



**United Republic of Tanzania
Ministry of Health and Social Welfare**

Mid Term Review of the Health Sector Strategic Plan III 2009-2015

Capital Investment

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Mid Term Review of the Health Sector Strategic Plan III 2009-2015

Capital Investment

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Acronyms

BMAF	Benjamin Mpaka AIDS Foundation
CCHP	Comprehensive Council Health Plan
CHF	Community Health Fund
CHMT	Council Health Management Teams
CSSC	Christian Social Services Commission
DANIDA	Danish International Development Agency
D-by-D	Decentralisation by Devolution
DC	District Council
DP	Development Partner
FBO	Faith-Based Organization
FY	Financial Year
GBS	General Budget Support
GF	Global Fund
GOT	Government of Tanzania
HBF	Health Basket Fund
HCTS	Health Care Technology Services
HDSS	Health and Demographic Surveillance System
HF	Health Facility
HFGC	Health Facility Governing Committee
HKMU	Hubert Kairuki Memorial University
HSDG	Health Sector Development Grant
HPSS	Health Promotion and Health System Strengthening
HSSP III	Health Sector Strategic Plan III (2009 – 2015)
HTM	Health technology Management
JRF	Joint Rehabilitation Fund
LGA	Local Government Authority
LCDG	Local Government Capital Development Grant
M&E	Monitoring and Evaluation
MDA	Ministries, Departments, Agencies
MKUKUTA	Mkakati wa Kukuza Uchumi na Kupunguza Umaskini Tanzania

MMAM	Mpango wa Maendeleo wa Afya ya Msingi
MOFEA	Ministry of Finance and Economic Affairs
MOHSW	Ministry of Health and Social Welfare
MSD	Medical Stores Department
NBS	National Bureau of Statistics
NGO	Non-Governmental Organization
NSGRP	National Programme for Economic Growth and Poverty Reduction (MKUKUTA)
P4P	Pay for Performance
PHC	Primary Health Care
PHDR	Poverty and Human Development Report
PHSDP	Primary Health Services Development Plan [MMAM]
PMO-RALG	President's Office – Regional Administration & Local Government
PPP	Public-Private Partnership
PPP	Public-Private Partnership
RAS	Regional Administrative Secretary
RHMT	Regional Health Management Team
RRH	Regional Referral Hospital
RS	Regional Secretariat
SARA	Service Availability and Readiness Assessment
SOP	Standard Operating Procedures
SWOC	Strengths, Weaknesses, Opportunities, and Challenges
TWG	Technical Working Group
TZS	Tanzania shillings
USD	United States Dollar
WB	World Bank
WHO	World Health Organization
WHO/AFRO	World Health Organization - Africa

I. Introduction

In 2007 the MOHSW developed the Primary Health Care Service Development Programme (PHCSDP) (MOHSW 2007). This programme is better known by the Kiswahili name of Mpango wa Maendeleo ya Afya ya Msingi 2007-2017 (MMAM). The objective of the MMAM programme is to accelerate the provision of primary health care services. The main areas are strengthening the health system by construction and rehabilitation of the infrastructure and human resource development. Furthermore MMAM aims at improving the referral system, increasing health sector financing and improving the provision of medicines, equipment and supplies. HSSP III incorporated the objectives of MMAM, which are leading for capital development in the health sector.

Infrastructure development plan

In 2005 the health facilities for both public and private included 4,679 dispensaries, 481 health centres and 219 hospitals distributed throughout the country. These numbers constitute the baseline for the MMAM. However, the HMIS statistical report over 2007 mentioned 4,940 dispensaries, 565 health centres and 223 hospitals (MOHSW 2008).

MMAM aims at the following:

- Construction of additional 3,088 dispensaries, 2,074 health centres, 19 district hospitals, and 95 maternity waiting homes.
- Furthermore 250 dispensaries, 120 health centres and 54 district hospitals have to be rehabilitated (based on a PMO-RALG needs assessment study).
- Maternal health services provided by health centres and district hospitals have to be improved through strengthening 2555 health centres and 62 district hospitals. This involves construction for delivery of Emergency Obstetric Care (EmOC), i.e. labour wards and theatres complete with necessary medical equipment and furniture.
- A total of 128 training institutions have also be rehabilitated, constructed and upgraded.
- Other major undertakings include provision of medicines, medical supplies strengthening outreach services through provision of 2,574 ambulances, 140 supervision vehicles and 114 mobile clinics.
- Communication system to all 114 districts and referral system are to be improved and strengthened.

The programme is implemented by PMO-RALG in collaboration with MOHSW, Regional Secretaries (RSs), Local Government Authorities (LGAs), Ward Development Committees (WDCs) and village committees. In addition to this there are other stakeholders such as Development Partners (DPs) who are providing support in both maintenance of hospital equipment and infrastructure development.

2. HSSP III Health Strategic Objectives and Expected Results

Capital investment objectives are twofold. The first objective is to maintain and improve the existing health infrastructure, equipment and means of transport to meet the demands for service delivery. The second objective is to expand the health infrastructure network based on the MMAM. Expansion of infrastructure is planned, with priority for underserved rural areas. Innovative approaches will be developed to increase the private sector and community contribution to service delivery within the context of the MMAM. A new health infrastructure window under the Local Government Capital Development Grant has been created to ensure the earmarking of funds for rehabilitation of health facilities.

A strategy for maintenance and replacement of vehicles will be developed. The Ministry will develop guidelines and the CHMTs will engage in programmes of preventive maintenance, and will ensure that through better care for equipment and means of transport their lifespan is extended.

The MOHSW headquarters will continue to update quality standards and will build the capacity of owners of infrastructure (government and private) to build in compliance with those standards. The Ministry (through the RHMTs and zonal maintenance workshops) will also improve technical assistance in procurement and maintenance of equipment to LGAs. Repair of equipment will be offered in zonal workshops. Capacity building of CHMTs will take place to introduce a system of preventive maintenance. More supervision will take place to enhance adherence to maintenance protocols.

3. Findings and Issues by Strategic Objective and Crosscutting Issues

3.1 Maintenance of existing infrastructure, equipment and means of transport

In the Ministry of Health and Social Welfare there is an existing National Health Care Technology Policy Guideline (MOH 2002) whose purpose is to put in place and maintain Health Care Technology Services (HCTS) that are capable of guaranteeing optimal performance of health care technology for delivery of good quality health services at all levels. The policy emphasises that the functioning medical technologies (equipment) are indispensable for the delivery of effective and up to date health care services. The availability of adequate equipment and required maintenance can only be achieved with an effective and efficient Health Technology Management (HTM) as part of an effective health system. So far, the Policy Guideline has only been partially implemented due to financial and human resources constraints.

In MOHSW Headquarters five technicians are providing services, moving out to where services are needed. There are five Zonal workshops with engineers, based in Zonal Referral Hospitals, providing maintenance services, each serving 16-20 districts. According to the Policy Guideline, there should be fully equipped and staffed Regional Workshops (attached to Regional Hospitals) and District Workshops (under the CHMT). Those are hardly functional in practice.

When using services from the Zonal Workshops, districts have to pay for the work (travel and allowances) and for the spare parts. Often districts do not have budgets for preventive maintenance, and wait with engaging the HCTS, which affects health service delivery. Preventive maintenance is not part of the culture in health facilities. Some donor-paid programmes have incorporated maintenance in their budgets, e.g. for HIV care, laboratory equipment and for Radiology. The disease control programmes coordinate this maintenance.

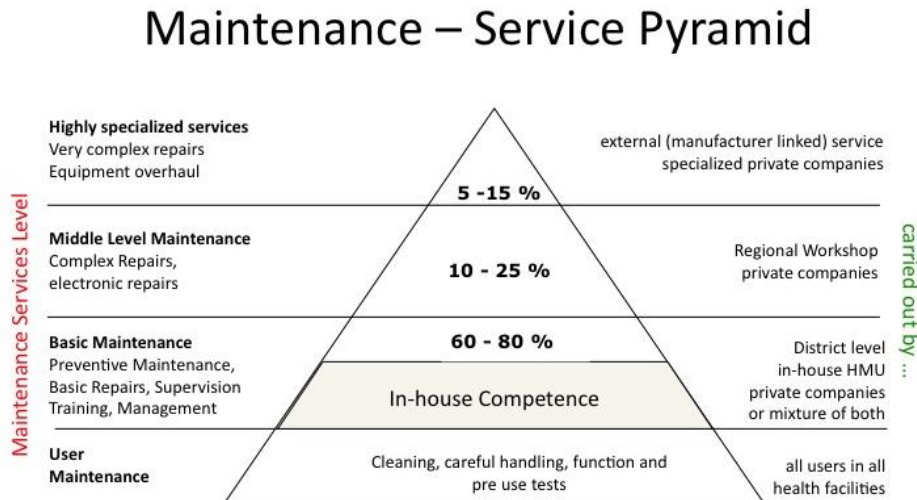
The SARA survey (2012) reported that overall nearly one quarter of health facilities in the sample possessed all six elements of equipment (i.e. weighing scale, Salter scale, stethoscope, BP machine, thermometer, light source), and the mean basic equipment score across all facilities was 73% (which means that on average 73% of the required equipment is present). The percentage of facilities possessing all six items of equipment rose across facility level – from 17% of dispensaries, to 41% of health centres and 67% of hospitals. Broken equipment therefore affects the quality of service delivery (MOHSW 2013a).

Training of biomedical technicians has started in Tanzania, based on the curriculum for this cadres developed in Kenya. Within two years the first technicians will finish their education and can be posted in districts. This should improve repairs and preventive maintenance. However, CHMTs have to plan the posting in advance, using the new scheme of services. They are now being informed about the possibility.

With the help of the Korean Foundation for International Health training of engineers is in preparation. This will consist partly of distance learning programmes.

Various initiatives stimulate the development of maintenance of equipment. The Swiss Development Cooperation (SDC) funded project “Health Promotion and Health System Strengthening (HPSS)” is the biggest project, carried out in Dodoma Region. The project has designed a stratified maintenance approach, as shown in the figure below (HPSS 2013a).

Figure 1 Maintenance per level and complexity



Source: HPSS presentation 2013

The project suggests strengthening the regional workshops (as proposed in the Policy Guideline), rather than zonal workshops, to reduce the distance to districts. Furthermore, it calculates that 60-80% of the maintenance issues can be solved at district level. HPSS has introduced a system of training manpower at district level, to support the establishment of District maintenance workshops, to develop management and maintenance procedures to cover the basic needs at district level. Technicians from Department of Works perform minor maintenance in all districts. It is too early to make a cost-benefit analysis of their work.

The Dodoma Regional Hospital and all districts in the region entered into service contracts for preventive maintenance with Tameq, a local company, which get support from a NGO in Germany. Tameq will provide fully equipped workshop, base adequate number of qualified staff in Dodoma, provide technical support and train users and technicians and maintain an adequate stock of maintenance consumables (fast moving) and spare parts. This Public Private Partnership should set an example for the country (HPSS 2013b).

In 2013 a report on Strengthening Health Technology Management in Dodoma Region indicated that setting up a systematic maintenance structure was well advanced. Besides the training of technicians in maintenance there has also been provision of working tools. Inventory was taken of all medical equipments at public health facilities, and a database for medical equipments (OpenMedis) was established. All inventory data have been incorporated into the system. Despite progress in the project, major problems in Dodoma Region are budgetary (HPSS 2013a). Districts just do not have funds for maintenance. An important issue mentioned is the procurement procedure. Many spares for medical equipment have to come from abroad, and are not sold locally. There is just no way for districts to place orders abroad, even if the spares are affordable. There is no structure in the country that can do this on behalf of districts. In principle Medical Stores Department (MSD) can perform procurement, but this organisation is not equipped to buy single items.

The Hospital Reform Section with support from DANIDA has established equipment and facility maintenance systems. Health Care Technical Services (HCTS) are the services provided. In this project 15 health facilities including 6 District Hospitals and 9 Regional Referral Hospitals benefited (MOHSW 2013b).

The Hospital Reforms Project encountered similar problems as the Dodoma project. Maintenance and repair of the sophisticated equipments (such as chemical analyzers, anaesthetic machines, autoclaves, oxygen concentrators) are not done due to limited technical capacity of the available technicians. There is lack of qualified biomedical technicians and lack of Preventive Maintenance budget for most of hospital facilities. The technical staff are committed to other routine activities rather than hospital equipment maintenance activities. In other places the workshops room turned to be stores of variety hospital items. Some tools are not used. There are no equipment inventory records in the facilities and no work plan to many of established workshops.

In the project hospital maintenance workshops were rehabilitated and newly equipped and personnel was trained. Hospital management was sensitised to plan and budget for maintenance and to supervise the maintenance department.

Figure 2 Hospital Reforms: re-establishing maintenance workshop
Before and After



Source: HCTS

A specific challenge brought up in interviews during the MTR is the handling of donated equipment. First of all, donations do not meet Tanzanian standards (provided by HCTS) and dozens of different makes and types make it extremely challenging for maintenance officers to handle. It is impossible to keep spares or even consumables for all these machines. Secondly, donated equipment often is imported without installation plan. There are examples of donations that have remained for months in the harbour, as there was not even money for custom clearing. Donated equipment is sometimes delivered at the doorstep of hospitals, without notice or installation support. Some of these machines have been sitting for months in crates, before any action could be taken. It has happened that even double supplies of theatre equipments were done to hospitals. Especially recent project for reduction of Maternal Mortality have caused such problems, according to the head of HCTS.

The MTR team was not able to get information with regard to procurement, distribution and maintenance of vehicles and other means of transport. Most vehicles or other means of transport in the health sector have been donated by projects, programmes, international NGOs or DPs and are often registered under the name of the international organisation. According to the 2012 Health Sector Performance Profile there are 1,110 motor vehicles in the regions. Of those 20% are not functioning and

14% out of 1,183 motorcycles are not functioning. The report provides no further details on types of problems of grounded means of transport (MOHSW 2013c). Maintenance is the responsibility of the LGAs or MDAs running the vehicles. Anecdotal evidence suggests that maintenance is poor, and preventive maintenance rarely done due to budget constraints. The MTR could not get information on running/non-running vehicles. During the MTR field visits it was mentioned in all districts that problems with transport limit operations, e.g. outreach or referral.

3.2 Expansion of the health services network

3.2.1 The number of health facilities

As the table below shows, there is a gradual increase in health facilities in Tanzania. The MMAM target of expansion to over 10,000 health facilities was to be achieved in 2012, the end of the first phase of the MMAM. At the start of the HSSP III it was already clear that this target was not going to be achieved in time, given the available level of funding for expansion of the infrastructure. In 2012 67% of the target was achieved.

Table I Increase in health facilities in Tanzania

	2005	2007	2009	2010	2011	2012	Target
Health facilities	5,379	5,728	6,214	6,342	6,518	6,734	10,079

Source: Health Sector Performance profiles 2007 and 2012

The table below shows the details according to ownership over the period 2009 – 2011.

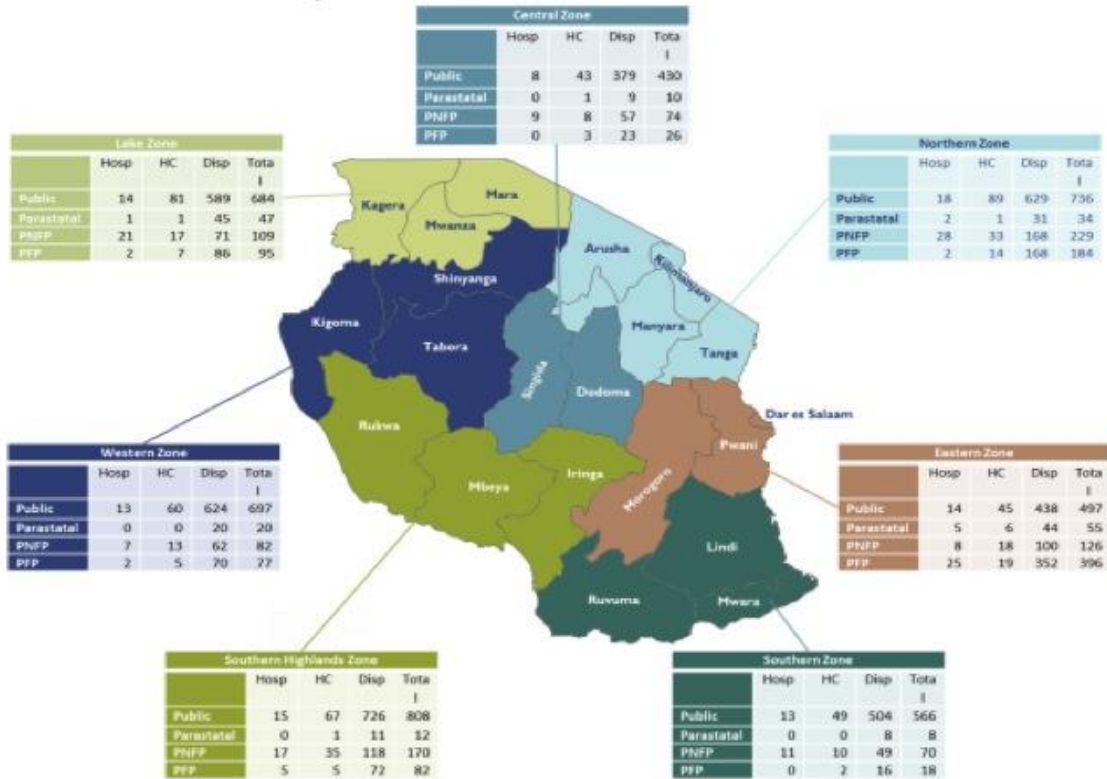
Table 2 Increase in health facilities 2009 - 2011 acc. to ownership

Facility type	Ownership	2009	2010	2011
Dispensaries	Govt	3,711	3,889	3,990
	FBOs	668	625	597
	Parast	166	168	192
	Priv	855	787	790
	Total	5,400	5,469	5,607
Health Centres	Govt	402	434	467
	FBOs	117	134	139
	Parast	8	10	19
	Priv	55	55	59
	Total	582	633	684
Hospitals	Govt	96	95	112
	FBOs	98	101	111
	Parast	7	8	9
	Priv	31	36	33
	Total	232	240	264
Total Health Facilities	Govt	4,209	4,418	4,569
	FBOs	883	860	847
	Parast	181	186	220
	Priv	941	878	882
	Total	6,214	6,342	6,518

Source: MOHSW HMIS data tables, 2009, 2010, 2011

The number of health facilities according to an inventory in 2010 is 6,342. (See the figure below) with details per zone.

Figure 3 Distribution of health facilities in Tanzania in 2010

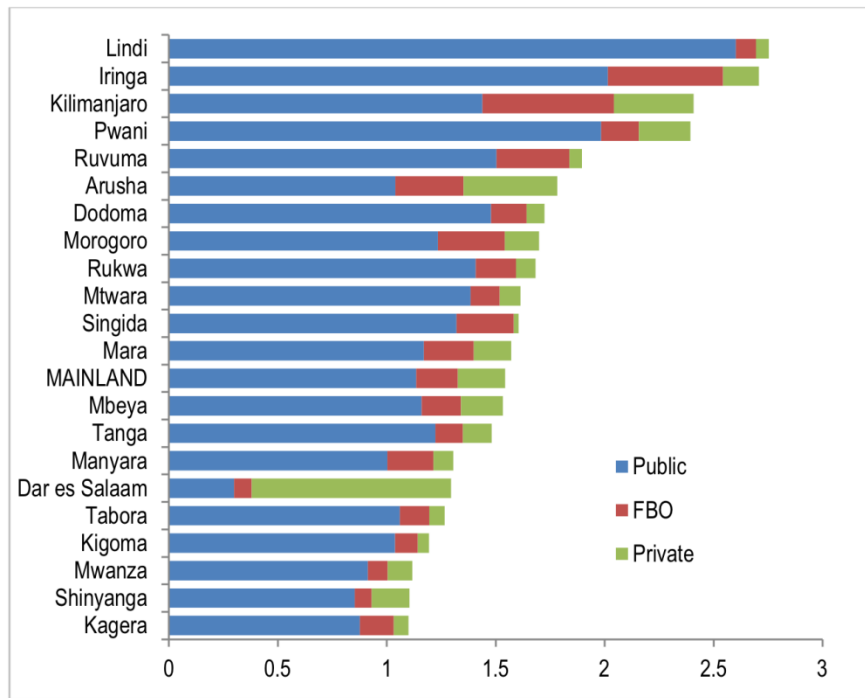


Source: MOHSW, 2012

By December 2012 according to the analytical report (MTR-AR 2013) there were 6,734 health facilities, based on the number of health facilities submitting HMIS data. The website of the MOHSW indicates that there are 7,537 health facilities in the country. According to the M&E unit of the MOHSW this includes facilities not yet opened, closed or non-functional. There may also be units not submitting HMIS data. The HMIS unit will adjust this number after additional information from the districts. The National Bureau of Statistics plans an inventory of all health facilities in the country.

Figure 4 Health facility density by region

Health facility density by region

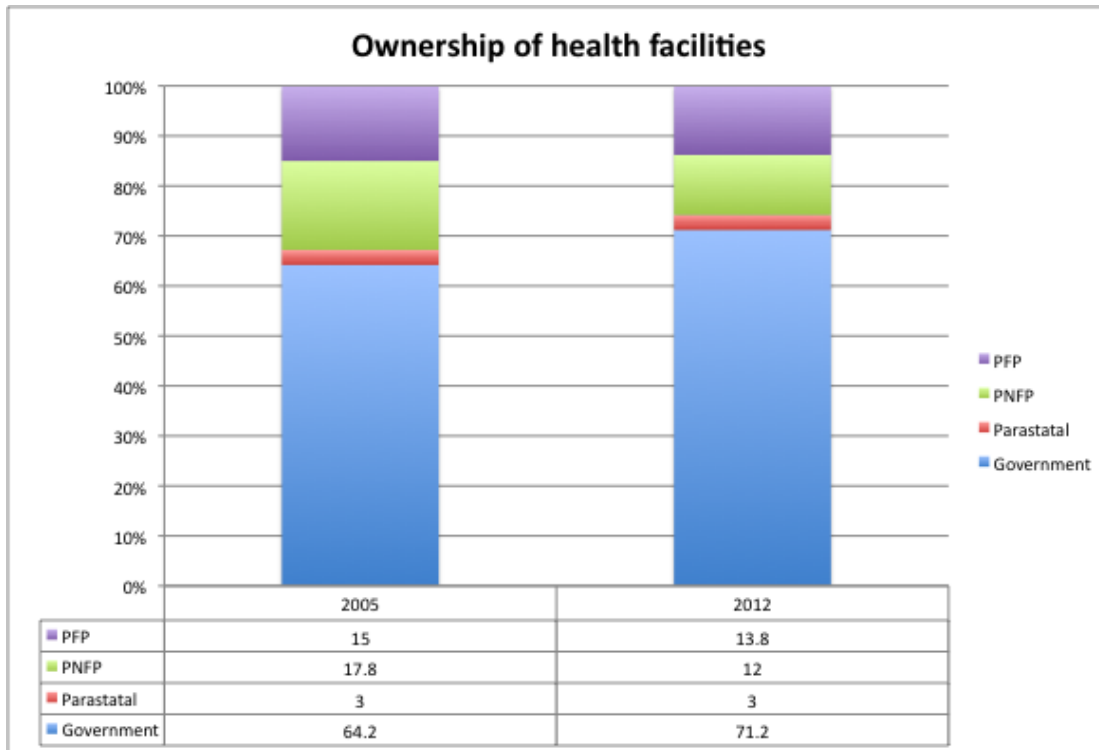


Source: MTR-AR 2013

The facility density remained 1.5 health facilities per 10,000 population between 2005 and 2012 (MTR-AR 2013). This means that the expansion is keeping with the population growth. The distribution between regions is varying, with the lowest density of 1.1 in Kagera, Mwanza and Shinyanga, and the highest density of 2.5 in Iringa and Lindi.

The distribution by ownership shows how different stakeholders supplement government efforts in providing health services in the country. It is striking that the percentage of health facilities owned by private for profit and private not-for-profit organisations is reducing from 2005 to 2012. Other providers do not keep up with the speed of expansion of government facilities (See the figure below), although the MMAM aimed at stimulating private investments in the health sector. Faith Based Organisations (FBOs) indicated in the MTR that reducing support from overseas does make it impossible to invest in new infrastructure.

Figure 5 Percentage of ownership of health facilities 2005-2012



Source: MMAM 2007 and MTR-AR 2013

The number of health facilities does not indicate the quality of the infrastructure or the adherence to standards of buildings. Neither does the figure give information about staff houses and other infrastructure needed for health facilities (e.g. water supply, incinerators, electricity).

The SARA survey of 2012 did report the following with regard to basic amenities in health facilities:

Table 3 Percentage of health facilities with amenities

Figures indicate percentages in survey in 27 districts	Power source Electricity	Improved water source, piped water, well or rainwater tank	Room with auditory and visual privacy, where patients cannot be seen or heard by waiting public	Improved sanitation facilities, toilets or functional pit latrines
Level of service				
Dispensary	16	41	15	19
Health Centre	41	57	12	22
MCH Clinic	52	63	25	25
Hospital	67	83	21	15
Total	21	45	15	19

Source: SARA 2012

The figures from the SARA survey show that sanitation is below standard in 81% of all the health facilities and privacy is not offered in 85% of the health facilities. The community perspective study did give similar views of the general public with regard to hygiene and privacy in health facilities: in general below expectations.

3.2.2 Financing capital development

Financing capital development projects in the public health sector comes from different sources:

- Local Government Development Grant (LGDG), from the core Council Development Grant (CDG) or from the specific Health Sector Development Grant (HSDG).
- Bilateral donor projects, e.g. loans funded by the Global Fund or the African Development Bank.
- Loans, managed by the Ministry of Finance, e.g. the Dutch ORIO project for X-ray equipment
- NGO projects or community initiatives, often off-budget funding

The Core Council Development Grant

The Central Government established the Local Government Development Grant (LGDG) system for LGAs to attain the objectives of Decentralisation by Devolution (D by D). This system would ensure a transparent and predictable flow of funds to LGAs including the improvement in sustainability of local development infrastructure through ensuring proper planning and adequate Operations and Maintenance (O&M).

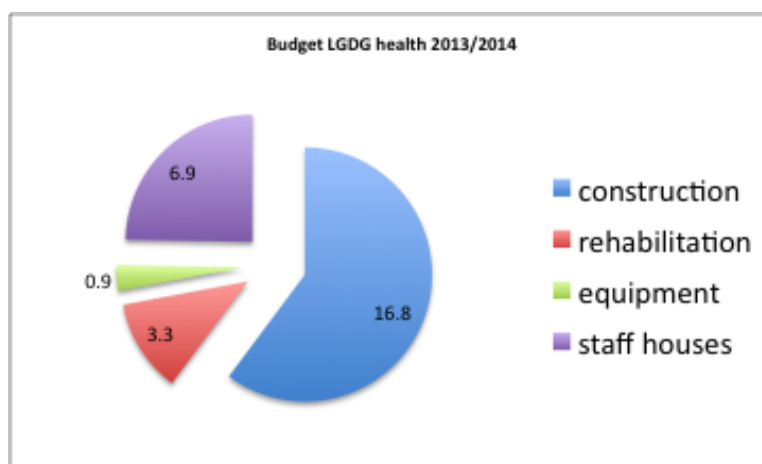
The councils receive a general un-earmarked grant for infrastructure development. According to an LGDG evaluation in 2012 (MDF 2012), 7- 8% of that grant was spent on health projects in the period 2008-2010. Another report (DEGE 2012) gives slightly higher figures of 11% in 2009/10 and 8% in 2010/11. From this core grant in the period 2008 – 2011 around 35 Billion TZS of the budget was allocated to health sector projects.

The Health Sector Development Grant

The Health Sector Development Grant (HSDG) was introduced in 2008/09 to operate as one of the sector windows in the LGDG System to LGA to support the implementation of the MMAM. The HSDG was designed as a performance and formula based grant. The allocation formula for HSDG is based on the same formula used in allocating grants for recurrent expenditure for the health sector (population 70%, number of poor residents 10%, Council medical route 10% and under-five mortality 10%). Allocation of HSDG funds to LGA for the year 2008/09 was formula based but thereafter, allocation was adjusted according to previous years performance and in accordance with the 2008 LGDG Assessment Manual (DEGE 2012).

Implementation of contracts utilizing the received CDG and CBG funds is undertaken by the participating LGAs. The participating LGAs are required to procure the goods, works and services financed from such grants in accordance with the Public Procurement Acts of 2001 and 2004 and the Local Government Regulations on Selection and Employment of Consultants and Procurement of Goods and Works. They are also required to ensure the best value for the money used for implementation of contracts. PMO-RALG monitors and evaluates expenditures and outcomes, and publishes annual LGDG progress reports, but is not involved in the procurement or management of contracts execution.

Figure 6 Budget LGDG Health 2013/14 in Billion TZS



Source: MOHSW-PlanRep August 2013

Achievements

The LGDG Steering Committee approved a total of TZS 27,200,000,000 of Health Sector Development Grant (HSDG) to be disbursed to LGAs for implementation of health activities for the FY 2009/2010. During the year, a total of TZS 27,112,405,005 was disbursed to LGAs, which is almost 100 percent of the budgeted allocations. From 2008 until July 2013 the Government of Tanzania, Danida and KfW provided funds. Since July 2013 donors have withdrawn from the HSDG.

The funds were mostly spent in construction, extension and rehabilitation of dispensaries, staff quarters and health centres; purchase of laboratory equipments and other medical equipment.

As the table below shows, there is a gap between budget, funds received and expenditure. This is caused by delays in construction activities, as will be discussed below.

Table 4 HSDG funds flow, 2008 - 2011

FY	BUDGET	RECEIVED	EXPENDITURE	BALANCE
2008/09	34,407,894,522	29,123,147,806	22,945,579,440	6,177,568,366
2009/10	32,088,060,576	28,850,117,000	14,176,104,686	14,674,012,314
2010/11	30,324,099,002	17,434,984,000	4,137,877,075	13,297,106,925
TOTAL	94,820,054,100	75,408,248,806	41,259,561,201	34,148,687,605

Source: DEGE 2012

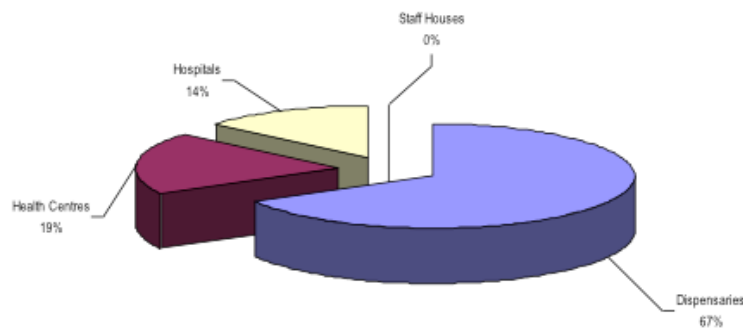
LGAs had planned to spend a total of TZS 30,752,132,800 for implementation of health window activities for the financial year 2011/12. During this period no fund were released and most of the activities were implemented using carry over funds. The following achievements were reported:

- 6 District hospitals constructed,
- 44 District hospitals rehabilitated,
- 41 Health Centres built, and 183 rehabilitated.
- 282 dispensaries built, and 574 rehabilitated,
- 492 staff houses built, and 341 rehabilitated,

- Medical equipment and furniture procured in various health facilities.

The figure below shows how budgets of the LGDG for the health sector are allocated in the year 2012/2013. For the year 2013/2014 the percentage of the budget for hospitals will reduce to 1% and the percentage for dispensaries will increase to 86%, leaving 13% for health centres.

Figure 7 Budget allocation LGDG health 2012/13



Source: MOHSW PlanRep, August 2013

3.2.3 Performance of the Capital Investment Projects

The DEGE assessment also indicated that the HSDG has over the three years 2008-2011 contributed significantly to improvement of LGAs' health infrastructure. It was noted that a large number of projects were implemented: approximately 400 projects of different sizes in the 16 LGAs visited. This implies that up to 3,000 projects have been funded from the HSDG between 2008 and 2011, when extrapolating the figures countrywide. More specifically the review noted that funds from the HSDG have been used in accordance to guidelines. Use of funds was mainly construction of new facilities (62%), Rehabilitation (29%) and Equipment (9%). Out of the 16 LGAs, which were audited, 10 were assessed as performing overall fair, 6 were assessed as good and none were assessed as poor. Also out of the 56 major facilities inspected in the field, it was concluded that the overall quality of works for 93% of these facilities was good or fair.

Further review noted that the HSDG is currently designed as a "window" within the overall LGDG system, which ensures that funds are ring-fenced for health sector investments. The HSDG is supposed to be allocated in a transparent formula and performance based manner. Actual fund allocation was formula based, not taking into account absorption capacity of districts. However, there were significant delays in disbursements when compared to intended schedule of regular quarterly transfer. There were also significant differences between budgeted fund allocations and actual transfers. This in combination with communication problems has led to significant difficulties in reporting on the utilisation of the HSDG. Nevertheless, the evaluation found that the 16 LGAs had spent the funds as broadly intended. The funds are primarily spent on construction of new health facilities, but also some rehabilitation, staff houses and equipments.

However it was noted that the funds are generally spent rather "thinly". LGA with an annual allocation of 150 million TZSs was typically engaged in 10-15 "projects". LGAs generally followed procurement guidelines, but contract management is weak and O&M issues are generally not well addressed. Based on the adopted scoring system it was concluded that funds overall have been reasonably well spent, but that there a significant number of areas that need to be improved (DEGE 2012).

The main concerns noted during the review were that the expansion of new health facilities appeared to progress faster than the deployment of staff and O&M budgets. As such the quality of strategic planning at LGA level needs to be improved and LGAs should be guided (possibly provided with incentives) for more balanced infrastructure development.

The quality of design, procurement and contract management need to be improved, as transpired from interviews during the MTR. Field visits found that newly constructed health facilities still don't provide privacy. A number of infrastructures being developed are below required standards and without required staff houses and equipment. Also the system for central government guidance and oversight to the LGAs for management of the HSDG has been rather weak. The LGAs have only received minimal guidance and support on how to develop their strategic infrastructure plans or on how to manage the HSDG. The building unit in the MOHSW is only managing projects, but not providing any assistance to implementation of the HSDG programmes. Reporting on the HSDG is poor in that the figures on transfers and utilisation do not tally. The information available at national level on HSDG utilisation is not yet adequate for policy decisions. However it is realised that PMO-RALG has taken initiatives for improvements.

On the other hand the MDF evaluation noted that LGDG system contributes to increased access to local services. However it was noted that the financing is not sufficient to meet the demands. Also the formula-based transfer system currently does not ensure equitable results at LGA level as the formula refers to input without getting feedback from the output. Transfers from LGA to lower levels are hardly done on basis of a formula, but on basis of consensus among the District Councillors concerned, mainly because the funds are insufficient to meet demands (MDF 2012).

Figure 8 Picture from HSDG Report 2012

Staff Houses at Gwanumpu HC in Kibondo DC
HC & Houses but not operational due to
shortage of staff, equipment & furniture



Challenges

Generally there was shortage of funds for construction and rehabilitation of health facilities and late disbursement of funds. For example in 2011/2012 the budget for construction and rehabilitation was not disbursed. Many Councils now prefer rehabilitation and upgrading of the health facilities, instead of construction of new HFs as funds are not sufficient for bigger projects. There is less community participation in contribution for construction of HFs due to many contribution activities in other sectors such as Agriculture, Water, and Education. Also there is shortage of qualified engineers at the Council level for supportive supervision of construction work. This makes difficult to recognise Value for Money especially areas difficult to reach, while contractors select areas to work and refuse small projects.

The procurement regulations are causing delays and difficulties for many small projects in remote rural areas. The official procedures of tendering and selection of constructing companies is often not possible, as bigger companies are not interested in such small projects and smaller companies do not meet the government requirements.

There are problems in timely submission of Council Development Reports forms from Regional offices. This hinders timely report preparation and submission to the relevant authorities at national level and feedback to LGAs. It was also expected that those reports would be properly analyzed and consolidated at that level. This was not the case. The Regional Administrations are tackling these problems now.

While most of the projects are implemented at lower local government levels, payments are made at the higher local government level. These expenditures are reported to be incurred at higher local government level, which reflects high expenditure at high level contrary to D by D policy. Changes in this reporting anomaly are to be considered by PMO-RALG.

Danida and KWF (Germany) were DPs contributing to the HSDG. However, both partners have terminated their contribution to the fund. Whether Government will continue with a separate fund for the health sector, or will integrate it in the core CDG is not known, at the time of the MTR.

3.2.4 Global Fund Project

The Global Fund Round 9 Health Systems Strengthening has a component of construction:

- a) Construction, expansion and rehabilitation of training colleges,
- b) Construction of staff houses and
- c) Provision of 9 warehouse-in-a-box storage facilities for selected MSD zonal stores.

The project period runs from 2011 until 2016. The budget for the 5 year programme is approximately US\$50m

The Christian Social Services Commission (CSSC)

The Christian Social Services Commission (CSSC) is one among the sub- recipients of Global Fund R9 Grant through the Ministry of Health and Social Welfare. CSSC received Global Fund R9 Grant to increase production of mid-level and highly skilled health care workers in Tanzania. This five-year project has two phases. Under Phase I, CSSC is engaged in construction, rehabilitation and extension of various buildings at St. Bhakita Training Institution – Namanyere- Rukwa. The status so far shows that

the works done is 80% complete. The project was faced with delays due to road and weather conditions, as well as technical reasons (adjustment in design and construction) (CSSC 2013).

Benjamin Mkapa Foundation (BMAF)

BMAF had a staff house construction project, which is part of the Global Fund Round 9's Health Systems Strengthening (HSS). This is scheduled to take place from 2011 to 2016. About 700 staff houses were initially scheduled to be constructed in 70 districts, each with 10 houses in the span of five years. The plan had 310 houses in Phase 1 and 390 in Phase 2. However, construction costs were underestimated: the revised number of houses to be constructed by GF for 5 years will now be a total of 500 houses instead of 700 houses. In this regard the construction work plan is as shown in the table below (BMAF 2013).

Table 5 GF BMAF construction of staff houses

Phase:	Year:	Number of Houses:	Location:	Expected Start:	Expected Completion:
Phase 1 (310 Houses)	1- 2011	50	Mtwara (50)	2011	Feb. 2013
	1- 2011	20	Rukwa (20)	Sept. 2011	Jun. 2013
	1- 2011	20	Rukwa (10)/Katavi (10)	Sept. 2011	Oct. 2013
	1- 2013	70	Singida (30), Ruvuma (40)	2013	Dec. 2013
	1- 2013	110	Arusha (20), Manyara (30), Lindi (60)	Jul. 2013	May 2014
	1- 2013	40	Morogoro (20), Coastal (20)	Aug. 2013	Jun. 2014
Phase 2 (190 Houses)	2- 2014	110	Morogoro (10), Coastal (10), Shinyanga (40), Simiyu (50)	2014	TBD (GF Approval & Disbursement)
	2- 2015	80	Tanga (10), Kigoma (30), Kagera (10), Mwanza (10)	2015	TBD (GF Approval & Disbursement)

In Mtwara the construction of staff houses started in September 2011. Until June 2013, a total 44 (88%) were being accommodated and 50 staff houses completed and handed over to the Local Government Authorities (LGA) in Mtwara region.

The construction of staff houses in Rukwa and Katavi regions also started in December 2011 but due to various reasons, including severe weather, unreliable accessibility to the scattered sites and contractor's limitation in management of the project; completion of the 40 staff houses was delayed. As such twenty (20) staff houses in Sumbawanga urban and Sumbawanga rural are schedule to be completed in June 30, 2013. The remaining 20 staff houses in Nkasi and Mpanda districts are expected to be complete in October 30, 2013. The construction of 220 staff houses started in March 2013. Construction of 70 houses in Singida and Ruvuma regions started in March, 2013. Construction of 150 staff houses in Arusha, Manyara, Morogoro, Coastal and Lindi did not start in March 2013. Eventually the contractors were expected to begin construction by end of July 2013.

The proposal for the Phase 2 (Year 3, 4 and 5) has been submitted to the primary recipient (Ministry of Health and Social Welfare), and the document is currently under review for approval. The proposed houses to be constructed under Phase 2 are 190.

Other construction projects under the GF

The GF is also contributing to construction of the Hubert Kairuki Memorial University (student accommodation, laboratories, and equipment) in Dar es Salaam, the Mtwara Clinical Officers Training School and the Bagamoyo Nurses Training School.

3.2.5 African Development Bank

The African Development Bank provides Support to Maternal Mortality Reduction Project (SMMRP) in Mara, Mtwara and Tabora Regions. The objective of the Project is to accelerate reduction of maternal and newborn deaths. The project was approved by the Bank in November 2006, but actually started in 2009. The total budget for the project is USD \$65 million.

The project entails rehabilitation, extension and construction of Health Facilities in Mara, Mtwara and Tabora Regions and rehabilitation and upgrading of Training Institutes in Mikindani and Tabora Municipalities in Mtwara and Tabora Regions.

The Project involves full rehabilitation of facilities noted to be in a deplorable state as well as extension to improve maternal health:

- (i) Construction of new MCH Units in 104 dispensaries, 36 out of these dispensaries will be fully rehabilitated, 22 will be constructed as new dispensaries on existing location
- (ii) Construction of new Obstetric Theatres in 36 health centres, 8 out of these health centres will be fully rehabilitated
- (iii) Construction of new Obstetric theatres in 10 District Hospitals, 2 out of these hospitals will be fully rehabilitated
- (iv) Construction of a staff house in each of the 36 health centres
- (v) Rehabilitation and upgrading of two Health Training Institutes in Mtwara and Tabora Regions.

The project also includes equipment, furniture, supplies, ambulances and vehicles, and training and for maternal health activities.

So far, 70% of the construction activities have been completed. Nearly all construction activities in rural areas suffered from delays and budget overruns, due to problems with local contractors, weather and road conditions and project management issues.

3.2.6 Other construction and rehabilitation activities

Several International NGOs – especially when involved in Reduction of Maternal Mortality – have project elements of rehabilitation of infrastructure or expansion, e.g. construction of labour wards or theatres. The MTR team was informed on several of those initiatives, e.g. by AMREF, World Lung Foundation, Bloomberg Philanthropies. The biggest project is the construction of the Boabab Maternity

Hospital in Dar es Salaam, run by the NGO CCBRT, which receives in total support of USD \$36 million from several bilateral donors.

Unfortunately, there is no overview of these activities at national level.

3.2.7 Future Capital Development Plans

In November 2009, an ORIO application from the Tanzanian Government was approved eligible for an ORIO Loan by the Dutch Government. This Facility for Infrastructure Development (ORIO) is guaranteed by the Dutch Ministry of Foreign Affairs to encourage public private partnership in infrastructure development in developing countries. After a needs assessment study, the final project scope, budget and implementation plan were approved in April 2012.

Focus of the project is on MDG 4 and 5 with specific attention for diagnostic services, aiming for maternity as well as general diagnostics. The project includes equipping 37 selected hospitals comprising 7 district hospitals, 23 regional hospitals, and 7 zonal/specialized hospitals. Besides equipping hospitals the project addresses also all other aspects of a comprehensive project, as infrastructural works, technical assistance and a 5-year maintenance program.

3.3 Crosscutting Issues

Equity

The MMAM does not identify specific districts with underserved areas. In general, rural areas are mentioned as underserved. Given the large differences in health facility density as shown in the MTR Analytical Report, regions like Kagera and Shinyanga (1.1 HF per 10,000 people) would qualify for more investments than Lindi and Iringa (2.5 HF per 10,000 people). As mentioned above, the general problem with the HSDG is that financial contributions for infrastructure development are very thinly spread, leading to many small projects in all districts. A targeted approach based on performance data, mortality figures, etc. may have resulted in more tangible results. It may also have been more efficient, building capacity of fewer districts officers to manage the projects.

Quality

The quality of the infrastructure has an impact on quality of service delivery, especially in reproductive health services, where privacy, hygiene and water supply are paramount. It is unfortunate that the SARA survey of 2012 found major shortcomings in infrastructure, especially in dispensaries, where less than 25% is fully up to standard. That figure is even lower than mentioned in the MMAM programme document of 2007.

The National Health Care Technology Policy Guideline of 2002 is still relevant; in fact it has been implemented only partly. The analysis in the document that poor maintenance affects quality of services still stands. The need for a system of preventive maintenance is there more than ever. Poor maintenance not only affects quality of care, but also leads to high costs, of reduced lifetime of equipment and means of transport.

4. Governance

National level

There is no specific TWG for capital investment and maintenance, although the TWG on pharmaceuticals is supposed to incorporate these topics. The officers from the building section of the ministry rarely participate. There is no other coordination mechanism in place to exchange information. The management and monitoring is extremely fragmented. The building unit in the MOHSW has issued standards for buildings, manages AfDB and Global Fund projects, but is not involved in monitoring or supervision of the MMAM. The unit does not monitor adherence to standards. The Health Care Technology Services unit coordinates maintenance services, but disease control programmes have their own arrangements with support from DPs. MSD is involved in procurement of equipment and spare parts (in bulk), but has no direct link with HCTS. Monitoring of progress with regard to Capital Investment and of implementation of MMAM is challenging, especially because of the involvement of many international partners, who support local initiatives. There is no office, which has a complete overview of all construction and maintenance activities in the country.

The LGDG system under PMO-RALG is well established and functions for capital development by other ministries as well. In general, evaluations of management of LGDG are positive, with exception of reporting, which is often delayed. Reporting and accounting mechanisms are being reinforced and automated. Under PlanRep many up-to-date reports can be generated.

The Regional Secretariats have limited capacity to provide technical support and supportive supervision to LGAs. They hardly perform analysis of the reports from LGAs. However, the new structure of the Regional Secretariats could offer opportunities for improvement of M&E.

District level

LGAs play an important role in management and supervision of capital investments and in maintenance of infrastructure, equipment and means of transport.

LGAs struggle with huge capacity problems in managing the many projects, not only in the health sector, but also in the education sector (more than twice as big as the health sector in terms of infrastructure), the water sector, etc. In general, Departments of Work are understaffed, and under-funded for performing supervision. The administrative burden of these projects on the LGAs is enormous, with complicated tender and procurement procedures, contracting arrangements and accounting procedures. As was noted in reviews, many projects are small in remote areas (e.g. pit latrines for a dispensary, or incinerators for a health centre) and not attractive for contractors. This all together contributes to delays a slow-down of implementation.

With regard to maintenance, establishing a culture of preventive maintenance and immediate actions after breakdown requires strong leadership at local level as well as planning and budgeting skills. Several projects aiming at such a culture shift have not yet been successful.

5. Cross-cutting SWOC Analysis

Table 6 SWOC analysis Capital Investments

Strengths	Weaknesses
<ul style="list-style-type: none"> ▲ The leading role of LGA to manage the activities and projects ▲ Local public private partnerships and collaboration with NGOs ▲ Engagement of Regional and National authorities in planning and project implementation ▲ Commitment from DPs to contribute to investments ▲ New cadre trained for maintenance of equipment 	<ul style="list-style-type: none"> ▲ No national coordination mechanisms for capital investment ▲ No coordinated strategic planning and operational work plans related to other plans ▲ No overview of status of infrastructure and equipment ▲ Limited management capacity for project management and supervision ▲ Limited engineering capacity at district level ▲ Delay of disbursement of funds ▲ Frequent variations in design and standards
Opportunities	Challenges
<ul style="list-style-type: none"> ▲ Availability of a guiding policy on health equipment maintenance and standards for construction. ▲ Functioning LGDG system and capacities within PMO-RALG and LGAs ▲ Development Partners and international NGOs supporting the maintenance and infrastructure development. ▲ New deputy PS Health with inside knowledge of the health sector ▲ P4P or CHF potential re PPM/minor maintenance funds with input from the HFCGs 	<ul style="list-style-type: none"> ▲ Inadequate funding to cover the whole country ▲ Challenges in implementation of small projects in rural areas (roads, weather, unreliable contractors)

6. Recommendations

Management

It is important to establish a national coordination mechanism of capital investment and maintenance, preferably with participation of both MOHSW and PMO-RALG. The coordination mechanism should also have strong instruments for monitoring developments, and signalling bottlenecks.

The fragmented operations in the MOHSW with regard to capital investments and maintenance should be brought into one unit, with a clear mandate of standards development and technical support and supervision. Support to procurement abroad of essential parts and consumables should be provided by one agency.

The MOHSW might consider a targeted approach: rather than spreading funds thinly, concentrating in regions with very low coverage of infrastructure and higher maternal mortality rates.

The quality of strategic planning for health infrastructure at LGA level needs to be improved: the LGAs should be guided for a more balanced infrastructure development to ensure that facilities are fully equipped and adequately staffed before new construction is embarked upon. This includes clearing the backlog of staff housing for existing health facilities. It is also recommended that the existing guidelines for strategic health infrastructure development be better disseminated and monitored.

There is need for improvements of LGA planning, budgeting as well as engineering design, procurement and contract management. Innovative web-based support could be developed, with easy-to-use tools for these activities, improving the learning curve of LGA staff and enhancing exchange of experiences.

There is need to ensure more timely and predictable fund transfers. The current significant deviation between budget allocations and actual allocations as well as the very significant deviations between the intended quarterly transfer and actual transfers bring significant problems to the LGAs. In addition the system for communication of transfers to the LGAs need to be improved.

PMO-RALG should ensure that the format of reporting is clearly communicated to LGAs and that the guidelines reflect on the level of analysis of information that is required. This will also simplify their consolidating of the LGAs' reports into one report for the country. Capacity building for generating automated reports is needed to enhance the reporting process.

There is need to strengthen PMO-RALG and RS support to and supervision of LGAs for improved planning, design and contract management of facilities funded by the HSDG. This includes better dissemination of guidelines as well as improved system for inspection/supervision. The PMO-RALG support should also include improved documentation and dissemination of "good practices" of HSDG management at LGA level – e.g. local approaches for community involvement in health infrastructure development (planning, procurement and contract management).

Maintenance

There is need to update the Health Care Technology policy guideline. Also there is need to develop HCTS five-years' strategic plan and eventually development of related yearly operational work plan, with clear targets and adequate budgets.

There is need to continuously establish new, and equip and strengthen existing Zonal, Regional and District HCTS workshops, as envisaged more than 10 years ago. Now cadres are becoming available, they should be facilitated in their jobs.

Advocating student to join biomedical engineering trainings is required. Stimulating districts to employ this cadre is equally important. Finally there is need to perform regular supportive supervision to these operations.

Infrastructure

HSDG - There is need to improve partnerships with communities (enhance community ownership) with local investors (improve PPP) and with local partners (NGOs). Not only financial contributions should be aimed at but also contributions in kind, technical support and management of small projects.

Regional staff should be instructed to monitor compliance with guidelines and should be guided to give this priority. PMO-RALG and MOHSW should support this process by facilitating zonal or regional workshops for dissemination of the guidelines and related review of local experiences with MMAM implementation.

Development Partners

Development partners should coordinate better with the MOHSW their contributions and donations. Adhering to standards provided by the MOHSW is necessary for efficiency and sustainability. A clearinghouse should be created where all DPs report their activities and update information regularly. Duplication and co

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