STRENGTHENING HIGHER EDUCATION IN SOUTH AFRICA

USAID

United Negro College Fund Special Programs Corporation

TERTIARY EDUCATION LINKAGES PROJECT

This publication was prepared in May 2002 by zed consultants, for the United Negro College Fund Special Programs (UNCFSP).

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REPUBLIC OF SOUTH AFRICA

1 **Border Technikon**
www.bortech.ac.za

2 **Eastern Cape Technikon**
www.tktech.ac.za

3 **M.L. Sultan Technikon**
www.mlsultan.ac.za
(now Durban Institute of Technology
www.dit.ac.za)

4 **Mangosuthu Technikon**
www.mantec.ac.za

5 **Medical University of SA (MEDUNSA)**
www.medunsa.ac.za

6 **Peninsula Technikon**
www.pentech.ac.za

7 **Technikon Northern Gauteng**
www.tng.ac.za

8 **Technikon North West**
www.tnw.ac.za

9 **University of Durban-Westville**
www.udw.ac.za

10 **University of Fort Hare**
www.ufh.ac.za

11 **University of the North**
www.unorth.ac.za

12 **University of the North West**
www.uniwest.ac.za

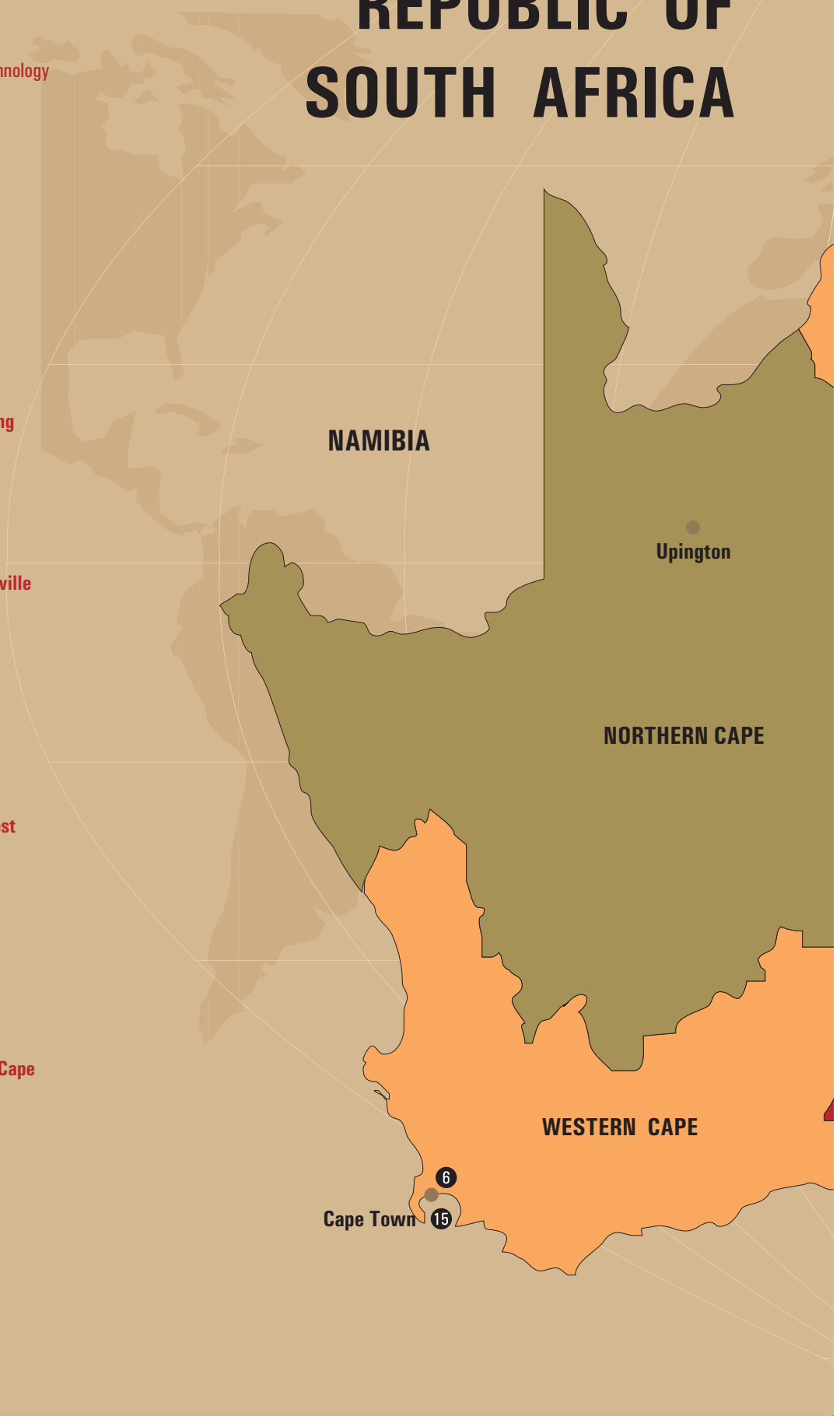
13 **University of Transkei**
www.utr.ac.za

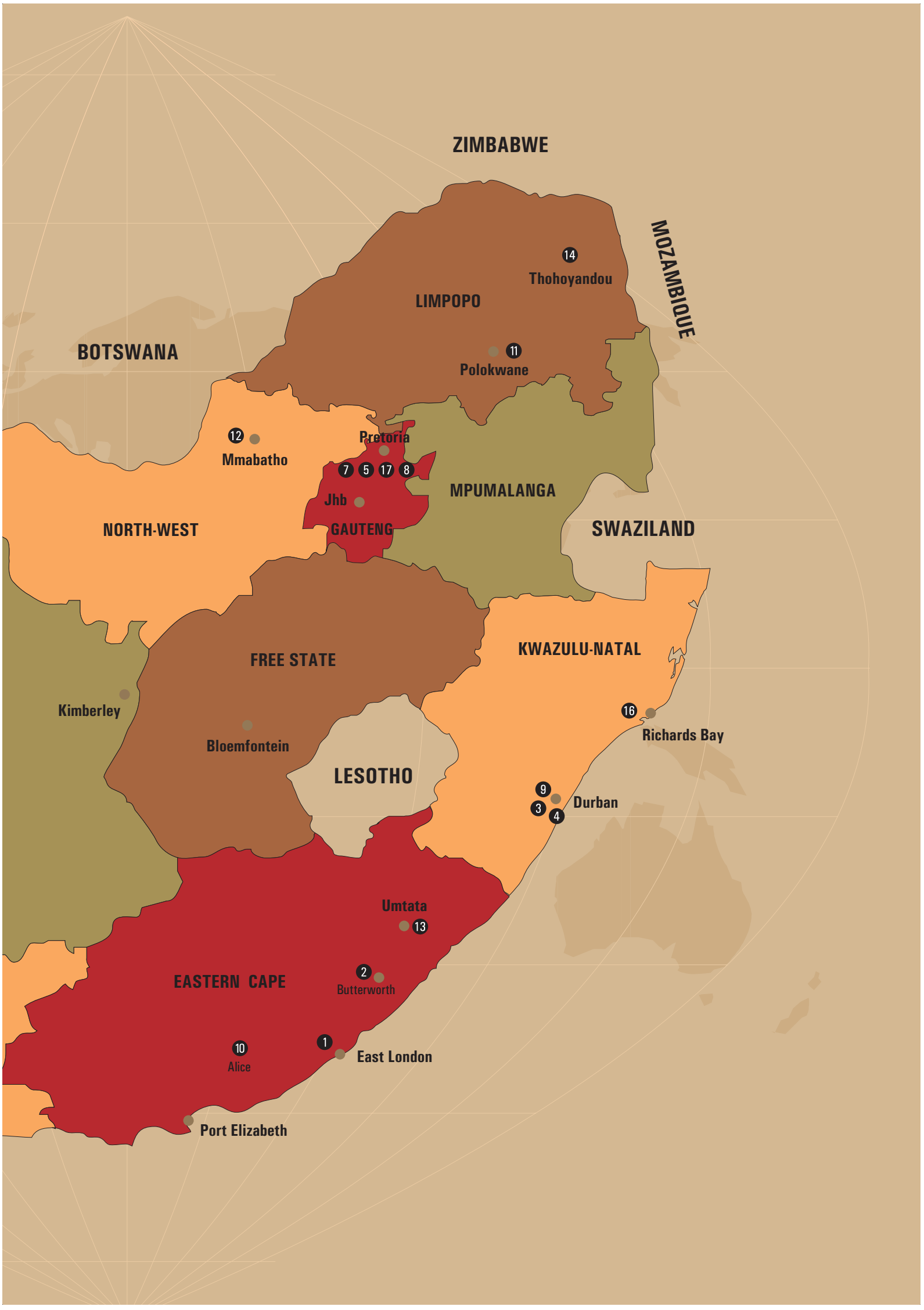
14 **University of Venda**
www.univen.ac.za

15 **University of the Western Cape**
www.uwc.ac.za

16 **University of Zululand**
www.uzulu.ac.za

17 **Vista University**
www.vista.ac.za




ZIMBABWE
MOZAMBIQUE
BOTSWANA
LIMPOPO
14
Thohoyandou
11
Polokwane
12
Mmabatho
Pretoria
7
5
17
8
Jhb
GAUTENG
MPUMALANGA
NORTH-WEST
SWAZILAND
FREE STATE
KWAZULU-NATAL
Kimberley
Bloemfontein
16
Richards Bay
LESOTHO
9
3
4
Durban
Umtata
13
EASTERN CAPE
2
Butterworth
10
Alice
1
East London
Port Elizabeth

NATIONAL DEPARTMENT OF EDUCATION
Message from Minister of Education, Prof. Kader Asmal

On August 31, 1994 the South African Government in partnership with the United States Agency for International Development established the Tertiary Education Linkages Project. TELP was designed and implemented during a period of major change in the country's educational landscape.

TELP has made significant contributions to providing support for policy analysis and planning at the systemic level. The project provided my Department with support in the development of the National Plan for Higher Education as well as other national initiatives. At the institutional level, I have witnessed the impact of the project on stimulating research capacity and academic restructuring. TELP has also supported institutions in meeting a key national initiative of implementing the National Qualifications Framework.

This report is an important resource in articulating the achievements of the project. I commend the project and those involved in it, and I am confident in the belief that TELP has made a valuable contribution to the development of the South African higher education system.

Minister Kader Asmal delivers an address to delegates at the Annual Linkages Conference, April 2002, Pretoria.

UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT
Message from USAID / SA Mission Director, Dr. Dirk Dijkerman

USAID/South Africa's overall goal is support for sustainable transformation. We agree that sustainable transformation will have been achieved in South Africa when democracy has been sufficiently consolidated and basic systems for social services in education and health are delivered in a unified manner. It means that institutions are establishing mechanisms to enable historically disadvantaged and dis-empowered citizens to participate in and benefit from the development of South Africa.

Working through NGOs and partnerships with the Provincial and National Departments of Education, USAID is committed to providing assistance to improve the quality of education for all. The Tertiary Education Linkages Project (TELP) is a 10-year, $50 million Bilateral Grant Agreement between the South African Government represented by the Department of Education and the United States Government represented by the United States Agency for International Development (USAID). We are very pleased that TELP has improved the quality of higher education in South Africa, particularly at the Historically Disadvantaged Institutions (HDIs).

On behalf of USAID, I would like to thank the Vice Chancellors, the Department of Education, UNCFSP and all other partners for their commitment to the successful implementation of TELP.

UNITED NEGRO COLLEGE FUND SPECIAL PROGRAMS CORPORATION (UNCFSP)

Message from UNCFSP President and CEO, Liz Lowe

I am so pleased to invite you to review the activities of the Tertiary Education Linkages Project (TELP). In 1998, the United Negro College Fund Special Programs Corporation was given a mandate to increase the institutional capability of South African Historically Disadvantaged Universities and Technikons (HDIs) and to assist the Government of South Africa to implement its national higher education policy. The United States Agency for International Development (USAID) provided the funds and requested us to complete this task in five years.

As you examine the pages of this document, you will review highlights of UNCFSP strategic interventions that have emanated from TELP. The capacity of HDIs has been strengthened and in so doing, HDIs have changed their role in social and economic development, management and administrative development, student academic and social skills development, research development and have empowered their staff in each of these areas.

We are very proud of the leadership that has been provided by our UNCFSP / South Africa Staff in the implementation of the Project. HDI Vice Chancellors have played a very active role in the project and have ensured availability of additional institutional resources to ensure the project's success. We are also so very grateful for our other stakeholders who have provided critical support and encouragement, particularly USAID, the National Department of Education, and other South African higher education bodies. There are many U.S. institutions who have played an effective role in the unfolding of project events. You will see the evidence of this as you examine our success stories.

UNCFSP shares a tremendous sense of gratitude for having been given the opportunity to play such a historical role in the transformation of higher education in South Africa. I invite you to help us to celebrate the achievements of the project and continue to work with us until each South African tertiary student has been given the requisite knowledge, skills, and attitudes that will make a difference in the quality of life for all South Africans.

At Annual 2001 Linkages Conference, Washington, D.C.
U.S. Secretory of State, Colin L. Powell poses with Liz Lowe and William H Gray III (UNCFSP Chairman of the Board).

TERTIARY LINKAGES EDUCATIONAL PROJECT (TELP)
Message from Chair of TELP Policy Advisory Panel, Prof. M.F. Ramashala

The Tertiary Education Linkages Project has served as a tremendous source of growth and development for our 17 Historically Disadvantaged Institutions. TELP has served as a powerful unifying force as we all have collectively focused our attention on strengthening those identified areas of need and worked with the various stakeholders to develop and implement strategies to address these needs.

Each HDI has been able to develop capacity within its own specific areas, while contributing to the overall process of national development. As such, HDI's are now able to serve as role models for other higher education systems in the world as they also grapple with the realities of the global system of the 21st Century.

As you review TELP's highlights, you will recognize that the Linkage Component has played a tremendous role in this process of transformation. We have demonstrated that much can be achieved through international collaborations, the sharing of resources, talents, and expertise in curriculum development, management and administrative development and research capacity. These partnerships have promoted solidarity and equality across cultures and nations.

While there have been many individuals to whom we are deeply indebted for assistance in these efforts, I would like to pay special attention to Dr. Khehla Ndlovu, the USAID Higher Education Team Leader. Dr. Ndlovu has become deeply devoted to the mission of HDI's and has worked tirelessly with each of us in order to ensure the achievement of TELP results. We thank him and recognize his selfless efforts at this time.

UNITED NEGRO COLLEGE FUND SPECIAL PROGRAMS (UNCFSP)
Message from UNCFSP Chief of Party, Thandiwe January-McLean

It is indeed a great pleasure for the United Negro College Fund Special Programs (UNCFSP) to present to its partners and stakeholders a document reviewing and sharing the numerous achievements of the Tertiary Education Linkages Project. This document goes a long way in highlighting pertinent and strategic interventions that have contributed to empowering historically disadvantaged universities and technikons and ensuring their role in the human resource capacity building agenda of the South African Department of Education.

The document focuses on the following clearly identified focus areas:
Curriculum Development • Student Academic Development • Staff Development • Management and Administrative Development • Research Development.

These focus areas were identified by the Department of Education and the Vice-Chancellors. The participation of Telp Coordinators, staff, students, and other senior administrators in TELP activities have played a major role in ensuring the success of UNCFSP. On behalf of UNCFSP, I would like to extend a word of gratitude to all, particularly USAID, who have contributed to the Tertiary Education Linkages Project and its transformation agenda.

UNITED NEGRO COLLEGE FUND SPECIAL PROGRAMS CORPORATION AND THE TERTIARY EDUCATION LINKAGES PROJECT

United Negro College Fund Special Programs (UNCFSP)

UNCFSP is an independent corporation focused on securing funding from U.S. federal agencies for Historically Black Colleges and Universities and other higher education institutions to augment their existing programs and to assist in the development of new ones.

Its staff of 39 includes 26 in the United States and 13 in South Africa. Since its establishment in 2000, UNCFSP has increased total program funding by $24 million. UNCFSP continues to explore and develop new initiatives that will increase educational opportunities for disadvantaged communities throughout the world.

It has a number of international programs that link to U.S. institutions of higher education in other parts of the world: South Africa, Egypt, Romania, Jamaica, Barbados, Brazil, Armenia, and many others. These partnerships enrich U.S. institutions by broadening student and staff understanding of the higher education issues in other countries, while assisting them in supporting their education agenda initiatives. UNCFSP currently manages thirteen programs that support educational opportunities for minorities in the United States.

- Building Environmental Stewardship Programs
- Mentorship for Environmental Scholars
- Curriculum Improvement Partnership Award Program
- Harriet G. Jenkins Pre-doctoral Fellowship Program
- Historically Black Colleges and Universities Historic Preservation Initiative
- HIV/AIDs Orientation and Professional Education Program
- Infrastructure Development Assistance Program
- Institute for International Public Policy
- International Development Partnership Award
- Learn and Serve America: Higher Education Program
- National Aeronautics and Space Administration (NASA) Administrator's Fellowship
- NASA University Research Centers Evaluation
- Tertiary Education Linkages Project

Dr. Shelby Lewis, President of Development Consultants Network Inc. and U.S. Program Manager for the Linkages Component, welcomes delegates to the 2002 Annual Linkages Conference in Pretoria.

The Tertiary Education Linkages Project (TELP)

Under Apartheid, Historically Disadvantaged Institutions (HDIs) educated South Africa's black majority, often with inadequate funding and scarce resources. Today, as South Africa strives to put in place a fully democratic society, the transformation of the higher education sector is key to its future economic growth. A high-quality education system that helps to build the nation's capacity is a major goal in this transformation. TELP has sought to contribute to the achievement of this goal, through the collaborative venture between South African HDIs, US Higher Education Institutions, UNCFSP, the Department of Education and USAID.

TELP's FIVE FOCUS AREAS:

CURRICULUM AND PROGRAM DEVELOPMENT

STUDENT ACADEMIC DEVELOPMENT

RESEARCH DEVELOPMENT

STAFF DEVELOPMENT

MANAGEMENT AND ADMINISTRATIVE DEVELOPMENT

Components of the Project

Four components formed the core strategies or modalities of TELP. Activities and assistance through these modalities were interwoven to achieve the goals of the Project. **The following diagram illustrates the 4 components and the key results for the Project:**

TELP ACTIVITIES

JOINT ACTIVITIES
- **Result 1:** Revised curricula in science and other departments
- **Result 2:** First-year student assessments and compensatory programs
- **Result 3:** Three-year rolling institutional plans

LINKAGE GRANTS
- **Result 4:** $7 million in linkage grants to U.S. institutions

INSTITUTION-SPECIFIC ACTIVITIES
- **Result 5:** 15 well-developed proposals for direct USAID funding
- **Result 6:** Overseeing project implementation letters (PILs) process, HDI direct grants from USAID

POLICY IMPLEMENTATION
- **Result 7:** Studies and workshops to support DOE policy implementation

TELP Resources

The UNCFSP office in Pretoria houses the TELP Resource Centre, that functions as a clearinghouse for TELP service and activities. The Centre enables UNCFSP to efficiently provide technical assistance and information to HDIs and it gives HDI staff and students easy access to TELP resources. The Centre maintains a TELP Web site (www.uncf.org.za) to keep stakeholders up to date and informed, and features the interactive online TELP newsletter.

Experienced Partners

Several subcontractors and experts have helped UNCF achieve the goals of TELP. These include:

- The Desmond Tutu Educational Trust - A South African Non-Governmental Organisation (NGO) established in 1990 to support education programs. The DTET has assisted mainly in the focus area of Student Academic Development.
- Development Consultants Network, Inc (DCN) - An African-American Development Consulting firm with more than 50 years experience in Higher Education international training, research, assessment, project development and management. DCN manages the Linkage Partnerships with 18 U.S.-based institutions.
- Pricewaterhouse Coopers - This financial institution with a network of national offices has provided grants management experience and expertise.

HIGHER EDUCATION IN SOUTH AFRICA: TRANSFORMATION

The USAID funded Tertiary Education Linkages Project had a very clear purpose from the onset, and that was to increase the institutional capacity of South Africa's Historically Disadvantaged Universities and Technikons (HDIs) and to assist the Goverment of South Africa to develop and implement its higher education policy.

The United Negro College Fund Special Programs has been totally commited to the building of capacity at the historically disadvantaged institutions and to the transformation of higher education. It has enjoyed the support of the Department of Education, USAID, the vice-chancellors, and various academics at both TELP and non-TELP institutions.

Tertiary education is a critical pillar for the development of human beings internationally. Higher education is essential to the stimulation of debate, engagement with social, political and economic policies, and the reinvigoration of the African continent.

The South African higher education system faces numerous challenges both at the level of contributing to human resource and skill development and adjusting to the necessary reconfiguration challenges of creating a relevant and effective system.

The Council on Higher Education's Shape and Size Document and the National Working Group's recommendations have concretized the strategies and policy mechanisms proposed by the White Paper for effecting the transformation of higher education.

The challenge for the various stakeholders will be to proceed with the transformation agenda whilst focusing on equity, sustainability and productivity to ensure that the serious weaknesses resulting from Apartheid's legacy are not overlooked.

As the sector grapples with the "establishment of a national, integrated, co-ordinated and differentiated higher education system", it is important not to lose sight of the historical factors that have divided the sector and to include both the "disadvantaged" and the "advantaged" in the academic and intellectual revival of South African higher education institutions. Real transformation will establish cooperation between institutions enhancing the stronger institutions and strengthening the weaker ones.

The United Negro College Fund Special Program reaffirms its commitment to the development and success of higher education in South Africa.

Vista University, Port Elizabeth Campus

CURRICULUM & PROGRAM DEVELOPMENT

One critical aspect of the South African National Qualifications Framework (NQF) guidelines is the utilization of outcomes-based education (OBE) principles and practices, which necessitate learner-centred curricula and teaching and learning methodologies. Another aspect is the modularization of education and training courses by all providers, to facilitate systematic progression in the acquisition and assessment of knowledge and skills. Four themes will be highlighted in this focus area: Transformation of programs based on the NQF guidelines, technical innovations in curriculum development, community outreach through improved programs, and materials development.

TRANSFORMATION OF PROGRAMS AND COURSES

Vista University's integrated HIV/AIDS curriculum development is an exemplary model of interdisciplinary program development. With support from linkage partners from the University of Central Florida Consortium, Vista's programs seek to address the following social and economic challenges around HIV and Aids in S.A.:

- Social ignorance
- Social discrimination and stigma
- Political debates
- Lack of a concrete STD or HIV surveillance system
- Myths and misconceptions
- Cultural and religious interpretations
- South Africa's social history
- HIV global trends

Leon Roets, with assistance through the Linkage Partnership with the **University of Central Florida**, **Bethune Cookman College** and **Daytona Beach Community College**, has managed to put together a learner-centred program which has 5 learning modes: Applied skills; Community Service Learning; Experiential Learning; Interactive Learning; and Research. At present, 10 academic departments and 4 faculties are included in the program. By 2000, the curriculum development for a post-graduate degree (B.A. Honours level) in Social Behavior Studies in HIV/AIDS and Health Promotion was completed. Formal qualifications now offered by Vista in this field include:

- BA (Hons) in Social Behaviour Studies in HIV/AIDS
- B.Psych. (Counseling in HIV/AIDS)
- MA in Social Behaviour Studies in HIV/AIDS
- D.Psych. (Counseling in HIV/AIDS)

Faculty-NGO Collaborative Workshop

GOAL :

Leon Roets, VISTA HIV/AIDS Program Coordinator

The course offerings to be introduced in 2003 are a full 4-year BA degree in Integrated Health Promotion and Immune-Deficiency Management and a 2-year associate degree as a Health Technician.

There is also extensive involvement in and utilisation of outside institutions and NGOS. For example, in 1998 Vista got involved with the Cotlands Baby Sanctuary for HIV+ children. In 1999, Vista developed HIV Educare programs for Technical Colleges, and established the National Institute for Community Development and Management (NICDAM) - a partnership for training research and community outreach in the area of HIV/AIDS (See box). By 2001, Vista students were taking part in various VISTA HIV/AIDs initiatives in communities and with Government. In 2002 Vista is assisting with the establishment of an Integrated Health Promotion and Immune-Deficiency Network. Vista will also develop distance education programs for their American partners.

Community-Based Training
VISTA-NICDAM Partnership

- HIV Infant Care Program
- Integrated Home-Based Care
- HIV Management
- HIV Early-Childhood Development
- HIV Management in the Workplace
- Integrating HIV and AIDS into Planning
- Supportive HIV Counseling
- Community Mobilisation on HIV and AIDS
- Community Health Promotion

UNIVERSITY OF ZULULAND'S MODULARISATION AND ASSESSMENT PROGRESS

By 2002, more than 80% of the courses at the **University of Zululand** (Unizul) had been modularised in compliance with directives from the National Department of Education and the South African Qualifications Authority (SAQA). However, compliance was not the only goal. With assistance from US linkage partners from the **Mississippi Consortium for International Development** (MCID), Unizul sought to put in place innovative and exciting programs that were market-oriented. Curriculum and subject specialists from MCID assisted in the program development, and new computers and printers were provided to departments by linkage funds.

Assessment practices needed radical transformation to keep pace with their outcomes-based curriculum development. This process was led by Lee Sutherland, appointed to oversee quality assurance in the project. The project has resulted in Unizul being one of the forerunners amongst Higher Education institutions in assessment transformation. New assessment practices include:

- Continuous assessment and a move away from a formal examination timetable
- Integrated final assessments within modules
- An assessment policy that provides benchmarks for new assessment practices accepted in principle by the university
- Staff being prepared for future accreditation as assessors and moderators
- Review and Transformation of the system of external moderation
- Extensive research in assessment principles and practices, with publication of several journal articles, book chapters and conference presentations

MDIC TEAM DONATE COMPUTERS TO DRIVE PROCESS ... Dr. Ally Mack, Gugu Gule, Dr. Phiwase Dlamini and Adrienne Graham in 2000.

TECHNICAL INNOVATIONS IN CURRICULUM DEVELOPMENT

TECHNIKON NORTH WEST ESTABLISHES FIRST INTEGRATED PREPARATION FOR TECHNOLOGY LABORATORY IN S.A.

A student working on a workstation used for Electronic Communications

A student working on a workstation used for Automotive technology.

TELP funding *[PIL 120]* enabled **Technikon North West (TNW)** to establish a Faculty of Engineering, with Mechatronics (Industrial Automation) as their first program. Mechatronics engineering uses computers and other digital systems to control industrial processes. It brings electronic, material and mechanical sciences together with precision measurement and control, robotics, manufacturing and packaging to create a diverse range of products. Mechatronics engineers design and develop 'intelligent' machines and sophisticated computer products such as sewing machines, household appliances, cameras, copiers, anti-lock car brakes, miniaturised substitutes for human organs, microprocessors, and powerful and precise computer-controlled machine tools used in manufacturing.

TNW has established an integrated laboratory, called the PREP-TECH lab, which combines a fully functional interactive high-tech system with state of the art courseware. Students are exposed to a comprehensive overview of the basics of modern technology and introduced to computer concepts and skills. All 19 students who registered for the Mechatronics Pre-Tech (a bridging program) course in 2001 passed and are now registered in either the B.Tech or Diploma courses in Mechatronics Engineering. An additional 20 students who used the lab in 2001 have enrolled for the Engineering Diploma in Mechatronics in 2002.

This program development has given TNW students an opportunity to be in the forefront of technological progress in South Africa. Collaboration with the automotive and other manufacturing plants in the nearby industrial area of Rosslyn are underway and will consolidate the training received at the Technikon.

Minister of Education, Professor Kader Asmal (middle), opens the newly established Prep-Tech Laboratory. Looking on are the Vice Chancellor, Professor I. Mosala (left) and Chancellor, Advocate S. Baqwa (right).

TECHNOLOGY TRANSFER PROGRAMS AT MEDUNSA

The Medical University of South Africa (MEDUNSA), with its linkage partners at the Medical Faculty of the University of Massachusetts (UMASS) has developed new program offerings utilizing enhanced technology transfer in three distinct areas.

E-Classrooms & Online Teaching

Bio-Statistics, an area of limited expertise in South Africa, is one of 14 online courses being taught in Medunsa's National School of Public Health (NSPH). Presently, 120 **MEDUNSA** students benefit from the on-line teaching with **UMASS** faculty. Dr. Kebogile Mokwena says Medunsa's NSPH now offers a full spectrum of public health education through long distance online teaching. He believes that this is perhaps the most important development in public health education and practice in recent times, not only for South Africa, but also for the region and continent. MEDUNSA boasts great numbers of students from Africa, with most of them from the SADC region.

An E-classroom during Summer School 2001.

Tele-Medicine

A situational analysis was completed in 2001 for the Garankuwa and Polokwane campuses of MEDUNSA on how they could link up with UMASS. Now tele-medicine teaching is being taken into rural areas of South Africa with the installation of the 77th HARVEY Cardiology Patient Simulator at MEDUNSA's Polokwane campus. HARVEY has 27 cardiac conditions programmed into it. The simulator integrates all bedside findings and realistically simulates these 27 cardiac diseases. Cutting-edge multimedia cardiology software programs have been purchased to enhance the training of technicians for 'Harvey'.

Communications Pathology (Speech & Audiology)

The Speech Language Pathology and Audiology Program started operating in 2001 as a result of the ongoing collaboration with UMASS. Initial curriculum work was done by US specialists Dr. Gloria Weddington, Dr. Jane Baran and Prof. Charlena Seymore, together with MEDUNSA staff. Dr. Weddington was later contracted to teach and examine the first intake of 29 MEDUNSA students in 2001, and during that time a specialized Speech and Audiology Laboratory was established. An outreach program has been developed in the Garankuwa area, in response to a request by the Department of Education to establish a training program for health professionals in speech and audiology. These personnel provide services to elementary and secondary schools in the Gauteng, North West and Limpopo provinces.

Prof M Molehe and Bela Pesci who carried out the installation of "Harvey", the Cardiology Patient simulator for the telemedicine project at MEDUNSA'S satellite campus in Pietersburg / Polokwane.

Dr Gloria Weddington (facing students) with the Communications Pathology (Speech & Audiology) class in session at MEDUNSA.

COMMUNITY OUTREACH

The University of Venda (Univen) has adopted a school-wide integrated approach to community development and outreach. In line with their own goals, Linkage partner Georgia State University (GSU) has assisted in program development that responds to "pressing economic development needs at the regional and national levels". Different programs have been developed with strong community outreach components. The degree programs include: B. Com Business Information Systems, B. Com Tourism Management, B. Com Hospitality Management.

THE INSTITUTE FOR ENTREPRENEURSHIP

This institute, with 4 fulltime staff members, develops the capacity to promote job creation through small business development. The institute is a government accredited NTSIKA local business centre. With the assistance of GSU academics, capacity has been built to offer courses in business information systems. In 2001, 5 participants in short courses offered by the Institute established their own businesses. The Institute also served as the primary consultants to 90 Business clients in 2001, and 10 business plans completed for clients have been implemented.

An Information and Communication Technology Centre (ICT) has also been established utilizing TELP funding. The Centre employs 3 fulltime staff and houses 3 technical support offices, a lab with 94 workstations, as well as conference and committee rooms.

TOURISM AND HOSPITALITY TRAINING

The Venda region is a gateway for SA tourism, located adjacent to the Kruger National Park, SA's largest nature reserve, and close to the borders of Zimbabwe and Mozambique. With assistance from **Georgia State University**, **Univen** has put in place a Tourism and Hospitality Training Program that has been in operation since 2000. The program was thoroughly researched, from the assessment of the demand for graduates to the design of the infrastructure of the academic department and the development of curriculum materials. Future work sites and internships in hotels, game parks, and tour operations were identified, and administrative processes for internship placements were developed. A special building is presently being refurbished to house the Tourism and Hospitality Training Centre, to be launched in 2003. There are plans to establish a hotel on the Univen campus in the near future.

Newly renovated ICT Building opened in March 2002.

Prof. Jacobs, Linkage Coordinator / Researcher enjoys time with students in the ICT Laboratory.

US academics from various Business Schools visit Liberation Archives at UFH: (left to right) President Dan Bernstine, Portland State University, Monde Maqula, Regional Director of Economic Affairs, Eastern Cape Province. Dean Lucy Reben, South Carolina State University. Dr. Richard Culp Robinson, MBA Program Director, and Mr. M Mnyatheli, UFH Public Relations.

UNIVERSITY OF FORT HARE'S MBA FOR GLOBAL AND AFRICAN ENTERPRISE

A R1.5 million grant from TELP-USAID saw the **University of Fort Hare's** (UFH) *[PIL 50]* initiative to develop the Eastern Cape's first MBA at an HDI become a reality. Dr. Richard Culp Robinson, the MBA Director, is excited at the prospect of having the first 10 MBA graduates in April 2002. The two-year program (3 years part-time) is fully accredited and has a current enrolment of 42 working managers. The program has been instrumental in building capacity among managers in various provincial government departments based in Bisho. Lecturers come from various faculties at Fort Hare, Wits Business School and the Eastern Cape private sector. The MBA finance specialisation area was given a boost in October 2001 with the appointment of an internationally recognized expert, Dr. Pierre Faure, to the joint Fort Hare-Rhodes University R1.25 million INVESTEC chair in 'Money, Banking and Financial Markets'.

Dr. Robinson says that the university is attempting to make it's new-look MBA more innovative and unique, focussing on African and global competitiveness but with more relevance to Africa. Towards this end, the Faculty is presently engaged in developing the 'International Network for African Business Development' together with partners in South Africa, Africa, the USA and Great Britain.

nhlanganiso dladla, the UFH Dean of the Faculty of Management, Development and Commerce and Dr. Richard Culp Robinson, the Director of the MBA Program, both acknowledge that key to the success of the MBA program has been the support and student and staff exchange visits with key USA partners. These include the **Universities of Massachusetts, Ohio, Portland State, South Carolina State, Howard University and Benedict College**, amongst others.

MBA Program Director, Dr. Richard Culp Robinson (on right), discussing internship opportunities with Jurgen Motzgus, manager of Lear Manufacturing, a U.S. owned supplier of seats to DaimlerChrysler SA. The internship of 4-5 months presently include placements at the prestigious DaimlerCrysler plant in East London.

Workshop on issues for Black Managers in the US and South Africa. MBA students Leo Qupe, Ray Mehlala and Professor Michael Gray, Ohio University School of Business.

MATERIALS DEVELOPMENT

TELP ENGINEERING SERIES: A COLLABORATIVE MATERIALS DEVELOPMENT PROJECT

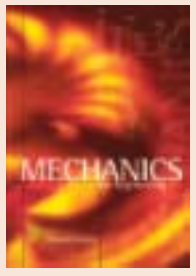
Five South African technikons were involved in this exciting and successful project that has produced 9 textbooks for entry-level engineering courses: Peninsula Technikon (coordinator), Eastern Cape Technikon, Mangosuthu Technikon, ML Sultan Technikon, and Technikon Northern Gauteng. Their US partners were Clark Atlanta University, North Carolina A&T University, Howard University and Massachusetts Institute of Technology (MIT).

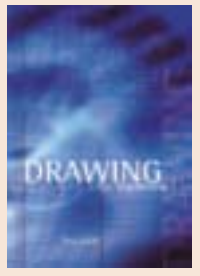
The unique and innovative aspects of these textbooks are:

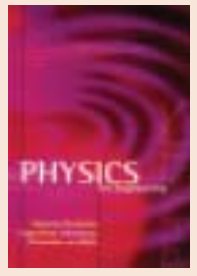
- they are affordable (around R65 as opposed to 'normal prices' of over R200);
- the language is more accessible than 'traditional' textbooks, and they are based on outcomes-based education (OBE) principles and practices;
- they emphasize principles and do not simply provide 'recipes' to be followed unthinkingly;
- there are abundant examples and opportunities for self-evaluation; and
- student-piloting provided writers with positive feedback on the materials.

Project extension

In September 2000, USAID extended the project for another two years. This time, multimedia material design and the production of CD rom teaching materials are the objectives together with building lecturers' skills in the use of multimedia as part of their teaching practice. Demonstrations of the highly interactive CD rom materials currently being developed show how they bring the subject to life, and are extremely exciting. This project is breaking new ground, with benefits not just for South African students, but for a broader market as well. A project support website has been launched to facilitate the flow of information and help with skills transfer.







The team of authors of the TELP Engineering Series, from five SA Technikons.

STUDENT ACADEMIC DEVELOPMENT

Five-year institution-specific Student Academic Development Plans (SADePs) aimed at facilitating institutional redress were implemented. The integration of the five-year SADeP into the institutions 3 Year Rolling Plans is seen as a critical success factor at the level of implementation and sustainability. The SADePs cover four focus areas: Standardized Assessment Testing, Academic Development, Student Leadership and Enrichment and Work Study Programs.

The Desmond Tutu Educational Trust (DTET) was contracted by UNCFSP to assist in two areas of Student Academic Development: Assessment and Student Leadership Development.

GOAL :

At the start of the Tertiary Education Linkage Project, no standardized assessment of first year students was taking place to assess student knowledge and skills in key areas of Mathematics, Science and Language (more specifically English, the medium of instruction in all the institutions in the Project). The DTET assisted in the training of staff from each of the HDIs in the Project to acquaint staff with the philosophy and principles underlying testing and remediation programs, and to provide technical knowledge concerning Standardized Assessment Test (SAT) development and implementation.

By 2002, version 4 of the SATs had been developed collaboratively by HDI lecturers and DTET experts, SATs had been piloted and were being utilized by 15 HDIs in the Project. The DTET program manager, George van der Ross, believes that "the challenge is to link diagnostic assessments to student needs and curriculum development. To concretize this, we need to test students to find out what they need in order to fulfil their potential, and secondly, we need to provide the foundational elements and support facilities that are required for this." Several HDIs in the Project utilized TELP linkages and institution-specific funding to develop foundation year and other support programs. In the sections that follow, various support programs that have shown remarkable achievements in Student Academic Development are profiled.

FOUNDATION YEAR AND OTHER SUPPORT PROGRAMS

University of Transkei (Unitra) utilized a TELP-USAID grant *[PIL 77]* to institute a Science Foundation Year Program (SFYP), based on a model developed by the **University of the North** called **UNIFY**. Unitra's program was assessed as the best in South Africa by the Joint Matriculation Board in 2000. The program has 3 'public' highlights each year:

- an opening ceremony for the orientation and induction of new students,
- an open day, which local high schools are invited to attend, where the SFYP is introduced and explained, and the SFYP students display their projects for the year
- a formal closing and graduation ceremony at the end of the program.

SFYP Open Day 2000
From left to right: Prof. CA Gebeda- TELP Coordinator, Prof. K Adeniyi- AFRET, Prof. S.B. Nakani- Dean of Science- Unitra, Dr. S. van Harte- UNCFSP, Prof. P.N. Luswazi-Academic Registrar-Unitra.

Science Foundation Year Students at UNITRA.

Some additional features of the program that have made it so successful are:

- Teachers are well-qualified and experienced and are employed fulltime in the program
- They are given ongoing training in OBE methods and learner-centred, experiential teaching methodologies
- Small group teaching
- Academic performance is tracked
- Up-to-date teaching materials and manuals are developed

The overall impact of this program is an 80% success rate, with students able to qualify for entry into first year science programs at any university in the country. Students from the SFYP whose progress Unitra has been able to track, are in most cases doing better than their peers who entered first year straight from high school.

Border Technikon's Supplemental Instruction Program

The Supplemental Instruction (SI) program *[PIL 102]* targets traditionally difficult academic courses and provides regular scheduled out-of-class peer-facilitated sessions. The aim of SI is not only to improve subject mastery, but also to teach study skills, thus fostering academic independence. SI leaders receive training in strategies aimed at strengthening academic performance and provide feedback to academic staff. The administration and training of student leaders was done by Academic Development Officer Dr Linda Smith, assisted by trained supervisors from relevant departments. **Border's** SI program grew to be the second largest in the country, but had to be cut back due to funding constraints. Currently, 50 SI leaders meet with between 400 and 600 students on a weekly basis. The program has proven to be so successful that most departments have included SI in their first year subjects.

Supplemental Instruction (SI) Leaders at Border Technikon training workshop.

At the **University of the North West** (UNW), another unique, learner-driven Science Foundation Program *[PIL 109]* was initiated, led by program manager Mr Nkosana Mavuso. The program comprises core modules in Mathematics, Computer Studies, Communication and Study Skills, and electives in Science and Commerce subjects. The growth of this program has been phenomenal, as the following table illustrates:

Year	Numbers Applying	Numbers offered Admission	Number Registered	Number Completed	Number Recomm to enter degree
1999	700	400	40	37	52 %
2000	600	450	110	70	66 %
2001	1 200	800	700	635	83 %

Impact of the program has been tracked and of the 37 students who completed the Foundation year in 1999, not one had to repeat a year. All are in their 3rd year of Math and Science studies in 2002.

A **Maths and Science Education Centre**, also established with TELP funding and assistance from linkage partners **Ohio State University**, has been a complementary development, and is viewed as a Centre of Excellence. Heeding the call from the Department of Education to train primary, middle and secondary teachers in science and maths education, UNW has now developed several new learning programs for inservice education and training. These include:

- An Advanced Certificate in Education (ACE) in Maths and Science Education
- B.Ed. Honours (Maths and Science Education)
- M.Ed (Maths and Science Education)
- Ph.D program in Mathematics Education (currently being developed).

Grade 12 Learners carefully observing chemical reactions during laboratory session led by Science Foundation students during 2001 Open Day activities.

Mr. C. Nyakutse, facilitator for the training program for Science Foundation lecturers, emphasizes the importance of methodology.

Science Foundation Program Manager, Mr. Nkosana Mavuso, addresses guests at U.N.W. Open Day, August 2001

ECT students work in writing center.

ECT Peer helpers

Eastern Cape Technikon (ECT) utilized TELP funding *[PIL 123]* **to establish a broad-based model of learner-support systems as part of their Student Academic Development intervention. The highlights of ECT's program include:**

- Tutorials and Supplemental Instruction, with 7 academic departments participating in the programs. 8 Lecturers and 5 Student Development Officers have been trained in the methodology of Supplemental Instruction.
- A Writing Centre has been established to facilitate and develop students' language and writing skills. Ten instructional programs are involved.
- Peer help programs have trained senior students to assist in academic and social skills development of peers.
- Literacy Programs and a Digital Library have enhanced student skills in computer-based learning and the internet. Web-based instruction is being initiated.
- A Work-study program has trained 80 students to assist in academic instruction activities.
- Foundation year science program based on the **UNIFY** model and **UNITRA's SFYP** has now been institutionalized, and merged with the broad Student Academic Development Project.

All Student Academic Development activities have been extended to **ECT's** satellite campuses as well.

ECT students demonstrate project at Open Day.

Student Leadership and Enrichment Programs

Student leaders and Staff in Student Development Offices participated in a host of activities, workshops and training programs organized and facilitated by the Desmond Tutu Educational Trust. In some institutions, institution specific or linkage grants assisted in the development of student enrichment programs. The training included:

- Institutional governance and democracy training
- Conflict management, problem solving and negotiation
- Strategic planning and project management
- HIV/AIDS and other health and safety issues
- Communication, facilitation and presentation skills
- Student diversity and Women's Development issues
- Mentoring and Train-the-trainer programs
- Materials development

Student Leadership Training Workshop: University of the North, Giyani Campus

Peer Helpers at Border Technikon

Post Graduate Student Support Programs

Although these programs were not envisaged as part of the Student Academic Development focus area, these programs offer students at post graduate level tremendous support that is crucial to the completion rate for studies at the academic level. There are two post graduate support programs that stand out in this regard: University of the Western Cape's Post Graduate Enrolment and Throughput (PET) Project under the leadership of Professor Nelleke Bak, and ML Sultan's School of Post Graduate Studies under the leadership of Professor Ramesh Bharuthram. Both programs received grants worth R1million. The table below highlights some of the features that contribute to the success of these programs.

UWC's PET Project

[PIL 124]

AIM: to increase throughput rates

Physical Support:
- Research Toolbox software - can be downloaded
- Small offices for study purposes
- PG student groupwise email system
- Website with news, workshop handouts

Technical support:
- Writing consultants
- Faculty specific librarians
- Translation services, editing & proofreading

Intellectual support
- Statistics consultant available
- Guides/handbooks of research proposal writing, thesis, and supervision
- Database of all past and current thesis work at UWC
- Student conferences to present research
- In-house publication of research
- Information on national and international conferences
- Postgraduate group coordinators
- Saturday and weekday workshop to support various aspects of research

Financial support:
- Workstudy opportunities
- Bursary/grant information
- Lists of funded research opportunities

Emotional / Social support:
- Student support groups
- Quarterly newsletter

Administrative support:
- Improved information management and databases
- Planned online, streamlined registration, and Postgraduate Student Society

ML Sultan's School of Postgraduate Studies

[PIL 94]

AIM: to increase throughput rates

- Computer lab with 30 dedicated computers for Masters and Doctoral students
- Staff members released from normal duties to concentrate on research to complete studies
- Academic sponsor assists student with first publication
- Workshops enhance research skills
- Linkage partners and visiting scholars share expertise
- Scholarships, bursaries and financial support information available
- Data base providing summary of all doctoral and masters students, used to track progress
- Guideline Handbooks for Supervisors and Postgraduate students
- Each faculty holds a research day - prizes awarded to top student researchers
- Each faculty publishes books of abstracts on research topics
- Publication of 2 volumes of the Journal of the School of Postgraduate studies
- Planned mentoring program
- 8 niche areas approved by National Research Foundation
- Focus on quality assurance in research outputs and supervision

Group of Master's graduates from Eritrea in UWC's PET Project.

RESEARCH DEVELOPMENT

LINKS TO THE WORLD SUMMIT 2002

This year South Africa hosts the World Summit 2002 on Sustainable Development. Key focus areas are economic development and equity, conserving natural resources and the environment, and social development. The World Summit 2002 slogan is 'People, Planet, Prosperity'. The research projects highlighted in this section link with all of these themes and are an impressive sample of the achievements of the HDI's and TELP in this focus area. A theme that has emerged strongly amongst the various projects across the country is the innovative nature of the research being undertaken and its impact on local communities.

INNOVATIONS AND COMMUNITY IMPACT THROUGH RESEARCH

At **Mangosuthu Technikon** in KwaZulu Natal, research initiatives funded by TELP have taken two forms: developing people and developing facilities. In both areas, the impact of research projects have benefited surrounding communities. The linkages with international US institutions have greatly facilitated and enhanced these initiatives. In addition, the R1 million grant *[PIL 147]* for the development of a Research Institute, directed by Dr. Annette van der Mescht, has augmented the research exchanges between Mangosuthu and their three US partner institutions, **Florida A & M University, Spelman College** and **Iowa State University**.

Several Technikon staff members have visited Iowa State University (ISU), one of their linkage partners, on research fellowships. The following are examples of the initiatives being developed and some of the people involved:

- The Hydroponics Project: **Ms Bongi Masuku's** work at ISU has led to the development of a research proposal to the Water Research Commission in South Africa. A tissue culture laboratory has also been established which has led to interest from the Durban Metropolitan Council for a project focusing on the multiplication of medicinal plants.

- The Taro Production Project: **Ms Nana Shange**, research fellowship at ISU. Taro is a highly nutritional staple food and its development involves researching indigenous knowledge about the product. The project has assisted in creating employment opportunities for the rural community.

Other ongoing research projects at Mangosuthu

- Heavy Metal Pollution Project (Mr Thabo Zwane; linkage partners Spelman College and FAMU) seeks to find practical solutions to heavy metal pollution, a huge problem in the Durban area.

- Primary Production in Estuaries Project (Mr Akash Anandraj, research fellowship to Spelman College).

- Rooftop Lab for Renewable Energy: a rooftop solar trough has been built through linkage funding. Research in renewable energy is now set to take off.

GOAL :

Bongi Masuku - Hydroponics Project

Nana Shange - TARO Project

TARO Production at Ndwedwe

Also in KwaZulu Natal (KZN), ML Sultan Technikon, through its USAID-TELP funded linkage partnership with Savannah State University, have developed three different research initiatives.

Water Technology Project

The provision of potable water is a national development priority in South Africa. This project investigated the use of capillary ultrafiltration technology to develop small units for the production of potable water at their source point, e.g. farms, schools, and clinics in rural areas.

Ultrafiltration Unit.

At the same time, the project's aim was to broaden the engineering capacity and expertise in ultrafiltration process operation and development. Local SA partners with ML Sultan's Water Technology Group were Umgeni Water in KZN and the University of Stellenbosch. The research project hopes to yield an 'off the shelf' process that can easiliy be applied to rural areas. Thus far, the ultrafiltration system developed can be used by municipalities, communities, and water authorities to produce water for drinking and domestic purposes in rural areas.

Food Science Project

This research has investigated mycotoxins that cause problems in local and imported grains. Findings from the research thus far have indicated the use of food processing techniques that can eliminate toxins from foods. They have also identified safe natural compounds that can be used by rural communities, enabling safer storage practices and that eliminate or reduce toxins in foods. State of the art equipment such as a gas chromatograph funded by the linkage grant, has helped research and teaching in this field, and the acquisition of this instrument will ensure that undergraduate and postgraduate students are trained in the use of this analytical tool.

Busiswe Godana, a B. Tech student, injects a sample into the gas chromatograph.

Besides the research capacity being built on campus, another important initiative will be the development of a Centre that can help and advise local agricultural and food industries on safer processing, harvesting and storage practices.

The Renewable Energy Project

More than 80% of the rural community in KwaZulu Natal do not have access to grid electricity. These are the statistics fuelling the drive behind the collaborative research project to empower disadvantaged rural communities, in particular rural women, through the appropriate application of renewable energy technology.

ML Sultan's linkage with Savannah State University on this project has been augmented by several other partners and donors, amongst them United Nations Educational, Sciencific and Cultural Organisation (UNESCO), Electrical Supply Commission (ESKOM), South African-Netherlands Research Program on Alternatives in Development (SANPAD) and the community. All activities have been undertaken in partnership with the rural community of Kwa Majomela, who was trained by the project leader, Mr Mike Witherden (UNESCO Chair in Renewable Energy). The community has formed part of the survey team that assessed energy needs in the community and trained its members as installers, users and maintainers of the resources.

In the local school, Sizumphakathi Primary, which is used for pre-school activities as well as community activities, the electrical wiring was done by trained members of the community. Future plans for the project include electrification of the community centre, water pumping, clinic, school, and private homes, and the encouragement of entrepreneurial activities such as cottage industry, crop drying and arts and crafts. Project members also point out that equipment is locally manufactured.

This project epitomizes collaboration on so many levels; the resulting benefit to all stakeholders showcases partnerships working at their best to achieve development through higher education.

Solar Energy Research in the Eastern Cape

In the Eastern Cape, the **Eastern Cape Technikon (ECT)** is doing innovative work through their linkage with **Texas Southern University (TSU)** and the help of TELP research grants. A solar energy lab was funded by TELP and ESKOM, with TSU providing equipment for installations in the lab. Mr Sitshinga, lecturer and project leader at ECT, says the essence of the project is to train students to install solar panels and transfer skills in communities to maintain the solar panels. So far 25 students have been trained and more than 50% are women. The students have also been trained to design basic electrical circuits and to transfer these skills to maths and science teachers, which will in turn enhance their teaching capabilities.

One of the first successes in the project was the design and installation of a solar light system at a pre-school in a local village called Kentane by ECT and TSU students.

An additional research aspect of the project is the work of ECT Electrical Engineering lecturer, Mr Sprinceana, who has investigated the possibility of a centralized monitoring system, called Supervisory Control and Data Acquisition (SCADA), also with the help of TELP funding. This combined technology which provides a source of renewable energy, as well as the possibility to maintain and monitor it, makes this research project a huge potential resource for rural communities and suppliers.

Another possible breakthrough for ECT?

Mechanical Engineering department faculty members Mr Mkoko (HOD) and Mr Sam Gqubani are now involved in research on an auto-resonator perforation cube, a vital component in motor-car exhaust systems. Encouraged by Braun Engineering Manufacturers, these engineering faculty members have come up with a new design that might have national implications for the motor industry. At the moment the research is at the 'design and trial' stage. However, the lecturers have incorporated the project into the curriculum with students involved in doing the drawings, while Mr Gqubani, the project leader, is involved in the design and trial aspects. This research project is one example of combining research with curriculum, manufacturing and entrepeneurial initiatives.

Students installing the solar panels donated by ESCOM on the roof top of the new lab in East London Satellite Campus (July 2001).

Project Leader Martin Sitshange, TELP coordinator, Faith Sigaba, teachers and learners at Kentane Village Pre-school, with new Solar Light System.

Smart Materials and Cleaner Production

In the Western Cape province, two separate but equally exciting research projects are underway at **Peninsula Technikon** (Pentech) that are linked with the **University of Michigan** through TELP. One project, under the leadership of Dr. Sun in Mechanical Engineering is in the field of 'smart materials'.

Smart Materials

What are 'smart materials?' These advanced materials have unique properties and are sometimes also called 'intelligent' or 'active' materials. Examples are shape memory alloys, and Piezoelectric materials, both of which can be used in different ways in actuators with unique and powerful results. They are also researching the use of fibre-optics for sensing. With TELP funding, Pentech has established a Smart Devices and Structures Laboratory, with state-of-the-art computational facilities, signal generation equipment, measuring instruments and various other electronic equipment. The lab makes possible the development and manufacture of advanced materials for a variety of technological applications for use in industry, military, commercial, medical, automotive and aerospace products.

Cleaner Production

Dr. Eugene Cairncross is the project leader in this research, which has focused on the development of an integrated, preventative environmental strategy applied to industrial and other processes. The purpose is to increase eco-efficiency and reduce risks for humans and the environment. Some of the elements involved in this research include pollution control, waste management, integrated pollution management, hazard and risk management, life cycle assessment and design, industrial ecology, and recognition of and contributions to government regulations, standards and policies.

In Apartheid South Africa, it was the disadvantaged communities who were most often placed in locations near hazardous materials. This research, therefore, can be seen as part of a political redress issue and adds to the research imperative. An additional capacity building feature of this research is that the focus on this project has resulted in a range of related research projects undertaken by the advanced research students in the department, under Dr Cairncross's supervision. Examples are Masters in Technology students' work in the Huguenot tunnel in the Western Cape and research into the use of fibres as indicators of water pollution.

The overall aim of both projects is to make the technikon a Centre of Research Excellence, both in Applied Technology and in Cleaner Production.

Dr. B Sun explains the operation of the lab to USAID's, Dr. Khehla Ndlovu, TELP coordinator, Merle Hodges, and others.

STAFF DEVELOPMENT

Most of the interventions in TELP have had a staff development component. All TELP focus areas are dependent on building the capacity of staff to achieve success. Therefore, the features in this section are not meant to represent the only, or main highlights in this focus area. Rather, the focus here is on compelling cases illustrating the variety of staff development interventions undertaken through TELP. These include the promotion of staff research, teacher-learning, the establishment of staff development centers, and empowerment of staff through a variety of human resource development interventions.

WOMEN IN RESEARCH

GOAL:

In the Gauteng township of Soshanguve, **Technikon Northern Gauteng (TNG)** was determined to enhance the research skills of staff members through their TELP-USAID funded Research Capacity Building Project.

In this well-structured intervention, 24 academics from 6 faculties at TNG designed and implemented research projects from 1999-2001. Ninety percent (90%) of this group were women, the majority of them with no prior research experience. They were given additional support in the form of student research assistants who were paid to assist in gathering data for their projects. As a result, 60 student research assistants were trained in research skills and techniques over the 3-year cycle of the project.

Some of the challenges faced by this group were juggling the demands of running homes, normal workloads, and academic study. And not only research reports were born. One of the participants gave birth to a baby along the way, but continued the program and graduated along with the rest of the group! The nurturing environment provided in the program has been a noteworthy feature of the success of the project.

From left to right: Nomsa Bokaba, Corlette's aunt Sophia Rakale (Baby sitter) Colette Mmekoa and Baby Tshegofatso (3 months old), Ntsatsi Mantsho (TELP coordinator), Ephraim Mokotedi.

Technikon Northern Gauteng (TNG) Research Achievements:

- 24 Research reports produced, which are to be published in a special monograph.
- 7 papers were presented at national and international conferences.
- One of the women was honoured as a leading researcher in South Africa at a Conference poster presentation at the University of Cape Town.
- 2 of the TELP Research Project supervisors are being incorporated into the TNG Research Directorate and are supporting TNG staff in conducting research, structuring papers and getting their work published.
- Capacity and the resources developed and accumulated through the project will greatly boost the TNG Research Directorate.

STAFF DEVELOPMENT THROUGH POST GRADUATE RESEARCH

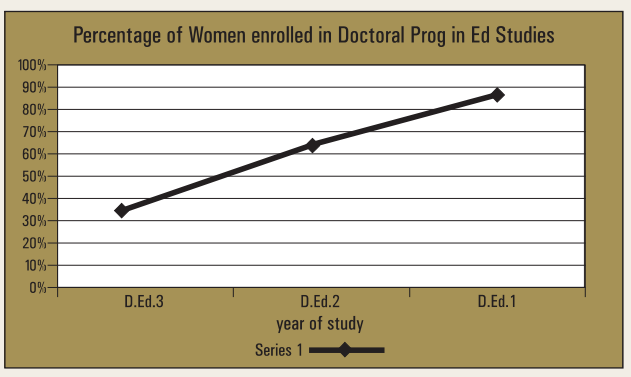
Dr. Michael Samuels, Director of the School for Education Studies at the University of Durban Westville (UDW), challenges the notion often held by themselves and others, that HDIs are 'deficient' and have little to offer in the area of research. In a concerted effort to change the Apartheid design for HDIs, UDW has used any and all means necessary to ensure that staff have received the encouragement and support to pursue postgraduate courses and develop their research capacity. Drawing on the strengths of their student and staff constituencies, a noteworthy feature of their post graduate programs is their collaborative and participatory approach. They have also made determined efforts to highlight women in research and their academic accomplishments.

USAID-TELP funding and support have been one of the means utilized to put **UDW** firmly onto the map as an institution with a strong research profile, with qualified faculty to support and mentor post graduate research. The numbers of staff who have improved their qualifications in this respect is remarkable and way above national norms. Some figures to illustrate this are:

- Between 1998 and 2001, nine women faculty members in the School of Educational Studies attained doctoral degrees during their careers within the faculty

- In 2001, 50% of staff in this School had doctoral degrees. Of the remaining 50%, 40% were studying for their doctorates.

- Of those completing their 3rd year of the D.Ed., 36% were women, in the 2nd year, 64% were women and in their 1st year of studies, 86% were women. (See graph)



TELP-funded interventions include:

- COMET (Coordinated Masters in Education and Training) program; 8 leading international scholars in 8 different fields spent blocks of time as visiting faculty. They provided support and seminars in post-graduate studies and continue to give support and supervision to the postgraduate students via email.

- The Govan Mbeki Centre for Postgraduate Studies, Research Development and Innovation, named after South Africa's President Thabo Mbeki's father, was officially opened by Mrs. Epainette Mbeki on 17 May 2002. The Centre, as part of the University's commitment to excellent teaching, research and outreach especially science and technology, contains state of the art Information Technology Infrastructure. The Centre is funded primarily by the University of Durban Westville, Thintana Communications and USAID through its Knowledge Exchange and Learning Partnership Programme (KELP), and TELP.

LECTURERS LEARNING

Peninsula Technikon's groundbreaking TELP Language and Content Integration Project sought to develop curriculum materials and methodologies that would integrate language support into content courses. To achieve this goal involved an intensive training program for staff over the course of the project, developing first an orientation to new approaches to teaching and learning, and then building the team's capacity for materials development. As the project grew, they realized they had to document and share their learning and experiences, and yet another challenge had to be met: how to conduct classroom-based research and how to share their experiences and findings with others. In this project the participating lecturers were on a learning curve that even they could not anticipate when the project started.

Different aspects of their own learning journey stand out for the team members. For some, like Eric Jones, it was the experience of team teaching: **"I became a student more than a teacher…"**

For other participants, the experience of writing the materials was the greatest learning in the project. André Van Graan, lecturer in Architecture comments: **"it's widened my whole idea about how one informs people about their architecture … now I'm much more conscious of how significant language is, and how you can make language visual."**

And Des Scholtz says: **"I'm realizing more and more as I write materials that I've got to pitch it at their level and use their background and age and everything else that goes with that…"**

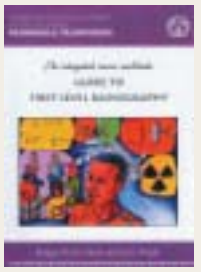
An impressive set of materials was developed over the 2 years of this project. Sixteen (16) workbooks (also available on CD ROM) integrate language support with academic content. Fifteen (15) of these titles have been snapped up by Oxford University Press, to be published in an institutional series for 2003.

Des Scholtz, André van Graan and Rashaad Majiet in discussion at workshop.

Lecturers and authors in Language Integration Project with workshop facilitator, Dr. Denise Zinn (standing, 2nd left).

Some features of the materials include:

- **Multilingual glossaries**
- **Annotated texts and drawings**
- **Creative exercises such as subject based crosswords and word-games**
- **Cases and scenarios in narrative and dialogue formats**
- **Original commissioned art work**
- **Learner-friendly, accessible language**



The final stretch in the lecturers' learning journey in this project involved developing the confidence to present their work, first to their own academic peers, and then at national and international conferences. The Pentech team has not only accomplished this with success, they also hosted their own conference in July 2001, stimulating interest in similar projects across the country.

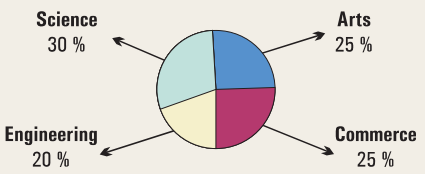
STAFF DEVELOPMENT CENTRES: ML SULTAN'S EFFECTIVE LEARNING CENTRE

An impressive model of a staff development centre is ML Sultan's Effective Learning Centre (ELC) *[PIL 119]* **launched in March 2001. The facility, a direct result of TELP-USAID funding, enables academic staff to meet the challenges of developing innovative learning materials, that embed Information and Communication Technology. The Centre is equipped with 10 high-powered computers, a high-speed printer, scanner, CD writer, a dedicated server and other print resources. The facilities allow access to the Internet and a wide range of software.**

A hands-on approach has been adopted whereby staff interact with each other in a workshop situation designed to share and further develop existing good practice. The main focus thus far has been on telematic education (workshops were attended by 61 staff) and using Power Point in the classroom (workshops attended by 104 staff). Other sessions have been held with individual departments where specific issues around materials development and the use of technology have been explored. The ELC coordinator works collaboratively with staff from Academic Development. Staff are invited to use facilities on their own time, at their own pace and with their own focus. The Centre also offers support for the development of research.

The Project leader is Mrs Lesley Cooke, the ELC Coordinator is Mrs Delysia Timm, and ELC secretary is Ms Nomdumiso Cele. The project management team is comprised of representatives from the Faculties and Academic Development Unit.

STAFF ATTENDANCE AT TELEMATIC EDUCATION WORKSHOP (N=61)



Ms Penny Govender (standing second from left) with Chemistry 1 students playing ***Chemistry is a gas*** *board game.*

Mrs Delysia Timm (ELC: Coordinator) assisting staff members at workshop.

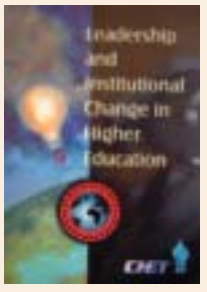
MANAGEMENT AND ADMINISTRATION DEVELOPMENT

The goals in this focus area are closely interrelated. UNCFSP provided the support required, but the initiative was left to institutions to determine the nature of their product so that they could claim ownership, and therefore have institutionally sustainable products. The institutions came up with their own needs for technical assistance and interventions took the following forms:

GOAL :

- Collaboration with the Centre for Higher Education Transformation (CHET) and the Department of Education (DOE) on administration and management capacity building needs
- Development and implementation of strategic plans and three-year rolling plans
- Workshops on existing National Education and Training legislation and policies on the HDI's and institutional responses towards compliance
- Workshops on planning Human Resource Development including topics such as diversity management, mentoring training, negotiation skills, employment equity and skills development, and transformation and project management
- Regional workshops of gender policy implementation and gender mentoring
- Regional workshops on leadership, including topics such as challenges facing leadership in higher education, roles and responsibilities of heads of departments and deans, quality promotion, staff performance appraisal, program development and assessment, inter alia.

Themes in this section will focus on gender mentoring, restructuring endeavors, the setting up of efficient systems, human resource development initiatives, and the utilization of linkages to build capacity.



GENDER MENTORING

An important goal for TELP was to attempt to address the 'glass ceiling' in Academic and Administrative Areas. The interventions focused on assessing gender structures at the HDI's, comparative approaches to sexual harassment, and barriers to women's advancement. Workshops dealt with the formulation of appropriate modules for mentoring programs at each institution and developing communication strategies. Targeted personnel at the HDIs were senior Human Resources Management, senior Staff Development and Support personnel, senior Administrative staff, institutional and employment equity forum members, and Academic and Administrative Support staff.

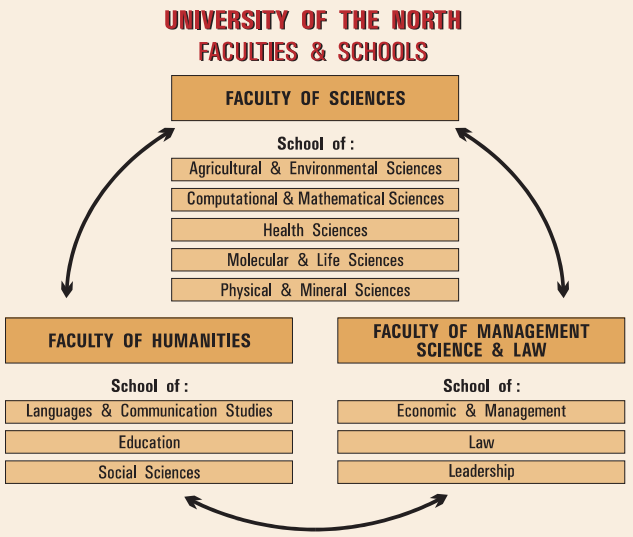
Zululand University Staff Workshop on Equity Plan, February 2000.

RESTRUCTURING AT THE UNIVERSITY OF THE NORTH

In 2001 Prof. Patrick Fitzgerald took over as administrator of University of the North (UNIN). Strategic planning and consultations with all stakeholders resulted in the commissioning of linkage partners dubbed "The Pittsburgh Three", funded by TELP-USAID to submit a report on Faculty Restructuring. Three University of Pittsburgh professors, John Weideman, John Yeager, and Lou Picard made recommendations for a restructuring process that was implemented in a virtually conflict-free process. By July 2001, the previous 8 faculties with 50 departments had been restructured into a new model with 3 superfaculties, headed by Executive Deans on 5-year contracts, with 11 interdisciplinary Schools headed by Directors on 4-year contracts.

Impact of the restructuring has already been evident. Some achievements include:

- In 2002, student numbers grew for the first time in 5 years, to 7400 students
- Shift to Sciences and Management courses
- Staff adjustments and downsizing effected without disruption and negativity
- Links with local business, government and development sectors
- Links with NGOs through new programs in Development Management at post-graduate levels
- Fields for cooperation include health, education and agriculture in areas such as management training, business and economic education



In the last quarter of 2001, UNIN received a R1 million award *[PIL 142]* to establish and maintain Quality Assurance mechanisms on campus. Project leader Prof Thenjiwe Ncube sees this project as complementing and consolidating the efforts to build an effective and efficient institution.

SETTING UP EFFICIENT SYSTEMS

At Peninsula Technikon, the TELP-facilitated development of the 3-year rolling plans, were closely interwoven with the strategic plan of the institution. Interventions were strategically targeted to improve the development of the institution. One illustration of this is the improved efficiency of management systems through a project targeting the Information Technology Systems (ITS) *[PIL 116]* **at the institution.**

Under David Bleazard's leadership, the project has had several facets. The first was an investigation of IT in the context of Pentech's overall operation. Coordinated by Paul Tennant, this investigation resulted in the restructuring of ITS at Peninsula Technikon, which has enabled a streamlined administration with a reorganized infrastructure, information security and disaster recovery. IT director Paul Tennant states that had this project not taken place, Pentech would have been 5 years behind in its ITS development. Other facets of this intervention have included:

- The training of administration and management staff to ensure all personnel are able to interact competently with the information systems and databases.
- TELP-funded appointment of Web development administrator Greg Booth, which has resulted in an extremely comprehensive information network for delivery to the public and Pentech's intranet system.

UWC's FINANCE TRAINING

After the 1999 rationalization process, the University of the Western Cape's finance department was left with huge gaps in capacity, unhappiness and low morale. UWC's Finance Director, Mr Graham Botha, proposed an adjustment to TELP's planned intervention in the arena of financial management training, and proposed instead a 'Back to Basics' training operation. The main objective of the project was to provide finance staff with the fundamentals of financial procedures, focusing on basic accounting skills, concepts and understanding of internal controls, and support for the implementation of new procedures.

Everyone in the department participated in the highly outcomes-driven program. On-site training and support was delivered by De Loitte and Touche under the DevTech Systems Inc. contract over a period of 6 months, meeting all project objectives. One of the spin-offs of the project was a staff whose self-confidence grew with the development of new knowledge and skills. Mr Botha reports that accounting records are now accurate, reconciliations are done monthly, budgets are acceptably accurate, forecasting has become a way of life, and a cooperative approach is the norm. At the end of the program, participants were awarded a certificate to confirm they had successfully completed the Back to Basics program in Finance Management.

CERTIFICATE OF RECOGNITION

This certificate is awarded to

THELMA ADAMS

EMPOWERMENT THROUGH HUMAN RESOURCE DEVELOPMENT

Mangosuthu Technikon was awarded an amount of R700 000 by TELP to fund human resources development programmes over a period of two years. The training ranged from Adult Basic Education and Training (ABET) to building capacity amongst management for restructuring and transformation in academic departments. At every level, the training has had the effect of empowering people at Mangosuthu Technikon to take a leap forward in their work lives. Some key interventions and result areas are illustrated in the table.

Intervention / Targeted Group	Results
Adult Basic Education and Training (ABET)	• For the first time in their lives, participants are able to read and follow instructions. • Some graduates of the ABET program are now taking accredited courses in carpentry, plumbing, motor mechanics
Protection Services	• 4 now enrolled in postgraduate studies.
Secretarial & Support Staff	• Courses in minutes and report writing, time management and information technology • Several staff have moved into more senior positions.
Academic managers	• Training in academic leadership and performance management. • Department of Analytic Chemistry redesigned • Can effect more strategic staff development.
Employment Equity Forum	• Negotiation skills and team building • Reduced friction • Members now focusing on the issues rather than personalities • Much more effective forum.

Over 350 staff members have benefited in various ways from this intervention. Computer skills across the board have been upgraded, and top management have had the opportunity to develop their understandings and skills in finance and governance matters. All in all, Mangosuthu staff have been empowered by this intervention, and in the words of one HR manager, they "have discovered a new world of work."

UTILIZING PARTNERSHIPS TO BUILD CAPACITY AND EFFICIENCY

The effective utilization of faculty exchanges on both sides of the Atlantic is a hallmark of the Linkage Component. This section highlights some exchanges that have helped to build administration and management capacity at HDI's.

Border Technikon is linked with the **University of Maryland Eastern Shore**. A primary focus in this partnership is developing an integrated approach to strategic planning. Several visits, workshops and seminars have taken place to facilitate capacity building for administrative managers, covering topics such as strategic planning skills development, recruitment, retention and enrolment, team-building and motivational skills. Several policy documents, presently in draft form, have been developed as a result.

Border Technikon Staff trained as trainers in strategic planning at UMES.

At the **University of Durban Westville**, participatory training and capacity building have focused on skills development in the following areas: fiscal and resource management, academic management, leadership and research management, student enrolment and student development, and human resource development. In a recent visit to USA linkage partners **Pennsylvania State University** consortium, 8 UDW staff members spent two intensive weeks honing their management skills in these areas.

UDW participants in workshop at Penn State University.

TELP Linkage Partnerships Focus Areas

Border Technikon / University of Maryland Eastern Shore: Capacity Building in Management and Administration.

Eastern Cape Technikon and Texas Southern University: Curriculum, Administrative and Research Development.

Mangosuthu Technikon and Florida A & M University, Spelman College, and Iowa State University: Curriculum, Administrative, Student Academic and Research Development.

Medical University of Southern Africa (MEDUNSA) / University of Massachusetts Medical School: Collaborative Effort to Promote Health Professions Teaching, Research and Community Services

ML Sultan Technikon and Savannah State University: Enhancement of ability to establish and implement sustainable and productive educational training and research programs in three areas of science and technology: food science, renewable energy and water technology.

The Peninsula Technikon / University of Michigan: Curriculum and Research Development Related to Cleaner Production Technologies and Advanced Smart Materials.

Technikon Northern Gauteng / Hampton University: Enhancement of Financial Policy Operations and Alumni Affairs

Technikon North West / Tennessee State University: Human Resource and Curriculum Development for Enhancing Teaching and Research Capability.

University of Durban-Westville / Pennsylvania State University, with University of Pittsburgh and Lincoln University / PA: Institutional Management Capacity Development.

University of Fort Hare / University of Connecticut: Curriculum Development, Management and Administrative Development, Distance Learning, and Research.

University of the North / University of Pittsburgh, with Pennsylvania State University and Lincoln University / PA: Curriculum, Student Academic, Administrative, and Research Capacity Building.

University of the North West/ The Ohio State University: Staff Development in Applied Radiation Science and Technology, Math and Science Education, Information Technology, and English Language.

University of Transkei / City College of the City University of New York: Capacity Building in Business and Economics for an International Future.

University of Venda / Georgia State University: Capacity Building in Business Information Systems and Tourism and Hospitality.

University of the Western Cape / University of Missouri System: Curriculum Development and Innovation and related Staff Development in Academic Priority areas.

University of Zululand / Mississippi Consortium for International Development (Jackson State University, Tougaloo College, Alcorn State University): Enhancement of Unizul's capacity to redesign its academic programs in Chemistry, Agriculture, Consumer Science, Business, and Social Work.

Vista University / University of Central Florida, with Bethune-Cookman College and Daytona Beach Community College: Establishment of a Viable Technologically Based Distance Education Program and Establishment of the HIV / AIDs Graduate Certificate Program. (Partial funding)

Vista University / Southern University System: Staff development in Public Administration, Computer Science, Mathematics, Sociology, and History. (Partial Funding)

TELP POLICY ADVISORY PANEL

The TELP Policy Advisory Panel was established within the principles of cooperative governance to provide strategic focus and policy direction to the TELP project and act as an advisory group to the Bilateral Partners on higher education issues.

"Three factors contribute most to the project's success: a committed and proactive Vice-Chancellor, a competent TELP Coordinator and the project's integration into the institution's strategic plan. The absence of any of these factors or a combination thereof limits potential project impact."

AED TELP Mid-Term Evaluation: Final Report, 2000 pp 1-2.

Prof. C. Tsehloane Keto
Vista University

Prof. M.F. Ramashala
University of Durban-Westville

Prof. T.A. Dube
University of Zululand

Prof. G.M. Nkondo
University of Venda

Prof. D. J. Ncayiyana
M.L. Sultan Technikon

Prof. B. Figaji
Peninsula Technikon

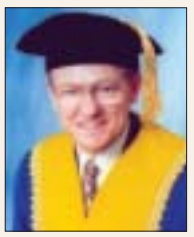
Prof. P. Fitzgerald
University of the North

Prof. B. O'Connell
University of Western Cape

Prof. M.D. Bomela
Medical University of S.A.

Prof. G. Lenyai
Technikon Northern Gauteng

Prof. A.M. Ndlovu
Mangosuthu Technikon



Prof. L. Brunyee
Border Technikon

Prof. I.J. Mosala
Technikon North West

Prof. D. Swartz
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Prof. M. Takalo
University of the North West

Prof. T. Mjoli
Eastern Cape Technikon

Dr. Khehla Ndlovu
USAID

Ms Futhi Umlaw
USAID

Dr. Donald Foster-Gross
USAID

Ms. Eilene Oldwine
USAID

Ms. Nasima Badsha
Department of Education

Dr. M. Qhobela
Department of Education
University of Transkei
Administrator

TELP COORDINATORS

TELP sponsored the appointment of a TELP Coordinator at each HDI. In a short survey, TELP coordinators spoke about different aspects of their work.

What are the most important aspects of a TELP coordinator's job?

Essentially, coordinators see themselves as project managers: supervising, monitoring, and overseeing financial and general administration of projects. A crucial aspect is motivating people, keeping staff on track, resolving conflicts and ensuring TELP activities are foregrounded at their institutions. Their work involves interacting with people at various levels, from junior staff to the Vice Chancellor. A more functional aspect is writing and communication, from proposal to report writing, to writing for various audiences to communicate news and information.

Benefits of the job

The challenges have been accompanied by a tremendous sense of growth and empowerment. TELP coordinators feel they have benefited from the opportunities for wide-ranging professional development through training and workshops. They have appreciated the networking opportunities, from working with senior personnel on their own campuses, to working with other TELP coordinators, with staff at UNCFSP and US partner institutions. They have been key facilitators in capacity building and other initiatives on their campuses, a most satisfying aspect of their work. As one coordinator has put it, "the nature of the job has the potential to open doors for my future career."

Least satisfying aspects of the job

Working with deadlines, often at odds with the institution's calendar, and getting others to respond to them, has been one of the major difficulties for coordinators. In some cases, coordinators report a lack of recognition for the work they do, and that they are not given the necessary support from staff. However, the benefits far outweigh the difficulties, and most report deriving great satisfaction from their work as TELP coordinators.

Charlotte Motha (VISTA)

Yvonne Lushaba (TNW)

Merle Hodges (PENTECH)

Morwamoche Ntwampe (UNIN)

Zama Gebeda (UNITRA)

Mbali Mkhize (Mangosuthu Tech)

Asavela Ndabankulu (Border Tech)

Pinkie Sobahle (Fort Hare)

Faith Sigaba (EC Tech)

David Abbey (Venda)

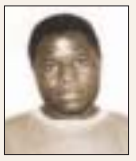
Gugu Gule (UNIZUL)

Ntsatsi Mantsho (TNG)

Masabata Ramaili (UNW)

Frank Daniels (MEDUNSA)

Barbara Barkhuizen (UDW)


Bheki Hadebe (ML Sultan)

Patricia Smith (UWC)

EPILOGUE

The higher education sector, like all other sectors in South African social, political and economic arenas, is grappling with major transformational challenges. Key strategic interventions will be required to assist the reconfiguration of the higher education system. The United Negro College Fund Special Programs has always attemted to be responsive to the Department of Education's policy initiatives that have affected curriculum development, management and administrative development, student academic development, and research at the TELP funded institutions.

UNCFSP will continue to play a supportive role in the "establishment of a national, integrated, co-ordinated and differentiated higher education system" whose "overall objective is the development of a higher education system characterised by quality and excellence, equity, responsiveness and efficient provision, governance and management".

The achievements of the Tertiary Education Linkages Project (TELP) serve as inspiration for all who are dedicated to the goals of equity and excellence in higher education and recognise its crucial role in the human resource and skill development agenda of a democratic South Africa.

A special word of thanks to the UNCFSP / South Africa staff for their dedication to the success of TELP and to USAID for providing the necessary financial support and technical direction to the TELP project.

UNCFSP / South Africa Staff Photo :
Seated: *(left to right) Ms Dipuo Pule, Ms Thandiwe January McLean (Chief of Party), Dr. Gloria Braxton (Deputy Chief of Party).*
Standed: *(left to right) Eddie van der Walt, Ms Tshidi Marakalla, Nadia Agherdine, Elizabeth Rugege, Nomsa Kharika, Joan Lloyd, Gerhard Combrink.*

IN MEMORIAM

Dr. Stanley van Harte
(1947 - 2001)
Manager, Institution Specific Activities

Prof. Mike Phala
(1953 - 2002)
Manager Joint Activites

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