REFORMS AND INNOVATIONS IN HIGHER EDUCATION: A REFLECTION ON THE INITIATIVES AND LESSONS AT THE UNIVERSITY OF DAR ES SALAAM IN TANZANIA, 1994-2004

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INTRODUCTION

For most of the 1980s, well into the early 1990s, public universities in developing countries had a trying moment in their operations. With the economic recessions government subventions to institutions of higher learning had almost become nominal, affecting not only development and maintenance of the physical plant and facilities but also viability of the academic programmes and associated staff morale. Activities in these universities had almost come to a standstill, and, the vital knowledge-production function had been relegated to a secondary place in the anguish of searching for means of survival.

It was in the wake of this bitter experience in higher education provision that some early cases of innovative institutions led the way towards an 'invention' of solutions that became 'good practice' and were in the process emulated by other institutions to move forward. In connection with this pace-making initiative – at least in the eastern-southern Africa region - due recognition is to be given to two universities, namely Eduardo Mondlane University in Mozambique, in connection with laying of one of the earliest and newest Information and Communication Technology (ICT) Infrastructure in the region (Mario, Fry & Chilundo**,** 2001: 29-30); and Makerere University in Uganda, in connection with a strategy of student enrolment expansion, which has seen a seven-fold expansion in a period of only ten years from about 3,500 students in 1993/4 to 26,000 in 2003/4 (Ishumi, Maghimbi & Kalembo, 2000). Generally speaking, it was after the venturing steps taken at these universities, in one or two areas of concern, that other institutions of higher learning in the region followed suit. Among these institutions was the University of Dar es Salaam that, on its part, took the process further and within several areas of concern in systematic succession and with relatively equal vigour and noticeable impact.

THE UNIVERSITY OF DAR ES SALAAM'S EXPERIENCE

Corporate Strategic Plan, 1993-2008

The University of Dar es Salaam was established by an Act of Parliament in 1970 as a place where knowledge would be transferred from one generation to another, training of skilled human resources would be carried out and the frontiers of knowledge would be advanced. Like the rest of higher learning institutions in the developing world, the

social, economic, political and developments of the 1980s affected operations of the university, which led to a redefinition of the vision and mission in order to meet the challenges.

The corporate strategic plan launched in 1994 was a long term plan to guide the university in its transformation process. It occurred at a time when the once notable and highly regarded national institution of higher learning, which had just enjoyed considerable international acclaim in the 1970s and early 1980s, was then in serious decline. This pathetic situation had resulted from, and was characterized, among other things, by years of dwindling financial resources, declining from an already inadequate state subvention of US$ 18.6 million equivalent (or 77.8% of needed budget) in 1985/86 to a mere US$ 5.7 (28.9%) in 1994/95 (see Table 1), a low student enrolment level (stagnating at an average of 2,600 between 1984 and 1993), a low academic staff morale, coupled with a brisk 'brain drain' and a poor national and international image.

Table 1: Trend of Government Allocations to University of Dar es Salaam, 1985/86-1994/95

Fiscal Year	**Operating Budget Presented to Government**		**Amount Received**		**Subvention as % of University Budget**
	Million TzSh	Million USD	Million TzSh	Million USD equivalent	(%)
1985/86	418.9	24.0	325.8	18.6	77.8
1986/87	503.5	15.4	455.5	13.9	90.5
1987/88	821.8	12.8	501.0	7.8	61.0
1988/89	1,235.4	12.4	801.3	8.1	64.9
1989/90	2,417.6	17.0	1,302.7	9.1	53.9
1990/91	4,801.5	25.0	2,003.7	10.4	41.7
1991/92	6,645.9	29.4	2,640.5	11.7	39.7
1992/93	9,401.3	31.2	3,295.6	10.9	35.1
1993/94	8,149.1	22.2	3,065.9	8.4	37.6
1994/95	10,441.9	19.7	3,009.9	5.7	28.9

Source: University of Dar es Salaam Bursar (Finance Office)

Resulting from a whole three years (1991-1993) of dedicated situation analysis, institutional self-criticism, as well as introspection of policies and practices that formed the context of the University's operating environment then, the newly drawn-up *Corporate Strategic Plan* (1994) set out to draw up a map and vision for the future:

'The University has to focus increasingly on its role as a corporate entity and under corporate management aspects. Such focus includes a political strategy to re-assert adequate public funding for higher education, research and development. The University is determined to clarify its path, to build a new corporate identity with its own distinctive characteristics, to acquire and maintain a leading position in terms of relevance, quality and reputation regionally and internationally'. On such a basis it will fully re-assert its leadership role in the creation of knowledge and human resource capacity building (Corporate Strategic Plan, 1994: 6).

This led to a redefined mission and set of objectives, which compelled and propelled the University into taking bold decisions. These included taking measures to operate more efficiently and effectively and to review outmoded cultural practices in order to reposition the institution for the challenges of science and technology entailed in the new twenty-first century. The broad areas of attention for the programme included:

i. Making the University community more aware of its strengths, weaknesses, threats and opportunities in an effort to ensure high standards of academic and advisory services particularly teaching, research and professional consultancy;
ii. Taking measures to reduce unit costs in training students in the programmes;
iii. Improving the internal efficiency and management effectiveness through enhanced internal autonomy that was necessary for capacity building in material and human resources at activity centres;
iv. Improving the flow of resources to the University through diversified and marketable programmes and image-building public relations – nationally and internationally;
v. Working, in collaboration with the Government, towards creation of a more flexible legal environment that would enhance and/or improve the University's responsive capacity; and
vi. Working to continually improve the working conditions and environment of staff and students.

Highlights of Innovation and Institutional Transformation at the University of Dar es Salaam

1. Cost-cutting and Income-generation ventures

A first response to the unfavourable situation constituted a combined internal effort at cutting costs where any savings were deemed possible, especially in areas where there

seemed to be unwarranted waste. Examples were in areas such as excessive over-employment of administrative staff and operative labour that needed retrenchment, uncontrolled/unregistered telephoning and electric power switching. Income generating efforts involved creative ideas about areas and sources that could generate income for the university, such as renting and leasing of space and buildings for telecommunication networks, banking, shops, catering and other businesses.

The proposed ideas by a University-appointed Cost-Cutting/Income-Generating Committee were systemised in a total of three principal reports and recommendations.

The Committee's recommendations zeroed in on rationalizing services that used to be provided by the University, transferring most of them to external providers and re-pricing others for either gainful or "break-even" operation. This affected areas such as student cafeteria and staff canteen services, closing down some of the superfluous yet costly services, establishing an internally-based insurance agency, creating a central transport pool for official transport activities and private hire, and establishment of a University Students Accommodation Bureau to manage student accommodation on a business-like basis. Accordingly, considerable savings and revenues have been realised (CC-IG Committee 1998; Chungu 2004).

One recommendation by the CC-IG Committee – namely of setting up a dedicated unit within the University structure for cost-cutting and income-generation on a permanent and consistent basis – resulted, in 1998, in the establishment of an Income–Generation Unit [IGU]. Subsequently, the IGU has since then gone deeper in the areas of cost-cutting and income-generating actions for the University. Within its mandate, it has diversified its concerns well into even more novel areas such as investment prospects for the University. With effect from 2004, the Unit has been elevated into a full-fledged Directorate of Investments and Resource Mobilisation (DIRM). A track record of its performance, with respective university-wide direct and indirect impacts, is fairly evident. For instance, annual savings made on campus cleaning and landscaping amount to 36%. Annual savings on catering services amount to more than 106% (Chungu 2004). A fuller picture of income-generation in areas covered specifically by the University's finance office (i.e. Bursar) and those covered

specifically by the Income Generation Unit [now Directorate of Investment and Resource Mobilisation, DIRM] is portrayed by Figure 1.

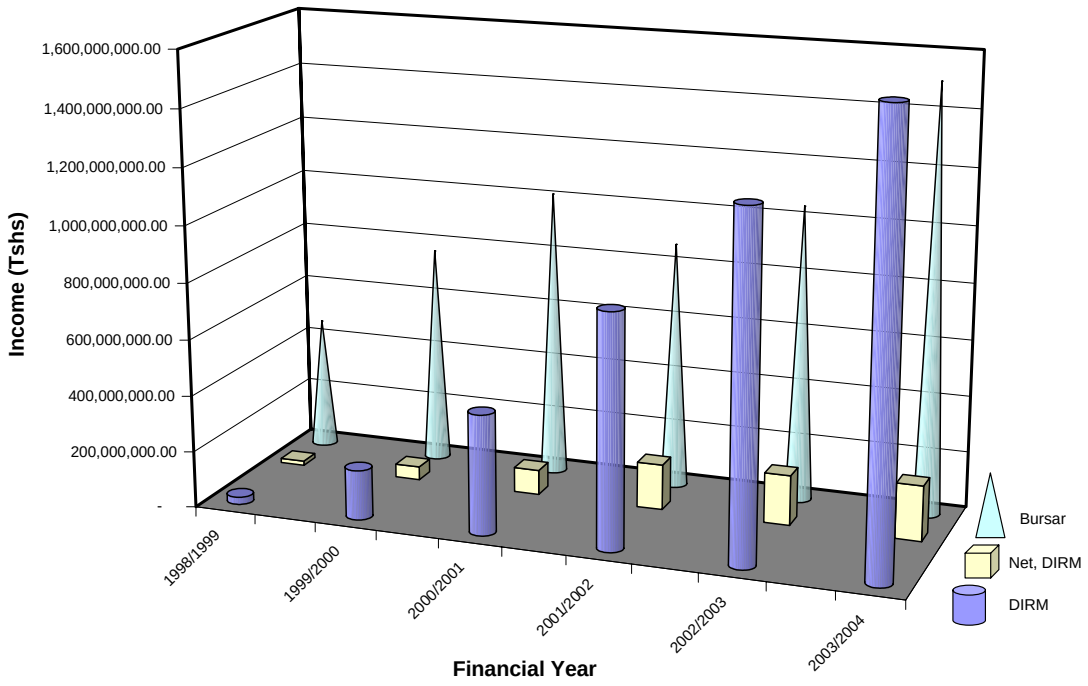

Figure 1: Revenue accrued to Bursar's office and Income Generation Unit/ DIRM in the period 1998/99- 2003/04. Source: Chungu (2004).

Indeed, an idea that began small and casual has now proved big and standard in the practical business economics of university space and land. It has built an internal capacity to woo and negotiate with potential investors. A latest case in point is the grand multi-million dollar Mlimani City construction project for an ultra-modern high-profile complex of shopping malls and other functional facilities, located in a section of the university land that has been lying fallow for the last 43 years since 1961! Apart from continuing to own this part of *its* land, as well as enjoying services for its community, the University will receive from each of the functional facilities in the premises a percentage of their income accruals for a contracted lease period of 50 years.

2. Student Unit Costs

Economic reforms have been widely by many developing countries in order to address economic constraints that they have been facing. Similarly, within the higher education sector, there is evidence that as student numbers increase, the units of

resources have progressively declined particularly for undergraduate, threatening to compromise the quality of the outputs.

The current mode of budgeting and allocation of funds to public higher education institutions in Tanzania has been based on incremental budget system that has proved to be inadequate and unrealistic. In 1996, the University of Dar es Salaam attempted to address itself to the resource flow constraints by proposing to the Government alternative source of funding and "Unit Cost" as a scientific basis for costing higher education. It was not until 2005 that the Government has introduced as a pilot budgeting on the basis of Student Units Cost to some public universities.

3. Fee Paying Students

The Tanzania policy of Socialism and Self Reliance meant that the Government provided free social services to its people. This was only possible because of a small population and the awareness of the prospects higher education offers to economic growth was low. With increasing social demand for higher education, the Government capacity to offer free social services including higher education has been compromised. The liberalization of higher education and involvement of the private sector to invest in higher education has provided opportunities for fee-paying students. The University has capitalized on the opportunity by introducing evening programmes for a fee and slots for privately sponsored students in the different academic programes. The number of privately sponsored students has now increased to about 3000 from a handful of less than 100 some ten years ago. The University plans to continue advertising its programmes widely and periodically review its fees structure to match with the market.

4. Establishment of Limited Liability Companies

The University introduced the Dar es Salaam University Press in 1996 and the University Computing Centre in 1980 to provide technical services to the university in its core mission functions. However, with time it became apparent that the operational costs for running the units were becoming a drain to the university resources. In the process of retionalizing services and cost-cutting, the two units were in 1997 and 2000 respectively transformed into limited liability companies operating on commercial basis at the same time providing professional services to the

University. This measure has enabled the UCC Ltd to generate a net profit of about US$ 36,000 after tax in the financial year 2003-2004. The projected figure for 2005/06 is US$ 51,855. The University is looking into managerial issues hampering efficiency in the DUP

5. Research Agenda

Research is one of the major institutional objective of the University of Dar es Salaam because of its potential for knowledge creation and advancing the frontiers of knowledge through relevant research. For the University to have impact on national development, the research must be relevant and in line with institutional and national policies. To effectively achieve these goals, the University compelled all Faculties and Institutes to develop relevant agendas, scrutinized and approved by the University SENATE and adopted by the University Council. Introduction of research agenda, for faculties and institutes has streamlined research and the volume, quality and relevance significantly improved.

6. Academic auditing (1998 and 2004)

The idea of an academic audit became a *sine qua non* within the wider context of strategic planning that had led to a generic series of renewal and innovative actions. Conceptually, an academic audit is similar to the well-known practice in financial auditing, namely in terms of a thorough, rigorous and fairly objective investigation of an institution or aspect of an institution, with a view to ascertaining its performance and quality in relation to the mission and objectives for which it was established. Issues of efficiency, efficacy, validity and reliability are subjected to scrutiny. The only difference with the financial audit lies in the fact that, while the latter focuses on the financial flows and transactions, an academic audit focuses on the nature of and transactions in academic programmes and related attributes. An academic audit is

"a systematic and thorough examination of the performance of an academic institution, including the management and relevance of its academic programmes, the manner of conducting the programmes, teaching quality, quality of the academic staff and the quality of its outputs (graduates, research, publications, consultancy and service delivery). By these very pointers, an academic audit is, essentially, an objective, impartial exercise in "validation," which is a companion concept with 'accreditation" (UDSM 1999:17-18).

For the University of Dar es Salaam (as indeed for most academic institutions, not least in the African region), this idea – when it was introduced - seemed a rather novel one as it seemed to be interrogative and to impinge on the individuals' sense of freedom to do anything and not to be questioned why they did so. However, with prior sensitisation through advocacy seminars, workshops, publicity notices and management appeals, a sizeable proportion of the University community eventually 'accepted the new idea' as something that was not a planned vendetta against non-performers but rather a quality-assurance search for better inputs, delivery processes and outputs of the University.

A maiden academic audit was conducted in April 1998 by a panel of seven members representing a diverse international academic experts group. A wide ranging set of terms of reference given to the Panel included:

(i) Ascertaining whether adequate procedures were in place for safeguarding the quality and quantity of teaching, research and public service;

(ii) Recommending a minimum frequency for compulsory curriculum review at the departmental and faculty/institute levels;

(iii) Checking whether adequate procedures were in place for internal academic evaluations;

(iv) Evaluating adequacy of resources available for delivery of the core academic activities (teaching, research and public service);

(v) Assessing the mode and efficiency of delivery of the various academic programmes in comparison with other universities;

(vi) Studying the distribution of academic workload within and across academic units, adequacy within and across fields/units, and recommending appropriate corrective measures;

(vii) Evaluating the relevance (in the broadest sense) of the academic programmes in relation to national, regional and international needs and trends;

(viii) Establishing the extent to which the current programmes measure up to the proclaimed goals of excellence stipulated in the Corporate Strategic Plan (CSP); making recommendations on these matters as well as on any other aspect.

Box I: Focal areas of findings, observations and recommendations (by chapter title *3-12* and by sub-title)

3 ***Academic programmes***
- ⇨ Structure and content
- ⇨ Resources
- ⇨ Inter- and multi-disciplinarity
- ⇨ Organisation and management

4 ***Teaching***
- ⇨ Teaching methods and styles
- ⇨ Teaching load
- ⇨ Language medium of teaching
- ⇨ Teaching terms

5 ***Research***
- ⇨ Inter-relationship between research and university-level teaching
- ⇨ Organisation and management
- ⇨ Multi- and inter-disciplinarity

6 ***Consultancy and public service***
- ⇨ Mission statement on consultancy
- ⇨ Consultancy environment at UDSM
- ⇨ Grantsmanship
- ⇨ Future perspective

7 ***Quality assurance***
- ⇨ Existing system of quality assurance
- ⇨ Organisation and management

8 ***Academic workload***
- ⇨ Background
- ⇨ Nature of the formula
- ⇨ The relationship between workload and performance assessment

9 ***Effectiveness and impact***
- ⇨ Level of preparedness
- ⇨ Adequacy of curricula
- ⇨ Attitudes, adaptability and expectations
- ⇨ Intellectual growth and initiative

10 ***Governance and administration***
- ⇨ External dimensions
- ⇨ Internal dimensions
- ⇨ The role of students

11 ***The gender dimension***
- ⇨ Gender aspects of the UDSM transformation programme
- ⇨ Gender-related problems at UDSM

12 ***UDSM in comparative perspective***
- ⇨ On general issues
- ⇨ At the national level
- ⇨ At the regional level
- ⇨ At the international level

Source: *Report on the 1998 UDSM Academic Audit* (UDSM 1999)

The resulting report - *Report on the 1998 UDSM Academic Audit* – contained wide-ranging findings, with a total of 57 substantive recommendations represented in ten chapters (*3-12*), as summarised in Box I. Also, an implementation plan was proposed.

Key in issues of institutional reforms and innovations were whether the report would be accepted by the constituency, and be implemented. The University of Dar es Salaam undertook to implement the range of recommendations and the extent of implementation by year 2003, have been documented.

According to the 2000 assessment report, overall, the Audit recommendations received 84% endorsement, with the remaining 16% of the responses appearing to be more of a need for further information and clarification than outright rejection or resistance.

The June 2002 status report, which was updated by a further survey to June 2003, reveals a pattern of implementation as summarised in Table 2.

Table 2: Implementation status of Academic Audit Recommendations, March 1999-June 2003

Recommendations	No	%
Total number made [57 + 2nd part to Recommendation 1]	58	100.0
Recommendations *fully implemented* by June 2003	10	17.2
Recommendations *to a large extent implemented* by June 2003	16	27.6
Recommendations *in the process of implementation*	22	38.0
Recommendations *not implemented*, for whatever reason	10	17.2

Source: Nkunya and Ishumi (2003).

A considerable proportion of the recommendations (more than 80 percent) have been adopted, of which more than 50% have been implemented to a significant extent. More than one-third of the recommendations are at various stages of being implemented and only 17.2% of the recommendations have not been implemented to date. With such a minute proportion of non-implementation, it can only be argued that the University's 'Institutional Transformation Programme (ITP)' has been a success – in terms of readiness to embrace the moment of change and innovation. It may also be noted that not all the unimplemented 17.2% recommendations have been discarded out but rather have had to wait for the right moment or right environment for strategic action to be taken. A second academic audit for the University was conducted in August 2004, five years after the maiden one in 1998. A report and associated recommendations are expected out for consideration by the university management.

7. Information and communication technology (ICT) and its ramifications in teaching and learning programmes

In 1980, the University established a Computing Centre. In collaboration with the Mathematics Department in the Faculty of Science, the Centre began to run an undergraduate computer science programme in 1990 and, by 1993 it had achieved a capacity to offer only limited ICT services. By that time, there were neither Internet nor electronic-mail services. It was only after 1993 that the University of Dar es Salaam's ICT experts, having gained the benefit of working visits and insights with a number of ICT centres in Europe, America and elsewhere, concentrated planning and coordination attention on functional areas in higher education where the University's investment seemed to have the prospects for optimum yield in delivery and financial returns.

A University-wide ICT policy and an associated master-plan were then developed and they were approved in 1995. They identified six priority ICT systems to be developed and deployed (UCC 1995) as follows:

i. Financial Information System (FIS);
ii. Academic Register Information System (ARIS);
iii. Human Resource Management Information System (HURIS);
iv. Library Information System (LIBIS);
v. Contract/Project Information System (CPIS); and
vi. Management Information System (MIS).

All the six information systems have now been completed, with HURIS and ARIS installed and since late in 2004.

In the same 10-year span, the University - through the newly charged University Computing Centre (UCC) has dedicated itself to setting up a University-wide computer and communication network; selection and installation of a system development environment; construction of a dedicated new building for the Computing Centre; up-grading the professional level of the Computing Centre staff; and up-grading the functional application management expertise (Mutagahywa 2004). The current state of the art in terms of ICT infrastructure is such that the University has:

i. A VSAT installation for Internet gateway of an upgraded capacity from 1Mbps/2Mbps;

ii. A fibre optic campus backbone cable network connecting all buildings at the Main Campus, including student halls of residence;
iii. A fibre optic cable network linking the Main Campus [University Hill] to one of the University's college, the University College of Lands and Architectural Studies (UCLAS);
iv. A fibre optic campus backbone network connecting all the buildings at UCLAS;
v. Wireless networks connecting the Main Campus to the University's other constituent college, Muhimbili University College of Health Sciences (MUCHS) and to off-campus student halls of residence and hostels;
vi. A fibre optic campus backbone (cable) network connecting most of the buildings at MUCHS;
vii. A local-area network [LAN] in all office and functional buildings at Main Campus, UCLAS and MUCHS; and
viii. Video-conferencing facilities in Science Lecture Theatres A and B and Arts Lecture Theatres I and II (to enable simultaneous teaching of two large classes seated in two different venues).

With respect to access to computers, the University has made provisions as follows:

a) Established public access rooms (PARs) in all faculties and in the main library at the Main campus, as well as one each at the two constituent colleges, for a total of 400 personal computers. The PARs are computer-clustered, used by students to access network resources;
b) Established one PAR each in two student halls of residence (#5 and #7) and in one student hostel (Mabibo); and
c) Established computer laboratories for students in various departments (viz. Computer Science, Chemistry, Statistics, Chemical and Process Engineering, Mathematics, Physics, Mechanical Engineering, etc).

Most of these and many other electronic and ICT developments across the three campuses of the University are guided or else master-minded from a hub and drawing-boards centred in a dedicated Computing Centre building that was inaugurated in 1999 by the Head of State, at which ceremony he declared a new era of

science and technology for the nation and urged a spread of the benefits of ICT to all sectors of the national economy.

8. Student enrolment expansion

Well until the late 1990s, the University had faced constraints with expansion of student enrolment for degree programmes. The frustratingly low and slow expansion of the university student population – notwithstanding a relatively fast-growing national population and the need for an educated and highly-trained manpower and in comparison with the neighbouring countries – is illustrated in Table 3.

Beyond general student enrolment expansion, the University had been concerned about possibilities for enrolment expansion for privately sponsored candidates, a sector until then neglected and untapped on account of, among other things, the traditional practice and expectation of, and hence heavy reliance on, Government sponsorship for Tanzanian candidates aspiring for enrolment into university degree programmes.

Table 3: Student Enrolment Trend at the University of Dar es Salaam, 1961/62-2000/01 and Corresponding Student Enrolment Figures for Makerere University and the University of Nairobi, 1983/84 -2000/01

Year	**University of Dar es Salaam (Tanzania)**	Comparison with Neighbouring Universities of Similar Characteristics	
		Makerere University (Uganda)	**University of Nairobi (Kenya)**
1961/62	11	-	-
1961/63	17	-	-
1963/64	34	-	-
1964/65	89	-	-
1965/66	261	-	-
1966/67	454	-	-
1967/68	711	-	-
1968/69	964	-	-
1969/70	1,263	-	-
1970/71	1,309	-	-
1971/72	1,457	-	-
1972/73	1,575	-	-
1973/74	1,852	-	-
1974/75	2,077	-	-
1975/76	2,023	-	-
1976/77	2,145	-	-
1977/78	2,071	-	-
1978/79	2,281	-	-
1979/80	3,400	-	-
1980/81	2,586	-	-
1981/82	3,357	-	-
1982/83	3,213	-	-
1983/84	3,113	5,042	5,656
1984/85	2,913	5,079	5,656
1985/86	2,987	4,208	6,616
1986/87	2,972	4,828	6,431
1987/88	2,891	4,842	9,274
1988/89	2,743	4,731	9,274
1989/90	2,839	4,955	11,200
1990/91	*331	5,597	14,000
1991/92	2,801	5,969	14,000
1992/93	2,992	6,996	14,844
1993/94	3,052	7,344	14,815
1994/95	3,359	7,906	14,524
1995/96	3,901	9,369	13,699
1996/97	4,242	14,612	14,467
1997/98	4,807	14,367	n.a.
1998/99	5,047	16,042	13,669
1999/2000	5,837	20,368	12,218
2000/01	6,691	26,793	12,359

Sources: Ministry of Education and Culture, Sectoral Planning Division; University of Dar es Salaam Admissions Office; MoEC [Ministry of Education and Culture] (1988-1992); MSTHE [Ministry of Science, Technology and Higher Education]

(1992, 1993), UDSM Facts and Figures, 2000/2001; UDSM Admissions Office; UDSM Higher Degrees Office; Epelu-Opio (n.d) on Makerere figures; The World of Learning, 1984-2001 on University of Nairobi figures.

* This enrolment figure was atypical. During that academic year, all undergraduate students were dismissed on account of a campus strike and associated class boycotts. The figure represents only postgraduate students, who were not rusticated.

Note: For some years, especially since 1995/96, there may be figure variations because of either including or excluding enrolment figures for the University Colleges and/or including or excluding figures for postgraduate students. Cf Tables 3-5.

In 2000, the University commissioned a study into the issue and related problems (Ishumi, Maghimbi & Kalembo 2000). Comparative study of practice elsewhere was to be undertaken so as to inform action to be taken at UDSM. In this respect, an analysis of case studies of policies at Makerere University (Uganda), the University of Hong Kong, Dutch universities in The Netherlands, Brock University in Canada and the University of Namibia was made and it proved insightful. The report and related follow-up studies pointed to several problems and challenges. These included:

(i) *"wastage" of eligible candidates and potentially skilled human resources* – through a rejection of as much as 62.3 percent (for years 1989/90-1994/95) of applicants with eligible entry qualifications on account of pegging admission to Government sponsorship;

(ii) *over-reliance by the University on government bursaries for student enrolment*, which was itself not matched with financial resource availability for Government to sponsor all eligible applicants; and

(iii) *a highly gender-imbalanced admission* of the successful applicants into the different disciplinary areas of university study, with women forming only 18 percent of total enrolment overall and as low as 10-14% in some programmes.

Among strategies recommended for an expanded student enrolment in general were:

(i) *Increasing the number of enrolees without violating the basic entry criteria*;

(ii) *Simplifying admission processes*; and

(iii) *Availing operational funds and resources*; and

(iv) *A wider search for graduate scholarships* – extending partnership beyond the then existing links with Sida/SAREC and NORAD, among external ones. Other strategies within the ability and control of the institution were in the area of publicity of the University and marketing of its programmes. These included:

i. *Establishment of zonal or regional UDSM admission centres,*

ii. *Intensive use of the University's WebPages on the Internet, for posting and communicating similar information and any other selected details*;

iii. *Availability of similar information and details, particularly on further access and application materials, at any and all points and fora of publicity local and international*.

Keeping active contacts and relations with UDSM alumni was also believed to be of vital importance for the potential financial support and influence on future applicants. This had implications for an aggressive effort in seeking and documenting the contact addresses of the UDSM alumni/nae, a reconstitution and re-charging of the University's Convocation Liaison Office and establishment of a UDSM Alumni Association.

Most of these strategies have been implemented and only a few, such as sponsoring establishment of UDSM alumni associations, are in the start-up stage. For instance, as a result of negotiations with the Government's Ministry of Education and Culture, ex-Form 6 leavers will no longer lose a whole year of waiting for university entry after their National Advanced-level Examinations; some faculties, such as Commerce and Management, have instituted a "parallel" evening undergraduate degree programme that allows working professionals to study while keeping their jobs; admission procedures have been simplified and "de-bureaucratised" to allow a one-stop information-and-application process; the academic programmes have been semesterised and modularised to allow registration flexibility; and the University programmes and activities are now publicised through the annual international trade fairs, during Parliamentary sessions, and through the University's Web pages.

Table 4 demonstrates the radical departure in the trend of student admission and enrolment especially with effect from academic year 1997/98.

Table 4: Trend of student enrolment and output at UDSM, 195/96-2004/05

	For the 10-Year Period of the Corporate Strategic Plan									
Year	1995/6	1996/7	1997/8	1998/9	1999/0	2000/1	2001/2	2002/3	2003/4	2004/5
Undergraduate	3,544	3,661	4,131	4,201	4,765	5,279	7,853	9,552	*12,036	*13,652
Postgraduate	357	428	676	846	1,072	1,334	850	1,308	1,638	1,927
Total	3,901	4,089	4,807	5,047	5,837	6,613	8,703	10,860	13,674	15,579

Sources: UDSM Admission Office; Directorate of Postgraduate Studies; UDSM *Facts and Figures* (various issues). UG and PG is undergraduate and postgraduate respectively.
* Including non-degree enrolees.

Each year, particularly since the 1995/96 academic year, the University has encouraged faculties and teaching institutes to step up the number of student intakes over the previous year's figure. It encourages them further to seek and enrol eligible (i.e. entry-qualified) privately sponsored candidates. Since the early 2000s, the University has agreed to remit to faculties a certain proportion of the accrued fees on the basis of 'increased numbers' of candidates they admit. This dispensation becomes a motivator for an internally generated effort in expanding student enrolment and in boosting a faculty's expenditure budget. Thus, from a rather static average student enrolment of 2,500 throughout the 1½ decade of 1980-1993, concerted effort of institutional transformation has changed the situation, increasing the student enrolment more than four times (by about 464%) over a ten-year period: from about 3,359 in 1994/95 to 3,901 in 1995/96 to 10,860 in 2002/03, to 13,674 in 2003/04 and 15,579 in 2004/05.

9. Gender- balancing and mainstreaming policies and practice

Along with general student expansion, the University has laid particular emphasis on admission of women, whose numbers have for many years lagged far behind those of men.

In 1995 the University launched a Gender Dimension Task Force (GDTF). The GDTF was, among other things, to look into gender dynamics and concerns, including gender imbalance in student enrolment and academic staff recruitment and the causes behind this. The task-force made recommendations aimed at enabling the University to achieve a 50% increase in female student enrolment and a 30% increase in female

staff recruitment by the year 2002. Several steps and strategies were contemplated and employed. They included:

i. Affirmative action initiatives needed to ensure radical and significant changes towards attaining gender balance (e.g. positive discrimination for a female applicant in a situation where several equally qualifying male and female applicants competed for limited openings;
ii. Laying special selection criteria for female applicants in faculties and schools that would allow admission of comparatively more females at a slightly lower cut-off point *as long as the cut-off point is within* the framework of grades for university admission;
iii. Pre-Entry Programme (PEP) that was launched in 1997, first as a pilot scheme under a Teacher Education Assistance in Mathematics and Science (TEAMS) project managed collaboratively by the Faculty of Education and the Faculty of Science; and
iv. Strong advocacy for third-party sponsorship by local and external organisations. In this regard, special mention is made of Sida/SAREC (Sweden), NORAD (Norway) and Carnegie Corporation of New York (USA). Since 2001/02, the annual female student intake has been boosted by guaranteed sponsorship 50 eligible female applicants by the University's Female Undergraduate Scholarship Programme (FUSP) created in partnership with the Carnegie Corporation that will run for a guaranteed period of at least nine years to 2009/10.

The effect of these measures over a period of ten years has been a rewarding one, as Table 5 indicates.

Table 5: Trend in female student enrolment and comparative proportions with male students, 1980s-2004/05

Acad. Year	**1979/80**	**1989/90**	**1994/95**	**1995/96**	**1996/97**	**1997/98**	**1998/99**	**1999/00**	**2000/01**	**2001/02**	**2002/03**	**2003/04**	**2004/05**
Female	568	616	626	976	985	972	1,004	1,221	1,716	2,075	3,109	4,261	5,155
Male	2,110	2,200	2,733	2,966	2,979	3,795	3,460	4,552	4,975	5,752	7,018	9,413	10,422
Total	2,678	2,816	3,359	3,942	3,964	4,767	4,464	5,773	6,691	7,827	10,127	13,674	15,577
% Female	21.2	21.9	18.6	24.8	24.8	20.4	22.5	28.7	27.2	27.5	30.7	31.2	33.1

Sources: Ministry of STHE (1993, 1994); UDSM *Facts and Figures*, (various issues); UDSM Admissions Office.

10. A university-wide alumni tracer study for academic improvement

Among the wide-ranging recommendations made by the 1998 Academic Audit Panel was initiating and upholding a practice of regular curriculum reviews based on tracer studies of graduates of the University and the end-users of the graduates' education and training. These – the graduates, the employers and other kinds of end-users – would provide critically important inputs into the curriculum reviews and improvements of the different Faculties, Schools and teaching Institutes of the University.

Thus, a first University-wide tracer study project was conducted between August 2002 and April 2003. This was a first-ever survey in the University's 40 years of operation, and it was perhaps the first-ever exercise in the eastern-southern part of the African region to be conducted by and for a total institution.

In the process, it was possible for Faculties, Schools and teaching Institutes to capture and record some particulars of the many alumni and alumnae who had graduated and also to take cue from the responses and reactions from their employers and other end-users on the usefulness of the training the graduates had received from the University's academic programmes.

11. Donor support to UDSM Institutional Transformation Programme

According to the World Bank task force, bilateral and multi-lateral donors have an important role to play in financing higher education in order to encourage the national and international public interest, as well as the contribution that higher education can make to social equity.

Before 1990s, the donor support to the University was isolated and directed to individuals rather than the university. Under such arrangement, university development was poorly coordinated and in some cases, the support was characterized by duplication and lack of accountability.

When the University introduced its Institutional Transformation Programme, it also published the key output areas of the transformation programme. The modest achievement of the transformation also caught the attention of development partners

who were able to identify and select areas to which support to the university would be extended. Donor policies on support to the University also changed and introduced more flexible but effective frame agreements. The major areas of support by the different development partners are summarized in the table below.

Main Areas of External Funding Focus at UDSM (1998/99–2004/05)

	Source of Funding	**Areas of Focus**							**Remarks** {End of current phase}
		T&L	**R&P**	**SD**	**INFRA**	**ROCM**	**Lib IT**	**ICT**	
1.	Sida/SAREC	M	P	P	N	M	M	P	2007
2.	NORAD	**M**	N	P	P	M	M	M	2006
3.	NUFU	P	P	M	N	N	M	-	2007
4.	MHO	P	M	P	M	M	-		December 2003
5.	VLIR	P	P	M	N	N			*Ended* March 2003
6	Carnegie	P	M	M	N	M	P	P	December 2006

Key:

P	:	Principal area of focus	SD	:	Staff Development
M	:	Moderate focus	INFRA	:	Infrastructure in terms of capital development
N	:	Negligible or no priority	ROCM	:	Reform of Organizational Culture & Management
T&L	:	Teaching &Learning	Lib IT	:	Library Modernisation and Information Technology
R&P	:	Research & Publications	ICT	:	Information and Communication Technology

The donor support therefore, proved to be very useful and facilitated the University to develop infrastructure, expand student enrolment, improved teaching and learning resources, built human resources capacity, increased the volume and quality of research as well as the quality of services to the Community.

However, in the last five years, the University has experienced a shift in the donor policy on infrastructure and reduced funding. Coupled with reduced flow of resources from the government, shortage of teaching space is becoming a threat to the university student expansion programme.

12. Reflections, Lessons and Conclusion

No experience has no lesson to teach. The *six areas* of reform mentioned above are no exception to this, more as these deliberate planned-action initiatives were instituted as part of the larger institutional transformation-cum-renewal agenda.

When the process (ITP) was beginning in 1994, a considerable number of members of staff and students were sceptical and would not like to hear some of the ideas, even concepts and terms, used in the 'strategic language'. This kind of language, to the conservative dons, was considered to be downgrading the academic status of the University and turning it into a 'commercial business firm. A decade later, those old sceptical voices have gone quiet and the following achievements have been realized:

i. Course programmes have signs of rejuvenation (rather than of fatigue and insensitivity) on account of regular reviews, semesterisation, modularisation, etc;
ii. A sizeably higher revenue than used to be the case is coming into the University coffers and eventually easing potentially tense financial situations such as in procurement of critical teaching-learning resources, supplementing otherwise starved staff salaries and assisting staff with necessary equipment for ICT use; and
iii. More confidence and trust is now being placed on University staff for professional consultancy undertakings and advisory engagements.

These achievements realized within the last ten years suggest the following:

i. The process of innovation, or change, is never a one-shot event. It takes a time-duration that can never be strictly defined or predicted and the process assumes several stages (i) Awareness [or a process of exposure], (ii) Interest [or a process of information seeking/giving], (iii) Evaluation [or a process of mental-physical application] (iv) Trial [or a process of experimentation], and (v) *Adoption or Non-adoption*. These may, together or individually, take a short duration or a long duration depending on the kind and complexity of tasks involved, the dimension of change targeted and, indeed, on the psycho-social and cultural characteristics of individuals involved in the change.

ii. Institutions of higher education need external support from development partners. The relationships should be based on mutual agreements and focusing on relevant needs for sustainable growth.

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