Ministry of Health (MoH)
Malawi

Icelandic International Development
Agency (ICEIDA)

EVALUATION OF THE ICEIDA PROJECT

SUPPORT TO MONKEY BAY HEALTH CARE, 2000 – 2007

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Table of Contents **Page**

1.	**Executive Summary**	**2**
	1.1 **Malawi**: A Brief Introduction on the Country and its Health System	3
	1.2 **Monkey Bay Community Hospital**: Historical background	5
	1. 2.1 Introduction to the Project: Support to Monkey Bay Health Care	5
	1.2.2 Research activities at MBCH	7
	1.2.3 The Management of the Project	8
2.	**The Evaluation**	**9**
	2.1 The evaluation mission and Team members	9
	2.2 Broad Objective of the Evaluation	9
	2.3 Specific Objectives of the Evaluation	9
	2.4 Methodology, Scope and Focus of the Evaluation	9
3.	**Monkey Bay Health Zone**	**10**
	3.1 The Health Network of Monkey Bay Health Zone	10
	3.2 The Monkey Bay Community Hospital	11
	3.3 Human Resources and Staffing levels	12
	3.4 Staff Housing	14
	3.5 The workload	14
	3.6 Training, workshops and refresher courses	15
	3.7 Staff Retention	17
	3.8 The Health Management Information System (HMIS)	18
	3.8.1 Statistics	19
	3.9 The Support to Research	21
	3.10 Collaboration with the District Health Authorities	21
4.	**The need for a new, long - term project**	**22**
	4.1 A proposed structure for the new Project	23
5.	**The scope of the Project**	**23**
6.	**Sustainability**	**24**
7.	**The Technical Assistance**	**25**
8.	**Consultancies**	**26**
9.	**Conclusions**	**27**
10.	**Recommendations**	**33**
11.	**References**	**35**
12.	**Acknowledgements**	**36**
13.	**ANNEXES**	**37**
	Annex I: Meetings between the Evaluation Team and the MBCH Personnel	37
	Annex II: The four Health Centres, one Dispensary the meeting with Traditional Authority Nankumba	37
	Annex III: The Meeting with the District Management Team	40
	Annex IV: The visit to Mitundu Community Hospital	41
	Annex V: The meeting with the Ministry of Health Directors and Programme Managers	42
	Annex VI: Malawi demographic, social, economic and health indicators	43
	Annex VII: Resource persons consulted	45
	Annex VIII: Acronyms	46
	Annex IX: Detailed diary of the evaluation mission	47
	Annex X: List of documents reviewed	48

1. Executive Summary

The Project "*Support to Monkey Bay Health Care, 2004-2007*" is a collaborative effort put in place by ICEIDA (Icelandic International Development Agency) and the Malawi Ministry of Health (MOH). It will come to an end on July 31st 2007. Its main objective was to expand the access to good quality health services for the population of Monkey Bay Health Zone, in Mangochi District.

To decide if the Project should end or be extended, the partners organized an external evaluation carried out by a Team of two members with extensive experience in health services management in African Countries. One of them was selected by the MOH, the other by ICEIDA. The evaluation was carried out in April-June 2007.

After reviewing numerous documents and interviewing key informants at the MOH headquarters, ICEIDA offices, the Mangochi District Health Office, Monkey Bay Community Hospital (MBCH), Monkey Bay Health Zone Lower Level Health Units (LLHUs) and Traditional Authority Nankumba, the two evaluators reached the following main conclusions.

The work carried out in the framework of the Project has produced positive results and benefited the population living in Monkey Bay Health Zone. The rehabilitation of Nankumba Health Centre and the construction of Monkey Bay Community Hospital (both MoH) have made available and accessible to the people a wider range of services of reasonably good quality within the zone.

On the whole, most objectives set out at the start of the project have been met while others, as in most projects, have only been partly achieved, probably because the timeframe planned to achieve them was not sufficient.

As an example, MBCH does not work as a full hospital as yet, but as a big health centre. This will definitely change when the surgical theatre, which is near completion, will soon become operational.
The Health Management Information System (HMIS) produces and submits reports to the District Health Office on quarterly basis. Data from the Monkey Bay Health Zone are disseminated at scheduled quarterly district implementation plan (DIP) review meetings that are organised at district level. They are used to make informed decisions about designing and implementing health interventions both at zonal and district levels. As is the case countrywide and like in other countries, in certain instances during the evaluation, data was noted to be incomplete, inaccurate and the quarterly reports were noticed to be submitted late. This obviously affects the reliability and, therefore, usefulness of the data. The causes of this situation are not entirely rooted in lack of training or understanding but in some cases negative attitudes on the part of the staff involved. To improve this situation may take sometime time and a huge amount of hands-on, patient work. During the time of the evaluation in June 2007, ICEIDA was in the process of training 73 health workers as part of the solution to empower the staff and improve in HMIS data collection and use.

The collaboration between the Mangochi District Health Management Team (DHMT) and the Project are perceived in different ways by different actors. Most of the staff of MBCH, including the Technical Assistants, think and feel that the unit was sometimes neglected by the previous DHMT. The DHMT members think and feel that the collaboration is, at least, "fair" and that there is no lack of interest on their part. The mutual understanding between the parties is improving and

the situation could and should improve significantly in the next few months. The new DHO has already shown coordination as exemplified at the first meeting when the technical assistants took a step ahead towards improving the collaboration with the DHMT staff by organising an initial meeting with the DHMT members.
The evaluators produced a set of recommendations. The most important ones are the following.

The Project should be extended into a second phase. Although the new Project could be planned for a duration of three years, this should be in the framework of a much longer commitment by ICEIDA. Development being a long and slow process, a commitment of approximately 10 to 15 years is advised considering that other services such as theatre and x-ray are only being set up. This suggestion emanates in the light of the many activities currently still in progress as well as the positive developments associated with the implementation of the current project activities. This also allows gradual incorporation of the interventions into the district implementation plan which would later absorb the financial allocation for the activities, a process that would eventually ensure sustainability.

In addition, a wider focus for the new Project is advocated: the support should go beyond Monkey Bay Health Zone, to include Mangochi District as a whole. This does not necessarily mean coverage of the entire district health system but that any support to the DHMT will have a wider impact on the district health system
The new Project should be written in Monkey Bay by the Technical Assistants before the end of August 2007 and should be extensively discussed at various successive levels before being submitted to ICEIDA in Reykjavik including the MBCH personnel, the personnel of the five lower level health units in Monkey Bay Health Zone, the DHMT members, the Ministry of Health, ICEIDA Office in Lilongwe and, where necessary, any other co-opted stakeholders.
As before, financial management should be clear, again with a detailed budget defined as an integral part of the new Project document and the Project Manager should be the budget holder.

1.1 Malawi: A Brief Introduction on the Country and its Health System

Malawi is a landlocked country south of the equator in the sub-Sahara Africa. It is bordered to the north and northeast by the United Republic of Tanzania; to the east, south and southwest by the People's Republic of Mozambique; and to the west and northwest by the Republic of Zambia. The country is 901 kilometers long and ranges in width from 80 to 161 kilometers. The total area is 118,484 square kilometers of which 94,276 square kilometers is land area. The remaining area is mostly composed of Lake Malawi, which is about 475 kilometers long and runs down Malawi's eastern boundary with Mozambique.

The country is divided into three administrative regions: the north, central and south. The regions are further divided into 27 districts (6 in the north, 9 in the centre and 12 in the south). Districts are divided into Traditional Authorities that are made up of a group of villages. The villages are the smallest administrative units headed by a village headman/head woman. A group of 5 -7 of these are clustered into one larger village headed by a group village headman (GVH).

The country's population is about 13 million with an annual growth rate of 2.0 with approximately 16.7% percent of persons living in urban areas. Seventeen percent of the population is children under 5 years of age.
Malawi has an extensive and comprehensive health system infrastructure consisting of dispensaries, health centres, district and central hospitals linked through a referral system. These structures are inequitably distributed. In addition to these health institutions managed directly by the MOH there are facilities that are managed by religious missions, not-for-profit NGOs and the private sector. At

the grassroots level community health services are based on the delivery of services by a network of community-based cadres consisting of Health Surveillance Assistants (HSAs), Community-Based Distributors and other volunteers.

The health facilities study conducted by MoH in 2003 indicates that there are about 617 health facilities in Malawi, 60% of which are operated by the MoH and 25% by CHAM. There are four Central Hospitals that function as tertiary referral centres for the district hospitals. District hospitals are thus secondary health facilities where smaller health units (health centres) refer complicated illnesses. Health centres themselves are primary health units which function as first line health facilities for patients.

Malawi is one of the poorest countries in the world. According to the 2007 World Bank Development Report, 41.7% of its population lives with less than one US dollar per day and about 76.1% live with less than two dollars per day. The national economy is based on agriculture and the main source of foreign exchange is tobacco. As a consequence, the vagaries of weather are a crucial determinant of economic output. Malawi is vulnerable to the two extremes of weather-related disasters: from drought to floods. The last two years have seen good rains and good harvests but in 2002 and 2005 severe droughts led to widespread famine and in some cases, loss of lives.
Furthermore, arable land, the most important economic asset, is under additional pressure because of the rapid population growth: the annual population growth rate is estimated at about 2.3% (World Bank, 2006). The total fertility rate, at 6 children per woman on average (WHO, 2006) is one of the highest in the world. High population growth also puts pressure on the environment, especially with high rates of soil erosion as a result of deforestation due to the need of cutting trees to create more land and to use it as fuel for various uses. Although the majority of the population (83.3%) still lives in rural areas, urbanization is an increasingly serious problem (UNDP 2006). About 80% of the urban people are concentrated in four big cities: Blantyre, Lilongwe, Mzuzu and Zomba. This seriously strains the already insufficient basic services like education, health, water and sanitation.

The country's health indicators are among the worst in the world: Infant Mortality Rate is 69/1000 live births, Under Five Mortality Rate is 118 / 1000 live births, Maternal Mortality Ratio is 980 / 100.000 live births, life expectancy at birth is 40 years, and last but not least, HIV prevalence in the population above 15 years of age is estimated at 14.1% (UNICEF 2006). According to the UNDP 2006 Human Development Report, the Human Development Rank of Malawi is 166 out of 177 countries studied (UNDP 2006).

Politically, Malawi is a reasonably stable country. After about 30 years of harsh dictatorship under the late "Life President", Dr Hastings Kamuzu Banda, a pluralist political system was introduced, after a referendum, in 1994. Soon afterwards, Bakili Muluzi was elected President. One of his first measures was the liberation of thousands of political prisoners. In 1997 Kamuzu Banda died in hospital in South Africa. In 1999 Muluzi was elected for his second and, according to the Constitution, last term in office. He tried to amend the Constitution to run for a third term but failed. He then hand-picked his successor, Dr. Bingu wa Mutharika, from the ranks of the ruling party, the United Democratic Front. It didn't take long for the new President to fall out with his mentor and his party. He accused them to oppose his high profile fight against corruption and, in January 2005, Bingu resigned from the UDF and formed his own party, the Democratic Progressive Party (DPP). Many UDF members of Parliament crossed over to the DPP. Currently, heated debates are taking place on the legality of such cross-over. Apparently, these moves are against the Constitution: if a member of parliament elected on the ticket of a party wants to cross to another party, s/he must step down and go in front of the electorate again. These political quarrels risk distracting the government from the many pressing problems of the Malawi population.

Between 2000 and 2005 the country Gross Domestic Product grew, on average, to about 3.1% per year. The per capita annual growth rate was 0.4 %. In 2004, the external debt was US$ 3,418 million (World Bank 2006). In the same year, Official Development Assistance was estimated to constitute about 23% of the Gross National Income (UNICEF 2006). According to the Economist Intelligence Unit, economic growth is forecast at 3.4% in 2007; in 2008 it should go up to 4.2% as uranium mining production starts at Kayerekera in Karonga District, in the Northern region of the Country (Economist Intelligence Unit, 2007). In 2006, Malawi imported goods worth US$ 830.6 billions and exported goods for US$ 528.9 billions, with a current account negative balance of US$ 239.3 (Economist Intelligence Unit 2007).

1.2 Monkey Bay Community Hospital: Historical background

1. 2.1 Introduction to the Project: "Support to Monkey Bay Health Care"

ICEIDA started to cooperate with the Malawi government in 1989. At first, this cooperation took place within the wider framework of a Nordic/SADC Development Initiative whereby ICEIDA became the Nordic Fisheries Focal Point for SADC (Southern Africa Development Community) in the Region. The cooperation remained centred on the fishing sector on the shores of Malawi. In 1998 an agreement was reached between the two to explore the possibility of expanding the collaboration into the health sector. A bilateral agreement was later signed in 2000. According to the agreement, the project will come to an end on July 31st 2007.

As for the expansion into the health sector, Monkey Bay in Mangochi District, seemed the most suitable area for two main reasons: I) ICEIDA had been present in the area for almost a decade; II) Mangochi District health and health services indicators were among the worst in the country.

The first important step was the *Feasibility Assessment of ICEIDA's Asistance to the Health Care Services in the Monkey Bay Area, Malawi*, carried out in October-November 1999 (Gunnlaugsson, 1999).

On the basis of the suggestions contained in the feasibility study, a first Project Document was elaborated. Its implementation started in October 2000, with the arrival of the first Project Manager. In addition, it had been decided to construct a new Community Hospital to replace the existing and inadequate Monkey Bay Health Centre. The construction works started in November 2000.
They provided for the construction of the following buildings by September 2001:

- Dispensary
- Maternity
- Link between maternity and dispensary
- Back up single pit latrines
- Male and female wards (40 beds)
- Four staff houses
- A brick fence to the health centre facilities
- Some associated works like road works, storm water drains and walk-aways

On December 10th 2001 the first phase works were completed and handed over by the contractor. The buildings were completed but water and electricity connections were not yet in place

A second phase was then planned in agreement with the Ministry of Health and the Mangochi District Health Office. The second phase provided for the completion of the first phase and the construction of:

- An administration block
- A mortuary
- An ambulance shed
- A guardian shelter

In December 2001, an Icelandic Nurse Midwife arrived in Monkey Bay Project to start her work in the Project. She had just completed her studies in "Health Care in Developing Countries" at Uppsala University, in Sweden.

The construction works of the second phase were completed and the building handed over at the beginning of June 2002. At this time, water and electricity connections were in place.

The "*Malawi National Health Plan 1999-2004*" proposed to upgrade the Monkey Bay Health Centre to the level of a "Community Hospital". Although the definition of "Community Hospital" was still unclear and not yet precisely described on paper, the proposal was accepted and plans were revised accordingly.
A third phase of the construction Project was planned. It provided for the construction of:

- A family Planning Unit
- A Laboratory
- A Surgical theatre
- A Paediatric ward
- An Isolation ward
- Four additional staff houses

In 2002, the planning of the third phase was on the table, but it was decided to complete and consolidate the construction of the buildings planned for in the first two phases.

The implementation of Phase III was postponed to 2003, mainly for lack of funds. Later on, after the visit of a Consultant from Iceland, it was decided to further postpone the construction of the Phase III buildings. The rationale behind that decision being that it would have been better to have all the other buildings fully equipped and utilized before embarking in the construction of new ones.

This also implied a sort of re-focusing of the Technical Assistant's work towards a stronger support to public health and clinical activities.

In April 2003 an ambulance was purchased for the Monkey Bay Heath Unit and four motor bikes for lower level health units operating in the Monkey Bay Health Zone. Among other things, this allowed the initiation of out-reach activities, to bring preventive and some basic curative services to close to the isolated communities. The ambulance and the Health Centres in Monkey Bay Health Zone were also provided with two-way-communication radios.

The first phase of the Project came to an end in June 2003. It was extended for six months to allow for the elaboration of a new Project Document. The work on the new Project Document ***"Support to Monkey Bay Health Care, 2004-2007"***started in earnest in November 2003. It involved discussions between various stakeholders including the ICEIDA personnel, representatives of the Ministry of Health and of the District Health Team in Mangochi. The document outlined objectives and commitments of ICEIDA and of the Malawi Ministry of Health. A consultant from Iceland was also brought in to facilitate and complete the work.

The Project Document was completed and the second phase was launched in mid 2004. It embraced a period going from June 2004 to July 2007.

A Project Coordinator, a Malawian Clinical Officer, was appointed in October 2004. His experience as Deputy District Health Officer in Dedza District was expected to improve the administration of the Project and of the Monkey Bay health Unit.

In early 2005, the design of a Surgical Theatre was discussed as the initial option of using part of the existing buildings for surgical operations was deemed inadequate. In April 2005 a Centre for Voluntary Counselling and Testing (VCT) for HIV started operating.
The actual construction of a surgical theatre started in 2006. By May 2007 it was near completion and the necessary equipment had been ordered from South Africa.

After many discussions and enquiries, on May 24th 2006 the Ministry of Health provided to ICEIDA a written definition of a "Community Hospital" and its proposed staffing needs (as outlined later in the report). According to this official definition, a Community Hospital should:

i. Serve a population of 60,000 - 100,000
ii. Have between 80 - 120 beds, broken down as follows:-
a. Medical/surgical - male
b. Medical/surgical - female
c. Paediatrics
d. Obstetrics/Gynaecology
e. Labour and delivery
f. Isolation
iii. Have a Nutritional Rehabilitation Unit
iv. Family Planning
v. Mortuary
vi. Kitchen
vii. Laboratory
viii. X-Ray
ix. Operating Theatre

Monkey Bay Community Hospital satisfies almost all the criteria listed by the Ministry of Health. For the time being (at the time of the evaluation) it still works as a big Health Centre. Things are expected to change substantially when the almost completed surgical theatre will be operational.

1.2.2 Research activities at MBCH

Back in 2002, initial discussions were held with the Faculty of Medicine of the University of Iceland on the opportunity and the modalities for Icelandic students to carry out research work in Monkey Bay.
In November 2002 two Swedish nursing students went to MBCH for a period of five weeks as part of their final assignments.
Between June and July 2003, for the first time, two medical students from the University of Iceland carried out their fourth year field research project in Monkey Bay.
In January 2004, the Project Manager and a consultant from Iceland met a Senior Lecturer at the Blantyre College of Medicine to discuss the possibility of having Malawian fourth year medical students carrying out their field research activities in Monkey Bay. An agreement was reached and the first Malawian students went to Monkey Bay during the second half of 2004.

Between March and April 2005 two more Icelandic Medical Students carried out research activities in Monkey Bay and in June two more Malawian medical students did the same.
In January-February 2006 an Icelandic Midwife student conducted a study on the activities of Traditional Birth Attendants (TBA) in the area. Two Icelandic medical students carried out their third year research activities in Monkey Bay between March and April 2006 and in June of the same year two Malawian medical students did the same. In Mfarch 2007 two other Icelandic medical students did their projects in Monkey Bay and two Malawian also do their projects in July 2007.

1.2.3 The Management of the Project

Two main bodies have been constituted to manage the Project activities: the Technical Management Team (TMT) and the Project Monitoring Group (PMG).

The TMT is supposed to meet on a monthly basis and follow up the operational management activities. Its first meting was held in January 2003.
Composition of the TMT is as follows:

1. Clinical Officer, Monkey Bay Community Hospital
2. Sister in Charge, Monkey Bay Community Hospital
3. Assistant Environmental Health Officer, Monkey Bay Community Hospital
4. Community Nurse, Monkey Bay Community Hospital
5. Project Coordinator, Monkey Bay Community Hospital
6. Appointed representative from the Monkey Bay Health Zone
7. ICEIDA Project Manager
8. ICEIDA TA(s)

The PMG first met in Lilongwe in February 2003. It membership is described below:

1. Chief Technical Advisor, Ministry of Health
2. Director of Nursing Service, Ministry of Health
3. District Health Officer, Mangochi District Hospital
4. District Nursing Officer, Mangochi District Hospital
5. Administrator, Mangochi District Hospital
6. Clinical Officer, Monkey Bay Community Hospital
7. Sister in Charge, Monkey Bay Community Hospital
8. Project Coordinator, Monkey Bay Community Hospital
9. Country Director, ICEIDA
10. Project Manager, ICEIDA
11. ICEIDA TA(s)

The TMT is supposed to meet at least monthly, has a more operational role and it deals with the day-today management of the Project and the PMG is supposed to meet every six months, has a more strategic role and is supposed to tackle more fundamental, long term issues.

After a somehow uncertain start, both Teams became well established and, according to the ICEIDA annual Reports, their meetings became more and more regular and meaningful. Since the start of the project the TMT has met thirty times and the PMG nine times with minutes available at the hospital.

2. The Evaluation

2.1 The evaluation mission and Team members

ICEIDA and the Ministry of Health organized an evaluation of the work done and of the results achieved to decide if the Project should end or enter into a new phase. The evaluation was carried out by a Team of two members, one selected by the Ministry of Health, Dr. Winstone Mkandawire and one by ICEIDA, Dr. Maurizio Murru - both of them with a long experience in health services management in African countries.

2.2 Broad Objective of the Evaluation

According to the Terms of Reference, the broad and specific objectives of the evaluation were:

- To assess the project's overall achievements in the delivery of the MoH's Essential Health Package to the population of Monkey Bay through the Mangochi District Health Management Team

2.3 Specific Objectives of the Evaluation

- To assess the extent of the increase in capacity of Monkey Bay Community Hospital to function as a first line of referral for the health Centres in the zone
- To assess the quality of management and health delivery services to Outpatients and Inpatients by Monkey Bay Community Hospital and health centres in the zone
- To assess the extent of functionality of Health Management Information System (HMIS)
- To assess the performance of operational Community Health related services
- To asses the extent of collaboration with stakeholders in the health sector in Monkey Bay Health Zone, particularly the District Health Management Team
- To assess utilization of financial and human resources
- To assess the overall effects of project activities
- To evaluate sustainability of activities supported the project
- To assess any constraints and risk factors for continued support
- To establish recommendations made to the contracting parties regarding continued support by ICEIDA to the health sector

2.4 Methodology, Scope and Focus of the Evaluation

The methodology used in the evaluation was largely information gathering from various players in the project. There were several meetings held between the evaluators and the key personnel, ranging from individual consultations to a group general staff meeting such as the one conducted at the MBCH. The evaluators met the District Health Management Team (DHMT) at Mangochi District Hospital, the Technical Assistants at MBCH, conducted individual consultative meetings with: Mr.G.F. Manjolo – Project Coordinator, Mrs. R.P. Nkana – Chief enrolled nurse/Midwife (previously, Acting Nursing Officer), Mr Z. Solomoni – Assistant Environmental Health Officer / HMIS officer, Mr. F. Kapinga – Chief Clinical Officer (Also Hospital In-Charge) and Mr. James Biliati – Ground Labourer.

The purpose of the meeting between the evaluators and the DHMT in addition to the meetings with MBCH staff was to obtain more information on the implementation of the project as well as get a feeling of the existing collaboration between MBCH and the DHMT. Consultative discussions were also later held with ICEIDA staff.

After consolidation and analysis, the information was to be presented to ICEIDA and the MoH and would form the basis from which to derive appropriate recommendations to be used as a guide for decision making in determining continued collaboration between ICEIDA and the MoH in the health sector. In summary, information gathering was done through:
Review of:

- Policy documents from the Ministry of Health
- Annual reports by ICEIDA Technical Assistants based at Monkey Bay Community Hospital
- Minutes of meetings of the Programme Monitoring Group
- Minutes of meetings of the Technical Management Team
- Research reports by Icelandic and Malawi College of Medicine students
- HMIS statistical registers both at MBCH and its Health centres in the Monkey Bay Health zone
- Relevant documents generated over the period of the project icluding:
    - Plan of operation and Project Document for the project "Support to Monkey Bay Health Care 2004 – 2007"
    - Malawi Poverty Reduction Strategy
    - Malawi Growth and Development Strategy
    - Essential Health Package in Malawi
    - A joint programme of work [2004 – 2010] for the Ministry of Health
    - Multiple Indicator Cluster Survey (MICS)

- Consultative discussions with members from key groups involved in the organization and running of the project including:
    - Project Monitoring Group members
    - Health facility in-charges of Monkey Bay Community Hospital, Nankumba Health Centre (MoH), Malembo, Nkope and Nankhwali Health Centres (Christian Health Association of Malawi –CHAM-) and Chilonga Dispensary (MoH)
    - The Technical Management Team members
    - The District Health Management Team
    - Traditional Authority Nankumba
    - Group Village Headman Chilonga
    - Clinical Officer In-Charge, Mitundu Community Hospital, Lilongwe

- Visiting Monkey Bay Community Hospital, Nankumba Health Centre, Malembo, Nkope and Nankhwali Health Centres and Chilonga Dispensary.
- Visiting Mitundu Community Hospital (Lilongwe)
- Consultation meeting with MoH directors and Programme Managers at the Ministry of Health Headquarters.
- Consultative meetings with key ICEIDA staff and consultants, Reykjavik

3. Monkey Bay Health Zone

3.1 The Health Network of Monkey Bay Health Zone

In Monkey Bay Health Zone there are six operational health units: Monkey Bay Community Hospital and five lower level health units (LLHUs): Nankumba Health Centre, Malembo Health Centre, Nankhwali Health Centre, Nkope Health Centre, and Chilonga Dispensary. Nankumba

Health Centre and Chilonga Dispensary are Government Institution while the remaining three Health Centres belong to different Church denominations and operate under the umbrella of CHAM (Christian Health Association of Malawi).

It has to be mentioned here that in addition to the routine construction of health facility structures by the MoH in the country, some health structures, if approved by the GoM are put up by the Malawi Social Action Fund (MASAF) – a locally formed programme that promotes improved services for communities. It is supported by the Local Authorities and sector ministries through a Community-Driven Development (CDD) approach and within the Malawi Poverty Reduction Strategy (MPRS) framework so that the GoM can progressively move towards attainment of MDGs. Recruitment and deployment of staff to such facilities however, is the sole responsibility of the MoH. One such newly MASAF- built health infrustructure in the Monkey Health Zone (MBHZ) is Chilonga dispensary (described below) - an MoH dispensary situated 66 Km north – west of Monkey Bay Community Hospital.

The evaluation team visited all the lower level health units in the zone. Apart from Nankumba Health Centre, recently rehabilitated with ICEIDA funds, the other units are grossly underutilized. The functioning of the Health Management Information System (HMIS) is slowly but gradually improving. Some of the sampled HMIS forms we went through were duly and accurately completed while others displayed varying levels of accuracy and incompleteness. In addition, these are sometimes forwarded late to the upper levels in the system. Last but not least, some peripheral health workers show little desire, need or inclination to analyse the data they themselves generate. A few health workers see the HMIS forms as a requirement from higher levels rather than a tool for self assessment and self improvement. This and other observations (such as prolonged lack of essential equipment in some units, poor hygienic conditions in Chilonga, presence of expired drugs with explanations in Italian in Nankhwale, etc.) all point to the need of a much more effective supervision on the part of MoH, really aiming to achieve its objective: to improve performance. As alluded to before, a refresher training in HMIS was later organised early June by ICEIDA to address most of these problems. Data collection and use has since indeed improved following the training.

In Annex II there is a more detailed description of our visit to the lower level health units in Monkey Bay health zone.

3.2 The Monkey Bay Community Hospital

The Monkey Bay Community Hospital has an outpatient department, an administration block comprising offices, two consultation rooms and a conference room, a pharmacy, a laboratory, wards for inpatients (for a total of 67 beds) and a mortuary. A surgical theatre is under construction and near to completion. The necessary equipment has already been commanded. Electricity and running water are available, but electricity cuts are fairly frequent. The facility has a small back-up generator which only provides power to the maternity section during black-outs for continued delivery services in the labour ward. Power cuts therefore affect several parts of the hospital including: The laundry – the laundry machine stops working and linen processing comes to a stand still; Pharmacy and EPI section – drugs and vaccines required to be stored under low temperatures are affected by extreme heat; the mortuary doesn't function as a cold room when there are power cuts and so staff are forced to evacuate the dead bodies or they would decompose. Procurement of a standby generator by ICEIDA is in progress and the idea is greatly commendable; Laboratory – laboratory investigations temporarily stop and some patients are sent to Mangochi District Hospital.

In Malawi, all government hospitals (22 district, 19 rural/community and 1 mental hospitals countrywide) provide meals to in-patients. Currently, MBCH does not provide such meals.

However, it was reported that the hospital sometimes admits patients who only come with limited amounts of food or are tourists who stay long periods of hospitalisation at the facility. They sometimes run into problems of food shortage in the course of their admission. Construction of a kitchen should therefore be considered.

Community Hospitals in Malawi, by definition, are supposed to have a NRU. Besides, malnutrition is certainly a problem in Malawi. According to the UNICEF State of the World Children 2007, 16% of newborn are underweight, 22% of under five are undernourished, 5% suffer from wasting and 48% are stunted (a sign of chronic malnutrition) (UNICEF 2006).
These malnourished children are usually admitted for periods longer than 3 weeks. Most of them are currently being referred from MBCH to the Nutrition Rehabilitation Unit (NRU) at Mangochi district hospital because there is no NRU at MBCH. Transport costs thus contribute to the everyday expenditure on the part of MBCH; MBCH staff feel that treating these children within the Monkey Bay community is feasible as long as infrastructure is made available at the hospital.
Understandably, malnutrition is not a medical problem; it is a socio-economic one. NRUs may offer a short term solution but, in many cases, the long term results are dismaying: the children discharged often come back with the same problems and, in the medium term, many of them die prematurely. Construction of a NRU at the hospital should be considered.

If a NRU has to be built in MBCH, we would suggest to build it far from the other hospital buildings, with its own kitchen where the mothers themselves would prepare the meals for the kids using local food. In Mitundu Community Hospital one of the community hospitals in Malawi, located in Lilongwe (see annex IV) we saw hundreds of tins of beans donated to the NRU. We think that this is inappropriate. Besides, the beans in Mitundu were all expired since last year. A system should also be put in place to follow up the children once they are discharged, with the collaboration of Village Authorities.

3.3 Human Resources and Staffing Levels

Recruitment and deployment of health personnel to Monkey Bay Community Hospital is the responsibility of the Ministry of Health just like it is also responsible for the deployment of staff to all MoH health facilities in Malawi. The MoH has developed a four year recruitment plan (2007 - 2010) whose overall objective is to increase staffing levels for health workers by about 100%. There has been a noticeable increase in staff turnover across all cadres but of concern is the lack of clinical and nursing staff both at the MBCH and the health centres in the entire Monkey Bay health zone. In addition, critical shortage of support staff in the laboratory and pharmacy units had previously been experienced at MBCH. Thanks to MoH's recent efforts in posting staff to these departments. At present the staffing is approximately 50% of what the ministry of health recommends as appropriate for a Community Hospital. Table 1 below shows the staffing situation at the time of the evaluation following ICEIDA's concerted discussions with the Mangochi DHMT and the MOH headquarters to provide the staffing requirements.

Post	Filled	Govt requirements
Clinical officers	3	6
Medical assistants	4	4
Nursing – In – Charge (SRN)	1	2
Senior Nursing officers	5	7
Nurse Midwife Technicians	3	16
Nurse Technicians	2	Info not available
Environmental Health Officers	2	Info Not available
Environmental Health Assistant	0	1
Health Surveillance Assistants	10	22
Laboratory Technicians	1	1 (just reported)
Hospital Attendants	19	19
Laundry Attendants	2	2
Patient Attendants	2	2
Mortuary Attendants	2	2
Laboratory Technicians	0	1
Laboratory Attendants	2	0
Pharmacy Technicians	1	Info Not available
Pharmacy attendants	2	2
Messengers	1	1
Plumbers	1	1
Brick layers	1	1
Drivers	2	2
Security guards	11	16
Ground labourers	3	0
TOTAL MBCH STAFF	**72**	**107**
Total Clinical and Nursing staff	**18**	**36**

Table 1: Staffing levels at MBCH, April 2007

As can be observed in the table above, understaffing at MBCH (and surrounding health facilities in the Monkey Bay zone) is one of the most critical managerial concerns. Clinical officers, Medical Assistants and nursing staff are in great demand as they form the backbone of medical services in the country. The most immediate problem at MBCH is currently the lack of these cadres.

Nankumba Health Centre, one of the five health facilities in the Monkey Bay Health Zone run by the MoH, is located 50 Km North-East of MBCH. In some cases, personnel has been posted to MBCH and the just mentioned sister health facility, Nankumba Health centre but have not shown any interest to report at these institutions. In other cases, MBCH has lost key personnel immediately after reporting for duties because of misunderstandings on the part of the staff, over remuneration packages as they anticipated higher salaries / salary integration, given the ICEIDA support in the area. In response to this situation, the Ministry of Health has since posted an anaesthetic clinical officer who has just reported at MBCH. Staffing levels are thus gradually improving. We suggest that there should be continuous negotiations for staff deployment between ICEIDA, the DHMT and the MoH headquarters to ensure that adequate critical staff are sent to Monkey Bay especially with the coming of the new hospital services such as operating theatre and radiology services.

Understaffing has not spared any health facility in the MBHZ. For example, Chilonga Dispensary, mentioned earlier in the report only has a Health Surveillance Assistant (HSA) deployed at the facility and offers limited health services despite it being a reasonably full-sized structure that could offer additional health services to the surrounding community. Most people have thus resorted to traveling directly to Nankumba health centre directly to access health services. This trend has led to further congestion at the already understaffed latter health facility.

The four CHAM Health Centres are equally affected by understaffing. Paradoxically, the amount of workload in these facilities is much lower than anticipated. For example, Nankhwali health centre may see as few as three outpatients per day (as was the case the day the evaluators visited the unit). It has been argued that this is due to lack of trust by the community because of the current shortage of staff. Conversely, one would be rather sceptical as to whether deploying more staff to fill up the existing gaps would bring about high utilization rates at these facilities.
Since lack of staff significantly impacts on the quality of the health services provided, CHAM facilities need to ensure minimum staffing levels are at least met. The Minimum Health Facility Requirements List (MHFRL) document on infrastructure, health facility equipment and staffing requirements first published in 2001 wa at the time of the evaluation undergoing review by CHAM.

The DHO and TMT need to work with these facilities and in particular, with their proprietors (churches) and the CHAM secretariat to ensure that adequate staffing is maintained. This is critical because CHAM secretariat and the proprietors are responsible for deployment of staff in these health facilities. Any discussions around the expansion of health service provision in the Monkey Bay health zone need to take into consideration this lack of critical staff.
Efforts are continually being made by the MBCH Technical Management Team (whose composition has been outlined earlier) in liaison with the DHMT and the Ministry of Health headquarters to try and increase staff numbers and consequently, further improve health service delivery in the zone. One such collaborative effort has been the introduction of service level agreements (SLAs) between MoH's DHOs and CHAM facilities within the districts. This entails provision of free health services by the CHAM facilities to the community using the DHO's vote. This will definitely need additional staff as the number of patients is likely to increase (with experience from the current 52 health facilities that are already in the system countrywide). Malembo health centre has been earmarked for signing one SLA with DHO Mangochi by September 2007. In relation to understaffing, this means that initially, the DHO will have to rotate the existing MoH based both at the district hospital and other health centres under locum arrangements while at the same time, lobbying for additional permanent staff at the facility.

3.4 Staff Housing

The issue of staff housing poses a great challenge as the number of houses available at any one time is not always equal to the personnel working at the facilities. At MBCH, ICEIDA has partly solved this problem by building eight staff houses on site, and is in addition, renting three more houses for the staff. ICEIDA is also currently is converting the old Monkey Bay Health Center buildings into eight apartments for the personnel at MBCH.

Considering that there is a similar situation of shortage of staff houses at Nankumba Health Centre, plans are underway by ICEIDA to renovate three staff houses and build two more at the health centre as a way of averting this problem.

3.5 The workload

In Malawi, it is currently estimated that there is one professional nurse for every 40,000 inhabitants and one physician for every 60,000 inhabitants.
All health facilities in the Monkey Bay Health zone had expressed a noticeable increase in workload. Visits to the facilities and verification on the patient data revealed varying descripancies between the information gathered from the staff and the actual picture on the ground.
The increased workload that precipitated from the introduction of a wide range of health services and the improved infrastructure at MBCH has strained the existing medical and nursing staff at the

hospital. This was evident at the MBCH where Outpatient (OPD) attendance had increased from 39,619 in 2004 (at the beginning of the project) to 62,460 in 2006, representing a 58% rise.

Although staffing levels have apparently gone up since the start of the project, these have not comparatively been proportional to the increase in the numbers of patients seen at the hospital. For example there were 5 nurses, 1 clinical officer and 1 medical assistant at the beginning of the project in July 2004. These figures have only gone up to 10 nurses, 3 clinical officers and 4 medical assistants (of whom one is attending further studies). Such an increase in staffing poses heavy workload on the part of the clinical and nursing staff.

With the introduction of a Voluntary Counselling and Testing (VCT) clinic in 2005, followed by Antiretroviral Treatment (ART) services in 2006, the hospital has seen increasing numbers of clients coming for these services despite persistent shortage of staff. For example the hospital has seen a steady rise in clients put on Antiretrovirals (ARVs). Between June 2006 and April 2007, for instance, 345 clients had been started on ARVs with frequent hospital reviews and follow-ups. This absolute number of clients on ARV may look small but poses additional workload not because of the initial VCT services provided to them but mainly because they often require continuous care and follow-ups.

Shortage of health personnel and high workload have not spared surrounding health centres especially Nankumba health centre which also shares similar remarkable increase in patient attendance as MBCH. there are improvements in health service provision following the rehabilitation of infrastructure (the OPD block, holding male and female wards, the pharmacy and the drug store) brought about by ICEIDA at the health facility (see figures under "HMIS").

3.6 Training, workshops and refresher courses

Training is a major component of human resource development. To be of use, however, it must be focused, well structured, relevant and subsequently followed by supportive supervision. Since the beginning of the project, training has played an important role in the project activities as it has increased knowledge of staff in the modern dynamic medical world. At MBCH staff have undergone either short in-service training or longer up-grading courses. In addition, although it may be argued that in most cases, they are attended more because of the fringe benefits attached to them than for their content or their actual use, it was later elaborated in the course of this detailed evaluation by staff in MBHZ that workshops, seminars, short courses that have since taken place in the zone have on the whole, motivated the staff and consequently improved their performances.

Several trainings funded by ICEIDA have been conducted at all staff levels in the zone since the inception of the project.

First, health workers have been trained in environmental health activities that included growth monitoring of under-five children and training of village health committees.
Following these trainings, communities are able to discuss and monitor health problems within their villages thereby contributing to disease prevention and surveillance in the zone. A typical example of such activities is in reproductive health where the community leaders advocate hospital referral of any maternity emergency case traditional birth attendant (TBA): A TBA who "illegally" performs a delivery on emergency obstetric cases that are supposed to be referred to hospital is fined heavily.
About 140 TBAs had undergone either initial or refresher courses. Since the project started the hospital has some noticeable increase in institution delivery of both complicated and uncomplicated

deliveries, many of whom are a result intensified referral by the TBAs. Less community maternal deaths have since been reported.

Over 130 Community Based Distribution Agents (CBDAs) of contraceptives were trained in family planning. Women of childbearing age have prompt access to oral contraceptives within their community. Besides, there is appropriate referral by the CBDAs of women needing surgical contraception at MBCH. This means increased services and fewer burdens to access resulting from long distances to and from the hospital as previously experienced by these women. In addition community breast feeding support groups were trained to provide immediate guidance to breastfeeding mothers and refer all those with breastfeeding problems to hospital.

Staff were also trained cholera preparedness. As a result, cholera outbreaks and deaths have reduced significantly in the zone. For instance, cholera preparedness trainings for health workers, the zone has seen a remarkable decrease in cholera cases from 107 in 2006 to 10 in 2007, and a reduction of deaths due to cholera from 5% to 0% respectively.

Staff have also undergone trainings in Prevention of Mother to Child Transmission of HIV (PMTCT), Voluntary Couselling and Testing (VCT) and HIV Testing and Counselling (HTC) as well as in Antiretroviral (ART) management. As a result more clients (including antenatal mothers) access testing and counselling services at the hospital. This also serves as an entry point to ART services for these clients.

Lastly, but not least, there have also been trainings in drug dispensing, wound dressing, Sexually Transmitted Infections (STIs) syndromic management, Home Based Care (HBC) and laundry management. As a result, wound and STI management are being conducted according to the existing treatment guidelines. In addition, contact tracing of STI partners has markedly improved. Rational dispensing of drugs in the pharmacy is also conducted according to drug management protocols.
Before, there was frequent damage to hospital linen. Following the laundry management training staff are better able to reconstitute detergents (e.g. *JIK and chlorine*) for proper disinfection.

Trained HBC volunteers treat minor ailments in chronically ill patients within the community but at the same time they are better informed about the referral criteria. This has helped reduce avoidable deaths associated with delays in seeking medical care for those patients with HIV/AIDS that are based in their households (based on interviews made).

Health workers trained in Integrated Management of childhood illness (IMCI) case management are currently better able to manage common childhood illnesses in an integrated manner and according to treatment guidelines. Children are attended to 24 hours a day and within an hour of arrival at the hospital.
A range of support has been rendered to management staff and coordinators. For example, in February 2007 the management team underwent a management course to address various skills including organisational and leadership concepts.
Programme coordinators learnt how to work with computers and were trained in motor cycle riding skills. These have in turn resulted in more organised outreach clinic trips and prompt individual report writing by the coordinators who now have basic knowledge in computer use.
It must also be mentioned here that ICEIDA funded six 4th year Malawian medical students who conducted research projects.

However, most often than not, no efforts are done to assess the relevance and the impact of these training activities on the participants performance. We think that such assessments should be made

to establish the impacts of the trainings and identify further gaps as may be relevant. According to the Technical Assistants latest Report, ICEIDA spent US$ 120,000 on these training activities only in 2006. The Technical Assistants told us that this spending will be scaled down. We think that this is a wise decision.

We think that it would be much more useful to spend much of these funds in formal training, for instance, sponsoring MBCH workers like Patients Attendants, Health Surveillance Assistants and others, to attend nursing courses and/or other cadres to attend relevant Diplomas or Master Courses.

It is also worth mentioning that at the time of the evaluation ICEIDA facilitated a surgical re-orientation course of the MBCH's chief clinical officer at Queen Elizabeth Central Hospital. This was in readiness for the forthcoming additional theatre procedures likely to come about as a result of the newly built theatre which is near completion.

A well thought of Scholarship Programme would certainly have a much more significant long term impact than the epidemic of short trainings of all sorts currently taking place.

3.7 Staff Retention

The major intervention focussing on staff retention instituted by the GoM is the continued provision of salary integrations. This follows a persistent tendency by the health workers to leave government health facilities due to low wages.

Staff at MBCH also expressed similar sentiments. A brief snap of the current salary scales at MBCH during the evaluation indicated that for example, Clinical Officers get about 36,000 Malawi Kwacha per month, nurses about MK25,000, Health Surveillance Assistants about MK5,000 (US$ 257, 178 and 36 respectively). Although staff salaries are the responsibility of the GoM, health workers at MBCH expressed that these are far from being "living wages". When we met the MBCH staff, salary integration was one of the things they advocated.

Two of the MBCH staff (i.e. the Hospital Administrator and the VCT nurse) currently receive additional top-up to their salaries – ICEIDA is commended for these additional staff pays. Experience from staff has indicated that project activities have brought about significant positive outcomes in the zone. Staff motivation for some members of staff has played significant role in the wake of the above low wages. Staff have clearly and transparently indicated that they are sometimes obstructed from hard work by lack of proper support within their homes and spend some time off sorting out personal financial problems.

Obviously, this is a controversial and debatable issue. Many donors shy away from it, possibly using the "proxy" of seminars and workshops to tackle the problem. Others don't.
In Malawi, the GoM has recently introduced salary integrations as a major intervention focussing on retention of health workers. This has significantly contributed to a marked decrease in vacancy rates in the MOH *(Mid-year Report for the work of the health sector).* Discussions with the MoH directors during the evaluation indicated that support with provision of salary integration to staff is in line with government policy.

MBCH is quite understaffed (see Table 1). We heard of health workers who came and went when they learned that they would only be provided with monthly GoM basic salary pay-outs. There are certainly other factors and incentives to attract and retain personnel, such as adequate staff houses and possibilities of further training – the non-monetary package which is expected to add value to

staff salary has been finalised and approved by the GoM and will be implemented in the next financial year. Monetary incentives with transparency are however, also, a possibility.

Table 2 below, shows the results obtained after the introduction of salary integrations for 11 categories of health personnel in MoH health facilities in October 2004. The decrease in vacancy rates should not be attributed exclusively to the introduction of salary integrations, but these had clearly a significant influence on the recruitment and retention of staff.

Cadre	**Vacancy rate before the introduction of salary integrations (2004)**	**Vacancy rates after the introduction of salary integrations (situation as of January 2007)**
Doctors	68%	45%
Clinicians	32%	11%
Nurses	57.6 %	55%
Other professional health workers	64 %	30%

Table 2: Vacancy rates before and after the introduction of salary integrations for 11 categories of health personnel. Adapted from: *Mid-year Report for the work of the health sector, July-December 2006*, Ministry of Health, April 2007

It must be noted that, although the situation improved, between 2004 and 2007, the vacancy rates are still high. This is as a result of lack of many health professional cadres and, also, on the fact that the incentives provided to attract personnel in the so called "hard to reach / hard to stay areas" are still insufficient. Many Malawian health workers still prefer to migrate out of the country or from the public to the private sector.

We think that if the Project enters into a second phase, this issue should be carefully considered and discussed with the relevant authorities at district and ministerial levels.

3.8 The Health Management Information System (HMIS)

As discussed above Health Management Information System (HMIS) produces monthly data that are later consolidated into a quarterly report before they are sent to the DHO for aggregation. At Monkey Bay Community Hospital such data are being collected by the HMIS statistician who also follows up on similar data from the other health facilities in the zone.
The data collected have been used both at zonal and at district and national levels mainly for planning as well as surveillance purposes.

Of great encouragement were the findings of an additional ***daily monitoring report register*** **at** that captures admissions and discharges, deliveries, referrals, and deaths at MBCH. Since these figures are accurately captured on daily basis, the register forms an important basis for data source and as a comparative reference for the HMIS.
As in any country, problems were also noticed regarding data quality: accuracy, completeness and timeliness of quarterly report submission. According to the district statistician, in some cases, quarterly reports were more often than not submitted to the district late (during our visit on 20th April 2007 only two out of the five facilities had submitted, well after the deadline of 15th of the month following the quarter).

On certain randomly selected HMIS reports, evaluators observed that data were either missing, not accurate (a 7 looking like a 9, for example) or wrongly completed was noted (such as a "-"). At MBCH, comparison of the HMIS data with the data in the *daily monitoring report register* revealed some discrepancies in the figures. The hospital had noted that the figures in the two registers were differing (as reported during the quarterly meetings – see Figure 1 below). In some cases, copies of the HMIS quarterly reports retained at the health facilities contained different information from the ones that had been sent to the district hospital (as reported by some in-charges).

It is advisable to record and use accurate data if such information is meant to be interpreted and used meaningfully.

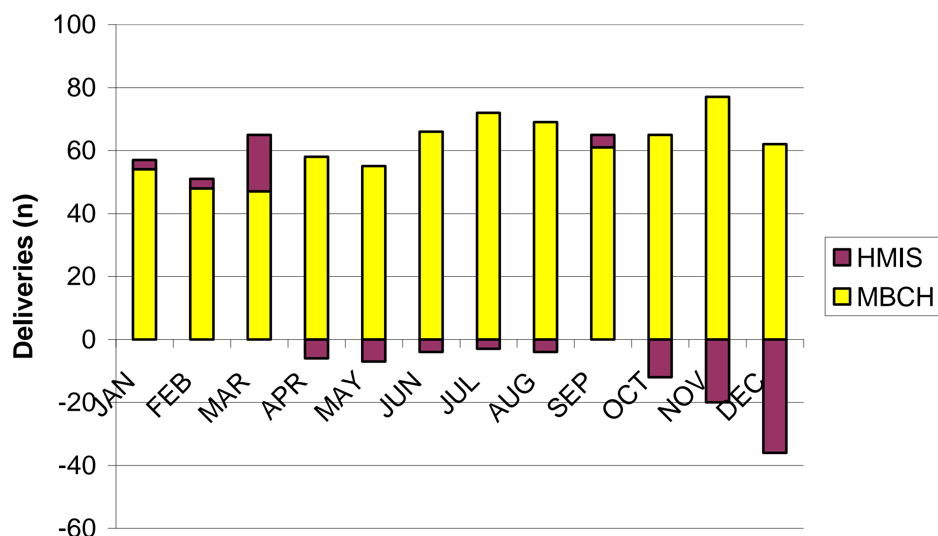

Figure 1. Discrepancies in delivery data presented during morning reports and as reported in the quarterly reports at MBCH in 2006 (Source: *Zonal Meeting 2007, MBCH HMIS*).

3.8.1 Statistics

Health services utilisation at the health facilities in MBHZ displays a remarkable difference from facility to facility and in comparison with patient attendance at the beginning of the project.

At Nankumba Health Centre, for example, OPD attendance has increased from 23,526 in 2004 to 27,773 in 2006, representing 18% increase *(see graph below).* It was also observed that in addition to year-to-year variations, a similar increase in the number of outpatients was also noticeable in 2006 alone on quarterly basis. For example, OPD attendance went up from 7,133 in the first quarter to 7,742 in the last quarter. Even with only one Nurse/midwife (NMW) available, the health centre conducts on average, 70 deliveries per month. The nurse / midwife at the health centre is on call 24 hours a day. Furthermore, the NMW conducts monthly antenatal clinics at Chilonga dispensary. In addition to serving a catchment population of approximately 30,000, the one medical assistant placed at Nankumba health centre also caters for Chilonga dispensary catchment population of about 8,000.

A similar trend of increase in OPD attendance has been noticeable at MBCH. As can be seen from the graph below (Figure 2.) OPD utilisation has increased from about 40,000 to 63,000. This can certainly be attributed to the quality and multiple health services available at MBCH.

On the contrary, utilisation rates were observed to be much lower at Nkope, Malembo and Nankhwali health centres (CHAM).

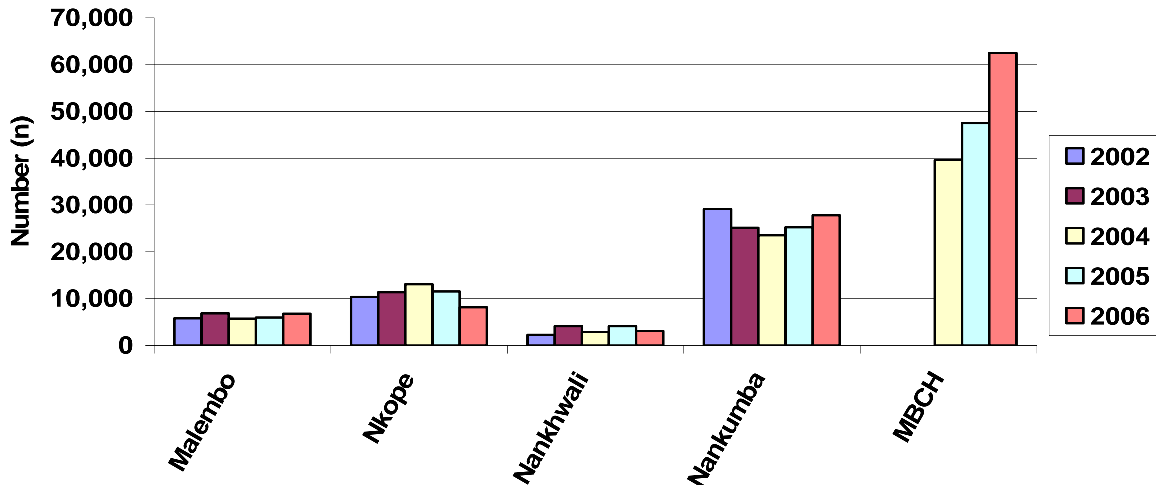

Figure 2: Annual OPD attendance in Monkey Bay Health Zone (Source: *Zonal Meeting 2007, MBCH HMIS*)

Major contributing factors to the low health facility utilisation were not obviously noted. However, discussions with staff members unveiled some suggested reasons. Some staff members at their respective health centres thought that population figures available are incorrect; but on confirmation with the DHO figures this seemed to be invalid. CHAM facilities being fee-paying facilities, some staff thought this was an inhibiting factor. On the whole other members consulted thought that a relatively inadequate service delivery at these facilities due to persistent drug and supplies stock-outs coupled with insufficient staff was one of the major setbacks.

On the other hand the picture in the Inpatient Wards (IPD) at MBCH was somehow different. Admissions in all the wards were far much less than the total number that the wards would accommodate. Although on average, the bed occupancy rate had increased from 49% in 2005 to 61% in 2006, admission figures show a much declining trend (see Figure 3). There were noticeable variations in bed occupancy rates from ward to ward with male ward exhibiting as low as 16% in the month of April 2006 and as high as 110% in the maternity ward in the months of July and August the same year. Consultations with staff at MBCH (including the two Technical Assistants) and the meeting with the DHMT revealed that this is partly due to increased number of patients being referred from MBCH to Mangochi District Hospital (records were not available).

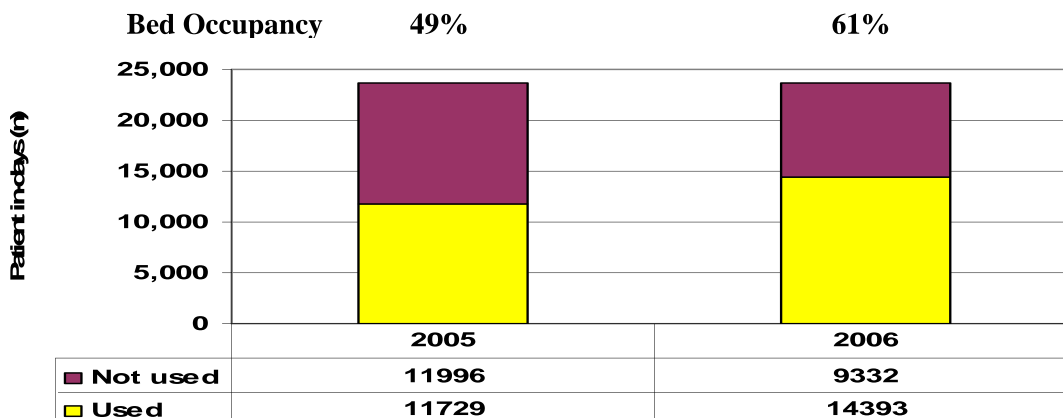

Figure 3. Annual bed occupancy rates for MBCH (Source: *Zonal Meeting 2007, MBCH HMIS*).

3.9 The Support to Research

In the last few years, MBCH has supported the implementation of several research studies carried out by Malawian and Icelandic University students. These studies have been conducted in collaboration with health workers at MBCH and the Malawi College of Medicine. Studies conducted by students from COM have had their research questions originating from within MBHZ. According to the staff interviewed at MBCH, such studies have elaborated some vital information which has later been used to increase knowledge and clarify many existing but questionable health concepts in areas of HMIS, Reproductive health and HIV/AIDs to mention but a few.
This is a commendable activity; it should continue and, if possible, should be scaled up. Furthermore, the newly introduced clinical rotation of Icelandic medical students in Malawian central hospitals and health training institutions has been established as part of clinical rotation schemes. This is proving beneficial to the students. Plans to intensify such an initiative must thus be intensified.

Some obvious gaps in the research reports can be analysed in detail by study supervisors on the spot as Technical Assistants may not always have the ample time needed to give adequate guidance.
A closer collaboration with the College of Medicine in Mangochi (a community extension of the College of Medicine of the University of Malawi) should also be intensified.
The Technical Assistants told us that they are working in this direction and a Memorandum of Understanding between the Icelandic University and the Malawi College of Medicine is being prepared.

Future studies should continue to be suggested by MBCH itself, in the quest for wider knowledge and deeper understanding of issues of immediate practical interest to the Unit. They could also help in evaluating the impact of the Project.

This would enhance the role of MBCH as the leading Unit in the Zone and as a centre producing not only services but, also, knowledge and understanding.

3.10 Collaboration with the District Health Authorities

The implementation of the project has had significant impact on the collaboration between MBCH plus the health centres in the health zone and the DHMT as well as the local community. The overall chief of the zone, Traditional Authority Nankumba expressed high appreciation for the existing collaboration in the health zone.
The Technical Assistants and the TMT have intensified collaborative and monitoring meetings not only with the DHMT but also with the MoH headquarters. The DHMT has at all times involved MBCH during district planning and budgeting sessions as well as at the District Implementation Plans (DIP) quarterly review meetings. This means that MBCH's operational plans supported by ICEIDA are aligned with the District Health Plans as evidenced in the MBCH 2007 planning sheets submitted to the DHO for inclusion the activities in the 2007/2008 financial budget. The latter are the core worksheets on which all MoH (and CHAM) health facilities indicate their priority activities to be implemented in the impending financial year.

However, it was evident that supervision by DHMT to all the health facilities has not been as scheduled. For example, the last supervisory visit by the DHMT was conducted in November 2006 and no written feedback is available in any of the health facilities visited in the Monkey Bay Health Zone. Scheduled supportive supervision must be conducted timely, effectively and must be followed by immediate and later, written feedback.

The zonal supervisor, based in MBCH, visits the units on a regular monthly basis. Of late such supervision has been effective and brought about significant changes in some LLHUs. Following the gaps identified during supervision, ICEDA has provided 2 sphygmomanometers, 1 diagnostic kit, ear syringes, 5 beds and 10 mattresses, two weighing scales and equipment for ground work at Nankumba health centre.

However, Drug management in the three CHAM Health Centres is not according to the logistic management guidelines, to an extent where harmful drug donations have taken place at Nankhwali health centre; hygienic conditions in Chilonga Dispensary are abysmally and unacceptably poor, etc.
In some instances, the staff at MBCH had expressed the opinion that the facility was being sidelined by the DHMT although subsequent discussions with the DHMT revealed that insufficient provision of supplies by the DHMT at times was not as a result of neglect but that such amounts distributed to health centres are determined by what is available at district level.

However, concerted efforts to collaborate and coordinate have yielded fruitful results, recently. For example the DHO has made available to Nankumba health centre medical items such as clinical thermometers.

In summary, Monkey Bay Health Zone is the “area of responsibility” of Monkey Bay Community Hospital as for health services delivery. MBCH, when completely functional, shall not only be the first referral institution for complicated cases from lower level health units. It should also be a problem-solving institution and a source of knowledge and leadership.

Its relationship to the five LLHUs, supervision should be greatly enhanced and made much more meaningful and effective.
Supervision-support activities should be given the importance they deserve and should be made effective.

The overall objective of supervision is to improve performance.

This can be done through a well thought out, well planned supervision-support programme. Supervisory visits should lead to action on the identified problems. Staff members of the five LLHUs could be invited to a one-day meeting/workshop in MBCH every four or six months. DHMT members should also be invited to these workshops. The main problems encountered in the units in the previous months’ visits could be discussed and solutions proposed. The visits of the following months should, among other things, assess the impact of the workshop on the health workers performance in particular, and activity implementation in general.

These briefly sketched activities would strengthen the links between MBCH, the LLHUs of the zone and the DHMT. They would also strengthen the leading role of MBCH in the zone.

4. The need for a new, long - term project

The current Project expires in July 2007. Several activities may not be completed by that time, for instance, the putting in place of a fully functioning theatre. Even when these activities are completed, there will be need of an appropriately long period of say, 10 – 15 years to consolidate the results achieved.
Therefore, the current Project should be extended to a second phase.

As earlier on hinted, the new Project should be written, in loco, by the Technical Assistants, in consultation with MBCH staff, the Mangochi District Health Office, the Ministry of Health headquarters and the ICEIDA Office in both Reykjavík and Lilongwe and all other stakeholders as seen appropriate before the end of August 2007.

4.1 A proposed structure for the new Project

We suggest that the new Project spells out, very clearly, in addition to its broad objective and its specific ones. We suggest that, for each and every specific objective, the following aspects are concisely listed:

- Activities to be carried out in order to achieve the objective
- Resources needed (human, material, financial) to carry out those activities
- Commitments of the relevant parties (ICEIDA, the Ministry of Health, the District Health Office, etc.)
- Indicators for monitoring and evaluation

Again as before, a detailed budget should be an integral part of the Project, with the needed budgetary lines and, for each one of them, the amount allocated. Possible changes to the allocations should be made when needed and agreed upon by the concerned parties.

The Project Manager should be the budget holder. This should now be possible with the recent opening of the new ICEIDA current accounts at Malawi Savings Bank (MSB), Monkey Bay Branch. S/he should be responsible for the utilization of funds and be accountable to ICEIDA and the Ministry of Health.

5. The scope of the Project

As written above, the Directors we met at the Ministry of Health in April, 2007 suggested that the new Project should have a wider scope giving some support, for instance, to Mangochi District Hospital.
We think that this is a sensible suggestion and that the new Project could go even further and give some form of support (technical, material, financial), to the District Health Office, responsible for managing health services in the whole district with very limited resources.

ICEIDA has already carried out activities that go beyond MBCH which were not described in the initial Project Document, like, for instance, the commendable rehabilitation of Nankumba Health Centre.

This "*Support to Mangochi District Project*" would certainly be more demanding. At the same time, it would considerably increase the impact of the ICEIDA funded activities on the production and delivery of quality health services in Mangochi District.

Development is a very slow process. It takes place in the frame of decades rather than years.

This is why we suggest that whatever Project will extend the current one into a second phase, (focusing on Monkey Bay Health Zone or considering the whole District) its duration, although divided in different phases, should foresee a period spanning from ten to 15 years.

6. Sustainability

Sustainability is a hotly debated issue when it comes to Official Development Assistance (ODA).

We are convinced that, in a poor country like Malawi, for a long time, "*what is sustainable is what we decide to sustain*".

The economy of the country is based on agriculture which is heavily dependent on the vagaries of the weather. For the last two years, because of good rains, there have not been widespread food problems and Malawi has also sold some maize to neighbouring countries (Sunday Times, April 22nd 2007).

However, in 2002 irregular rains and the lack of imported fertilizers led to a very serious famine. The main export of the country is tobacco, which accounts for 70% of foreign exchange earnings and employs 80% of the country's labour force (The Sunday Times, April 29 2007). The price of tobacco on the international market is low and most likely to become even lower in the next few years.

Things being as they are, talking about "sustainability", especially in social sectors like health and education does not seem realistic, at least in the foreseeable future. A look at Table 3, below, could help in making this concept even clearer (we included Italy because it is the country where one of the two consultants comes from; Iceland and Malawi, for obvious reasons).

Country	Gross National Income 2005 in US$ billions	Gross National Income per capita 2005 in US $	Per capita expenditure on health, 2003, in US $	Per capita Government Expenditure on health, 2003, in US$
Iceland	13.671	46,320	3,821	2,598
Italy	1,724.9	30,010	2,139	1,703
Malawi	2.1	160	13	5

Table 3: Gross National Income in 2005 (total and per capita) and per capita health expenditure in 2003 (total and by government) in Iceland, Italy and Malawi. Sources: *World Bank Development Report 2007*; *World Health Organization World Health Report 2006*

The cost of delivering the services included in the Essential Health Package in Malawi is estimated at US $ 22 per person per year (MOH, 2004).

In its 2001 report, the WHO Commission on Macroeconomics and Health suggested that the cost of delivering a Minimum Health Care Package in poor countries would be between US$ 30 and 40 per person per year (WHO, 2001). Professor Jeffrey Sachs, the Chairman of the Commission, added the obvious comment that, in any case, one should not expect to produce and deliver high quality services with such a small amount of money.

This is all the more true with US$ 22 per person per year, which, in Malawi, is an objective still to be achieved, and with US$ 13 per person per year, which is the current situation.

In line with existing health policies in Malawi however, there has been increased advocacy in the health sector relating to inclusion of priority health programme activities in individual DIPs. Programmes at MoH headquarters produce guidelines to be used by district health offices for inclusion of priority programme activities. This therefore is budgeted for on the DHOs' votes.
This practice has taken off ground and is the basis for instituting sustainability of health services in the country.

Since MBCH actively participates in the DIP development for Mangochi, their activities have continually been incorporated in the district implementation plan (DIP) in which costs for the routine regular community health activities have been integrated into the district budget, hence sustainability guaranteed in one way or another.

By stating that nothing is sustainable, we do not advocate extravagant planning or sophisticated technologies. On the contrary, we advocate careful and watchful planning and the search for efficiency gains, but, all, in the framework of a reasonably long period of time.

We are aware that this position is debatable. However, we see it as realistic given the current unjust and unbalanced world situation.

7. The Technical Assistance

Two Icelandic Technical Assistants, Dr. Sigurður Guðmundsson, a senior medical physician, and Ms Sigriður Snæbjörnsdóttir, a registered nurse with BSc and MSc degrees in administration and long experience in hospital administration, are the ICEIDA employees currently based at Monkey Bay Community Hospital – We were accorded the necessary attention to facilitate information collection and access to relevant documents by these technical assistants on a daily basis throughout our stay in Monkey Bay. Their open and frank discussion gave us the opportunity of getting rapidly acquainted with many relevant issues.

A discussion with the technical assistants based on general experience on the implementation of the project and an interesting and useful document they just wrote: "*Support to Monkey Bay Health Care 2004-2007: present situation and future aspects*" revealed several areas of implementation of health service provision in the health zone. Some of these include the construction of a modern health facility (the MBCH) which replaced the old one, staff houses, rehabilitation of Nankumba health centre as well as proper re-organisation of health service delivery and provision of essential drugs to MBCH and Nankumba health centre when needed.
More such developments are underway, such as construction of an operating theatre and the introduction of the radiology department at MBCH. In addition, ICEIDA plans to construct two new staff houses and rehabilitate three at Nankumba health centre. This is as a result of the technical assistants' initiatives and wider vision of support to the zone.

In line with the project document ICEIDA has continually deployed technical assistants to assist the implementation of project activities. Earlier in the inception of the project Dr. Halldor Jónsson had been employed as a technical assistant but later became the Project Manager. He served in the Monkey Bay Zone from 2000 to 2003 and greatly played an important role in providing initial technical assistance and guidance to the start up and subsequent implementation of the project. Mrs. Hildur Sigurðardottir served as the Technical Assistant from 2001 to 2003. She was succeeded by Ragnhildur Ros Indridadottir and Lovisa Leifsdottir who together served from 2004 to 2006. The current Technical Assistants took over in October 2006 and are still providing the necessary technical assistance in Monkey Bay.

In addition to the day-to-day provision of technical assistance to the Monkey Bay Health Zone the technical assistants have through the years provided detailed annual reports regarding the entire spectrum of the status of project activity implementation both at MBCH and in the entire zone.

If, as we suggest, a second phase of the Project will be planned and implemented, there will still be need for Technical Assistants.

For the sake of continuity and efficiency, it would be advisable that the current Technical Assistants renew their contract and stay on.

They have made and are making a commendable effort to understand a situation very different from the one they come from, with different problems and different approaches and solutions. Their enthusiasm and commitment are an asset not to be lost.
In a very interesting and very useful document they recently wrote, still in draft version, they advocate an increasingly "*detached*" role for themselves. They also suggest that they could be posted in Lilongwe rather than in Monkey Bay (ICEIDA Technical Assistants, 2007).

On this we disagree with them.

We see their role as that of "*active catalysers*", involved in the activities carried out, not necessarily and not always in the leading role, but always involved. To make this possible, they must be based in MBCH.

Assistants, to be effective, must be trusted. The only way to gain trust is to be (and to be seen) involved in the activities planned and carried out. Furthermore, this is the only way to understand the problems and appreciate the relevance and practical feasibility of proposed actions and solutions.

As we explain somewhere else in this document, we advocate for a long term commitment of ICEIDA in Monkey Bay Health Zone and in Mangochi District Health System.

In this perspective, the medium term option of reducing the number of Technical Assistants from two to one and employing a Malawian professional as Project Manager, to replace the expatriate one, should be taken into serious consideration.

8. Consultancies

Consultancies in Monkey Bay Health Zone have been part and parcel of the project activities and have largely been aimed at giving support and advice to the implementation of project activities. Since 2002 one permanent consultant from Iceland has annually visited Monkey Bay to follow-up on project activities. Two consultancies regarding financial management took place - one by Calcon, a Malawian firm in 2006 and another in January 2007 by a consultant from Iceland.

Although they are expensive and may pose a heavy toll, in terms of time on the local staff and on the part of technical assistants, they should be scheduled in advance and agreed upon prior to their conducting the exercise. This would certainly provide ample time for preparations ahead of the actual consultations.

9. Conclusions

The "Support to Monkey Bay Health Zone" Project has achieved good results and the quality of the activities carried out so far is good.
Thanks to the Project achievements, the population of Monkey Bay Health Zone has an increased access to health services. The quality of the services delivered has improved and is still improving.

As with any other project, some of the objectives of the Project have achieved while others only partially been achieved, probably partly because of the short timeframe allowed by the initial Project Document to achieve them. In the conclusions, brief extracts of the objectives from the project document have been included to aid reading.

- **Project achievements at the end of phase 1 according to the objectives set forth at the beginning of the contract period in the project document:**

Increased capacity of the Monkey Bay Community Hospital to function as a first line of referral for the health centres in the Monkey Bay Health Zone

The objectives as laid down in the Project Document stipulate that –
At the end of Phase 1 in the extension period, Monkey Bay Health Centre/Community:

- Has an adapted and functional surgical theatre within the current premises;
- Offers at least three surgical or mechanical operative options that currently are available, including one for women in labour;
- Has a laboratory that is staffed and offers basic laboratory services appropriate for the level of service provided; and
- Has a well organised and functional pharmacy that regularly receives drugs from the national Central Drug Deposits

Expected outcome:
"The Contracting Parties expect that the outcome of the project activities result in a clean and well maintained hospital premises that offers improved care to women with complicated pregnancy and labour. Improved hygienic and antiseptic procedures are also expected to have been implemented. It is also expected that this will result in improved diagnosis and quality of care of patients, in the wards the out-patient department and the maternity".

This objective has been only partially achieved - Patients from the other LLHUs are being referred to MBCH for further management and with the VCT clinic in place clients from around the zone have access to appropriate and timely HIV counselling and testing. This service has since expanded to Nankumba and Malembo health centres. Provision of ARVs has in addition, played an important role in prolonging the lives of those who are HIV infected within the Monkey Bay Health Zone.

The newly constructed laboratory has been installed with appropriate equipment. A trained laboratory technician has been deployed in the laboratory and a wide range of investigations are currently being undertaken, including: malaria /sputum, urine, and stool microscopy, VDRL, HIV testing, Blood grouping and X-match, full blood count, blood glucose, pregnancy test and dipstick

urine. Eligible patients needing these services are therefore now referred from around the other LLHUs to MBCH to aid diagnosis and appropriate treatment for general and maternity mothers.
In addition infection prevention and control (IPC) has been introduced at MBCH to an extent where support staff have been trained in IPC practices.

Monkey Bay Community Hospital (MBCH) currently functions as a big Health Centre rather than a Community Hospital. This situation is likely to change and therefore foresee full achievement of this objective when the near-to-completion surgical theatre and an X-Ray Unit are in place.

Once the theatre is functional, and as MBCH further expands its reputation for good quality services, the utilization rates are likely to increase. While this is desirable, it could pose a bigger strain on the insufficient personnel should the current situation on staffing not improve and, also, on the infrastructure. With the current efforts by GoM to recruit additional staff (as indicated elsewhere in the report) this situation may be conducive.

In-Patient Departments are currently underutilized, but this could change rapidly. An expansion of the buildings may become necessary: this should be very carefully planned and the utilization of space should be very carefully studied.

On the contrary, utilisation rate in the maternity unit is reasonably high. As such the space currently allocated to maternity beds is obviously inadequate and the opportunity of having paediatric beds within the female ward is debatable.

If and when expansion of current infrastructure becomes an issue, a more efficient utilization of the available space shall be carefully considered.

Monkey Bay Community Hospital and health centres in the zone are properly managed and deliver good quality care to out patients as well as in patients

The objectives as laid down in the Project Document stipulate that
At the end of Phase 1, the Contracting Parties expect:

- Improved MBCH administration with well maintained premises and hospital equipment properly used;
- Job descriptions available for health personnel with administrative responsibilities on zonal level;
- Staff to have received additional training with regard to the treatment of acutely sick children and women in pregnancy and labour
- Initial steps taken to implement the policy of VCT and improvement in prevention and management of STI; and
- Preparedness for cholera

Expected outcome:
"The Contracting Parties expect the outcome of these activities will result in transparent administrative routines within the zonal health services, and staff with improved knowledge and treatment modalities regarding health problems in the zone, as well as being properly prepared for emergency such as cholera".

This objective has been to a greater extent been achieved, although there is room for further improvement (as always and everywhere).
The services delivered in MBCH are of reasonably good quality. The same could be said of Nankumba Health Centre. The situation is different in the remaining three CHAM health centres

(Malembo, Nankhwali, and Nkope HCs) and Chilonga Dispensary. These units are grossly underutilized (especially Nankhwali) and the quality of services leaves a lot to be desired. Nankhwali HC and Chilonga Dispensary are, also, seriously understaffed and this contributes to the narrow scope and low quality of services.

The organisation of the pharmacy has tremendously improved with Logistic Management Information System (LMIS) protocols being followed by the pharmacy staff. Stock cards for example, are available for all drugs stocked at the pharmacy. A qualified pharmacy technician has been deployed. Most essential drugs are available. However, a survey on drug availability conducted from September to November 2006 carried out by Dr. Sigurður Guðmundsson the current Technical Assistant, revealed that 15 drugs out of 40 (38%) of regularly monitored drugs had been out of stock 95 – 100% of the observation days; 11drugs (28%) had been out of stock 20-75% of the observation days and 14 of the drugs (35%) had never been out of stock.

In addition, there is improved hospital administration with well maintained hospital equipment. Of significance was the provision of computers for the administrator, in the laboratory, ARV clinic, clinical officer's office, the environmental section and the pharmacy. Patient information is thus accurately and safely available at the hospital.

It is recommended that the current existing drug management system through daily monitoring and recording in line with LMIS should be maintained at MBCH. In case if unforeseen unavailability of essential drugs, ICEIDA has periodically stepped in with funds for emergency drugs from private market. Although this alleviates drug shortages in a short term, it creates an imbalance in the quality of health service delivery in the district. A long-term solution is to perpetually liaise with the DHO, MoH and the CMS to obtain national emergency orders (as has been done recently through UNICEF).

There is increased surveillance and treatment of TB patients at the hospital. The National TB control programme activities are being carried out in relation to sputum checks, case detection, and follow-up, while patients are appropriately referred to Mangochi district hospital for initiation of treatment.

The current improvements in VCT services, cholera preparedness and control initiatives and treatment of sick children according to guidelines must be maintained.

Operational Community Health Related Services

The objectives as laid down in the Project Document stipulate that –

At the end of Phase 1 the Contracting Parties expect:

- Regular supervision of community activities with reports
- Outreach clinics with integrated health services
- Properly organised and monitored immunisation services
- Antenatal clinics with improved care to pregnant women
- Increased number of HSAs who are adequately supported
- Improved surveillance and treatment of tuberculosis (TB)
- Recurrent costs for transport vehicles integrated in the budget of the DHMT

Expected outcome:

"The main outcome expected is improved community health service by properly trained health workers who have access to appropriate equipment and transport vehicles. It is expected that the network of HSAs has been reinforced and that pregnant women receive improved care e.g. with the provision of antenatal kits if likely to deliver with the help of a TBA. Immunisation services should

also be regular and children vaccinated at correct intervals. Costs for the regular community health activities, including costs of transport, should also be mostly if not fully integrated in the normal budget of the DHMT in Mangochi".

Outreach clinics are regularly carried out for both Antenatal care and Expanded Programme on Immunisation (EPI) and reports are available. There are currently properly organised services with adherence to scheduled activities both at static and outreach clinics. Statistics on ANC attendance and EPI coverage are clearly recorded. ICEIDA supported the training of Health Surveillance Assistants (HSAs) who help out in both immunisation and growth monitoring activities.

However, their coverage should be better defined in terms of continuously updating the population figures to have accurate data from time to time. This is done through head counts by the HSAs in their respective catchment areas.
On average the DHO provides monthly fuel for motorbikes for these activities from ORT of MK20000.

The possibility of expanding these activities to villages even more isolated and underserved than those currently covered, should be considered.

A Functional Health Management Information System
The objectives as laid down in the Project Document stipulate that - At the end of Phase 1 of the extension period the Project activities:

- The national HMIS furnishes up-to-date data on relevant indicators in the MBHZ area
- HMIS data is used in the zone meetings to improve planning and delivery of the health services in MBHZ
- Revision initiated of registration documents for individual community members; and
- Icelandic and Malawian university students in collaboration have conducted health related research in the area

Expected outcome:
"The expected outcome of this activity is regular use of health statistics and coordinated registration system. Further, the health services are strengthened with relevant data from research conducted with proper methodology".

This objective has also been partially achieved. The HMIS is in place. Data are used in the quarterly DIP review and zonal meetings to aid planning and delivery of the health services in MBHZ. The data collected are analysed and reflected upon. Some concern has been in relation to their reliability. The strong impression is that, more often than not, we are analysing and reflecting upon data that may in some instances be blatantly unreliable which may result in the whole exercise flawed and irrelevant.

Apparently, data coming from the peripheral health units are reasonably timely but, often, incomplete and, even more often, not reliable. In some instances, data coming from the various departments of MBCH are often late and their level of accuracy, completeness and reliability are sometimes questionable and still need some considerable improvements.
A greater effort is needed to improve the quality of the HMIS to ensure its usefulness. The weaknesses observed don't require further training but a change in attitudes. A closer and more focused supervision, targeting agreed upon, specific improvements, could be part of the solution.

However, refresher trainings as have been conducted lately are not a bad idea either.

The role of the MBCH as the referral and support Institution for the five lower level health units in the Zone (four Health Centres and one Dispensary) should be enhanced.

The supervision currently carried out by the Zonal Supervisor (based in MBCH) seems to be sufficiently frequent and regular but grossly ineffective. The objective of supervision is to solve problems and improve performance: very little, if anything, is currently done to achieve this objective.

Good Collaboration with stakeholders in the health sector in Monkey Bay Health Zone, in particular the District Health Management Team

The objectives as laid down in the Project Document stipulate that –
At the end of Phase 1 of the extended Project period the Contracting Parties expect effective communication channels in place between ICEIDA and other stakeholders in the area, in particular the DHMT
Expected outcome:

"*The expected outcome is health activities that are properly based in national health policy and integrated in District health budget*".

The feelings of the persons we interviewed concerning the collaboration between the District Health Management Team and the MBCH vary considerably. The personnel of MBCH feel that their unit is somehow neglected by the DHMT. The DHMT members feel that the collaboration is satisfactory and can improve.
In MBCH there is an apparent feeling of being "neglected" by the District and by the Ministry of Health when it comes to the allocation of various resources, from Human Resources to consumables to medicines.
The resources allocated to the whole of Mangochi District are meagre and inadequate. According to the Annual Performance Report of Mangochi District for the Fiscal year 2005-2006 the District Budget was 95,659,298 MK (about 683,280 US$), equivalent to about 130.57 MK per person (about 0.57 US$ per person per year). The District expenditure for drugs during the same year was 73,105,851.04, about 0,44 US$ per person.

Given that Monkey Bay is supported by an external Partner (ICEIDA) it seems all too obvious that the meagre resources are preferentially channelled towards other health units, equally in need and lacking external support.
This should not be seen as a sign of neglect: it is a natural and understandable consequence of a difficult, resource-starved situation.

The Technical Assistants feel that there was little collaboration with the previous DHMT members. To support this feeling they mentioned the non participation of the DHMT members to meetings organised in MBCH, lack of supervision by DHMT and non-responsiveness to communication.
The situation has changed since the arrival of the new DHO.

We think that the collaboration is reasonably good and there is ample room for improvement.
Improvements will come from a better understanding of the District situation and from more frequent interactions between MBCH personnel (including the Technical Assistants) and DHMT members.

The writing of a new Project Document could offer a good opportunity to strengthen the links between MBCH and DHMT through an open and frank discussion of objectives and activities.

Utilization of financial resources

Review of some financial documents revealed that the Project had a clear budget made of clearly defined budgetary lines with their respective fund allocation. In line with this we recommend that the next possible Project Document should have the same financial data content.

Utilization of human resources

Like virtually all the Health Units of the Country, even MBCH is understaffed. In spite of this, activities are carried out at reasonably good levels of quality. The only category of workers possibly doing much less than they could and should are the ground labourers, who don't do much and, yet, complain of having too much to do.

With the coming into operation of the surgical theatre the understaffing will bite more painfully and solutions should be sought beforehand. Relying only on the Ministry of Health and the District may be a self defeating strategy given that the shortage of trained staff is a nationwide problem. Malawi has 0.02 Doctors and 0.59 nurses for 1000 people (WHO 2006). In Mangochi district, there is one doctor for 188,760 people (Mangochi District Health Office, 2006).

Providing staff houses is a good contribution towards alleviating the understaffing problem. Providing scholarships for further institutional studies (nursing courses, Masters and Diploma courses, etc.) would be another good long term contribution.

The issue of salary integration should not be discarded just because it is a difficult and controversial one. It should be taken into consideration and carefully studied.

Sustainability of activities supported by the project

Sustainability could be defined as *the ability of a given system to function without external support*.

More realistically, when considering the health system of a poor country, it could be defined as *the ability of a system to function with a minimum external support slowly decreasing over time*.

It is obvious that what is the "*minimum*" level of external support and how "*slowly*" this should decrease over time, depends on the situation.

In a poor country, for the foreseeable future, nothing is sustainable except what we decide to sustain.

The practice of incorporating routine project activities into the DIP should be continued to aid sustainability.
We certainly advocate careful planning, regular and watchful monitoring, meaningful evaluation, wise avoidance of extravagant expenditures. All this taken into consideration, there is need to see external support as a long term feature, especially for social sectors like education and health.

Effects of project activities, both positive and negative

The main positive effect of the Project is the increased access to quality health services for the Monkey Bay Health Zone population.

Although not studied and quantified, the Project had and still has positive indirect economic effects in the area, creating jobs and stimulating various forms of trade.

We could not identify negative effects of the Project.

Constraints and risk factors for continued support

If a new Project is carefully conceived and thoroughly discussed and agreed upon by all the concerned parties, we see neither real constraints nor real risks for continued ICEIDA support to Monkey Bay Health Zone and Mangochi District. On the contrary, we see real risks of compromising the good work so far done and the results so far achieved if such support comes to an end in July 2007.

10. Recommendations

1. The Project should be extended to a further three year phase and its focus should be extended beyond Monkey Bay Health Zone, to Mangochi District as a whole. This could be done gradually and in forms to be studied when writing the new Project (support to Mangochi District Hospital or Technical Support to the District Health Office or district wide support to specific technical areas like HMIS, etc.).

2. Development being a slow process, next phase, although planned for three years, should be seen in the framework of a much longer term ICEIDA commitment, spanning between ten and 15 years. These are only realistic and arbitrary estimates

3. The new Project should be written by the Technical Assistants, in Monkey Bay, before the end of August 2007. Like the previous Project Documents, it should be the result of a participative approach and, before being submitted to ICEIDA in Reykjavik, its content should be discussed at all the concerned levels: the Monkey Bay Community Hospital, the five Monkey Bay Zone lower level health units, the Mangochi District Health Office, the ICEIDA Office in Lilongwe and the Ministry of Health.

4. The New Project should clearly indicate general and specific objectives. For each specific objective, the necessary activities to be carried out to achieve it should be listed, together with the resources needed, their cost and the commitments of ICEIDA, the Mangochi District Health Office and the Ministry of Health.

5. The Project should contain a detailed budget with specified funds clearly attributed to specific budgetary lines (i.e.: drugs, fuel, maintenance, scholarships, etc.). The Project Manager should be the budget holder and be accountable for the use of funds to the relevant ICEIDA and Ministry of Health Offices.

6. Given the paramount importance of continuity to build trust and enhance efficiency and effectiveness, steps should be taken to convince the current Technical Assistants to renew their contract for a period of at lest one year. Better still, for a period of two years.

7. Should the above not be possible, the new Technical Assistant(s) should be in Monkey Bay at least one month before the departure of the incumbent ones, to ensure a reasonable handing over of activities. The possibility of having a Malawian Project Manager should be

seriously explored as it would be, if carefully implemented, the best solution, ensuring good guarantees of continuity and a deeper understanding of the local context.

8. The links between MBCH and the five lower level health units of the Zone should be strengthened through effective supportive supervision and focused training.

9. When planning expansion, rehabilitation and equipment, sustainability issues should be carefully considered. However, while avoiding extravagant choices, it should also be kept in mind that, in poor countries, for the foreseeable future, nothing is sustainable except what we decide to sustain. The Project should again contain a detailed budget with specified funds clearly attributed to specific budgetary lines (i.e.: drugs, fuel, maintenance, scholarships, etc.). The Project Manager should be the budget holder and be accountable for the use of funds to the relevant ICEIDA and Ministry of Health Offices.

10. Consultancies should be discussed and agreed upon with the Technical Assistants to establish schedule and ensure their relevance.

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13. ANNEXES

Annex I: Meetings between the Evaluation Team and the MBCH Personnel

A number of issues were explored at length during the meeting. The issues discussed included:

- Expression of satisfaction over the tremendous improvements in infrastructure and patient care at MBCH and surrounding health centres in the zone since the coming of the ICEIDA project in 2004. Examples cited were: the Building of the new 8-block hospital infrastructure, staff houses (and in some cases ICEIDA paying rent for staff – currently 3 members of staff); the on-going construction of the Operating theatre and X-ray department; the provision of on - job advice in management and patient care and provision of medical drugs and supplies in times of stock-outs; the renovation of Nankumba Health Centre.
- Increased collaboration with the DHMT during the project implementation period through frequent meetings between MBCH and the DHMT, involvement of MBCH staff in planning and budgeting activities arranged by the DHO
- Concerns over shortage of clinical and nursing staff at MBCH
- In some cases, scanty and reduced extent of provision of hospital supplies such as cleaning materials by the DHO
- Fears over deteriorating standards of services and infrastructure maintenance / building completion (of the major and minor theatres) at the hospital should ICEIDA pull out in July 2007

Annex II: The four Health Centres and one Dispensary in Monkey Bay Zone and the meeting with Traditional Authority Nankumba

Nankumba Health Centre

This Health Centre belongs to the Government of Malawi (GOM). Its buildings have been recently rehabilitated. Those hosting the maternity activities have been rehabilitated by the GOM through the Safe Motherhood Initiative. The remaining buildings have been rehabilitated by ICEIDA.
The renovated buildings have been officially inaugurated in March 2007. The infrastructure are, obviously, in good condition. With the exception of a few toilets that are not working. The choice of water closed toilets in rural health units is, as a matter of fact, debatable.
The Unit does not have electricity but has running water.

The staff is made up of one Medical Assistant, one Senior Enrolled Midwife, one Senior Health Surveillance Assistant, six Health Surveillance Assistants, three Hospital Attendants, one Ground Labourer and one watchman.

There were no essential drugs missing the day of our visit.

The Unit has four brand new delivery beds (at least twice as necessary) and ten beds for post-natal care (six with a mosquito net, four without). The number of assisted deliveries is about 70 per month. An average of ten pregnant women per month are referred to Mangochi District Hospital for higher level care.

There are six beds for observation-short admission.
The average number of outpatients is between 200 and 250 per day.

Otherwise, the work seems fairly well organized and managed.

Malembo Health Centre

This Health Centre, built about 15 years ago, belongs to the Church of Central Africa Presbyterian (CCAP).

The buildings need minor rehabilitation works (replacement/positioning of windows mosquito nets, paintings, minor repairs, etc.).

The Unit has electricity but no running water. There is a tank but the pump supposed to fill it has been out of order for "*several months*".

The Unit has one Nurse Technician Midwife, one Medical Assistant, one Dental Assistant, three Patients Attendants, one Laboratory Assistant, one Pharmacy Assistant, six Health Surveillance Assistants, three Ward Attendants, one Clerk/Accountant, one Clerk charged of data collection, two Ground Labourers and two Watchmen.

All the complicated cases are referred to Mangochi District Hospital.

The Unit gets its medicines from the "Mother Hospital" in Nkhoma. The day of our visit, a number of essential drugs were missing, among them, Erythromycin and Benzathine Penicillin. According to the Officer in Charge, the requirements sent to Nkhoma are usually satisfied. The problem lies with the drug management in the Unit itself. The concept of a "security stock" seems to be known but, certainly, it is not utilized.

The average number of outpatients varies between 20 and 40 and the deliveries assisted in the Unit are about 30 per month.

The Unit, as all Diocesan Health Units, charges fees for services. A normal delivery costs 250 Malawian Kwacha (MK).

The fees, the frequent stock-out of drugs, the overall poor quality of services, seem sufficient explanations for the low utilization rates.

Nkope Health Centre

This Unit, built in 1974, belongs to the Upper Shire Diocese of the Anglican Church. The buildings are in poor conditions and would certainly benefit from rehabilitation works. Electricity and running water are available.

There are 45 beds for in patients (including 14 in the Cholera Ward). The day of our visit there were four children and two women admitted.

There are two Medical Assistants, three Nurse Technicians Midwives, one Dental Assistant, one Pharmacy Attendant, three Hospital Attendants, eight Health Surveillance Assistants, ten Patient Attendants, three Laundry Attendants, one Maintenance Worker, one Homecraft Worker, four Ground Labourers and three Watchmen. Two Health Surveillance Assistants and two Patients Attendants were trained in Voluntary Counselling and Testing (VCT).

There is a Laboratory but it is currently not used.

Reportedly, the outpatients are, on average, 30 per day and the assisted deliveries about 40 per month. When we looked up the outpatients register, we counted 17 patients on the day of our visit, 20 the previous day and 10 the day before.
The Unit obtains drugs from the Hospital of St. Luke's in Zomba District. Reportedly, requests are sent every week. The day of our visit there were no antibiotics available and this situation dated back "several days". The management of drugs is, clearly, a major problem of this Unit.

Patients pay fees for services. A normal delivery costs 300 MK.

Nankhwali Health Centre

This Unit belongs to the Catholic Church. The personnel we met didn't know when it was built. The buildings are in reasonably good conditions, electricity and running water are available.

There are three beds for observation and six for post-natal care. There are two wooden delivery beds inadequate to their function.

The Unit is grossly understaffed. There are four Patient Attendants, two Health Surveillance Assistants, one Cashier, one Driver (the Unit does not have a vehicle), two Homecraft Workers, three Ground Labourers and four Watchmen. The day of our visit, there was a Nurse Technician Midwife normally working in Nkope. She was there for her holidays of one month. After her departure, a Medical Assistant, still from Nkope, "*could*" replace her.

Drugs are obtained from the Diocese in Mangochi, but their availability is a constant problem. We saw several boxes of various drugs coming from Italy, under brand names and with the literature in Italian.

It is not a surprise that this Unit is grossly underutilized: reportedly, the outpatients are about 15 per day (the day of our visit –we reached the Unit in the afternoon- there had been only three). The deliveries are about ten per month.

Chilonga Dispensary

This Unit was not in the list we were given. It was mentioned to us, for the first time, by the Traditional Authority Nankumba. It is about 16 Km away from Nankumba Health Centre and about 66 Km away from MBCH.

It was built in 2002 by the Malawi Social Action Fund (MASAF). The buildings need rehabilitation works. Especially urgent is to fumigate the Unit and replace the ceiling. Apart from the visiting room, all the others display heaps of bats excrements. The bats can be heard and seen through the broken or missing ceilings. There is no electricity and no water.
There are three staff houses in good conditions.

Two are currently used, since there are only two staff members: one Health Surveillance Assistant and one watchman.

The day of our visit, we met Mrs Witness Billy, a Nurse Midwife working in Nankumba Health Centre. She told us that she goes to Chilonga once a month to carry out Antenatal Care Activities.

The day of our visit the drugs available were Paracetamol. Sulphadoxine Pyrimethamine, Benzyl Benzoate ointment and Oral Rehydration Salts. The HSA told us that she goes, every month to Mangochi to get drugs for the Unit. She travels on her own expenses.

The Unit also has a working fridge for vaccines alimented by solar panels. Reportedly, the stock-outs of vaccines are very rare, as they are brought from Mangochi every month, by an "EPI" car.

According to Mr Chilonga Kassim, Group Village Headman for Chilonga (whom we met at the Unit), there are six villages in the catchment area of the Dispensary and the total population served exceeds the 10,000 units, about 4,000 of them living in Chilonga itself.

Once rehabilitated and properly equipped, this Unit could and should be upgraded to the level of a Health Centre.

The District Health Team members agree on this. At the same time, they believe that it would be very difficult, if at all possible, to post trained personnel in Chilonga. The Technical Assistants may have to take up the discussions with the DHMT.

The meeting with the Traditional Authority Nankumba

On April 20th, we visited the Lower Level Health Units (LLHUs) in Monkey Bay Zone. Before visiting the units, we met the Traditional Authority Nankumba and his Assistant Mr Laxon Chimombo. The Traditional Authority told us that he lived in Nankumba for the last six years and he knew very well the activities carried out by ICEIDA in the area, not only those related to health services but, also, those related to fisheries and the construction of primary schools. He expressed high appreciation for such activities and added that they should continue for several years as ".. *Everybody can see them and their results*". He then mentioned the pitiful state of Chilonga Dispensary, about 16 Km away from Nankumba Health Centre. This was the first time someone mentioned this health unit to us and we decided to visit it the following day.
On Thursday April 19th we visited the four Health Centres of Monkey Bay Zone. According to the information received from MBCH and from Mangochi DHMT, we expected these to be the only LLHU active in the zone.

Annex III: The meeting with the District Health Management Team

The members all seemed conversant with the activities being undertaken at MBCH and the entire Monkey Bay health zone and problems being faced by the health facilities. The DHMT observed that MBCH serves as a first referral facility for the Monkey Bay health zone.

The District Health Officer (DHO) placed an ambulance at MBCH for the purpose of transporting patients from the health facilities in the zone to the district hospital. This was only at the time when the ambulance previously placed at MBCH by ICEIDA had been boarded off. ICEIDA has since bought a new ambulance for the hospital.

Since the building of the new MBCH the district has seen an increase in the number of referrals especially children, making the paediatric ward congested and currently requiring expansion although evident statistics were not available at the time of evaluation.

Members also observed that ICEIDA has played an important role in manpower development such as in the nursing section where some staff have attended upgrading courses.

The DHMT members expressed the hope that ICEIDA could do more to improve health service delivery not only in Monkey Bay health zone but in the District as a whole. As an example, they mentioned the possible expansion of the paediatric department of Mangochi District Hospital, which is chronically overcrowded.

As indicated elsewhere in this report, the issue of erratic and, sometimes insufficient quantities of hospital supplies sent by the district to MBCH was discussed. The DHMT felt that due to inadequate funding, the DHO tries to supply all the 26 health facilities proportionally with the required quantities of hospital requirements according to the ORT funds available that month.

The DHMT members regretted the understaffing of MBCH, but added that this is a widespread problem concerning all the units in the district.

For instance, Chiumbangame health centre is currently closed because of lack of staff.

Collaboration between the DHMT and MBCH and the health facilities in the zone was felt to be good and improving with the current frequent meetings.

The Technical Assistants at MBCH however, felt there is not proper communication between them and the DHMT. Members were also concerned about the low utilisation of CHAM health centres in the district citing poor drug management and fees as some of the contributing factors.

Just like the opinions from MBCH, the DHMT suggested that the Project should be extended. They added that next Project should provide for the procurement of a boat to be used as transport for patients and for supervision of some the hard-to-reach outreach clinics of Zambo, Mvunguti and Chizale within the Monkey Bay health zone.

The DHMT members also acknowledged and lamented the existing problems with HMIS mentioning poor data quality, delayed submission of reports and minimal data use at the health facilities as some of the examples.

Finally, it was proposed that extension of support by ICEIDA to include Chilonga Dispensary would be a very welcome development provided that staff are deployed at the facility.

Annex IV: The visit to Mitundu Community Hospital

The evaluation team visited Mitundu Community Hospital on 23rd April 2007. The purpose of the visit was to learn lessons and understand the functioning of a fully functioning community hospital. A similar visit was also done by some members of MBCH in 2006.
The team held discussions with the Clinical Officer-In-Charge and took a tour round the health facility.

Unlike MBCH, Mitundu Community Hospital has 100 beds and functions as a full community hospital with a theatre, and X-ray services in operation (at the time of the visit the X-ray machine had been non-functional over a period of 3 months). It also has a kitchen where patient food is prepared. Staffing levels are, as in all the other health facilities visited, inadequate compared to the actual establishment for the hospital with only one clinical officer, 3 medical assistant and 16 nurses (of whom 4 are away attending an upgrading course in midwifery). This has brought about a situation where theatre operations are only conducted during the day. The rest of patients requiring surgical procedures at night are referred to Kamuzu Central Hospital. Caesarian sections, hernia

repairs, fistulectomy and circumcision are some of the surgical procedures currently being conducted. The hospital conducts about 100 deliveries per month.

The Nutrition Rehabilitation unit is well established and provides care to malnourished children diagnosed at the hospital. It stocks *Likuni phala* flour but also obtains some food from the hospital kitchen. The World Food Programme provides some of the food to the NRU.
The hospital has a functional laundry department with one washing machine working at the time of the visit.

The outpatient department sees about 200 to 250 patients per day but, like MBCH, admission numbers are low (at the time of the visit, male ward only had 5 patients in a ward of 14 beds).
The facility was last physically supervised by the DHO some 3 years ago. MoH headquarters however, conducts frequent quarterly supportive supervisory visits.
Laboratory services are fully operational with microbiology and haematology being done in separate rooms. There is one laboratory technician. TB treatment is initiated at Bottom hospital and continued at the Community Hospital (DOTS). VCT and ARV services are part of the services also being provided at the hospital. A new VCT/ART building is under construction funded by National Aids Commission.

The problem of drug scarcity also hits Mitundu community hospital with paracetamol, Aspirin, Gentamycin not available on the day of our visit.

There are 11 staff houses at the hospital. These are not adequate for the total number of personnel working at the facility. There is great need to build more staff houses at the facility if personnel are to be retained.

Annex V: The meeting with the Ministry of Health Directors and Programme Managers

On Tuesday April 24th we met several high ranking officers of the Ministry of Health in Lilongwe. We briefed them on our activities and findings and shared with them our reflections. Nothing of what we said seemed to be controversial and there was widespread agreement on our main conclusions and recommendations. Satisfaction was expressed for what has been done so far in Monkey Bay Health Zone with ICEIDA support and the Ministry of Health deems appropriate that the Project continues entering into a second phase. A suggestion was made that, if the second phase will be planned and implemented, the scope of the Project should be widened to include some form of support to the Mangochi District Hospital and to the Mangochi District Health Office.

Annex VI: Malawi demographic, social, economic and health indicators

N	Indicator	Value	Year	Source
01	Total land surface in sq Km (Mainland)	118,480		The World Fact Book, CIA, 2005
02	Land surface	94,080		""
03	Water surface	24,400		""
04	Estimated arable land	27,605	2005	""
05	Estimated irrigated land	280	1998	""
	Human Development Index and rank			
06	Human Development Index	0.400	2004	UNDP: *Human Development Report 2006, Beyond Scarcity: power, poverty and the global water crisis*
07	Human Development Index Rank (out of 177 countries studied)	166	2005	""
	Education			
08	Adult Literacy Rate (% of 15 years and above)	64.1%	2004	“”
09	Public expenditure on education as % of GDP	6%	2002-2004	""
	Population			
10	Total population	13.000.000	2005	World Development Report 2007, *Development and the Next Generation*, World Bank, 2006
11	Average annual population growth rate	2.3%	2000-2005	""
12	Density per square Km	137	2005	""
13	Population aged between 0 - 14 years	47%	2005	""
	Health and health related indicators			
14	Infant Mortality Rate (per 1000 live births)	79	2005	The State of the World Children 2007, *The double dividend of gender equality*, UNICEF 2006
15	Under Five Mortality Rate (per 1000 live births)	125	2005	""
16	Neonatal mortality rate (per 1000 live births)	40	2005	""
17	Life expectancy at birth	40 years	2005	""
18	Maternal mortality ratio (per 100,000 live births)	980	2005	""
19	% of infants with low birth weight	16%	1998-2005	""
20	% of <5 moderately or severely underweight	22%	1998-2005	""
21	% of <5 severely underweight	5%	1998-2005	""
22	% of < 5 with moderate or severe wasting	5%	1996-2005	""
23	% of < 5 with moderate or severe stunting	48%	1996-2005	""
24	Estimated HIV prevalence in population > 15 years	14.1%	2005	""
25	Total Fertility Rate	6.9	1994	World Health Report 2006, *Working Together for Health*, World Health Organization, 2006
26	Total Fertility Rate	6	2004	""

	Health Expenditure, National Health Accounts	Value	Year	Source
27	Total Exp. On Health as % of tot GDP	9.3%	2003	World Health Report 2006, *Working Together for Health*, World Health Organization, 2006
28	General Government expenditure on health as % of total expenditure on health	35.2%	2003	""
29	Private expenditure on health as % of total expenditure on health	64.8%	2003	""
30	General Government expenditure on health as % of total government expenditure	9.1%	2003	""
31	External resources for health ad % of total expenditure on health	25.1%	2003	""
32	Annual per capita expenditure on health at current exchange rate in US $	13	2003	""
33	Per capita government expenditure on health at current exchange rate in US $	5	2003	""
	Health Personnel			
34	Total health care posts	21.337	2004	*Human Resources in the Health Sector, towards a solution*, MOH, Lilongwe, 2004
35	Percentage of health care posts not covered	30%	2004	""
36	Percentage of nursing posts unfilled	64%	2004	""
37	Medical Doctors per 1,000 people	0.02	2004	World Health Report 2006, *Working Together for Health*, World Health Organization, 2006
38	Nurses per 1,000 people	0.59	2004	""
39	Midwives per 1,000 people	---		
	Economic Indicators			
40	Gross Domestic Income in US $ billions	2.1	2005	World Development Report 2007, *Development and the Next Generation*, World Bank, 2006
41	GNI per capita (in US $)	160	2005	""
42	Gross National Income in US $ billions (PPP)	8	2005	""
43	Gross National Income per capita in US$ (PPP)	650	2005	""
44	Average annual GDP growth	3.4%	2000-2005	“”
45	GDP per capita average annual growth	0.4%	2004-2005	""
46	Population living with less than 1 US $ per day	41.7%	1997-1998	""
47	Population living with less than 2 US $ per day	76.1%	1997-1998	""
48	Population living below the National Poverty Line	54%	1990-1991	""
49	Population living below the National Poverty Line	65%	1997-1998	""
50	Exports in US $ millions	460	2005	""
51	Imports in US $ millions	1,035	2005	""
52	Current account balance in US $ millions	Not available		""
53	Foreign Direct Investment in US $ millions	16	2004	""
54	External debt in US $ millions	3,418	2004	""
	Official Development Assistance (ODA)			
55	ODA per capita per annum in US $	38	2004	World Development Report 2007, *Development and the Next Generation*, World Bank, 2006
56	ODA as % of GNI	23%	2004	The State of the World Children 2007, *The double dividend of gender equality*, UNICEF 2006
57	Official Development Assistance received in US $ m	476	2004	“”

Annex VII: Resource persons consulted

Name	Designation
Mr. Sighvatur Björgvinsson	Ambassor/Director General, ICEIDA
Mrs Thordis Sigurdardottir	Deputy Director General, ICEIDA
Mr. Skafti Jonsson	Country Director, ICEIDA
Dr Halldór Jónsson	ICEIDA
Mrs Margret Einarsdottir	Programme Officer, ICEIDA
Mrs Dagny Brynjolfsdottir	ICEIDA
Ms. Sigriður Snæbjörnsdóttir	Project Manager – ICEIDA
Dr. Sigurður Guðmundsson	Medical Technical Assistant – ICEIDA
Dr. Frank Sinyiza	DHO - Mangochi District Hospital
Mrs. Mary Nyirenda	Principal Nursing Officer - Mangochi District Hospital
Mr. T.B Mbaluku	Hospital Accountant - Mangochi District Hospital
Mr. Jameson S. Chausa	District Environmental Health Officer
Mr. Gibson J. Mgwira	Principal Hospital Administrator - Mangochi District Hospital
Mr. GF Manjolo	Project Coordinator/Principal Clinical Superintendent, Orthopaedic – MBCH
Mr. F Kapinga	Chief Clinical Officer/ Hospital-In-Charge – MBCH
Mrs. R.P. Nkana	Chief Enrolled Nurse / Midwife – MBCH
Mr. Z. Solomoni	Assistant Environmental Health Officer – MBCH
Mr. S.N Magombo	Laboratory Attendant – MBCH
Mr. Mtambo	Pharmacy Technician – MBCH
Mr. J Biliati	Ground Labourer – MBCH
Mrs. C Gumbi	NMT
Mr. L Makanjira	Laundry Assistant
M Banda	Mortuary Attendant – MBCH
G Bwaluzi	H.S.A – MBCH
T. Msompha	Security Guard – MBCH
M Kalulu	Ground Labourer – MBCH
A Andisen	Hospital Attendant – MBCH
E Chapani	Hospital Attendant – MBCH
S. Medison	Security Guard – MBCH
M. Banda	H.S.A – MBCH
J. Kapalamula	Security Guard – MBCH
P. Makungwa	Driver – ICEIDA
E. Kumbwemba	ACO – MBCH
LK Linjaya	Hospital Attendant – MBCH
E. Massa	Hospital Attendant – MBCH
Mrs. S Chimowa	Hospital Attendant – MBCH
Mrs. N. Majawa	Hospital Attendant – MBCH
L. Wisiki	Messenger
D. Malunga	Plumber
Kalanje	Security Guard – MBCH
F Fabiano	Hospital Attendant – MBCH
K. Makawa	Patient Attendant – MBCH
Traditional Authority Nankumba	TA Nankumba
Mr. Kassim Assani	Group Village Headman Chilonga
Mrs. Witness Billy	Nurse Midwife - Nankumba Health Centre
Mr. Samuel Kalaya	Medical Assistant – Nankumba Health Centre
Mr. Moffat Chisale	Medical Assistant – Malembo Health Centre
Mr. Peter Mlauzi	Medical Assistant – Nkope Health Centre
Mrs. Frances Magaga	Nurse Midwife Technician – Nankhwali Health, on relief from Nkope Health Centre
Dr. A. Phoya	Director SWAp Secretariat, MoH HQ
Dr. MC Joshua	Ag Director, Clinical Services, MoH HQ
Dr. LD Mkukuma	Chief Medical Engineer, MoH HQ
Mr. E. Ligomeka	Chief Health Planning Officer, MoH HQ
Sheila Bandazi	Ag Director Nursing Services, MoH HQ
Dr H Somanje	Director, Preventive Health Services, MoH
Dr. H Njikho	Deputy Director, SWAp, MoH
Dr. Chisale Mhango	Director Reproductive Health, MoH
Luckson Chimombo	Clerk to Traditional Authority Nankumba

Mr. Sichali	Clinical Officer-In-Charge, Mitundu Community Hospital, Lilongwe

Annex VIII: Acronyms

ACO	Anaesthetic Clinical Officer
ARV	Anti-retrovirals
ART	Anti-retroviral Treatment
CHAM	Christian Health Association of Malawi
CMS	Central Medical Stores
COM	College of Medicine
DHMT	District Health Management Team
DHO	District Health Officer
DIP	District Implementation Plan
DOT	Directly Observed Therapy
EHP	Essential Health Package
EPI	Expanded Programme on Immunisation
HMIS	Health Management Information System
HSA	Health Surveillance Assistant
HTC	HIV Testing and Couselling
ICEIDA	Icelandic International Development Agency
IMCI	Integrated Management of Childhood Illness
LLHU	Lower Level Health Unit
MASAF	Malawi Social Action Fund
MBCH	Monkey Bay Community Hospital
MBHZ	Monkey Bay Health Zone
MHFRL	Minimum Health Facility Requirement List
MICS	Multiple Indicator Cluster Survey
MoH	Ministry of Health
NMT	Nurse Midwife Technician
ODA	Official Development Assistance
OPD	Outpatient Department
ORS	Oral Rehydration Salts
ORT	Other Recurrent Transactions
PMTCT	Prevention of Mother to Child Transmission of HIV
SRN	State Registered Nurse
TMT	Technical Management Team
TOR	Terms of reference
VCT	Voluntary Counselling and Testing

Annex IX: Detailed diary of the evaluation mission

DATE	ACTIVITY
15th April 2007	▪ Planning discussions by evaluators Capital Hotel – Lilongwe
16th April 2007 a.m. p.m.	▪ Meeting between evaluators, ICEIDA country director and Director SWAp Secretariat, MoH Headquarters - Lilongwe ▪ Evaluators travel to Mangochi ▪ Introductory meeting with DHMT members - Mangochi ▪ Evaluators travel to Monkey Bay Community Hospital ▪ Introductory meeting with Technical Assistants
17th April 2007	▪ Tour around the 8-block MBCH and the Major and Minor Theatres under construction, Waste disposal area and the hospital surrounding ▪ Discussions with the MBCH staff and Technical Assistants
18th April 2007 a.m. p.m.	▪ Review and discussions of Technical Assistants' project reports ▪ Discussions with the project coordinator and individual staff members of MBCH
19th April 2007 a.m.	▪ Visit to Traditional Authority Nankumba, Nankumba and Malembo Health Centres ▪ Visit to Nkope and Nankhwali Health Centres
20th April 2007 a.m. p.m.	▪ Meeting with DHMT members – Mangochi District Hospital ▪ Travel to Chilonga Dispensary ▪ Meeting with Dispensary staff and Group Village Headman Chilonga ▪ General staff meeting with Monkey Bay Community Hospital personnel
21st and 22nd April 2007	▪ Information aggregation and validation
23rd April 2007	▪ Visit to Mitundu Community Hospital – Lilongwe
24th April 2007	▪ Meeting with Directors and Programme Managers, MoH HQs – Lilongwe
25th April 2007 – 15th June 2007	▪ Draft Report writing, debriefing meetings with Directors-MoH headquarters, ICEIDA staff, Reykjavik and finalisation of the evaluation report

Annex X: List of documents reviewed

- Annual reports by ICEIDA Technical Assistants based at Monkey Bay Community Hospital
- Minutes of meetings of the Programme Monitoring Group, ICEIDA Project
- Minutes of meetings of the Technical Management Team, ICEIDA Project
- Medical research reports by Icelandic and Malawi College of Medicine students
  - Berglid Eik Guðmundsdóttir, *Care of sick neaonates at Monkey Bay Community Hospital in Malawi, November 2006*
  - Þórður Þórarinn Þórðarson, *Immunisation Coverage in the Monkey Bay Health Zone Malawi, January 2004*
  - Likumbo, Samuel G, *Cholera Epidemic in Monkey Bay Health health zone in the year 2005/2006*
  - Aynor Örn Jónsson, *Maternity Care for women who deliver at the Monkey Bay Community Hospital*, August, 2005
  - Sigurður Ragnarsson, *The Implementation of Integrated Management of Childhood illness in Monkey Bay Health Zone in Malawi,* November 2005
  - Medson Matchaya, Patient Profiles and Quality of HMIS data in Monkey Bay Health Zone
- HMIS statistical registers at MBCH and its Health centres in the Monkey Bay Health zone
- Mangochi District Annual Performance Reports, July 2001 – June 2002 and July 2005 - June 2006
- ICEIDA's Policy and Plan of Operations
- Plan of operation and Project Document for the project *"Support to Monkey Bay Health Care 2004 – 2007"*
- Dr. Sigurður Guðmundsson, Sigriður Snæbjörnsdóttir, (ICEIDA Technical Assistants) *Support to Monkey Bay Health Care 2004-2007" - Present situation and future aspects*
- Planning Department MoH, *Handbook and guide for health providers on Essential Health Package in Malawi,* April 2004