
CAIRO UNIVERSITY

Das El Cloum Faculty Building
Cairo, Egypt

DIRECTOR: Prof. Dr. Aly El Salmay
PROFESSIONAL STAFF: 16

AREAS OF INTEREST:

Urban development
Economic studies, management studies
Population studies, health care
Energy studies
Technological planning
Housing
Transport

LINK 003774

000012

CHEMICAL ENGINEERING DEPARTMENT
FACULTY OF ENGINEERING
ALEXANDRIA UNIVERSITY

Alexandria, Egypt

DIRECTOR: Prof. Dr. M.M. Megahed
PROFESSIONAL STAFF: 18

AREAS OF INTEREST:

Organic technology
Inorganic technology
Metallurgy
SPECIFIC PROJECTS 1980:
Ceramics and refractory materials
Building materials
Leather industry: tanning and dyeing
Environment pollution
Pulp and paper industry
Explosives

LINK 003782

000014

EGYPTIAN GEOLOGICAL SURVEY AND MINING AUTHORITY

3 Salah Salem Road
Abbasiy
Cairo, Egypt

DIRECTOR: Gen. Mahmoud Zaatout

AREAS OF INTEREST:

Earth science
SPECIFIC PROJECTS 1980:
Geological maps
Exploration and assessment of mineral resources
Mining projects: identification of minerals, ores processing
Metallurgy

LINK 003772

000015

EGYPTIAN PETROLEUM RESEARCH INSTITUTE

Nasser City
Cairo, Egypt

DIRECTOR: Prof. Dr. Ismail K. Abdou
PROFESSIONAL STAFF: 47

AREAS OF INTEREST:

Petroleum industry
SPECIFIC PROJECTS 1980:
Exploration, production, evaluation and analysis, refining
Petrochemicals

LINK 003757

000015

ELECTRICAL ENGINEERING DEPARTMENT
FACULTY OF ENGINEERING
ALEXANDRIA UNIVERSITY

441 Avenue Elhorria
Alexandria, Egypt

DIRECTOR: Dr. Mohamed Megahed
PROFESSIONAL STAFF: 5

AREAS OF INTEREST:

Electronics
Telecommunications industry
SPECIFIC PROJECTS 1980:
Laser communications
Extremely low frequency propagation
Underwater acoustics

LINK 003792

000017

ELECTRICAL POWER ENGINEERING DIVISION
ELECTRICAL ENGINEERING DEPARTMENT
UNIVERSITY OF ALEXANDRIA

Hedara
Alexandria, Egypt

DIRECTOR: Dr. M.M. Megahed
PROFESSIONAL STAFF: 8

AREAS OF INTEREST:

Electric power
High voltage
Insulation
SPECIFIC PROJECTS 1980:
Power system analysis

LINK 003790

000018

ELECTRONIC INDUSTRIES RESEARCH AND DEVELOPMENT CENTER - EIRDC

PJ Box 773
Cairo, Egypt

DIRECTOR: Dr. Abdel-Latif I. Ahmed
PROFESSIONAL STAFF: 51

AREAS OF INTEREST:

Electronics, measuring instruments
Automatic control
Industrial and consumer electronic equipment
Thick film applications
Printed circuits
Quality control and metrology
SPECIFIC PROJECTS 1980:
Applications of microprocessors/ in industrial process
control
Development of indigenous thick film materials
Development of oscilloscopes

LINK 003773

000019

EL-TABRIN INSTITUTE FOR METALLURGICAL STUDIES

PO Box 62
Cairo, Egypt

DIRECTOR: Prof. Dr. Mahmoud H. Sella
PROFESSIONAL STAFF: 20

AREAS OF INTEREST:

Ferrous and non-ferrous metallurgy
Foundry practice
Mechanical engineering/ and mining engineering
Automation (automatic control), economics of metal production
Heat treatment, metal shaping
SPECIFIC PROJECTS 1980:
Processing of Baharia Oasis iron ore
Improvement of blast furnaces, L-D converters and continuous
casting operations at Egyptian Iron and Steel Co.

LINK 003671

110020

ENGINEERING AND INDUSTRIAL DESIGN DEVELOPMENT CENTRE - EIDDC
SMALL SCALE INDUSTRIES DEPARTMENT
MINISTRY OF INDUSTRY AND NATIONAL WEALTH

99 Rox 2767
303 Pyramids Road
Cairo, Egypt

TEL: 853550 CABLE: EIDDC

DIRECTOR: Dr. Eng. Yusef K. Mazhar
PROFESSIONAL STAFF: 350
BUDGET 1979: \$900,000

AREAS OF INTEREST:

Metallurgy, metalworking industry
Food technology
Wood, pulp and paper industry
Ceramics industry
Materials handling equipment
Factory layout
Machine tools and dies and jigs design, product design and development
Machinery, electrical equipment transport, motor and motor vehicles, agricultural machinery
Industrial training
Packaging
Prototype

JOINT PROJECTS WITH:

Carl Duisberg Gesellschaft (CDG), Cologne, FR Germany
Industrial Development Authority (IDA), Dublin, Ireland
Istituto per la Ricostruzione Industriale (IRI), Rome, Italy
SIDA, Sweden
Institute for Organization and Development, Beograd, Yugoslavia

LINK 001111

000022

FACULTY OF ENGINEERING
UNIVERSITY OF EL-MANSOURA

El-Mansoura, Egypt

DIRECTOR: Prof. Dr. Rashad M. El-Badrawy
PROFESSIONAL STAFF: 3

AREAS OF INTEREST:

Gas dynamics, /fluid mechanics/, hydraulic machinery, /heat transfer/. internal combustion engines.
SPECIFIC PROJECTS 1980:
Thermal fluids

LINK 003688

000023

FACULTY OF ENGINEERING
CAIRO UNIVERSITY

Giza, Egypt

DIRECTOR: Dr. Ahmed Aziz Kamel

AREAS OF INTEREST:

All engineering fields: electrical engineering, engineering design, surface coatings, corrosion, tribology, (/wear/)

LINK 003701

000021

FACULTY OF ELECTRONIC ENGINEERING
MENUFIA UNIVERSITY

Menufia, Egypt

DIRECTOR: Prof. Dr. Ibrahim Mohamed El-Dokany
PROFESSIONAL STAFF: 13

AREAS OF INTEREST:

Electronics
SPECIFIC PROJECTS 1980:
Application of computers in management of administration, examinations, etc.
Automatic control
Microelectronics
Telecommunications industry
/Antennas/
Solar energy

LINK 003775

000024

FACULTY OF ENGINEERING AND TECHNOLOGY
MENUFIA UNIVERSITY

Menufia, Egypt

DIRECTOR: Prof. Dr. Eng. Saad Weheba
PROFESSIONAL STAFF: 14

AREAS OF INTEREST:

Energy: fuel, wind energy and solar energy
Power systems
Agricultural machinery
Hydroelectric power and systems
SPECIFIC PROJECTS 1980:
/Solar heaters/
Windmills and towers
Electric power distribution and cable problems
Water networks problems
Electrification of irrigation equipment
Small farm machinery
Problems of lubricants
Electric motors and their control systems

LINK 003776

000026

FACULTY OF ENGINEERING AND TECHNOLOGY, MATARIYA
HELWAN UNIVERSITY

Matariya
Cairo, Egypt

DIRECTOR: Prof. Dr. Fathi El-Sherif
PROFESSIONAL STAFF: 14

AREAS OF INTEREST:
Thermal engineering
/Mechanical engineering/: automobiles and tractors
Engineering design: machinery
Architectural engineering
SPECIFIC PROJECTS 1980:
Thermodynamics
Internal combustion engines
/Heat transfer/
Automobile and tractor noise and /vibration/

LINK 003781

000027

GENERAL ORGANIZATION FOR HOUSING BUILDING AND PLANNING
RESEARCH

PO Box 1770
Cairo, Egypt

DIRECTOR: Prof. Dr. Mohammed Ramez Hossein
Eng. Mohammed Metwally Shaheen
PROFESSIONAL STAFF: 55

AREAS OF INTEREST:
Housing
Construction industry
Planning
SPECIFIC PROJECTS 1980:
Raw materials
Strength of materials: testing
Structures
/Soil mechanics/ and foundations
Acoustics
Architecture and physical planning

LINK 003779

000028

FOOD RESEARCH AND DEVELOPMENT INSTITUTE
FACULTY OF AGRICULTURE
MINIA UNIVERSITY

El-Minia, Egypt

TEL: 2733

DIRECTOR: Dr. Abdeltawab El-Mohandes
PROFESSIONAL STAFF: 50
BUDGET 1979: \$320,000

AREAS OF INTEREST:
Food technology, vegetable oils
Fertilizer and pesticides
Agricultural machinery
Water utilization and economics
SPECIFIC PROJECTS 1980:
Formulation of diets for low income groups
Evaluation of food processing projects
Feasibility studies and projects implementation in areas of
vegetable oils, cereals technology and food storage

LINK 003518

000028

LABORATORY OF POLYMERS AND PIGMENTS
NATIONAL RESEARCH CENTRE

El Tahrir Road
Dokki
Cairo, Egypt

TEL: 982005 CABLE: RESEARCH/CAIRO

DIRECTOR: N.A. Ghana
PROFESSIONAL STAFF: 35
BUDGET 1979: \$100,000

AREAS OF INTEREST:
Rubber
Chemical industry, fertilizer and pesticides
Plastic coatings
SPECIFIC PROJECTS 1980:
Development of controlled release technology
Pigments

JOINT PROJECTS WITH:
Office of Naval Research, USA

LINK 003519

000029

MECHANICAL ENGINEERING DEPARTMENT
FACULTY OF ENGINEERING
ALEXANDRIA UNIVERSITY

Hadara
Alexandria, Egypt

PROFESSIONAL STAFF: 9

AREAS OF INTEREST:
/Mechanical engineering/
SPECIFIC PROJECTS 1980:
Fluid mechanics
Hydraulic machinery

LINK 003786

000031

METALLURGICAL SECTION
CHEMICAL ENGINEERING DEPARTMENT
FACULTY OF ENGINEERING
ALEXANDRIA UNIVERSITY

Hadara
Alexandria, Egypt

DIRECTOR: Prof. Dr. N.M. Megahed
PROFESSIONAL STAFF: 5

AREAS OF INTEREST:
Physical metallurgy
SPECIFIC PROJECTS 1980:
Liquid metals
Heat treatment
Corrosion

LINK 003787

000030

MECHANICAL POWER DEPARTMENT
FACULTY OF ENGINEERING
ALEXANDRIA UNIVERSITY

Hadara
Alexandria, Egypt

DIRECTOR: Prof. Dr. A.I. Ibrahim Abdelfattah
PROFESSIONAL STAFF: 32

AREAS OF INTEREST:
Electric power stations
Renewable energy
Energy conservation
SPECIFIC PROJECTS 1980:
Fossil fuel
Hydroelectric power
Solar energy
Wind Energy
Combustion and hydro engineering
Air conditioners and refrigeration

LINK 003785

000032

METROLOGY AND QUALITY CONTROL DIVISION
PRODUCTION ENGINEERING DEPARTMENT
FACULTY OF ENGINEERING
ALEXANDRIA UNIVERSITY

Hadara
Alexandria, Egypt

DIRECTOR: Prof. A. F. Rashed
PROFESSIONAL STAFF: 9

AREAS OF INTEREST:
Metrology
Instrumentation industry
Quality control, and reliability

LINK 003670

000033

MIDDLE EASTERN REGIONAL RADIOISOTOPE CENTRE FOR THE ARAB
COUNTRIES

Sh. Maseb El Gasa
Dokki
Cairo, Egypt

DIRECTOR: Prof. S.E. Hashish
PROFESSIONAL STAFF: 20

AREAS OF INTEREST:
Radioactive isotopes and their application in medicine,
agriculture, industry, pest control, underground water
investigations, pollution studies

LINK 003777

000074

NATIONAL INSTITUTE FOR STANDARDS

PO Box 2343
Dokki
Cairo, Egypt

DIRECTOR: Dr. A.F. Dawoud
PROFESSIONAL STAFF: 20

AREAS OF INTEREST:

Standards and standardization

Testing

Metrology

SPECIFIC PROJECTS 1980:

Electrical equipment: frequency and photometry

Testing of textiles, /calibration/

Mechanics

Physics: heat, radiation, acoustics

Industrial safety

Material testing: steel

LINK 003766

000075

NATIONAL RESEARCH CENTRE

El-Tahrir Road
Dokki
Cairo, Egypt

TEL: 701910 CABLE: RESEARCH CAIRO

DIRECTOR: Prof. Dr. M. Kameel
PROFESSIONAL STAFF: 1700
BUDGET 1979: \$4,000,000

AREAS OF INTEREST:

Metallurgy

Food technology, vegetable oils

Wood, pulp and paper industry

Leather industry, textiles and clothing

Energy, fuel

Building materials and construction industry, ceramics
industry

Chemical industry, fertilizer, pesticides, pharmaceuticals

Instruments, electrical equipment, electronic equipment,

agricultural machinery

SPECIFIC PROJECTS 1980:

Technology transfer, esp. in the areas of textiles,
metallurgy, food, pharmaceuticals, chemicals, electronics
and engineering

Food and agriculture

Health and environment

Renewable energy

Natural resources

JOINT PROJECTS WITH:

GT7, FR Germany

Denver Research Institute, USA

University of Wisconsin, Madison, USA

LINK 002157

000036

SANITARY ENGINEERING DEPARTMENT
FACULTY OF ENGINEERING
ALEXANDRIA UNIVERSITY

Hadara
Alexandria, Egypt

DIRECTOR: Prof. Dr. M.S. El Adawy
PROFESSIONAL STAFF: 3

AREAS OF INTEREST:

Environmental engineering, sanitation

SPECIFIC PROJECTS 1980:

Waste recycling and reclamation

Waste utilization

LINK 003793

000037

SCIENTIFIC INSTRUMENT CENTER

El-Tahrir Road
Dokki
Cairo, Egypt

DIRECTOR: Eng. Medhat El-Alaily
PROFESSIONAL STAFF: 8

AREAS OF INTEREST:

Scientific instruments

SPECIFIC PROJECTS 1980:

Design and development of scientific instrument components
and devices

LINK 003794

000038

SHIP STRUCTURAL DESIGN AND SHIPBUILDING TECHNOLOGY DIVISION
MARINE ENGINEERING AND NAVAL DEPARTMENT
ALEXANDRIA UNIVERSITY

Hadara
Alexandria, Egypt

PROFESSIONAL STAFF: 6

AREAS OF INTEREST:

Ships structural design

Shipbuilding technology

LINK 003783

000039

SOLAR ENERGY LABORATORY
NATIONAL RESEARCH CENTER

El-Tahrir Road
Dokki
Cairo, Egypt

TEL: 706993 CABLE: Research Cairo
TELEX: 94022 NAREC UN

DIRECTOR: Prof. Dr. I.A. Sahr
PROFESSIONAL STAFF: 15

AREAS OF INTEREST:

Solar energy engineering and applications
SPECIFIC PROJECTS 1981:
Solar dehydration (drying) and solar cooling for food storage
for vegetables
Solar water heaters/ for domestic uses
Solar water distilling for arid zones
Solar thermal electric power generation (electric power
station)

JOINT PROJECTS WITH:

IDRC, PO Box 8500, Ottawa, Canada K1G 3H9
GATE, PO Box 5180, Frankfurt/Main, FR Germany

LINK 003811

000041

THEORY AND DESIGN OF ELECTRICAL MACHINES DIVISION
ELECTRICAL ENGINEERING DEPARTMENT
ALEXANDRIA UNIVERSITY

Hadara
Alexandria, Egypt

DIRECTOR: Prof. Dr. M. M. Megahed
PROFESSIONAL STAFF: 3

AREAS OF INTEREST:

Electrical machinery: problems in theory, performance and
design (engineering design)
SPECIFIC PROJECTS 1980:
Reluctance electric motors
Inverter fed motors
Stepper motors
Solid rotor motors
Permanent magnet machines saturistor motors

LINK 003789

000042

TRANSPORT PLANNING AUTHORITY
MINISTRY OF TRANSPORT

Kasr El-Eini Street
Cairo, Egypt

DIRECTOR: Dr. Abdel Al El Salmawy
PROFESSIONAL STAFF: 8

AREAS OF INTEREST:

Transport planning
SPECIFIC PROJECTS 1980:
Inter-city and urban transportation

LINK 003780

000040

TEXTILES DEVELOPMENT CENTRE - TDC
TEXTILES CONSOLIDATION FUND - TCF

Gamila Buhreid Street
El Slouf
Alexandria, Egypt

TEL: 48443, 48347, 45103 CABLE: Funtex Alexandria

DIRECTOR: Eng. Magdi Elaraf
PROFESSIONAL STAFF: 150
BUDGET 1981: 4630,000

AREAS OF INTEREST:

Textiles technology and clothing manufacture
SPECIFIC PROJECTS 1981:
Processing of cotton polyester blends with different
percentages
Cleaning efficiency of blow room
Evaluation of dust in spinning
Spinnability of Egyptian cotton
Spinning of cotton waste on O.E.
Producing popular fabrics from cotton polyester blends
Evaluation of different weaving /looms/
Processing of polyester on double jersey machines
Processing of 100% cotton on warp knitting machines
Processing of /acrylic fibres/ on double jersey machines
Effect of caustic soda on polyester synthetic fibres
Evaluation of water quality on dyeing processing
Extraction of water from fabrics by mechanical methods
Colour measurement in dyehouses
Reduction of waste and increase of productivity

LINK 003810

000043

FACULTY OF TECHNOLOGY
ADDIS ABABA UNIVERSITY

PO Box 519
Addis Ababa, Ethiopia

TEL: 44-07-49 CABLE: Buildnist
TELEX: AA-UNIV 21205

DIRECTOR: Dr. Zewde Berhane
PROFESSIONAL STAFF: 32

AREAS OF INTEREST:
Indigenous building materials
SPECIFIC PROJECTS 1981:
Pozzolanic properties of indigenous natural pozzolana
Organic /fibre reinforced/ /mortar/ for /roofing/ sheets
LINK 003842

000045

FACULTE DES SCIENCES
UNIVERSITE OMAR BONGO - UOB

BP 911
Libreville, Gabon

TEL: 73-25-78

DIRECTOR: M. Vincent Mintsa Eya
PROFESSIONAL STAFF: 45
BUDGET 1981: \$140,000

SPECIFIC PROJECTS 1981:
Natural substances
Renewable energy
Ecosystems
Applied mathematics and informatics

LINK 003804

000044

ECOLE NATIONALE SUPERIEURE D'INGENIEURS DE LIBREVILLE - ENSIL
UNIVERSITE OMAR BONGO - UOB

BP 1139
Libreville, Gabon

TEL: 73 20 81

DIRECTOR: M. Francois Tortochaux
PROFESSIONAL STAFF: 10
BUDGET 1981: \$ 149,000

AREAS OF INTEREST:
Solar energy
Civil engineering, /fluid mechanics/
SPECIFIC PROJECTS 1981:
Design and behaviour of bricks made of clay mixed with wood
Steel /reinforced concrete/ decks
Thermodynamic applications of solar energy
Hydrocarbons flushes in pipes and porous milieu
Extraction of /laterite/
LINK 003818

000046

AGRICULTURAL ENGINEERING DIVISION
FACULTY OF AGRICULTURE
UNIVERSITY OF GHANA

PO Box 68
Legon, Ghana

TEL: ACCRA 75381/8422

DIRECTOR: Dr. S. Gyasi
PROFESSIONAL STAFF: 6

AREAS OF INTEREST:
Agricultural machinery: efficiency and safety
Grain processing: drying and storage
Soil and water management
SPECIFIC PROJECTS 1980:
Safety in farm machinery application
Farm machinery performance on a small farm
Grain drying and storage in the humid tropics
Resource management for small farms
LINK 003700

000047

BUILDING AND ROAD RESEARCH INSTITUTE

PO Box 40
Kumasi, Ghana

AREAS OF INTEREST:

Local building materials - construction industry
Building standards and regulations
/Soil mechanics/ and foundation engineering
Pavement design and construction
Roads construction, maintenance and safety in rural areas
Urban transport
Rural and /low cost housing/
SPECIFIC PROJECTS 1981:

Use of local materials: pozzolana from bauxite waste; kiln design for lime production; medium scale bricks production; testing of clay for tiles; use of non exportable timber for construction; mining waste utilization for road construction.

Rural housing research: survey of rural settlements, housing and planning statistics.

Road transport research: transport economics and planning statistics; road safety; rural road needs; use of labor and machinery in road maintenance; feeder roads.

Structural engineering: design of building and structures and engineering work.

Geotechnical engineering: slope stability, erosion control on highways; characterization of Ghanaian rocks for road construction; study of problem soils.

Solar energy; pyrolysis: conversion of /sawdust/ into char, oil, gas; portland cement manufacture.

LINK 003676

000048

**DEPARTMENT OF AGRICULTURAL ENGINEERING
FACULTY OF AGRICULTURE
UNIVERSITY OF SCIENCE AND TECHNOLOGY**

Kumasi, Ghana

TEL: 5351-5359 Ext.200 CABLE: Kumastech

DIRECTOR: Dr. L.K. Djokoto
PROFESSIONAL STAFF: 4
BUDGET 1981: 2432,000

AREAS OF INTEREST:

Alternate renewable energy resources

Agri product processing

Agricultural machinery

SPECIFIC PROJECTS 1981:

Design and evaluation of /solar heaters/ for crop drying (solar energy)

Design and evaluation of biogas plants

Cassava processing

Design and testing of appropriate farm tractors and farm implements (appropriate technology)

JOINT PROJECTS WITH:

Landtechnik Weihenstephan, Technische Universität München,
D-8050 Freising-Weihenstephan, FR Germany

LINK 003847

000049

**DEPARTMENT OF MECHANICAL ENGINEERING
UNIVERSITY OF SCIENCE AND TECHNOLOGY**

Kumasi, Ghana

DIRECTOR: Prof. K.O. Kessey
PROFESSIONAL STAFF: 7

AREAS OF INTEREST:

Solar energy

Renewable energy (alternative energy sources)

SPECIFIC PROJECTS 1980:

Solar /water heaters/

Solar /cookers/, solar crop drying

Solar distilling, evaporative cooling

LINK 003673

000050

**DEPARTMENT OF NUTRITION AND FOOD SCIENCE
UNIVERSITY OF GHANA**

PO Box 134
Legon, Ghana

DIRECTOR: Dr. B.Y. Dake
PROFESSIONAL STAFF: 7

AREAS OF INTEREST:

Nutrition

Food science

SPECIFIC PROJECTS 1980:

Protein and energy requirements of Ghanaians

Water relations of foods

Nutrient composition of Ghanaian foodstuffs

/Composite flours/

Fermentation: microbiology of fermented foods

Chemical microstructural and functional characteristics of

foods

Food storage problems

Vitamins: vitamin interrelationships

LINK 003668

300051

DEPARTMENT OF PHARMACOLOGY
UNIVERSITY OF SCIENCE AND TECHNOLOGY

Kumasi, Ghana

DIRECTOR: Dr. G. D. Lutterodt
PROFESSIONAL STAFF: 7

AREAS OF INTEREST:

Pharmaceuticals, medicinal plants
SPECIFIC PROJECTS 1980:
Antidiabetic natural products
Antihypotensives
General screening for activities of natural products
Toxicological studies (toxicity)

LINK 003672

300052

FOREST PRODUCTS RESEARCH INSTITUTE
UNIVERSITY OF GHANA

PO Box 43
Kumasi, Ghana

DIRECTOR: Dr. F. W. Addo-Ashong
PROFESSIONAL STAFF: 30

AREAS OF INTEREST:

Forestry and forest products
SPECIFIC PROJECTS 1980:
Development and management of the tropical high forest and
the savannah zones.
Industrial development and utilization of tropical timber and
other forest products
Protection of forests and forest products against biological
degradation

LINK 003674

000053

INDUSTRIAL RESEARCH INSTITUTE - IRI
COUNCIL FOR SCIENTIFIC AND INDUSTRIAL RESEARCH - CSIR

PO Box 432
Accra, Ghana

TEL: 75202
TELEX: SCIENCES

PROFESSIONAL STAFF: 22

AREAS OF INTEREST:

Management and industrial trouble shooting
Engineering design and equipment
Appropriate technology
Feasibility studies for small scale industry
Electrical engineering and electronics
Chemical industry
Materials science

LINK 001853

000054

TECHNOLOGY CONSULTANCY CENTRE - TCC
UNIVERSITY OF SCIENCE AND TECHNOLOGY - UST

Private Post Bag
Kumasi, Ghana

TEL: KUMASI 5351 CABLE: KUMASITECH

DIRECTOR: Dr. J.W. Powell
PROFESSIONAL STAFF: 18
BUDGET 1981: \$1,000,000

AREAS OF INTEREST:

Appropriate technology for agriculture, small scale industry
and informal industries
Zero tillage pilot project
Agricultural machinery and implements for small Sahelian
farms: rice /threshers/, animal powered machinery
Oils and fats, non edible, for soapmaking
Charcoal burning with West Indian type kiln
Beekeeping
Nepali type weaving /looms/

JOINT PROJECTS WITH:

International Development Research Centre (IDRC), PO Box
8500, Ottawa, Canada
Intermediate Technology Development Group, 9 King Street,
London, England WC2E 8HN

LINK 001859

000055

DEPARTEMENT GENIE ELECTRIQUE
ECOLE NATIONALE SUPERIEURE D'INGENIEURS D'ABIDJAN - ENSIA
INSTITUT DE TECHNOLOGIE INDUSTRIELLE - ITI
INSTITUT NATIONAL SUPERIEUR DE L'ENSEIGNEMENT TECHNIQUE -
INSET

BP V 79
Abidjan, Ivory Coast

TEL: 44-421-88, 44-45-61
TELEX: 469 Abidjan

AREAS OF INTEREST:

Solar energy
/Computer aided manufacture/ using /microprocessors/
SPECIFIC PROJECTS 1981:
Autonomous solar station for sanitary /water heaters/, air
conditioners
Pre-project on simultaneous production of hot and cold water
Model for programming of data tapes for automatic control of
machine tools
Various products controlled by microprocessors

JOINT PROJECTS WITH:

UNDP/UNESCO: modernisation et renforcement de
l'infrastructure scientifique et technique du departement
genie electrique de l'INSET

LINK 003821

000057

DEPARTEMENT MATHÉMATIQUES - INFORMATIQUE
ECOLE NATIONALE SUPERIEURE D'INGENIEURS D'ABIDJAN - ENSIA
INSTITUT DE TECHNOLOGIE INDUSTRIELLE - ITI
INSTITUT NATIONAL SUPERIEUR DE L'ENSEIGNEMENT TECHNIQUE -
INSET

BP V 79
Abidjan, Ivory Coast

TEL: 44-421-88, 44-45-61
TELEX: 469 Abidjan

AREAS OF INTEREST:

Data analysis
Numerical analysis
Scientific information, informatics
SPECIFIC PROJECTS 1981:
Computer programmes for temperature control in building and
for teledetection (warning systems)

JOINT PROJECTS WITH:

Laboratoire des travaux publics
Université d'Abidjan
Ecole normale supérieure (ENS)
Centre de recherche océanographique (CRO)

LINK 003822

000056

DEPARTEMENT GENIE MECANIQUE
ECOLE NATIONALE SUPERIEURE D'INGENIEURS D'ABIDJAN - ENSIA
INSTITUT DE TECHNOLOGIE INDUSTRIELLE - ITI
INSTITUT NATIONAL SUPERIEUR DE L'ENSEIGNEMENT TECHNIQUE -
INSET

BP V 79
Abidjan, Ivory Coast

TEL: 44-421-88, 44-45-61
TELEX: 469 Abidjan

AREAS OF INTEREST:

/Mechanical engineering/ research carried out in the
framework of university-industry linkage
SPECIFIC PROJECTS 1981:
Feed back for water meters
Design of machinery for /drilling/ and threading angles
(/metal profiles/ for metallic door frames)
Various other mechanical projects

LINK 003801

000058

INSTITUT DE RECHERCHES SUR LE CAOUTCHOUC - IRCA

BP 1 536
Abidjan 01, Ivory Coast

TEL: 45 31 17

DIRECTOR: M. Philippe Boyer
PROFESSIONAL STAFF: 15
BUDGET 1981: \$2,000,000

AREAS OF INTEREST:

Natural rubber: agronomy, improvement, technology

LINK 003834

000059

INSTITUT DE RECHERCHES SUR LES ENERGIES NOUVELLES - IREN
UNIVERSITE D'ABIDJAN

BP V 34-09
Abidjan 08, Ivory Coast

DIRECTOR: M. Patrice Carrara
PROFESSIONAL STAFF: 38

AREAS OF INTEREST:

Solar energy

Nuclear energy

SPECIFIC PROJECTS 1980:

Solar cooling

Solar drying of agricultural products

Biomass: fermentation (bioconversion)

LINK 003691

000060

AGRICULTURAL MACHINERY TESTING UNIT

PO Box 470
Nakuru, Kenya

DIRECTOR: Dr. P. Kitheka
PROFESSIONAL STAFF: 4

AREAS OF INTEREST:

Agricultural mechanization of small farms.

SPECIFIC PROJECTS 1980:

Animal powered agricultural machinery

Testing of small tractors

Use of biogas and hydroelectric power

LINK 003692

000061

COFFEE RESEARCH FOUNDATION

PO Box 4
Ruiru, Kenya

DIRECTOR: Dr. A.M. Kabara
PROFESSIONAL STAFF: 19

AREAS OF INTEREST:

Coffee: crop yield (agronomy, soil fertility)

Crop improvement (breeding and selection)

Crop protection: agri product processing (post harvest technology)

SPECIFIC PROJECTS 1980:

Spacing, pruning, irrigation, weed control, disease control, pest control, fertilizer use, costs of production

LINK 003678

000062

HOUSING RESEARCH AND DEVELOPMENT UNIT - HRDU
UNIVERSITY OF NAIROBI

PO Box 30157
Nairobi, Kenya

TEL: 27441/210 CABLE: VARSITY

DIRECTOR: Mr. I.S Chana

PROFESSIONAL STAFF: 9

BUDGET 1981: \$100,000

AREAS OF INTEREST:

Community development

/Low cost housing/, community planning, building materials

Prototype design (engineering design)

SPECIFIC PROJECTS 1981:

Evaluation of the Site and Services Programme in Kenya

Construction guidelines for house building in Site and

Service Schemes in Kenya

Documentation on human settlements in Kenya

Housing in rural areas; housing cooperatives: case studies

Field trials of "brepek" /stabilized soil/

Land development and use

Appropriate infrastructure; building work study; costs data bank

JOINT PROJECTS WITH:

Department of Building Function Analysis, Lund University, S-

221 01 Lund, Sweden

Geografisch Instituut, University of Utrecht, Postbus 80 115,

3508 Utrecht, Netherlands

Department of Architecture, University of Nairobi, PO Box

30197, Nairobi

Building Research Establishment, Overseas Division, Garston,

Watford, England WD2 7JR

African Medical Research Foundation, PO Box 30125, Nairobi

FAO SIDA, PO Box 30470, Nairobi

LINK 001149

000063

INDUSTRIAL RESEARCH AND CONSULTANCY UNIT
UNIVERSITY OF NAIROBI

PO Box 30197
Nairobi, Kenya

DIRECTOR: Dr. G. Oduo Nyangasi

PROFESSIONAL STAFF: 1

AREAS OF INTEREST:

Production engineering and industrial engineering

SPECIFIC PROJECTS 1980:

Wind energy machines

Intermediate technology (appropriate technology), specialized testing methods.

LINK 003675

000064

KENYA INDUSTRIAL RESEARCH AND DEVELOPMENT INSTITUTE

PO Box 30659
Nairobi, Kenya

TEL: 557988, 557762

DIRECTOR: Dr. R.J. Arunga
PROFESSIONAL STAFF: 16

AREAS OF INTEREST:

Building materials industry
Renewable energy
Engineering and metalworking industry

Chemical industry

SPECIFIC PROJECTS 1980:

Processing of coffee, sorghum, millet and fruit
Grain processing and storage
Leather processing
Power alcohol, production and utilization (engine fuel)
Solar energy
Manufacture of chemicals from local materials

LINK 003694

000065

**MECHANICAL ENGINEERING DEPARTMENT
UNIVERSITY OF NAIROBI**

PO Box 30197
Nairobi, Kenya

DIRECTOR: Prof. Dr. P.M. Gichinji
PROFESSIONAL STAFF: 16

AREAS OF INTEREST:

/Mechanical engineering/
Solid mechanics
Mechanics of machinery; applied thermodynamics.
Energy sources

SPECIFIC PROJECTS 1980:

Drying of agricultural crops
Mass and /heat transfer/
Solar energy
Wind energy
Geotherm
Strain gauges; cement based materials; steel reinforcement
(/fibre reinforced/ materials)
Roads corrugation
Wood pyrolysis
Plastic pumps

LINK 003693

000066

NAKURU OIL MILLS LIMITED - NOM

PO Box 15
Nakuru, Kenya

DIRECTOR: Mr. J.K. Moi
PROFESSIONAL STAFF: 1

AREAS OF INTEREST:

Edible oils (vegetable oils)

LINK 003677

000067

**UTILIZATION SECTION
FOREST DEPARTMENT**

PO Box 30513
Nairobi, Kenya

TEL: 66236

DIRECTOR: O. Mwangi
PROFESSIONAL STAFF: 4
BUDGET 1979: \$97,000

AREAS OF INTEREST:

Wood, pulp and paper industry
SPECIFIC PROJECTS 1980:
Timber conversion
Wood preservation
Timber mechanics

LINK 003574

000068

CENTRAL AGRICULTURAL RESEARCH INSTITUTE

Susakoko, Bong County, Liberia

DIRECTOR: Mr. Walter T. Miles
PROFESSIONAL STAFF: 14

AREAS OF INTEREST:

Fish nutrition and breeding; crops science
Land and water resources
Animal science
Agricultural engineering and appropriate technology
Pest control
SPECIFIC PROJECTS 1980:
Fish species screening and selection of varieties
Iron toxicity trials
Evaluation of the production potentials of indigenous
livestock
Checklist of rice insect pests

LINK 003695

000043

AL-FATEH UNIVERSITY

Tripoli, Libya

DIRECTOR: Dr. Ibrahim Muntassir
PROFESSIONAL STAFF: 350

AREAS OF INTEREST:
Agriculture, sciences, engineering
SPECIFIC PROJECTS 1970:
Flora of Libya
Medicinal plants
Development project of onions

LINK 003697

000070

ARAB DEVELOPMENT INSTITUTE

P.O. Box 8004
Tripoli, Libya

DIRECTOR: Dr. Ali M. Benlashhar
PROFESSIONAL STAFF: 30

AREAS OF INTEREST:
Environment and natural resources
Strategic planning; development of solar energy

LINK 003696

000071

INDUSTRIAL RESEARCH CENTRE

P.O. Box 3633
Tripoli, Libya

TEL: 35111 CABLE: BOHQOUTH-LIBYA
TELEX: 20038

DIRECTOR: Faisal Zafed Ali
PROFESSIONAL STAFF: 65

AREAS OF INTEREST:
Food technology, vegetable oils
Basic wood industry
Textiles and clothing
Building materials and construction industry, ceramics
industry
Fertilizer
Electrical equipment, electronic equipment
SPECIFIC PROJECTS 1980:
Quality control of textile materials
Building materials from locally available raw materials
Packaging
Sewing machines project
Liquid pumps industry
Plastics products
Artificial light weight aggregates
Gypsum /plaster/ and plaster products
Special cements

LINK 002628

000072

ETABLISSEMENT D'ENSEIGNEMENT SUPERIEUR DES SCIENCES
ACRONOMIQUES
UNIVERSITE DE MADAGASCAR

BP 175
Campus Universitaire
Antananarivo, Madagascar

DIRECTOR: M. Gilbert Revelojoana
PROFESSIONAL STAFF: 19

AREAS OF INTEREST:
Agricultural products
Forestry
Animal husbandry
Water resources
Agro industry
Food industry
Appropriate technology for agricultural and industrial
production

LINK 003698

000073

BUNDA COLLEGE OF AGRICULTURE
DEPARTMENT OF AGRICULTURAL ENGINEERING
UNIVERSITY OF MALAWI

P.O. Box 219
Lilongwe, Malawi

TEL: 721 455 CABLE: BUNDAGRIC, Lilongwe

PROFESSIONAL STAFF: 8
BUDGET 1981: \$100,000

AREAS OF INTEREST:

Soil engineering and hydraulic engineering
Agricultural machinery

Energy for rural areas

Farm structures (housing)

SPECIFIC PROJECTS 1981:

Soil and water engineering: runoff factors, catchment studies
Farm power: human energy, ergonomics, charcoal, biogas, solar
energy, producer gas, wood fuel combustion efficiency,
ethanol (engine fuel)

Farm machinery evaluation and development
Traditional and low cost structures

JOINT PROJECTS WITH:

National Research Council of Malawi
World Bank, Energy unit
Polytechnic, Malawi
FAO/SIDA

LINK 00382f

000075

CENTRE NATIONAL DE MEDECINE TRADITIONNELLE - CNMT
OFFICE MALIEN DE PHARMACIE - OMP

BP 1746
Bamako, Mali

TEL: 22 46 20
TELEX: PHARMAPRO 429

DIRECTOR: Prof. Mamadou Koumare
PROFESSIONAL STAFF: 4
BUDGET 1981: \$38,220

AREAS OF INTEREST:

Health, ethnobotany, sociology

Medicinal plants

SPECIFIC PROJECTS 1981:

Traditional contraceptives

Research on an antitussive plant

Clinical studies of 12 traditional pharmaceuticals with a
view to commercialize them

JOINT PROJECTS WITH:

Association malienne pour la planification et la promotion de
la famille (AMPPF)
Laboratoire de pharmacognosie de la faculte de pharmacie de
Toulouse (France)

LINK 003815

000074

POLYTECHNIC UNIVERSITY OF MALAWI
UNIVERSITY OF MALAWI

Private Bag 303
Chichiri
Blantyre 3, Malawi

TEL: Blantyre 632144

DIRECTOR: Mr. A.V. Kambalantora
PROFESSIONAL STAFF: 10
BUDGET 1981: \$5,494

AREAS OF INTEREST:

Solar energy
Appropriate technology

SPECIFIC PROJECTS 1981:

Solar thermal devices, /water heaters/, water purification

Biomass

Lubricants recycling
Bamboo water pipes

LINK 003841

000076

ECOLE NATIONALE D'INGENIEURS

BP 242
Bamako, Mali

TEL: 22-27-36

DIRECTOR: M. Mamadou Sine Casara
PROFESSIONAL STAFF: 10

AREAS OF INTEREST:

Civil engineering

Hydraulic engineering

Topography, geology

Electrical engineering, electric power

SPECIFIC PROJECTS 1980:

/Laterite/ research

Utilization of local materials: concrete, clay products,
stabilized /banco/ (/stabilized soil/)

Solar energy, hydroelectric power: mini hydroplant project
(electric power station)

Cartography: dam model

LINK 003699

000077

LABORATOIRE DE L'ENERGIE SOLAIRE

BP 134
Banako, Mali

DIRECTOR: M. Cheickna Traore
PROFESSIONAL STAFF: 12

AREAS OF INTEREST:

Solar energy
Wind energy

Biomass

SPECIFIC PROJECTS 1980:

/Solar cells/
Low temperature /solar collectors/
Windmills
Biomass fermentation (bioconversion)
/Photovoltaic cells: US Solar cells/

LINK 003703

000079

LABORATOIRE NATIONAL DES TRAVAUX PUBLICS - LNTP
MINISTERE DE L'EQUIPEMENT, DES TRANSPORTS ET DES
TELECOMMUNICATIONS

BP 602
Nouakchott, Mauritania

TEL: 511 03
TELEX: 839 mtn

DIRECTOR: Cheikh G-Sid'Ahaed
BUDGET 1981: \$600,000

AREAS OF INTEREST:

Low cost housing
Roads construction, road design under local conditions
Sand and sand dunes control
Local materials

SPECIFIC PROJECTS 1981

Design of low cost building materials, improvement of /low
cost housing/
Dry compaction, design of roads using sand

JOINT PROJECTS WITH:

Centre experimental de recherche et d'etudes du batiment et
des travaux publics, 12 rue Francion, 75737 Paris Cedex 15
(technical assistance)

LINK 003817

000078

CENTRE NATIONAL DE RECHERCHES OCEANOGRAPHIQUES ET DES PECHEES
- CNRJP
MINISTERE DES PECHEES ET DE L'ECONOMIE

BP 22
Centre de Nouadhibou, Mauritania

TEL: 2124

DIRECTOR: M. Moctar Ba
PROFESSIONAL STAFF: 18
BUDGET 1981: \$400,000

AREAS OF INTEREST:

Oceanography; fishery product processing and sanitary
control on fishing vessels (hygiene)

Economics and statistics

SPECIFIC PROJECTS 1981:

Study of the sea environment; hydrology, hydrobiology
Fish resource evaluation: pelagic and bottom dwelling stocks
Improvement of fishing techniques
Feasibility study of fish breeding in fresh water
(aquaculture)

LINK 003839

000080

MAURITIUS SUGAR INDUSTRY RESEARCH INSTITUTE - MSIRI

Reduit, Mauritius

TEL: 5A-1061-1064 CABLE: SIRI Mauritius

DIRECTOR: J. Dupont de Saint Antoine
BUDGET 1979: \$2,000,000

AREAS OF INTEREST:

Machinery and agricultural machinery, both for sugar factory
Food technology, potatoes, maize, rice, soybeans, tomatoes,
sugar processing and by products of sugar industry
Wood, pulp and paper industry
Fertilizer, pesticides
Instruments for sugar factory
SPECIFIC PROJECTS 1980:
Deterioration of chopper harvested sugar cane
Cane washing
Unigrator shredder performance
/Dextran/ level in factory products
Filtering studies
Purity and conductivity relationships of sugar factory
products
Determination of supersaturation co-efficients of impure
solutions
Development of new viscometer for massecuites and molasses
Gas liquid chromatographic analysis of cane juice and molasses
Effluent treatment

JOINT PROJECTS WITH:

IAEA
Institute for Food Technology, Department of Sugar
Technology, Library
Technical University, Berlin
Tate and Lyle, Group Research and Development
UNDP
ORSTOM

LINK 000438

000081

SCHOOL OF INDUSTRIAL TECHNOLOGY
UNIVERSITY OF MAURITIUS

Reduit, Mauritius

DIRECTOR: Prof. Dr. G.F.G. Mohamedbhai
PROFESSIONAL STAFF: 18

AREAS OF INTEREST:

Renewable energy
Solar energy
Wind energy
/Wave energy/
Sugar technology
Building materials
Transportation
SPECIFIC PROJECTS 1980:
Agricultural mechanization: sugar cane /harvesters/
Protein from cane tops
Solar energy for drying and pumps
Solar /water heaters/
Effect of fire on concrete
Use of /gasohol/ (engine fuel)

LINK 003704

000082

CENTRE D'ETUDES ET DE RECHERCHES DES PHOSPHATES MINERAUX -
CERPHOS

73/87 boulevard Moulay Ismail
Casablanca, Morocco

DIRECTOR: M. F. Mohamed Fatah
PROFESSIONAL STAFF: 13

AREAS OF INTEREST:

Phosphate and products of the phosphate industry
Fertilizer
SPECIFIC PROJECTS 1980:
Improvement of phosphate minerals and their products

LINK 003705

190083

ECOLE MOHAMMADIA D'INGENIEURS
MINISTERE DE L'EDUCATION NATIONALE

BP 765
Agdal
Rabat, Morocco

TEL: 719-05, 719-06
TELEFX: 32939

DIRECTOR: Pr. Hamza Kettani
PROFESSIONAL STAFF: 113
BUDGET 1981: \$ 50,000

SPECIFIC PROJECTS 1981:

Water treatment
Bitumen schists
Phosphates
Solar energy
/Microprocessors/
Reduced scale models of dams
Treatment of natural languages with computers

LINK 003803

000085

INSTITUT MAROCAIN DE L'EMBALLAGE ET DU CONDITIONNEMENT

BP 8006
Km 9, Route de Nouaceur
Casablanca, Morocco

DIRECTOR: M. Abdelhaq Bennoune
PROFESSIONAL STAFF: 11

AREAS OF INTEREST:

Packaging and conditioning
Quality control
Packaging design

SPECIFIC PROJECTS 1980:

Export packaging of fruit and vegetables
Reduction of waste due to transport, handling and storage
Accountancy of packaged products
Conditioning and packaging of stabilized food products
and quality control of packaging materials

LINK 003707

100084

ECOLE NATIONALE DE L'INDUSTRIE MINERALE

BP 753
Agdal
Rabat, Morocco

DIRECTOR: Dr. Mohamed Lakhssassi
PROFESSIONAL STAFF: 15

AREAS OF INTEREST:

Geology
Metallurgy
Mining
SPECIFIC PROJECTS 1980:
Corrosion
Raw Materials
Mineral prospecting

LINK 003706

000086

INSTITUT SCIENTIFIQUE DES PECHEES MARITIMES - ISPM
OFFICE NATIONAL DES PECHEES MARITIMES - ONP

BP 21
2, rue de Tiznit
Casablanca 01, Morocco

TEL: 267811, 276088
TELEX: IPEMAR 23 823 M

DIRECTOR: M. Abdelali Lahlou
PROFESSIONAL STAFF: 21

AREAS OF INTEREST:

Fish biology, evaluation of fish resources
Fishery product processing technologies
SPECIFIC PROJECTS 1981:
Evaluation of bottom dwelling and pelagic resources
Adaptation of fishing vessels for the Moroccan fleet
Quality control of fish on board and during unloading and
dispatching operations
Some aspects of pollution in the Mediterranean
Aquaculture
Survey of artisanal fishing

JOINT PROJECTS WITH:

Institut agronomique et veterinaire Hassan II, BP 704, Agdal,
Rabat
Institut scientifique, Rabat
Faculte de medecine, Casablanca
CGPM, CIEM, ICCAT, PMUE

LINK 003833

200007

OFFICE POUR LE DEVELOPPEMENT INDUSTRIEL - ODI

8 Rue Ghandi
Rabat, Morocco

DIRECTOR: M. Mohamed Beckhayat
PROFESSIONAL STAFF:

AREAS OF INTEREST:
Industrial development: agro industry, food industry
SPECIFIC PROJECTS 1980:

LINK 003708

200088

INSTITUTO NACIONAL DO ACUCAR
NATIONAL SUGAR INSTITUTE

PO Box 431
Rua da Gavea No. 73
Maputo, Mozambique

Sujer

LINK 003043

000089

AGRICULTURAL ENGINEERING DEPARTMENT
FACULTY OF ENGINEERING
UNIVERSITY OF NIGERIA

Nsukka, Nigeria

DIRECTOR: Prof. E. U. Odigboh
PROFESSIONAL STAFF: 5

AREAS OF INTEREST:
Agricultural machinery
Energy for rural areas
Agri product processing, storage
Irrigation drainage and soil conservation
SPECIFIC PROJECTS 1980:
Development of cassava /harvester/ and /planters/, /palm
fruit/ harvesters
Development of /garl/ production machinery: grating,
pulverizing, sifting)
Systems of agricultural mechanization
Determination of drying constants for local crops
Mechanical-ecological properties of agricultural products
Large scale wheat production

LINK 003719

000090

DEPARTMENT OF AGRICULTURAL ENGINEERING
INSTITUTE FOR AGRICULTURAL RESEARCH - IAR
AHMADU BELLO UNIVERSITY

PMB 1044
Zaria, Nigeria

TEL: 2571/232 CABLE: Agrisearch Zaria

DIRECTOR: Prof. R.N. Kaul
PROFESSIONAL STAFF: 20
BUDGET 1981: \$180,000

AREAS OF INTEREST:
Energy for rural areas, agricultural machinery
Crop processing and storage
Soil and water engineering
SPECIFIC PROJECTS 1981:
Testing of modified A.B. /threshers/
Testing of forage grinders and /ensilage cutters/
Testing Kubota L 24DT and BOLGAR-MTZ-80 tractors
Comparative evaluation of straddle row /tool frames/ weeders
Grain processing (milling) at village level
Comparative evaluation of planting methods and equipment for
groundnuts and other crops
Development and comparative evaluation of selected manually
and power operated groundnut threshers
Comparative evaluation of selected herbicides applicators
Design related physical properties of selected grains
Development of machine(s) for threshing millet and sorghum
Design and development of a power operated multicrop thresher
Development of weeding attachment for EMCOT (ridger)
Development of a ground metered herbicide applicator
Development of a grain cleaning sieving device for small
farmers
Design and development of /compeas/ (beans) /harvesters/ and
threshers
Design and development of improved hand tools suited to local
conditions
Studies using 'once over' operation
Assessment of animal power transmission system for stationary
jobs on the farm
Assessment of animal toolbars in local farming system
Feasibility study on drying of farm crops
Comparison of droplet size of the electrodynd /sprayers/ and
ULVA spinning disc sprayer at similar flow rates but
different operating conditions
Comparative evaluation of small tractors
Instrumentation for tillage studies
Study of mechanization constraints in intercropping system
Transport devices for farm produce
Mechanical weed control in groundnuts (/weeders/)
Effects of different cultivation methods on soil properties
and crop performance

JOINT PROJECTS WITH:
Imperial College Station, Silwood Park, UK
Rome University
FAO
Commonwealth Secretariat

LINK 003812

707091

DEPARTMENT OF CHEMISTRY
AHMADU BELLO UNIVERSITY

Zaria, Nigeria

DIRECTOR: Prof. U.D. Gowalk
PROFESSIONAL STAFF: 24

AREAS OF INTEREST:

Physical and /polymers/ chemistry
Inorganic and analytical chemistry
Organic chemistry

SPECIFIC PROJECTS 1980:

Properties of polyurethane foam
Emulsion polymerisation of /vinyl acetate/
Analysis of tea and coffee beverages
Polyvinyl acetate: mechanical and adhesive properties
Analysis of local wools
Flame retardency of polyester cotton fabrics
Resins finishing of cellulose materials
Analysis of detergents and soap products
Thermal studies of metal thiocarbonates and sulphides
Soil analysis
Kinetics of concentration of tin on aluminium and zinc from
acidified stannous chloride solution
Study of organosulphur compounds
Study of thiourethanes; chemistry of sulphodiamides
Synthesis of olefinic bonds in alkaloids
Phytochemistry of useful plants
Organometallic compounds of tin
Study of bread quality in Zaria region

LINK 003718

000092

DEPARTMENT OF CIVIL ENGINEERING
FACULTY OF ENGINEERING
UNIVERSITY OF NIGERIA

Nsukka, Nigeria

TEL: 48, Ext. 127 CABLE: Niversity

DIRECTOR: Dr. M. Egbunike
PROFESSIONAL STAFF: 4

AREAS OF INTEREST:

Civil engineering structures, materials, water resources,
/soil mechanics/, foundation engineering, hydraulic
engineering

SPECIFIC PROJECTS 1980:

LINK 003712

007093

DEPARTMENT OF CIVIL ENGINEERING
UNIVERSITY OF ILOPIN

PMB 1515
Ilorin, Nigeria

DIRECTOR: Prof. Amin Adesola
PROFESSIONAL STAFF: 3

AREAS OF INTEREST:

Civil engineering
Material engineering

SPECIFIC PROJECTS 1980:

Engineering properties of local building materials

LINK 003715

000094

DEPARTMENT OF INDUSTRIAL DESIGN
AHMADU BELLO UNIVERSITY

Zaria, Nigeria

TEL: 2661/3 CABLE: Unibello Zaria

DIRECTOR: Dr. Bogamil Jarzabik
PROFESSIONAL STAFF: 4

AREAS OF INTEREST:

Engineering design
Ceramics and glass technology

SPECIFIC PROJECTS 1980:

Utilization of local materials (raw materials for ceramic and
glass industry in Nigeria)

LINK 003717

000095

DEPARTMENT OF MECHANICAL ENGINEERING
UNIVERSITY OF ILORIN

PMB 1515
Ilorin, Nigeria

DIRECTOR: Prof. V.O.S. Olanloye
PROFESSIONAL STAFF: 9

AREAS OF INTEREST:
/Mechanical engineering/
Industrial and production engineering
Engineering design
Structural /vibration/s
SPECIFIC PROJECTS 1980:
Vibrational characteristics of eccentrically clamped circular plates
Contact problems in radial tires
Investigation on the application of industrial engineering concepts in Nigerian industry
Natural vibrations of a prestressed beam with variable cross-section

LINK 003714

000097

DEPARTMENT OF PHARMACEUTICAL TECHNOLOGY
FACULTY OF SCIENCES
UNIVERSITY OF NIGERIA

Nsukka, Nigeria

TEL: 6251-5, Ext. 42/7 CABLE: Nigersity, Nsukka

DIRECTOR: Prof. H.C. Mital
PROFESSIONAL STAFF: 2

AREAS OF INTEREST:
Pharmaceuticals; investigation of local medicinal plants for the production of drugs.
SPECIFIC PROJECTS 1980:
Investigation of plant products such gums, starches, and vegetable oils
Stability and development of new formulations

LINK 003711

000096

DEPARTMENT OF MECHANICAL ENGINEERING
UNIVERSITY OF NIGERIA - UNN

Nsukka, Nigeria

TEL: 6251/38 CABLE: Nigersity, Nsukka

DIRECTOR: Prof. Clifford C.O. Ezelle
PROFESSIONAL STAFF: 18
BUDGET 1981: \$600,000

AREAS OF INTEREST:
Energy in general, with particular emphasis on solar energy,
SPECIFIC PROJECTS 1981:
Solar energy collection, conversion and utilization for heating, drying, cooling and electric power generation (electric power station)

LINK 003824

000098

DEPARTMENT OF PUBLIC HEALTH AND PREVENTIVE MEDICINE
FACULTY OF VETERINARY MEDICINE

Zaria, Kaduna State, Nigeria

DIRECTOR: Dr. E.D. Balino
PROFESSIONAL STAFF: 7

AREAS OF INTEREST:
Veterinary public health and preventive medicine
Animal diseases transmitted to man (zoonoses); food hygiene, epidemiology, environmental sanitation (water, sewage, pollution)
SPECIFIC PROJECTS 1980:
Survey of rabies incidence; diagnosis of rabies
Livestock waste utilization for animal feeds
Sero-epidemiological studies on toxoplasmosis, brucellosis

LINK 003709

000099

DEPARTMENT OF TEXTILE TECHNOLOGY
COLLEGE OF SCIENCE AND TECHNOLOGY
KADUNA POLYTECHNIC

PMB 2021
Kaduna, Nigeria

Textiles

LINK 002667

700190

ELECTRICAL ENGINEERING DEPARTMENT
UNIVERSITY OF ILOFIN

PM 1515
Ilorin, Nigeria

DIRECTOR: Prof. I.E. Owolabi
PROFESSIONAL STAFF: 5

AREAS OF INTEREST:

Electrical engineering
Electronics
Communications and power systems

SPECIFIC PROJECTS 1980:

Tropical propagation problems in the broadcast bands
LINK 003713

900101

FACULTY OF TECHNOLOGY
UNIVERSITY OF IBADAN

Ibadan, Nigeria

TEL: 400550-400579 CABLE: UNIVERSITY IBADAN
TELEX: CAMPUS 31128 MG

DIRECTOR: Prof. F.O. Abcaba
PROFESSIONAL STAFF: 45
BUDGET 1981: \$1,500,000

AREAS OF INTEREST:

Renewable energy and non renewable energy sources
Structural analysis

Food processing, agri product processing

Agricultural machinery

SPECIFIC PROJECTS 1981:

Renewable energy: Solar energy data acquisition and analysis.

Development of /solar collectors/ for drying, water heating, and refrigeration. Rural and urban water supply scheme

Non-renewable energy: Heavy oil recovery (petroleum), well test analysis, simulation studies of difficult oil, gas and geothermal reservoirs (geothermy)

Structural analysis: Development of computer programmes for the static and dynamic response of engineering structures

Food processing: /Post harvest technology/ for fruit and vegetables: food storage, and preservation. Canning of local food products

Agricultural machinery: Development of appropriate technology for agricultural implements e.g. /fertilizer applicators/, cereals cleaner, /threshers/, mechanical /planters/, etc.

JOINT PROJECTS WITH:

Federal Institute of Industrial Research, Oshodi, Nigeria
LINK 003823

000102

FEDERAL INSTITUTE OF INDUSTRIAL RESEARCH OSHODI - FIIRO

PHB 21023
Ikeja
Oshodi, Lagos State, Nigeria

TEL: 952161-4

DIRECTOR: Dr. G.A. Koleoso
PROFESSIONAL STAFF: 203

AREAS OF INTEREST:

Metaworking industry
Food technology, vegetable oils
Wood, pulp and paper industry
Textiles and clothing

Design and fabrication of low-cost equipment

Ceramics industry

Chemical industry

Machinery, electrical equipment, electronic equipment

SPECIFIC PROJECTS 1980:

Dry milling of local cereals grains

Industrial utilization of /shea butter/

Production of single cell protein from cassava waste (agricultural wastes)

Production of malt from Nigerian cereal grain

Protein enrichment of starchy food (/gari/)

Development of flavourings concentrates from local raw materials

Utilization of fruit solid wastes (waste utilization)

Production of livestock feeds from cassava and corn wastes

Evaluation of local natural fibres for pulp and paper

Upgrading of local dyeing technique with /indigo/ leaves

Modification of cassava starch for textile processing

Development of /stabilized soil/ blocks for /low cost housing/

Development of bodies, glaze and tiles from local ceramic materials

Patents, licenses

LINK 003585

000103

INDUSTRIAL CHEMISTRY SECTION-CHEMISTRY DEPARTMENT
UNIVERSITY OF ILOFIN

PHB 1515
Ilorin, Nigeria

DIRECTOR: Prof. Akin Adesola

AREAS OF INTEREST:

Chemical industry

SPECIFIC PROJECTS 1980:

Chemistry of naturally occurring colored organic compounds

LINK 003716

000104

INDUSTRIAL DEVELOPMENT CENTRE
SMALL SCALE INDUSTRIES DIVISION
FEDERAL MINISTRY OF INDUSTRIES

PMB 1013
Owerri, Imo State, Nigeria

TEL: (083)234369/230452

DIRECTOR: Mr. C.C.I. Oritah
PROFESSIONAL STAFF: 25
BUDGET 1981: \$791,380

AREAS OF INTEREST:
Development of prototypes in various areas of small scale
machinery, equipment and products (product development)
Small scale industry

JOINT PROJECTS WITH:
Product Development Agency, Federal Ministry of Technology,
Enugu

LINK 003858

000105

INTERNATIONAL INSTITUTE OF TROPICAL AGRICULTURE - IITA

PMB 5320
Oyo Road
Ibadan, Nigeria

TEL: 413440 CABLE: TROPFOUND IKEJA
TELEX: TROPID NG 31417

DIRECTOR: Mr. E.H. Hartmans

AREAS OF INTEREST:
Engineering design: development of small agricultural
machinery and efficient hand tools; development of
commercial machinery for agriculture.

SPECIFIC PROJECTS 1981:

Manual versus mechanical land preparation: tillage
Development of manual /planters/
Small tools for /weefers/
Hand /fertilizer applicators/
Transport facilities
Design of small tools for harvesting (harvesters)
/Post harvest technology/: maize shellers (/huskers/), rice,
/cowpeas/ (beans) and soybeans /threshers/

JOINT PROJECTS WITH:
IARST University of Ife, Moore Plantation, Ibadan
University of the Philippines at Los Banos College, Laguna,
Philippines
International Rice Research Institute, PO Box 933, Manila,
Philippines

LINK 003861

000106

LEATHER RESEARCH INSTITUTE OF NIGERIA

PMB 1052
Zaria, Nigeria

Leather

LINK 000758

000107

NIGER DELTA BASIN DEVELOPMENT AUTHORITY

PMB 5676
21, Azikiwe Road
Port Harcourt, Nigeria

CABLE: BASIN PORTHARCOURT

PROFESSIONAL STAFF: 45
BUDGET 1979: \$15,700,000

AREAS OF INTEREST:
Food technology
Wood, pulp and paper industry
Agricultural machinery
Fertilizer, pesticides
Transport
Ceramics industry

LINK 003586

000109

NIGERIAN BUILDING AND ROAD RESEARCH INSTITUTE
FEDERAL MINISTRY OF SCIENCE AND TECHNOLOGY

PMB 12549
15, Awolowo Road, Ikoyi
Lagos, Nigeria

TEL: 683474, 683445 CABLE: NIBRRINST
TELEX: NIBRRINST

DIRECTOR: Dr. A.O. Madedor
PROFESSIONAL STAFF: 10

AREAS OF INTEREST:

Building and roads research, construction industry

SPECIFIC PROJECTS 1981:

Distribution of solar radiation for application to building design in Nigeria

Analysis of urban accident patterns in major Nigerian towns

Development of local building materials for /low cost housing/

Survey of building and building materials research in Nigeria

Survey of building materials in Nigeria

Collection of data on the subsoil profile of major Nigerian roads

JOINT PROJECTS WITH:

Aheadu Bello University, Zaria, Nigeria
University of Benin, Benin City, Nigeria

LINK 003806

000109

NIGERIAN INSTITUTE OF PLANT SCIENCE AND SOLAR
ENERGY/TECHNOLOGY
KANANGA ASSOCIATES ORGANIZATIONS

1-9, Hospital Road
Aba, Imo State, Nigeria

DIRECTOR: Dr. Ephraim Nkea Okeya
PROFESSIONAL STAFF: 4
BUDGET 1981: \$500,000

AREAS OF INTEREST:

Solar energy, energy

Piezoelectric, phonons and photons, lightning (fusion reactor development)

Lipids, malaria vaccine production

Crown ether, /polymers/

SPECIFIC PROJECTS 1981:

Engine fuel from palm oil (palm fuel, palm alcohol, ethanol)

Malaria /vaccine/

Lightning /superconductors/

/Satellite communications/

/Thermocouples/

Carboxylic anionic

JOINT PROJECTS WITH:

Asian Institute of Technology, P.O. Box 2754, Bangkok

LINK 003807

000110

NIGERIAN STORED PRODUCTS RESEARCH INSTITUTE

PMB 12543
Yaba, Nigeria

Agricultural products storage, (food storage)

LINK 000769

000111

PLANNING AND RESEARCH DEPARTMENT
FEDERAL HOUSING AUTHORITY

PMB 3200
Festival Town Badagry Road
Surulere, Lagos, Nigeria

TEL: 849279

DIRECTOR: R.S. Ogunlana

PROFESSIONAL STAFF: 4

BUDGET 1979: \$964,646

AREAS OF INTEREST:

Building materials and construction industry, ceramics industry

SPECIFIC PROJECTS 1980:

Earth building in tropical areas: using optimum ratios of the following materials for block making: /laterite/s and fly ash, laterites and limestone, ie calcium carbonate; any locally available waste products from local industries (waste utilization)

LINK 000267

009112

RUBBER RESEARCH INSTITUTE OF NIGERIA - RRIN
FEDERAL MINISTRY OF SCIENCE AND TECHNOLOGY - FMST

PMR 1949
Iyanoro
Benin City, Nigeria

CABLE: RUBSEARCH, BENIN

DIRECTOR: Dr. E.K. Okafor
PROFESSIONAL STAFF: 40
BUDGET 1981: \$4,507,200

AREAS OF INTEREST:

Research on production and products of rubber and other latex
producing plants of economic importance

SPECIFIC PROJECTS 1981:

Improvement of the genetic potentials of rubber
Improvement of agronomic and husbandry practices
Agricultural mechanization and improvement of the methods of
cultivating, harvesting, processing and storage of rubber
(/cultivators/, /harvesters/)
Improvement of the utilization of other rubber products
Ecology of pests and diseases of rubber and improved methods
of pest control
Integration of the cultivation of rubber into farming systems
in the different ecological zones and socio-economic
effects on the rural population
Effective technology transfer to producers and users of rubber

JOINT PROJECTS WITH:

Department of Industrial Chemistry, Department of Biology,
University of Benin, Benin City, Nigeria

LINK 003757

000113

CENTRE DE RECHERCHE APPLIQUEE, FONDAMENTALE ET DE FORMATION
PERMANENTE - CRAFOP
UNIVERSITE NATIONALE DU RWANDA - UNR

BP 56
Campus de Puhengeri
Butare, Rwanda

TEL: 302 CABLE: UNR RUGENGERI
TELEX: UNINARWA

DIRECTOR: M. Bernard Uzebakiho
PROFESSIONAL STAFF: 22
BUDGET 1981: \$11,100

AREAS OF INTEREST:

Chemistry, physics

Natural resources

SPECIFIC PROJECTS 1981:

New and renewable energy
Natural products in Rwanda
Concentration and utilization of mineral resources in Rwanda
(mining)

JOINT PROJECTS WITH:

Centre universitaire de recherche sur la pharmacopée et la
médecine traditionnelle (Curphametra), U.N.R., BP 117,
Butare
Centre d'études et d'application de l'énergie au Rwanda
(CEAER), U.N.R., BP 117, Butare

LINK 003865

000114

CENTRE UNIVERSITAIRE DE RECHERCHE SUR LA PHARMACOLOGIE ET LA
MEDECINE TRADITIONNELLE - CURPHAMETRA
UNIVERSITE NATIONALE DU RWANDA - UNR

BP 52
Butare, Rwanda

TEL: 271, 272, 273, 243 CABLE: UNINARWA

DIRECTOR: M. Luc van Puyvelde
PROFESSIONAL STAFF: 8 full time, 4 part time
BUDGET 1981: \$172,500

AREAS OF INTEREST:

Medicinal plants, manufacture of pharmaceuticals from plants,
promotion of traditional medicine

SPECIFIC PROJECTS 1981:

Phytochemical, pharmacological, microbiological study of the

following plants: Pavetta ternifolia - UMUMENA-MABUYE

Clerodendrum myricoides - UMUKUZANYAMA

Iboza riparia - UMIRAVUMBA

Monechma subsessile - UMUBAZI

Coleus kilimandschari - IGICUNSHU

Rumex abyssinicus - IGIFIMBA

Pumex usambarensis - UMAFIMBAGESHI

Rubus rigidus - UMUKERI

Chenopodium ugandae (Allen) Allen - UMUGOMBE

Solanum div. sp. - UMUTOBOTOBO, IGITOBORWA, IGITAGALASOLYO

Gloriosa simplex

Chemical screening of active principles: abortive,
antimicrobial, antifungal, antipyretic, etc.

New colouring substance from Pisolithus arhizus: MUTUMO

Industrial production of tannin

Production of citric acid /glycerin through fermentation

Industrial production of steroids from solanum

Thermal sources in Rwanda (geothermy)

JOINT PROJECTS WITH:

Laboratory of Organic Chemistry, Faculty of Agricultural
Sciences, State University of Ghent, Coupure 533, B-9000
Ghent, Belgium

LINK 003800

000115

LABORATOIRE DE RESISTANCE DES MATERIAUX
FACULTE DES SCIENCES APPLIQUEES
UNIVERSITE DU RWANDA

BP 117
Butare, Rwanda

CABLE: UNINARWA

DIRECTOR: M. J.B. Habyalimana
PROFESSIONAL STAFF: 2
BUDGET 1981: \$50,000

AREAS OF INTEREST:

Civil engineering and construction industry

Material testing

SPECIFIC PROJECTS 1981:

/Laterite/ soils

/Adobe/ bricks

Clay stabilization for brick making (/stabilized soil/)

Identification of deposits in Rwanda

Standards and standardization

JOINT PROJECTS WITH:

Ministere des ressources naturelles du Rwanda

LINK 003836

000116

CENTRE EXPERIMENTAL DE RECHERCHES ET D'ETUDES POUR
L'EQUIPEMENT - CEREEQ

BP 189
Dakar, Senegal

DIRECTOR: M. Souleye Sall
PROFESSIONAL STAFF: 7

AREAS OF INTEREST:

Housing

SPECIFIC PROJECTS 1980:

/Stabilized soil/

Building materials for housing

LINK 003719

000117

CENTRE NATIONAL DE RECHERCHES AGRONOMIQUES - CNRA

BP 53
Banbury, Senegal

TEL: 58 43 50/51,52,54 CABLE: MORAGRO BANBURY

DIRECTOR: G. Ndiaye Mbedj
BUDGET 1981: \$2,065,000

AREAS OF INTEREST:

Utilization of water resources: hydraulic engineering for agriculture
Soil conservation, fertility, biochemistry, plant nutrition
Cereals improvement: millet, sorghum, maize
Improvement and diversification of industrial crops: groundnuts, soybeans (vegetable oils)
Plant protection, plant pathology, entomology, weed control
Agricultural machinery and agricultural engineering
Post harvest technology/
Rural economy
SPECIFIC PROJECTS 1981: a selection only
Water saving irrigation techniques; irrigation systems utilizing salted and sodic water; drip irrigation using solar energy pumps
Anaerobic composting and biogas production
Nitrogen fixation of various crops
Herbicides efficiency on various crops; study of residues
Animal powered and small motorized cultivators/
Development and testing of millet threshers, maize shellers (/huskers/)
Manual hollers efficiency: moisture content of grain
Millet flour milling
Animal husbandry: utilization of agricultural wastes for animal feed
Evaluation of a rural shelling/milling pilot workshop

JOINT PROJECTS WITH:

Financial assistance from CRDI, FAC, USAID, ICRISAT, IAEA, etc.

LINK 003809

000118

ECOLE POLYTECHNIQUE DE THIES

BP 10
Thies, Senegal

TEL: 511632, 511343
TELEX: 7758 EPTHIES

DIRECTOR: Lt. Col. Sidy Bouya Ndiaye
PROFESSIONAL STAFF: 22
BUDGET 1981: \$182,000

AREAS OF INTEREST:

Civil engineering, /mechanical engineering/
/Soil mechanics/
Construction industry: housing
Renewable energy and its applications
SPECIFIC PROJECTS 1981:
Village housing construction using /laterite/ building materials.
Manual and windmills operated bush pumps
Development and testing of windmill prototypes
Study of Senegalese soils

LINK 003828

000119

INSTITUT DE TECHNOLOGIE ALIMENTAIRE

BP 2675 Route des Peres Maristes
Dakar/Hann, Senegal

DIRECTOR: M^{me}. Marie-Therese Basse
PROFESSIONAL STAFF: 24

AREAS OF INTEREST:

Agro Industry
Crop protection (pest control)
SPECIFIC PROJECTS 1980:
Exploitation of local agricultural resources

LINK 003720

000120

INSTITUT UNIVERSITAIRE DE TECHNOLOGIE

BP 5085
Dakar-Fann, Senegal

DIRECTOR: M. Kergrels
PROFESSIONAL STAFF: 00

AREAS OF INTEREST:

Technology transfer
Renewable energy

SPECIFIC PROJECTS 1980:

Meteorology

Solar energy, solar engineering

Solar pumps, refrigeration

Wind energy: savonius windmills

Food technology, utilization of agricultural wastes:

groundnuts shells

Latex from /euphorbia/

LINK 003819

000121

SOCIETE NATIONALE D'ETUDES ET DE PROMOTION INDUSTRIELLE -
SONEPI

BP 100
4, rue Maunoury
Dakar, Senegal

TEL: 222130

DIRECTOR: M. Cheikh Tidiane Sakho

PROFESSIONAL STAFF: 25

BUDGET 1979: 2600,000

AREAS OF INTEREST:

Transport

Food technology

Wood, pulp and paper industry

Textiles and clothing

Agricultural machinery

Building materials and construction industry, ceramics

Industry

Pharmaceuticals

Electrical equipment

SPECIFIC PROJECTS 1980:

Appropriate technology for the processing of cereals

Simple pumps for irrigation

Use of agricultural wastes (waste utilization)

Animal feed

Small scale industry and medium scale industry

Factory organization and equipment

Production processes and machinery

Economic conditions in Senegal

Statistics

JOINT PROJECTS WITH:

Agence de cooperation culturelle et technique, ACCT, Paris,

France

OPI, Haiti

OPEI, Ivory Coast

SSEIB, Mauritius

JPEN, Niger

CNET, Tunisia

API, Tunisia

OPEV, Upper Volta

LINK 000901

000122

BUILDING AND ROAD RESEARCH INSTITUTE
UNIVERSITY OF KHARTOUM

PO Box 321-35
Khartoum, Sudan

DIRECTOR: Dr. Omer M.E. Fageiri

PROFESSIONAL STAFF: 8

AREAS OF INTEREST:

Construction industry

/Soil mechanics/, structures, foundation engineering

Architecture and planning

Roads research

Building materials

LINK 003727

000123

CELLULOSE CHEMISTRY AND TECHNOLOGY RESEARCH UNIT
NATIONAL COUNCIL FOR RESEARCH

PO Box 2404
Khartoum, Sudan

DIRECTOR: Dr. Suleiman Tabir Hamad
PROFESSIONAL STAFF: 8

AREAS OF INTEREST:
Pulp and paper industry
Cellulose
Fibreboard

SPECIFIC PROJECTS 1980:
Utilization of agricultural wastes for pulp and paper
Building materials
Animal feeds
Fertilizers
Energy

LINK 003723

000125

COUNCIL FOR SCIENTIFIC AND TECHNOLOGICAL RESEARCH
NATIONAL COUNCIL FOR RESEARCH

PO Box 6094
People's Hall
Khartoum, Sudan

DIRECTOR: Dr. A.P.A. Agib
PROFESSIONAL STAFF: 4

SPECIFIC PROJECTS 1980:
Oceanography
Technology transfer and adaptation
Use of remote sensing techniques for survey of natural resources

See also entries for specific institutes:
- Cellulose Chemistry and Technology Research Unit
- Institute of Energy Research and
- Medicinal and Aromatic Herbs Research Unit

LINK 003722

000124

CHEMISTRY DEPARTMENT
UNIVERSITY OF KHARTOUM

PO Box 321
Khartoum, Sudan

DIRECTOR: Dr. G.A. Yousif
PROFESSIONAL STAFF: 20

AREAS OF INTEREST:
Natural products
Analytical, physical and organic chemistry
SPECIFIC PROJECTS 1980:
Alkaloids, essential oils
Synthetic chemicals
Reaction in non-aqueous media
Inorganic metallic compounds

LINK 003728

000126

DEPARTMENT OF AGRICULTURAL ENGINEERING
FACULTY OF AGRICULTURE
UNIVERSITY OF KHARTOUM

Shambat, Sudan

TEL: 612051-612059

DIRECTOR: Assoc. Prof. Dr. T.F. Demian
PROFESSIONAL STAFF: 15
BUDGET 1981: \$80,000

AREAS OF INTEREST:
Agricultural engineering
Agricultural machinery, agricultural equipment, agricultural mechanization
Irrigation, water and soil conservation practices
Agri product processing, storage of agricultural products
SPECIFIC PROJECTS 1981:
/Sesame/ /harvesters/
Mechanization for groundnuts crops
Agricultural hand tools and simple farm implements
/Cultivators/, /planters/ for broad beans, mechanization of forage crops, grain storage
Appropriate technology and machine use

JOINT PROJECTS WITH:
Agricultural production schemes: El Gezira, El Rahad, El Saki, Halfa el Gadida
National Council for Research, Khartoum
Food Research Centre, Shambat
ILO, Geneva, Switzerland

LINK 003802

000127

ELECTRICAL ENGINEERING DEPARTMENT
UNIVERSITY OF KHARTOUM

PO Box 321
Khartoum, Sudan

DIRECTOR: Dr. S.I. Ghobrial
PROFESSIONAL STAFF: 4

AREAS OF INTEREST:

Electrical engineering
/Microwaves/ engineering
High voltage
Electrical transmission
Electrical machinery
SPECIFIC PROJECTS 1980:
Microwave antennas
Attenuation of microwaves due to sand and dust storms
Thyristor control of electrical machines

LINK 003729

000129

FACULTY OF SCIENCE, PHYSICS DEPARTMENT
UNIVERSITY OF KHARTOUM

Khartoum, Sudan

DIRECTOR: Dr. F. Habbani
PROFESSIONAL STAFF: 9

AREAS OF INTEREST:

Solid state physics
Theoretical physics
Applied nuclear science
Solar energy
SPECIFIC PROJECTS 1980:
Electron spin resonance for the study of minerals and other
solids
Solar energy applications: /water heaters/

LINK 003730

000128

FACULTY OF SCIENCE AND TECHNOLOGY
UNIVERSITY OF GEZIRA

PO Box 20
Wad Medani, Sudan

DIRECTOR: Dr. Philip G.W. Moseley

AREAS OF INTEREST:

Applied chemistry and chemical technology
Applied physics, electronics and instruments
Applied statistics and computer science
Materials and production technology
Occupational hygiene
Food technology, sugar technology
Textiles technology
Construction industry
Biotechnology (applied biological sciences)

LINK 003726

000130

HIDES, SKINS AND LEATHER INSTITUTE
ANIMAL PRODUCTION RESEARCH SERVICES ADMINISTRATION
MINISTRY OF AGRICULTURE AND IRRIGATION

PO Box 5008
Khartoum South, Sudan

TEL: 43615/42964 CABLE: FARZ KHARTOUM SOUTH

DIRECTOR: Mr. Ahmed Hag Elshiekh Abbo
PROFESSIONAL STAFF: 8
BUDGET 1981: \$60,000

AREAS OF INTEREST:

Hides and skins, leather and allied fields
SPECIFIC PROJECTS 1981:
Improvement of hides and skins, effect of skin diseases on
Sudanese hides

JOINT PROJECTS WITH:

Central Leather Research Institute, Madras, India
British Leather Manufacturers Research Association, Egham,
Surrey, England
Ministry of Industry Tanneries
Faculty of Veterinary Science, University of Khartoum

LINK 003825

000131

INSTITUTE OF ENERGY RESEARCH
NATIONAL COUNCIL FOR RESEARCH

PO Box 2404
Khartoum, Sudan

DIRECTOR: Dr. Yahia Hassan Hamid
PROFESSIONAL STAFF: 12

AREAS OF INTEREST:
Renewable energy sources: solar energy, biomass, wind energy,
small-scale hydroelectric power
SPECIFIC PROJECTS 1980:
Solar desalination, drying
/Water heaters/, water cooling
Steam power
/Solar cells/
Solar radiation measurements

LINK 003724

000133

ECOLE SUPERIEURE DE MECANIQUE INDUSTRIELLE
UNIVERSITE DU BENIN

BP 1515
Lome, Togo

DIRECTOR: Prof. Kpakpo Adotevi-Akue
PROFESSIONAL STAFF: 6

AREAS OF INTEREST:
Electricity and electric power
Electronics
Hydraulic engineering
/Mechanical engineering/
Concrete for roads
Work Management
SPECIFIC PROJECTS 1980:
Electric power station
Thermodynamics

LINK 003756

000132

MEDICINAL AND AROMATIC HERBS RESEARCH UNIT
NATIONAL COUNCIL FOR RESEARCH

PO Box 2404
Khartoum, Sudan

DIRECTOR: Dr. Abdel Karim Salih
PROFESSIONAL STAFF: 10

AREAS OF INTEREST:
Fundamental phytochemistry of medicinal plants; isolation of
active ingredients; pharmacology and toxicology,
(toxicity); pharmaceuticals
SPECIFIC PROJECTS 1980:
/Aromatic plants/

LINK 003725

000134

CENTRE DE RECHERCHE DU GENIE RURAL
MINISTERE DE L'AGRICULTURE

BP 10
Ariana, Tunisia

TEL: 231.624

DIRECTOR: M. El Amami Slaheddine
PROFESSIONAL STAFF: 10
BUDGET 1981: \$ 1,600,000

AREAS OF INTEREST:
Agricultural engineering
Waste water utilization, water and energy conservation
SPECIFIC PROJECTS 1981:
Recycling of waste water and slurries in agriculture

JOINT PROJECTS WITH:
Direction de l'enseignement de la recherche et de
vulgarisation (DERV) 30, rue Alain Savary, Tunis
Cooperation tuniso-francaise
Cooperation tuniso-allemande
UNDP - FAO
Institut national de recherche agronomique (INRAT) BP 2,
Ariana-Tunis

LINK 003702

000135

CENTRAL MATERIALS LABORATORY
MINISTRY OF WORKS AND HOUSING

PO Box 7188
Kampala, Uganda

DIRECTOR: Dr. H.L. Uppel
PROFESSIONAL STAFF: 7

AREAS OF INTEREST:

Research on engineering materials (building materials) and more specifically locally available inferior aggregates, soil and other indigenous materials

SPECIFIC PROJECTS 1980:

Low cost roads
/Low cost housing/ based on available local materials
Biogas production from agricultural wastes
/Papyrus/ improvement for /roofing/ materials

LINK 003760

000137

ELECTRICAL ENGINEERING DEPARTMENT
MAKERERE UNIVERSITY

PO Box 7062
Kampala, Uganda

DIRECTOR: Dr. Eriabu Lugujjo

AREAS OF INTEREST:

Electrical engineering
Telecommunications industry
/Microwaves/
Solid state materials
Power systems

SPECIFIC PROJECTS 1980:

Analysis of thin film for industrial use
Development of high-voltage techniques
Development of modern /antennas/ network for complete broadcasting coverage of Uganda

LINK 003762

000136

DEPARTMENT OF AGRICULTURAL ENGINEERING
FACULTY OF AGRICULTURE AND FORESTRY
MAKERERE UNIVERSITY

PO Box 7062
Kampala, Uganda

TEL: 56931, ext. 17
TELEX: MAKUNIKA, KAMPALA

DIRECTOR: Dr. Edison W. Puguwayo
PROFESSIONAL STAFF: 7
BUDGET 1981: \$12,000

AREAS OF INTEREST:

Agricultural engineering, agricultural machinery
Solar energy crop drying
Biogas, methane generation
Small tractors research and development
Animal power: ox /tool frames/
Low cost building materials
Hand tools: multi purpose wheel hand /hoes/
Bicycle /winnowing fans/
Charcoal gas fuel producer
Alcohol engine fuel
Water catchment, soil erosion, irrigation and /drainage equipment/

SPECIFIC PROJECTS 1981:

Solar crop drying, biogas generation

JOINT PROJECTS WITH:

Department of Physics, Makerere University, PO Box 7062,
Kampala

LINK 003798

000138

GOVERNMENT CHEMIST DEPARTMENT

PO Box 2174
Kampala, Uganda

DIRECTOR: Dr. K.E. Okalo
PROFESSIONAL STAFF: 7

AREAS OF INTEREST:

Chemical analysis of water and water supplies,
bacteriological examination
Pollution control
Charcoal
Medicinal plants: identification of toxic and medicinal principles
Food analysis, nutrition
SPECIFIC PROJECTS 1980:
Quality of river and lake waters
Extent of pollution of river and lake waters
Quality of charcoal from different species of plants
Toxic plants (toxicity)
Protein rich food for schools

LINK 003761

000139

NATIONAL TEXTILES BOARD

PO Box 1259
Kampala, Uganda

TEL: 33975
TELEX: KAMPALA 41290

DIRECTOR: A.P. Aballwano
PROFESSIONAL STAFF: 4

AREAS OF INTEREST:
Clothing and textiles
SPECIFIC PROJECTS 1980:
Operational research

LINK 002619

000142

ECOLE NATIONALE SUPERIEURE POLYTECHNIQUE

BP 728
Yaounde, United Rep. of Cameroon

DIRECTOR: M. Claude Marty
PROFESSIONAL STAFF: 9

AREAS OF INTEREST:
Energy
Civil engineering
SPECIFIC PROJECTS 1980:
Biogas
Solar energy
Hydroelectric power (mini electric power station)
/Soil mechanics/

LINK 003682

000140

PHYSICS DEPARTMENT
MAKERERE UNIVERSITY

PO Box 7062
Kampala, Uganda

DIRECTOR: Prof. J.O. Ilukor
PROFESSIONAL STAFF: 7

AREAS OF INTEREST:
Materials science
Solid state physics
Renewable energy (alternative energy resource)
Electronics
SPECIFIC PROJECTS 1980:
Solar energy, /solar collectors/
Dielectric properties of local materials for electronic
applications

LINK 003759

000143

ECOLE NATIONALE SUPERIEURE POLYTECHNIQUE-ELECTRONIQUE-
ELECTROTECHNIQUE-AUTOMATISME

BP 728
Yaounde, United Rep. of Cameroon

DIRECTOR: M. Daniel Guillard
PROFESSIONAL STAFF: 8

AREAS OF INTEREST:
Electronics, electrical engineering
SPECIFIC PROJECTS 1980:
Micro electronics; propagation of electromagnetic waves,
signal treatment, electronic micro-network

LINK 003684

000141

USAMBA TECHNICAL COLLEGE

PO Box 7181
Kampala, Uganda

TEL: Kampala 45211/2/3

DIRECTOR: Mr. Nathan B. Balyawajura
PROFESSIONAL STAFF: 168
BUDGET 1981: 86,000,000

AREAS OF INTEREST:
Local building materials

LINK 003062

000144

ECOLE NATIONALE SUPERIEURE POLYTECHNIQUE-ENERGIE NOUVELLE

BP 728
Yaounde, United Rep. of Cameroon

DIRECTOR: M. Daniel Guillard
PROFESSIONAL STAFF: 9

AREAS OF INTEREST:
Renewable energy
SPECIFIC PROJECTS 1980:
Biogas, solar energy, solar drying, solar cooling, wind energy
Mini hydroelectric power stations (electric power station)
Water supply
Heat resistance and /heat transfer/
Electro metallurgy (aluminium)

LINK 003685

000145

ECOLE NATIONALE SUPERIEURE POLYTECHNIQUE-GENIE CIVIL

BP 728
Yaounde, United Rep. of Cameroon

DIRECTOR: M. Daniel Gultard
PROFESSIONAL STAFF: 10

AREAS OF INTEREST:
Civil engineering
SPECIFIC PROJECTS 1980:
Building materials: wood, /laterite/
Analysis of structures (silos)

LINK 003683

000146

INSTITUT DE RECHERCHE AGRONOMIQUE-TECHNOLOGIE ALIMENTAIRE -
IRA

Private 13
Nyamba, United Rep. of Cameroon

DIRECTOR: M. Jacques Paul Ekebil
PROFESSIONAL STAFF: 4

AREAS OF INTEREST:
Food technology
SPECIFIC PROJECTS 1980:
Fruit processing, fermentation
Distilling
Flour for bread making
/Infants foods/

LINK 003686

000147

INSTITUT DE RECHERCHES GEOLOGIQUES ET MINIERES - IRGM
DELEGATION GENERALE A LA RECHERCHE SCIENTIFIQUE ET TECHNIQUE
- DGRST

BP 4110
Yaounde, United Rep. of Cameroon

TEL: 22 00 08

DIRECTOR: M. Soba Djello
PROFESSIONAL STAFF: 19
BUDGET 1981: \$1,600,000

AREAS OF INTEREST:
Hydrology, geology, energy
SPECIFIC PROJECTS 1981:
Study of water problems in relation to development:
hydraulic regimes
Mining survey and mapping
Solar radiation

JOINT PROJECTS WITH:
ORSTOM
UNDP
US Geological Survey (projected)

LINK 003835

000148

LABORATOIRE DE RECHERCHES ENERGETIQUES - LRE
INSTITUT DE RECHERCHES GEOLOGIQUES ET MINIERES - IRGM

BP 4110
Yaounde, United Rep. of Cameroon

TEL: 22 00 08

DIRECTOR: M. Sob. Djello
PROFESSIONAL STAFF: 6
BUDGET 1981: \$400,000

AREAS OF INTEREST:
Solar energy, wind energy, nuclear energy
Biomass
SPECIFIC PROJECTS 1981:
Biomass utilization for biogas and charcoal production
Solar radiation in Cameroon

LINK 003831

090149

SOCIETE DE DEVELOPPEMENT DE LA RIZICULTURE DANS LA PLAINE DES
MBOU - SODFRIM
MINISTRE DE L'AGRICULTURE

IP 146
Malong, United Rep. of Cameroon

DIRECTOR: Y. J.J. Nga
PROFESSIONAL STAFF: 5
BUDGET 1981: \$1,200,000

AREAS OF INTEREST:

Rice cultivation and processing
Study of different rice drying processes
Compared efficiency of different burners jets and fuel
consumption
Controlled atmosphere storage of paddy in metallic silos:
(moisture and temperature control)
Agricultural mechanization: tests of rice seedling /planters/
SPECIFIC PROJECTS 1981:
Compared paddy storage methods: moisture, heat and pest
control
Study of a /parboiling/ line
Mechanization tests of irrigated rice crops, cost valuation
Hydraulic engineering: water management and dams for rice
cultivation

LINK 003838

000151

BUILDING RESEARCH UNIT

PO Box 1964
Dar es Salaam, United Rep. of Tanzania

TEL: 63254

DIRECTOR: Dr. A.L. Mtui
PROFESSIONAL STAFF: 19
BUDGET 1979: \$720,000

AREAS OF INTEREST:

Building materials and construction industry
SPECIFIC PROJECTS 1980:
Lightweight concrete /roofing/ tiles
Plaster and partition walls from raw gypsum
Manufacture of building materials from agricultural wastes
(/coffee husks/, /coconut husks/, etc.)

JOINT PROJECTS WITH:
Norwegian Building Research Institute

LINK 003643

000150

BARAZA LA TAIFA LA UTAFITI WA KISAYANSI
NATIONAL SCIENTIFIC RESEARCH COUNCIL

PO Box 4302
Dar es Salaam, United Rep. of Tanzania

TEL: 25802 CABLE: UTIFITI Dar es Salaam
TELEX: 41177:UTAFITI

DIRECTOR: Dr. H.Y. Kayumbo

AREAS OF INTEREST:

Science and technology policy studies
Development of energy programmes for rural areas in
collaboration with U.S. University
Scientific and technological information
SPECIFIC PROJECTS 1980:
Biogas technology
Windmills for mechanical energy
Waste disposal and sanitation in rural areas
Development of an information system for science and
technology in Tanzania

LINK 003731

000152

CIVIL ENGINEERING DEPARTMENT
FACULTY OF ENGINEERING
UNIVERSITY OF DAR ES SALAAM

PO Box 25131
Dar es Salaam, United Rep. of Tanzania

TEL: 49192 CABLE: UNIVENG

DIRECTOR: Prof. A.S. Mawanya
PROFESSIONAL STAFF: 75 (Faculty)
BUDGET 1981: \$1,396,215

AREAS OF INTEREST:

Civil engineering
Structural engineering
Hydraulic engineering and water resources engineering
/Soil mechanics/ and foundation engineering
Surveying
Construction management
SPECIFIC PROJECTS 1981:
Quality control of concrete on site
Low-cost building materials
Local /fibre reinforced/ materials
Rural traffic estimation and forecasting, roads capacity
estimation, road location techniques, low-cost highway
structures
Power design
Sediment transport in rivers, water quantity estimation
methodology
Low-cost water and sewage treatment systems, rural water
supply, storm water drainage
Composite latrines and dry waste disposal
Low-cost construction of small dams
Engineering properties and stabilization of Tanzanian soils
(/stabilized soil/), erosion protection
Low-cost land survey techniques, photogrammetric techniques
for national surveys
Productivity analysis of building construction industry, low-
cost, labour intensive, construction methodology

JOINT PROJECTS WITH:

University of Mozambique
Carleton University, Ottawa, Canada
University of Nairobi, Kenya
Makerere University, Kampala, Uganda
ANSTI

All industries and technical ministries in the country
LINK 003950

000153

DEPARTMENT OF AGRICULTURAL ENGINEERING AND LAND PLANNING
UNIVERSITY OF DAR ES SALAAM

c/o Sub Post Office
Chuo Kikuu
Morogoro, United Rep. of Tanzania

TEL: Morogoro 2511 CABLE: UNIAGRIC

DIRECTOR: Dr. G.C. Mrema
PROFESSIONAL STAFF: 14
BUDGET 1981: \$132,230

AREAS OF INTEREST:

Soil, and water engineering
Agri product processing
Agricultural machinery engineering and mechanization
Rural structures and services
SPECIFIC PROJECTS 1981:
Tillage systems for dry land farming
Solar energy for drying pyrethrum, fish and tobacco
Suspended sediment transport characteristics of Kikundi River
(Morogoro)

JOINT PROJECTS WITH:

Commonwealth Science Council, Commonwealth Secretariat,
Marlborough House, Pall Mall, London, England

LINK 003820

000154

DESIGN AND PROTOTYPE DEVELOPMENT
SMALL INDUSTRIES DEVELOPMENT ORGANIZATION - SIDO

PO Box 988
Dar es Salaam, United Rep. of Tanzania

TEL: 63815 CABLE: SIDEV

DIRECTOR: Boas C.M. Mbila
PROFESSIONAL STAFF: 3
BUDGET 1979: \$80,000

AREAS OF INTEREST:

Metalworking industry
Prototypes of machinery: agricultural machinery,
/metalworking machinery/, /woodworking machinery/
SPECIFIC PROJECTS 1980:
Development of simple and cheap machinery for local small
scale industry

LINK 002328

000155

ELECTRICAL ENGINEERING DEPARTMENT
FACULTY OF ENGINEERING
UNIVERSITY OF DAR ES SALAAM

PO Box 35131
Dar es Salaam, United Rep. of Tanzania

TEL: 49192 CABLE: UNIVENG

DIRECTOR: Prof. A.S. Mwenya
PROFESSIONAL STAFF: 75 (whole Faculty)
BUDGET 1981: \$1,796,216 (Faculty)

AREAS OF INTEREST:

Electrical engineering
Control engineering
Measurements (measuring instruments)
Electronics and /telecommunications/
Electric power generation, transmission and distribution
(electric power station)
Electrical machinery

SPECIFIC PROJECTS 1981:

Phase locked loop-speed control and position control of DC-
electric motors
Digital position and position control of solar reflectors
Development of low-cost regulators with locally available
components
Utilization of /microprocessors/ for control applications
Power factor improvement in thyristor controlled drives
Development of pressure and fluid flow detectors
Development of low-cost moving coil instruments
Digital speedometers and measuring devices for material
testing
Microprocessor system; low-distortion fixed frequency
oscillator
High attenuation notch filter and synchronized signal
generator
frequency-voltage converter
Automatic recording of characteristics of electronic
components: amplitude modulation: frequency modulation-
generator
Rural electrification in Tanzania
Alternative energy sources; development of a simple lighting
arrester; different systems for street lighting
Improvement of /solar cells/ and their adaptation for various
applications
Development of stepper motors and solid rotor motors
Investigation of magnetic field distribution in various types
of motors
Synchronization of a group of diesel-generator sets

JOINT PROJECTS WITH:

University of Mozambique
Carleton University, Ottawa, Canada
University of Nairobi, Kenya
Makerere University, Kampala, Uganda

ANSTI

All industries in the country and technical ministries in the
country

LINK 003859

000156

FOOD TECHNOLOGY DEPARTMENT AND CHEMICAL LABORATORY
MOJOLE AGRICULTURAL CENTRE

PO Box 400
Mbeya, United Rep. of Tanzania

TEL: 2116 CABLE: AGRICENTER MBEYA

DIRECTOR: Mr. George Neema
PROFESSIONAL STAFF: 35
BUDGET 1979: \$240,000

AREAS OF INTEREST:

Food technology, vegetable oils
Chemical industry, fertilizer, pesticides and pharmaceuticals
Agricultural machinery

SPECIFIC PROJECTS 1980:

Food technology: experimental dairy products industry,
experimental food processing station, experimental bakery
products (bread) station, experimental feedstuff mixing
station, experimental food storage station
Inorganic chemistry, organic chemistry

JOINT PROJECTS WITH:

University of Lund, Sweden
University of Agriculture, Uppsala, Sweden

LINK 003647

000157

GEOLOGICAL SURVEY

PO Box 903
Dodoma, United Rep. of Tanzania

TEL: 20211 CABLE: MADINI, DODOMA

PROFESSIONAL STAFF: 51
BUDGET 1979: \$20,000

AREAS OF INTEREST:

Chemical industry
Brines and salts
SPECIFIC PROJECTS 1980:
Geochemical research of salts in Tanzanian lakes in respect
to their suitability for industrial and domestic use

LINK 003644

900158

GOVERNMENT CHEMICAL LABORATORY
MINISTRY OF HEALTH

PO Box 164
29 Luthuli Road
Dar es Salaam, United Rep. of Tanzania

TEL: 25021, 25022 CABLE: CHEMLAB

DIRECTOR: Dr. P.J. Madeti
PROFESSIONAL STAFF: 10
BUDGET 1981: \$1,750,000

AREAS OF INTEREST:

Pharmaceuticals; phytochemistry, pharmacology and toxicology of medicinal plants; economic products from natural resources

Food contamination: mycotoxins, pesticides and heavy metals
Food and drug quality control; methods of chemical analysis and instrumentation

SPECIFIC PROJECTS 1981:

Pharmacological, phytochemical, toxicological and microbiological screening of plants

Qualitative and quantitative determination of useful phytoconstituents in seaweeds: phycoccoloids, nutrients, minerals, etc.

Survey of Tanzanian staple or indicative foods for high priority contaminants

Vegetable oils and products from oilseeds

Survey of domestic and industrial effluents (effluent treatment)

/Fluorides/ (fluoridation and defluoridation) in water
Iodisation (iodine) of salt for endemic goiterous areas

Investigation of local chloroquine formulations for malarial parasite resistance

JOINT PROJECTS WITH:

Pharmacognosy Department and Systematic Botany Department,
University of Uppsala, Sweden

Botany Department and Traditional Medicine Research Unit,
University of Dar es Salaam

Tanzania Food and Nutrition Centre, Dar es Salaam

Central Veterinary Laboratory, Dar es Salaam

National Chemical Industries, Dar es Salaam

Chemistry Department, University of Nairobi, Kenya

LINK 003844

003159

MECHANICAL ENGINEERING DEPARTMENT
FACULTY OF ENGINEERING
UNIVERSITY OF DAR ES SALAAM

PO Box 35131
Dar es Salaam, United Rep. of Tanzania

TEL: 49192 CABLE: UNIVENG

DIRECTOR: Prof. A.S. Mawanya
PROFESSIONAL STAFF: 75 (whole Faculty)
BUDGET 1981: \$1,396,216 (Faculty)

AREAS OF INTEREST:

Mechanical engineering
Heat engines: energy for rural areas
Industrial and production management
Machine elements and design (engineering design)
Materials technology
Production engineering

SPECIFIC PROJECTS 1981:

Development of simple low-cost water pumps, simple electric power stations, and applications of solar energy for domestic, agricultural, and rural purposes to be produced by local industries

Economic impact of technology transfer in Tanzania

Necessity and impact of maintenance and repair

Organisation and efficiency of transportation

/Vibration/ in transmission systems

Design of special purpose agricultural machinery and machinery for textiles

Design of /grain milling machinery/ and wind-power machinery (wind energy)

Local corrosion phenomena

Properties improvement techniques for locally available materials

Properties of fibrous materials (natural fibres)

Design and test of sisal processing machines for extraction of /cortison/

Design and test of locally made moulds and dies and jigs

Machinability of locally available steels

Applicability of bamboo for gravity pipe

JOINT PROJECTS WITH:

University of Mozambique

Carlton University, Ottawa, Canada

University of Nairobi, Kenya

Makerere University, Kampala, Uganda

ANSTI

All industries in the country and technical ministries in the country

LINK 003851

000160

METAL ENGINEERING INDUSTRIES DEVELOPMENT ASSOCIATION - MEIDA

PO Box 5991
Dar es Salaam, United Rep. of Tanzania

TELEFAX: 41187 TANTRUST

DIRECTOR: Mr. L.M. Yindi
PROFESSIONAL STAFF: 6
BUDGET 1981: \$230,000

AREAS OF INTEREST:

The situation of engineering and metalworking industry in Tanzania

SPECIFIC PROJECTS 1981:

Company and production data
Capacity utilization
Machine tools
Exportability

LINK 003843

000162

TANZANIA INDUSTRIAL RESEARCH AND DEVELOPMENT ORGANIZATION - TIRDO

PO Box 23235
Dar es Salaam, United Rep. of Tanzania

TEL: 68822 CABLE: TIRDO, Dar es Salaam

DIRECTOR: Mr. C.L. Tarimu
PROFESSIONAL STAFF: 24
BUDGET 1981: \$250,000

AREAS OF INTEREST:

Chemicals, food, ceramics, fuel
Natural fibres and textiles
Engineering and testing
SPECIFIC PROJECTS 1981:
Pyrolysis of agricultural wastes
Extraction of plant dyes
Utilization of used engine oils (recycling of lubricants)
Coffee processing

JOINT PROJECTS WITH:

Institute for Production Innovation, PO Box 35131, Dar es Salaam
Agricultural Research Institute, PO Box 3004, Moshi, Tanzania
LINK 000092

000161

TANZANIA AGRICULTURAL MACHINERY TESTING UNIT
MINISTRY OF INDUSTRIES

PO Box 1389
Arusha, United Rep. of Tanzania

TEL: 3646 CABLE: TANTU ARUSHA

DIRECTOR: F.K. Mujemba
PROFESSIONAL STAFF: 50
BUDGET 1979: \$175,000

AREAS OF INTEREST:

Agricultural machinery
SPECIFIC PROJECTS 1980:

Design and development of appropriate technology for small scale agriculture

LINK 003645

000163

JBUNGO FARM IMPLEMENTS LIMITED

PO Box 20126
Dar es Salaam, United Rep. of Tanzania

TEL: 53146-8 CABLE: MAJEMBE
TELEX: 41206

DIRECTOR: H.N. Kida
PROFESSIONAL STAFF: 13

AREAS OF INTEREST:

Metallurgy, metalworking industry
Agricultural machinery
SPECIFIC PROJECTS 1980:
Establishment of a medium shop foundry (capacity 0.40 metric tons of iron per melt) for the production of implements and tools
Design improvements of local farm implements and tools and supply of prototypes (engineering design)
Development of low-cost pre and post harvest agricultural equipment

LINK 003646

000164

BUREAU DE RECHERCHES GEOLOGIQUES ET MINIERES - BRGM

BP 86
Ouagadougou, Upper Volta

DIRECTOR: M. Gilbert Maurin
PROFESSIONAL STAFF: 6

AREAS OF INTEREST:
Mining, geophysics, geology, hydrogeology

LINK 003697

000165

COMITE INTERAFRICAIN D'ETUDES HYDRAULIQUES - CIEH

BP 369
Ouagadougou, Upper Volta

TEL: 335-18

334-76

DIRECTOR: M. Maysou Gagara
PROFESSIONAL STAFF: 9

AREAS OF INTEREST:
Hydraulic engineering
Hydrogeology
Agrogeology

SPECIFIC PROJECTS 1980:
Renewable energy: wind energy, solar energy, biomass
Hydraulic engineering for rural and urban areas

LINK 003689

000165

ECOLE INTER-ETATS D'INGENIEURS DE L'EQUIPEMENT RURAL - EIER

BP 7023
Ouagadougou, Upper Volta

TEL: 335-28
TELEX: 5266 UV

DIRECTOR: M. J.M. Gresillon
PROFESSIONAL STAFF: 12
BUDGET 1981: \$625,000

AREAS OF INTEREST:
Renewable energy
Housing in African rural areas
Hydrology, hydraulic engineering, dams
Irrigation
Solar energy, wind energy
SPECIFIC PROJECTS 1981:
Trickle irrigation
Low cost building materials
Management of rivers
Windmills for pumps
Solar /water heaters/ and solar pumps
Study of erosion of canals caused by water

LINK 003721

000167

SERVICE DE RECHERCHE ET D'APPLICATION TECHNIQUE - SRAT
SOCIETE AFICAINE D'ETUDE ET DE DEVELOPPEMENT - SAED

BP 593
Ouagadougou, Upper Volta

TEL: 330-52/53 CABLE: SAED OUAGA
TELEX: 52 55 UV

DIRECTOR: M. Soumana Traore
PROFESSIONAL STAFF: 9

AREAS OF INTEREST:
Appropriate technology
SPECIFIC PROJECTS 1980:
Agricultural machinery
Centrifugal hand pumps
Methane digester
Hand tools for extraction of /shea butter/

LINK 003690

000168

INSTITUT DE RECHERCHE SCIENTIFIQUE
CENTRE AGRO-ALIMENTAIRE DE LUBUMBASHI
DELEGATION GENERALE A L'INSTITUT DE RECHERCHE SCIENTIFIQUE -
IRS

BP 54
Lubumbashi, Zaïre

TEL: 2558

2558

DIRECTOR: M. Kunkadi Kantu
PROFESSIONAL STAFF: 8
BUDGET 1981: \$75,000

AREAS OF INTEREST:

Food technology and quality control
Processing of local agricultural products: agri product
processing
Improvement of artisanal food production and food
preservation methods

Pest control

SPECIFIC PROJECTS 1981:

Processing of fruit and vegetables
Study of soybeans
Planning
Bread-making from local mixed flour
Processing and conservation of fish and other animal products
Production of /infants foods/
Preparation and isolation of /leaf protein/s
Chemical and microbiology analysis of whole foodstuffs
Animal feed

LINK 001860

000149

BUILDING RESEARCH UNIT
NATIONAL COUNCIL FOR SCIENTIFIC RESEARCH - NCSR

PO Box CH 158
Chelston
Lusaka, Zambia

TEL: 281081 CABLE: NACSIR

DIRECTOR: Mr. Nicholas C.H. Lubaba
PROFESSIONAL STAFF: 5

AREAS OF INTEREST:

All types of ceramics products
Pulp and paper
/Low cost housing/ and building materials: cement and
concrete testing

SPECIFIC PROJECTS 1981:

Evaluation of all ceramic raw materials available in Zambia
Body formulations of materials. e.g. /tableware/, porcelain,
semi vitreous ware, wall tiles and earthenware
Designing and construction of arch roof low cost housing
using /soil cement/ blocks/
Evaluation of fibrous raw materials (natural fibres)
available in the country for pulp and paper. e.g. local
wild grasses, eucalyptus (myrtaceae) and pine trees (wood)

LINK 003849

000170

ENVIRONMENTAL RESEARCH LABORATORY - ERL
NATIONAL COUNCIL FOR SCIENTIFIC RESEARCH - NCSR

PO Box CH. 158
Chelston
Lusaka, Zambia

TEL: 281081 CABLE: NACSIR

DIRECTOR: Dr. Ashok Lumb
PROFESSIONAL STAFF: 5
BUDGET 1981: \$80,000

AREAS OF INTEREST:

Environmental pollution control, bioenergy
SPECIFIC PROJECTS 1981:
Natural and waste water, industrial and domestic effluent
treatment
Air pollution monitoring, precipitation quality monitoring
Energy from biomass

LINK 003855

000171

MANSA BATTERIES LIMITED

PO Box 380
Manisa, Zambia

TEL: 411-E
TELEX: ZA 59040

AREAS OF INTEREST:

Electric batteries
SPECIFIC PROJECTS 1980:
Dry cell manufacture
Substitution of imported raw materials with local ones
Raising of ampere-hours of dry cells (Ah)
Minimization amount of raw materials and other dry compound
cells

LINK 003667

000172

NORTHERN TECHNICAL COLLEGE - NORTEC

PO Box KJ 93
Ndole, Zambia

TEL: 86210/1-4

DIRECTOR: Mr. S.S. Sanghera
PROFESSIONAL STAFF: 44
BUDGET 1981: \$498,180

AREAS OF INTEREST:

Engineering design: /wheelchairs/
SPECIFIC PROJECTS 1981:

Designing and making electrically operated wheelchairs

LINK 003856

000173

**TECHNOLOGY DEVELOPMENT AND ADVISORY UNIT
UNIVERSITY OF ZAMBIA**

PO Box 32379
Lusaka, Zambia

TEL: 5755/489

DIRECTOR: Dr. W.T. Weerakoon
PROFESSIONAL STAFF: 20

AREAS OF INTEREST:

Renewable energy (alternate energy)
Appropriate technology for the development of rural areas

SPECIFIC PROJECTS 1981:

Wind energy for agriculture
Simple agricultural equipment and tools
Low cost water turbines (mini hydroelectric power)
/Low cost housing/

LINK 003763

000174

**TEXTILES TECHNOLOGY UNIT
NATIONAL COUNCIL FOR SCIENTIFIC RESEARCH - NCSR**

PO Box CH 158
Chelston
Lusaka, Zambia

TEL: 281081 CABLE: MACSIR

DIRECTOR: Mr. C. Kazakutira
PROFESSIONAL STAFF: 2
BUDGET 1981: \$114,000

AREAS OF INTEREST:

Textiles technology

SPECIFIC PROJECTS 1981:

Cotton breeding, fibres and yarns
Testing for physical properties
Spinning tests on new varieties of cotton produced by cotton breeders

JOINT PROJECTS WITH:

Mt Makulu Central Research Station, PO Box 7, Chilanga, Zambia
Faserinstitut Bremen e.v. in Bremer Baumwollboerse, Postfach
106727, D-2800 Bremen 1, F.R. Germany

LINK 003863

000175

VILLAGE INDUSTRY SERVICE

PO Box 35600
Lusaka, Zambia

DIRECTOR: Mrs. Joyce Naposa
PROFESSIONAL STAFF: 5

AREAS OF INTEREST

Cottage industry, promotion of village agro industry

Clothing

SPECIFIC PROJECTS 1981:

Soapmaking
Vegetable oils extraction from /sunflowers/ and soybeans
Handicraft and farming; agricultural machinery, maintenance
and repair
Beekeeping, /honey/ processing
/Baskets/, mats and screens
Furniture and wooden tools

JOINT PROJECTS WITH:

Technological Development and Advisory Unit, University of
Zambia, PO Box 32379, Lusaka
National Council for Scientific Research, PO Box CH 158,
Lusaka
Economic Commission for Africa, PO Box 30647, Lusaka
Makeni Ecumenical Centre, PO Box RW 50255, Lusaka

LINK 002578

000176

INSTITUTE OF AGRICULTURAL ENGINEERING
DEPARTMENT OF RESEARCH AND SPECIALIST SERVICES
MINISTRY OF AGRICULTURE

PO Box RW.330
Rorowdale
Salisbury, Zimbabwe

TEL: 892722, 883119

DIRECTOR: Mr. A.J. Spear
PROFESSIONAL STAFF: 9
BUDGET 1981: \$152,600

AREAS OF INTEREST:

Soil and water engineering (hydraulic engineering)
Appropriate technology
Agricultural mechanization for oilseeds, grain processing,
tillage and renewable energy
SPECIFIC PROJECTS 1981:
Evaluation of energy alternatives: windmills, solar energy
and biogas
Various reduced tillage systems
Appropriate technology systems and agricultural machinery
development
Water pumps using /solar cells/ (photovoltaic panels), steam
generators, and windmills
Routine testing of commercial tractors and machinery, with
particular emphasis on appropriate technology

JOINT PROJECTS WITH:

National Institute of Agricultural Engineering, Silsoe,
Bedford, UK.
Centre d'etudes et d'experimentation du machinisme agricole
tropical (CEEMAT), France
Various appropriate technology organisations associated with
the British Commonwealth

LINK 003845

000177

INSTITUTE OF MINING RESEARCH - IMR
UNIVERSITY OF ZIMBABWE - UZ

PO Box MP 167
Mount Pleasant
Salisbury, Zimbabwe

TEL: 36418 Salisbury CABLE: UNIVERSITY
TELEX: 4152 RH

DIRECTOR: Prof. Keith A. Viewing
PROFESSIONAL STAFF: 11
BUDGET 1981: \$500,000

AREAS OF INTEREST:

Mining, geology and geochemistry of gold and nickel deposits
Extraction metallurgy of chromium deposits
Multi element geochemical mapping
SPECIFIC PROJECTS 1981:
Distribution of gold in hydrothermal deposits of Archean age
Multi element geochemical surveys by trial maps of different
environments
Mineralogy of nickel copper deposits
Smelting characteristics, physical and chemical features of
Zimbabwean chromite ores

JOINT PROJECTS WITH:

University of Cologne, FR Germany
Imperial College of Science and Technology, Royal School of
Mines
ASSISTANCE IS GIVEN FROM TIME TO TIME BY
US Geological Survey
Geological Survey of New Zealand
Geological Survey of Israel

LINK 003813

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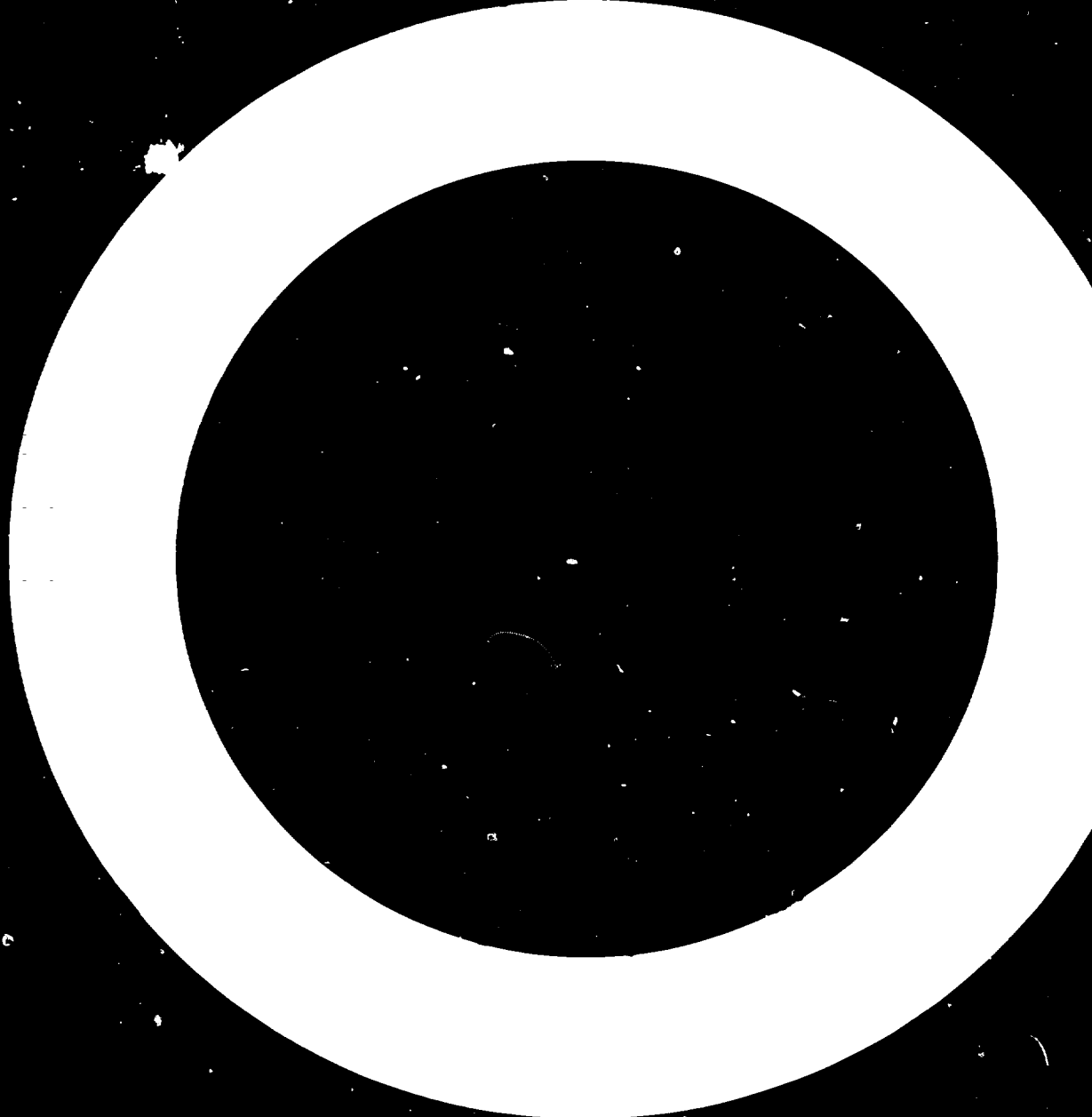
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CEPEEQ	CENTRE EXPERIMENTAL DE RECHERCHES ET D'ETUDES POUR L'EQUIPEMENT 000116	IITA	INTERNATIONAL INSTITUTE OF TROPICAL AGRICULTURE	000105
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CNRDI	CENTRAL METALLURGICAL RESEARCH AND DEVELOPMENT INSTITUTE 000010	INSET	ECCLE NATIONALE SUPERIEURE D'INGENIEURS D'ABIDJAN INSTITUT DE TECHNOLOGIE INDUSTRIELLE INSTITUT NATIONAL SUPERIEUR DE L'ENSEIGNEMENT TECHNIQUE	000055
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CRUEA	CENTRE DE RECHERCHE DES UTILISATIONS DES ENERGIES ALTERNATIVES FACULTE DES SCIENCES 000008	IREN	INSTITUT DE RECHERCHES SUR LES ENERGIES NOUVELLES	000059
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NORTEC	NORTHERN TECHNICAL COLLEGE	000172
ODI	OFFICE POUR LE DEVELOPPEMENT INDUSTRIEL	000087
OMP	OFFICE MALIEN DE PHARMACIE	000075
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attn.: Mrs. M. Vespry

DIRECTORY OF INDUSTRIAL AND TECHNOLOGICAL RESEARCH CENTRES
IN AFRICA

I N F O R M A T I O N S H E E T
.....

N.B.: If your institution is composed of several units carrying out research projects in different industrial sectors, please use one sheet per unit.

Name of institute		Acronym:
Parent organization		Acronym:
Address in full		
Telex	Cable	Telephone:
Name of director/head of institute		
Number of professional staff employed	Approximate budget for 1981 (in US\$)	
Other activities in addition to research (training, extension work, etc.)		

Main fields of research

Current research projects

If your institute is engaged in joint research programmes with other institutions in your country or abroad, please give names and addresses of these institutions.

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Industrielle de l'ONU
à l'attention de Mme M. Vespry

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FICHE DE RENSEIGNEMENTS

N.B.: Si votre institution comporte plusieurs unités chargées de projets de recherche dans des secteurs industriels différents, veuillez remplir une fiche par unité de recherche.

Nom de l'institut		Sigle:
Organisation centrale		Sigle:
Adresse complète		
Télex	Télégramme	Téléphone
Nom du directeur/chef de l'institut		
Nombre de chercheurs employés	Budget approximatif pour 1981 (en dollars E.-U.)	
Activités autres que la recherche (formation, services de vulgarisation, etc.)		

Principaux domaines de la recherche

Projets de recherche en cours

Si votre institut participe à des programmes communs de recherche avec d'autres institutions dans votre pays ou à l'étranger, veuillez donner le nom et l'adresse de ces institutions.

