社会開発調査部報告書

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

No. 32

THE MINISTRY OF HEALTH AND POPULATION
THE GOVERNMENT OF THE REPUBLIC OF MALAWI

MASTER PLAN STUDY ON STRENGTHENING PRIMARY HEALTH CARE SERVICES IN THE REPUBLIC OF MALAWI

FINAL REPORT

VOLUME 1
MAIN REPORT 1
NATIONAL MASTER PLAN

December 1999

ST. MARY'S HOSPITAL
GLOBAL LINK MANAGEMENT, Inc

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

THE MINISTRY OF HEALTH AND POPULATION
THE GOVERNMENT OF THE REPUBLIC OF MALAWI

MASTER PLAN STUDY ON STRENGTHENING PRIMARY HEALTH CARE SERVICES IN THE REPUBLIC OF MALAWI

FINAL REPORT

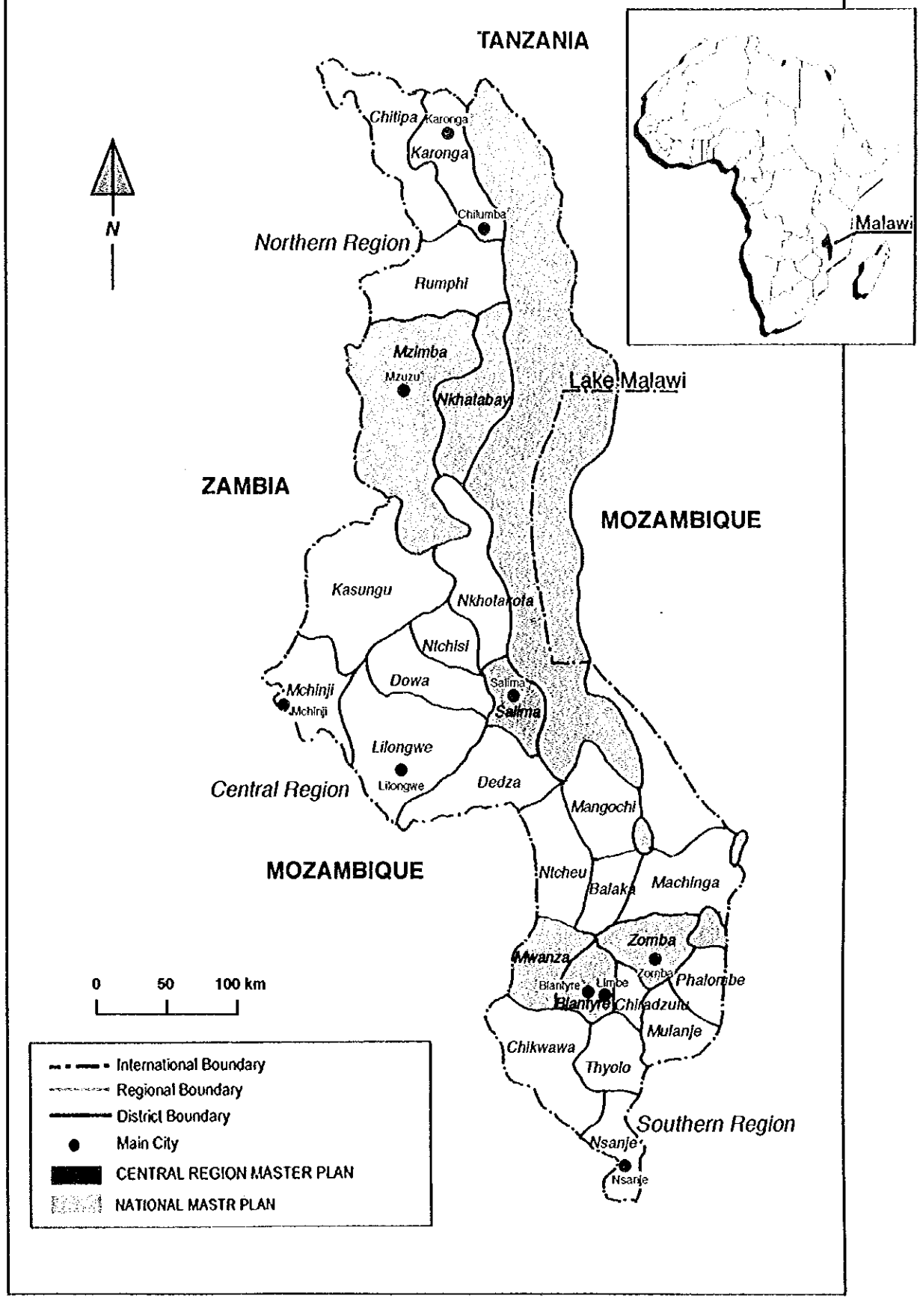
VOLUME 1
MAIN REPORT 1
NATIONAL MASTER PLAN

December 1999

ST. MARY'S HOSPITAL
GLOBAL LINK MANAGEMENT, Inc

In this Report, project cost is estimated at August 1999 price and at an exchange rate of US$1.00 = 45 Malawi Kwacha (MK).

Malawi - Administrative Regions and Districts



PREFACE

In response to a request from the Government of the Republic of Malawi, the Government of Japan decided to conduct a master plan study on strengthening primary health care services in the Republic of Malawi and entrusted the study to the Japan International Cooperation Agency (JICA).

JICA selected and dispatched a study team headed by Dr. Hiroyuki Nakano of St. Mary's Hospital and consisted of St. Mary's Hospital and Global Link Management, Inc. to Malawi, six times between June, 1998 and November, 1999. In addition, JICA set up an advisory committee headed by Dr. Takatoshi Kobayakawa, Professor of Tokyo Women's College of Medicine between June, 1998 and November, 1999, which examined the study from specialist and technical points of view.

The team held discussions with the officials concerned of the Government of Malawi and conducted field surveys at the study area. Upon returning to Japan, the team conducted further studies and prepared this final report.

I hope that this report will contribute to the promotion of this project and to the enhancement of friendly relationship between our two countries.

Finally, I wish to express my sincere appreciation to the officials concerned of the Government of Malawi for their close cooperation extended to the Team.

December, 1999

Kimio Fujita
President
Japan International Cooperation Agency

December, 1999

Mr. Kimio Fujita
President
Japan International Cooperation Agency (JICA)

LETTER OF TRANSMITTAL

Dear Sir,

We have pleasure to submit you the final report entitled "The Master Plan Study on Strengthening Primary Health Care Services in the Republic of Malawi".

The main outputs from the Study are broadly grouped into two components. One is to develop the Regional Master Plan for the improvement of primary health care services in the central region of Malawi. The other is the formulation of the National Master Plan for the strengthening of primary health care system in the entire country for the target year 2007.

The report consists of the Summary Report, Main Report, Supporting Report and Data Book. The Summary Report summarizes the results of all the studies. The Main Report contains the results of study and the Master Plan including prioritized projects. The Supporting Report includes details of investigations and the Data Book contains the data gained by analyses in the field study.

All members of the Study Team wish to express grateful acknowledgment to the personnel of your Agency, Ministry of Foreign Affairs, Ministry of Health and Welfare and Embassy of Japan in Zambia for all assistance extended to the Study Team. The Study Team sincerely hopes that the results of the study will contribute to the future health project in particular and to socioeconomic development of Malawi.

Sincerely,

H. Nakano

Dr. Hiroyuki Nakano
Team Leader

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF ABBREVIATIONS

AIDS	Acquired Immunodeficiency Syndrome
ANC	Antenatal Care
ARI	Acute Respiratory Infection
ARC	AIDS-related Complex
BFH	Baby Friendly Hospital
BLM	Banja La Mtsogolo
CBA	Child Bearing Age
CBD	Community Based Distribution
CDD	Control of Diarrhoeal Diseases
CHAM	Christian Health Association of Malawi
CHSU	Community Health Sciences Unit
CHV	Community Health Volunteer
CMS	Central Medical Stores
CPR	Contraceptive Prevalence Rate
DDC	District Development Committee
DEC	District Executive Committee
DFID	Department for International Development
DHO	District Health Office/Officer
DHMT	District Health Management Team
DPT	Diphtheria Pertussis Tetanus
DRF	Drug Revolving Fund
EHP	Essential Health Package
EOC	Essential Obstetrics Care
EPA	Economic Planning Area
EPI	Expanded Programme on Immunisation
EU	European Union
FEWS	Famine Early Warning System
FHHH	Female Headed Household
FGD	Focus Group Discussion
FP	Family Planning
FSP	Food Support Programme
GDP	Gross Domestic Product
GIS	Geographical Information System
GMP	Growth Monitoring Programme
GMV	Growth Monitoring Volunteer
GNP	Gross National Product
GOM	Government of Malawi
HA	Health Assistant
HIS	Health Information System
HIV	Human Immunodeficiency Virus
HSA	Health Surveillance Assistant
HSSP	Health Sector Strategic Plan
IDH	Illicit Drugs Handling
IEC	Information, Education and Communication
IMCI	Integrated Management of Childhood Illnesses
IMR	Infant Mortality Rate
JICA	Japan International Cooperation Agency
KAP	Knowledge, Attitudes and Practices
KII	Key Informant Interview
LRTI	Lower Respiratory Tract Infection
MA	Medical Assistant
MASAF	Malawi Social Action Fund
MCH	Maternal and Child Health
MEDP	Malawi Essential Drug Programme
MEPI	Malawi Expanded Programme on Immunisation
MMR	Maternal Mortality Rate
MOHP	Ministry of Health and Population
MDHS	Malawi Demographic and Health Survey
MTEF	Medium Term Expenditure Framework

NEC	National Economic Council
NGO	Non-governmental Organisation
NRU	Nutrition Rehabilitation Unit
OPD	Outpatient Department
OPV	Oral Polio Vaccine
ORS	Oral Rehydration Salts
PAP	Poverty Alleviation Programme
PDM	Project Design Matrix
PHC	Primary Health Care
PHN	Population, Health and Nutrition
PRA	Participatory Rural Appraisal
PSIP	Public Sector Investment Programme
RHMT	Regional Health Management Team
RHO	Regional Health Office
RMS	Regional Medical Store
SCF	Save the Children Fund
SCM	Standard Case Management
SDH	Salima District Hospital
SHP	Secretary for Health and Population
SP	Sulfadoxine/Pyrimethamine
STD	Sexually Transmitted Disease
TA	Traditional Authority
TB	Tuberculosis
TBA	Traditional Birth Attendant
TFR	Total Fertility Rate
U5	Under Five
UNAIDS	United Nations AIDS
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
URTI	Upper Respiratory Tract Infection
USAID	U. S. Agency for International Development
VHC	Village Health Committee
VHV	Village Health Volunteer
WB	World Bank
WFP	World Food Programme
WHO	World Health Organisation

Chapter 1

INTRODUCTION

CHAPTER 1: INTRODUCTION

The JICA PHC Study was divided into two cycles. The purpose of the first cycle was to formulate the Central Region Master Plan for strengthening primary health care (PHC) activities based on the study in the Central Region. The regional master plan including prioritised projects is presented in the Final Report, Volume 2: Central Region Master Plan. In the second cycle, further health surveys were conducted in the Northern and Southern Regions, and then the National Master Plan was developed based on the results of both the first and second cycle studies. The Final Report, Volume 1: Main Report, presents the current health situation analysis, a summary of study findings, proposed prioritised projects, as well as the national master plan for the improvement of PHC services in Malawi.

Three major health issues—childhood malnutrition, high maternal mortality and informal drug-sellers—were identified from the health surveys conducted in the first cycle. The five prioritised projects proposed for the Central Region were formulated based on these three core health issues. Although the proposed projects were basically geared towards the overall improvement of PHC in the country, further research and analysis was believed to be useful to complete the study. As a result, the focus on the second cycle was placed on the same health issues identified in the first cycle. In this chapter, the selection of the core health issues and the linkage between the first and second cycles is described.

1.1 SELECTION OF THE CORE HEALTH ISSUES

As indicated in Volume 2 of the Final Report, childhood malnutrition and high maternal mortality were identified as core health issues in Malawi based on the grounds detailed below. The informal drug-sellers (grocery and kiosk) issue was selected as the third important health matter because drug-sellers were looked upon as key players for the improvement of PHC in the country.

1.1.1 Necessity to Select Core Health Issues

The scope of work for the current development study was broadly stated as strengthening PHC activities in Malawi. However, because of the variety of health services involved in PHC and in order to plan effective projects, the study had to be narrowed down to specific target populations, diseases and health issues.

1.1.2 Direction

The following factors gave further direction to the study:

1) The significant gap between the current situation of the health services delivery system and the actual health needs from the demand side.
2) The recognition by the Government of Malawi that a sector wide and integrated approach was needed.
3) The fact that PHC has many components such as water and sanitation, EPI and human resources development further supported the need for a comprehensive approach.

1.1.3 Grounds for the Selection of the Core Health Issues

The following circumstances supported the selection of the major health issues:

1) The JICA PHC study targets the most vulnerable populations, namely, under five children and pregnant women. The main health issues for U5 children are malnutrition and infectious diseases, and that of pregnant women is high maternal mortality.
2) Current health statistics show a gap between the relatively favourable situation of health provision and yet poor health indicators. U5 mortality and maternal death are major contributors to this gap.
3) Based on the first cycle study, it became clear that childhood malnutrition is undoubtedly one of the most serious health problems in Malawi.
4) The first cycle study also showed that the referral system plays a key role in the health services delivery system, and particularly impacts maternal health.
5) The common practice of many villagers of purchasing drugs from informal sellers who lack medical training was thought to be significant, and therefore an avenue through which improvement to PHC could be made.

In addition, provision of necessary facilities and equipment, human resources development, community participation and other related PHC activities were considered critical to addressing the major health issues and strengthening the overall PHC system.

1.2 FROM THE FIRST CYCLE TO THE SECOND CYCLE

1.2.1 Evaluation of the Issues and Proposed Projects

Based on the results of the first cycle study, a total of 23 possible interventions for tackling health problems were developed from the three core health issues, and then five prioritised projects were proposed along the framework of the regional master plan. The situation analysis of the Malawi health sector and the proposed regional master plan were basically accepted at the meeting on the interim report with the Ministry of Health and Population,[1] but further investigations and refinement of the proposed prioritised projects were recommended. The highest priority

[1] Minutes of Meeting on Interim Report, Dec 1998.

project (Project 1: Capacity Building for Health Services Planning) is now being considered for funding.

JICA and MOHP agreed that the second cycle activities aimed at the formulation of a national master plan should focus on the same major health issues selected during the first cycle study. The second cycle study therefore focused on maternal health in the Northern Region and childhood malnutrition in the Southern Region, and possible solutions conceived from the study results were then incorporated into the national master plan. This process in essence meant that the first and second cycles were not separate, but rather a series of study activities.

1.2.2 Flow of Work

The flow of work for the JICA PHC study as a whole is shown in Fig. 1.1. Phase 1 is the period of the first cycle study conducted mainly in Salima District. This field study was broad and comprehensive, covering as many health issues as possible. In phase 2, the major prioritised issues resulting from phase 1 were targeted. In-depth studies for phase 2 were conducted in five selected districts in the northern and southern regions with a focus on childhood malnutrition, maternal health and drug-sellers issues. Phase 3 was the formulation of a national master plan including prioritised projects based on the second cycle study.

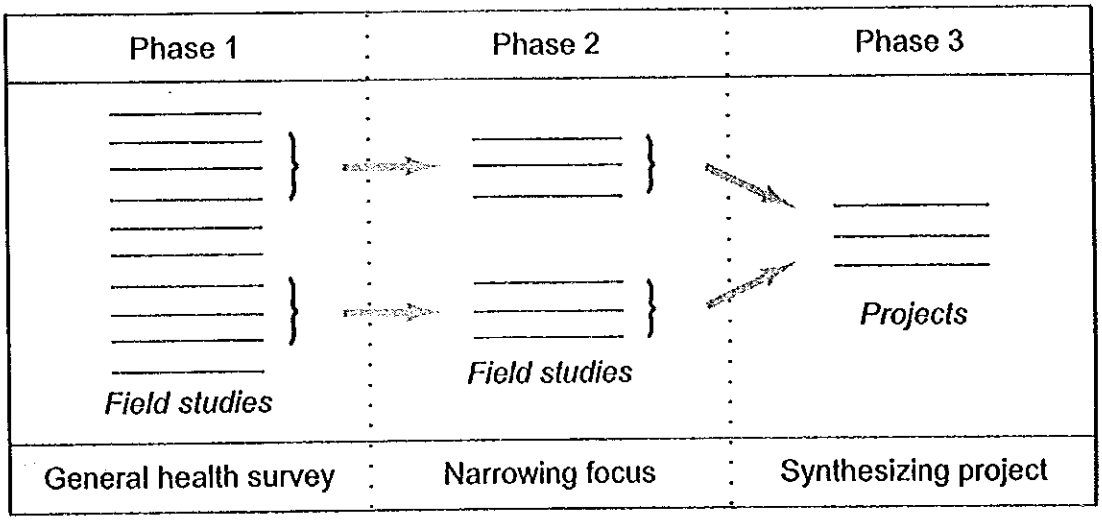


Fig. 1.1 Flow of Work for the Study

Chapter 2

SCOPE OF THE STUDY

CHAPTER 2: SCOPE OF THE STUDY

2.1 BACKGROUND

The health sector in Malawi is facing a very trying time, despite the government's efforts through its ten-year National Health Plan 1986-1995. The morbidity and mortality rates are still very high, and the average life expectancy at birth stands at barely 45 years (1995). In 1997, the government of Malawi announced its commitment to provide minimum health care services to the whole population using a community-based approach, and to strengthen the health care system by decentralising the government bureaucracy.

To improve the current health situation and achieve the goals stated above, it was recognised that priority needs to be placed on improving access to health services, reinforcing preventive health care, and upgrading curative services through the strengthening of primary health care (PHC) activities. However, one of the main challenges is to identify feasible strategies, including those on institutional reform, based on limited and often unreliable data and information about the current situation.

In response to a request submitted by the government of Malawi in late 1996, the Government of Japan sent a preparatory mission in January 1998 to initiate a Development Study to improve the health service delivery system. Both sides agreed that the scope of the study would be to investigate possible ways to strengthen PHC with an emphasis on the target populations of children under five and women of childbearing age.

2.2 STUDY OBJECTIVES

2.2.1 Objectives of the JICA PHC Study

The three objectives of the Development Study were:

1) To formulate a regional master plan to strengthen the PHC system of the Central Region,
2) To formulate a national master plan to improve Malawi's PHC system by the year 2007, and
3) To transfer essential research and analytical skills and methodologies including Geographical Information System (GIS), Participatory Rural Appraisal (PRA) and participatory planning methods to Malawian counterparts.

2.2.2 Course of the Study

The first cycle study focused on the first objective, that is, formulating the Central Region Master Plan.

The main objective of the second cycle was to formulate a national master plan for strengthening PHC activities in Malawi while transferring analytical skills and methodologies at the same time. To this aim, further studies were conducted in the Northern and Southern Regions to continue the research and analysis that began in the first cycle study in the Central Region. Throughout the second cycle study, essential research skills and participatory planning methods were transferred to counterparts. Finally, the national master plan was developed through discussions and participatory workshops with counterparts and related experts.

2.3 STUDY AREAS

According to the scope of work, Salima District in the Central Region was selected as the base camp for the first cycle. Hence, health investigations were carried out exclusively in Salima District for the formulation of the regional master plan. Similarly, Mzimba and Zomba districts in the Northern and Southern Regions respectively were set up as base camps for the second cycle with the intention of focusing study activities on those two districts. However, in a meeting with the Ministry of Health and Population at the end of the first cycle, it was suggested that the study area be expanded to include more than one district in each region. It was felt that the second cycle should cover an area as broad as possible for the development of a national master plan.

Therefore, in the second cycle, Nkhata Bay District in the north and Blantyre and Mwanza Districts in the south were included in the study areas in addition to Mzimba and Zomba Districts. These districts were selected on the basis that they are representative of the food and economic situation in each region, and also considering factors such as access and other donors' activities. In the Malawi Vulnerability Assessment & Mapping 1996,[1] each district is classified by an extension planning area (EPA) according to the main factor related to food security and income (Fig. 2.1). The dominant EPAs of the study areas are shown in Table 2.1.

Table 2.1 Dominant EPA of the Study Districts

District	Dominant EPA
Mzimba	Maize dominated cluster
Nkhata Bay	Mixed agriculture influenced cluster
Zomba	Income generating activity influenced cluster
Blantyre	Urban influenced cluster
Mwanza	Income generating activity influenced cluster

[1] Vulnerability Assessment & Mapping, Malawi Baseline, WFP, GOM and FEWS, 1996.

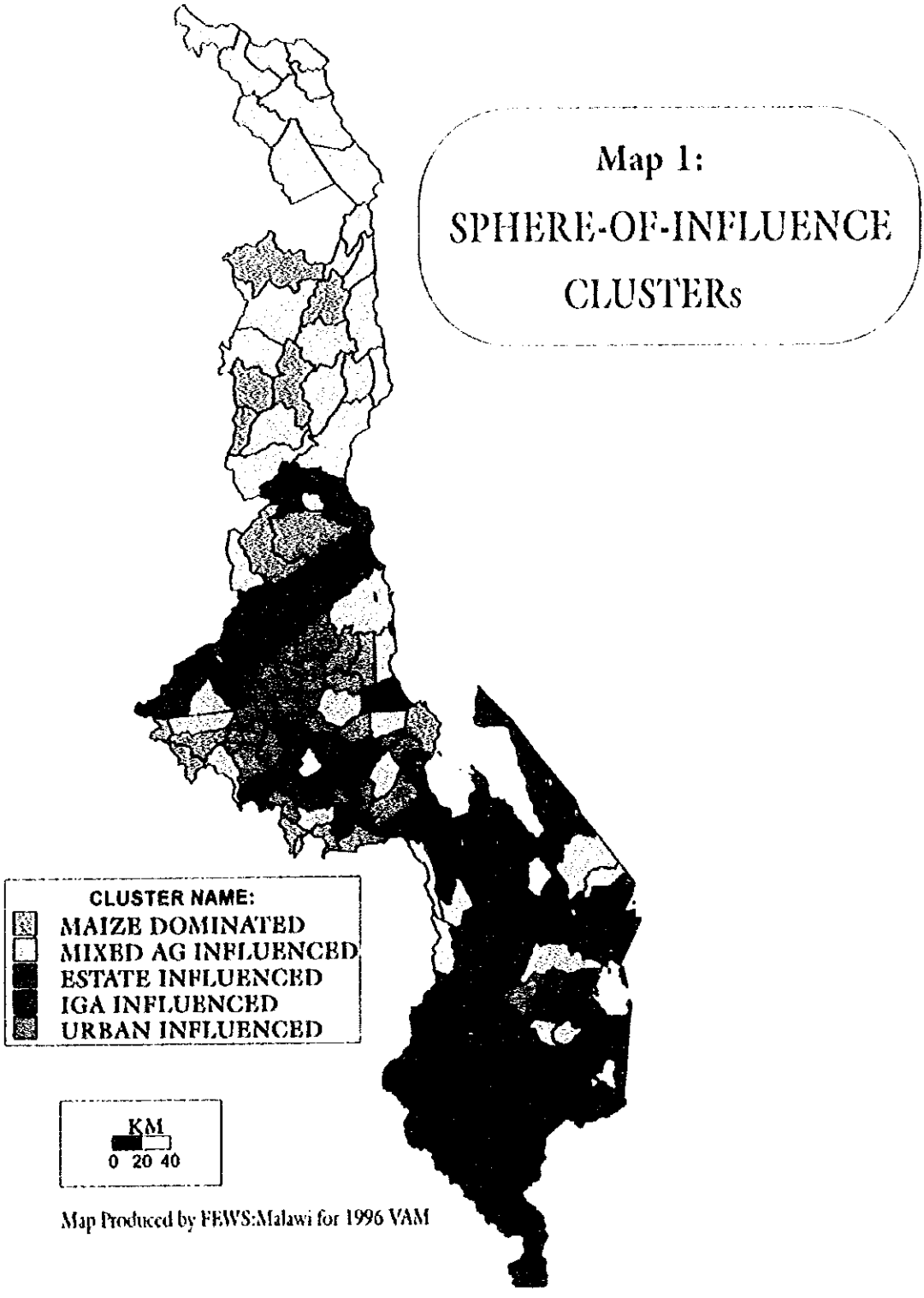


Fig. 2.1 EPAs Grouped by the Dominant Factor Influencing Food Security Behaviour (Vulnerability Assessment & Mapping, Malawi Baseline 1996)

2.4 IMPLEMENTING ORGANISATION

The Ministry of Health and Population (MOHP) acted as the counterpart body to the JICA PHC study team. A steering committee on the Malawian side was organised in June 1998, consisting of representatives from MOHP, Ministry of Treasury, National Economic Council, Ministry of Education, Ministry of Women, Youth and Community Services, Ministry of Water and Development, and other related organisations. A total of seven counterparts were enlisted to support data collection, field activities and interviews throughout the study. The list of counterparts and steering committee members[2] are presented in Tables 2.2 and 2.3.

Table 2.2 MOHP Counterparts

Field	Name	Title
Chief Counterpart	Mr. R.H.E. Mapemba	Deputy Director of Human Planning Services
Administrative	Mr. Kalima	Under Secretary
Nursing	Ms. L.D. Ng'oma	Controller of Nursing Services
Human Resources	Mr. S.L. Ngwira	Chief Human Resource Management Officer
Gender	Dr. A. Phoya	Safe Motherhood Coordinator
Technical and Research	Mr. G.B. Kadewere	Controller of Technical Health Support Services
Primary Health Care	Dr. W. Nkhoma	Controller of Preventive Health Services

The JICA PHC study team consisted of 10 members from various fields and was headed by a team leader who was responsible for maintaining close liaison with MOHP, JICA and the other agencies concerned (Table 2.4). An advisory committee on the Japanese side headed by Dr. T. Kobayakawa, a professor at Tokyo Women's Medical College, supervised the work throughout the study.

2.5 STUDY DESIGN

2.5.1 Study Focus

As mentioned previously, the situation analysis of the Malawi health sector and the regional master plan were basically accepted by MOHP counterparts after the first cycle study, however, it was argued that further investigations would be required for refining the proposed projects. Thus, the second cycle study focused on the two core health issues of childhood malnutrition and high maternal mortality to develop the national master plan including prioritised projects. In addition, geographic information system (GIS) and drug shopkeeper issues were also investigated.

For the second cycle study, maternal health was given emphasis in the Northern Region and childhood malnutrition in the Southern Region. One of the reasons behind this focus is the fact that the malnutrition "index" is generally higher in the south than in the north, and particularly

[2] Master Plan Study on Primary Health Care Services in Malawi, Ref.ADM/15/18/90. Sep. 1998.

outstanding in Zomba and Mwanza Districts.[1] Moreover, it was important to avoid duplicating a similar study in the Southern Region where the Safe Motherhood Programme has energetically conducted a maternal health project supported by DFID. In the end, however, many studies were actually carried out in both regions as shown in Table 2.5. Regarding the anthropometric nutrition survey, however, a total of 250 households were sampled in the south compared to 100 households in the north.

Table 2.3 Steering Committee Members on the Malawian Side

Ministry of Health and Population, Headquarters
Principal Secretary
Deputy Secretary
Controller of Health Technical Support Services
Controller of Preventive Health Services
Controller of Nursing Services
Controller of Clinical Services
Controller of Human Resource Management and Development
Principal Environmental Health Officer
Deputy PHC Coordinator
Senior Nutritionist
Technical Advisor, EU
Health Planners
Ministry of Health and Population
Regional Health Officer
National EPI Programme Manager
National PHC Coordinator
Logistics Officer, CHSU
Safe Motherhood Coordinator
Family Planning Coordinator
Officer-in-Charge, CHSU
Programme Manager for CDD, CHSU
Principal Statistician, CHSU
DHO, Salima
Other Ministries
Secretary to the Treasury
Secretary, National Economic Council
Secretary for Education
Secretary for Women, Youth and Community Services
Secretary for Water Development

Table 2.4 JICA PHC Study Team Members

Name	Company	Field
Dr. H. Nakano	St. Mary's Hosp	Team Leader/Tropical Medicine, MCH
Dr. A. Yomo	St. Mary's Hosp	Curative & Preventive Medicine
Dr. D. Hozumi	St. Mary's Hosp/Harvard Univ	HMIS, GIS, Epidemiology, Referral
Dr. S. Fabricant	GLM/JSI	Health Financing
Dr. M. Kishi	GLM/JSI	Social Medicine, Medical Anthropology
Ms. T. Saito	St Mary's Hosp	PHC, Environmental Health
Ms. S. Ichikawa	GLM	Health Planning, Human Resources
Ms. E. Fukushi	GLM	Community Participation, Gender, WID
Mr. Y. Yamada	St. Mary's Hosp	Health Facilities, Equipment
Mr. K. Nakagawa	St. Mary's Hosp	Project Coordinator

GLM: Global Link Management, Inc., JSI: John Snow, Inc.

2.5.2 Study Methodologies

The study methodologies adopted in the second cycle were basically the same as the ones used in the first cycle. Household surveys, client exit interviews at health facilities, in-depth interviews with health staff, and observation of PHC project activities were all completed for the supply side of health services, while qualitative research such as focus group discussions and key informant interviews were conducted for the demand side of health services (Table 2.5). In addition, a new methodology was employed, that is, the simulated patient survey for the drug-seller shopkeeper study. The methodologies used made it possible not only to compare the results of the first and second cycle studies but also to obtain in-depth and comprehensive information on the core health issues. Details of the study methodologies used in both cycles are described in the Final Report, Volume 4: Supporting Report.

2.6 STUDY SCHEDULE AND ACTIVITIES

2.6.1 Timing of the Study

The second cycle study was carried out for two months, from January 15 to March 25, 1999 (Fig. 2.2). Health investigations were actually carried out from the first week of February to the third week of March—a total of seven weeks. After completing the study, a meeting was held with MOHP on the preliminary report of activities in the second cycle, and at the same time implementation plans for the next fiscal year were discussed.

2.6.2 Workshop on the Second Cycle Study

On January 29 and 30, 1999, a workshop for MOHP staff and the health management teams in

the study districts was held. In the workshop, implementation plans for the health study were discussed and it was proposed that the study be conducted in cooperation with district counterparts. In addition, specific arrangements were made for each district according to four study areas—childhood malnutrition, maternal health, drug-sellers and qualitative research. The health management teams decided on sampling sites for the household surveys following the guidelines regarding sampling methods proposed by the JICA PHC study team. Terms of reference for counterpart staff in each district were also drawn up according to implementation plans.

Table 2.5 Study Methodologies Used in the Targeted Districts

Study Group/Methodology	Mzimba	Nkhata Bay	Zomba	Blantyre	Mwanza	Others
Maternal Health						
Household Survey						
Exit Interview						
In-depth Interview						
Qualitative Research						
Health Facility Assessment						
Clinic Observation						
Childhood Malnutrition						
Household Survey						
Anthropometry						
Qualitative Research						
Food Market Research						
Observation of Existing Projects						
Shopkeepers (drug sellers)						
Household Survey						
In-depth Interview						
Simulated Patient Survey						
Qualitative Research						
Social and Health Infrastructure						
Geographic Information System						

2.6.3 Implementation of the Second Cycle Study

Following the workshop, the second cycle study was initiated. Detailed arrangements were made with research assistants for most of the scheduled studies, and comprehensive training and trial tests were conducted to ensure the smooth implementation of the study.

Qualitative research started on February 1, and household surveys were carried out from February 12. The final study was observing the nutrition project in Dedza District, and all of the scheduled

studies were completed by March 19. Each study commenced in Mzimba District in the north and moved southward in consideration of access difficulties during the rainy season. Despite this plan, however, it was difficult to reach some sampling sites for the household survey particularly in Zomba District due to bad road conditions.

2.6.4 Meeting on the Preliminary Report on the Second Cycle Study

On March 18, a meeting was held at MOHP on the course of the second cycle study and preliminary results. It was agreed that a national master plan for strengthening PHC should be formulated based on the results of the study and through discussions with counterparts.

2.6.5 Study Plan for Fiscal Year 1999

The major decision regarding study activities for the new fiscal year from April 1999 was to develop a national master plan including prioritised projects, which were compiled into progress report (2). In order to verify the effectiveness and feasibility of the proposed projects, a pilot study was conducted focusing on maternal health in terms of the emergency referral system using radio communication equipment with GIS and epidemiological methodology.

The third period of activity in Malawi for the JICA PHC study was three months between 23 June and 20 September, 1999. During this time, progress report (2) was discussed, the workshops for developing projects were held, and the proposed projects were compiled into progress report (3).

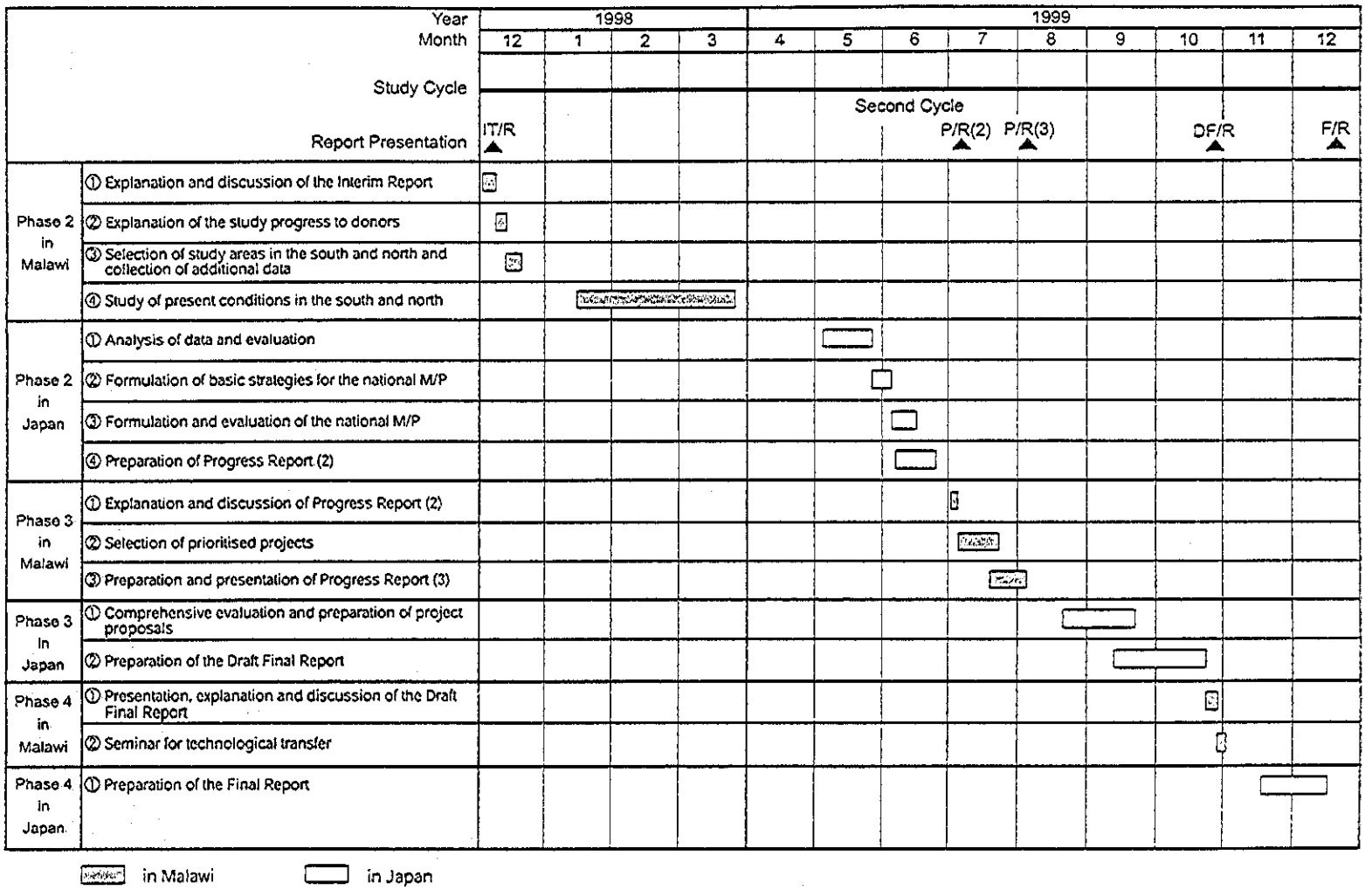
2.6.6 Meeting on Progress Report (2)

Progress report (2) in which the study results of the second cycle and the formulation of the national master plan for strengthening PHC services are major components was submitted to MOHP on 30 June, 1999. A meeting on progress report (2) was then held on 7 July with 26 participants.

In this meeting, the process for formulating a master plan was first introduced, and the second study results were discussed along the lines of the major issues of childhood malnutrition, maternal health and drug-sellers. Some questions concerning the study results that arose from the discussion were further analysed with the resultant findings attached in the minutes of the meeting.

Following this, the master plan of operations for each health issue was proposed. After receiving acceptance on the framework of the master plan at the meeting, it was agreed to develop prioritised projects following further discussions with counterparts and related experts based on the concept of the master plan. The results of the discussions and items agreed on were compiled into the minutes of meeting for progress report (2).

Fig. 2.2 Study Schedule and Activities - Second Cycle



2.6.7 Group Meeting for Development of Prioritised Projects

The development of the prioritised projects was one of the most important aspects of the JICA PHC study as the projects form the major component of the national master plan. Therefore, it was considered essential to formulate the projects in collaboration with Malawian counterparts as well as related people from other organisations concerned with the targeted health problems. To this end, group meetings on each health issue were planned as follows:

1) Childhood Malnutrition Group

The group meeting for childhood malnutrition was held from 19 to 23 July at Club Makokola in Mangochi District. Eight participants in addition to the study team joined the meeting. The group divided into subgroups to discuss the following three topics relating to childhood malnutrition:

- Integrated management of childhood illnesses (IMCI)
- Growth monitoring programme (GMP)
- Community gardening

Based on the results of the group meeting, the following prioritised projects were proposed:

- Strengthening Community-Based GMP to Prevent the Development and Relapse of Malnutrition
- Promoting Community Food Security, Dietary Diversification and Modification
- Expanding IMCI Nation-wide and Promoting Community-based Management of Childhood Illnesses

2) Maternal Health Group

The group meeting for the maternal health group was also held from 19 to 23 July at Club Makokola. The meeting included 10 participants in addition to the study team. The maternal group was also divided into three subgroups to discuss the following topics:

- Basic infrastructure
- Capacity building of health workers
- Improved information, education and communication on maternal health

As a result of the meeting, the following prioritised projects were formulated:

- Capacity Building for Maternal Health
- Improvement of Health Facilities for Provision of Essential Health Care Package
- Improved Information, Education and Communication (IEC) on Maternal Health

Social Marketing:
Social marketing is a concept of using normal marketing strategies and techniques to promote a socially useful product or service, with the cost of the marketing program and the product subsidized in order to increase demand. The most common example is condoms. It was found that the demand for the free condoms supplied by donors (mainly USAID) was very low, so the same condoms from the USA are now repackaged in locally appropriate and attractive packaging, given a name and logo that has local meaning, and advertising campaigns using slogans, billboards, radio jingles, theatre, etc. used to generate demand. Distribution of the product is often through normal commercial channels, which may be strengthened by the social marketing program. Other social marketing campaigns related to public health have included oral rehydration salts, and more recently, impregnated bednets. All of these are being done in Malawi under a USAID contract.

3) Drug-sellers Group

The group meeting for drug-sellers issue took place on 23 July at Pharmacies, Medicines & Poisons Board (PMPB) with nine participants. Most of the Malawian participants were pharmacists, and the others belonged to PHC services or malaria control programmes. The round table discussion was conducted on the second cycle study results, and then the following issues were considered in terms of the development of the prioritised projects:

- Community level efforts in the malaria control programme
- "Social marketing" and introduction of oral rehydration salts (ORS)
- Drug revolving funds (DRFs) and presidential health initiative
- Project design and implementation

The project, Improving the Role of Village Shopkeepers (Drug-sellers) in Primary Health Care, was proposed based on the results of the meeting.

2.6.8 Additional Studies for the Second Cycle

For the maternal health group, two additional studies for the second cycle were conducted in Mzimba District from 15 to 30 July. The objective of the first study was to check the functional status and problems of the basic infrastructure such as water supply, electricity and radio communication system in the health facilities. The second study was carried out to estimate the rate of deliveries in district hospitals and health centres in relation to accessibility of health facilities. In addition, a pilot study was conducted regarding the emergency referral system.

2.6.9 Formulation of the National Master Plan

The prioritised projects developed through discussion at the group meetings were compiled into progress report (3), and they were further considered at a meeting with MOHP. Based on the results of these discussions, the final national master plan was further elaborated and compiled into the draft final report. Finally, after review and comments from the Malawian side, the final report was revised and completed.

Chapter 3

HEALTH SITUATION ANALYSIS

CHAPTER 3: HEALTH SITUATION ANALYSIS

3.1 GEOGRAPHY AND CLIMATE

3.1.1 Geography

Malawi is a landlocked country, located between latitude 9° 22' and 17° 7' south, and between longitude 32° 40' and 35° 55' east in the southern half of the African continent. The country occupies a total area of 118,483 square kilometres of which 94,275 square kilometres (80%) is occupied by land and the remaining 24,208 square kilometres (20%) by water. The country shares borders with Tanzania on the north-east, Zambia on the west, and Mozambique wraps around the country from the south-east to the south-west (Fig. 3.1).

Lake Malawi is one of the Great Rift valley lakes and occupies Malawi's eastern border. It is Africa's third and the world's eleventh largest lake measuring about 550 kilometres in length and 15 to 80 kilometres in width. The depth of the lake ranges from 475 meters to 230 meters below sea level. Shire River drains Lake Malawi and runs southwards into Zambezi River in Mozambique, which finally drains into the Indian Ocean.

Altitudes range from 37 metres where Shire River crosses into Mozambique to 3,000 metres at the peak of Mount Mulanje. In the southern region, the districts of Chikwawa and Nsanje are located along the flood valley of the Shire River and floods are experienced from time to time. In the central region, the topography is flat in the agricultural districts of Lilongwe, Mchinji and Kasungu but becomes hilly northwards.

3.1.2 Climate

Malawi's climate is tropical continental with maritime influences. Temperatures range from just below the freezing point in the months of May to July in the highlands of Dedza and Mzuzu to above 40° Celsius towards the end of the hot dry summer (October) in the Shire valley region. In essence, Malawi has three seasons: cool and dry, from May to August; warm and dry, from September to November; and warm and wet, from December to April. The annual rainfall ranges from about 600 to 3,000 millimetres with the highlands of Mulanje receiving the most and the Lower Shire valley and Chitipa plain receiving the least.

Fig. 3.1 Map of Malawi Showing the Country's Relationship to Its Neighbours

3.2 LAND USE

Malawi has a total land area of 94,275 square kilometres of which about 25 percent is arable, 20 percent occupied by meadows and pastures, 50 percent occupied by forests and woodlands and the remaining 5 percent used for other miscellaneous uses. Current estimates indicate a sharp decline by almost 30 percent in forests and woodlands due mainly to deforestation and encroachment. This is a result of Malawi's reliance on wood-fuel (95%) as the main energy source with only 3 percent of energy requirements being derived from hydroelectric power. Almost 1.6 percent permanent deforestation occurs every year to satisfy the daily energy and other needs of the general population especially in rural areas.[1]

Land in Malawi is divided into three main categories: customary land (70%), leasehold and freehold land (10%) and public land (20%). Customary land is managed under the traditional land tenure system under which one inherits land from ancestors but does not have a right to sell. The amount of land under leasehold and freehold increased almost tenfold during the early 70s as government switched from a smallholder to an estate led agro-economy.

3.3 DEMOGRAPHY

The population of Malawi grew from 737,000 in 1901 to 9.8 million in 1998. The annual intercensal population growth rate between 1966 and 1977 was estimated at 2.6 percent and the rate went up to 3.7 percent between 1977 and 1987 before declining to 1.9 percent between 1987 and 1998. The sex ratio, i.e., the number of men for every 100 women, has gradually normalised from 93 in 1977 to 94 in 1987 and 96 in 1998.

Changes in the population age distribution shows that 47 percent of the population in 1966 and 1977 were children below 15 years of age. This proportion dropped slightly to 46 percent in 1987 before further dropping to 44 percent in 1998. The population growth in the southern region has been relatively lower than that of the other regions, with the northern region growing at the highest rate throughout the three censuses.

In 1977, the population distribution was 52 percent, 42 percent and 6 percent of the total population living in the Southern, Central and Northern regions respectively. In 1998, the distribution changed to 46 percent, 41 percent and 13 percent respectively. However, despite these changes, the Southern region remains the most densely populated in the country. Its population density increased by 66 percent from 87 persons per square kilometre in 1977 to 144 persons per square kilometre in 1998.

The population density of the Northern region almost doubled during the same period from 24 persons per square kilometre in 1977 to 46 in 1998, and that of the Central region increased by 90 percent from 60 persons per square kilometre in 1977 to 114 in 1998.

[1] Francis Mkanda, Possible solutions for the furtherance of positive public attitudes toward national parks and game reserves in Malawi, 1991

Urbanisation has not changed since 1987 and remains low with only 14 percent of the population living in cities and towns.

3.4 ORIGIN OF THE PEOPLES OF MALAWI, THEIR CULTURE AND SOCIAL SETTINGS

3.4.1 Origin of the Peoples of Malawi

Malawi is culturally diverse and has close to twenty local tribes, each with its own unique culture and language. This diversity emanates from the distinct origins of the people who now make up the Malawi population.

The first large migration was that of the Malavi tribe or the Chewa who came from Uluwa in northern Zaire. They now make up more than half of the population in the central and southern regions. The second large migration was that of the Yao who came from Mozambique and inhabited most of the southern region and parts of the central region. The Tumbuka or Balowoka tribe came from Tanzania around the same time as the Yaos to inhabit most of the now northern region. The last large tribe to enter Malawi was the Ngonis from southern Africa.

3.4.2 Culture and Social Settings

Although there are many cultural differences among the tribes, most of them conform to the Bantu culture of East, Central and Southern Africa. This culture is characterised by belief in ancestral powers and spirits and total respect for elders. Regarding family systems, two distinct lines of family and inheritance arrangements exist. The Tumbukas and Ngonis follow a patriarchal family system while the Chewas and Yaos follow a matriarchal system.

In societies where patriarchal systems are followed, marriage involves a woman leaving her parents to stay with her husband (*lobola*[2] or *Chitegwa*[3]), his parents and relatives. In matriarchal societies, the man leaves his parents to stay with his wife, her parents and other relatives (*Chikamwini*). In the matriarchal system, the woman and her family make up the core of an extended family system and represent the family decision-making entity. The opposite is true for patriarchal societies where the man and his relatives are the main decision-makers. As such, the power balance between the two genders largely reflects the family system with women being more powerful than men in matriarchal societies and the opposite being true in patriarchal societies.

Although in international terms Malawi is considered a poor country, poverty is largely measured using quantifiable social and economic indicators. However, the cultural fabric of

[2] The man pays a bride price as part of the marriage arrangement (Tumbukas)
[3] The man requests and is allowed to take the woman without paying bride price (Ngoni)

Malawi is rich and can be considered a major asset of the country. Shared beliefs and customs provide a common bond in the communities by defining social roles for men, women, children and the elders. Conformity to such beliefs is considered normal and any deviations serve as explanations for calamities or misfortunes that may befall members of the village or one's extended family. In order for children to be considered adults, various rights of passage (some considered harmful in the modern world[4]) are performed to mark the transformation.

These traditional beliefs propagated from generation to generation provide widely accepted explanations for most life events in the community including sickness and death. Therefore, health workers face enormous difficulty in discouraging certain practices relating to marriage, sex, pregnancy, childbirth and childhood nutrition which are considered harmful in terms of modern medical and social understanding.

3.4.3 Religion

Religion in the present sense did not exist in Malawi until the arrival of Western missionaries. Before the arrival of missionaries, Malawians worshipped their ancestral spirits. Among the Chewa people, for example, *Gule Wankulu*, one of the remaining traditional dances, was one of the modes of worship of ancestral spirits.

The coming of Western missionaries marked the beginning of the end of the traditional forms of worship. Today, most rituals for worshipping the ancestral spirits are no longer performed. Outside religions were introduced towards the end of the 19th century, with Islam being the first, brought by Arab slave traders. Islam was mainly confined to the Yao tribe who had developed ties with the Arabs in facilitating slave trade. Christianity soon followed starting with protestant missionaries from the Universities Mission to Central Africa (UMCA) from the UK. The Catholics arrived a short time later. Christianity quickly spread as a result of the introduction of modern education and health services, and due to the fight of the missionaries against slave trade.

3.5 POLITICS AND GOVERNMENT

3.5.1 Political System

Malawi as a state was born during the colonial era when its present national borders were drawn. At that time the country became known as Nyasaland. This name prevailed during colonial rule until 1964, when independence was granted and the first postcolonial head of state, Dr. Hastings Kamuzu Banda, changed the name of the country from Nyasaland to Malawi. Dr. Banda ruled Malawi from the time of independence until 1994 under a one-party political system. In 1994, multi-party elections took place and government changed

[4] Such as girls and boys initiation ceremonies where they are taught about adulthood sexuality through demonstrations

hands, with Dr. Bakili Muluzi becoming the new head of state. Elections were repeated in 1999 at which time Dr. Bakili Muluzi retained the presidency.

The three main political parties in Malawi are the United Democratic Front (UDF), the current ruling party; Malawi Congress Party (MCP), the ruling party between 1964 and 1994; and Alliance for Democracy (AFORD). In addition to these three parties, smaller parties exist but do not currently have seats in the National Assembly.

The government system in Malawi is provided for by the constitution and is based on a separation of powers along three branches of government, namely the Executive, Legislature and Judiciary. This separation of powers operates in a way to check and balance each other (Fig. 3.2).

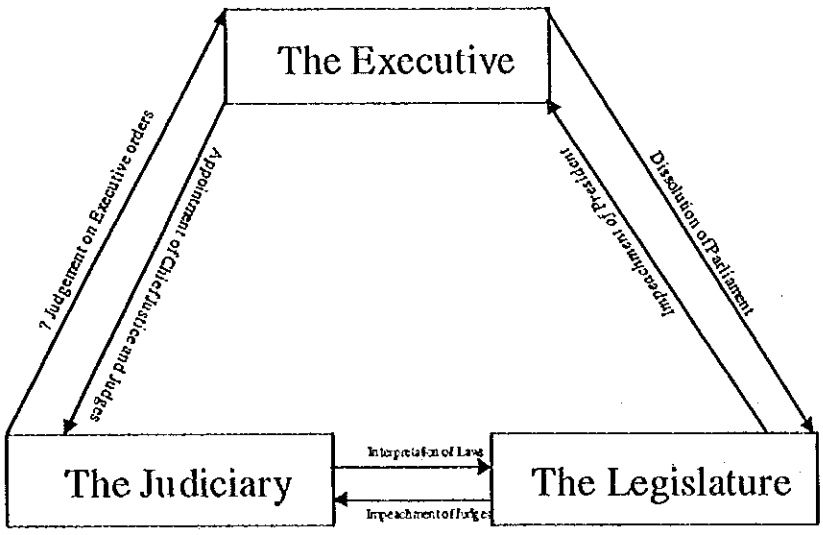


Fig. 3.2 Branches of Government and Separation of Powers

The President and Members of Parliament are elected for a five-year term of office. The elected parliamentarians form the legislature branch of government and together with ministers appointed by the President make up the membership of the National Assembly. However, only elected parliamentarians can vote in the National Assembly. The constitution also provides for an upper house of parliament. However, as a result of financial constraints, this has not been implemented since the adoption of the constitution in 1994.

The State President together with the appointed ministers form the executive branch of government. Cabinet committees are formed for each major sector and act as the highest policy making body for the particular sector. For the health sector, the Cabinet Committee on Health and Environment is the highest policy making body.

The executive branch of government is responsible for running government affairs and Ministers are appointed to head each of the central government ministries or departments.

There are four top central government ministries, namely the Office of the President and Cabinet (OPC), Ministry of Justice, Ministry of Finance, and the Ministry of Foreign Affairs, as well as seventeen implementing or line ministries one of which is the Ministry of Health and Population.

The judicial branch consists of the Chief Justice, Judges and Magistrates, of which the Chief Justice and Judges are appointed by the State President. The judicial system operates through courts from the low or magistrate courts to the high and supreme courts. There are plans to establish a constitutional court as an added mechanism for the judiciary to balance out the legislature.

3.5.2 Move towards Decentralisation

Until recently, Malawi had one level of government with the ministries operating vertically from the national level down to the implementation level in the communities. In 1999, a bill was passed to pave the way for the introduction of a two-tier government system. The bill was due to be implemented soon after the 1999 Local Government elections, which were planned to take place soon after the Presidential and Parliamentary elections. However, the elections have been postponed to the year 2000 due to financial reasons.

According to the bill, the central government will transfer the management of local affairs to local governments, which will operate their own local assemblies with limited legislative powers. As such, local governments will become the custodians for the direct provision of health, education and environmental services to the communities. Operational funds for running these services will be secured by local governments through collecting local taxes. In addition to the local resources, central government will provide grants to the local governments on a capitation basis. The present District Development Committees (DDCs), in which Members of Parliament, traditional chiefs and political party representatives take part, will be transformed into local assemblies.

Below the district level, two independent administrative systems exist. The first is based on politics and the second is based on traditional authority systems. Under the political structure, Members of Parliament are elected to represent constituencies, which straddle many villages and may go beyond the boundaries of a particular Traditional Authority (TA). Each constituency is subdivided into wards where a Councillor is elected through the local government election as a representative at that level.

Under the traditional structure, chiefs or Traditional Authorities (TA) represent traditional authority areas. A traditional authority area comprises a number of related villages. TA's leadership is based on ethnic ancestry and they are chosen on a succession basis from particular royal families. Below the TA are villages each headed by a Village Headman. Like the TA, the Village Headmen are elected through succession rights in the village's royal family. The village is therefore the basic organisational and administrative unit for the people.

As a result of these two parallel administrative systems, both traditional chiefs and politicians represent people at the grassroots level in the DDC which is the district equivalent of a Local Assembly (Fig. 3.3).

In the towns and cities, the traditional structures do not exist, so people living there are only represented by Members of Parliament and Councillors. In cities, mayors are also elected through the local government election system to head the affairs of cities.

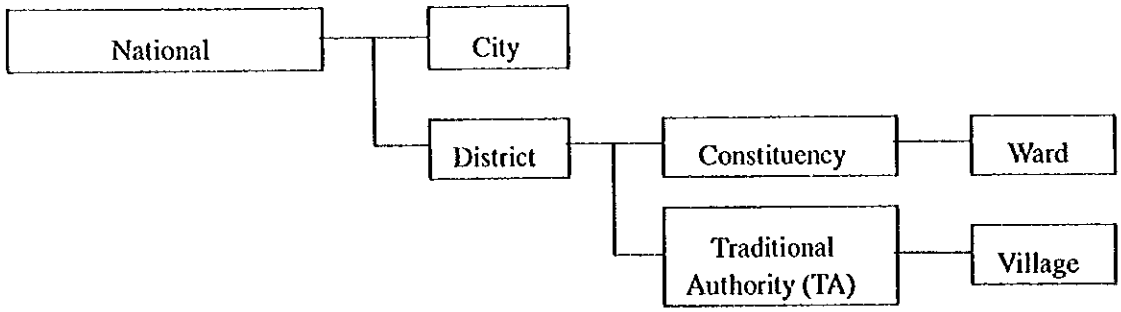


Fig. 3.3 Proposed Two-tier Government System

3.6 ECONOMY

3.6.1 Overview

Malawi is one of the poorest countries in the world with a per capita income of 170 US dollars.[5] Its economy is agro-based with the agricultural sector accounting for 35 percent of Gross Domestic Product (GDP) and employing more than 92 percent of the population, mainly through subsistence farming. Manufacturing accounts for only 13 to 14 percent of GDP.

The Malawi economy performed positively from independence in 1964 to 1979, with an average growth in per capita real GDP of 5.2 percent.[6] Then, the oil shock of 1974 followed by the Mozambique civil war which disrupted supply routes leading to a rise in CIF costs from 19 to 38 percent of import costs and later followed by a drought in 1981, caused the economy to register a negative growth for the first time in 1980. This forced the Malawi government to adopt economic policy reforms under the sponsorship of IMF and World Bank. In the first phase of the Structural Adjustment Programme, 1981 to 1986, emphasis was on fiscal and external stabilisation, restructuring of the major public and private parastals, and limited liberalisation of prices. The second phase, 1988 to 1993, focused on

[5] World Bank Report, 1995
[6] Wycliffe Chilowa, The Impact of Agricultural Liberalisation on Food Security in Malawi, 1990

tax, tariffs and trade reforms. However, these reforms have been hampered by further worsening of terms of trade and exogenous shocks including the intensified Mozambican war bringing a large influx of refugees into Malawi in the late 80s, combined with droughts in 1992 and 1994. Because of these problems, the economy was turbulent with improved long-term trends only starting to emerge after 1995 (Fig. 3.4).[7]

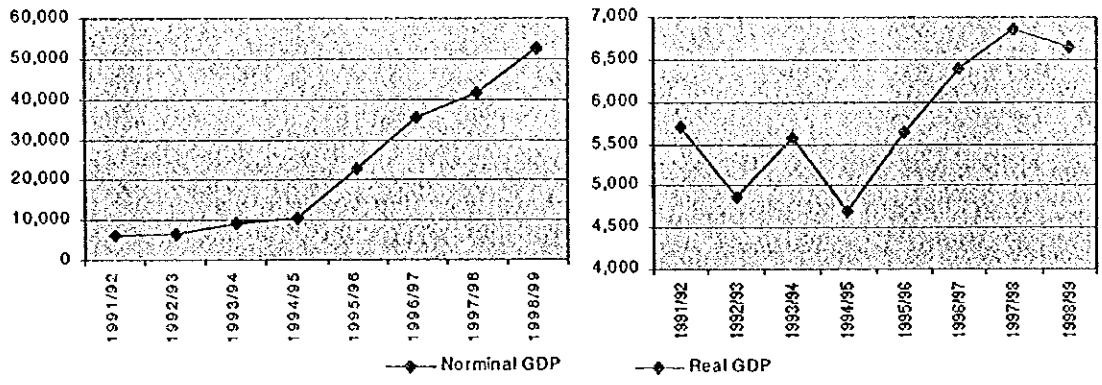


Fig. 3.4 Nominal and Real Gross Domestic Product (1990 Prices)
Source: Government Economic Reports

The Malawi labour pool is generally unskilled and untapped. Less than 20 percent of the labour force is in formal employment while over 80 percent is engaged in the non-formal sector, with self-employment in subsistence farming dominating followed by labour on estates and larger farms. Of the labour force in formal employment, more than half is in agriculture-related industries (Fig. 3.5).

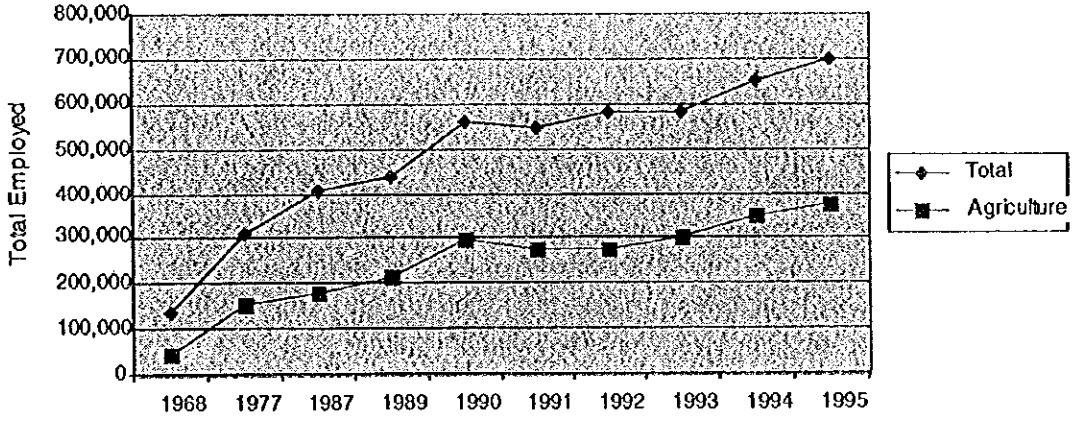


Fig. 3.5 Share of Formal Employment in Agriculture and Other Sectors
Source: Reports from Ministry of Labour

[7] Poverty in Malawi; A situation analysis, 1990

3.6.2 Government Expenditures

Government expenditures have steadily gone up in nominal terms in line with increasing revenue (Fig. 3.6). In 1998/99, the total government expenditure was lower than net resources available as a result of a failure on the part of donors to release some of the committed funds due to government's non-fulfilment of attached conditionalities.

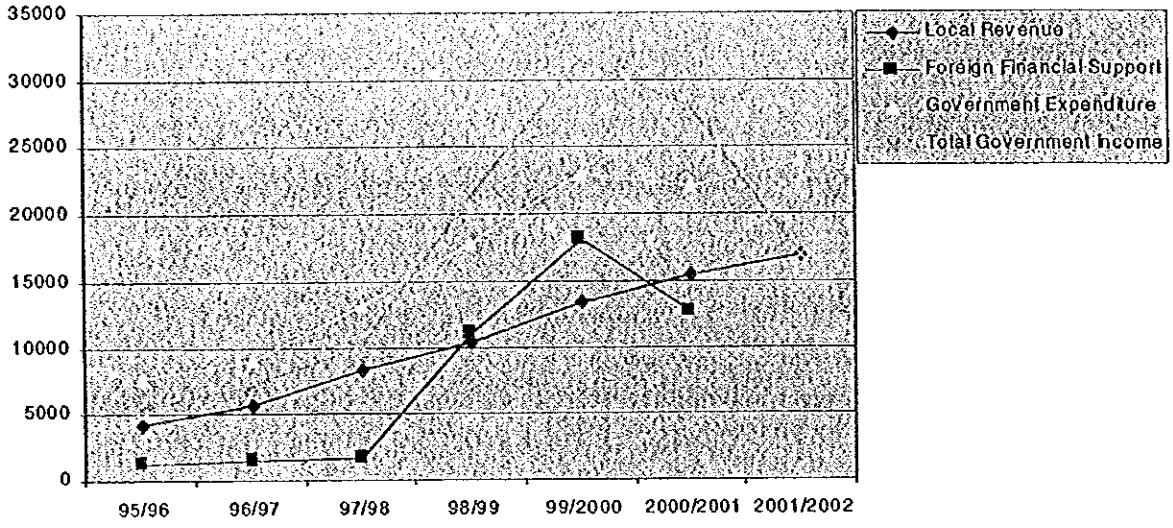


Fig. 3.6 Trends in Government Expenditures and Available Income
Source: Government's Parliamentary Budget Statement, July 1999

In 1994, under the poverty alleviation programme, government changed the emphasis of its recurrent budget expenditure from the economic sector to the social sector. With this change, health's share of the total budget (recurrent and development budgets) increased from 7 percent in 1994/95 to 9 percent by 1997 (Fig. 3.7). Actual health expenditures (at current prices) were MK447.1 million for 1995/6, MK739.6 million for 1996/7, and MK970 million for 1997/8. For 1998/9, the MOHP's expenditure reached MK2,036.2 million in nominal terms. Calculated in real prices, the MOHP's tight level of health spending is obvious: while the absolute and per capita levels of recurrent expenditures more than doubled nominally, at 1990 constant prices the increase in expenditures was only 45 percent between 1994/95 and 1998/99 (Fig. 3.8). In per capita terms the change in expenditure between 1994/95 to 1998/99 translates to an increase from 19 to 26 Malawi Kwacha or a constant expenditure of US $5.00 per capita.[8]

[8] Malawi Health Expenditure Review, the World Bank, April 1999

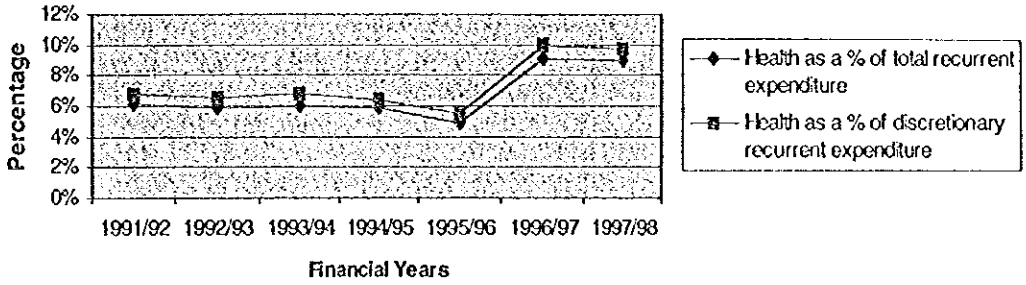


Fig. 3.7 Health's Share of Government Recurrent Expenditure, 1990/91 – 1997/98
Source: Malawi Government Economic Reports 1995 and 1998, and Ministry of Finance

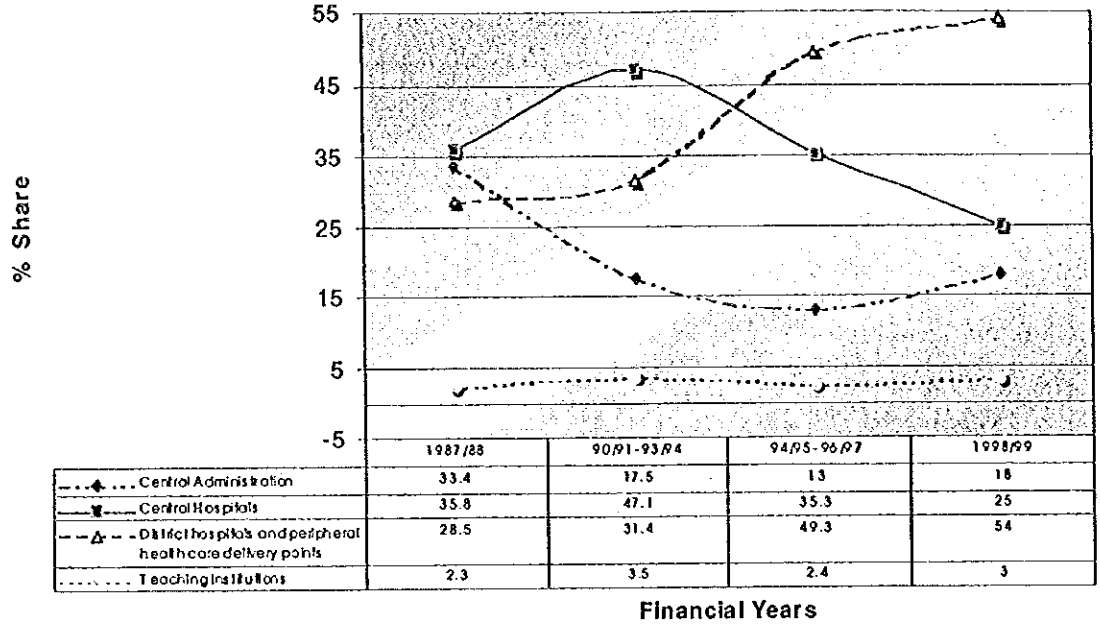
Estimates of the resource basket for the health sector show that in total, the health sector has available to it about US $9.00 per capita of which $4.00 is from government, another $4.00 from donors/lenders and the remaining $1.00 from private sources. The government channels most of its resources through the Ministry of Health and Population and a small portion through the Christian Health Association of Malawi (CHAM) for local salaries. Donors, on the other hand, channel most of their resources through projects outside of government and a substantial amount of the allocated funds is spent on technical assistance. The resources that are actually used in health services provision are estimated at less than a third of the allocated project funds considering the substantial overhead costs for administering each vertical project.

The distribution of government resources over the last ten years shows that central administration used almost 16 percent of the total while central hospitals used about 42 percent, district hospitals and rural service delivery points together used 40 percent, and the remaining 3 percent was used for training institutions. Regarding donor expenditures according to line items, about half is used for goods and services and 30 percent for personnel salaries and benefits as summarised in Table 3.2 on page 3-14.

Separation of district expenditures among administration, district hospitals, health centres and community-based services is not possible since no study has been done in this area and the available budget expenditure details do not provide such a differentiation. However, a study carried out in 1992 showed that 70 percent of the total district expenditure was for district hospitals.[9]

Estimates in 1997 indicated that district hospitals' share of the budget had declined to less than 50 percent mainly as a result of almost 3,000 Health Surveillance Assistants employed between 1990 and 1997 to serve the rural areas of all districts. In fact, the overall increase in districts' share of the health budget during the years 1990 to 1997 largely reflects additional funds allocated to cover the salaries of HSAs.

[9] Mills, A study on health expenditures based on expenditure data for 1987/88 financial year, 1992



	1987/88	90/91-93/94	94/95-96/97	1998/99
Central Administration	33.4	17.5	13	18
Central Hospitals	35.8	47.1	35.3	25
District hospitals and peripheral healthcare delivery points	28.5	31.4	49.3	54
Teaching Institutions	2.3	3.5	2.4	3

Fig. 3.8 Distribution of Actual MOHP Expenditure by Level (%)
Source: Analysis of Public Expenditures on Health in Malawi, 1998 and MOHP budget books

3.6.3 Donor Co-ordination

Donors are currently the second largest source of funds for the health sector in Malawi, with six bilateral and nine multilateral donors active (Table 3.1). According to a recent World Bank study, donor allocations to health rose from 16 percent of the total donor budget/expenditure for Malawi in 1994/95 to 23 percent in 1997/98. For 1994/95, donor assistance to the health sector was 50.4 million US dollars and for 1997/98, it increased to 86.0 million US dollars.

The majority of donor resources are channelled through projects with only 16.5 percent channelled directly through MOHP's health delivery structure. In the government framework, donor aid is co-ordinated by the Ministry of Finance with MOHP responsible for technical co-ordination, that is, identifying health needs and implementing grant/loan assisted projects. Yet, many donors channel their funds through other mechanisms, particularly international and national NGOs. With the increased number of donor supported projects, the MOHP is often overwhelmed by the demands required by donor agencies.

Table 3.1 List of Main Donor and International NGO Organisations in Malawi

Multilateral donors	UNDP/UNAIDS UNICEF UNFPA UNHCR WHO	World Bank European Union WFP IDA
Bilateral donors	DFID USAID JICA	Netherlands Government KfW/GTZ CIDA
International NGOs	Salvation Army International Eye Foundation ACTION AID Save the Children (UK) Save the Children (USA) Medicins San Frontieres	CPAR Project Hope AFRICARE World Vision International Plan International

There are 11 international NGOs working in the health sector in Malawi. Donor supported projects focus principally on primary, preventive and promotive care. Two third of the projects and 84.2 percent of their budgets are oriented to primary health services. Many projects are focused on HIV/AIDS, family planning, and support to community initiatives at the district level.[10]

Data available on expenditure items show that about 10 percent of all donor resources are spent on training (long/short-term and workshops), almost 30 percent on technical assistance and 8 percent on other project operating costs (Table 3.2). Operating costs captured were those incurred at the donor level while those at the implementation level could not easily be computed.

The proposed health sector reforms in the 4th National Health Plan focus on strengthening donor co-ordination at the national level and avoiding the fragmentation of the health sector. This is a desirable move especially with decentralisation in order to avoid donors dealing directly with districts and duplicating efforts.

[10] Malawi Health Expenditure Review, the World Bank, April 1999

Table 3.2 Classification of Donor Health Expenditures by Item of Expenditure

Item of Expenditure	1996/97 Amount (US$)	1996/97 % Share	1997/98 Amount (US$)	1997/98 % Share
Support to MOHP	8,487	16.6	7,788	16.5
Technical Assistance and other subcontracts	9,488	19	13,265	28.1
Training	3,826	7.6	4,505	9.6
Research	205	0.4	245	0.5
Other operating costs	1273	2.5	3,922	8.4
Materials (e.g., drugs, contraceptives, vaccines)	4,867	9.7	1,378	2.9
Other recurrent expenditures	15,428	30.8	9,420	20
Capital expenditures	6,463	12.9	6,537	13.9
Total	50,037	100	47,060	100

Source: World Bank survey of donors, 1999

3.7 AGRICULTURE

Malawi is largely non-urbanised with 85 percent of its population living in the rural areas and depending almost exclusively on subsistence agriculture for its livelihood. In addition to being the main source of food, agriculture remains the main engine of growth for the economy. It accounts for 35 percent of GDP and 80 percent of export earnings of which 70 percent is from the export of tobacco.

In 1998, production volume went down by 15 percent and total earnings by 28 percent. This trend has continued into 1999 whereby production is estimated at 90 million kilograms down 21 percent compared to 1998.

Malawi's agricultural sector comprises two sub-sectors, namely the smallholder and the estate. The smallholder sub-sector mainly produces subsistence food crops, which support the livelihood of local farming families. Of the total arable land available to smallholder farmers, 75 percent is used for the cultivation of maize, which is the main staple food crop. The estates on the other hand are almost exclusively producing cash crops and livestock.
The average land holding capacity has gradually declined with the increase in population. Under a World Bank sponsored study, smallholder households were classified into three income categories. The first category comprises smallholder farmers described as '*the economically sustainable*' representing 14 percent of the total smallholder population. They had more than two hectares of land, which was noted to be enough to meet their own food requirements and to permit the production of a marketable surplus. The second category '*the poor*' comprises those with between 0.5 and 1.0 hectares of land and represents 31 percent of the smallholder population. Although the majority of this smallholder population was not at the time of the study producing enough to meet their annual food requirements,

they have the potential to do so. The remaining 55 percent of the smallholder population constituted those classified as '*the core poor*' with less than 0.5 hectares of land holding and therefore lacking the ability to satisfy their annual food requirements resulting in chronic food deficits.

The estate sub-sector was introduced in the early 70s by converting some of the land under customary land tenure to private-hold or leasehold land. The aim was to stimulate economic growth following the decline in productivity of the smallholder sub-sector. In the following 20 years, the number of estates increased from almost zero to above 14,000 (Fig. 3.9). Current estimates put the number of estates at 22,000 covering about a fifth of the total arable land.

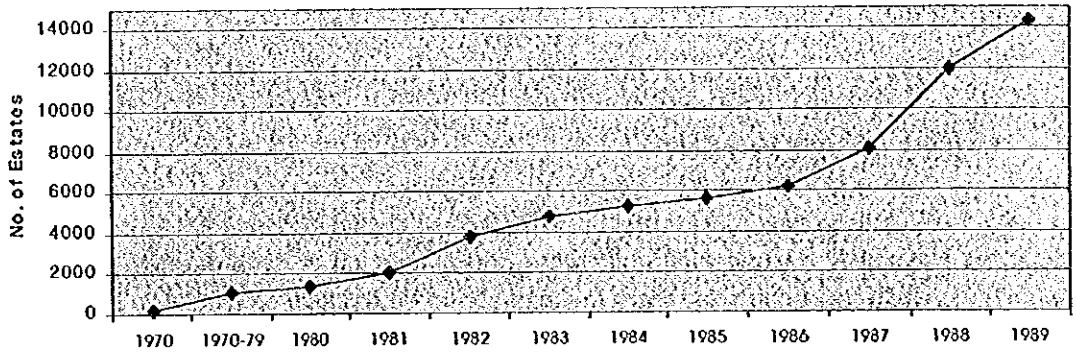


Fig. 3.9 Cumulative Number of Estates in Malawi
Source: Agriculture sample survey and National Statistical Office

The promotion of estate agriculture resulted in the widening of the income gap with a minority of the population accumulating a majority of the wealth from agricultural earnings. Also, the rapid increase in population resulted in the reduction of average land holding size whereby, in 1995, almost 55 percent of the population had a land holding of less than one half of a hectare.

In 1994, under the new government, a new policy of poverty alleviation was adopted. Under this policy, the growing of export crops was liberalised in order to allow smallholder farmers to participate. It is estimated that smallholder tobacco production jumped from 16 million kilograms in 1991/92 to 50 million kilograms in 1995/96. This was a result of a sharp increase in the amount of smallholder land devoted to the production of tobacco. However, productivity of smallholder agriculture continued to decline and by 1995 this decline coupled with the decline in land used for maize production, resulted in Malawi no longer being self-sufficient in maize. In line with the poverty alleviation objectives, government introduced an Agricultural Productivity Investment Programme (APIP) aimed at making agricultural loans available to local smallholder farmers. In addition to the APIP programme, a Starter Pack programme was added aimed at providing rural poor farmers with free seeds and fertiliser.