

Female participation in African Universities: effective strategies for enhancing their participation with reference to the University of Dar es Salaam, Tanzania

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Abstract

This paper gives an overview of factors that mitigate against women's participation in institutions of higher learning in Africa in general and Tanzania in particular as well as efforts that are being made to address the issue. Specific issues addressed in this paper are centered on the extent to which strategies, in terms of order of priorities, appropriate mix of approaches, as perceived by selected senior female professionals at the University of Dar es Salaam, as a case study, enhance females' participation and/or minimize factors that militate against females participation in the affairs of the University as beneficiaries and suppliers of services. Selection of professionals is based on either their experience/role they play/played in the affirmative measures taken to raise female students enrollment, provision of counseling services, spearheading gender sensitization workshops etc. It is also based on their involvement in pre higher education intervention measures in enhancing females' confidence in self-actualization in the context of 'real persons' rather than 'molded figures' in pursuing higher education and subsequently working in institutions of higher education. Other people interviewed included Senior University officials, irrespective of gender, and selected beneficiaries of the affirmative actions taken at the University of Dar es Salaam. Recommendations on the best strategies are drawn from accounts of published and unpublished materials; and the qualitative analysis of the interviews within the context of higher education policy and its implementation as perceived by the interviewees in addressing the issue.

Introduction

In Africa institutionalization of higher education as one of the three sub-sectors of the education sector is a post independence phenomenon dominated by the public sector. Post independence African countries' higher education institutions were faced with the challenge of de-coupling themselves from the excessive linkages and dependency created by the colonial systems during the colonial era in order to create their own identity and to transform themselves into legitimate national institutions of higher learning. Issues of equity came up later, on the agenda in response to pressure from women and those interested in women issues at both national and global level through advocacy and other options available to them. However, despite a lot of efforts put into addressing this problem the access and participation of women (as consumers and providers) has remained dismally low in African institutions of higher learning. Several reasons are advanced for this anomaly. Reasons advanced fall under three major categories: historical, socialization processes, and working environment (mainly in relation to combining females' productive and reproductive roles and subsequently setting fair performance indicators). Measures taken to address the anomalies could be streamlined into two major groups: affirmative measures to address problems attributed to history; and advocacy to address problems in all the three categories, i.e. history, socialization processes and working environment.

Methodology

Data for this paper was collected from both primary and secondary sources. Primary data was solicited through interviews conducted to a selected group of people. Selection of professionals was based on either their experience/role played in the affirmative measures taken to raise female students enrolment, provision of counseling services, and

spearheading gender sensitization workshops. Another aspect considered was involvement in pre higher education intervention measures in enhancing females confidence in self actualization in the context of 'real persons' rather than 'molded figures' in pursuing higher education and subsequently working in institutions of higher education. Other people interviewed include Senior University officials, irrespective of gender, and selected beneficiaries of the affirmative actions taken at the University of Dar es Salaam. Recommendations on the best strategies are drawn from accounts of published and unpublished materials; and the qualitative analysis of the interviews within the context of higher education policy and its implementation as perceived by the interviewees in addressing the issue. Qualitative approach was used for analyzing the data

Factors that mitigate against women's participation in institutions of higher learning in Africa

Women's participation either as providers or consumers of services in institutions of higher learning is dependent on access to education at lower levels, and participation in them is also influenced by factors that hamper access at lower levels. Noted factors include gender division of labor, allocation of and control over resources and the male dominant patriarchal order (Mbilinyi, 1990). These factors are woven in institutionalized socialization processes during pre colonial, colonial and post independence period.

In the pre-colonial period the dominant patriarchal order emphasized gender roles of subsistence economy. During the colonial period the inclination was to prepare females psychologically for perfecting housekeeping and reproductive roles in order to blend them with the colonial policy of minimizing operational cost. by emphasized gender roles of a subsistence economy. The liberation effect of education after independence followed the same pattern. The immediate concerns of the post independence reforms were on the requirements of the decolonisation processes. In fact "education expansion deepened the process of differentiation and discrimination by gender" (Mbilinyi, 1990:2). This is manifested in invisibility of females in almost every area, even in areas/professions traditionally considered as their domain.

At the continental level women are rarely seen in areas like seminars, workshops, involving senior officials, where issues pertaining to higher education are discussed simply because they are hardly in those positions, and no deliberate efforts are being made for them to be there. This remains the domain for men and opportunities for developing their capacities through exchange of experiences, networking and exposure in general. And where a few women get such opportunities, their ability for effective sharing of experiences is also limited by the unconsciously assimilated socialization process and somewhat forceful and perhaps overwhelming pressure from the mere number of men. Their voices may be listened to at times, but this would generally be done through a deliberate move for men to be seen/acknowledged as being gender sensitive in response to developments on advocacy on gender issues and the general concern for inclusiveness in developmental issues. Thus women get included in theory.

Regulations may appear fair but there are salient features that need deeper considerations when dealing with translations of equity. For instance, the law may provide for equal

access to education but this alone is not enough. Females, because of certain demands of the reproductive roles may fail to take an opportunity at a certain time. The reason for doing is solid but such reasons are at times translated as female's faults for failing to take such opportunities rather than appreciating efforts that went into the other competing role. The same thing also applies to performance appraisals. Other demanding circumstances are not given due consideration. For instance, expecting a pregnant woman to conduct research with equal vigor to that of the males or other women not going through the same experience is denying her justice. Even results of simple experiments are weighed within a certain common ground, commonly phrased as "other things being equal". Women's reproductive roles do not fit well under the "other things being equal" as perceived and acceptable to men because since none of them goes through the process, empathizing with this situation is very difficult. Thus, the vigor of assessment does not consider such factors when it comes to promotions or consideration for responsibilities. Nor are such circumstances considered for another form of reward.

Historical evolution of higher education in Tanzania

The historical evolution of the higher education sub-sector in Tanzania shows a gradual shift from an elite service to "mass" service as a result of expanding access often characterized by a fair level of equity. There is also a shift toward private sector. The door was opened to this shift by National Policy on Education and Training of 1995, which liberalized education delivery services at all levels, including the higher education sub-sector. The Ministry of National Education (MoNE) which has changed name to Ministry of Education and Culture (MoEC) was responsible for policy related matters pertaining to higher education up to November 1990 when the Ministry of Science, Technology and Higher Education (MSTHE), was established. MSTHE is responsible for matters pertaining to higher education.

Ministry of National Education and later on Ministry of Education and Culture was, up to 1998, responsible for policy issues relating to education matters, including higher education up to 1989. During this time there were several major changes that affected higher education in terms of accessibility and quality. For instance, nationalization of private and religious primary and secondary schools meant to address equity issue affected quality in some schools, thus affecting, at a later stage higher education. The implementation of the universal primary education declaration in 1974 also had a similar impact because of the pressure it imposed on the resources, including human resources. The resources were inadequate to meet the demands. This had an indirect impact on higher education.

As stipulated in the National Science and Technology Policy for Tanzania, "in order to enhance the active participation of women in the promotion and utilization of science and technology, the government should implement the following:

- Review policies and establish plans to increase the proportion of women participation in decision making, and planning;
- Strengthen women's non-governmental organizations and groups in enhancing capacity building for sustainable development;

- Take deliberate measures to raise the level of literacy among females, expand enrolment of women and girls in educational institutions, and increase educational training opportunities for women and girls in science and technology;
- Establish programmes to reduce drudgery and increase comfort for women, and children at home and outside through the establishment of facilities and promotion of the provision of appropriate technologies which have been designed, developed and improved in consultation with women; and
- Design programmes to develop consumer awareness and active participation of women in productive activities.

Realization of the above objectives depends on more female access to education, particularly at higher levels. But accessibility to higher education is dependent on performance of lower levels. While females constitute 54% of population in Tanzania, their access to formal education has generally remained below 50% at primary level and drastically going down as higher education is approached. As can be seen from table 1 below, gender bias is evident throughout the whole education system; this is particularly so in higher education as can be seen from table 2. Various efforts are being made to address this problem at both lower levels and institutions of higher learning level. Measures taken at both levels include lowering the cut off point for females at both university and entry to secondary schools. Females were allowed to join the University immediately after the national service instead of spending one year elsewhere, which was a requirement for all “A” level school leavers, before joining the university.

Table 1: Proportion of female enrollment in primary and secondary education (1996)

Educational phase	% girls enrolment
Primary Standard I	48.8
Primary Standard II	49.9
Primary Standard VII	50.5
Primary overall	49.5
Secondary Form I	47.9
Secondary Form IV	45.7
Secondary Form I-IV	46.8
Secondary Form VI	33.9
Secondary Form V and VI	31.3
Secondary Form I-VI	45.9
Teacher education	40.8

Source: Ministry of Education and Culture Basic Education Statistics 2001

Table 2: Summary of students' enrolment from 1979-2001

Year	Male	Percentage	Female	Percentage	Total
1979/80	1894	77.8	542	22.2	2436
1980/81	2110	78.8	568	21.2	2678
1981/82	1821	81.3	419	18.7	2240
1982/83	2177	78.8	584	21.2	2761
1983/84	2502	80.5	608	19.5	3110
1984/85	2371	81.4	542	18.6	2913
1985/86	2538	83.3	507	16.7	3045
1986/87	2502	84.2	470	15.8	2972
1987/88	2436	84.3	455	15.7	2891
1988/89	2255	82.2	487	17.8	2742
1989/90	2200	78.1	616	21.8	2816
1990/91	0	0	0	0	0
1991/92	2681	82.7	559	17.3	3240
1992/93	2155	81.1	501	18.9	2656
1993/94	2100	82.6	442	17.4	2542
1994/95	2733	81.4	626	18.6	3359
1995/96	2966	75.2	976	24.8	3942
1996/97	2979	75.2	985	24.8	3964
1997/98	3795	79.6	972	20.4	4767
1998/99	3640	78.4	1004	21.6	4644
1999/2000	4552	78.8	1221	21.2	5773
2000/2001	6770	76.2	2113	23.8	8883
Total enrolment since 1979	59177	79.6	15197	20.4	74374

Source: Institutional Transformation Programme: PMU/UDSM – 2000. (2001). Facts and Figures, Dar es Salaam: University of Dar es Salaam.

NB: Percentages are derived/computed from the figures given in table 4.2 from the Facts and Figures.

Strategies set to redress gender imbalance at the University of Dar es Salaam

Strategies set to redress gender imbalance by the University in its Institutional Transformation Programme, UDSM 2000 (1996) are:

- ◆ Establishing and addressing systematically the main causes of the gender imbalance in the faculties and institutes amongst the students and academic staff during the five years;
- ◆ Setting up a permanent gender dimension programme committee (GDPC) during the first year and ensuring its membership in all University level committees;
- ◆ Make concerted efforts to redress the imbalance at UDSM within the five year period by
 - ◆ Intensifying expansion of female student enrollment in Science and Engineering by running special upgrading programmes for qualifying female candidates prior to admission for selected qualifying candidates starting 1998/99
 - ◆ Mainstreaming gender issues in the curricula of all faculties at UDSM,
 - ◆ Enhancing the running of gender related programmes,

- ◆ Setting up and supporting counseling services to handle gender based psychological pressures within the first year, and
- ◆ Coordinating the programmes of various gender groups with respect to activities carried out within UDSM with immediate effect;
- ◆ Improving the average male:female student ratio in all faculties by raising female percentage from 3-21.6% (1995/96) to between 20 and 30% within five years;
- ◆ Instituting deliberate measures/recruitment policies that will improve the average male:female academic staff ratio in all faculties by raising female percentage from 1.6 – 10% (1996/97) to 15-20% in the long term;
- ◆ Drawing up and executing in collaboration with the Ministry of Education, Sports and Culture measures to assist primary and secondary schools to redress the gender imbalance within the first three years;
- ◆ Setting aside some funds for provision of fellowships for qualifying female students in areas with known imbalances at UDSM within the first three years; and
- ◆ continuing to lower the cut-off level point by 1-2 points for all qualifying female candidates during the next five years.

Progress made on the set strategies

Since access to institutions of higher education is heavily dependent on access at lower levels, a lot still needs to be done in that respect. Nonetheless short-term strategies have borne some fruits in redressing gender balance and in mainstreaming gender issues in the University operations in terms of infrastructure. At the level of the infrastructure a Gender Dimension Programme Committee has been formed although it is yet to be fully integrated at lower levels in the University's operational systems.

University of Dar es Salaam (UDSM) Gender Dimension Programme

The target of the UDSM Gender Programme is to address gender imbalance at two levels: students' enrolment and raising a number of female academic staff (which is dismally small). The proportion at students' level is better than that of both academic and senior administrative staff, with more inverse relationship in some faculties, such as Law with 37% of female student enrolment and 4% female staff. The target, according to the UDSM Five Year Rolling Strategic Plan, is to raise the percentage of female academic staff from 10% as of June 2000, to 20% by June 2005.

Female students enrolment

Female students' enrolment is part of the University-wide student expansion programme. One of the strategic objectives of the UDSM Five Year Strategic Rolling Plan is to expand student enrolment from 6,035 in 1999/2000 to 12,000 by June 2005. This expansion is likely to favor males because the environment at lower levels also favors males. According to the Faculty of Science, without affirmative measures, including PEP, the Faculty would not be able to raise females' enrolment from about 15% (1996/97) to about 30% in the year 2003.

Lowering of cut-off points

There has been a debate over the cut-off points with regard to lowering cut-off points for fear of lowering standards. But experience has shown that the performance of females who entered the system through lowered cut-off points have not been different from the rest of the students who entered through the competitive points. And those who went through the six weeks pre-entry programme have, in some instances, out-performed those who went through the competitive points.

Pre-entry Programme (PEP) students

Pre-entry programme was introduced in 1997 to address the Faculty of Science's concern to address the relatively small number of female students and academic staff in the Faculty. In their strategic plan, the programme is considered as "the immediate approach to effect an increase of the number of female candidates who may not have attained the minimum cut-off point for admission into the faculty although they have the required basic qualifications" in order to "increase the proportion of female students from 15% (in 1996/97) to about 30% in the year 2003" (Faculty of Science, 2001:18). It is worth noting that, with effect from 1998, the Faculty of Science also prepares candidates for admission in other science related degree programmes such as engineering, pharmacy, environmental engineering, dentistry, and nursing within this programme. Currently, six weeks remedial/pre-entry programmes benefits only candidates with science background.

The first cohort of the pre-entry programme female students graduated at the end of the academic year 2000/01. The Dutch government under the Teacher Education Assistance in Mathematics and Science (TEAMS) project funded the first cohort. The Forum for African Women Educationalists (FAWE), FAWE and Gender Dimension Programme Committee (GDPC), and GDPC funded the second, the third and the fourth respectively.

Assessment of the pre-entry programme for female students in science done by Besha (2001) indicates that 87% and 13% of male peers viewed the performance of PEP candidates equal to others and below others respectively. 13%, 73% and 27% female peers viewed it as below others, equal to others and above others respectively. Their overall performance is very good. In fact the best student in the Physics Department for the academic year 2000/01 was from the PEP students and several others did very well and were awarded postgraduate scholarships in some departments in the Faculty of Science (Faculty of Science, 2001:18).

Various reasons were advanced as to why females who go through pre-entry programmes sometimes out-perform direct entrants. These included psychological support they get which builds their confidence and determination to perform. It is the "I can do it" feeling, commented one of the interviewees. This determination opens them for learning. The remedial part helps them bridge the gap. Others are the head start. By the time others join the university, the pre-entry group is already familiar with the environment.

Special scholarships

The University was able to offer 50 scholarships to undergraduates (covering all major broad disciplines) through the support from Carnegie Corporation of New York under the

University of Dar es Salaam-Carnegie Corporation programme covering three years, 2001-3. All faculties benefit from special scholarship programme. This has boosted the number of female admission by 50.

Sida/SAREC and NORAD also support a couple of graduate students through two programmes. There are scholarships targeting females only and the other one targeting both males and females.

Other affirmative measures

Others are provision of on campus accommodation for all first and last year female students in need (for other years preference is also given to females) and counseling services.

Academic and Senior Administrative positions

The number of females in high administrative position and/or holding teaching positions is dismally low, particularly in areas that traditionally belong to male domain. The proportions differ from campus to campus as could be seen from tables 3,4 and 5 giving figures for the main campus, Muhimbili University College of Health Sciences (MUCHS), and University College of Lands and Architectural Studies (UCLAS).

Table 3. UDSM Main campus Academic Staff by Rank and Gender

YEAR	Prof.			A/Prof.			S/Lec.			Lec.			A/Lec.			T/A			TOT		TOT
	M	F	TT	M	F	~	M	F	TT	M	F	TT	M	F	TT	M	F	TT	M	F	(M+F)
1995/96	40	4	44	57	5	62	151	21	172	165	19	184	113	13	126	13	2	15	539	64	603
1996/97	38	6	44	61	4	65	146	19	165	164	17	181	113	13	126	2	0	2	524	59	583
1997/98	39	5	44	59	3	62	158	20	178	183	13	196	100	14	114	2	0	2	541	55	596
1998/99	36	6	42	65	7	72	153	16	169	167	23	190	92	15	107	2	0	2	515	67	582
1999/2000	40	6	46	66	7	73	154	16	170	161	22	183	94	11	105	1	0	1	516	62	578
2000/2001	40	5	45	69	9	78	162	14	176	169	20	189	94	9	103	0	0	0	534	57	591
%'00/01			8			13			30			32			17			0	90	10	100

Table 4 : MUCHS Academic Staff by Rank and Gender

YEAR	Prof.			A/Prof.			S/Lec.			Lec.			A/Lec.			T/A			TOT		TOT
	M	F	TT	M	F	TT	M	F	TT	M	F	TT	M	F	TT	M	F	TT	M	F	(M+F)
1996/97	11	0	11	26	1	27	43	8	51	57	20	77	28	12	40	4	1	5	169	42	211
1997/98	11	0	11	26	1	27	42	8	50	56	20	76	27	11	38	4	0	4	166	40	206
1998/99	14	0	14	24	1	25	36	9	45	55	18	73	29	9	38	2	0	2	160	37	197
1999/2000	14	0	14	25	0	25	37	9	46	56	21	77	20	10	30	2	0	2	154	40	194
2000/01	13	0	13	20	0	20	45	10	55	40	16	56	16	9	25	0	1	1	134	36	170
%99/00			8			12			32			33			15			1	79	21	100

Table 5: University College of Lands and Architectural Studies

YEAR	Prof.			A/Prof.			S/Lec.			Lec.			A/Lec.			T/A			TOT		TOT
	M	F	TT	M	F	TT	M	F	TT	M	F	TT	M	F	TT	M	F	TT	M	F	(M+F)
1995/96	0	0	0	1	0	1	17	0	17	10	0	10	23	1	24	1	2	3	52	3	55
1996/97	0	0	0	2	0	2	17	0	17	15	0	15	23	4	27	1	1	2	58	5	63
1997/98	0	0	0	2	0	2	9	1	10	24	3	27	25	4	29	0	0	0	60	8	68
1998/99	0	0	0	2	0	2	14	2	16	22	3	25	38	5	43	0	0	0	76	10	86
1999/2000	0	0	0	2	0	2	14	2	16	22	3	25	38	5	43	0	0	0	76	10	86
2000/01	1	0	1	1	0	1	17	1	18	20	3	23	36	5	41	3	2	5	78	11	89
%00/01			1			1			20			26			46			6	88	12	100

Key

Prof. Professor S/Lec: Senior Lecturer A/Lec: Assistant Lecturer
A/Prof. Associate Lec: Lecturer T/A: Tutorial Assistant
TT/TOT: Total M: Male F: Female

Source: Institutional Transformation Programme: PMU/UDSM – 2000. (2001). Facts and Figures, Dar es Salaam: University of Dar es Salaam., pp.10, 24 and 23 respectively.

Percentages of females also differ from faculty to faculty. This is shown in table 6.

Table 6: Percentage of females by Faculty/Institute

Faculty/Institute	1999/2000	2000/2001	Variance
Faculty of Arts and Social Sciences	10	9	-1
Faculty of Science	6	6	0
Faculty of Engineering	2	2	0
Faculty of Education	24	13	-11
Faculty of Law	4	4	0
Faculty of Commerce and Management	21	18	-3
Institute of Development Studies	18	21	+3
Institute of Production Innovation	0	0	0
Institute of Resource Assessment	6	6	0
Institute of Kiswahili Research	7	7	0
Institute of Marine Science	12	12	0
Library	46	46	0
Faculty of Nursing	89	89	0
Faculty of Pharmacy	37	44	+7
Faculty of Dentistry	17	17	0
Faculty of Medicine	10	13	+3
Institute of Public Health	22	20	-2
Institute of Traditional Medicine	14	14	0
College of Lands and Architectural Studies*	12	12	0

* In this context it has been treated at a level of a faculty/institute because of the size of population.

Source: Derived/computed from Institutional Transformation Programme: PMU/UDSM – 2000. (2001). Facts and Figures, Dar es Salaam: University of Dar es Salaam., pp.8-10.

Although regulations appear to portray equity as far as equity is concerned in its broad terms, practice displays the contrary. Apart from numbers, both reproductive functions and salient socialization factors affect access of females to opportunities for professional/career advancement and assignment of responsibilities. For instance, there are very few females at professorial levels, and this is not across the board. Some faculties do not have female professors. Astonishingly, this includes faculties of education and nursing, which are female domain professions. In 2000/01 academic year there were only 5 female professors out of 45 professors at the University main campus while both the constituent colleges had none. In the same year there were only 9 female associate professors out of the 69 associate professors at the main campus and none at the constituent colleges.

The trend is no better even at lower levels since appointment of tutorial assistants was frozen in 1992. According to two interviewees, females are more concerned with job security at this level than a career at the University. Thus, since training at a master's level does not guarantee employment they tend to go for available opportunities rather than waiting for uncertain posts. Normally the procedure for recruitment takes a long time and promotion criteria are very demanding. According to the two interviewees, this coupled with other factors that militate against female access to opportunities, discourage females from joining the University as employees.

Common areas of implicit unequal access of opportunities to females employed by the University

Access to physical facilities, particularly housing used to be a major concern before it was generally accepted that females were recruited in their own right rather than appendages to husbands. In the 1970s allocation of a house to a male was considered natural while allocation of a house to a married woman was considered unnatural and in fact questioned. It was only after a long struggle that females were allocated houses irrespective of their marital status.

Although women are employed in their own right, when it comes to benefits/privileges extended to their family members, normally are either questioned or are pegged to husbands. Such questions as has your husband not been paid fare for the due leave (accompanied with a written evidence), are very common. But husbands are not asked similar questions.

Even where there is an acceptance of equal opportunities there are implicit disadvantages. For instance females are invisible in many areas where information is gathered and networking is done. Thus females miss a lot of what is gained through this process.

Apart from the informal sectors, females also miss responsibility opportunities because of the procedures used for appointing people to certain responsibilities. On the surface it may appear that the system is fair because the laid down procedures are followed to a letter and that the process is transparent and democratic. In the first place democracy is characterized by the majority and so is what is called consensus because at the end if numbers are not considered, the final decision may be either tainted by 'hallo effect' or by a 'common say 'birds of the same flock fly together'. For instance the commonly used system of search committees for appointing people to different assignments, transparent and fair as it may seem, is likely to favor males since in most cases females are not there, and if they are there, would be the minority. So if a democratic process is used it is most likely that males' voice would decide, and if they go by consensus, the chances for influencing the final decision in favor of males is also very likely. And in fact 'logical' because males' visibility gives them an advantage of their abilities to be known. People want to work with tested rather than assumed quality.

Career advancement is one of the areas where women are grossly disadvantaged and have to put up with an unfriendly environment. A woman might miss or postpone a training opportunity because of problems associated with reproductive roles. This is blamed on her instead of availing her opportunity immediately after the problem is resolved. But she has to queue or look for alternatives. While men's statements/responses are generally taken as sound reasons, women's reasons are taken as excuses. One of the interviewees had commented on her experience at a Senate meeting where a male's appeal was accepted without producing written evidence because traditional healers do not provide written prescriptions and a woman's appeal questioned because she failed to produce a medical certificate for failing to sit for an examination. This particular woman was on bed rest because of pregnancy complications.

However, the situation has improved after conducting several sensitization workshops, and with requirements for reporting at faculty levels developments on redressing gender imbalance as one of the items to be reported on in six monthly faculty/institute progress reports on Five Years Rolling Strategic Plans and at Annual Consultative Workshop on Institutional Transformation Programme (UDSM 2000) held every September. Institutionalization of Gender Dimension Programme Committee and counseling services has also helped a lot as a strategy in redressing gender imbalance (in terms of perception, not numbers) either through confidence building (on the part of women) and change of attitude (in the case of both males and females) towards female capabilities and their rights (and duties).

Nonetheless, as noted by Besha (2001) and remarks from four interviewees, while it is difficult for the science based faculties to recruit staff at lower levels because of the very limited number of graduates, the University has a potential of recruiting more females in the non-science based faculties if it wishes to do so:

It has been noted in several surveys that there have not been efforts to encourage women to think of an academic career, or to put it differently, an academic career has not seemed attractive to women. Freezing of the Tutorial/teaching Assistant position, until recently, has affected female academic employment over the years" (Besha, 2001:35).

Strategies for enhancing female access to higher education

Several short and long term strategies were suggested for enhancing female access to higher education. Short term strategies include:

- ◆ Gender sensitization, particularly to senior officials. 80% of the interviewees considered sensitization as more important because if sensitized, policy makers will see the need for affirmative actions to promote girls' enrollment and performance, so they will allocate resources for the pre-entry and undertake other interventions. Two (20%), while accepting the importance of sensitization, consider spending on pre-entry programmes would have a more direct impact to the beneficiaries and would have a trickle down effect, particularly in the area of confidence building;
- ◆ Counseling for confidence building;
- ◆ Remedial courses to raise current female enrollment; and
- ◆ An outreach programmes where girls in Form V and VI are supported to perform well through motivational programmes, confidence building and role modeling. Form II girls should be motivated into taking science in Form III and passing in Form IV.

Long term strategies include:

- ◆ Interventions at lower levels. Interviewees were of the view that money should be spent on intervention programmes at lower levels. Pre-entry was considered as a remedial step, thus should not be a permanent feature. Therefore it is important to promote girls' performance at pre-university level so that there are sufficient, well

performing girls in all subjects, particularly science subjects, where female access is very skewed.

- ◆ Role modeling was considered as a very effective way of confidence building. The extent is attested by one of the interviewees who had done modeling as being great.

“To a very great extent. Since 1990 I have done modeling. After meeting and talking with girls/parents for even half an hour. Almost all get interested in Mathematics. Years later, I receive letters of graduates telling me they are where they are because I inspired them some 5 or so years ago”.

- ◆ Gender education at all levels is considered as the best way of inculcating appropriate values. According to one respondent “just like modern civilization started in school and then spread to societies similarly gender equity should start in those communities”. One female respondent felt that the bias so disheartening to the extent that “as a woman one has to be 10 times better than a man to be given second position to this man”;
- ◆ To establish appraisal system that is gender sensitive; and
- ◆ To create a friendly and secure environment. One of the interviewees considered a lot could be done at minimum cost to make UDSM campus more user friendly and secure, for example by providing campus transport life for expecting females and other people with health problems that limit their capacity to walk long distances could be more comfortable and secure. UDSM campus is spread out and could be insecure at night.

Strategies for enhancing female participation

Several strategies were advanced for enhancing female participation:

- ◆ Paying due attention to gender imbalance in the University’s strategic plan. Respondents were of the opinion that it was not given its due weight because it lacks support system. For instance, there are no affirmative actions for women academicians in terms of enrolment and performance. For example due to reproductive roles, women’s research activities are affected. When competing for research grants the platform is not level, as such, there should be a quota system for research grants, sabbaticals etc.;
- ◆ Introduction of specific programmes for capacity building, particularly in areas where women percentage is dismally small;
- ◆ Introduction of quota system in recruitment policy. This could expose females’ talents and thus enable them to compete in areas where emphasis is on experience rather than potential; and
- ◆ Making environment friendly in terms of security and addressing women specific needs.

Conclusions

Both documentation and interview results showed that PEP should be a short-term measure for enhancing females' access to higher education. The long-term strategy recommended is the improvement of school conditions, increasing the number of schools and facilities; and improving the competence of teachers. This would ultimately enable girls to join university in the normal procedure. Short-term strategy for enhancing females' participation included systematic gender sensitization programmes; introduction of a quota system in both career development/capacity-building endeavors and assignment of responsibilities. Making working environment, including appraisal system gender sensitive was recommended as a long-term strategy, that is, after the significant increase of females' access to higher education.

Recommendations

It is recommended that, for long lasting solution in redressing gender imbalance, the two ministries dealing with education system, in conjunction with institutions of higher learning, should take deliberate measures to raise the level of literacy among females, expand enrolment of women and girls in educational institutions, and increase educational training opportunities for women and girls, particularly in science and technology. Secondly, All institutions of higher learning should have as a top priority the development of new strategies to promote change and to create a climate in their respective institutions that will accommodate and value women students and staff as they value males. Equity should be respected, irrespective of sex or any other form of existing or perceived disadvantage.

References

- LeRoy, Barbara and Simpson, Cherie. (1996).** Improving student outcomes through inclusive education, *Support for Learning*, vol.11, no. 1, pp.32-36.
- Manyire, Henry. (1997).** Gender conceptions and perceptions that predispose girls to premature termination of education: the case for Kabarole District, Uganda, Nairobi: Academic Science Publishers (Abridged Research Report No.26).
- Mbwette, T.S.A. (2000).** Adequacy and shortfalls of the higher education: quality control/assurance system in *Tanzania, in the Multidimensional Crisis of Tanzania: a preliminary call for public debate and action*, Dar es Salaam:UDSM Convocation, pp.85-100.
- Mbilinyi, M. (ed.)(1990).** Education in Tanzania with a gender perspective, Dar es Salaam: SIDA.
- Mkude, D.J. and Cooksey, B. (2000).** A situational analysis of the University of Dar es Salaam's Institutional Transformation Programme, Dar es Salaam: UDSM.
- Ministry of Science, Technology and Higher Education. (1996).** The National Science and Technology Policy for Tanzania, Dar es Salaam: MSTHE.
- Ruth, R. M. (2001).** Assessment of the pre-entry programme for female students in science, Dar es Salaam: UDSM Gender Dimension Programme Committee.
- University of Dar es Salaam. (1994).** Corporate Strategic Plan, Dar es Salaam: UDSM.
- University of Dar es Salaam. (1996).** Five Year Strategic Plan 1998-2003, Dar es Salaam: UDSM.
- University of Dar es Salaam. (1998).** UDSM Academic Audit Executive Summary, Dar es Salaam: UDSM.
- University of Dar es Salaam. (2001).** Five Year Rolling Strategic Plan 2000/2001-2004/2004: Executive summary, Dar es Salaam: UDSM.
- University of Dar es Salaam. (2001).** Institutional Transformation Programme PMU/UDSM – 2000: Facts and figures 2000/2001, Dar es Salaam: UDSM.
- University of Dar es salaam (2001).** Pre-entry programme; remedial courses for admission of female candidates in Science and Engineering at the University of Dar es Salaam: progress Report for 2001, Dar es salaam: Faculty of Science, UDSM
- Yahya-Othman, S. (2000).** Tanzania: engendering academic freedom, in *Women academia: gender and academic freedom in Africa*, edited by Ebrima Sall, Dakar: CODESRIA.