

THE UNITED REPUBLIC OF TANZANIA



THE MINISTRY OF EDUCATION AND VOCATIONAL TRAINING

**THE TEACHER EDUCATION DEVELOPMENT AND MANAGEMENT
STRATEGY - 2007/08 TO 2010/11**

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1.0 BACKGROUND, TERMS OF REFERENCE, AND KEY RECOMMENDATIONS

1.1 Introduction and Background

The Teacher Education Development and Management Strategy (TDMS) is a response to the recommendations of *The Primary Education Development Plan (PEDP) Joint Annual Review (JAR)* of 2004. In that review, one of the major recommendations was for the Ministry of Education and Vocational Training (MoEVT) to put in place a teacher development and management strategy as a mechanism for managing the teaching force. The *Strategy* is divided in two sections. Section one contains an analysis of the situation and recommendations that form the basis of the strategy. The strategic objectives, strategies and targets, including the implementation plan, time frame and budget are presented in section two.

1.2 Justification for TDMS

Tanzania is currently operating two development programmes in the education sector – **Primary Education Development Programme (PEDP 2001-2006)** and **Secondary Education Development Programme 2004-2009 (SEDP)**. PEDP started in 2001 and now it is in Phase II, and aims at the Universalization of primary education. SEDP calls for absorption of at least 50% of primary school leavers to O-Level and 50% of O-Level to A-Level between 2004 and 2009.

The pressures for expansion have made it necessary for MoEVT to re-examine its strategies for the preparation of teachers and managers of its education system so that the quantitative expansion should not inadvertently affect the quality of education. Specifically, it should not affect the competency, motivations, and commitment of the teachers and faculty.

In most developing countries, Tanzania included, education means teachers, as they end up being the key source of knowledge, skills, wisdom, appropriate orientations, inspiration and models for the students. Very often, there are no teachers' guides and enough textbooks, and concomitant inputs; hence, it is the teachers who really make a difference.

As opposed to developed countries where out-of-school influences are good predictors of pupils' learning outcomes, in developing countries, it is the intra-school variables that matter most, and here the teacher is central in facilitating the processes that lead to meaningful education. In the light of all these, any consideration to raise the quality of teaching and learning needs to begin with the teacher. Teacher education therefore is the cornerstone of any success in any education innovation in the world, and at any level of the education enterprise; and this TDMS is based on this reality.

1.3 The Concept of a Strategy

The term 'strategy' has its strongest roots in the military. You do not go to war without a strategy or tactics for winning the war. The term has gathered even greater momentum in the business world. A company cannot sustainably succeed without a strategy. TDMS therefore is meant to provide a comprehensive, holistic, and an all encompassing programme for

attracting, obtaining, training, developing, and retaining adequate and high quality teachers and managers for all levels and aspects of the education system.

Tanzania has experienced several and serious strains, if not crises, in the development of education, basically because there has never been a public, transparent, and broadly accepted strategy for the development and management of the teaching force. Even today, the whispers have it that the country is still suffering from that mistake. For instance:

- (a) In 1978 the first UPE drive was initiated. As schools overflowed with enrolment, there was a great shortage of primary school teachers, and it took considerably long to get them trained and placed in schools. The government had to literally call on all schooled persons to come to its rescue and get short training and teach and run the primary schools. The NER which had been less than 50% reached 90% in the 1990s.
- (b) By 2001, the NER plummeted to about 57%, hence the government embarked on the second UPE drive to reverse the trend of the NER via PEDP. As children flooded schools for free primary education, the nation experienced another acute shortage of teachers. Again, a call was made upon many secondary school leavers, with minimum passes, to come and get one year training and join the teaching force, instead of the proper route of two years training.
- (c) In 2004, as the number of primary school leavers increased, the country realized that it had to dramatically expand secondary school enrolment, and hence SEDP. It was again realized teachers were not enough, hence all kinds of stop gap measures were attempted, often against established norms, including the use of untrained teachers; and those who got four-week induction courses later, were all licensed to teach.
- (d) In 2006 social and economic demands for higher education increased greatly, so more higher education opportunities were created, including the opening of new public and private universities and university colleges. Now the nation is realizing that it does not have adequate lecturers to teach in the new universities as well as replace an aging faculty.

It is now self-evident that the supply of teachers at all levels is not only placing serious constraints on the expansion of numbers, but more seriously, on quality assurance, quality control, and quality improvement. This can only be handled by a firm strategy that will allow the training of teachers to precede quantitative expansion in education, as high quality education is the ultimate good system. But more importantly, the country needs a more coordinated and holistic education development strategy that covers all levels and types of education, instead of the current tier by tier approach which more than often leaves out the teachers.

1.3.1 What does a strategy do? It is of no good having a teacher development and management strategy if there is no basic discipline to live with it, and work with it. Therefore, the very first task of the strategy is to instil discipline among all stakeholders. This will ensure smooth operation of an education system, as things become predictable and clear to everyone. This is a basic essential for a strategy to work, and that is predictability and a longer gestation time between policy pronouncement and the start of its implementation.

An effective **Development and Management Strategy** anticipates educational development events, and predicts future features of the education system. For instance, it takes a minimum of four years to:

1. Identify and recruit teacher trainees (one year),
2. Train them for a minimum of two years,
3. Examine and post them to schools (another year), and
4. Monitor their performance, especially during induction and confirmation.

Thus, one needs to start training teachers some three to four years before one embarks on any major educational reforms, especially when expansion is contemplated. The same is also true in curriculum development. It takes about four years to design, try out, and implement a new curriculum on full scale.

There is always a need for flexibility in any strategy so as to accommodate what might have not been anticipated. However, this flexibility should not involve *ad hoc* actions. It is anticipated that there will be annual meetings and formal reviews of the strategy at the end of each two years, and a major review after every five years so that adjustments could be made accordingly.

Yet, having a strategy without accepting the rules of the game is a futile exercise. Education development cannot be done well through political declarations and dictates. Tanzania education has suffered a lot from that route of declarations. It needs time for reflection on objectives and planning for strategies for achieving them. Thus, all parties have to cooperate if the strategy is going to become a management tool for the education enterprise.

1.4 Terms of Reference (ToRs)

The strategy was developed after carrying out thorough analysis of challenges facing teacher education development and management in Tanzania, and this is contained in the TDMS Report. The ToRs for the consultancy team were to:

- *Come up with an efficient and effective action plan for:*
 - (a) Obtaining adequate and high quality teachers and tutors to meet current and projected demands of pre-primary, primary, secondary, teacher education, vocational training, as well as tertiary and higher education.
 - (b) Attracting and retaining high quality teachers and candidates in the teaching profession.
- *Propose desirable reforms of existing institutional frameworks, including amalgamation, to improve efficiency and effectiveness.*
- *Recommend appropriate strategies for linking:*
 - (a) pre-service and in-service training;
 - (b) certificate, diploma and undergraduate programmes; and
 - (c) residential and open learning programmes.
- *Recommend appropriate actions for ensuring sustainable and continued in-service programmes.*

- *Recommend measures to strengthen the monitoring of support systems and structures for pre-service and in-service teachers.*
- *Recommend appropriate modalities for accreditation of the teaching profession within the framework of the Education and Training Policy (ETP).*
- *Recommend a coherent programme for training and developing faculty and tutors for pre-primary, primary, secondary, teacher training and vocational training institutions. This will include preparation of lecturers and professors for FoED, DUCE, MUCE, OUT, SUZA and, where appropriate, envisaged faculties of education in emerging institutions.*
- *Recommend a coherent programme for training and developing educational managers and administrators as well as other experts for the efficient and effective implementation of PEDP, SEDP, TDMS, and HEDP in a decentralized education system.*
- *Suggest an efficient mechanism for obtaining data and information of effective planning.*
- *Recommend curriculum and duration of current pre-service training programmes and suggest areas of improvement to enhance relevance, functionality, balance, efficiency and effectiveness.*
- *Propose mechanisms for coordinating the development of teacher training materials to avoid duplication.*
- *Produce a Teacher Development and Management Strategy (TDMS) draft document including cost implementations.*
- *Establish the financial gap in TDMS between the government budget and proposed strategies for increased budget allocation.*

This was in recognition of the fact that well-managed quality teachers are the key agents for realizing high quality education in any country.

1.5 Methodology in the Inquiry

Two methodologies of the inquiry used included extensive reviews of both **grey** literature and established works and extensive consultations and discussions with informed stakeholders. The team held a stakeholders workshop. It also embraced visits to 24 primary schools, 16 secondary schools, two university faculties of education, and 23 teacher training colleges. Similarly, seven instruments, ranging from institutional profile data, interview schedules, questionnaires for tutors and teacher trainees, check list and observation schedules were administered. Examination records were also reviewed.

1.6 Analysis, Conclusions, and Recommendations

The following sections contain a summary of the analyses, conclusions and recommendations that formed the basis for the strategy. These are presented for each Term of Reference.

1.6.1 Efficient and Effective Action Plans for Obtaining, Attracting, and Retaining Adequate and High Quality Teachers

There is noticeable absence of a well-articulated **philosophy** and a **vision** to guide education sector policy formulation and planning in Tanzania. There is need to clearly articulate the philosophy, along the lines of education for self-reliance, **and vision of education** that would determine the kind of capabilities learners would develop through their education career. One also needs to have a clear vision of the **ideal teacher**, who masters and demonstrates ideal teaching behaviours and skills that will facilitate high quality education. It is conceivable that one can master and regurgitate what a model teacher needs to have but fail to demonstrate those behaviours in the classroom. Thus, one ends up preaching: “Act as I tell you but not do what I do”. Is this what we want to create here? A quality curriculum that is in line with the country’s philosophy and vision (once articulated) is equally vital. A teacher who is perfect in the theory of teaching but poor in teaching! That is why **Practical Teaching** is also always a central and mandatory component of teacher preparation. In some countries, like Japan, this is always followed up by induction, regular school-based mentoring, peer coaching, supervision by external inspectors, and classroom inspection by the head of the school or subject head, and master teachers’ demonstration lessons. This is to make sure that the ideal teaching behaviours are alive and have the possibility of manifesting live in the classroom.

There is no doubt today that adequate numbers of high quality teachers are central to the functioning of any education system. Adequacy is normally addressed in terms of teacher-pupil ratio and distribution spatially, and in terms of teaching load. The issue of quality is more nebulous and complex. However, it is firmly established today that quality starts with **great mastery of subject matter**. This is the necessary though not sufficient condition for good teaching; most good teachers also need to master and exhibit the ideal teaching behaviours listed below.

- a. **Reflection:** Reflection on what to teach, when, why, how to teach it, how one taught it, and how one would teach it again in the future.
- b. **Patience:** Showing patience for diverse abilities and speed of learners.
- c. **Fairness:** Demonstration of fairness to all students and honesty in delivery.
- d. **Attentiveness:** Clear focus of attention on the individual curiosities in the class and the total class.
- e. **Language:** Use of clear and simple language – to be understood by all.
- f. **Empathy:** Showing empathy – love, care and willingness to help learners trying to be in their own shoes.
- g. **Tolerance:** Demonstration of tolerance to the diverse views and mannerisms.
- h. **Ambience:** Creating good ambience in all learning situations.
- i. **Emphasis:** Stressing important points in learning.
- j. **Variety:** Demonstration of mastery of different teaching skills since students themselves differ greatly in interest and ability.
- k. **Relevance:** Remaining focused on the goals of the lesson.
- l. **Clarity:** Giving unambiguous messages on what matters and why.
- m. **Problem solver:** Demonstration of ability for problem solving behaviours such as investigating, probing, sequencing, and understanding.
- n. **Mastery:** Showing evidence of great mastery and internalization of the subject matter.

- o. **Humility:** Doing things in a sober way, with little pride and modesty, without exaggerations and self-elevation.
- p. **Interaction:** Keeping constantly in touch with students, peers, the community and promoting a positive image of teachers and schooling as a profession and an institution.
- q. **Use of Time:** Efficient and effective use of classroom time on task for effective learning.
- r. **Good role model:** Demonstrating good behaviours that can be emulated by students.
- s. **Adaptability** Ability to adapt teaching to new situations and needs, including improvisation.

In some lessons, some or most of these behaviours ought to be exhibited. This is the spirit of the proposed strategy. However, a good teacher should also subscribe to possible outcomes of good teaching, as in Box 1.

Box 1: Desired Outcomes of Good Teaching

- (i) Successful learners in life, and not just passing examinations
- (ii) Successful teachers in life, not, just teaching but happy people
- (iii) Dependable individuals in classrooms and in the community
- (iv) Academic achievement in several and diverse subjects
- (v) Good social skills for intrapersonal and interpersonal relationships
- (vi) Economic success for teachers and pupils in their lives
- (vii) Employability of graduates in appropriate tasks
- (viii) Good image of the school and its products.

Quality teaching therefore, embraces effective blending of mastery of subject matter with proper mix of various professional skills to enhance learning and performance by the child. The best strategy, of course, is to start at the top, such as in the production of tutors and lecturers. In this way, good teaching behaviour can trickle down. If there are bad teaching behaviours up there, say at university level, one would get poor products which will trickle downwards, introducing compromises of efficiency and effectiveness at lower levels **such as repetition and remediation** which affect performance of the entire system. Therefore we should start right and rightly at the top.

Through reviews, add the following motivational components as necessary conditions for attracting, retaining and enhancing good quality teaching:

- (a) There must be a better salary (compared to other occupations), housing and attractive teaching and learning environment. This will guarantee that good candidates get attracted and remain in teaching. Often, teachers work in very difficult environments and circumstances.
- (b) Use of merit pay and merit advancement. This will keep good teachers in the profession as it pays to work harder than the next person.
- (c) Pay a higher premium for mathematics, science, and language teachers; it is here where there is the greatest scarcity all over the world. It is also difficult to attract and retain them in this area, given the stiff competition for such candidates.
- (d) Pay location premium for teachers working in remote rural areas and rotate them on regular basis.

- (e) Exempt fees for all teacher education programmes, especially during this period of acute shortage.
- (f) Ensure teachers and pupils have access to clean and safe water and sanitation at all schools.
- (g) Ensure access to subsidized health services for teachers and immediate members of their families.
- (h) In recognition of the uniqueness of the teaching profession – as the foundation to all other sectors – there should be a separate and better incentive package for teachers.
- (i) A firm policy statement on the uniqueness of the teaching profession and thus justifying special packages for teachers would go a long way solving the problem.

1.6.1.1 Obtaining Adequate and High Quality Pre-Primary School Teachers

The pre-primary circle in Tanzania is of two years, that is 5 and 6, as primary education starts at age 7. So far, it is neither free nor compulsory, but encouraged by ETP.

Each primary school thus is supposed to have two pre-school streams, but so far, not all have one, hence the small enrolment volumes. The growth has been slow, moving from a total of 554,835 in 2004 to 638,591 in 2005, and 669,137 in 2006 (BEST, 2006) It is not likely that the rate will change dramatically, given that the education at that level is neither free nor compulsory, except in urban areas where parents can pay and watch their children being attended to while working.

According to PEDP II the following are optimistic projections for teacher requirements for pre-primary education (Table 1).

Table 1: Pre-Primary Education Projected Teachers Requirement (2007 - 2011)

Item	2006/07	2007/08	2008/09	2009/10	2010/11
Enrolment	791,560	1,033,376	1,399,096	1,894,337	2,043,984
Net Enrolment ratio	35	45	60	80	85
Pupil/Teacher Ratio	46	45	43	42	40
Requirements	17,208	22,964	32,537	45,103	51,100
Existing Teachers	14,591	14,153	22,964	32,537	45,103
Additional Requirements	2,617	8,811	9,573	12,566	5,996
Attrition 3%	438	425	689	976	1,353
Annual Recruitment	-	9,235	10,262	13,542	7,349

The following actions are hereby recommended:

- (a) Make pre-primary education a compulsory component of the teacher education system in Tanzania.
- (b) Encourage, regularize, harmonize, and recognize the products of private initiatives such as those of Montessori and the Korogwe Early Childhood Centre. There is strong interest but dialogue with the government seems stalled.
- (c) De-link pre-primary and early childhood teacher training in government colleges from Grade A preparation, and create three or four pre-primary colleges among the current ones. This is to appreciate the fact that pre-primary teaching and care is a highly specialized and demanding work that cannot just be entrusted to all Grade A Teachers Colleges. Poor pre-primary background will lead to

establishing a poor foundation of students at primary school level. There should also be some screening of the kids at that level so that disabilities can be detected early.

- (d) Establish a department of Early Childhood Education and Care in MoEVT to coordinate pre-primary education in order to accord it its rightful weight.
- (e) De-link the study of the alphabet and numbers from pre-primary curriculum, especially during the first year, as children at that age may not be ready for those skills, and obviously the period is not sufficiently opportune. That should be left to primary education level and then concentrate on play activities, creative arts, physical fitness, and social skills of working together at pre-school level.

Instead of concentrating on play, creative, creative activities, physical fitness, and social skills. An appropriate, carefully designed, holistic pre-school curriculum that takes into account research findings and lessons learnt locally and in other African Countries, is needed.

1.6.1.2 Obtaining Adequate and High Quality Primary School Teachers

The current enrolments are as follows: 7,959,884 in government primary schools with 148,607 teachers and with a TPR of 1:54. The private sector enrolls 80,196 with 3,275 teachers, and a TPR of 1:25. The impact of the new UPE on enrolment has been remarkable as it has climbed from 4.4 million to about 8 million pupils in five years. The implications of this growth could not naturally be matched with teacher outputs, so this has put great strains in the current teaching force, and the government did a commendable job to improvise under quite difficult circumstances. We should now move from crisis management to a more normal and stable teacher training and development patterns. These successes notwithstanding, high TPR has negative impact on performance as all learners may not have opportunity to pose questions on unclear topics.

The TPR in government schools for example remains at 1:54 as opposed to the prescribed norm of 1:40 in government schools. It is now estimated that the requirements for new grade “A” teachers will be as follows: 2007 (7,335), 2008 (14,250), 2009 (6,703), 2010 (9,580) and 2011 (14,220) (PEDP II) (Table 2).

Table 2: Primary Education Teachers Requirements: 2007 – 2011

Item	2006/07	2007/08	2008/09	2009/10	2010/11
Enrolments	8,217,328	8,213,523	7,970,167	7,849,615	8,088,516
Teacher /Pupil Ratio	52	50	48	46	45
Requirements	158,026	164,270	166,045	170,644	179,745
Existing Teachers	151,882	154,661	164,270	166,045	170,644
Additional Requirements	6,144	9,610	1,775	4,599	9,101
Attrition 3%	4,556	4,640	4,928	4,981	5,119
Annual Requirement	7,335	14,250	6,703	9,580	14,220

Source: PEDP II (March 2007)

Assuming the current 19 Grade A Teachers Colleges retain the same levels of enrolment, one can comfortably state that the current installed capacity in Grade A TCs is sufficient for producing the 14,660 teachers needed to meet the demand in 2011. The physical facilities, materials and equipment, however, need to be enhanced and consolidated. In addition, Grade C/B who fails to upgrade academically should be phased out.

1.6.1.3 Obtaining Adequate and High Quality Secondary School Teachers

Data on current staffing situation including shortages. This is summarized in Table 3 as obtained from the Secondary Education Department of MoEVT.

Table 3: Teacher Situation in Government and Private Secondary Schools (2006)

	Graduates	Diploma	Licensed	Others
Government	2032	11823	196	1860
Private Schools	2052	4035	98	1156
Total	4084	15858	294	3016

Source: BEST (2006)

(i) *Secondary education teacher demand.* Under SEDP, using a PTR of 1:40 for O-Level and 1:30 for A-Level with a 25:75 split for graduate and diploma the projections are as in Table 4. It has often been anticipated that the ratio between diploma and graduates would decrease. However, to-date it is at about 87:13. This needs to be reversed, which means more graduate teachers being produced than diplomats per year as under SEDP II; the recasted requirements and targets are: 11,642 more graduate teachers produced by 2009, and 38,442 more diploma teachers produced by 2009. Yet a more realistic estimation of additional teachers needed for the implementation of SEDP can be realized by taking into consideration the factors explained in the subsequent sections.

(ii) *Stable secondary education enrolment projections.* It should be noted that making projections of teacher demand at the secondary education level is obviously more complex. First, the current drive to enrol all those who pass their PSLE is resulting in erratic enrolment patterns because not all communities will meet the targets. Secondly, the pass levels vary from year to year, which makes systemic projections of enrolment less predictable.

(iii) *Staff- students' ratio.* However, using staff student ratio of 1:40 gives one the following picture in scenario A (Table 4).

Scenario A provides the projection of teacher demand at the ratio of 75:25 diplomas to degrees, a mix far below the minimum teacher mix recommended ratio in ETP so as to realize high quality secondary education according to the Education and Training Policy (URT, 1995: 41)

The minimum qualification for a secondary school teacher in both government and non-government schools shall be possession of a valid diploma in education obtained from a recognized institution... Diploma teachers are expected to teach in Forms 1 – 2, while graduate teachers normally teach in Forms 3 – 6.

Desirable Ratio of diploma to degree holders. **Scenario B** calls for a reduction of the proportion of diploma teachers in secondary school teaching force to 50:50, while **Scenario C** involves full compliance with ETP.

As the country reduces the proportion of teachers in the secondary school teaching force to 75:25 (degree to diploma), the oversupply of diploma teachers can get absorbed at primary and ward education levels, as is the case world over where there is an intention to improve quality at foundation levels.

Proportion of time allocated for teaching the different subjects as an added factor to determine teacher mix and demands subject wise. When this factor is introduced, new pictures will emerge (Table 5 Scenario A-C). Immediate actions are needed in the areas of:

- (a) establishing the actual capacity to train science, mathematics and language teachers;
- (b) revisiting the issue of the pool of students for science and mathematics via solid study and pointed recommendations.
- (c) taking measures to deal with college specializations in teacher training;
- (d) ensuring spatial distribution of teachers; and
- (e) ascertaining political will to allow sufficient investment to solve the teacher education problem.

Table 4: Secondary School Enrolment and Teachers Projections (2006 – 2010)

Year		2006	2007	2008	2009	2010
STD VII		697,639	819,117	1,104,352	1,230,648	1,142,912
Abscondmment rate at VII		3.4%	3.4%	3.4%	3.4%	3.4%
Pass rate		70.4%	80.0%	80.0%	80.0%	80.0%
Transition Rate (Std VII-Form I) for Government Enrolment		75.0%	75.0%	75.0%	75.0%	75.0%
Transition Rate (Std VII-Form I) for Non-government Enrolment		10.1%	7.9%	6.2%	5.8%	4.8%
Transition Rate (Form IV-Form V) Government and Non-government		43.4%	42.2%	40.9%	39.7%	38.5%
School enrolment	Form 1	243,359	403,748	524,768	692,996	768,444
	Form 5	27,780	31,413	47,335	71,984	86,802
Class size	O-level	40	40	40	40	40
	A-level	30	30	30	30	30
Projected number of teachers (Scenario A) 25:75 – Diploma : Degree						
Degree		1,288	3,024	3,480	5,680	6,152
Diploma		2,870	7,435	8,438	12,645	13,169
Total		4,158	10,459	11,918	18,335	19,321
Projected number of teachers (Scenario B) 50:50 – Diploma : Degree						
Degree		1,288	3,024	5,959	9,167	9,660
Diploma		2,870	7,435	5,959	9,167	9,660
Total		4,158	10,459	11,918	18,335	19,321
Projected number of teachers (Scenario C) 75:25 – Diploma : Degree						
Degree		1,288	3,024	8,938	13,751	14,490
Diploma		2,870	7,435	2,980	4,584	4,831
Total		4,158	10,459	11,918	18,335	19,321

N.B. Data for scenario A are adopted from PEDP II (March 2007). They also formed the basis for computing Scenarios B and C.

Table 5: Projected Teacher Demand Subject-wise (Diploma and Degree)
SCENARIO A = 75:25 Diploma – Graduate Ratio

S/no	SUBJECT	NO. OF PERIODS	FORMS I TO IV														
			2006			2007			2008			2009			2010		
			DIP	DEG	TOTAL	DIP	DEG	TOTAL	DIP	DEG	TOTAL	DIP	DEG	TOTAL	DIP	DEG	TOTAL
1.	MATHEMATICS	6	420	188	608	1,088	443	1,531	1,235	509	1,744	1,850	831	2,681	1,927	900	2,829
2.	ENGLISH	7	490	220	710	1,269	516	1,785	1,441	594	2,035	2,159	970	3,129	2,248	1,052	3,298
3.	KISWAHILI	3	210	94	304	544	221	765	617	255	872	925	416	1,341	964	450	1,414
4.	BIOLOGY	4	280	126	406	725	295	1,020	823	340	1,163	1,234	554	1,788	1,285	600	1,885
5.	CIVICS	3	210	94	304	554	221	765	617	255	872	925	416	1,341	964	450	1,414
6.	PHYSICS	5	350	157	507	907	369	1,276	1,029	425	1,454	1,542	693	2,235	1,606	750	2,356
7.	CHEMISTRY	4	280	126	406	725	295	1,020	823	340	1,163	1,234	554	1,788	1,285	600	1,885
8.	GEOGRAPHY	4	280	126	406	725	295	1,020	823	340	1,163	1,234	554	1,788	1,285	600	1,885
9.	HISTORY	3	210	94	304	544	221	765	617	255	872	925	416	1,341	960	450	1,414
10.	OPTIONS	2	140	63	203	363	148	511	412	170	582	617	277	8,894	642	300	942
TOTAL		41	2,870	1,288	4,158	7,435	3,020	10,459	8,438	3,480	11,918	12,645	5,680	18,335	13,169	6,152	19,321

SCENARIO B = 50:50 Diploma – Graduate Ratio

S/no	SUBJECT	NO. OF PERIODS	FORMS I TO IV														
			2006			2007			2008			2009			2010		
			DIP	DEG	TOTAL	DIP	DEG	TOTAL	DIP	DEG	TOTAL	DIP	DEG	TOTAL	DIP	DEG	TOTAL
	MATHEMATICS	6	420	188	608	1,088	443	1,531	872	872	1,744	1,342	1,342	2,684	1,414	1,414	2,828
2.	ENGLISH	7	490	220	710	1,269	516	1,785	1,017	1,017	2,034	1,563	1,563	3,130	1,649	1,649	3,299
3.	KISWAHILI	3	210	94	304	544	221	765	436	436	872	671	671	1,342	707	707	1,414
4.	BIOLOGY	4	280	126	406	725	295	1,020	581	581	1,162	894	894	1,788	942	942	1,884
5.	CIVICS	3	210	94	304	554	221	765	436	436	872	671	671	1,342	707	707	1,414
6.	PHYSICS	5	350	157	507	907	369	1,276	727	727	1,454	1,118	1,118	2,236	1,178	1,178	2,356
7.	CHEMISTRY	4	280	126	406	725	295	1,020	581	581	1,162	894	894	1,788	942	942	1,884
8.	GEOGRAPHY	4	280	126	406	725	295	1,020	581	581	1,162	894	894	1,788	942	942	1,884
9.	HISTORY	3	210	94	304	544	221	765	436	436	872	671	671	1,342	707	707	1,414
10.	OPTIONS	2	140	63	203	363	148	511	291	291	582	447	447	894	471	471	942
TOTAL		41	2,870	1,288	4,158	7,435	3,020	10,459	5,959	5,959	11,918	9,167	9,167	18,335	9,660	9,660	19,321

SCENARIO C = 25:75 Diploma – Graduate Ratio in Compliance with ETP

FORMS I TO IV																		
S/ n o	SUBJECT	NO. OF PERIOD S	2006			2007			2008			2009			2010			
			DIP	DEG	TOTA L	DIP	DEG	TOTA L	DIP	DEG	TOTA L	DIP	DEG	TOTA L	DIP	DEG	TOTA L	
1.	MATHEMATICS	6	420	188	608	1,088	443	1,531	436	1,308	1,744	671	3,929	4,600	707	2,120	2,827	
2.	ENGLISH	7	490	220	710	1,269	516	1,785	509	1,526	2,035	783	4,584	5,367	825	2,474	3,299	
3.	KISWAHILI	3	210	94	304	544	221	765	218	654	872	335	1,964	2,299	353	1,060	1,413	
4.	BIOLOGY	4	280	126	406	725	295	1,020	291	872	1,163	447	2,619	3,066	471	1,414	1,885	
5.	CIVICS	3	210	94	304	554	221	765	218	654	872	335	1,964	2,299	353	1,060	1,413	
6.	PHYSICS	5	350	157	507	907	369	1,276	366	1,090	1,456	559	3,274	3,833	589	1,767	2,356	
7.	CHEMISTRY	4	280	126	406	725	295	1,020	291	872	1,163	447	2,619	3,066	471	1,414	1,885	
8.	GEOGRAPHY	4	280	126	406	725	295	1,020	291	872	1,163	447	2,619	3,066	471	1,414	1,885	
9.	HISTORY	3	210	94	304	544	221	765	218	654	872	335	1,964	2,299	353	1,060	1,413	
10.	OPTIONS	2	140	63	203	363	148	511	145	436	581	224	1,310	1,534	236	707	943	
TOTAL			41	2,870	1,288	4,158	7,435	3,020	10,459	2,980	8,938	11,918	4,584	13,751	18,335	4,831	14,490	19,321

1.6.1.4 Obtaining Adequate and High Quality Teacher Education Tutors

Currently, there are 32 state teacher training colleges, 15 of which offer diploma programmes only, and 17 offers Grade A qualification. In terms of tutors, the lines of demarcation regarding qualifications for the different levels are currently blurred. The Education and Training Policy (URT 1995) clearly stipulates that the “Minimum qualification for tutors at certificate and diploma level teacher’s courses shall be the possession of a valid university degree, with the necessary relevant professional qualification specialization.

The total number of tutors on post is about 987, with an enrolment of 15,159, giving a TSR of 1:16, which is low by the general standard of 1:30. It is reported that the greatest shortage is for degree holders who constitute only 35% of the total. Subject-wise, the total shortage however, is 269, distributed as follows: Development Studies (20), Civics (20), History (19), Measurement and Evaluation (18), Psychology (12), English (16), Education Foundations (14) and Pre-primary (12) topping the list of shortages. New subjects such as French, Technology, and Physical Education are particularly hit by both shortages and lack of a coherent programme for the preparation of such teachers to meet the growing needs. In order to enhance the efficiency in use of tutors, and fully exploit the economies of scale, there is need to expand enrolment in small colleges to not less than the policy of having 500 teacher trainees.

The University of Dar es Salaam has a whole stream for BED (Teacher Education), which produces over 100 graduates each year, and Morogoro Teachers College is supposed to offer six months induction courses for new tutors, but this is not regular.

The University of Dar es Salaam produces on average 50 psychology graduate teachers at undergraduate level as well as ten of masters level could be placed in Teachers’ Colleges.

Apart from Patandi Teachers College, we did not see any concerted efforts to produce qualified teachers on children with special needs, to include those with physical, mental, emotional and sensory problems.

Similarly, the University of Dar es Salaam produces on average 20 specialists in educational management at undergraduate level many of whom should be placed in Teachers Colleges to train teachers and middle level administrators for various levels in our education system.

It does not seem that there is need for projections for the supply and demand here. Rather, and this was confirmed in the field, there is need for a more active and prudent recruitment of appropriate tutors, and more importantly, making teacher training jobs more attractive to graduates. However, there is need for competency and qualifications audit in all teacher training institutions so that only quality tutors remain on post.

1.6.1.5 Obtaining Adequate High Quality Vocational Training Tutors

The Vocational Education and Training in Tanzania is characterized by the following sub-systems: Government VET institutions comprising of VETA centres (21), FDCs (58), Post-Primary Technical Training Centres (139) and Non-Governmental VET institutions comprising of mission trade schools (220), Private and NGOs (360).

The annual enrolment capacity in 2006 in these institutions, in both short and long courses, was 110,000 made up as follows: Government Institutions (VETA centres, FDCs, PPTCs line Ministries etc.) 46,000, Non-Governmental Institutions (NGOs and Private), 64,000.

Given the international teacher/trainee ratio of 1:16, the number of vocational teachers to be employed in the whole system at present is estimated at 6,800. Currently, about 30% of these have not received pedagogical training. Due to the on going expansion and modernization programme of VET facilities, it is estimated that additional 736 new vocational teachers will be needed between 2007/8 and 2011/12. The total number to be trained through long and short pedagogical courses is therefore about 2,475. The Morogoro Vocational Teacher Training College (MVTTC) is the only national college for training vocational teachers. Projections for enrolment (2007/8 – 2011/12) and requirements for training the trainers (Tutors) are summarized in Table 6.

Table 6: Government Vocational Teacher Training Enrolment

Year	Long Courses		Short pedagogical course	Total
2007/8	60	95	210	365
2008/9	60	210	240	510
2009/10	60	220	240	520
2010/11	60	240	240	540
2011/12	60	240	240	540
TOTAL	300	1005	1170	2475

Source: BEST, 2006.

A more accurate projection of teacher demand should also include those who assume technical and management positions at the headquarters, decentralized levels in schools, colleges and other educational agencies such as TIE, NECTA, ADEM, IAE, REOs, DEOs, Zonal School Inspectors and District Education Inspectors who are not engaged in day to day classroom teaching.

1.6.1.6 Tertiary and Higher Education

The story is different here. First, universities have autonomy in the recruitment and remuneration of their staff that include both academic subject specialists and professional educationists. They have their own staff development plans and fall under the Ministry of Higher Education, Science and Technology. It does not seem that there can be a strategy for this line of activity, but we should make one appeal – since the production of teachers fall under two Ministries (MHEST and MoEVT) but much of the consumption takes place in one Ministry (MoEVT), there should be **an advisory body** which harmonizes and synchronizes the supply and demand of teachers and tutors. In addition, there should be set up a set of basic requirements in terms of qualifications and qualities of faculty teachers and tutors who train for MoEVT consumption. MoEVT should also take active interest influencing the preparation of any higher education plans in order to ensure the issue of producing high quality teachers and experts is adequately covered. **It used to be mandatory for example, that one should have a PhD to teach in Universities.** It has to be recognized that higher education institutions have their own mechanisms for on-the-job training. In fact, some have whole units on the improvement of University Teaching and Learning. However, of late there has been great scarcity for scholarships, hence the importance of having a dedicated fund for staff development for the whole sub-sector. Table 7 shows that over 50% are not qualified. Sometimes ago, it was mandatory that if one teaches history methods in the form of orientation courses, one should have taught it in schools first, but today trainers of tutors and teachers may lack experience in teaching in teacher training colleges, secondary schools, and others. We need some proxies of these kinds of experiences.

Table 7: Staffing Levels in Faculties and Colleges of Education – February 2007

INSTITUTIONS	QUALIFICATIONS														
	PHD				MASTERS				BACHELORS				TOTAL		
	M	F	T	%	M	F	T	%	M	F	T	%	M	F	T
DUCE	2	0	2	(1.9)	27	12	39	(37.5)	40	23	63	(60.6)	76	36	104
MUCE	1	0	1	(2.3)	17	8	25	(56.8)	15	3	18	(40.9)	33	11	44
SUZA	6	1	7	(10.3)	21	12	26	(38.2)	23	12	35	(51.5)	50	25	68
OUT	31	8	39	(36.1)	42	16	58	(53.7)	3	8	11	(10.2)	76	32	108
UDSM	20	6	28	(45.2)	5	7	12	(20)	14	6	20	(33.9)	39	33	60
DODOMA															

Key: M = Male F = Female T = Total

1.6.2 Attracting and Retaining High Quality Candidates and Teachers in the Teaching Profession

The Education and Training Policy (1995) specified that the minimum admission requirements for the teacher education certificate course shall be Division III of the Ordinary Certificate of Secondary Education Examination, while for the diploma course minimum entry qualification shall be two principals in the Advanced Certificate of Secondary Education Examination. At University level, however, the cut off points for education programmes have remained pretty low, especially in the sciences, going as low as 4 points out of a maximum of 15 points.

Thus teaching is attracting the poor performers academically, and even these hardly remain in the teaching profession as they exit on the first opportunity to do so. Many candidates, it seems, regard teaching to be one of the most taxing jobs, which is also the least paying. Salaries and benefits are poor and often paid late. Working conditions, especially in rural areas, are poor. There are also limited non-material benefits such as housing, recognition, support and approval by significant others. Furthermore, there is lack of basic inputs to support effective teaching and learning, especially of science subjects.

Thus, there is need for conducting a comprehensive study, involving several stakeholders – students, parents, employers and informed community members in order to establish the causes of poor attitudes and consequential performance in mathematics and sciences, leading to shortage of quality candidates to join the teaching profession, and thus suggest effective strategies for arresting the situation.

Furthermore, there is need for a deliberate move to increase the number of students doing mathematics and sciences, and ensure that they perform well, in order to expand the pool of high quality candidates to be admitted into teacher education programmes. This should involve establishing well-resourced secondary schools strong in O-Level maths and science subjects, and A-Level secondary schools in each region to produce sufficient students that will contribute to breaking the vicious circle. Similarly, universities may need to consider allowing

students pursuing general degree programmes to take optional educational courses that will allow them find jobs in the teaching profession.

As more effort is exerted in balancing quality and quantity, there is a need to explore ways to address the shortage of teachers, in partnerships with EAC, SADC, Europe and North America (VOS) and India, especially for mathematics and sciences, and for foreign languages.

1.7 Desirable Reforms of Existing Institutional Frameworks

Currently, two Ministries are responsible for teacher training – MoEVT and MHEST. Teacher development through in-service training has essentially been a prerogative of the Ministry of Education and Vocational Training. Of late, however, MHEST has assumed an enhanced role in upgrading/developing teachers through OUT, and graduate programmes at UDSM are training experts on a very small scale for the ministries, their agencies and institutions.

It was self-evident during the survey and focused group discussion with key MoEVT headquarters officials that there has been limited consultation between MoEVT and MHEST in designing effective strategies for addressing the problem of the acute shortage of teachers and other experts for the fast expanding education sector. As such, there have been limited opportunities for meeting of minds between policy makers and planners from both ministries to chart out sustainable strategies for meeting the enhanced demand of teachers, especially for the fast expanding secondary education sub-sector. This lack of dialogue needs to be addressed.

1.7.1 Some Recent Innovations and Reforms.

(a) The four-week course for Form Six leavers. Many singularly proposed strategies such as engaging massive numbers of ex-Form VI leavers, after four weeks of teaching and licensing them to teach, might lead to problems like those of UPE teachers which have taken many years to resolve. Similarly, abscondment, none reporting and drop-out rates are likely to be high as many are likely to be selected for tertiary and higher education. Many of them may also not be fully committed to pursuing future career in education, but are taking it as an opportunity for getting temporary employment while waiting to be selected for further studies. Hence, there is need to phase out this as soon as possible. In the short term, there is also need to evaluate the innovation's effectiveness so far, especially with regards to teachers in remote areas.

(b) Removal of the academic component in the Diploma Programme. There is weak linkage between teacher training institutions at different levels. For instance, higher level institutions that prepare tutors for lower level colleges are not being involved in programme reforms in the diploma and certificate levels. The removal of the academic component from the diploma programme, for instance, has resulted to a dead end for those aspiring to join university education. Universities in the past, accepted students with good passes in academic subjects on equivalent qualification criteria, at diploma level. Hence, a balanced programme – that has academic content and professional subjects – needs to be reintroduced with effect from 2008.

(c) Automatic upgrading of Diploma to Degree level. Innovations introduced in the Mkwawa University College of Education diploma, that students scoring high grades can upgrade into the degree programme and take two years instead of three years, is going to be more expensive as it will take longer (four years) to earn a degree and cost more as diploma holders will also be earning salaries. Similarly, for the credit transfer system to be credible,

there is need to identify, from the outset, which courses warrant credit transfer and at what pass level. For the programme to be attractive, students must also be eligible for loans. It needs to be noted however that the demand for diploma teachers is declining; hence, Mkwawa should use its full installed capacity to produce graduate teachers who are in high demand, instead of spreading too thinly into diploma programmes.

(d) Affiliation of Diploma Colleges to Universities. The idea of converting all 15 diploma colleges into affiliated colleges of education of UDSM, SUA or other public universities needs piloting and gradual institutionalization. Such arrangement would facilitate creation of enough satellite centres within the country for pre-service and in-service education of teachers up to degree level, but should not compromise flexibility for innovation and meeting crises in the system.

(e) College specialization. The idea of colleges offering specialized programmes in socials, science and mathematics, or languages need to be re-examined, for there is abundant evidence that colleges that offer multidisciplinary programmes enable their trainees to better adjust themselves to teach in schools. Similarly, small colleges need to be expanded in size so as to be able to benefit more from the economies of scale. In order to make Tanzania become indeed a knowledge society, the qualification of teachers in the coming few years need to be higher; with diploma teachers heading primary schools while ratios of diploma to graduates improving from 1:4 to 4:1 in Form I – IV and 100% graduates/postgraduate degree holders at A' level secondary as well as in certificate and diploma colleges.

(f) Reforms without research are blind. There is scanty evidence that reforms like lowering entry qualifications into Grade A programmes from Division III to IV, introduction of two tier system – 1 year college based and 1 year field practice for Grade A programmes, change of curriculum from both academic and pedagogy to emphasise pedagogy, introduction of distance learning and upgrading, induction programmes for ex-Form VI leavers, were based on sound field research results. Experiments without sufficient support data from research may lead into undesirable outcomes, hence the quick retreat from the reforms which may prove expensive financially and pedagogically.

(g) Politics and Teacher Education Reforms. It is absolutely critical that teacher training should be considered before any innovation expansion of any tier of the education system is contemplated. There seems to be limited opportunity for candid dialogue on politically motivated secondary education expansion, which is resulting in great teacher shortages. It is in this vein that it is being strongly recommended that the process of introducing reforms and innovations into the education system needs to be closely linked with the expansion of teacher education in a more systematic and balanced manner. While education, by its very nature is a political enterprise, dialogue makes it work even better.

(h) Coordination and communication with key players. Limited opportunities for joint reflection between the Headquarters, TIE, NECTA, Faculties of Education and principals of Teachers Colleges make it difficult for key players in teacher education to understand innovation and reforms taking place in the agencies and institutions. Hence, a forum that will bring them together, on regular basis, needs to be created.

It is with such consideration that it is being strongly recommended that the process of introducing reforms and innovations in teacher education, and in education in general, needs to

be more systematic, participatory and consultative so that all players are in tune. In short, there is need:

- (i) for enhanced coordination and collaboration between MoEVT and MHEST on matters of teacher education policy making, planning, monitoring, and research;
- (ii) to initiate and formalize a consortium of teacher education institutions and agencies to enable them share information, exchange ideas, as well as reflect on envisaged innovations in order to keep everybody informed and prepared for their effective implementation;
- (iii) to introduce competency-based curricula in teacher training programmes;
- (iv) to realize that research-based innovations and reforms are likely to lead to greater success particularly in terms of realising desirable outcomes;
- (v) of establishing a system of open dialogue in order to have better informed reforms being introduced into the education system in future;
- (vi) to ensure that all teachers are oriented to any newly developed curriculum; and
- (vii) for the inspectorate to champion the coordination in quality enhancement across all types and levels of education.

1.8 Linkages by Types, Levels, and Among Institutions and the Ministries

1.8.1 Conceptualizing Linkages between Components in Teacher Education Programmes

The issue of linkages between different programmes and levels in the teacher education enterprise is likely to be more complex than conceived hitherto. The biggest problem is that of the purposes for the linkages. The narrow view is that of professional progression to higher levels, such as, Grade A and Diploma teachers ultimately becoming university graduates. The minimum that a system can do is not to deliberate or inadvertently blocking that professional upwards mobility.

It needs to be emphasized that while that hope is positive and encouraging, the majority of diploma teachers are likely to remain diploma teachers throughout their professional life, either by choice or lack of qualifications for university admission. Thus, there should be a separation between professional and academic advancement. Any teacher in the education system is free to sit for Form IV and Form VI examinations for their academic advancement. Naturally, a Grade A teacher should have the possibility of enjoying a salary of a diploma, or even a degree holder, by virtue of competency and stay in the profession. Similarly, teachers who have earned a higher qualification (Grade A earning a Diploma), should not necessarily be transferred to secondary schools or teacher training colleges. Instead, they need to be retained at current levels in order to improve quality. This should be the desirable direction, although may not be feasible at the moment, when there is high shortage of diploma and degree holders in the fast expanding secondary education sector. However, all teachers, at all levels, including university lecturers, need in-service education as there are so many developments that they need to master and cope with.

Figure 1 illustrates the strong and weak linkages between the teacher education components. It suggests that we should debunk the notion that diploma teacher training is a stage towards university education, and grade A is a preparation for a diploma. When that happens we deplete lower levels of quality teachers.

The basic purposes of linkages should thus be:

- (a) Increase synergy as Diploma Teachers Colleges, like degree people, can teach each other and provide role models for each other particularly the framework of affiliation.

- (b) Economise on common facilities and teaching resources such as key textbooks, good teachers, ICT facilities, and laboratories, which can be used by teachers of different categories – diploma and degree levels. Knowledge of what is going on at each level is essential as this helps in making requisite adjustments in curriculum formation and teaching approaches.
- (c) Distantly, those who qualify may see how to leapfrog in their academic preparations, and thus benefit from the abundant resources in and around them.

Thus, teachers at any level and grade should be encouraged, and be given incentives to be effective, happy, and comfortable where they are. One should be proud and happy to be a teacher even if one is teaching toddlers. Not that one should not be ambitious to move up the academic and professional ladder, but that is secondary, and private. One should do one’s best where one has been prepared to operate for the material time, and good teachers should not be encouraged to leave their posts but get incentives to perform even better there.

Also, there is need to change the negative image, often imprinted by the mass media about teaching being a donkey job. This negative image of the profession needs to be attacked from all fronts so that teachers at different levels are proud to offer their services to the children of this country. Indeed many need to understand that teaching is a ‘calling’ for a contribution that is vital for both the economy and humanity in general, and not just for individual salvation and running away from poverty as the mass media would tend to suggest.

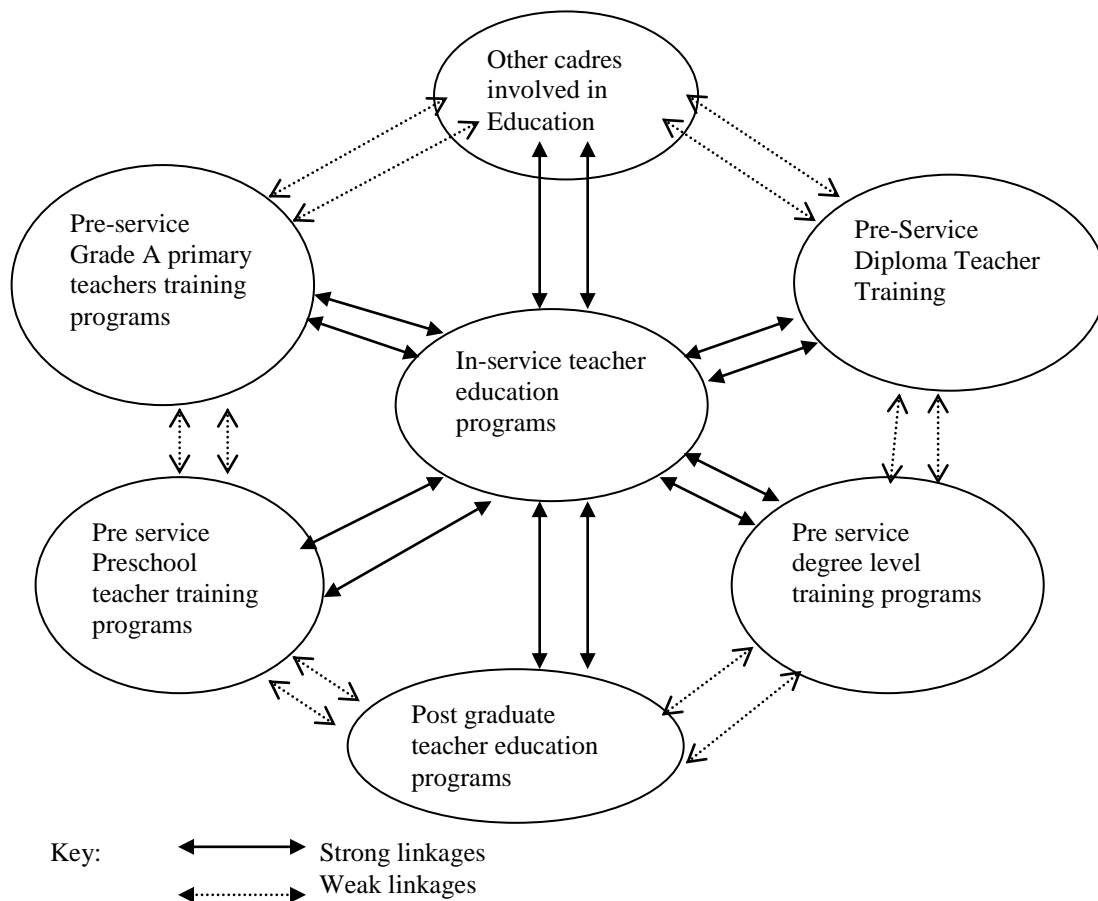


Figure 1: The Linkages between Teacher Education Levels and Types

1.8.2 Linkage between Pre- and In-service Teacher Training

It is crucial that teacher education is perceived as a system of organically interlinked institutions. One of the critical claims from teachers in the field is that there are limited possibilities for in-service training once one graduate from college; consequently, teachers' knowledge, practical and professional skills remain static for a long period. Knowledge, pedagogical and professional skills obtained during pre-service training should be complemented by in-service training to facilitate acquisition of new knowledge, professional development, and recommendation enhancement of practical skills, refinement and improvement as well as gaining insights on evolving problems.

1.8.3 Linkages between Face-to-face and Open Distance Learning

Similarly, Teacher Education now is largely offered through a residential mode in all public operated Teachers Colleges. This has serious implications on both classroom and accommodation facilities. This limits the actual number of teachers who can be trained at any given time. Open distance learning is another mode that needs to be developed, provided that institutions earmarked to train using this mode do not also relapse into using the face to face mode. Hence, there is need to develop plans to ensure that all those trained through the fast track, but are not enrolled with ODL, receive a full complement of two years ODL package within three years.

It is recommended, therefore, that MoEVT should:

- (i) Regularise in-service training for all teachers at all levels and make this a precondition for promotion to the next rank.
- (ii) Establish in-service units in all teacher training institutions and strengthen district-based TRC to ensure that they are working and offering viable programmes all year round by ensuring that they:
 - are staffed with qualified personnel, and
 - receive adequate funding to run in-service training.
- (iii) Introduce gradually Open Distance Learning programmes at University and Colleges, faculties of education and all Teachers Colleges.
- (iv) Improve the teacher education inspectorate section at both district and zone levels.
- (v) Identify specific needs for specific categories of tutors and teachers requiring in-service training.
- (vi) Encourage the formation of subject associations for regular training and support.

1.8.4 Linking Certificate, Diploma and Undergraduate Programmes

There is strong need for linking the three levels of teacher education programmes so that an upper level can build on lower levels, in terms of pedagogical and professional skills. It became evident from discussions in the field that it was difficult for teachers to gain higher qualifications due to both logistical issues such as getting financial support for their training as well as obtaining permission for upgrading, given the scarcity of teachers in many schools. It is thus recommended to:

- bridging up programmes in modular format to cater for Grade A and Diploma holders seeking to up-grade to higher qualifications;
- introduce ODL centres collaboratively, in order to benefit from spatially distributed staff and resource;
- empower and strengthen earmarked units with a view of running short courses for various categories of teachers;
- institute examinations that shall be used to evaluate the quality achievement in in-service, which can form a basis for teachers advancement to new grades;

- introduce a teacher education journal to facilitate professional dialogue;
- introduce teacher development plans to ensure individual teacher needs and career paths are addressed.
- Develop a system to identify excelling teachers/tutors who can then be deployed for mentoring, peer coaching, cluster schools INSET, facilitation in TRCs, and moderating regulating in-service courses.

1.9 Sustainability of Continued In-Service Programmes

The ETP states clearly that “*In-service training and re-training shall be compulsory in order to ensure teacher quality and professionalism*”. There have been sporadic in-service programmes across the country. The major problems observed are twofold: first, systematically, the focus of in-service has reached only a small section of teachers leaving many teachers staying up to 10 years without any further training. The second problem, equally important, is that the content and duration of such programmes has been greatly varied. The providers have not been well-coordinated to the point that the output of such training has not significantly been recognized or helped teachers as classroom teachers and/or their professional development. In view of this background, there is a dire need to create the structures described in the following sub-sections:

- (a) The position of Deputy Director must be created who will be responsible for in-service programmes, while the current deputy concentrates on Pre-service Training Colleges, which in addition to their current specialisms shall deal with in-service Training.
- (b) **Zonal In-Service Colleges, which in addition to their current specialisms, will deal with**
 - identification of teachers due for in-service training;
 - organizing in-service training in collaboration with other identified in-service providers networks;
 - coordinating Teachers Colleges offering in-service training in the zone; and
 - liaising with TIE and Teacher Education Department, School Inspectorate Section on in-service training needs.
- (c) TIE that shall be responsible for:
 - conducting in-service training needs assessment;
 - producing materials for service training;
 - determining the nature of training relevant to specific groups of teachers, both in terms of duration and other modalities; and
 - monitoring and evaluating INSET programmes.

The Office of the Deputy Director should also be charged, through the same routes, with the identification and empowering through relevant training, a group of super model teachers who can act as *mentors, master teachers, and facilitators* in in-service programmes.

- (d) Establish Annual Budget for In-service. It is recommended that an annual budget should be provided to ensure continuity of the in-service training programmes. It is through this way that not only teachers in need of such training would be reached, but

also that the teaching and learning needs and professional demands of teachers can be achieved

A well planned, well monitored, adequately funded in –service training is therefore vital for quality sustainable in the teaching profession.

1.10. Strengthening the Monitoring and Support Systems for Pre-service and In-service Training

The issue of monitoring and creating support systems and structures is very key in the business world today. No business can succeed in a sustainable way without close monitoring and support mechanisms and structures. The production of teachers and their subsequent performance is a serious and expensive business. Without a business-like approach to the production and good performance of this key professional cadre, one is not only most likely to produce mediocre products, and expensively, but also likely to attain low quality education.

The first question that needs to be answered is: “*What does one monitor?*” In the business world the interest is in ensuring that the making of a quality product is at minimum or reasonable costs, and customers are satisfied. The second question is: “*How will one monitor it?*” This has to do with support systems, structures and instruments.

It is here proposed that:

- (a) We should monitor outputs/and outcomes, and then trace backward how inputs such as human resources, financial inputs and patterns of expenditure, teaching and learning resources, progress in implementing ministry policies, lead to low/high quality outputs/outcomes such as passes in examinations, good classroom practices, efficiency - unit costs, capacity utilization, TPR - resource gaps and subsequent performance in work place.
- (b) There should be mandatory quarterly returns from institutions containing data on the above parameters. The allocation of quarterly resources should be made contingent upon the submission of such data.

The immediate actions required include:

- a) agreement on what is to be monitored and for what purpose, highlighting the importance of such an exercise;
- b) agreement on how often this data will be needed or timely made available for distribution and dissemination;
- c) agreement on responsibilities and obligations of each party; and
- d) establishment of a strong monitoring and evaluation unit towards these goals, by the Directorate of Teacher Education. Similarly, each college will need to have an expert member of staff in the administration for data capture, processing and dissemination as part of support system to enhance internal quality assurance and control.

1.11. Appropriate Modalities for Accreditation, Quality Assurance and Control

Accreditation in the context of this strategy refers to the establishment and certification of the status, legitimacy, and appropriateness of programmes, in this case teacher education programmes and awards. A programme is often a purposeful and structured set of learning experiences that leads to a qualification. Accreditation of programmes is often done to ensure

that courses meet the professional standards often set by associations or competent bodies. The major purpose is to protect societies from poorly prepared practitioners or getting a bad product.

Accreditation may also involve institutions, as a process of external quality review used to scrutinize the *quality of programmes therein*. Accreditation assures the educational community, the general public, and other agencies or organisations that a teacher education institution:

- (a) Offers programmes with clearly defined and educationally appropriate objectives,
- (b) Maintains conditions under which their achievement can reasonably be expected,
- (c) Is in fact accomplishing them substantially, and
- (d) Can be expected to continue to do so. This is the harder part, involving sustainable quality assurance.

The Accreditations Process covers:

- Mission, goals, and objectives
- Curriculum structure and pitching
- Faculty qualification and experience
- Student teachers background and qualification
- Administration and financial support of the institutions
- Physical resources and facilities

Countries such as UK and USA have formal mechanism for accrediting programmes and institutions. In Tanzania where there is a proliferation of institutions offering diverse teacher programmes at certificate, diploma and degree levels, there is need for a professional body to regulate standards of such programmes and institutions training teachers for various levels. NECTA and the inspectorate alone cannot suffice to do this task as the focus of teacher education is on competences during training, at recruitment, and throughout the lifelong career of professional teachers. The Teachers Service Department (TSD), a government agency, is overly preoccupied with employment of teachers and discipline matters while the Teachers Union is merely a welfare body. Therefore, Tanzania needs a professional body – National Council for Accreditation of Teacher Education (NCATE) – that will assure quality of programmes, institutions and classroom teachers in their life long career.

1.12 Coherent Programmes for Training and Developing Faculty, Teachers and College Tutors

Currently, there is no forum for meetings and exchange of ideas among all those who train teachers, be it for pre-primary, primary, secondary, teacher training, vocational education, or at university level. Thus, each group is doing its “own thing”; yet, at professional level, there is much in common among all these groups. The way a pre-school teacher is trained to handle young children has a lot in common with Child Development Studies at university level. Diploma teachers are trained at both university level and in teacher training colleges. Grade A teachers are trained by university graduates, some of whom have never taught in a primary or secondary school. All these people only hear of each other but never share experiences. Thus if there are areas of ambiguity and distortion, there are no fora for debate, resolution, and reconciliation. This is quite an undesirable situation indeed, professionally. In the 1980s, there

used to be annual teacher education conferences, which brought together all these players in the teacher education enterprise. This was organized by TIE, but now no longer available.

There is need for comprehensive research to uncover the desired qualities of teacher trainers, materials, and the desirable and suitable methods to be used at different levels. Quality of products and societal perceptions of the teacher and the teaching profession are other issues of focus in such a study. It is therefore recommended that:

- there should be formed a Professional Association of Faculties and Tutors training teachers to be;
- there should be a well-planned Annual Teacher Education Conference; and
- there is need for a study to explore the academic and pedagogical competencies of faculty and tutors that lead to the production of high quality teachers and tutors.

1.13 Training and Developing Educational Managers and Administrators

There seem to be perceptions of glaring capacity deficiencies at all levels in the education sector. Existing reports identify a lack of sufficient knowledge and skills on matters of policy formulation, standards and regulations setting, strategic planning and management, especially in the areas of community empowerment, financial and budgetary management and accountability, especially in a decentralized system of education.

Training and developing managers, administrators and experts for the sector is a process of capacity building to empower them in conceptualising, operating, monitoring, and sustaining programmes in teacher education. One needs to develop competences - knowledge, skills, attitudes, values and dispositions such as pride, self-esteem, team spirit, commitment, drive, adventure, creativity and vision.

Thus capacity development has to go beyond training. It requires *cultural transformation* in order to acquire a working and production culture that inspires people to work hard, be serious, and show commitment. It involves support by politicians and education executives paying more attention to facilities that need to be added and made better use of, to support quality education. However, there needs to be a clear policy on:

- Attractive pay package that will allow teachers to concentrate on their job;
- Meritocratic, performance based regulations governing promotions;
- Recruitment and placement of individuals on the basis of merit, talent and qualification;
- Efficient use of all individuals on post;
- Effective quality assurance and quality assessment mechanisms;
- Continuing professional development opportunities;
- Empowerment of school boards, and communities; and
- Having managers appointed on merit with performance-based terms of reference.

1.15. Mechanism for Obtaining Data for Effective Planning in Teacher Education

Two sets of data are needed for effective planning of teacher education – hard and soft data.

Hard data. Sustainable reforms in Tanzania teacher education system must be predicated on sound and comprehensive surveys that involve broad consultation with all sectors in the society, regardless of political, religious or ethnic affiliation. Survey data as illustrated in Mosha (2006) is likely to provide answers to the following questions:

- (i) What exists now?

- (ii) What is needed and why?
- (iii) What should be aimed at?
- (iv) Over what time frame?
- (v) Using what resources?
- (vi) In what priority order?
- (vii) Aiming at what destination?

Figure 2 gives the kind of information that would be required for teacher education planning.

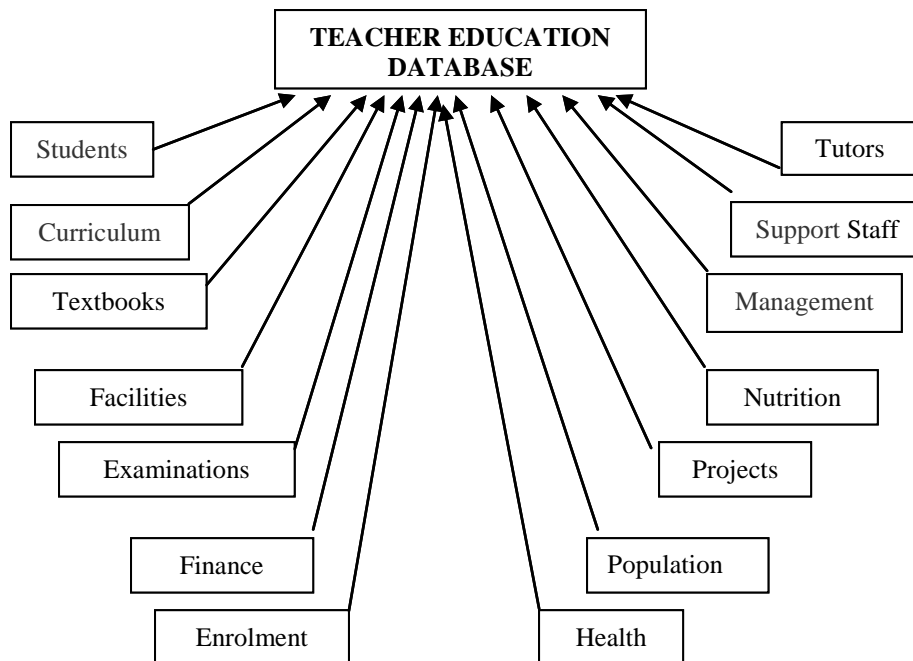


Figure 2: Information and Data Required for the Teacher Education Data Base

The clusters of information for the Database would be as follows:

- ◆ **College related information:** size, location, accessibility, distance, and reputation.
- ◆ **Students related information:** eligibility, enrolments, projections, gender, age, attendance, retention rates, repetition rates, promotion rates, attrition rates, catchment areas, student performance, health status, nutrition status, diversity and equity.
- ◆ **Tutors related information:** numbers and qualifications of tutors by subject, experience, mix and competence levels.
- ◆ **Finance related information:** budget size, realistic estimates, sources of revenue, and budget performance of expenditures.
- ◆ **Curriculum related information:** academic and professional subjects taught, syllabi and textbooks needed versus actual supply, equipment, library supplies, chalk, technology being used, assessment and examination data.

- ◆ **Buildings and physical facilities related information:** classrooms, desks, tables, offices, ICT facilities and equipment, storage rooms, toilets, tutors' houses, and actual capacity utilization for education, accommodation and community activities.
- ◆ **Regulations related information:** memoranda and circulars, government gazettes, teaching services and other regulations, conditions of services, entitlements, holidays, leave, allowance and travel.
- ◆ **Social and community related information:** community facilities, attitudes, resources and cultural norms.
- ◆ **Management related information:** appointment, selection, induction and development, supervision and inspection, comparative data on college performance, tutor distribution, supply and demand, tutors shortfall, underemployment, the structure of college committees, students' schedule of events, and cycles of academic year.

Soft data. Kaufman and Herman (1991) argue that people's perceptions, often collected as soft data, are reality for them. Soft data provide information on the values, attitudes and beliefs of educational practitioners, and in doing so serve to "*transfer ownership from the planners to the partners*" (Drucker, 1985). Thus, there is need for regular collection of soft data. In the business world, this takes the form of market surveys.

1.15 Improving the Relevance and Effectiveness of Pre-Service Curriculum

The role of the Tanzania Institute of Education with respect to curriculum issues in Tanzania is well articulated in the ETP. In the light of the new developments, where the number of private providers of education continues to grow, it is prudent that the level of participation of other partners in the curricular design and development be considered. The teacher education curriculum needs to emphasize both the pedagogy as well as the academic content. The field results show that the majority of respondents across the board were of the opinion that academic content should be re-introduced in the teacher education curriculum at certificate and diploma levels.

In terms of duration for training, field results pointed out the need of retaining the two years duration for both Grade A and Diploma programmes. There was a general outcry that frequent changes over the duration of residential training compromised quality of training; yet, there are still issues of curriculum relevance, gender mainstreaming and functionality to address societal needs and problems. Balance in the combination between academic content and methods is one thing, and competences in actual teaching is another matter altogether. The duration of practicals is critical, and needs to be extended.

It is thus recommended that action should be taken to:

- (i) Strengthen the capacity of the Institute of Education and faculties of education to design competency-based teacher education curriculum.
- (ii) The Government needs to allocate sufficient funds to Teachers Colleges, Faculties of Education and University Colleges of Education to purchase sufficient relevant books, journals and other relevant printed materials to enable teacher trainees build a reading culture that they can pass on to their students.
- (iii) Ensure that the duration of teacher preparation is *two* years for both Grade A and Diploma.

- (iv) Make sure practical training in actual teaching takes precedence over contents and methods courses delivered theoretically.

1.16 Coordination in Developing Teacher Training Materials

Currently, the Tanzania Institute of Education is charged with the role of developing teacher training materials. It is, however, becoming irrelevant in some sense, given the liberalized policy on teacher training where private partners can prepare teachers using other developed materials. However, the expertise, installed capacity and infrastructure as well as the conducive environment at TIE provides added advantage to continue to play a coordinating role in materials development. Yet, the government's move to liberalize teacher education provisions calls for collective efforts from all stakeholders. In fact, new colleges prepare and buy on their own teaching/learning materials. It is recommended that:

- The TIE and the Chief Education Officer keep an eye on the culprits who filter in materials that do not meet national standards into teaching institutions.
- The TIE capacity should be strengthened in terms of qualified personnel as well as financial support for timely delivery of the materials.
- The TIE should reactivate the teacher education subject panels, drawing membership from all categories of experts and stakeholders.
- There should be close monitoring of textbooks used so as to go for quality, and a better synchrony is needed between curriculum development and the support materials, including textbooks. The roles of EAMAC and TIE should be the focus here.
- Deliberate efforts be made to produce/acquire materials and equipment for people with special needs at all levels.

1.17 Infrastructures and Services in Teacher Training Colleges

All the colleges visited told the same story: neglect, dilapidation, deterioration of buildings and furniture, playgrounds unkempt with overgrown grass, and inaccessible paths and sometimes used by individuals and not teams. An evaluation study done by the Ministry (MoEC, 2003) in all teachers colleges revealed glaring shortages of facilities, and the situation has not changed much today. This was despite the fact that the colleges had overenrolled by 3,471 students or 22% over capacity utilization, since the installed capacity was 15,669 but had enrolled 19,140 students.

The shortages in that study included: 126 Classrooms hence overcrowding, 14 Libraries so you have colleges without libraries, 155 student toilet rooms, 56 dormitories, 15 dining halls, 05 assembly halls, 38 blackboards, 23 workshops, 18 geography rooms, 40 laboratories, 375 staff houses, 223 teachers offices, 15 dispensaries.

It is important that teachers are trained in conducive teaching, learning and working environment if they are to be expected to be serious products that will act as role models and promoters of high quality education. It is therefore recommended:

- (a) There be a quick assessment of the status of current infrastructure by experts to determine their realistic needs/and conditions.
- (b) The current teacher education share of annual budget needs to be doubled from the minuscule of 1.1% in 2000 to about 2.5% of the total education budget.
- (c) There should be quick rehabilitation and marginal modifications/additions of facilities so as to expand enrolments in some of the smaller colleges.
- (d) All colleges should have functioning libraries and laboratories if they are to

inculcate the requisite teaching habits.

1.18 Cross-Cutting Issues in Teacher Education

Teacher education can be extremely pivotal and instrumental in the long-term and sustainable institutionalization of cross cutting concepts. The identified issues included gender, HIV/AIDS, ICT, the environment, and the rights of the child as missing in the teacher education agenda. We thus recommend their inclusion as follows:

1.18.1 Gender Issues in Teacher Education

- (a) Protection of teachers, especially female, from gender discrimination, harassment, and violence in the school and other workplaces.
- (b) Increase the proportion of female teachers in positions of responsibility.
- (c) Provide training programmes on gender in educational institutions.
- (d) Incorporate gender issues in teacher training curriculum materials.

1.18.2 The HIV and AIDS in Teacher Education

The pandemic is currently having high negative effects on teacher supply, effectiveness as well as attrition. Hence, it needs to be effectively controlled. To realize this objective there is need to:

- (a) Introduce workplace and school-based HIV and AIDS programmes for teachers, learners, and other staff.
- (b) Develop counseling and support services for teachers, children and other staff members.
- (c) Introduce HIV and AIDS issues in teacher training curricular.
- (d) Support the availability of ARVs to infected teachers to prolong their lives.

1.18.3 Applications and use of ICT in Teacher Education

There is poor management of information and data in teacher education which render access for planning and decision making purposes difficult. To eliminate this problem there is need to:

- (a) Introduce ICT in all teachers training curriculum.
- (b) Provide ICT hardware and appropriate software for use in teacher professional development and support in TRCs.
- (c) Introduce e-learning in colleges and schools.
- (d) Develop an overall ICT policy in the education sector, to include security, how to introduce it in schools at different levels and types of education, and how to produce teachers for different levels and types of education, and how to produce teachers from the same, as opposed to ad hoc moves.

1.18.4 Environment Issues in Teacher Education

Teachers Colleges can play a crucial role in greening the country following extensive deforestation given their strategic location and spread throughout the country. Similarly, they can assume a leading role in enhancing sanitation and health thus eradicating many communicable diseases. There is therefore need to:

- (a) Introduce policy for greening all education institutions,
- (b) Establish tree nurseries in all school for extension work of greening communities during rainy season,
- (c) Sensitize communities on the benefits of greening the environment, and
- (d) Introduce health and sanitation programmes in all education institutions.

1.18.5 Rights of the Child

Children, because of their lack of voice and platform for airing their views, are always taken for granted – to play a second fiddle. Yet they have very fundamental rights which are enshrined in the United Nations Charter. Teachers are the instruments for their realization. The rights range from getting reasonably decent education, protection from hazards and violence, life itself, being valued and appreciated, participation, and free from harassment. In order to realize this objective there is need to review the teacher training curriculum in its entirety to ensure consistency with the ESDP and MKUKUTA (including issues related to HIV/AIDS and Life Skills education, gender, care and support for most vulnerable children, and child friendly schooling). Consistency with the new primary school curriculum, including its competency based approach is also crucial. It is therefore recommended to:

- (a) Incorporate the children rights in teacher education curriculum,
- (b) Establish a unit in the ministry for child safety,
- (c) Conduct special inspection in schools to ensure children are safe, and
- (d) Design packages of materials on children rights.

2.0 THE TEACHER EDUCATION DEVELOPMENT AND MANAGEMENT STRATEGY (TDMS)

The TDMS specific objectives, strategies and targets are therefore built around the following strategic priorities identified in the situational analysis and recommendations and the specific objectives in the Terms of Reference.

2.1 Action Plan for Attracting, Obtaining and Retaining Adequate and High Quality Teachers

The successful implementation of PEDP and SEDP, coupled with enhanced community contributions to expand infrastructure has, in turn, created great demand for qualified administrators and teachers to run and teach in schools. The foregoing presentations, analyses and discussions, however, reveal that there was yet to be in place efficient and effective strategies for attracting, obtaining and retaining high quality teachers, tutors and lecturers at all levels of the education sector. The objectives, strategies and targets for each level are given hereunder.

2.1.1 Strategic Objective: Attract, obtain, and retain adequate high quality teachers.

Strategy: Create an environment for the development of all-round, well motivated, and committed teaching force.

Targets: (a) Review and increase teachers' salaries by 50% of their basic salary by 2008.
(b) Payment of special incentive package for science, mathematics, and languages teachers of 50 % of basic salary by July, 2007.
(c) Pay special allowance of 25% above current salaries for teachers in remote, rural and difficult areas by January, 2008.
(d) Fees exemption for candidates studying education by July, 2008.
(e) Make sure each school has a minimum of 5 houses in rural primary schools and 10 in each rural secondary school as provided for in PEDP and SEDP by 2011.

- (f) Provide incentives – accelerated promotion or two notches on salary for teaching Excellency and opportunities for professional development by 2009.
- (g) Allocations to teacher education increased from 1.1 to 2.5% of annual budget by 2009.
- (h) Start conducting annual career guidance and counselling for schools and colleges by 2008.
- (i) Start advertising opportunities, support and programmes for teachers by 2008.
- (j) Institute a transparent system, including use of statutory boards to ensure strict adherence of admission of teacher trainees by 2008.
- (k) Publicly acknowledge and recognise teachers’ performance and contribution, likewise, incompetence should be identified and remediation measures taken by 2008.

2.1.2 Strategic Objective: Obtain adequate high quality pre-primary school teachers

Strategy: Encourage and harmonize private sector initiatives with the public sector, and increase production record in selected Grade A colleges.

- Targets:**
- (a) Private provision be regularized and recognized by 2010.
 - (b) Training specialized Grade A teachers for preschool education started by 2008.
 - (c) Preschool curriculum for all providers reviewed by 2008.
 - (d) The teaching of alphabet and numbers in Pre-school education downgraded in the curriculum by 2009.
 - (e) Select two or three colleges to specialise in special needs education

2.1.3 Strategic Objective: Obtain adequate high quality primary school teachers

Strategy: Reduce the proportion of diploma teacher trainees and increase Grade A enrolment greatly as per PEDP II Projections.

- Targets:**
- (a) Increase Diploma Training for Primary School teaching by 2010
 - (b) Increase of enrolments of Grade A by a factor of two by 2009
 - (c) Diploma and Grade A training to be offered by different institutions to facilitate efficient and effective use of scarce resources by 2011.

2.1.4 Strategic Objective: Obtain adequate high quality secondary school teachers and school managers

Strategy: Expand dramatically university level teacher training and monitor numbers and quality closely

- Targets:**
- (a) Form Six supply line in science and mathematics expanded, consolidated, and linked to university enrolments by 2009.
 - (b) Institute pre- University entry programmes in science and mathematics teachers by 2009
 - (c) Curriculum for training English and French language teachers reviewed by 2009.
 - (d) The teaching of English and French expanded and improved by 2010.

2.1.5 Strategic Objective: Train adequate high quality teacher educators, faculty, and education managers.

Strategy: Make teaching in teacher training college competitive and attractive to persons with degree qualification.

Targets: (a) Review the appointment criteria and process of principals and tutors by 2008.
(b) Teacher Training Colleges staffed by graduates only by 2009.
(c) Each teacher training college having at least 20 teachers' houses by 2012.
(d) Conduct in-depth analysis of how science teaching is conducted in TTC by 2009.
(e) Establish a fund for research and innovation to be available on the basis of proposals

2.1.6 Strategic Objective: Obtain adequate high quality vocational technical education school teachers.

Strategy: Integrate and expand the training of vocational and technical education teachers.

Targets: (a) Review the qualifications of vocational training tutors by 2009.
(b) Regularize schemes of work for vocational education tutors by 2009.
(c) Integrate Morogoro Vocational Training College with the National TTC System by 2009.
(d) Review capacities of Vocational Training centres and utilization rate by 2008.

2.1.7 Strategic Objective: Obtain adequate high quality faculty staff and leaders for faculties of education and university colleges of education

Strategy: Increase PhD level training and improve practical skills and experiences of all methods tutors in universities.

Targets: (a) Select and appraise training places for teacher education lecturers by 2008
(b) Design a program for enhancing practical experiences of methods tutors by 2009.
(c) A Joint Committee with MHEST to harmonise production of teachers created by 2008.
(d) The ratio of Ph.D holders to others to be at a minimum of 50 percent in all University level teacher training units by 2012.

2.9 Strategic Objective: Improve and enhance collaboration between education ministries (MoEVT, PROLAG and MHEST) on all matters related to teacher training, development and management.

Strategy: Create mechanisms for sustainable collaboration between the two ministries.

Targets: (a) Establish a Statutory Board that shall deliberate on and approve matters that require joint decisions and actions by the ministries by 2008.

- (b) Initiate and formalize a Consortium of Leaders of Educational Institutions and Agencies by 2008.
- (c) Establish long term education policy which can accommodate technological, economic and social changes in the country.

2.10 Strategic Objective: Enhance teacher professionalism among teacher educators.

Strategy: Form a Teachers' Educators Professional Association.

- Targets:**
- (a) Teachers' Educators Professional Association formed by early 2009.
 - (b) Regular reviews of professional needs of teacher educators (academic and pedagogical competencies) instituted by 2009.
 - (c) Annual Teacher Education Conference instituted by 2008.

2.4 Strategic objective: Improve reform processes and linkages between Teacher Education Programmes.

Strategy: Review and modularise all teacher education at certificate, diploma and degree programmes.

- Targets:**
- (a) Objectives and content of Degree, Grade A and Diploma courses reviewed and standardized by 2008.
 - (b) A Teacher Education Journal established for sharing experience by 2008.

2.5. Strategic Objective: Ensure sustainability and continued in-service teacher training.

Strategy: Provide annual teachers' in-service training courses according to needs and professional development.

- Targets:**
- (a) Review of in-service training needs, provisions and priorities for section heads dealing with teachers, heads of schools, and heads of departments, school teachers, inspectors and DEOs at the headquarters by 2009.
 - (b) Design a framework for designing a variety of in-service courses by 2009.
 - (c) Establish a position of Deputy Director, In-Service in the Ministry, with reasonable budget by 2008.
 - (d) Designate zonal colleges for in-service training in the whole country by 2008.
 - (e) TIE to have In-Service Training Coordinator 2008.
 - (f) Review and revise the role and reporting lines of Teachers Resource Centres (TRC's) with respect to in-service training, including effective staffing and resourcing by 2009.
 - (g) Prepare in-service training schedule by 2009.

2.6 Strategic Objective: To improve the quality of performance and differentiation of abilities in teacher education.

Strategy: Systematically analyse the current examination systems and types as well as, amount of inputs.

Targets: (a) Each course to have textbooks by 2009.
(b) Teacher education examination system reviewed by 2009.
(c) Conduct an assessment as how to improve teaching effectiveness by 2008.

2.7 Strategic Objective: Strengthen the monitoring and support systems for effective teacher education.

Strategy: Establish a mandatory and comprehensive system of monitoring and supporting mechanisms for the teacher education sector.

Targets: (a) Agreement on what is to be monitored and how/how often reached by 2008.
(b) The desirable support mechanisms that will make the system more effective and efficient studied by 2008.
(c) Quarterly returns on areas being monitored institutionalized by 2009.
(d) A strong unit for monitoring and support system created in the Directorate of Teacher Education by 2008.

2.7.1 Strategic Objective: Ensure comparable standards of excellence are established and sustained in the whole teacher education system.

Strategy: Establish a system for accreditation, quality assurance, and quality control, to monitor the status, legitimacy, and appropriateness of institutions and programmes.

Targets: (a) Professional Body (National Teacher Education Accreditation Council (NTEAC) for accrediting institutions and programmes in Teacher Education established by 2008.
(b) Quality assurance and quality control framework for teacher education developed and institutionalized by 2009.
(c) All teacher training programmes in the country reviewed by July, 2008.

2.8 Strategic Objective: Train effective teacher educators and faculty members.

Strategy: Make sure all trainers of teacher educators have a common understanding and strategy of how to do the job well.

Targets: (a) The different models for the training of teachers of teachers explored by 2008.
(b) An in-service course for trainers of teachers institutionalized by 2009.
(c) Develop and organise school/cluster based training of school heads, committees/boards and teachers by 2009.
(c) A Professional Association of Faculties and Tutors training teachers formed by 2009.

2.8.1. Strategic Objective: Ensure that the whole teacher education system is efficiently and effectively managed.

Strategies: Train and develop managers, administrators and other specialists to efficiently and effectively implement TDMS.

Targets: (a) Needs assessment of training of all cadres in teacher education conducted by July 2008.
(b) Professional training programs for managers, administrators and experts for various levels of teacher education designed and launched by January 2009.
(c) A professional code of conduct for the teaching profession and performance appraisal system prepared and institutionalized by January 2009.
(d) Government and other education providers strictly adhere to contractual obligations for teachers by 2008

2.9 Strategic Objective: Develop teacher education in a planned and efficient manner.

Strategies: Establish an effective system for collecting, organizing, processing, and using data for planning the development and management of teacher education programmes,

Targets: (a) Type and design of data to be collected agreed upon by 2008.
(b) System of TDMS data management developed and institutionalized by 2008.
(b) TDMS database linked to SIDA ICT network established by 2008.

2.10 Strategic objective: Enhance the quality of teacher training curriculum and its relevance.

Strategy: Institute Bi-Annual TE curricular reviews to ensure they efficiently and effectively address market demand for teachers.

Targets: (a) The duration of teacher training for Grade A and Diploma regularised to be two years including the 8 weeks teaching practice, and three years for an Education Degree programme by 2008.
(b) Teacher education curriculum reviewed to capture and link all levels of teacher training from pre-primary, primary, O-Level and A-Level secondary education, teacher education at college as well as university levels by mid 2008.
(c) All textbooks and modules used in TE reviewed by 2009.
(d) Teacher Education Subject panels functions and efficacy, including linkages with universities reviewed by 2009.
(e) Special materials and equipment for learners with special needs procured by 2009.
(f) Institute competence based curriculum that strikes a balance between academic and professional preparations by 2009

2.11. Strategic Objective: College Infrastructure and Facilities made more conducive for learning, teaching and working.

Strategy: Conduct a comprehensive appraisal of all colleges so as to rehabilitate, refurbish, and expand for better teaching, learning, and economies of scale.

Strategy: Institute a culture of maintenance and rehabilitation of infrastructure and facilities.

- Targets:**
- (a) Rapid assessment of the status of college infrastructure and facilities carried out by July, 2008.
 - (b) All Colleges rehabilitated, refurbished, remodelled, and the small ones expanded by 2010 to attain the optimum size of 500 students for Grade A and 1000 for Diploma so as to enjoy economies of scale.
 - (c) Prepare/adopt guidelines for capitation grants mainly for maintenance by 2009.
 - (d) All colleges to have functioning libraries by 2012.
 - (e) All classrooms and laboratories cleaned and upgraded by 2009.
 - (f) All colleges to have science laboratories by 2010.

2.12 Strategic Objective: Make Teacher Education Curriculum more holistic by the inclusion of Cross-Cutting Issues

Strategy: Incorporate Cross-Cutting Issues in Teacher Education Curriculum

- Target:**
- (a) Gender issues incorporated by 2009.
 - (b) HIV/AIDS incorporated by 2008.
 - (c) Environmental issues reviewed and incorporated by 2010.
 - (d) Children rights incorporated by 2008.

**3. PROGRAM COMPONENTS, ACTION PLAN AND BUDGET ESTIMATES
IN [TAS. MILLIONS]**

The following matrix contains a summary of the programme components, action plans and budget estimates over a 5 year period. The budget estimates were computed in collaboration with officers from relevant departments in the MOEVT.

Program component and objective	Jul 07 /Jun 08	Jul 08 /Jun 09	Jul 09 /Jun 10	Jul 10 /Jun 11	Jul 11 /Jun 12
I. Efficient and Effective Action Plans for Obtaining, Training, Attracting and Retaining Adequate and High Quality Teachers	Estimates in Million Tshs.				
1. Training 30,950 high quality pre-primary school teachers	4,168	4,701	8,796	3,000	3,000
2. Conversion of 3 TCs to Pre-primary teacher training institutions	2,000	200	200	00	00
3. Training 15,984 high quality primary school teachers and by increasing enrolments of Grade A by a factor of two.	4,727	1,242	3,219	1,000	1,000
4. Regularization of training plus 8 weeks BTP in two years	4,925	5,292		00	00
5. Training 37,678 high quality secondary school teachers	6,498	7,737	8,140	2000	2,000
6. Increasing Science and Mathematics trainees by a factor of four and English Language by a factor of two.	100	100	80	20	20
6.1 Construct science labs in three Diploma colleges and 5 grades A colleges	20	20	10	10	10
6.2 Construct language labs seven Diploma and 10 Grade A colleges	59	119	59	00	00
6.3 Equip Science laboratories of 29 colleges with appropriate science/math's equipment and materials	171	174	00	00	00
6.4 Equip Science laboratories of 22 colleges with appropriate language/equipment and materials	77	77	00	00	00
7. Building 762 staff houses in 32 colleges	4,000	5,200	1992	500	500
8. Improving salaries of all teachers by 2008	10,000	10,000	12,000	13,000	14,000
9. Training 812 high quality teacher education tutors by 2012	1,000	1,800	1,572	00	00
10. Upgrading 586 non degree holders in TTC by 2009	1,758	1,758	00	00	00
11. Institutionalization of competitive recruitment on the basis of merit of education managers	200	00.00	00	00	00
12. Improving salary structures of tutors by a factor of two	150	170	00*	00*	00*
13. Conducting Qualifications audit of all tutors	125	50	00	00	00
14. Revision of the system of training tutors	250	200	550	00	00
15. Training high quality vocational and technical education teachers	50	50	00	00	00
16. Reviewing and upgrading Morogoro VTC to Grade A and Diploma level vocational teacher training college	150	150	00	00	00
17. Assisting DIT to produce technology tutors and laboratory technicians starting 2009	150	150	00	00	00
18. Phasing out non qualified vocational education tutors	200	200	200	100,000	50,000

19. Training faculty to Masters degree level and to PhD level	500	500	500	500	500
20. Providing induction and regular development courses to deans of faculties and colleges of education	112	112	112	50	50
21. Reviewing of TE curriculum for all levels to integrate professional and academic knowledge in one person.	100	100	00	00	00
22. Introduction of a scholarship scheme for professional training of teachers at diploma and degree levels	7,818	11,111	14,758	15,000	10,000
23. Designing and running bridging courses for those joining faculties of education without pedagogy training	00	150	50	50	50
24. Introduction of tied bursaries to attract more candidates with Division I and II passes to join teaching	80	320	100	100	100
25. Payment of better and differential salaries and benefits, on time, to new recruits being posted to rural areas	80	320	100	100	120
26. Provision of housing and improving working conditions for teachers, especially in remote rural areas	100	200	300	200	200
II. Linking Pre- and In-service Teacher Training					
27. Modularization of all courses at certificate, diploma and degree programmes in terms of professional content.	200	600	200	200	200
28. Running the First in-service sessions of 151,882 Pre primary, Primary, Secondary school teachers and tutors	250	150	2,875	1,500	1,000
29. Developing ODL programmes at all university colleges and faculties of education by end of 2008.	100	200	00	00	00
30. Training two key staff in ODL training models at each college, Zonal and district inspectorate offices	420	420	200	50	50
31. Provision of hard- and soft-ware in all ODL identified institutions with reliable internet connectivity.	200	400	200	100	50
III. Linking certificate, diploma and undergraduate programmes					
32. Conducting in-service training needs assessment	100	200	00	00	00
33. Running two in-service training sessions annually in identified colleges and TRCs starting 2009	00	00	44,045	46,247	48,560
34. Running one in-service training session annually starting 2011	00	00	22,023	23,124	24,280
IV. Sustainability and Continued In-service Teacher Training					
35. To be built into TE Budget gradually					
V. The Quality of Teaching and Learning					
36. Construction of libraries in 15 colleges	27	90	18	15	10
37. Supporting key textbooks in existing libraries	46	154	31	25	15
38. Supplying accompanying textbooks to support new curriculum	50	100	265	300	200

39. Reviewing and revising current teacher education curriculum	50	50	00	00	00
40. Reviewing current examination systems	400	225	00	00	00
41. Reviewing Teaching force and contact hours	50	100	00	00	00
42. Strengthening, monitoring and support systems in the Directorate of Teacher Education	100	200	50	30	20
43. Training of effective tutors/faculty as trainers of teachers training through in-service	80	00	00	10	10
VI. Accreditation, Quality Assurance and Quality Control					
44. Organization of Annual Teacher Education Conference	50	55	60	65	70
45. Establishment of a Professional Body for assuring quality of programmes, institutions and teachers	50	150	100	75	50
46. Designing and implementing effective monitoring system for teachers	120	200	00	00	00
47. Designing and implementing effective monitoring system for teachers	70	200	50	30	20
VII. Training and Developing Educational Managers and Administrators					
48. Development of clear policies for attracting quality candidates, recruiting on the basis of merit and talent to management roles	100	300	100	50	20
49. Development of good policies for quality assurance and quality control of performance of managers, administrators and experts	100	300	100	50	20
50. Offer professional development programmes locally and overseas for University college principals and their assistants	100	100	90	80	70
51. Offer professional development programmes locally and overseas for college principals and their assistants	719	719	200	100	50
52. Design and institutionalize performance appraisal system for educational managers, and administrators.	400	100	00	00	00
VIII. Mechanism for Obtaining Data for Effective Planning					
53. Establishment of an effective system for collecting processing, organizing and using data for planning	150	500	400	200	100
IX. Improving the Relevance and Effectiveness of Pre-service Curriculum					
54. Improvement of the technical and professional capacity of the Tanzania Institute of Education to meet teacher education curriculum needs	120	100	100	50	50
55. Review of TIE curriculum	50	50	50	0	0
X. Coordination of Development of Teacher Training Materials					
56. Conducting tailored-made short training courses in materials development for TIE staff and heads of curriculum departments in faculties and university colleges of education.	90	150	150	100	50

XI. Improvement of the Status of College Infrastructure and Facilities					
57. Improvement of College infrastructure and facilities so as to be conducive for teaching, learning, and the production of technically and culturally model teacher	267	799	533	400	200
58. Increasing the share of Ministry Budget going to Teacher Education from the current 1.1 percent to 2.5 percent by 2010	15,000	20,000	25,000	30,000	35,000
59. Construction of 5 teachers houses in each college	150	150	150	100	50
XII. Cross-cutting issues					
Gender					
60. Strengthen training programmes on gender in all educational institutions	70	130	80	50	30
61. Improve the inclusion of gender issues in teacher training curricula	55	00	00	10	10
62. Incorporate teachers' code of conduct in curriculum.	20	00	00	00	00
HIV/AIDS and Children Rights					
63. Introducing workplace and school based HIV and AIDS programs for teachers, learners, and other staff	50	130	80	50	30
64. Developing counselling and support services for teachers, children and other staff members	50	200	100	50	30
65. Strengthen the teaching of HIV and AIDS issues in teacher training curricular	20	16	16	18	20
66. Support the provision of ARVs food supplement and counselling services to infected teachers to prolong their lives	100	192	192	250	300
67. Incorporate child rights in curriculum	10	10	00	00	00
Information And Communication Technology					
68. Support ICT training in all teacher training curricula	10	10	00	00	00
69. Provide ICT hardware and appropriate software for use in teacher professional development and support in TCs	150	90	90	70	50
The Environmental Issues in Teacher Education					
70. Introducing a policy for greening all education institutions	1,536	1,536	1,536	100,000	75,000
71. Establishing tree nurseries in all schools for greening communities during rainy season	16	16	15	13	11
72. Sensitizing communities on the benefits of greening the environment	16	16	17	18	20
73. Host school community Open day each year	60	60	60	65	70
74. Introduce health and sanitation programmes in all education institutions	24	24	24	26	30
XIII. Research for improving performance and teacher's professional growth					
XIV. Monitoring and Evaluation of TDMS implementation					
75. Development of TDMS Monitoring and evaluation guidelines and systems	100	00	00	00	00
85. Formalization of TDMS M & E guideline	150	00	00	00	00
86. Introduce Quarterly M & E of TDMS	150	100	110	210	230
TOTAL	61,714	71,445	139,091	326,261	243,536
GRAND TOTAL					842,047