Addis Ababa University

College of Social Sciences

Department of History

A History of Malaria Eradication and Control Service/Program in Ethiopia

(1959-1995)

By

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June, 2022

Addis Ababa, Ethiopia

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A Thesis Presented to

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This is to certify that the thesis prepared by Natnael Lemlem, entitled: "A History of Malaria Eradication and Control Service/Program in Ethiopia (1959-1993" submitted in partial fulfillment of the requirement for the Degree of Masters of Arts in History complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

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Declaration

I, undersigned, declare that this thesis is my original work and has not been presented for a degree in any other academic Institution as far as I know. All sources of material used for this thesis have been duly acknowledged.

Name: Natnael Lemlem

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Dedications

This work is dedicated to my dear mother Yeshihareg Tefera. Besides, it is dedicated to the millions of innocent people who suffered and lost their lives due to the malaria scourge, including malaria workers who died in the campaigns against the epidemic, and institutions which invested their time, energy and money to save human lives from this catastrophic disease.

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Abbreviations and Acronyms

AMA	Anti-Malaria Association
BEAMC	British East Africa Army Medical Corps
CDC	Center for Disease Control
CNHD	Center for National Health Development
DDT	Diphenyltrichloroethane
EMCPA	Ethiopian Malaria Control Professionals Association
FDRE	Federal Democratic Republic of Ethiopia
FMOH	Federal Ministry of Health
GHS	General Health Service
IEG/IGE	Imperial Ethiopian Government (used interchangeably)
IES	Institute of Ethiopian Studies
MACEPA	Malaria Control and Elimination Program of Africa
MCS/P	Malaria Control Service/Program
MECS/P	Malaria Eradication and Control Service/Program
MES/P	Malaria Eradication Service/Program
MESN	Malaria Eradication Service Newsletter
METC	Malaria Eradication Training Center
MOH	Ministry of Health
MPH	Ministry of Public Health
NMES/P	National Malaria Eradication Service or Programme
NMECS/P	National Malaria Eradication and Control Service or Programme
NALA	National Archives and Library Agency

OETA Occupied Enemy Territory Administration

PMI President Malaria Initiatives

RBM Roll Back Malaria

RTI Research Triangle Institution

USAID United States Agency for International Development

USICA United States International Cooperation Agency (in 1966 changed into USAID)

USOM United States Operation Mission

WADU Wellayita Agricultural Development Unit

WHA World Health Assembly

WHO World Health Organization

WHO EMRO World Health Organization Eastern Mediterranean Regional Office

WHO TAO World Health Organization Technical Assistance Office (formerly known as UN/OPEX-Operations Expenditure

WHO PEPT World Health Organization Pre-Eradication Pilot Team

Key to the Transliteration Systems

Institute of Ethiopian Studies

I have used the following IES transliteration system.

I. The seven sounds/orders of the Ethiopic alphabet are represented as follows:

Values	Symbols	Examples
1st order (ge'ez)	ä	በ Bä
2nd order (kaa'eb)	u	ቡ Bu
3rd order (saales)	i	ቢ Bi
4th order (raabe'e)	a	ባ Ba
5th order (haams)	è	ቤ Bè
6th order (saades)	e	ቤ Be
7th order (saab'e)	o	ቦ Bo

II. Palatalized sounds are represented as follows:

Symbols	
ሸ	šä
ቸ	čä
ኘ	ňä

ዠ žä

ጀ jä

III. Glottalized sounds are represented as follows:

ቀ qä

ጠ ţä

ጨ çä

ፀ şä

ጰ pä

IV. Gemination should always be indicated by doubling

Examples: አዋሳ Awassa

ጎጃም Gojjame

V. General Examples

ደጃዝማች Däjjazmač

ቀበሌ Qäbälè

ጻደይ Şädäy

Glossary of Amharic Terms

Agäda/Ešät	spike
Ato	a title equivalent to "Mr".
Adis bäšita	New Disease
Awraja	sub-province before 1991, sub-governorate general before 1974
Bälg	a season of shorter rains which covers from March to May
Däbtära	a learned clerk
Däjjazmač	a politico-military title below *ras*
Därg	Committee. It is used in reference to the military government that ruled Ethiopia between 12 September 1974 and 28 May 1991.
Edir	A voluntary self-help association established among a certain community
Equb	Indigenous traditional credit association
Gemejja Bèt	Warehouse/store house
Kosso	A local tree used for medicine and other furniture and carpenter works
Qätäna Lemmat	a development plan within a specific geographical location
Mahbär	kind of association but usually organized to venerate a specific saint
Metsihafe Sinksar	the Ethiopian Orthodox Christian Book of *synksar*
Nägärä Fäj	counselor or attorney
Qäbälè	lowest administration structure in the period under study

Sänbätè	association of religious nature
Tälla	local beer
Şäbäl	holy water
Şädäy	“spring” or a season that covers September, October, and November months
Wäba	malaria
Wägéša	a kind of local/traditional disease healer
wäräda	district
wäyizäro (W/ro)	title the same as Mrs.
Zar/*Erkus menfes*	malevolent spirit *that* believed to be a cause to malaria malady

Acknowledgments

If this thesis succeeds in explaining the complicated path and dynamic history of malaria eradication and control program in Ethiopia during the second half of the 20th century, it is due in part to the full hearted and constructive scholarly support of my advisor Belete Bizuneh (Ph. D). I would not have dared to venture into such a new research thematic area without his encouragement and multidimensional support. In addition to showing directions, providing critical and constructive comments, his support further extended to providing various personal source materials which are pertinent to the thesis. He also helped me establish link with some of my informants. His information about the support that I could get from AHRI initiated me to establish or have link with AHRI and to get material and financial support from it. What is more, in reaction to my wish work for my third degree, he recommended me the thematic area's has a research potential for that. My heartfelt thanks, therefore, goes to him.

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I would like to forward my sincere thanks to my informants who provided me with valuable information, both in the form of interviews and written personal documents. Asnakew Kebede, Megersa Komore, and Aweke Abera also helped me in identifying and contacting other informants. I would like to say THANK YOU! My sincere thanks also goes to Mastewal Sinshaw (unit leader of record and archives section at the Ministry of Health), who helped me to access both headquarter and Tenna Garage archives of MOH. It is also impossible to pass without expressing my appreciation to the devoted librarians who work at the Institute of Ethiopian Studies (IES) of Addis Ababa University and National Archives and Library Agency (NALA).

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Abstract

This study explores the history of malaria eradication and control service/program in Ethiopia from 1959 to 1993. The period covers the years from the establishment of the program as a semi-autonomous government entity to address the debilitating health and socio-economic impacts of malaria on Ethiopian populations up to its final dissolution. As yet there is no in-depth historical research that examines the biomedical and socio-economic experience of The Malaria Eradication and Control Service/Program in Ethiopia. Thus, this study was designed to fill this gap by thoroughly examining the complicated history of the malaria eradication and control program from its inception until its demise in 1993. To achieve the central objective of the study, I have used numerous primary and secondary sources. The primary sources include archives, government reports and decrees, newsletters, magazines, guidelines and others. The secondary sources include books, book chapters, articles, theses and senior essays. Moreover, the study used oral information to crosscheck against the written sources and to answer some questions that could not be addressed by the written sources. Data were collected through interviews conducted mainly in Addis Ababa, Adama, Hawassa, and Dire Dawa. The study uses a qualitative research method. Consequently, an attempt has been made to critically evaluate the dynamic changes witnessed in the complicated historical development of the program with regard to strategy, structure, health, and socio-economic burdens of the disease and the biomedical and socio-economic response of the program during the period. It also examines the plans set to accomplish the objectives of the program against what was actually accomplished on the ground. Moreover, dynamic historical developments in which the program went through associated with the endeavor to align the national program with newly introduced international changes or reforms have been discussed. The major effects of regime change in shaping Malaria Eradication and Control Service/Program have also been highlighted. Lastly, it has also assessed reasons to program's dawn graded working potential and its final dissolution. The central thesis of this thesis is therefore that the history of the MECS/P had been a history of battle between DDT and chloroquine armed anti-malaria workers and mosquito to address the health and socio-economic burdens of malaria on the Ethiopian populations in the second half of the 20th century. The study revealed that the malaria eradication and control service/program did not meet the goal it set out though the program had substantial role in reduction of malaria prevalence, which was limited both in time and scope. The study also discloses the downgraded working potential of the program through time due to internal and external factors. The program was also negatively affected by the dynamic historical developments which the program went through associated with the endeavor to align the national program with newly introduced international changes or reforms. Regime changes had also a negative impact in shaping Malaria Eradication and Control Service/Program. The thesis argues that failure of the program was started when a universal strategy applied over heterogonous areas by supposing to have the same etiology of the disease. The Malaria Eradication and Control Service/Program went to demised in 1993 by political decision of the Transitional Government of Ethiopia without achieving its goal that it established.

Key words: Malaria, Eradication/control, Service/program, Strategies, Challenges, Dynamism.

Preface

Malaria has had a long history in Ethiopia as well as in the world. It still remains a major public health threat and bottleneck for Ethiopia's socio-economic development. It is the case in other parts of the Global South as well. To address the multisided impacts of malaria, the World Health Organization (WHO) established a vertical global malaria eradication program in 1955. As a result of global and local malaria related initiatives and developments, Ethiopia's malaria eradication service or program came to being with a semi-autonomous status in 1959. Since then, Ethiopia experienced relatively a well-organized vertical malaria eradication and control program/service that exerted effort to address malaria's health and socio-economic burden on Ethiopia's population in the second half of the 20th century.

However, the efforts made by the malaria eradication and control service and program to address the debilitating burdens of malaria; the complex historical processes and development of the program; and the concept of malaria control service/program amalgamation with other vector borne diseases has not been historically examined and properly recorded. To date malaria related research has mainly been conducted by sociologists, anthropologists, public health scholars, biologists and other medical scientists using their own disciplinary methodologies. Researches carried out by a few historians related to malaria have covered shorter periods and smaller areas. Therefore, there is a lacuna in studying the dynamic nature of infectious (communicable) diseases and their biomedical experience in the historiography of Ethiopia in general and on malaria in particular. Consequently, this thesis is designed to fill this gap and enhance historical understanding by critically evaluating the dynamic changes of the program went through and its ideas to address the malaria threat evolved in the second half of the 20th century. It examines the

frequent shifts made by the program regarding anti-malaria drugs, operation strategy, structure of the service/program and other issues.

To write this story, I have used several written sources acquired from The National Archives and Library Agency (NALA), Ministry of Health (MOH)-both from the headquarters and Tenna Garage archives, Institute of Ethiopian Studies (IES), private collections found in the hands of some individuals (Belete Bizuneh, Awash Teklehaimanot, Addisu Asrat, Birhanu Seifu, Tarekegn Abose, Yayehyirad Kitaw, Girma Gebray, and Seife Bashaye), and informants. These sources can be broadly categorized as primary and secondary sources. Under primary sources, fragmented archival materials found in the above institutions have been accessed. These scant archival materials are circulars written from the center to provinces and vice versa, minutes, petitions presented by the antimalarial workers, guidelines, memoranda, and other records during the period under study. Guidelines of the programs (both published and unpublished), a number of Malaria Eradication Service (MES) monthly newsletters, quarterly bulletins, *Negaritt Gazetta* proclamations, articles from the *Ethiopian Herald, newspaper,* traveler accounts have also been utilized. Under secondary sources, information drawn from books, book chapters, articles, theses and senior essays have been employed.

Oral information was another source that I have used to corroborate materials drawn from the archives as well as a vital independent source of information on some of the issues that are not discussed in any depth by the written sources. The informants included retired or former anti-malaria workers-who served in different posts of the institution, at different places and had a lot of work and research experience; current workers in the Disease Prevention and Control Division as malaria experts as well as advisors; individuals who had close attachment with the institution as advisors and researchers; and who had research experience in the field of study. Individuals

who I have used as my informants have a good know how about the story of the MECS/P, as I remarked in the bibliography. Proper and thorough evaluation, corroboration, analysis, synthesis and interpretation of sources have been made to produce the narrative.

The thesis has four chapters. Chapter one, which serves as a background chapter, discusses general traditional and religious malaria prophylaxis and healing practices used in Ethiopia to address the multidimensional impact of malaria (known by different local names). It also describes as to when and how systematic anti-malaria control activities commenced in Ethiopia, the studies made by expatriate malaria researchers from the late 1930s to the early 1950s, and the importance of these researches for later studies. Chapter two examines local and global contexts that hastened the introduction of the national malaria eradication program in Ethiopia. Chapter Three mainly focuses on the actual implementation of the eradication program until the governing idea was replaced by the concept of control. It also evaluates the plans set to accomplish the objectives of the program against what was actually accomplished on the ground. Finally, the last chapter discusses changes introduced following the failure of the malaria eradication program and the efforts in which the malaria control program/service in Ethiopia went through to align itself with the newly introduced international changes or reforms. The major effects of changes in government in shaping the activities of the Malaria Eradication and Control Service/Program are also highlighted. It also assesses reasons as to why the program was down-graded and finally dissolved in 1993.

I faced many challenges while carrying out the research for this thesis. One big challenge I confronted was related to the covid-19 pandemic. As part of the effort to control the spread of the disease in Ethiopia, libraries and archival centers were closed for months. The social distancing measures put in place against the pandemic also prevented me from conducting interviews with

informants. Therefore, the pandemic prevented me from completing my research on time. The other challenge I faced was bureaucratic obstacle from government and non-government organizations in accessing archives and records in their hands. For instance, I could not get access to the records of the Ministry of Health deposited at the *Ras* Imru *Gibi* (the archives are kept at Chew Berenda locality and kept in metal containers) and the archives of the WHO in Addis Ababa. I was given several appointments by Mastewal Sinshaw (The archive and record section's team leader of The Ministry of Health) for months to access the records kept at the *Ras* Imru *Gebi*. However, my months of waiting and persistence ended without success. My hopeful waiting for the repeated appointment of the office therefore consumed my time and energy and prevented me from doing other activities instead. Another difficulty I faced was associated with the disorganized archives found in containers in the compound of Tenna Garage (situated near Sar-bet around the Zambia Embassy). The materials found in this deposit were found scattered without folders or files. Therefore, it was difficult to cite the documents that came from this deposit in the conventional way by giving them file and folder numbers. Moreover, it was difficult to identify the files that were of relevance to me from these large amounts of dumped materials found in rather inhospitable metal containers. One of my informants, Teferi Mengesha, told me how the implementation of The Business Processing Re-engineering (BPR) and Kaizen at the Ministry of Health had adverse impact on the maintenance of records at the Ministry. A misunderstanding of the concept to BPR and Kaizen caused the damping dawn of historical documents from the federal to the regional levels which led to the disappearance of malaria related documents in the process. He believes that the adoption and implementation of this system was responsible for the systematic elimination of historical documents. It has now

become a serious challenge to record and properly analyze histories of the institution as well as its various projects.

Lack of sources was another challenge especially in my attempt to reconstruct the history of Italian and British periods of anti-malaria control efforts. Language barrier was another challenge that I faced in conducting this study. It was difficult for me to exploit some malaria related documents written in Italian and French languages found in different libraries and archives. Personal health related problems and being a self-sponsored student also hindered me from accomplishing my tasks on time and making things very complicated at other times. Therefore, the study was completed in the face of these challenges.

However, I hope, this study would help to design future strategies and policies in the sector in particular by governments both at the present and future. Besides, it would serve as a steppingstone for further research. Above all, the study produces a new knowledge on the historical development of Malaria Eradication and Control Service/Program in Ethiopia from 1959 to 1993.

CHAPTER ONE

Historical Background

For many centuries, malaria caused significant problems to both the health and socio-economic life of Ethiopian populations. Malaria has been the oldest disease of mankind, which could have developed over a long period of human evolutionary history.[1] This chapter begins with what malaria means and efforts behind the discovery of malaria as a disease and its biology. It then examines some local traditional and religious malaria healing practices used to address the problem in Ethiopia and how this approach was transformed to scientific prophylaxis and chemotherapeutic treatment. It also highlights Italian and British malaria control activities from 1936 to the early 1950s which formed the basis for the malaria eradication campaign in Ethiopia initiated in the late 1950s. Finally, the chapter assesses malaria and malaria related researches and major findings of the period all the way up to the conception of The Malaria Eradication Service/Program (henceforth, MES/P) in 1959 in Ethiopia.

Healing Malaria through Traditional and Religious Practices

Malaria is an infectious disease caused by a protozoan parasite and transmitted from one infected person to another by the Anopheles mosquito.[2] Malaria has had a long history in the world. It

[1] Assefa Balcha, "Traditional Medicine in Wollo: Its Nature and History," (MA. Thesis in History: AAU, June 1992), p. 75. ; "Beliefs about Malaria in Earliest Days," *Malaria Eradication Service Newsletter* (Henceforth, *MESN*), Vol. 5, No. 1, (June 30, 1970), p. 1. ; "Malaria Situation," *MES Pictorial Review*, (Addis Ababa: July 1972), pp. 6-8. ; "Measures Taken to Eradicate Malaria from Ethiopia (Amharic Version),"*MES Bulletin*, Vol. No. 8, (Dec.-Feb., 1967), p. 5. MESN is a media that is prepared and Published Monthly by the MES Health Education Division to convey, address, promote better understanding, and share various issues, ideas, news and views, information amongst workers and to receive comments, suggestions from MES workers from wherever they worked or lived. see *MESN*, Vol. 1, No. 1, 21 Dec. 1965, p. 3 or see in IES Archive, file number, c9-8646. ; *MES Bulletin*, Vol. No. 4, (January-March, 1964), p. 2.

[2] Nancy Leys Stepan, *Eradication: ridding the world of diseases forever?*, (London: Reaktion Books Ltd, 2011), pp. 21-22. ; "A Note Presented to the Malaria Eradication Board," NALA, File No. 17.3.355.01. ; Joel G. Breman, "Eradicating Malaria," *Science Progress (1933-*), Vol. 92, No. 1, (Science Reviews 2000ltd: 2009), p. 3. ; Awash Teklehaimanot, "Malaria in Ethiopia," (BA Senior Essay in Biology, HSIU, 1967), p. 1. ; "Measures Taken to Eradicate Malaria from Ethiopia (Amharic Version),"*MES Bulletin*, Vol. No. 8, (Dec.-Feb., 1967), p. 6. Or see IES Archive File No. 69-8852.

was known as early as the third millennium B.C, specifically 2700 B.C. in China.[3] The term malaria is derived from the Latin term *mal'aria* (bad air) and "refers directly to ecology and an idea that malaria festered and then rose up from rotting vegetation in warm, watery sites".[4] Human malaria has been recognized by humans from the dawn of civilization and the precise descriptions of malarial fever have been given by Hippocrates in 400 B.C.[5]

The disease known as malaria in the wider world has been known in Ethiopia by different local names. Among these names are *wäba* in Shewa and central Ethiopia, *nedad* in the Lake Tana basin, a*nqetqit* (shivers) in Gojjam,[6] *mindarashi*(*a*) in Agew[7], and *busa* in Oromia.[8] As James C. McCann noted, the word *wäba* or *nedad* by which name malaria is known in the highland parts of the country was cited for the first time in the medieval period in *Metsihafe Sinksar* and other *Ge'ez* texts.[9] The English name malaria however was not familiar to most people across the country up to the middle of the 20th century.

Travelers reported about the existence of malaria in Ethiopia starting from at least the 18th century.[10] Early 19th century travelers reported the incidence of malaria in different parts of the country (particularly lowland areas) like Massawa, parts of Tigray, Lake Tana, Awash Valley, Lake Zway, Harar, Ogaden, and Gambella. Travelers noted the existence of malaria incident in

[3] Richard H. Morrow and William J. Moss, "The Epidemiology and Control of Malaria," in Kenrad E. Nelson and Karolyn Masters William, *Infectious Disease Epidemiology, Theory and Practice, 5th Ed.*, (Sudbury and Massachusetts: Boston, Toronto, London, Singapore, Jones and Bartlett, 2010), p. 1087.

[4] James C. McCann, *The Historical Ecology of Malaria in Ethiopia: Deposing the Spirits*, (Athens: Ohio University Press, 2014), p. 37.

[5] Mekonnen Yohannes, "Characterization of the Epidemiology of Urban Malaria in Nazareth, Ethiopia," (M.A. Thesis in Biology, AAU, 1990), p. 1. ; Morrow and Moss, introductory part of *Infectious Disease Epidemiology, Theory and Practice.*

[6] McCann, *The Historical Ecology of Malaria in Ethiopia*, pp. 12-13, 35-38.

[7] Ahmed Hassen, "Selected Disease and their traditional prevention mechanisms in Jawi Woräda (Awi Zone): some preliminary observations," *Proceedings of the second Annual workshop of the IES*, (May 21, 2013), p. 27.

[8] Assefa Nega Tulu, "Malaria," Helmut Kloos and Zein Ahmed Zein (ed.), *The Ecology of Health and Diseases in Ethiopia,* (Boulder, Sanfrancisco, Oxford: Westview Press, 1993), p. 341.

[9] McCann, *The Historical Ecology of Malaria in Ethiopia*, pp. 35-38.

[10] James Bruce, *Travels to Discover the Source of Blue Nile, in the Years 1768, 1769, 1770, 1771, 1772 and 1773* (Edinburgh: Edinburgh University Press, 1964).

19th century Ethiopia. For example, as Richard Pankhurst noted in his work entitled *An Introduction to the Medical History of Ethiopia*, British traveler Henry Salt, the French traveler Ferret and Galinier, Walter Plowden, Marcel Cohen etc. reported the occurrence of high malaria incidence in different parts of Ethiopia.[11] But most probably malaria has an older history in the country going back to ancient times. It is not a recent phenomenon and has been a rampant earlier too, threatening disease in Ethiopia.[12] It has been the main cause for the morbidity and mortality of millions of people.[13]

Before scientific malaria prevention and control activities commenced in Ethiopia, local people did not identify the actual pathogen of malaria. There were different beliefs about the nature of malaria transmission in Ethiopia. Some believed that somebody who saw a beautiful lady in his dream would immediately be caught or fall ill with malaria and suffer from it. Others believed that malaria can be caught when a person ate *agäda* or *Ešät* while others believed that people caught malaria when a person crossed a river and walked on dew.[14] Likewise, malaria was simply conceived as a bad spirit (*Erkus Menfes*) or *Zar*-caused malady.[15] The source materials did not connect all the above beliefs with specific areas in Ethiopia.

Likewise, traditional and religious practices were employed to heal people infected with malaria or prevent the disease. Local healers and *Däbtäras* were involved in healing malaria through

[11] Richard Pankhurst with a Postscript by Asrat Waldeyes, *An Introduction to the Medical History of Ethiopia*, (Trenton, New Jersey: Red Sea Press Inc., 1990), p. 4.

[12] Mulugeta Baria Selassie, "The Challenges of Health and Disease Control in Ethiopia: The case of the Wonji-Shoa Sugar Estates since 1954", (M.A. thesis in History, AAU, 2001), pp. 1-3.

[13] "Malaria Commemoration," *MESN*, Vol. 4, No. 8, Oct. 31, 1969), pp. 9-11. ; "Measures Taken to Eradicate Malaria from Ethiopia (Amharic Version)," *MES Bulletin*, Vol. No. 8, (Dec.-Feb., 1967), pp. 9-10. It is present in the form of an interview.

[14] "Malaria Commemoration," *MESN*, Vol. 4, No. 8, (Oct. 31, 1969), pp. 8-11. ; "Measures Taken to Eradicate Malaria from Ethiopia (Amharic Version)," *MES Bulletin*, Vol. No. 8, (Dec.-Feb., 1967), pp. 9-11.

[15] Assefa, "Traditional Medicine in Wollo: Its Nature and History," p. 75. ; Ahmed Hassen, "Selected Disease and their traditional prevention mechanisms in Jawi Woräda (Awi Zone): some preliminary observations," *Proceedings of the second Annual workshop of the IES*, (May 21, 2013), pp. 27-30. ; "Malaria Commemoration," *MESN*, Vol. 4, No. 8, Oct. 31, 1969), pp. 9-11. ; "Measures Taken to Eradicate Malaria from Ethiopia (Amharic Version)," *MES Bulletin*, Vol. No. 8, (Dec.-Feb., 1967), p. 9.

traditional and "majico-religious" healing mechanisms for healing *zars*.[16] For example, consuming a mixture of *Tälla-* (local beer) in Ethiopia, with honey, egg and butter was considered a traditional treatment to cure malaria that was believed to have been caused by a *zar* (spirit). Consuming herbal ingredients with animal products such as a mixture of *grawa* (*vernonia amygdalina*), and honey and melted butter was also another therapy employed.[17] There was also a belief that greasing the patient's body with a mixture of the seed of *digita*, the bark of *gumaro*, *karbe* (myrrh), *altit*, *feto* (*lepidium satium*), and garlic with butter could heal the ailing.[18] Besides, fumigating a patient with the burned flesh of porcupine was believed to be an effective healing medicine.[19]

Wägéšas were also involved in the healing practices of the malady. One of my informants, Kelklew Taddesse- who is from Babile, eastern Ethiopia elaborated the role of *Wägéšas* in his area as follows:

> ወጌሾችም የወባ በሽታን በማከሙ ስራ ላይ ይሳተፉ ነበር። እኔ ለምሳሌ ወባ ይዞኝ ነበር። ወባ ጣፊያ እና ጉበት ላይ ስለሚጠራቀም በጃቸዉ ጫንጫን ይሉ እና የህመም ስሜት ያለበት አካባቢ ምልክት በማድረግ ብረት አግለዉ ወይም በጥጥ መዳመጫ ይተኩሱ ነበር። እኔም በዚህ መልክ ታክሜ ድኛለሁ ከዛም በኋላ ወባ ይዞኝ አያዉቅም።[20]
>
> *Wägéšas* were also involved in the treatment of malaria. For example, I had malaria. Since the disease accumulated in the pancreas and liver, they were bitten with a cotton roll swab, marking the painful area. I was treated like this and I was cured and I never had malaria again.

[16] Ahmed, "Selected Disease and their traditional prevention mechanisms..," *Proceedings of the second Annual workshop of the IES*, (May 21, 2013), pp. 27-30. ; "Malaria Commemoration," *MESN*, (AA: Health Education Division, Vol. 4, No. 8, Oct. 31, 1969), pp. 9-11.; McCann, *The Historical Ecology of Malaria In Ethiopia,* p. 26.

[17] McCann, *The Historical Ecology of Malaria in Ethiopia*, p. 26.

[18] Bruce, *Travels to Discover the Source of the Nile*, (Edinbourgh, A. Constable {Co. of Manners and Hiller, 1790), III, p. 203. ; Assefa, "Traditional Medicine in Wollo: Its Nature and History," p. 77. ; Tsehai Berhane Sellasie, "An Ethiopian Medical Text-Book Written by Gerazmach Gabrawald Aragahagn Daga Damot," *Journal of Ethiopian Studies*, Vol. 9, No.1, (1971), pp. 107, 141.

[19] Assefa, "Traditional Medicine in Wollo: Its Nature and History," p. 78.

[20] Informant: Kelklew Tadesse.

From this one can understood that a wide range of traditional malaria healing practitioners' involvement in curing the illness though their remedies have not been proven by scientific studies.

Using garlic was said to prevent malaria.[21] Taking snuffle or putting under the lips the dried and crushed leaves of tobacco (*Nicotiana tobacum*) by lowlanders in Wollo was believed as a prophylactic.[22] Assefa Balcha described the traditional prophylactic method used in Wollo further as follows:

> …taking pills made of the seed of *kitkita*, or *digita* covered with honey; or drinking an infusion of the dried root of *serabizu* (*Thalictrum thalictroides*), boiled in butter; or smearing the body with a paste prepared out of the pounded root of *gumaro, agam*(*Otostegia integrifolia*, yajebbater (*merkuz*) (*Heteromorpha trifolicata*), *tenaadam* (*Ruta chelapensis*), *tequrawet* (*Solanum nigrum*), and *lemich* (*Clausena anisate*) mixed with *altit*, *wagra* and *nech shankurt* were used as protective medicine.[23]

Religious leaders also attempted to heal the disease based on their own religious perspective. Christian clergy used holy water or *säbäl* to treat the disease.[24] These mechanisms however had little impact on the disease. Many continued to perish across different parts of the country until the introduction of modern malaria fighting techniques in the middle of the 20th century.

Foreign Interventions, Expatriate Scholars Malaria Study from 1936 to the Early 1950s, and Beginning of Anti-Malaria Control Activities in Ethiopia

Malaria related studies in Africa had a direct relation with colonialism. Studies on malaria were commenced by scholars from the European colonial powers because malaria was one of the major obstacles that prevented them from penetrating into the interior parts of their respective

[21] Karl. F, Schaller with a Geographical Contribution by W. Kuls, *A Geomedical Monograph Series 3: Regional Studies in Geographical Medicine, Ethiopia (*New York: Springer-Verlag Berlin Heidelberg, 1972), p. 98.

[22] Bruce, *Travels to Discover the Source of the Nile*, p. 203. ; Assefa, "Traditional Medicine in Wollo: Its Nature and History," p. 77. ; Tsehai, "An Ethiopian Medical Text-Book Written by Gerazmach Gabrawald Aragahagn Daga Damot," pp. 107, 141.

[23] Assefa, "Traditional Medicine in Wollo: Its Nature and History," p. 77.

[24] McCann, *The Historical Ecology of Malaria in Ethiopia,* p. 26.

colonies in the first half of 20th century. Ethiopia shared similar development with the rest of Africa in this regard. Little was known about malaria in Ethiopia before the Italian occupation of 1936-1941.[25]

Early information related to the situation of malaria in Ethiopia is found in Italian sources which were conducted by Italian malaria scientists during the occupation period.[26] The Italians invaded Ethiopia with the ambitious goal of making it a market for manufactured goods as well as source of agricultural products such as semolina wheat, cotton, citrus, fruits, vegetables, sesame and coffee. They intended to accomplish this objective by building villages in selected sites for Italian peasants and settling them on such fertile areas, to produce the needed agricultural products. Towards this end, they established pilot projects in a number of selected sites across the country. These places include Bishoftu (Debre Zeit), Holeta (west of Addis Ababa), Dabat (near Gondar), Arsi, and Guder. Jimma, the Rift Valley, and Lake Tana were other places identified by the Italians for such a settlement project.[27] Most of the above economically and strategically important areas in Ethiopia were found within the altitude ranging from 1, 800 to 2, 100 meters above sea level in areas where malaria epidemics were common. The Italians

[25] Italy had been a premier in the study of modern malaria science, mainly from the 1890s to 1935. During this period, Italian scholars played a crucial role and had generated hope in curing malaria infected people. For instance, they identified mosquitoes as the disease vector for the first time in 1898. The studies showed optimistic results though it faced problems following the outbreak of WWI. For detail see McCann, *The Historical Ecology of Malaria in Ethiopia,* pp. 38-40, 47.

[26] Fantahun Ayele, "The Impact of Malaria Epidemics On Agricultural Production in Dembia and Fogera, 1950-2000," (Ed.) Atakilte Beyene, *Agricultural Transformation in Ethiopia: State Policy and Smallholder Farming,* (Uppsala: Zed Books and The Nordic Africa Institute, 2018), p. 122. ; Diwan Chand, "Malaria Problem in Ethiopia," *Ethiopia Medical Journal,* Vol. 4, No. 1, (Addis Ababa, 1965), p. 29. ; Idem, "Progress Report of the Malaria Program in Ethiopia up to June 1964," *Journal of Health,* Vol. 6, No. 1, (Gondar: Gondar Public Health College and Training Center (henceforth, GPHCTC), April 1966), p. 50. Chand served as an advisor of MPH as well as NMES/P in the late 1950s and Director General of NMES/P from 1963 to 1964. ; Schaller with a Geographical Contribution by Kuls, *A Geomedical Monograph Series 3: Regional Studies in Geographical Medicine,* p. 98. According to Perham and Zein Ahmed Zein around 2000 Italian doctors came to Ethiopia for the purpose of the 1935/36 Italo-Ethiopian war and they carried out many works related to health during Italy's half a decade occupation era, and even they continued their work after Italians withdrawal in 1941. M. Perham, *The Government of Ethiopia,* (New York: Oxford University Press, 1948), pp. 240-241. ; Zein Ahmed Zein, "Health and Health Service in Ethiopia: A General Survey," In Zein Ahmed Zein and Helmut Kloos, *The Ecology of Health and Disease in Ethiopia,* (Addis Ababa: Ministry of Health, 1988), p. 2. Pankhurst noted that the number of Italian Drs. not less than 2, 484. Pankhurst (with a postscript by Asrat), *An Introduction to the Medical History of Ethiopia,* p. 226.

[27] McCann, *The Historical Ecology of Malaria in Ethiopia,* pp. 39, 44-45, 47-48, 61.

therefore expected malaria to become a potential problem to the Italian colonial settler populations in Ethiopia. They envisioned that the resettlement and settlement activities would be done by protecting their nationals (the Black shirts, colonial soldiers, and the small Italian peasant farmers) from communicable diseases in general and malaria in particular.[28]

To achieve the above planned goals, anti-malarial activities were launched in different parts of Ethiopia, especially in the above key economic areas.[29] For example, three tablets of quinine sulphate or bihydrochloride were provided to soldiers and workers daily to prevent them from catching malaria.[30] Furthermore, McCann noted that quinine was distributed to "patients living below two thousand meters elevation to 600 milligrams three times a week on consecutive days for the months of August and September".[31] According to Richard Pankhurst, 1, 241 malaria cases were reported only from Oct. 3, 1935 to May 10, 1936. Of the different kinds of diseases registered at the time, malaria was ranked first in number. The Italians recognized malaria as a principal cause of illness that would encumber them in Ethiopia and Eritrea.[32] Consequently, as Pankhurst stated, "the study of malaria therefore received a high priority in the general field of Italian medical research."[33] Furthermore, during the occupation, the Italians established a center for the study of malaria in Addis Ababa in 1939.[34] Italy's health care service delivery in general and anti-malaria service delivery in particular during the occupation was provided to Italian

[28] Perham, *The Government of Ethiopia*, p. 241; Zein Ahmed Zein, "Health and Health Service in Ethiopia: A General Survey," p. 2; McCann, *The Historical Ecology of Malaria in Ethiopia*, p. 46.

[29] Zein Ahmed Zein, "Health and Health Service in Ethiopia: A General Survey," p. 2; McCann, *The Historical Ecology of Malaria in Ethiopia*, pp. 46-47 ; Richard Pankhurst, "The Medical History of Ethiopia During the Italian Fascist Invasion and Occupation (1935-1941)," *Ethiopia Observer*, Vol. XVI, No. 2. (1973), pp. 108-117.

[30] Pankhurst, "The Medical History of Ethiopia During the Italian Fascist Invasion and Occupation (1935-1941)," pp. 108-117.

[31] McCann, *The Historical Ecology of Malaria in Ethiopia*, p. 51.

[32] Pankhurst, "The Medical History of Ethiopia During the Italian Fascist Invasion and Occupation (1935-1941)," pp. 108-117.

[33] *Ibid.*, p. 114.

[34] Pankhurst, "The Medical History of Ethiopia During the Italian Fascist Invasion and Occupation (1935-1941)," pp. 108-117.

citizens and their staff, but not to the general Ethiopian public.[35] In short, Italy's anti-malaria program was intended to create a better environment for their citizens who settled in the selected parts of Ethiopia and who were to be settled in the future rather than enhancing the wellbeing of their subjects.

Bearing the above objectives in mind, Italian malaria research teams spread out across Ethiopia's key agriculturally fertile areas and carried out various studies focusing among others on *anopheles* fauna and main vectors, development of *anopheles* larvae, regional distributions of *plasmodia* mosquitoes and their prevalence and degree of density, and spleen exam rates of malaria in different regions of Ethiopia. They also sought to identify malaria presence and other features of local ecology that might endanger their colonial personnel and local workers in Ethiopia at different altitudes and in different mosquito breeding places.[36] For example, G. Lega, G. Rafaele, and A. Canalis conducted research around the Shebelie River and Marriani in the adjacent region of Somalia.[37] McCann noted that Italian malaria field researchers conducted surveys in the Lake Tana Basin in 1938. Augusto Corrradetti, an Italian entomologist, conducted investigation on the epidemiology of malaria in Wollo,[38] Jijiga and Danakil from 1938 to 1939/40.[39] Mario Giaquinto Mira, studied the distribution and biology of malaria in Ethiopia,

[35] Pankhurst, "The Medical History of Ethiopia During the Italian Fascist Invasion and Occupation (1935-1941)," pp. 108-117. ; Assefa Balcha, *A Century Traditional Drug and Medicine Story in Ethiopia,* (has not place of publication and publisher, *Tahsas* (December), 2008 E.C.), pp. 117-120.

[36] McCann, *The Historical Ecology of Malaria in Ethiopia,* pp. 42, 46. ; Daddi Jimma *et al*, "An Epidemiological Profile of Malaria in Ethiopia," National Malaria Control Team, Ethiopian Public Health Institute, FMOH, WHO, AAU, & The INFORM Project: Department of Public Health Research, Kenya Research Institute, Wellcome Trust Programme, Nairobi, Kenya, March, 2014, p. 6.

[37] Chand, "Malaria Problem in Ethiopia," p. 29. ; Idem, "Progress Report of the Malaria Program in Ethiopia up to June 1964," p. 50. ; Schaller with a Geographical Contribution by Kuls, *A Geomedical Monograph Series 3: Regional Studies in Geographical Medicine,* pp. 98-100. ; McCann, *The Historical Ecology of Malaria in Ethiopia,* pp. 49-51.

[38] *Ibid*.

[39] Chand, "Malaria Problem in Ethiopia," p. 29. ; Idem, "Progress Report of the Malaria Program in Ethiopia up to June 1964," p. 50.

1938-1940, 1950.[40] Another Italian scholar, A. Brambilla described malaria in Dire Dawa in 1940.[41]

These studies revealed the existence of malaria incidence in Ethiopia with different degrees of parasite load and varied degree of prevalence rate.[42] They disclosed that *pl. falciparum (pl. immaculatum)* and *pl. vivax* were the dominant parasites in the studied regions of Ethiopia. Duplicate infection and *Pl. malariae*-in low degree were also observed.[43]

The scholars also carried out more elaborate discussion regarding the role of the anopheles in spreading malaria and the altitude range and climate zone in which the vectors were detected. Even though Italian malaria scientists identified 16 *anopheline* mosquito types in Ethiopia, they found that *an. gambiae* was the primary vector in areas up to 2, 000 meters (henceforth, m) above sea level. However, in suitable temperature and breeding situations of vectors, it exists at altitude above 2100 m. The studies found the year round existence of *an. gambiae* in some places. *An. funestus* was also considered as a second important malaria Plasmodium transmitting vector in Ethiopia within the elevation range of 1000 to 1500 m. It occasionally occurred in the arid lowland areas. *An. d'thali, an. turkkudi, an. pretoriensis, an. mauritianus, an. cinereus, an.*

[40] Mario Giaquinto Mira, "Notes on the Geographical Distribution and Biology of Anophelinae and Culicinae in Ethiopia," *Rivi sta di Malariologia,* Vol. 29, No. 5, (October 1950), pp. 281-313. ; Schaller with a Geographical Contribution by Kuls, *A Geomedical Monograph Series 3: Regional Studies in Geographical Medicine,* pp. 98-100.

[41] Chand, "Malaria Problem in Ethiopia," p. 29. ; Idem, "Progress Report of the Malaria Program in Ethiopia up to June 1964," p. 50. ; Schaller with a Geographical Contribution by Kuls, *A Geomedical Monograph Series 3: Regional Studies in Geographical Medicine,* p. 98.

[42] Chand, "Malaria Problem in Ethiopia," p. 29. ; Idem, "Progress Report of the Malaria Program in Ethiopia up to June 1964," p. 50. ; Schaller with a Geographical Contribution by Kuls, *A Geomedical Monograph Series 3: Regional Studies in Geographical Medicine,* p. 99.

[43] A. Corradetti, "Ricerche Sulla Malaria Nella Dancalia," *Riv*ista *Di Malariologia,* XVIII, (1939), pp. 249-255. It is a research on malaria in South Dancalia. ; Idem, "Epidemiological Research on Malaria in the Uollo-Jeggiu Region during the Rainy Season," *Riv. Malariologia,* 17, (1938), pp. 101-110. ; Russell Fountain, Abdallah E. Najjar, and Julius S. Prince, "The 1958 Malaria Epidemic in Ethiopia," *American Journal of Tropical Medicine and Hygiene,* Vol.10, No.6, 1961. ; see also in an introduction wrote by Fountain and Najjar to the "Report on the Second Regional Conference on ME," Addis Ababa, November 16-21, 1959, in WHO. ; WHO file EM/ME Tech. 2/1-54, 1959.

Christyi, *an. demeilloni*, were other vectors discovered in Ethiopia with insignificant transmission ability.[44]

Spleen index examination (a rough indication of the salubrity or the reverse, in regard to malaria of a particular district) was another record left by malaria experts in Ethiopia. Many Italian Malaria researchers such as Lega, Rafaele, and Canalis, De Amelis, Giaquinto Mira, and others reported the spleen index rate of different regions of Ethiopia. They also affirmed malaria's endemicity only in altitudes below 1, 800 m.[45]

The fact that the findings of malaria researches were/are supported by publications can be considered as one contribution of these studies. These publications have been essential and formed the basis for later researchers of the field, for example in the 1950s. Eighteen separate studies, conducted in a team on *anopheline* fauna, were published by Italian entomologists in various parts of Ethiopia from 1936 to 1940. Most of these publications were achieved under Corradetti's team leadership time.[46] Mira also compiled evidence related to the distribution and biology of malaria in Ethiopia.[47]

Although the scholars did all the above malaria related works, Italy's anti-malaria program in Ethiopia did not achieve its goal owing to different challenges including the nationwide patriotic resistance movement. The attempt by experts to implement the same anti-malaria approach in Ethiopia as in Italy, which consisted of the use of "Paris Green" and quinine was another factor behind the failure of these efforts. The same kind of approach to fighting malaria could not be

[44] Schaller with a Geographical Contribution by Kuls, *A Geomedical Monograph Series 3: Regional Studies in Geographical Medicine*, pp. 99, 100.
[45] *Ibid.*, p. 100.
[46] McCann, *The Historical Ecology of Malaria in Ethiopia*, p. 46.
[47] Mira, "Notes on the Geographical Distribution and Biology of Anophelinae and Culicinae in Ethiopia," pp. 281-313. Chand, "Malaria Problem in Ethiopia," p. 29. ; Idem, "Progress Report of the Malaria Program in Ethiopia up to June 1964," p. 50.

implemented in Ethiopia and Italy because the two countries have different ecologies and plasmodium and vector types with different feeding and breeding habits and times. The main malaria vector mosquito in Italy was *an. labranciae* whereas in Ethiopia it was the *an. gambiae.*[48] This indicated that the anti-malaria drugs and insecticides the Italians used in Ethiopia were inappropriate.

In later studies conducted from 1938 to 1940/41, malaria experts found the different nature of malaria ecology in Ethiopia from Italy.[49] However, they could not come up with a new specific anti-malaria medicine.

McCann argued that although Italy's antimalarial activities in Ethiopia from 1936 to 1941 made her a pioneer in Ethiopia's health science and public health history, its activities did not bring significant result. Italians simply retreated to the malaria free highland areas seasonally.[50] I believe that though their program did not bring tangible results in practice, they left significant experience and documents related to malaria which would be used as a resource for later generation of malaria researchers, malaria related programs and other stakeholders in the field of health science. For this we can see the source materials used by later scholars such as Russel Fountain, N. Rishkish, Diwan Chand, McCann etc., and the 1950s pilot project studies of Ethiopia.

Italian malaria studies in Ethiopia were not halted following their expulsion from Ethiopia in 1941. Some Italian malaria experts like Martin and Mira continued with their studies even after

[48] McCann, *The Historical Ecology of Malaria in Ethiopia,* pp. 42, 45-46, 52, 61.
[49] *Ibid*.
[50] *Ibid*., pp. 48, 52.

the end of the occupation. For example, Martin announced four supposed malaria cases in Addis Ababa in 1942.[51] But, I did not find further elaboration on the cases identified in Addis Ababa.

Following Italian expulsion in 1941, Britain established an Occupied Enemy Territory Administration (OETA) in Ethiopia. The episode opened up new opportunities for malaria investigation in the country under the auspices of a team from the Mobile Malaria Section of Britain's East Africa Army Medical Corps (hereafter, BEAMC)[52] that lasted eleven months, 1941-1942. The team visited fifty sites, including Rift Valley but not the Blue Nile Basin, in Ethiopia and reported 'Spleen rates,' mosquito habitat conditions, and types of mosquitoes. Like the Italians, their study on 'spleen exams' also proved the inverse relations of malaria and altitude.[53] The team also clearly established malaria's seasonality and that the main vector was the *an. gambiae*.[54] Chand noted that BEAMC made other important study in 1945 that emphasized the "degree of malaria prevalence" in Ethiopia,[55] but he did not give any further detail about it.

Another malaria study in Ethiopia was made by General Sir Gordon Covell in 1952.[56] According to Chand, Covell conducted a malaria survey in the Southern part of Lake Tana "in connection with Bahir Dar Town-planning Project, at the exit of the Blue Nile from Lake Tana."[57]

[51] Chand, "Malaria Problem in Ethiopia," p. 29. ; Idem, "Progress Report of the Malaria Program in Ethiopia up to June 1964," p. 50.

[52] BEAAMC were British doctors who came to Ethiopia with Britain troops following the withdrawal of the Italian forces from Ethiopia.

[53] McCann, *The Historical Ecology of Malaria in Ethiopia*, pp. 53, 61, 62.

[54] *Ibid*., p. 62.

[55] Chand, "Malaria Problem in Ethiopia," p. 29. ; Idem, "Progress Report of the Malaria Program in Ethiopia up to June 1964," p.50.

[56] Daddi *et'a*l, "An Epidemiological Profile of Malaria in Ethiopia," (NMCT, EPHI, FMOH, WHO, AAU, The INFORM Project, DPHR, KMRI-welcome Trust program, Nairobi, March 2014), p. 6. ; Chand, "Malaria Problem in Ethiopia," p. 29. Covell was a British malariologist came to Ethiopia twice in the 1950s. The first was at the request of the Ethiopian government in the autumn of 1952 to conduct a malaria survey in the country. See the same source. He also served as a malaria adviser in the Ministry of Health of the United Kingdom; Director of the Malaria Institute of India; and malaria consultant of WHO for a short period. "Distinguished Malaria Experts Reached Alexanderia on Egypt Visist," *Ethiopia Herald*, (Sat., Sept., 17, 1955), p. 1.

[57] Chand, "Malaria Problem in Ethiopia," pp. 29-30.

Consequently, he visited the Lake Tana region around Bahir-Dar and would submit recommendations to the Imperial Ethiopian Government (henceforth, IEG) about malaria outbreak. There is no source that discusses what the recommendations were.

Italian and British malaria experts described the malaria situation in Ethiopia and especially about the endemic nature of malaria, main malaria *plasmodium* and vectors, seasonality, and altitude which malaria was found dominantly. Therefore, they contributed to the history of malaria study in Ethiopia from the second half of 1930s up to early1950s. Above all, this also became helpful for the 1950s malaria survey in Ethiopia which will be briefly discussed in the following chapter.

CHAPTER TWO

The Establishment of Malaria Eradication Service/Program (MES/P) in Ethiopia: Global and National Contexts

This chapter describes the international and national historical contexts that contributed to the evolution of malaria control program in Ethiopia in the late 1950s. It discusses such issues as the UN agencies and friendly nations' initiatives to support malaria control program in Ethiopia, the correlations between the outbreak of malaria epidemics and the historical development of NMES/P, and the malaria pilot projects initiated since the second half of the 1950s in Ethiopia.

Global Contours for the establishment of Malaria Eradication Service

Various scholars have played vital role in the study of malaria since its identification as a disease. Since the medieval period, scholars have exerted efforts to identify malaria pathogens. Gradually, they understood the biological nature of malaria including its cause and transmission. Such an understanding led them to think about prophylaxes and treatment for curing victims.[58] At international level, enthusiastic malaria control program was commenced after the end of the Second World War.[59] Various institutions were established to control malaria across the world, but primarily in Europe and America. The Center for Disease Control (henceforth, CDC), for instance, was set up in 1946, to control malaria in the United States and mainly focused on WWII veterans.[60] In the late 1940s, malaria's heavy impact, mainly in the tropical and subtropical regions of the world, persuaded the newly established World Health Organization (WHO) to take up the issue of eradicating malaria from the face of the earth. Eradication means eliminating totally the source and manifestation of disease from a population. In the case of

[58] Kenrad, E. Nelson and Karolyn Masters Williams, preamble parts of *Infectious Disease Epidemiology, Theory and Practice*, Pp. 11-16. ; Stepan, *Eradication: ridding the world of diseases forever?*, pp. 19-24, 146-153.

[59] Stepan, *Eradication: ridding the world of diseases forever?*, pp. 24, 156-160. ; Mekonnen, "Characterization of the Epidemiology of Urban malaria in Nazareth, Ethiopia," p. 3.

[60] For detail see Morrow and Moss, "The Epidemiology and Control of Malaria", pp. 1087-1127.

malaria this either required destroying the parasite and its capacity to infect a host or the elimination of the Anopheline mosquitoes that bring the parasites to humans. According to A. Spielman, the idea of eradication has been traced back to the 19th century by the campaign against animal pests and bovine tuberculosis. Henceforth, the concept was employed by the Rockefeller Foundation to eradicate human pests with hookworms in 1901 and the Yellow Fever in 1915.[61] However, according to M. A, Farid, the term eradication was associated with malaria in 1916. The main concept of eradication of disease has been rooted in the development of Germ Theory. During the interwar period there was the concept of malaria eradication activities. However, in the late 1940s malaria eradication had great appeal to scientists.[62]

The Pan American Sanitary Bureau's years of research on malaria in various countries was important in the emergence of the idea of malaria eradication at worldwide level in the mid-1950s.[63] New medical discoveries (penicillin, chloroquine, and DDT) in the 1940s and reliance on them was another factor for the rise of the eradication concept. Mosquitoes resistance development reported from limited areas that received DDT spray since the second half decade of 1940s (Italy, Greece, and others). This further hastened the foundation of the worldwide eradication program. It was to use the opportunity before the problem got worse.[64] The above arguments further consolidated by the supposition that eradication would save the world from

[61] For detail see A. Spielman, U. Kitron, RJ, Pollack, "Time Limitation and the Role of Research in the Worldwide Attempt to Eradicate Malaria," *Journal of Medical Entomology*, Vol. 30, No. 1, 1993), p.7. ; Stepan, *Eradication: ridding the world of diseases forever?*, pp. 7, 23-24. ; Awash Teklehaimanot, "Launching the Global Malaria Eradication Campaign 1958-1963: A Nexus of American Idealism, Innovation, and Global Politics," (Mailman School of Public Health:Vanessa Landegge, May 2003), pp. 2-8.

[62] For more information see M.A, Farid, "The Malaria Campaign-Why not eradication?" *World Health Forum*, 1998. p. 3. ; Awash, "Launching the Global Malaria Eradication Campaign 1958-1963: A Nexus of American idealism, innovation…), p. 3. WHO emerged on September 1, 1948 with the objective of improving the health status of the societies at global level. "The World Health Organization in Ethiopia," *Ethiopia Observer*, Vol. II, No. 9. (Oct. 1958), pp. 296-297. ; WHO, "Report of a WHO Study Group on the Implementation of the Global Plan of Action for Malaria Control," Technical Report Series No. 839.

[63] Stepan, *Eradication: ridding the world of diseases forever*?, pp. ; "A Note Present to the Malaria Eradication Board," NALA File No. 17.3.355.01.

[64] Stepan, *Eradication: ridding the world of diseases forever*?, pp. 24, 140-141, 163-164. ; Randall M. Packard, *A History of Global Health: Interventions into the Lives of Other Peoples*, (Baltimore: Johns Hopkins University Press, 2016), pp. 137-139, 144.

periodical malaria related expenditure if malaria was to be eradicated once for all. In addition to this, after eradication, malaria eradication service would also be helpful to promote the basic health services that found in malaria ridden areas. This was by using malaria eradication services for other health related programs after eradication.[65]

1955 was a critical year in the history of global malaria control because the WHO, in its eighth conference at Mexico City, raised and recommended the idea of establishing GMES/P for the first time with the optimistic aim of creating a malaria-free world. The Global Malaria Eradication Service/Program (GMES/P), therefore, officially emerged in May 1955 and continued its work up to 1969 at global level.[66] According to the WHO resolution, all member states pledged to work to eradicate malaria from their countries and to make the world free of malaria. Until the goal was achieved, member states also agreed that the WHO will continue to provide technical assistance and overall planning on the program for each country.[67]

Africa, the most malaria affected continent in the world, received little attention to malaria eradication since 1950 when the Malaria expert Committee held their meeting at Kampala. After furious debate among malaria epistemic or scientific communities on whether Africa should be included in the eradication program or not, Africa was included in MEP in principle. However, the program did not provide adequate attention to Africa in practice except opening small scale pilot projects in some selected Sub-Saharan African states, from 1954 to 1959, to test the

[65]Packard, *A History of Global Health:..,'* pp. 137-141, 144.

[66] Stepan, *Eradication: ridding the world of diseases forever?*, pp. 140-142, 164 ; Packard, *A History of Global Health:..,"* pp. 133, 137-138. ; "A Note Present to the Malaria Eradication Board," NALA File No. 17.3.355.01. ; Breman, "Eradicating Malaria," p. 2. ; Emilio Pampana, *A Text Book of Malaria Eradication*, (London: Oxford University Press, 1964), pp.464-466. ; Oscar Gish, "Malaria Eradication and the Selective Approach to Health Care: Some Lessons From Ethiopia," *International Journal of Health Sevice*, Vol. 22, No. 1, (Baywood Publishing Co. INC, 1992), p. 179.

[67] Stepan, *Eradication: ridding the world of diseases forever*?, p. 165. ; "A Note Present to the Malaria Eradication Board," NALA, File No. 17.3.355.01.

feasibility of malaria eradication and precede the actual program.[68] Some of the countries where the pilot projects opened as part of GMES/P were Ethiopia, Zimbabwe, South Africa, Egypt and Nigeria when GMES/P was officially established.[69] The selection was made depending on topographical heterogeneity, degree of endemicity of the disease and intensity of transmission, tropical ness and epidemiologists report about the nature of malaria.[70]

The National Context:

The 1953 and 58 Malaria Epidemic Outbreaks and Preliminary Studies and the establishment of the MEP

The outbreak of malaria epidemics in Ethiopia in the 1950s and the foundation and historical evolution of MES/P in the country have a direct relationship. There have been frequent malaria outbreaks in Ethiopia since the 1950s. In the 1950s, for example, there were two major malaria outbreaks. The first occurred in 1952/53 while the second broke out in 1958.[71] According to McCann, the 1952/53 malaria outbreak was a point of reference in the history of malaria in Ethiopia. It was partly responsible for the opening up of the Gondar Public Health College and Training Center (GPHCTC) in 1954. GPHCTC was the first Public Health College and Training Center in the public health history of Ethiopia which was established at Gondar, in 1954, in order to reduce the degree of epidemic or improve the general health of the people by producing the required man power/health professionals like nurses, health officials, sanitarians and health

[68] Stepan, *Eradication: ridding the world of diseases forever*?, pp. 160-163.
[69] Stepan, *Eradication: ridding the world of diseases forever*?, p. ; Breman, "Eradicating Malaria," p. 2. ; Informants: Awash Teklehaimanot and Girma Gebray.
[70] Informants: Girma, Asnakew Kebede, and Seife Bashaye.
[71] Fantahun, "The Impact of Malaria Epidemics on Agricultural Production in Dembia and Fogera, 1950-2000," pp. 124-134. ; McCann, *The Historical Ecology of Malaria in Ethiopia*, p. 62. ; Informant: Asnakew.

officers.[72] Additionally, the 1952/1953 malaria epidemic outbreak was also one factor behind the 1955 Covell's second survey and the beginning of malaria pilot projects in the country.[73]

The second and most catastrophic malaria epidemic outbreak in the history of malaria plague in Ethiopia appeared in late June 1958 and lasted until mid-December. It lasted for nearly six months, was severe and vast in scope. This was due to the coincidence of unusual but favorable weather conditions for vector development. These were high and prolonged rainfall season, unusually high temperature, and a wet atmosphere close to saturation than previous years that created favorable and ideal conditions for anopheles breeding.[74] Lack of communal immunity among the population at risk was also another basis for the severity of the1958 epidemic.[75] It covered an area of 100, 000 square miles of the densely populated parts of Ethiopia.[76] The epidemic also affected areas with high elevation. Some sources reported that it broke out in some

[72] The project was established by IGE with the auspices of WHO, Point 4, USOM, US-ICA and UNICEF. The college began its first class on October 4, 1954, after a year of the 1953 malaria plague in the "Blue Nile Watershed". The students took different courses like elements of public health, sociology, embryology and histology, biology, anatomy, public administration and did seminars, made field trips and did different activities in their free time. (For more information see McCann, "*The Historical Ecology of malaria,* pp. 62-63.; "Gondar Public Health Centre Opened: Large Group Students Enrolled," *Ethiopian Herald*, (Sat., Dec. 21, 1954), p. 1. ; Solomon Getahun, "The Evolution of Gondar's Public Health College and Training Center: Che-Che-la from an Italian Consular Office to a Medical College," *Northeast African Studies , 2001, New Series,* Vol. 8, No. 1, (2001), pp. 75-97.

[73] McCann, *The Historical Ecology of Malaria in Ethiopia,* p. 64. ; Informants: Adisu Asrat, Awash, and Girma. Covell came to Ethiopia again in 1955 to study malaria prevalence and distribution and gather base-line malariometric data from several particular sites of Ethiopia and draw up a plan to control it. Distinguished Malaria Experts Reached Alexandria on Egypt Visit," *Ethiopian Herald*, (Sat., September 17, 1955), p. 1. His study ended up by recommending the necessity of "the future of malaria control depends on the creation of a permanent antimalarial organization within the framework of the Public Health Service" and "the first essential is the provision of trained Ethiopian Staff". Daddi *et'al*, "An Epidemiological Profile of Malaria in Ethiopia," (NMCT, EPHI, FMOH, WHO, AAU, The INFORM Proj ect, DPHR, KMRI-welcome Trust program, Nairobi, March 2014) p. 6. His second round visit covers Awash Valley, Alamata in the Kobo-Chercher plain, Gondar, Dire-Dawa, Awash station, Jimma, Shashemenie and he recommended places that are suitable to commence the new malaria control pilot projects in Ethiopia from different logical point of view. Mulugeta, "The Challenge of Health and Disease Control in Ethiopia: The Case of Wonji-Shoa Sugar Estates since 1954," p. 26.

[74] Fantahun, "The Impact of Malaria Epidemics on Agricultural Production in Dembia and Fogera, 1950-2000," p. 133. ; Russell, E. Fountaine and Abdallah, E. Najjar, "The 1958 Malaria Epidemic in Ethiopia," (unpublished report) 14 October 1959, pp. 1-13. ; see also Russell Fountain, Abdallah E. Najjar, and Julius S. Prince, "The 1958 Malaria Epidemic in Ethiopia," *American Journal of Tropical Medicine and Hygiene,* Vol. 10, No. 6, (1961), pp. 795-803 ; "Report on the Second Regional Conference on Malaria Eradication (henceforth, ME)," AA, November 16-21, 1959, pp. 1-13, in WHO. And WHO file EM/ME Tech. 2/1-54, 1959. ; Schaller with a Geographical Contribution by Kuls, *A Geomedical Monograph Series 3: Regional Studies in Geographical Medicine,* p. 99. ; McCann, *The Historical Ecology of Malaria in Ethiopia,* p. 65.

[75] Fountaine and Najjar, "The 1958 Malaria Epidemic in Ethiopia," (unpublished report) 14 October 1959, pp. 1-13. ; see also "Report on the Second Regional Conference on ME," AA, November 16-21, 1959, pp. 1-13, in WHO. And WHO file EM/ME Tech. 2/1-54, 1959.

[76] "Report on the Second Regional Conference on ME," AA, November 16-21, 1959, pp. 1-13. ; Chand, "Progress Report of the Malaria Program in Ethiopia up to June, 1964," p. 51.

cases in areas above 2100 m.[77] Others extended it from 1, 200 to 2,200 m elevation level.[78] The worst affected areas were the central highland provinces of Shewa, Wollo, Gojjam[79], Begemeder and Tigray.[80] Russell Fountain, malariologist and malaria specialist with the United States International Cooperation Agency (US-ICA) in Ethiopia, estimated that the epidemic affected 3, 000,000 people and killed 150,000 people.[81] However, since there was no conducive health, socio-economic and political conditions (notably, absence of health facilities, lack of awareness, and banditry) as well as a reliable system of recording and describing diseases, the number of cases and deaths might have exceeded from the given statistics.

What is more, since the cause and type of disease was not discovered in the first three months of the epidemic through laboratory diagnosis, the epidemic was considered and reported by numerous local officials as epidemic typhus and epidemic relapsing fever.[82] It was also supposed to be a new disease (*Addis bäšita*) because the cases were reported from an unusual altitude range and environment for the first time. There have been studies conducted in the Lake Tana region and the central highlands which came up with the finding that *pl. Falciparum, pl.vivax*

[77] Chand, "Progress Report of the Malaria Program in Ethiopia up to June, 1964," p. 51. ; Schaller with a Geographical Contribution by Kuls, *A Geomedical Monograph Series 3: Regional Studies in Geographical Medicine*, p. 98. ; Informants: Awash and Asnakew.

[78] "Report on the Second Regional Conference on ME," AA, November 16-21, 1959, pp. 1-13.

[79] Fantahun, "The Impact of Malaria Epidemics on Agricultural Production in Dembia and Fogera, 1950-2000," p. 133. ; "Report on the Second Regional Conference on ME," AA, November 16-21, 1959, pp. 1-13. ; Schaller with a Geographical Contribution by Kuls, *A Geomedical Monograph Series 3: Regional Studies in Geographical Medicine*, pp. 98-99. ; McCann, *The Historical Ecology of Malaria in Ethiopia*, pp. 65-66.

[80] Fantahun, "The Impact of Malaria Epidemics on Agricultural Production in Dembia and Fogera, 1950-2000," p. 133. ; "Report on the Second Regional Conference on ME," AA, November 16-21, 1959.

[81] Malaria Eradication Service (hereafter, MES), "Report of A Strategy Review Team, May 6-27, 1970," p. 1. Or see IES Archive File No. 72-12955. ; Russell Fountain *et'al*, "The 1958 Malaria Epidemic in Ethiopia," p. 797. see also "Report on the Second Regional Conference on ME," AA, November 16-21, 1959, in WHO. ; WHO file EM/ME Tech. 2/1-54, 1959. ; Chand, "Progress Report of the Malaria Program in Ethiopia up to June, 1964," p. 51. ; Tena Abere, "A Speech Made on the Opening Session of EMCPA entitled The Malaria Challenges in Ethiopia and the Role of EMCPA," *Proceedings of the First Conference of the EMCPA* (unpublished), (AAU: at the Conference Whole of The School of Graduate Studies, Oct. 13, 2005), p. 4. This scholastic analysis was given owing to the presence of areas which were not properly investigated and evaluated due to its remoteness and inaccessibility such as the Upper Takazze River Valley and its tributary valleys in Tigray and Beghemder Provinces. The studies were insufficient. "Report on the Second Regional Conference on ME," AA, November 16-21, 1959.

[82] *Ibid.*, pp. 6-7

and mixed infection as causes of the epidemic. In addition, vectors, namely, *an. gambiae* and *an. arabiensis* were also discovered.[83]

Subsequently, though it was late, the imperial government under the auspices of WHO and ICA started a campaign to address the widespread of malaria epidemic outbreak by mass distribution of chloroquine. It was carried out by a team of health workers recruited from the Lake Tana area hospitals and public health agencies. Missionaries, policemen, Ethiopian Red Cross workers, and GPHC Students were also part of the campaign.[84] The campaign faced various challenges such as limited transport, (both in terms of road and vehicles), shortage of hospitals, physicians and other.[85] The team endeavored to treat malaria by using chloroquine. In remote regions they gave "a single massive dose of 600 mg chloroquine, and in more accessible areas 300 mg over three days".[86] But later they gathered over 500 voluntary persons from the above institutions to dispense four million chloroquine tablets to feverish patients within eight weeks.[87] The 1958 malaria epidemic outbreak was one reason for the establishment of NMES/P in Ethiopia.[88] It convinced the responsible authorities of the need to address the malaria challenge which was seen as a serious obstacle to the country's development.[89]

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[83] "Report on the Second Regional Conference on ME," AA, November 16-21, 1959. ; Schaller with a Geographical Contribution by Kuls, *A Geomedical Monograph Series 3: Regional Studies in Geographical Medicine*, pp. 98-99. ; McCann, *The Historical Ecology of Malaria in Ethiopia*, pp. 65-66.

[84] "Report on the Second Regional Conference on ME," AA, November 16-21, 1959. ; McCann, *The Historical Ecology of Malaria in Ethiopia*, p.65.

[85] McCann, *The Historical Ecology of Malaria in Ethiopia*, p. 66.

[86] "Report on the Second Regional Conference on ME," AA, November 16-21, 1959. ; McCann, *The Historical Ecology of Malaria in Ethiopia*, p. 66.

[87] *Ibid*.

[88] MES, "Report of A Strategy Review Team, May 6-27, 1970," p. 1. Or see IES Archive File No. 72-12955.

[89] Schaller with a Geographical Contribution by Kuls, *A Geomedical Monograph Series 3: Regional Studies in Geographical Medicine,* p. 99. Informants: Awash, Girma Gebray, Adisu Asrat, Kelklew and others. Since the outbreak of the 1958 malaria epidemic, there have been malaria outbreaks in different particular malaria-exposed regions of Ethiopia within a 5-8 years interval. Mulugeta, "The Challenges of Health and Disease Control in Ethiopia: The case of the Wonji-Shoa Sugar Estates since 1954," pp. 1-3. Conversely, others agreed the epidemic appeared within the interval of seven to eight years. Negussie Gebre-Mariam, Yahya Abdulahi and Assefa Mebrate," Malaria," in Zein Ahmed Zein and Helmut Kloos, *The Ecology of Health and Disease in Ethiopia,* (Addis Ababa: Ministry of Health, 1988), p. 138. ; McCann, *The Historical Ecology of Malaria in Ethiopia*, p. 64.

Malaria Control Pilot Projects (MCPPs) in Ethiopia

As I stated above, Ethiopia was chosen by the WHO as one of the African states where malaria pilot projects were to be established. Ethiopia also supported the idea of establishing the program and decided to take an immediate measure to avert the spread of the disease.[90]

Externally, it was a time when malaria got a great attention internationally. The WHO and other international partner agencies like ICA, USOM (Point Four, the later USAID), UNICEF and friendly nations, especially the USA government, showed willingness to support Ethiopia.[91] This facilitated the beginning of MCPPs in the country. The support was provided in various ways. For example, by introducing and advancing knowledge on how to approach the health problems and helping Ethiopia to achieve her envisaged objective in respect to health by using its own resources, both human and material. This was done by offering consultants and advisers, and providing training for local personnel. Financial support and giving fellowship for students to study malaria courses abroad was also another support given to Ethiopia. In this way WHO and other UN agencies provided their assistance and allowed the process in Ethiopia to continue on its own momentum.[92] Concerning malaria study, for instance, on March 30, 1955 the USOM agreed with the Ministry of Public Health (henceforth, MPH) to provide the service of two entomologists and one parasitologist. Based on this agreement, the U.S Government also

[90] "A Note Presented to the Malaria Eradication Board," NALA File No. 17.3.355.01. ; Shaka G. Yohannes, "Malaria Eradication in Ethiopia," *MES Bulletin*, vol. No. 3, (April-June, 1964), p. 17. It was a quarterly bulletin published in Amharic and English by the Health Education Division, MES: AA, Ethiopia.

[91] "A Note Present to the Malaria Eradication Board," NALA File No. 17.3.355.01. ; "Malaria and Other Vector Borne Diseases Control Program Structure/Chart Manifestation, henceforth, MOVBDCP," NALA, File No. 8.1.116.1. p. 2. ; "A Five Years Working Plan/Program of MPH," NALA File No. 11.1.5. 21. "New Health Protection Agreement Signed Here: To Benefit Health Welfare," *Ethiopian Herald*, (Sat., April 6, 1957), p. 2. ; "Measures Taken to Eradicate Malaria from Ethiopia (Amharic Version),"*MES Bulletin*, Vol. No. 8, (Dec.-Feb., 1967), p. 5. It was presented in the form of an interview among malaria workers.

[92] "New Health Protection Agreement Signed Here: To Benefit Health Welfare," *Ethiopian Herald*, (Sat., April 6, 1957), p. 2.

contributed ETH $100, 000. On the other hand, the MPH provided two trained sanitarians to the project.[93]

Prior to the establishment of the Ethiopian Malaria Eradication Service, the Imperial Ethiopian Government and its partners decided to set up selected research centers or pilot projects to determine whether malaria eradication from Ethiopia was possible with the use of Diphenyltrichloroethane (DDT). In 1955, therefore, the works of MPPs were begun in different selected malarious areas of Ethiopia.[94] These were the plains of Dembia in Gondar, Kobbo-Chercher, Upper Awash Valley, Gambella MPPs from 1955-1957[95] and Asmara.[96]

The pre-eradication MPPs had several objective(s). Among these, the first was to fill the technical, administrative or practical gaps of the Ethiopian government before going to proper steps to fight the disease on a nation-wide scale by launching an official NMEP.[97] The second was to find out whether malaria eradication was a feasible Public Health Program for Ethiopia or not with the chosen technique.[98] Thirdly, it aimed to procure information "needed to plan an effective method of malaria control in Ethiopia."[99] Fourth, it was to check infection and

[93] "Public Health Center Agreement is Reached: Added Health Facilities Seen," *Ethiopian Herald*, (Sat., April 9, 1955), p. 1.

[94] "A Note Presented to the Malaria Eradication Board," NALA, File No. 17.3.355.01. ; Shaka, "Malaria Eradication in Ethiopia," *MES Bulletin*, vol. No. 3, (April-June, 1964), p. 17.

[95] "A Note Presented to the Malaria Eradication Board," NALA, File No. 17.3.355.01. ; "A Five Years Working Plan/Program of MPH," NALA, File No. 11.1.5. 21. ; "MPH: MES Annual Report for the Five Year 1957 EC," *MES Bulletin*, Vol. No. 6, (Oct.-Dec., 1965), p. 8. ; Chand, "Malaria Problem in Ethiopia," p. 30. ; Schaller with a Geographical Contribution by Kuls, *A Geomedical Monograph Series 3: Regional Studies in Geographical Medicine.* p. 97. *;* Petros Demssie, "Malaria Eradication Problems in Ethiopia," *MES Bulletin*, Vol. No. 5, (April-June, 1965), p. 21. Or see IES Archive, File No. 69-8644. ; "Measures Taken to Eradicate Malaria from Ethiopia (Amharic Version)," *MES Bulletin*, Vol. No. 8, (Dec.-Feb. 1967), p. 3. It was presented in the form of an interview among malaria workers. ; Tena, "A Speech Made on the Opening Session of EMCPA: The Malaria Challenges in Ethiopia and the Role of EMCPA," *Proceedings the First Conference of the EMCPA* (unpublished), (AAU: at the Conference Whole of the School of Graduate Studies, Oct. 13, 2005), p. 4.

[96] Informant: Awash. Eritrea was federated with Ethiopia in 1952. So, there were 14 provinces based on the then administration structure of IGE. That is why I included Asmara as one place that malaria pilot project of IGE opened up.

[97] "A New Approach to Malaria Eradication," *MES Bulletin*, Vol. No. 2, (Mar. 9, 1964), p. 1. ; MPH, "Malaria Pre - Eradication Program in Ethiopia," *MES Bulletin*, vol. No. 3, (April-June, 1964), p. 15. ; Shaka, "Malaria Eradication in Ethiopia," *MES Bulletin*. Vol. No. 3, (Apri-June, 1963), p. 17.

[98] "A Note Present to the Malaria Eradication Board," NALA File No. 17.3.355.01. ; "Declaration of Ethiopian Delegate at Seventh WHO Regional Assembly," p.3.; Informant: Awash.

[99] "Malaria Control Project Explained to Villagers," *Ethiopian Herald*, (Sat., May 26, 1956), p. 2.

transmission of malaria and to find out the very best insecticide spray to be used later against malaria.[100] The other purpose of the Pilot Project was also to make an intensive study and investigation of malaria incidence, its prevalence and problem in different parts of Ethiopia.[101] According to P. Jolivet, the Pilot Projects were made just for "experimental purpose and survey."[102] The project therefore was focused on the nature of malaria in Ethiopia, the type of malaria that prevalently appeared and the ability of DDT, Dieldrin and chloroquine in eliminating the scourge. This investigation was mainly conducted from 1955 on and the activities would continue up to the official formation of NMES/P in Ethiopia in 1959.

The joint MPH-Point Four Malaria Survey and Control Project commenced its pilot work in March 1955.[103] In this first survey, the Kobbo-Chercher Plain was selected as one malaria pilot project area. Alamata became headquarters or field laboratory to conduct studies on "malaria bearing mosquitoes" by entomologists and parasitologists in the region. The survey was also conducted in Gondar and other areas of Ethiopia. The joint program concluded their survey by establishing headquarters laboratory in the Pasteur Institute in Addis Ababa in 1955.[104]

The Kobo-Chercher Plain Pilot Project was commenced in September 1955 by the MPH under the auspices of US-ICA (United States Cooperation Agency).[105] The site was situated about 375

[100] "The World Health Organization in Ethiopia," *Ethiopia Observer*, Vol. II, No. 9. (Oct. 1958), p. 300. ; "Malaria Control Conference Suggests Eradication Plan: Experts from Geneva and Washington Participate," *Ethiopian Herald*, (Sat., March 15, 1958), p.1.

[101] Shaka, "Malaria Eradication in Ethiopia," *MES Bulletin*, Vol. No. 3, (April-June, 1964), p. 17. "Declaration of Ethiopian Delegate at Seventh WHO Regional Assembly," *Ethiopian Herald*, (Sat., Nov. 15, 1958), p. 3.

[102] P. Jolivet, "Senior Course in Malaria Entomology: New Revision (1961), Lecture XXVIII, The Entomologists Role in a Malaria Eradication Programme," (unpublished document) 1961. Or see IES Archive, File No. 84-22702.

[103] "Malaria Campaign to Begin Big Operation in Chercher," *Ethiopian Herald*, (Sat., Aug. 25, 1956), p. 3. ; "Malaria Control Project Explained to Villagers," *Ethiopian Herald*, (Sat., May 26, 1956), p. 2.

[104] "Malaria Control Project Explained to Villagers," *Ethiopian Herald*, (Sat., May 26, 1956), p. 2.

[105] "Malarial Control Conference Suggests Eradication Plan: Experts from Geneva and Washington Participate," *Ethiopian Herald*, (Sat., March 15, 1958), p. 1. ; "Declaration of Ethiopian Delegate at Seventh WHO Regional Assembly," *Ethiopian Herald*, (Sat., Nov. 15, 1958), p. 3.

miles north from Addis Ababa on the road to Asmara.[106] Its elevation reached 1,524 meters or 5000 feet.[107]It was a rich agricultural area that covered about 200 square miles.

The malaria team carried out numerous technical studies in the Chercher plain.[108] MPH and Point Four also engaged in providing informal training courses to Ethiopian personnel in the field of entomology and parasitology work.[109]

The survey and pilot studies proved malaria's endemicity.[110] It also illuminated that "a large majority had malaria" which was cause for frequent early death and, in milder forms, debilitates victims of the mosquitoes borne diseases.[111]

The pilot program was carried out in phases. The first phase was an education program[112] aimed to acquaint the population of the Kobo-Chercher Plain about the purpose of the Government's Malaria Control Program (henceforth, MCP), how it would be carried out, and how it would benefit them.[113] This was conducted before going organizing the actual campaign. For instance, in May 1956, Point Four's Malaria Team, which was organized by the Public Health educator, *Ato* Hailu Sebsibie, together with Ethiopia's MPH and his three American technicians, conducted a week tour in the Kobo-Chercher plain area to firm/aware the purpose of this phase.[114] This

[106] "Declaration of Ethiopian Delegate at Seventh WHO Regional Assembly," *Ethiopian Herald*, (Sat., Nov. 15, 1958), p. 3.

[107] "Malarial Control Conference Suggests Eradication Plan: Experts from Geneva and Washington Participate," *Ethiopian Herald*, (Sat., March 15, 1958), p. 1.

[108] "Malaria Campaign to Begin Big Operation in Chercher," *Ethiopian Herald*, (Sat., Aug. 25, 1956), p. 3.

[109] "Malaria Control Project Explained to Villagers," *Ethiopian Herald*, (Sat., May 26, 1956), p. 2. ; "Malaria Campaign to Begin Big Operation in Chercher," *Ethiopian Herald*, (Sat., Aug. 25, 1956), p. 3.

[110] "Declaration of Ethiopian Delegate at Seventh WHO Regional Assembly," *Ethiopian Herald*, (Sat., March 15, 1958), p. 3.

[111] "Malaria Control Project Explained to Villagers," *Ethiopian Herald*, (Sat., May 26, 1956), p. 2. ; "Malaria Campaign to Begin Big Operation in Chercher," *Ethiopian Herald*, (Sat., Aug. 25, 1956), p. 3.

[112] "Struggle Against Malaria in Country is Showing Success," *Ethiopian Herald*, (Sat., June 15, 1957), p. 4.

[113] "Malaria Control Project Explained to Villagers," *Ethiopian Herald*, (Sat., May 26, 1956), p. 2. ; "Malaria Campaign to Begin Big Operation in Chercher," *Ethiopian Herald*, (Sat., Aug. 25, 1956), p. 3. ; "Struggle Against Malaria in Country is Showing Success," *Ethiopian Herald*, (Sat., June 15, 1957), p. 4.

[114] "Malaria Campaign to Begin Big Operation in Chercher," *Ethiopian Herald*, (Sat., Aug. 25, 1956), p. 3. ; "Malaria Control Project Explained to Villagers," *Ethiopian Herald*, (Sat., May 26, 1956), p. 2. The three American technicians were Dr. Paul L. Rice-Senior Entomological Advisor; Mr. Ed Najjar, Parasitological Advisor; and Mr. John Lane, Entomological Advisor from

educational program consisted of five evening programs that were accompanied by showing motion films, film strips and film lectures to the principal villages of the area about the malaria control plan that was being developed by the MPH with Point Four assistance. Various professionals, both national and expatriate, such as senior and assistant entomologist, parasitologist, and sanitarian, were also part of each trip.[115]

After carrying out an intensive research program that lasted for eight months, and completed the first phase, the joint program embarked on the second phase i.e. actual spray to combat the malaria bearing mosquitoes. Since its beginning, the project carried out three DDT sprays.[116] The first in August 22, 1956,[117] the second in May 1957[118] and the final spray coverage in July 1958. The project leader believed that tens of thousands individuals would receive protection from malaria due to these spraying activities.[119] For instance, from the first spraying expected near to 40, 000 people were treated.[120] From the second spraying expected around 8, 643 houses were treated and over 34, 000 individuals.[121] 17000 dwellings or 70, 000 individuals received reasonable guarantees from the last spraying from catching malaria.[122]

In 1956 another ICA- assisted MPP was started in the Dembia Plains which is situated to the south of Gondar and extending to the shores of Lake Tana. The elevation of the area reached up

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American assistants. For detail see "Malaria Control Project Explained to Villagers," *Ethiopian Herald*, (Sat., May 26, 1956), p. 2.

[115] "Malaria Campaign to Begin Big Operation in Chercher," *Ethiopian Herald*, (Sat., Aug. 25, 1956), p. 3. ; "Malaria Control Project Explained to Villagers," *Ethiopian Herald*, (Sat., May 26, 1956), p. 2.

[116] "Declaration of Ethiopian Delegate at Seventh WHO Regional Assembly," *Ethiopian Herald*, (Sat., March 15, 1958), p. 3.

[117] "Malaria Campaign to Begin Big Operation in Chercher," *Ethiopian Herald*, (Sat., Aug. 25, 1956), p. 3. ; "Struggle Against Malaria in Country is Showing Success," *Ethiopian Herald*, (Sat., June 15, 1957), p. 4.

[118] "Malarial Control Conference Suggests Eradication Plan: Experts from Geneva and Washington Participate," *Ethiopian Herald*, (Sat., March 15, 1958), p. 1.

[119] "Declaration of Ethiopian Delegate at Seventh WHO Regional Assembly," *Ethiopian Herald*, (Sat., March 15, 1958), p. 3.

[120] "Malaria Campaign to Begin Big Operation in Chercher," *Ethiopian Herald*, (Sat., Aug. 25, 1956), p. 3.

[121] "Struggle Against Malaria in Country is Showing Success," *Ethiopian Herald*, (Sat., June 15, 1957), p. 4.

[122] "Declaration of Ethiopian Delegate at Seventh WHO Regional Assembly," *Ethiopian Herald*, (Sat., March 15, 1958), p. 3.

to 6,000 feet.[123] It was surveyed and sprayed in February 1956 and 1957 respectively.[124] 50,000 people were believed to have gotten reasonable protection from malaria owing to these sprays. The second annual spray period of the Dembia Plains was completed in June 1958. It also served as a field training site for students of the School of Public Health in malaria control. The project operation therefore also gave a good field experience to medically trained young men in malaria control.[125]

The third MPP focusing on the Upper Awash with its center at Nazareth was started in 1956[126] by a joint Malaria Control Pilot Project (MCPP) of MPH, UNICEF and WHO.[127] The project was located in the Awash River valley which lies at an elevation of 3, 500-5,000 feet and is 100 kilometers east of Addis Ababa.[128] Though there are different records that indicate different dates regarding the commencement of the Awash MPP, (1955, 1957 and 1958), the most reliable evidence indicates that the survey of the project was commenced in 1956. Initially the project comprised an area of 400 squares miles with 20, 000 people.[129] But later, the scope of the project was extended to include a larger area up to Matahara, 100 kms to the east of Nazareth and covering 1000 square miles. The campaign began in Oct. 1956. The project area was surveyed

[123] "Declaration of Ethiopian Delegate at Seventh WHO Regional Assembly," *Ethiopian Herald*, (Sat., March 15, 1958), p. 3.

[124] "Malaria Control Conference Suggests Eradication Plan: Experts from Geneva and Washington Participate," *Ethiopian Herald*, (Sat., March 15, 1958), p. 1.

[125] "Declaration of Ethiopian Delegate at Seventh WHO Regional Assembly," *Ethiopian Herald*, (Sat., March 15, 1958), p. 3.

[126] "Malaria Control Conference Suggests Eradication Plan: Experts from Geneva and Washington Participate," *Ethiopian Herald*, (Sat., March 15, 1958), p. 1. ; "Malaria Pilot Projects About to Be Launched," *Ethiopian Herald*, (Sat., Sept. 15, 1956), p. 3. ; "Anti-Malaria Pilot Project Wages War On Scourge: Efforts Showing Beneficial Results Over A Wide Area," *Ethiopian Herald*, (Sat.,July 20,1957), p. 1.

[127] "New Health Protection Agreement Signed Here: To Benefit Health Welfare," *Ethiopian Herald*, (Sat., April 6, 1957), p. 1. ; "Malaria Control Conference Suggests Eradication Plan: Experts from Geneva and Washington Participate," *Ethiopian Herald*, (Sat., March 15, 1958), p. 1. ; "Anti-Malaria Pilot Project Wages War On Scourge: Efforts Showing Beneficial Results Over A Wide Area," p. 1. The pact was signed by Dr. Ali T. Shusha, Regional Director of the Middle East and Eastern Mediterranean Region on behalf of WHO, Mr. Hans Ehrenstral, UNICF, on behalf of his organization, and H.E. *Ato* Akala Work Habtewold, MPH, on behalf of IEG.

[128] "Malaria Control Conference Suggests Eradication Plan: Experts from Geneva and Washington Participate," *Ethiopian Herald*, (Sat., March 15, 1958), p. 1. "Malaria Pilot Projects About to Be Launched," *Ethiopian Herald*, (Sat., Sept. 15, 1956), p. 3.

[129] "Malaria Pilot Projects About to Be Launched," *Ethiopian Herald*, (Sat., Sept. 15, 1956), p. 3.

and sprayed in April 1956 and 1957 respectively.[130] Its second spray was completed in 1958 and approximately 40, 000 dwellings and structures were sprayed and an estimated 129, 000 people were protected from malaria in this project.[131] Various professionals from the WHO team were involved in this task.[132]

The above historical narration is dependent on government official reports. Therefore, though the spraying had significance in reducing malaria's prevalence, the figures put in the report might not be absolutely true.

The researches which began before the campaign, continued to examine people's reaction in several villages as well as to determine the rate of malaria incidence in the various regions in which the projects operated. Government official reports including *The Ethiopian Herald* reported that Malaria Control Team (MCT) investigations, within the MPP areas, indicated valuable participation, good understanding and positive reaction from officials, provincial governors,[133] and sub-governors of the district, and the community to the anti-malaria program.[134] The studies also revealed continued interest of the people in the anti-malaria program.[135] The people collaborated with malaria workers and demonstrated their co-operation by telling the spray crews when they missed dwellings during the spray operations; by facilitating the building and improving transportation infrastructures, building bridges, roads, and

[130] "Malaria Control Conference Suggests Eradication Plan: Experts from Geneva and Washington Participate," *Ethiopian Herald*, (Sat., March 15, 1958), p. 1.

[131] "Declaration of Ethiopian Delegate at Seventh WHO Regional Assembly," *Ethiopian Herald*, (Sat., Nov. 22, 1958), p. 3.

[132] "Malaria Pilot Projects About to Be Launched," *Ethiopian Herald*, (Sat., Sept. 15, 1956), p. 3. That consists of Dr. M.A. Zaphiropoulos, malariologist and Mr. George Costassianis, a sanitarian, of Greece, entomologists and parasitologist also participated.

[133] Example *Kegnazmatch* Moges Ali, Governor of Kobo and *Kegnazmatch* Tesfai, Governor of Alamata for further information see Ethiopian Herald, "Malaria Control Project Explained to Villagers," p. 2. ; "Struggle Against Malaria In Country is Showing Success," *Ethiopian Herald*, (Sat., June 15, 1957), p. 4.

[134] "Malaria Control Project Explained to Villagers," *Ethiopian Herald*, (Sat., May 26, 1956), p. 2. ; "Struggle Against Malaria In Country is Showing Success," *Ethiopian Herald*, (Sat., June 15, 1957), p. 4.

[135] "Struggle Against Malaria in Country is Showing Success," *Ethiopian Herald*, (Sat., June 15, 1957), p. 4. ; "Declaration of Ethiopian Delegate at Seventh WHO Regional Assembly," *Ethiopian Herald*, (Sat., Nov. 22, 1958), p. 3.

trails, to permit trucks to reach remote villages, and forwarding their request to include their territorial jurisdiction in the malaria operations. Furthermore, the program became known both by ordinary people as well as local officials and provincial governors.[136] But these reports have to be seen cautiously since they are governmental reports which might emphasize the positive sides of the programs while downplaying local challenges and failures. The studies carried out in some particular areas also might not represent the populations in the entire region which might have their own peculiar culture, religion, tradition etc. which probably posed challenges to the program.

The teams also checked homes before and after sprays to determine the relative value of the chemicals and the effects of residual sprays used. They also captured and examined the various types of mosquitoes found in order to determine the percentage of malaria parasites.[137]

The studies conducted by the aforementioned malaria pilot projects brought out promising outcomes regarding the containment of malaria transmission in Ethiopia.[138] The studies, mainly conducted in Kobo Chercher, Dembia and Upper Awash, confirmed that malaria transmission could be contained with the use of residual indoor insecticide spraying (IRS).[139] No malaria epidemic outbreaks were reported from DDT insecticide sprayed malaria pilot project areas

[136] "Declaration of Ethiopian Delegate at Seventh WHO Regional Assembly," *Ethiopian Herald*, (Sat., Nov. 22, 1958), p. 3.

[137] "Struggle Against Malaria in Country is Showing Success," *Ethiopian Herald*, (Sat., June 15, 1957), p. 4.

[138] Shaka, "Malaria Eradication in Ethiopia," *MES Bulletin*, Vol. No. 3, (April-June, 1964), p. 17. ; Chand, "Malaria Problem in Ethiopia", p. 30. ; Tena, "A Speech Made on the Opening Session of EMCPA," "The Malaria Challenges in Ethiopia and the Role of EMCPA," *Proceedings of the First Conference of EMCPA* (unpublished), (AAU: at the Conference Whole of the School of Graduate Studies, Oct. 13, 2005), p. 4.

[139] Petros, "Malaria Eradication Problems in Ethiopia," *MES Bulletin*, Vol. No. 5, (April-June, 1965), p. 21. Or see IES Archive, File No. 69-8644. ; "MPH, MES Annual Report for the Five Year 1957 EC," *MES Bulletin*, Vol. No. 6, (Oct.-Dec., 1965), p. 8. ; Chand, "Malaria Problems in Ethiopia", p. 30. ; Chand, "Progress Report of the Malaria Program in Ethiopia Up to June 1964," pp. 50-51. ; Schaller with a Geographical Contribution by Kuls, *A Geomedical Monograph Series 3: Regional Studies in Geographical Medicine*, p. 97.

during the 1958 devastating malaria epidemics outbreak.[140] The pilot projects proved that eradication of malaria from Ethiopia would definitely be achieved if the needed resources, both human and financial, were made available to ensure the continuity of the program, and the MEP would follow the same techniques over contiguous areas.[141] The malariologists who subsequently examined and studied the epidemiological and operational data accumulated by the three Pilot Malaria Projects concluded that the break of malaria transmission is technically feasible in all areas of Ethiopia characterized by conditions similar to those of the Pilot Project areas at elevation above 3, 500 feet.[142]

Based on this background information on the progress of malaria problems in Ethiopia, in 1958, the WHO headquarters and its Eastern Mediterranean Regional Office (henceforth, WHO-EMRO), and the US-ICA Malaria Unit officials and distinguished malariologists[143] met together with experts and consultants, who led research and pilot centers, at the MPH, in Addis Ababa. Based on the results of the pilot projects' studies presented to them, the malaria experts decided that it was possible to eradicate malaria from Ethiopia by the aforementioned technique. They also examined the preparations which were being made by the government for launching a MEP. Finally, the experts made various recommendations that need to be done by the Ethiopian government and its partners before starting the program nationally. The first was a request to the government to accept the WHO's Malaria Eradication principle. The second recommendation was to issue a proclamation of a plan to effectively end malaria in Ethiopia. Besides, they recommended that the government draw up legislation or regulation in line with the

[140] MES, "Report of A Strategy Review Team, May 6-27, 1970," p. 1. Or see IES Archive File No. 72-12955. ; Russell Fountain, Abdallah E. Najjar, and Julius S. Prince, "The 1958 Malaria Epidemic in Ethiopia," p.797. see also "Report on the Second Regional Conference on ME," AA, November 16-21, 1959, in WHO. ; WHO file EM/ME Tech. 2/1-54,1959.

[141] Shaka, "Malaria Eradication in Ethiopia," *MES Bulletin*, Vol. No. 3, (April-June, 1964), pp. 17-18. ; MES, "Report of A Strategy Review Team, May 6-27, 1970," p. 1. Or see IES Archive File No. 72-12955.

[142] "Declaration of Ethiopian Delegate At Seventh WHO Regional Assembly," *Ethiopian Herald*, (Sat., Nov. 22, 1958), p. 3.

[143] That included Dr. E. J. Pampana, and Dr. M. A. Farid of WHO and Mr. Roy F. Fritz of ICA.

recommendation of WHO sixth report Expert Committee on malaria. Thirdly, they advised the establishment of an adequately staffed and an independent NMES/P under a National Directory who would be responsible to the MPH in the administration of the program. Fourthly, they recommended the establishment of a school for training the organization's staff in collaboration with the WHO and the USICA. Fifthly, they advised carrying out research and determine the time and money required to complete/accomplish the entire work of malaria eradication in Ethiopia. The sixth recommendation was to continue and extend the work of eradicating malaria in the area where the existing research and pilot projects are located with the objective of malaria eradication rather than its technical feasibility. Seventhly, the scholars suggested selecting a low-lying area in Ethiopia and setting up a new research and pilot project. Finally, with the help of experts from partners, recommended to continue an intensified survey with the objective of determining more exactly the malaria vulnerable areas of Ethiopia.[144]

Subsequently, all the above malaria expert recommendations were implemented step by step by the government. For example, the Gambella pilot project was established in 1959 according to the seventh malaria experts' recommendation of initiating a project in the lowlands.[145] We will assess in chapter three how each of the above recommendations was implemented.

Like the studies undertaken by Italian and British malaria experts from the late 1930s to the early 1950s, studies conducted in the late 1950s further unearthed malaria incidence, its endemicness, and seasonality. They also revealed the convergence of the disease with altitude and climate. Moreover, types of human malaria and its main vectors were identified. It is worthy of note here that new discoveries unattained by prior studies were registered. This includes the applying of

[144] "A Note Present to the Malaria Eradication Board," NALA, File No. 17.3.355.01. ; "Declaration of Ethiopian Delegate At Seventh WHO Regional Assembly," *Ethiopian Herald,* (Sat., Nov. 22, 1958), p. 3.
[145] "A Note Present to the Malaria Eradication Board," NALA, File No. 17.3.355.01. ;

DDT spray, Dieldrin and treatments, such as quinine and Chloroquine. Furthermore, below 2000 m above sea level and above 18 degree centigrade temperature were identified as malaria vulnerable areas.

In the final analysis, evidence procured from the MCPPs, the proposals and recommendations of the distinguished malaria experts, the stimulating upshots of using DDT and Chloroquine, the successes of the MES/P in other parts of the world, and the overwhelming health and socio-economic impacts brought about by the 1958 malaria epidemic had induced the Ethiopian government to admit and establish MES/P. How the packages of the MES/P were implemented under the auspice of the MPH, would be the focus of the following chapter.

CHAPTER THREE

Establishment and Operations of the National Malaria Eradication Service/Program in Ethiopia (1959-1971)

The establishment of the National Malaria Eradication Service/Program (NMES/P) in Ethiopia was precipitated by internal and external historical developments that have been discussed in the preceding chapter. Various activities were accomplished under the NMES/P in Ethiopia from 1959 to 1971. This chapter describes the processes involved in the foundation and development of NMES/P in Ethiopia during these two decades. Moreover, the chapter deals with the organizational structure of the program, its operational aspects, and administrative and technical personnel. Furthermore, it examines the strategies and execution mechanisms that the NMES/P applied in the course of eliminating the scourge. It also assesses the success of NMES/P in achieving its gigantic task of eradicating malaria in Ethiopia. Lastly, the chapter addresses such issues as the phases performed by the program of the NMES/P, its significance, predicaments it confronted and why and how it was phased out.

Establishment and Objective(s)

The Ethiopian government, with the aid of various international institutions, friendly states and an inter-ministerial advisory committee officially inaugurated the NMES/P on Feb. 28, 1959.[146] Awash Teklehaimanot, however, argues that Ethiopia did not get recognition by the WHO to commence the program. It was created with the support of USAID and the United States Government. He also added that it was difficult even to call the program "eradication". It was

[146] "An Order To Provide For the Eradication of Malaria in Ethiopia," *Negarit Gazeta*, No. 6, Proclaimed by Imperial Order No. 22 of 1959, pp. 30-32. ; "A Note Present to the Malaria Eradication Board," NALA, File No. 17.3.355.01. ; MES, "Report of A Strategy Review Team, May 6-27, 1970," p. 1. IES Archive File No. 72-12955. ; MPH: *MES Bulletin*, Vol. No. 3, (April-June, 1964), pp. 1-4. ; see also most of the MES newsletters. Some authors like Chand and Awash put the calendar by EC but not that rather it was based on GC. This proved by using more authentic data like proclamation and archival sources.

better to be called "elimination".[147] However, the argument made by Awash is corroborated by reliable evidences I uncovered in the course of conducting the research and it seems probable that the MES/P came into being with the recognition and help of the WHO and other UN Agencies, US ICA and friendly states. Adisu Asrat also does not agree with this. According to Adisu, the program emerged as control first and he noted that in due course they investigated and reported malaria eradication was not feasible in Ethiopia for the then minister of MPH, Abebe Retta. But he did not agree with their idea. This was becouse he believed that if they did not proved malaria eradication feasibility, they could not get assistance from UN agencies and friendly states. Adisu believes the minister probably bribed the expatriate scholars who came to Ethiopia to examine the feasibility of malaria eradication.[148] Whatever the case, Imperial Order No. 22 of 1959 created the NMES/P as a semi-autonomous Government Agency under the direct direction, control and supervision of the Ministry of Public Health (MPH).[149] Its head office was to be located in Addis Ababa in the premises of the MPH, the precursor to the Ministry of Health. In line with the objectives of the Global Malaria Eradication Service/Program (GMES/P), the ultimate goal of the program was to eradicate malaria from the entire country

[147] Informant: Awash.

[148] Informant: Adisu. He was one of the investigators in the course of studying malaria's feasibility in Ethiopia as a health officer. But I couldn't corroborate this with other credible sources.

[149] "An Order To Provide For the Eradication of Malaria in Ethiopia," *Negarit Gazeta*, No. 6, Proclaimed by Imperial Order No. 22 of 1959, pp. 30-32. ; "A Note Present to the Malaria Eradication Board," NALA, File No. 17.3.355.01. ; "A Speech made by Emperor Haile Selassie I in the Inauguration of malaria eradication attack phase," NALA, File No. 1.2.42.17. ; "MOVBDCP Structure/Chart Manifestation," NALA, File No. 8.1.116.1. ; "MES Report of A Strategy Review Team, May 6-27, 1970," p. 1. Or see IES Archive File No. 72-12955. ; Petros, "Malaria Eradication Problems in Ethiopia," *MES Bulletin*, Vol. No. 5, (April-June, 1965), p. 21. IES Archive, File No. 69-8644.; Chand, "Malaria Problem in Ethiopia," p. 31. ; Chand, "Progress Report of the Malaria Problem in Ethiopia Up To June 1964," p. 52. ; MPH, "MES Pictorial Review: In Commemoration of the 80th Birthday of His Imperial Majesty Haile Selassie I," (AA: Central Press, July 1972), pp. 8, 11. ; Schaller with a Geographical Contribution by Kuls, *A Geomedical Monograph Series 3: Regional Studies in Geographical Medicine,* p. 95. ; Informants: Adisu, Awash, Kelklew, and Megersa. WHO planned to eradicate the disease within ten years, but the NMES/P did not set appropriate with this. "The Five Years Work plan/program of MPH," NALA, File No. 11.1.5.21. ; "Measures Taken to Eradicate Malaria from Ethiopia (Amharic Version)," *MES Bulletin,* Vol. No. 8, (Dec.-Feb. 1967), p. 3. But Adisu does not agree with this. According to Adisu, the program emerged as control first. It changed into eradication in 1965. MPH, MES (unpublished document), or see IES Archive, File No. 71-11385, pp. 71. ; E. Shafa, "The Role of Physicians in Hospitals and Other Health Workers in the Malaria Eradication Program in Ethiopia," {Reprinted from *Ethiopian Medical Journal,* Vol. IV, No. 4, (July, 1966), *MES Bulletin*, Vol. No. 8, (Dec.-Feb. 1967), p. 33. (A Speech made by NMETC Director, Yosef Bushen, in the 14th Round NMETC graduate inaugural ceremony (Amharic)" *MESN*, Vol. 3, No. 6, (May 31, 1968), pp. 8-10. ; Informant: Adisu.

within a short period of time and bring about socio-economic development.[150] The GMES/P did not set a uniform time schedule for all member states to eradicate malaria. At first it was designed to eliminate malaria within eight years from Ethiopia. Later on, in June 1956 EC, however, it was recommended to reconsider the date. This recommendation was made by malaria epidemiology research teams of the service and the WHO advisory group. Experts realized the impossibility of implementing an all-out malaria eradication within the given time and that this had to be undertaken step by step. Accordingly, the program planned to wipe out the disease from Ethiopia within twelve to fifteen years.[151] Based on both the Imperial Ethiopian Government (IEG) and World Health Organization (WHO) plans, the program would eradicate the disease from Ethiopia by 1980 with a budget of US $50 million.[152] This ending time of the program clashes with the time I alluded above, fifteen years, that is from the time of its inception. On the other hand, in a study undertaken by Schaller the year 1979 was identified as the deadline for the accomplishment of the program.[153] On the basis of the proximity of the given years, it is possible to suggest that the program was planned to eradicate malaria from Ethiopia in the years 1978-1980.

[150] "MOVBDCP Structure/Chart Manifestation," NALA, File No. 8.1.116.1. p. 3. ; "A Note Presented to the Malaria Eradication Board," NALA, File No. 17.3.355.01. ; MPH: *MES Bulletin,* Vol. No. 3, (April-June, 1964), pp. 1-4. ; *MES Bulletin*, (no Vol. No. and year, but it might be No. 7), pp. 5, 7. ; A speech made by HIM and Abebe Reta, the then minister of MPH, in the inauguration of the attack phase at Nazareth, on 13 March, 1966. MPH, "MES Pictorial Review," (Addis Ababa: Central Press, July 1972), p. 8. The former MES laboratory and administrative building found or appear at the right exit gate direction of MOH yet and has also given a service for the ministry. Informants: Adisu Asrat, Awash, Kelklew, Megersa Komore, Girma Gebray and Mastewal Sinshaw. According to Adisu, Megersa and Mastewal, remain buildings of the program were destroyed by the minister office and replaced by other new buildings.

[151] Letter wrote to Ministry of Interior from Abebe Retta, Minister of MPH, No. 03/008/55/56. ; MPH: *MES Bulletin,* Vol. No. 3, (April-June, 1964), pp. 2-3.

[152] "MOVBDCP Structure/Chart Manifestation," NALA, File No. 8.1.116.1. p. 3. ; McCann, *The Historical Ecology of Malaria in Ethiopia*, pp. 73-75. ; Awash, "Malaria in Ethiopia," p. 13. IES Archive File No. 69-8852. ; Pankhurst with a Postscript Asrat, *An Introduction to the Medical History of Ethiopia*, p. 252. But some accounts noted the WHO determined to eradicate malaria within ten years "The Five Years Work plan/program of MPH," NALA, File No. 11.1.5.21. There, therefore, was a controversial time frame designed for the program.

[153] Schaller with a Geographical Contribution by Kuls, *A Geomedical Monograph Series 3: Regional Studies in Geographical Medicine,* p. 101.

Figure 1: Malaria Eradication Service Headquarter in the Compound of Ministry of Public Health

Source: "The Establishment of the MES," *MES Pictorial Review* (AA: Central Press, July 1972), p. 11.

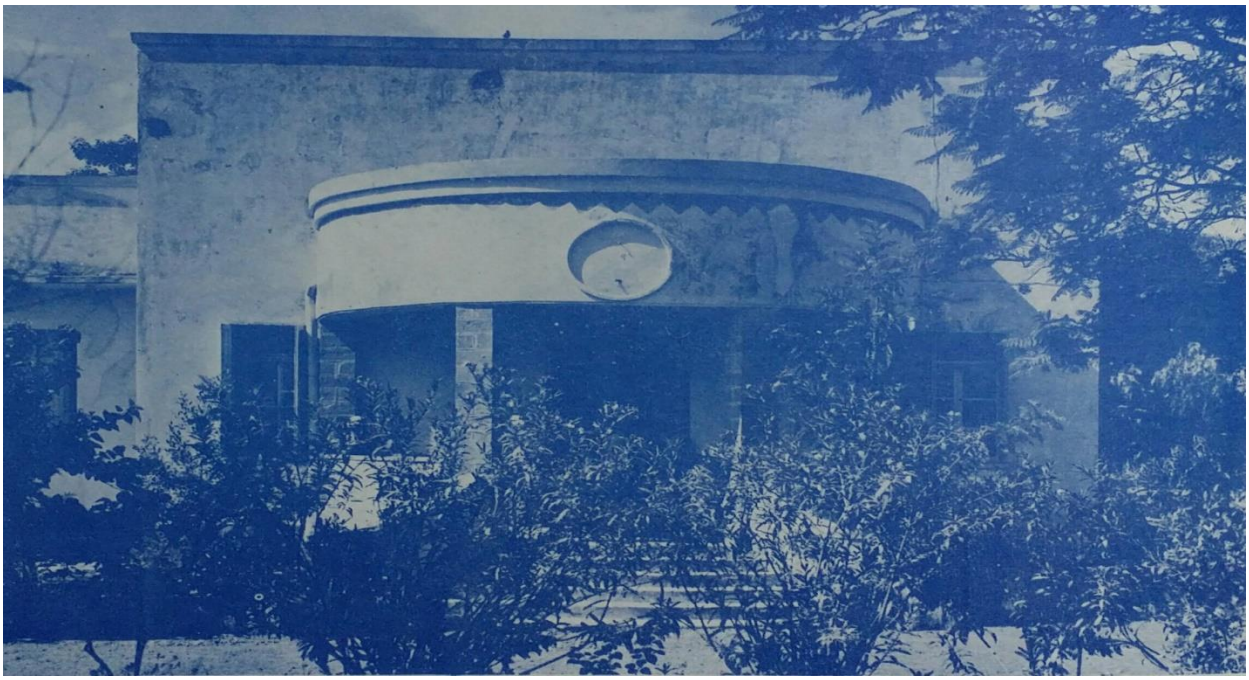
To train anti-malaria workers and to achieve the goal of malaria eradication program by solving shortage of human resource, a National Malaria Eradication Training Center (NMETC) was established in Nazareth (Adama), as a joint project of the Ethiopian government and the WHO, in the early months of 1959. Its major aim was to train "sub-professional" malaria field and laboratory technician staff required for the malaria organization.[154] Emperor Haile Selassie I donated his Nazareth palace situated around St. Mary Church, to serve as a training center for malaria workers.[155] Thenceforth, the palace became the training center for students in the various

[154] Petros, "Malaria Eradication Problems in Ethiopia," *MES Bulletin,* Vol. No. 5, (April-June, 1965), p. 21. Or see IES Archive, File No. 69-8644. ; MPH, *MES Pictorial Review,* (Addis Ababa: Central Press, July 1972), pp. 12, 31. ; Chand, "The Problem of Malaria in Ethiopia", p. 31. ; Shaka, "Malaria Eradication in Ethiopia," *MES Bulleti*n, Vol. No. 3, (April-June, 1964), p. 19. ; Chand, "Progress Report of the Malaria Program in Ethiopia Up to June 1964," p. 51. ; "MPH, Annual Report for the Five Year 1957 EC," *MES Bulletin,* Vol. No. 6, (Oct.-Dec., 1965), p. 12. ; Chand, "The Problem of Malaria in Ethiopia," p. 31. ; Informants: Adisu, Awash, Kelklew, Girma, Tesfaye Balhere and Abera Taddesse.

[155] Mulugeta, "The Challenges of Health and Disease Control in Ethiopia: The Case of the Wonji-Shoa Sugar Estates since 1954," p. 26. ; *MPH, MES Pictorial Review,* (Addis Ababa: Central Press, July 1972), pp. 12, 31. ; Informants: Awash, Adisu,

techniques or fields of malaria eradication i.e entomology, parasitology, Geographical Reconnaissance (henceforth, GR), spraying operations, health education and public relations, administration, etc.[156] Professional training was provided at international malaria training centers like Manila and Lagos, and various universities in the USA such as Johns Hopkins. This was done with the help of United States Agency for International Development (USAID) and WHO.[157]

Figure 2: National Malaria Eradication Training Center (METC), Nazareth (Adama)



Source**:** "The METC," *MPH, MES Pictorial Review* (Addis Ababa: Central Press, July 1972, P.12)

Girma, Tesfaye and Abera. Personally observation. According to Abera and Tesfaye the Empreror shifted and built a new palace at Mebrat Hail, Sodere. According to Girma the NMETC terminated its service following the rise of the Därg /the socialist military government to power and it became the office of Ethiopian Workers Party (EWP). However, Sheleme Chibsa argued it and noted that the existence of training center at Nazareth around the previous training center of the program. Informant: Sheleme Chibsa.

[156] MPH, *MES Pictorial Review*, (Addis Ababa: Central Press, July 1972), p. 31.

[157] "MPH Annual Report for the Five Year 1957 EC," *MES Bulletin*, Vol. No. 6, (Oct.-Dec., 1965), p. 12.

The recruitment of the trainees or students was made from the whole Empire Secondary Schools.[158] According to Shaka the minimum requirement for admission was grade 10 completions.[159] But Girma included grade eight students.[160] Their age had to be 19-25.[161] Some of my informants were themselves recruited when they were grade 11 and 12 students such as Adisu and Awash from Kotebe Secondary and Preparatory School.[162] Apart from that, others also confirmed the twelve complete students were also recruited for the training of this programme.[163] Besides their grade level, there was a standard set to be members of the programme that the students must fulfill. These were the results of written examination, interviews, physical fitness and age. Therefore, we have to say at the beginning from grade 10 complete up to 12 complete students could be recruited to take part in the course and become MEP trainer and personnel. Up to 1972, the NMETC had been able to produce 1000 technical personnel who had already been involved in the work of the MEP.[164] For squad chief position grade six to eight students were recruited.[165]

Initially, all the instructors of NMETC were foreigners who came from a variety of countries. Informants for example remember Mr. Francis David Gibson, a Scottish Parasitology chief, Mr. Stafford from England as Operation chief, and Ohse- Japanese, Director of the NMETC. All were under the employment of the WHO. Gradually, however, Ethiopian teachers began to assume the teaching posts.[166]

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[158] *MPH, MES Pictorial Review*, (Addis Ababa: Central Press, July 1972), p. 31. Informants: Adisu and Awash.
[159] Shaka, "Malaria Eradication in Ethiopia," *MES Bulletin,* Vol. No. 3, (April-June, 1964*)*, p. 21.
[160] Informant: Girma.
[161] Shaka, "Malaria Eradication in Ethiopia," *MES Bulletin,* Vol. No. 3, (April-June, 1964*)*, p. 21.
[162] Informants: Adisu and Awash.
[163] Informants: Tesfaye and Abera.
[164] Shaka, "Malaria Eradication in Ethiopia," *MES Bulletin,* Vol. No. 3, (April-June, 1964*)*, p. 21.
[165] Memorandum, "From Robert E. Stafford, Operations Division (hereafter, OD) chief, through MES DG and USOM Chief Advisor to all sector chiefs: Hiring and Training of Squad Chief Trainees," (Addis Ababa: Mar. 13, 1961). Pp. 1-6.
[166] Informants: Adisu, Tesfaye, Abera and Girma.

Over the years, the training center showed advancement with respect to the number and quality of students it trained. In addition, the center was able to diversify its fields of study and upgrade its standard. In the late 1960s, the training center began dual purpose training or professional improvements. This meant that those who had received initial training in parasitology would also receive two months of training in entomology. The same thing was done for entomologists.[167] It sought to reduce the number of supervisors of the operational divisions of the program and expenses.[168] In the early 1970s, besides the malaria eradication techniques, the METC started providing multipurpose or general course training with a two weeks additional training about other communicable diseases like typhus, relapsing fever, yellow fever, rabies, tuberculosis, measles, chicken-pox, small-pox, schistosomiasis, trypanosomiasis, leprosy, cholera etc., for anti-malaria trainers. This was so because the malaria paramedics could work or expected to work on these contagious diseases aside from the malaria eradication work.[169]

Organizational Structure

MES's organizational structure and functions evolved through time.[170] Initially, at the headquarters level, the organization had six principal divisions *viz*, administrative, entomology, parasitology, operational, health education and public relations, and transport.[171] Administrative and transport divisions were known as "service" divisions because their function was mainly to

[167] "Graduation of Dual Purpose Supervisors and technicians," *MESN*, Vol. 5, No. 3, (*Megabit* 30, 1963), p. 5. ; "Speech delivered by the METC Director on Graduate Ceremony," *MESN*, Vol. 5, No. 4, (*Miazia-Ginbot*, 1963), pp. 12-13.

[168] "Speech delivered by the METC Director on Graduate Ceremony," *MESN*, Vol. 5, No. 4, (*Miazia-Ginbot*, 1963), p. 13.

[169] "Graduation of Dual Purpose Supervisors and technicians," *MESN*, Vol. 5, No. 3, (*Megabit* 30, 1963), p. 5. ; "Speech delivered by the METC Director on Graduate Ceremony," *MESN*, Vol. 5, No. 4, (*Miazia-Ginbot*, 1963), p. 13.

[170] Different scripts demonstrated different stages of structural evolvement and dynamism of the organization that it had passed through. Thereby there are different structural charts of the program that varied in time. For more tee the appendices.

[171] MOVBDCP Structure/Chart Manifestation," NALA, File No. 8.1.116.1. ; Petros, "Malaria Eradication Problems in Ethiopia," *MES Bulletin*, Vol. No. 5, (April-June, 1965), p. 22. IES Archive, File No. 69-8644. ; "MPH MES Annual Report for the Five Year 1957 EC," *MES Bulletin*, Vol. No. 6, (Oct.-Dec., 1965), p. 8. ; *MES Bulletin*, (no Vol. No. and year, but it might be No. 7), p. 7. A speech made by Abebe Reta, the then minister of MPH, in the inauguration of the attack phase at Nazareth, on 13 March, 1966. ; Chand, "Malaria Problem in Ethiopia," p. 31. ; Chand, "Progress Report of the Malaria Problem in Ethiopia Up To 1964," p. 53.

help and facilitate the work of the remaining four divisions.[172] However, some years later the organizational structure was reorganized into departments. Accordingly, at the headquarters level, the program had two departments, Administrative Service Department and the Technical Department.[173] Each had its own subdivisions and sections. The Administrative Service Department comprised the divisions of finance, personnel, supply and property, and transport.[174] The Technical Department had field operations and epidemiology. Field operations division contained the entomology section, parasitology laboratory section, survey and surveillance, and statistics sections.[175] Besides the above two departments, concurring with the charter the program had also an international Advisory Board that connected it to the office of the Director General (from now on, DG) and two departments representing pertinent ministries designated by his Imperial Majesty to advise the program on policies and strategies. The members of the board were five in number, one foreign expert and four appointed from government authorities.[176] The program was headed by the DG[177] and seven division chiefs.[178] The DG was supported by the

[172] Petros, "Malaria Eradication Problems in Ethiopia," *MES Bulletin*, Vol. No. 5, (April-June, 1965), p. 22. IES Archive, File No. 69-8644.

[173] *Ibid*.

[174] Therefore, the division, later department, was supported by finance, personnel, building, supply and general service section chiefs. MPH*: MES Pictorial Review*, (Addis Ababa: Central Press, July 1972), pp. 32-36. The administrative division was headed by qualified and experienced national administrators. Chand, "Malaria Problem in Ethiopia," p. 31. ; Schaller with a Geographical Contribution by Kuls, *A Geomedical Monograph Series 3: Regional Studies in Geographical Medicine*, p. 95. ; Informants: Awash, Tesfaye Belher, and Abera Taddesse. It, however, was staffed by both national and international personnel. "MPH, Annual Report for the Five Years 1957 EC," *MES Bulletin*, Vol. No. 6, (Oct.-Dec., 1965), pp. 9-10.

[175] "About Chart Structure of the MES," NALA, File No. 8. 1.115. 3. ; MES, "Report of A Strategy Review Team, May 6-27," IES Archive File No. 72-12955. ; MPH, *MES Pictorial Review*, (Addis Ababa: Central Press, July 1972), pp. 16-27.

[176] "A Report on the Special Investigation of Malaria Eradication Service," NALA, File No. 16.1.12.06. ; MES, "Report of A Strategy Review Team, May 6-27, 1970," p. 1. Or IES Archive File No. 72-12955.

[177] The chief executive of the organization was appointed by Emperor Haile Selassie I. It was originally produced by the WHO, TAO, formerly known as UN/OPEX personnel, but gradually it started being replacing by national personnel. WHO TAO was a Technical Assistance Office formerly known as UN/OPEX-Operational Expenditure. MPH, MES Bulletin, Vol. No. 6, (Oct.-Dec., 1965), p. 8. ; Chand, "Malaria Problem in Ethiopia," pp. 31-32. ; "An Order For the Eradication of Malaria in Ethiopia," *Negarit Gazeta*, No. 6, Proclaimed by Imperial Order No. 22 of 1959, pp. 30-32. ; From its establishment up to 1971, the NMES/P was headed by many DGs, later entitled General Manager (GM). These were Seife Michael Zelleke, Dr. Diwan Chand, Sebsbie Abebe (for some time in 1966), Bekele Tegegne, Amha Eshetie respectively. MPH, "List of officials Head Office from 1953 to 1966 EC," NALA, File No. 1.1.24.13. It is a file that contain a yearly authorities name list that send to the Imperial Ethiopian Government: equerry's office from 1953 to 1966. ; see MPH Archives stored in container various personnel records found in the health garage. ; Informants: Adisu, Kelklew, Tesfaye, and Abera. ; About Ato Seifu from his own speech that was made in the introduction part of the *Proceeding of the Ethiopian Malaria Professionals Association*, (Oct. 13, 2005), p. 8. ; Informant: Adisu. He was one the founding members of the program generally and the association particularly.

two counterparts, the authoritative and the technical.[179] The DG was accountable to the Minister of Public Health (MPH) with regards to the execution of policies, and enforcement of regulations.[180] Gradually, according to its original structure, all the departments or divisions of the service extended their branches to lower or zonal, sectorial and locality levels.[181] Field echelon (zone and sector) personnel who were assigned by and responsible to the DG carried out activities based on the guidelines prepared by the technical and administrative divisions of headquarters. [182]

[178] "A Report on the Special Investigation of Malaria Eradication Service," NALA, File No. 16.1.12.06. ; MES, "Report of a Strategy Review Team, May 6-27, 1970," p. 2. IES Archive File No. 72-12955.

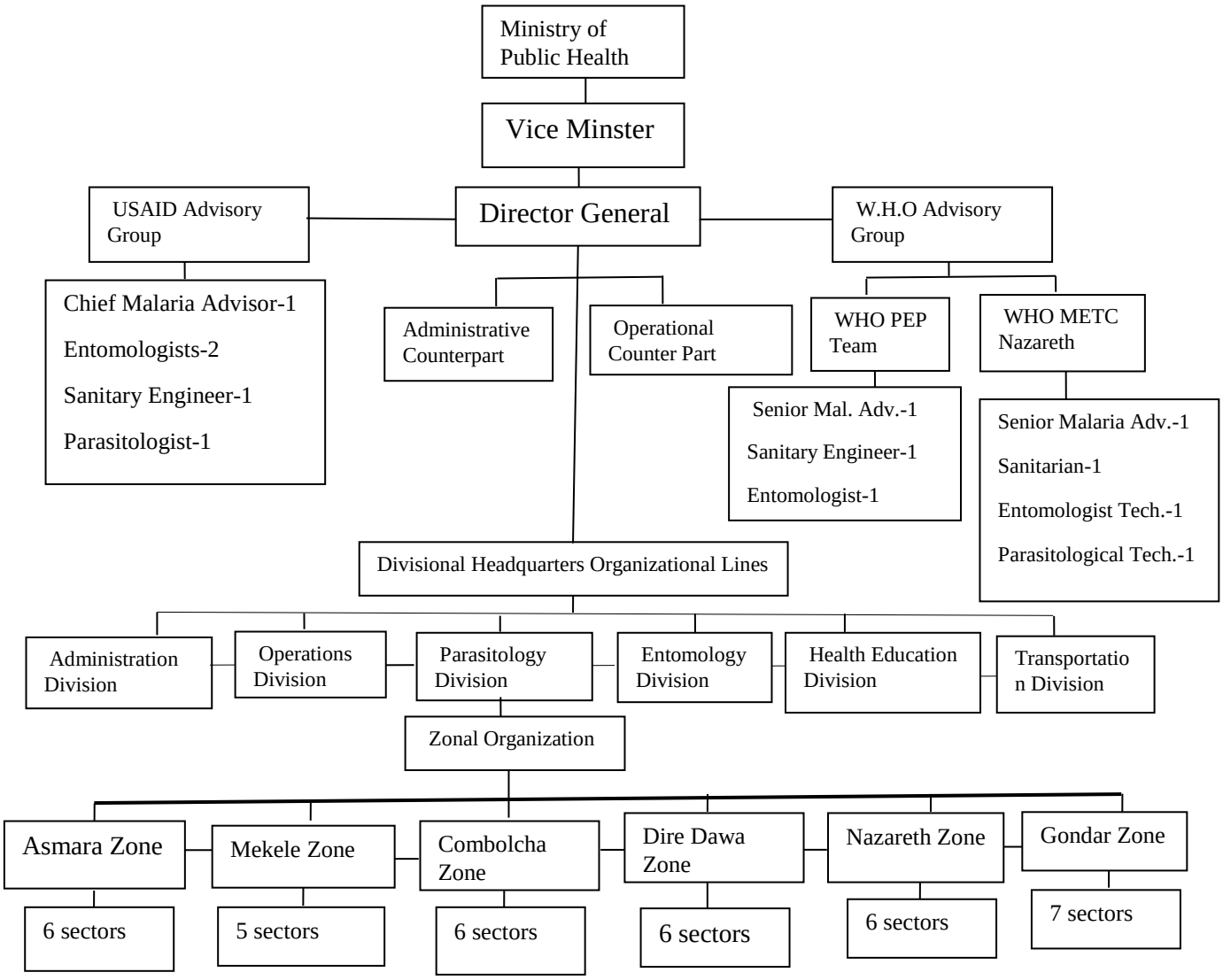
[179] The later one was not set in position up to 1965. Chand, "Progress Report of the Malaria Problem in Ethiopia Up To June 1964," p. 53. ; MPH, "Annual Report for the Five Year 1957 EC," *MES Bulletin,* Vol. No. 6, (Oct.-Dec., 1965), p. 8. ; IES Archive File No. 72-12955. MES, "Report of a Strategy Review Team, May 6-27, 1970," p. 2.

[180] "MPH, MES Annual Report for the Five Year 1957 EC" *MES Bulletin,* Vol. No. 6, (Oct.-Dec., 1965), p. 8. ; MES, "Report of A Strategy Review Team, May 6-27, 1970," ; Chand, "Progress Report of the Malaria Problem in Ethiopia Up To June 1964," p. 53.

[181] The zoning and structure of the malaria eradication service/program, however, was slightly different from the political and administrative zoning system of the country. Before 1971, for example, Awassa was under the Nazareth Malaria Eradication Program Zone. But administratively it was under the jurisdiction of Sidamo Province. Informant: Girma. And I understand from different MES/P maps that embrace zones and sectors of the program. However in 1971, Awassa became independent from Nazareth and became main sector/zone. This is excluding Eritrea due to security issues. Bahir Dar was also Under Gondar though it was not administratively under Begemdir Province. MES, "Report of A Strategy Review Team, May 6-27, 1970," IES Archive File No. 72-12955. ; Chand, "Progress Report of the Malaria Problem in Ethiopia Up To June 1964," p. 53.

[182] MES, "Report of A Strategy Review Team, May 6-27, 1970," pp. 2-3. Or IES Archive File No. 72-12955.

Figure 3: Structure of Malaria Eradication Service/Program in the early 1960s



Source: Chand, "Progress Report of the Malaria Program in Ethiopia Up To June, 1964," p. 60.

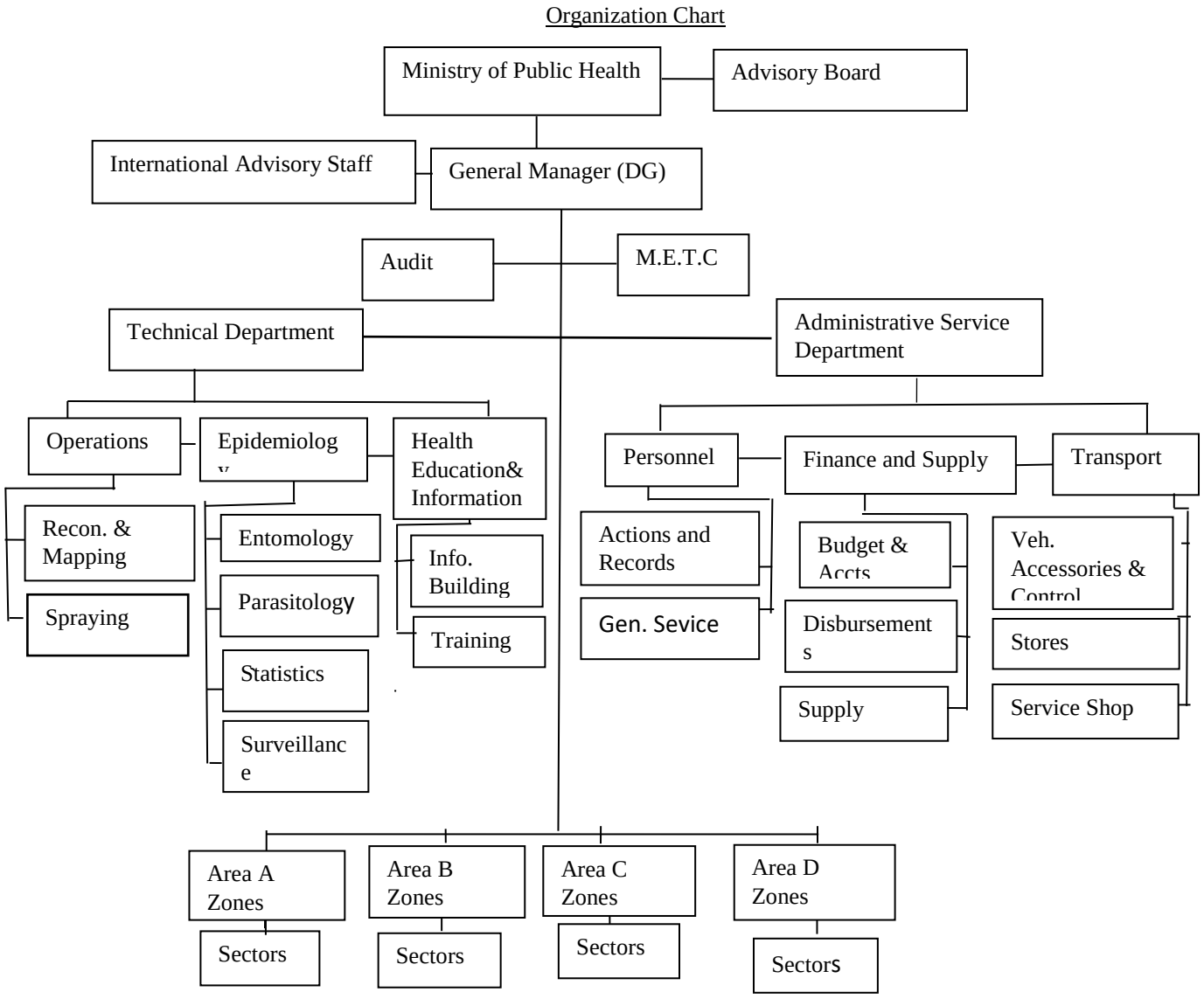
[183] There are different charts which demonstrate the structural development of NMES/P. I will put charts at appendices part. Therefore, it can be seeing there for further clarification and to know how this institution passed through different stages to get its final shape or how it evolved through time. What I have put here is what I think describes the best structure of the organization only.

Figure 4: The structure of the program in June 1969

Imperial Ethiopian Government

Ministry of Public Health

Malaria Eradication Service



Source: MES, "Report of Strategy Review Team, May 6-27, 1970," p. 4. ; or see MPH: *MES Bulletin*, Vol. No. 4, (Jan.-Mar., 1965), p. 13. ; Charts I found in the *Tenna* (Health) Garage premises, see the appendices for detail)

Program Phasing and Departments/Divisions Functions and Progress

Since the WHO malaria expert committee confirmed that malaria can be eradicated from one country, malaria eradication activities were carried out by dividing the program into different phases. Globally, therefore, MEP work plan was divided into four phases. These were preparatory, attack, consolidation, and maintenance phases.[184] The NMEP of Ethiopia followed the GMEP in organizing its operations into the above four phases. [185]

Each of these phases was not given a uniform time frame. But there was an expectation that each phase would take between 3 to 4 years. However, depending on health infrastructure and accessibility, social standing, and trained manpower regarding the program, the time to accomplish each phase was expected to vary from country to country. In Ethiopia, for instance, the preparatory phase alone took seven years.[186] The program took its first two years to organize a plan of action that indicated all resources and baseline data, and plan of operation, which portrayed detailed information about the steps that would be taken to accomplish the objective of the institution.[187]

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[184] Stepan, *Eradication: ridding the world of diseases forever?*, p. 165. ; Packard, *A History of Global Health:..,"* p. 158. ; "A Note Present to the Malaria Eradication Board," NALA, File No. 17.3.355.01.

[185] MES, "Detailed Work Plan for the Implementation of the MEP: a Chart that Show the Work of Malaria Eradication in time and Area sequentially," NALA, File No. 17.3.357.01. ; "A Note Present to the Malaria Eradication Board," NALA, File No. 17.3.355.01. ; "A Speech made by Emperor Haile Selassie I in the Inauguration of malaria eradication attack phase," NALA, File No. 1.2.42.17. ; Yayehyirad Kitaw, "Malaria Challenge in Ethiopia, Lessons from the Past and the Role of EMCPA," *Proceedings of the First Conference of the EMCPA* (unpublished), (AAU: at the Conference Whole of the School of Graduate Studies, Oct. 13, 2005), p. 36. ; Informants: Adisu, Awash, Kelklew, Girma, and Awoke. Though most records stated the program has four phases, some historical records recorded the MEP had five phases in Ethiopia, which makes it somewhat unique. Such document argumentation is, unlike global classification, there was a pre- eradication program in Ethiopia that covered from 1959-1963. Jolivet, "Senior Course in Malaria Entomology: New Revision 1961 (Restricted), Lecture XXVIII-The Entomologist's Role in Malaria Eradication Program," (Unpublished document), Malaria Eradication Center Nazareth-Ethiopia, p. 1. Or see IES, Archive File No. 84-22702. ; I argued that both the Pre-eradication program and preparatory phases were conducted in parallel. It, therefore, might be considered as part of the preparatory phase since it was done to fulfill the gaps of the program. ; Shafa, "The Role of Physicians in Hospitals and Other Health Workers in the Malaria Eradication Program in Ethiopia," {Reprinted from *Ethiopian Medical Journal,* Vol. IV, No. 4, (July, 1966), *MES Bulletin*, Vol. No. 8, (Dec.-Feb. 1967), p. 33.

[186] Awash, "Malaria in Ethiopia," p. 13. IES Archive, File No. 69-8852. ; Informants: Awash, Adisu, and Kelkle

[187] "A New Approach to Malaria Eradication," *MES Bulletin,* Vol. No. 2, (9 March, 1964), p. 2. Or see IES, Archive File No. 69-8644.

As for area coverage, there was confusion as to how to implement the actual work of the program up to 1960. The confusion occurred when the program attempted to enter into implementation over the overall areas that have been identified as malarious uniformly despite the limited available resources (both human and material), and the difficult nature of Ethiopia's topography. It was impossible to deliver uniform anti-malaria protection for all the populations who inhabited in malarious areas, estimated to be close to 10 million out of the approximate 22 million population.[188] Ultimately, a revision of the program was made in 1961.[189] Accordingly, in order to pursue the program planning and for reasons of operation, the MES divided the entire empire into four major operational geographical areas with a plan of attacking each area at a different time. These were area "A", area "B", area "C", and area "D".[190] Area "A" covered 470, 000 square kilometers and constituted Eritrea, Tigray, Begemdir, and Semien as well as Eastern Shoa, Gojjame, Eastern Wollo, and Northern Hararge, Northern Arussi.[191] Area "B" covered 185, 000 km^2 and comprised Gojjam, Western Wollo, Western Shoa, North-eastern Wellega,

[188] "Letter Sent from Abebe Retta, Minister of MPH, to *Däjjazmač* Kifle Worku, Minister of Ministry of Interior," number 3/008/55/56, NALA File No. 17.3.357.01. ; "A Note Present to the Malaria Eradication Board," NALA, File No. 17.3.355.01. ; MES, "Report of A Strategy Review Team, May 6-27, 1970," p. 1. Or see IES, Archive File No. 72-12955. ; "MPH, Annual Report for the Five Year 1957 EC," *MES Bulletin*, Vol. No. 6, (Oct.-Dec., 1965), p. 8. ; Awash, "Malaria in Ethiopia," p. 13. ; Informants: Adisu, Awash, and Kelklew.

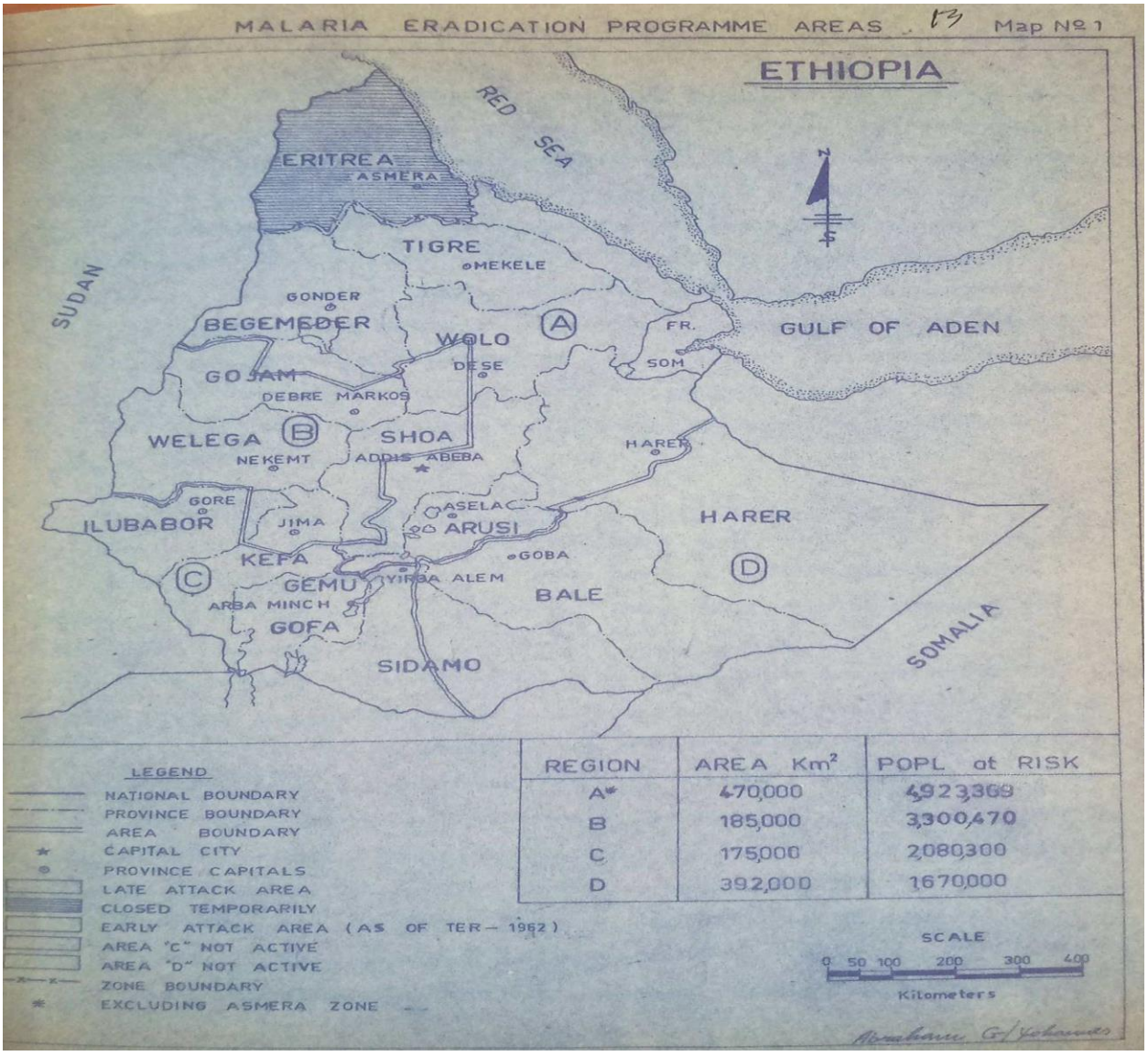
[189] "Letter Sent from Abebe Retta, Minister of MPH, to *Däjjazmač* Kifle Worku, Minister of Ministry of Interior," number 3/008/55/56, NALA File No. 17.3.357.01. ; Yayehyirad Kitaw, "Malaria Challenge in Ethiopia, Lessons from the Past and the Role of EMCPA," *Proceedings of the First Conference of the EMCPA* (unpublished), (AAU: at the Conference Whole of the School of Graduate Studies, Oct. 13, 2005), p. 36.

[190] "Letter Sent from Abebe Retta, Minister of MPH, to *Däjjazmač* Kifle Worku, Minister of Ministry of Interior," number 3/008/55/56, NALA File No. 17.3.357.01. ; "Detailed Work Plan to Implement the MEP: a Chart that Show the Work of Malaria Eradication in time and Area sequentially," NALA, File No. 17.3.357.01. ; "A Speech made by Emperor Haile Selassie I in the Inauguration of malaria eradication attack phase," NALA file No. 1.2.42.17. ; MES, "Report of A Strategy Review Team, May 6-27, 1970," p. 1. Or see IES, Archive File No. 72-12955. ; Petros, "Plan of Eradication," *MES Bull*, Vo. No. 1, (Sept. 1963), p. 4. Or see IES, Archive File No. 69-8644. ; Petros, "Malaria Eradication Problems in Ethiopia," *MES Bulletin*, Vol. No. 5, (April-June, 1965), p. 21. ; "MPH: Annual Report for the Five Year 1957 EC," *MES Bull*, Vol. No. 6, (Oct.-Dec., 1965), p. 8. ; Shaka, "Malaria Eradication in Ethiopia," *MES Bulletin*, Vol. No. 3, (April-June, 1964), p. 18. ; *MES Bulletin*, (no Vol. No. and year, but it might be No. 7), pp. 5, 7. ; A speech made by HIM and Abebe Reta, the then minister of MPH, in the inauguration of the attack phase at Nazareth, on 13 March, 1966. ; Awash, "Malaria in Ethiopia," p. 13. ; Mulugeta, "The Challenges of Health and Disease Control in Ethiopia: The Case of the Wonji-Shoa Sugar Estates," P. 26. ; *MESN*, Vol. 1, No. 4, (March 24, 1966), pp. 2, 3, 16. A speech made by HIM Emperor Haile Selassie I and Abebe Reta in the inauguration of attack phase; McCann, *The Historical Ecology of Malaria in Ethiopia*," p. 95. ; Informants: Adisu, Awash, Kelklew, Yayehyirad, Abdulaziz Abdulmali, Girma, Tesfaye, and Abera.

[191] "HIM Inaugurates 1st Attack Phase of Malaria Eradication Program," *MES Bulletin*, (no Vol. No. and year, but it might be No. 7), p. 15. ; Shafa, "The Role of Physicians in Hospitals and Other Health Workers in the Malaria Eradication Program in Ethiopia," {Reprinted from *Ethiopian Medical Journal*, Vol. IV, No. 4, (July, 1966), *MES Bulletin*, Vol. No. 8, (Dec.-Feb. 1967), pp. 34-35. ; Informants: Yayehyirad Kitaw and Girma.

Northern Kaffa, and Eastern Illubabor. Area "C" consisted of 175, 000 km and included south western Wellega, Western Illubabor, Southern Kaffa, Gamu-Goffa, and Western Sidamo. Area "D" covered 392, 000 km^2 and was made up of Southern Harar, Southern Arussi, Bale, and Eastern Sidamo.[192]

Figure 5: Malaria Eradication Program Areas



Source: "Report of a Strategy Review Team, May 6-27, 1970.")

[192] Shafa, "The Role of Physicians in Hospitals and Other Health Workers in the Malaria Eradication Program in Ethiopia," {Reprinted from *Ethiopian Medical Journal,* Vol. IV, No. 4, (July, 1966), *MES Bulletin*, Vol. No. 8, (Dec.-Feb. 1967), pp. 34-35.

Area "A" received priority in the program due to a number of reasons. First, it had reasonably firm boundaries. Second, except Gambella, all malaria pilot sites (former study projects) with nearly 600, 000 inhabitants were located within area "A". Third, the area was host to some of the important economic development projects/sites of the country.[193] It had also a large area where development had been initiated or planned. It was the then fast-developing area of the empire.[194] Besides these, it was a densely populated region. Out of 10 million people who inhabited malarious territories, approximately 4 to 5 million people lived in this area.[195] The presence of a stable population whose livelihood has been irrigation and farming communities was another reason that was taken into account.[196] Fifth, it had relatively a better known nature of the disease or malariometric data and operational logistics. Sixth, the area had better communications channels. It also had better network of health service than other areas.[197] Favorable roads and natural conditions that simplified operational problems in the area were other factors behind the

[193] Example there was the Wonji-Shoa Sugar Estates in upper Awash Valley. Mulugeta, "The Challenges of the Health and Disease Control in Ethiopia: The Case of the Wonji-Shoa since 1954," Pp. 1-29. ; "Malaria Eradication Service Progress Report for the First Two Years of the Second Five Years Development Plan," NALA, File No. 17.3.357.01. ; Informant: Girma. ; There was also Wolayita Agricultural Development Unit (WAGU). Informants: Abera, Tesfaye, and Girma. Ela Berid Project in Asmara, and TAYIDL Agricultural project in Mekele. Informant: Girma.

[194] Petros, "Malaria Eradication Problems in Ethiopia," *MES Bulletin*, Vol. No. 5, (April-June, 1965), p. 22. IES, Archive File No. 69-8644. ; "MPH: MES Annual Report for the F.Y. 1957," *MES Bulletin*, Vol. No. 6, (Oct.-Dec., 1965), p. 8. ; Chand, "Progress Report of the Malaria Program in Ethiopia Up to June, 1964," p. 52. ; *MES Bulletin*, (no Vol. No. and year), p. 7. A speech made by Abebe Retta, the then minister of MPH, in the inauguration of attack phase at Nazareth, on 13 March, 1966. ; *MESN*, Vol. 1, No. 4, (March 24, 1966), pp. 16. A speech made by Abebe Reta in the inauguration of attack phase. ; Awash, "Malaria in Ethiopia," p. 13.

[195] According to the strategy review team report, 4, 923, 369 populations inhabited in this area. See MEP Areas Map 1 of "MES, Report of a Strategy Review Team, May 6-27, 1970." ; Whereas Awash describes 4, 131 000 people inhabited in the regions. Awash, "Malaria in Ethiopia," p. 13. ; Some reports also estimated 4 million. ; "HIM Inaugurates 1st Attack Phase of Malaria Eradication Program," *MES Bulletin*, (no Vol. No. and year, but it might be No. 7), p. 15.

[196] "A Speech made by Emperor Haile Selassie I in the Inauguration of malaria eradication attack phase," NALA, File N0. 1.2.42.17. ; Petros, "Plan of Eradication," *MES Bulletin*, Vo. No. 1, (Sept. 1963), p. 4. IES, Archive File No. 69-8644. ; Petros, "Malaria Eradication Problems in Ethiopia," *MES Bulletin*, Vol. No. 5, (April-June, 1965), p. 21. ; "MES Annual Report for the F.Y. 1957," *MES Bulletin*, Vol. No. 6, (Oct.- Dec., 1965), p. 8. ; *MES Bulletin*, (no Vol. No. and year, but it might be No. 7), pp. 7, 16. ; A speech made by HIM and Abebe Reta, the then minister of MPH, in the inauguration of attack phase at Nazareth, on 13 march, 1966.Awash, "Malaria in Ethiopia," p. 13. ; Informants: Adisu, Kelklew, Girma and Abdulaziz.

[197] MES, "Malaria Eradication Service Progress Report for the First Two Years of the Second Five Years Development Plan," NALA, File No. 17.3.357.01. ; Petros, "Malaria Eradication Problems in Ethiopia," *MES Bulletin*, Vol. No. 5, (April-June, 1965), p. 22. IES, Archive File No. 69-8644. ; MPH, "MES Annual Report for the F.Y. 1957," *MES Bull*, Vol. No. 6, (Oct.-Dec., 1965), p. 8. ; *MES Bulletin*, (no Vol. No. and year, but it might be No. 7), p. 7. ; A speech made by Abebe Reta, the then minister of MPH, in the inauguration of the attack phase at Nazareth, on 13 March, 1966. ; *MESN*, Vol. 1, No. 4, (March 24, 1966), pp. 16. A speech made by Abebe Reta in the inauguration of the attack phase. ; Chand, "Progress Report of the Malaria Program in Ethiopia Up to June, 1964," p. 52. ; Mulugeta, "The Challenges of Health and Disease Control in Ethiopia: The Case of the Wonji-Shoa Sugar Estates since 1954," p. 26.

identification of the area as a priority zone.[198] At last, "use of Sudan border in the west, on the bases of Sudanese Malaria Operation in that country had to be take into consideration."[199]

Based on these reasons, the program opened six malaria stations zones at Asmara, Gondar, Mekelle, Combolcha (Dessie), Nazareth (Upper Awash Valley) and Dire Dawa towns in area "A".[200] Each zone had a chief who graduated in agriculture and took malaria training from well-known universities like Lagos and Manila. Each zone had approximately a population of 700, 000.[201] The zones were initially sub-divided into 36 sectors, but their number increased through time. Each had a population of approximately between 70, 000 -100, 000 people in 1964.[202] Each zone contained from 5-7 sectors.[203] For detail see map on page 49.

Eventually the MEP further expanded its zones and sectors. For example, it opened up new zones and sectors in area "B" in 1967 and thereafter. Addis Ababa, Awassa, Bahir Dar (Guba S), Debre Markos, Nekemte, Dembi Dollo, and Jimma zones were cases in point. Concurrently, Adjibar and Mekane-selam sectors were opened under Dessie Zone despite the fact that it

[198] "Malaria Eradication Service Progress Report for the First Two Years of the Second Five Years Development Plan," NALA, File No. 17.3.357.01. ; Petros, "Plan of Eradication," *MES Bull*, Vo. No. 1, Sept. 1963, p. 4. ; Petros, "Malaria Eradication Problems in Ethiopia," *MES Bulletin*, Vol. No. 5, (April-June, 1965), p. 21. IES, Archive File No. 69-8644. ; MPH, "MES Annual Report for the F.Y. 1957," *MES Bull*, Vol. No. 6, (Oct.-Dec., 1965), p. 8. ; *MES Bulletin*, (no Vol. No. and year, but it might be No. 7), p. 7. A speech made by Abebe Retta, the then minister of MPH, in the inauguration of attack phase at Nazareth, on 13 March, 1966.

[199] "Malaria Eradication Service Progress Report for the First Two Years of the Second Five Years Development Plan," NALA, File No. 17.3.357.01.

[200] The zoning and structure of the malaria eradication service/program, however, was slightly different from the political administrative delimitation system of the country. Before 1971, for example, Awassa was under the domain of the Nazareth MEP Zone. But administratively it was under the jurisdiction of Sidamo/a Province. Informant: Girma. And I understand from different MES/P maps that embrace zones and sectors of the program. However in 1971, Awassa became independent from Nazareth and became independent zone. This is excluding Eritrea due to security issues. Bahir Dar was also Under Gondar zone though it was not administratively under Begemdir Province. For detail see the appendices/appendix.

[201] Awash, "Malaria in Ethiopia," p. 14. According to Awash, the population distribution in area "A", Asmara, Gondar, Dessie, Mekele, Nazareth, and Dire Dawas, was 441, 000; 555, 000; 720,000; 452, 000; 980, 000; 977, 000 respectively.

[202] Awash, "Malaria in Ethiopia," p. 14.

[203] MES, "Report of a Strategy Review Team, May 6-27, 1970," map of Area "A" map No. 2. IES Archive, File No. 55-12955. ; MPH, *MES Pictorial Review*, (Addis Ababa: Central Press, July 1972), p. 6. ; "The DG Appreciated the persistent of Anti-Malaria workers," *MES Bulletin*, Vol. 5, No. 11, (July-Aug. , 1972), p. 6.

belonged, as I alluded above, to area "A".[204] Some were detached from area "A" and put under area "B" zones. For example, Awassa and Bahir Dar sectors were detached from Nazareth and Gondar Zones respectively and they became independent zones. Hence, Zway, Awassa, Alaba Kulito and "Wolamo Sodo" sectors came under the Awassa zone. Nefas Mewucha, Mota, Bahir Dar, Adis Zemen and Dangila sectors came under Bahir Dar Zone.[205] Moreover, some new area "B" sectors were opened in area "A" zones. For example, Mekane-selam and Tenta-Adjibar sectors were established in Dessie Zone as area "B" sectors.[206] The sectors were in turn subdivided into localities.[207] Generally, the number of zones and sectors of the MEP increased through time. It was able to open its service in all provinces, except Bale. It excluded Asmara due to security issues. In 1971, in 13 provinces the service could establish 11 zones, 5 sub-zones, 50 sectors and more than 20 malaria posts,[208] while the era of eradication was on the verge of ending.[209]

[204] S. W. Yun, "Development of Basic Health Sevice in Ethiopia with Special References of the Malaria Eradication Programme," *MES Bulletin*, Vol. No. 10, (April, 1970), p. 26. He was WHO Advisor, Health Planning and Supervisory Team for Health Centers.

[205] "Malaria Eradication Program is expanding," *MESN*, Vol. 4, No. 3, (April, 1969), p. 5. ; IES Archive, File No. 55-12955. ; MES, "Report of a Strategy Review Team, May 6-27, 1970," map of Area "A" map No. 2. ; MPH, *MES Pictorial Review*, (Addis Ababa: Central Press, July 1972), p. 15.

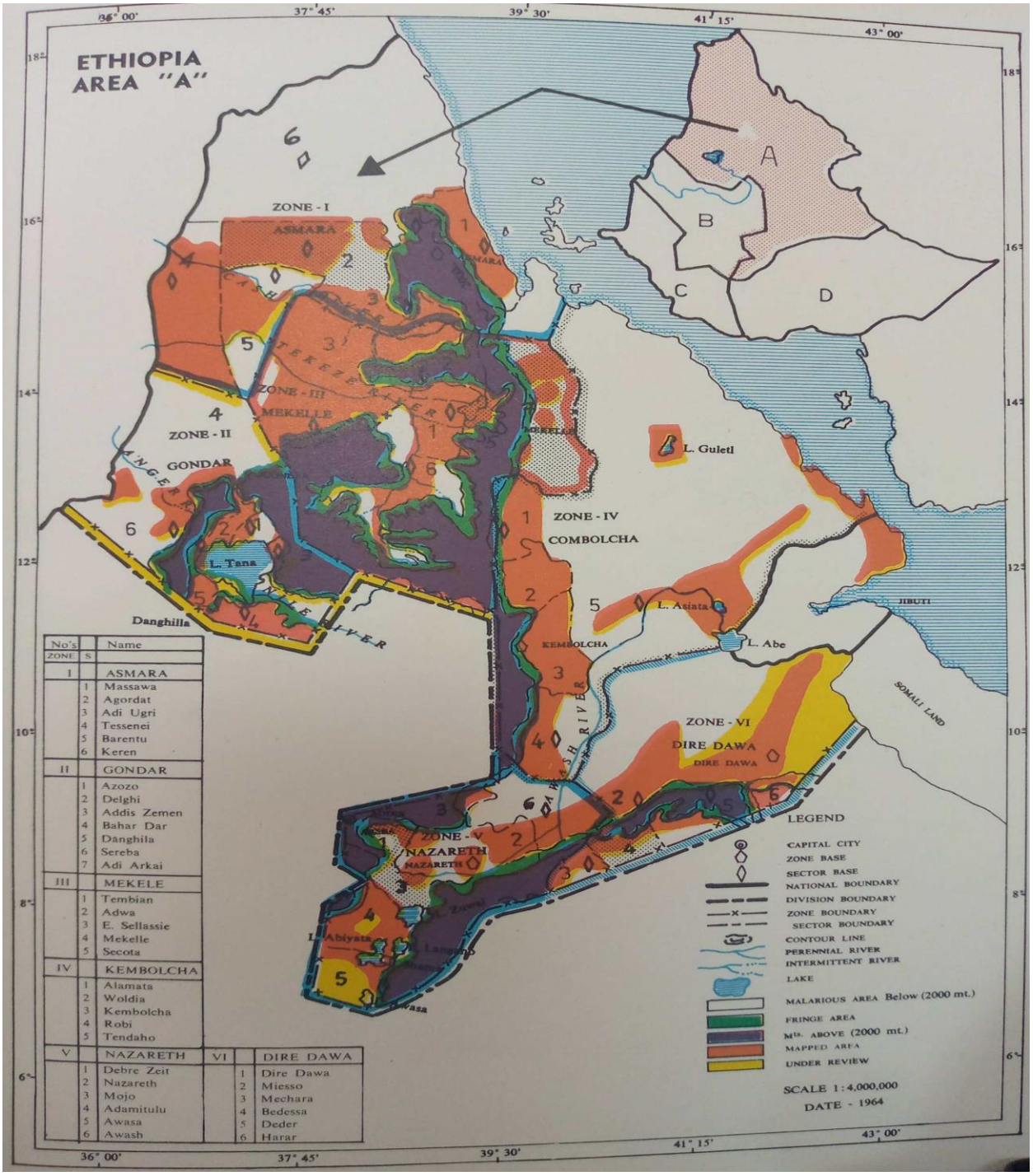
[206] "Malaria Eradication Program is expanding," *MESN*, Vol. 4, No. 3, (April, 1969), p. 5. ; Yun, "Development of Basic Health Sevice in Ethiopia with Special References of the Malaria Eradication Programme," *MES Bulletin*, Vol. No. 10, (April, 1970), pp. 25-26.

[207] Awash, "Malaria in Ethiopia," p. 14.

[208] "Malaria Eradication Program is expanding," *MESN*, Vol. 4, No. 3, (April, 1969), p. 5. ; "MES Activities are Expanding," MPH: *MES Pictorial Review*, (AA: Central Press, July 1972), p. 15, 40.

[209] "Area "B" Sectors under GR," *MESN*, Vol. 4, No. 3, (April, 1969), p. 5. ; Yun, "Development of Basic Health Sevice in Ethiopia with Special References of the Malaria Eradication Programme," *MES Bulletin*, Vol. No. 10, (April, 1970), p. 26.

Figure 6: Malaria Eradication Program Area "A" Zone



Source: MES, "Report of a Strategic Team, May 6-27, 1970,"

The preparatory phase in area "A" covered the period from 1959-1966. Pre-eradication survey, geographical reconnaissance, and planning were included under the preparatory phase. Both the

administrative and the technical departments carried out various works to procure a pre-requisite knowledge that was essential to delimit malarious areas and to fulfill the preparatory phase. The main functions of the program through its various divisions in the preparatory phase were hiring/securing the required manpower, logistics, equipment, organizational capacity, and supplies for the practical implementation of the program.[210] Each division undertook their respective tasks to complete the first phase, in parallel and co-operation with each other.

The principal purpose of the administrative department was providing a supportive service to the technical department. Therefore, its role in the preparatory phase included overseeing the finance and supply, warehouse, personnel and transportation sections;[211] preparing the organizational documents; inspection and facilitation of administrative matters.[212]

The core activities of the program were carried out by the technical department of the MES. As I mentioned above, it contained health education and public relations, parasitology, entomology, and operation divisions.[213] In the preparatory phase, by using the above departments, the program performed the following activities.

It administers financial issues (budget allocation, monitoring financial issues, generating income from different sources, auditing the income and expenditure of the program) through its finance

[210] "A Note Present to the Malaria Eradication Board," NALA, File No. 17.3.355.01. ; "A Speech made by Emperor Haile Selassie I in the Inauguration of malaria eradication attack phase," NALA File No. 1.2.42.17. ; "Logistics in MEP," *MESN*, Vol. 1, No. 6, (May 28, 1966), p. 1. ; Mulugeta, "The Challenges of Health and Disease Control in Ethiopia: The Case of the Wonji-Shoa Sugar Estates since 1954," p. 25. ; Informants: Abera and Tesfaye. However, some stated the preparatory phase covers from 1963-1966 by excluding pre-eradication programs. But I consider the pre-eradication phase as part of the preparatory phase, the Preparatory phase covers the time from 1959-1966. Because it could not do anything that makes it distinguished from the preparatory phase. So that it has discussed together. N. Rishikesh, "Observations on Anopheline Vectors of Malaria in an Upland Valley in Ethiopia," (unpublished document). ; or See WHO/Mal/66.554.

[211] Chand, "Malaria Problem in Ethiopia," p. 31. ; Schaller with a Geographical Contribution by Kuls, *A Geomedical Monograph Series 3: Regional Studies in Geographical Medicine,* p. 95. ; Informants: Awash, Tesfaye Belher, and Abera Taddesse.

[212] "Administrative Department," *MES Pictorial Review*, (Addis Ababa: Central Press, July 1972), pp. 32-36.

[213] *MES Bulletin*, Vol. No. 4, (Jan. - Mar., 1965), pp. 9-10.

section.[214] The main source of income for running the MES was acquired from an independent capital budget of Ethiopian government.[215] Besides, other sources of assistance to the program were obtained from non-governmental organizations, especially the USAID and the WHO. These institutions provided the program with technical aid, fellowships, medications, equipment, and financial support.[216] Moreover, income derived from direct collections from fines, insurance claims or returns of premiums, sales of DDT, drums, scrap iron, old tyros, tubes, sales of used vehicles etc.[217]

During the preparatory phase, particularly up to 1966, the program annual budget was $ETH 3 million. But the annual budget showed a marked increase by 1967, for there occurred a necessity to finance the newly opened area "B". In that year 5 million was budgeted. Notwithstanding the budget was promised to be increased by 2 million $ETH in 1967, it was never put into practice.[218] There is a gap of source to put the annual budget allocated by the government in the final year of the program.

[214] "Administrative Division," *MES Bulletin,* Vol. No. 4, (January-March, 1965), p. 9.

[215] Chand, "Malaria Problem in Ethiopia," p. 31. ; Schaller with a Geographical Contribution by Kuls, *A Geomedical Monograph Series 3: Regional Studies in Geographical Medicine,* p. 95. ; Informants: Awash, Tesfaye Belher, and Abera Taddesse. ; "A Report on the Special Investigation of Malaria Eradication Service," NALA, File No. 16.1.12.06.

[216] Through loans and "by providing teaching equipment and assigning instructors" to the METC respectively. They were also provided short-term fellowship to selected senior staff of the program. *MES Bulletin,* Vol. No. 8, (Dec.-Feb., 1967), p. 5. It presented in the form of interview among malaria workers. ; "The METC," *MPH, MES Pictorial Review,* (Addis Ababa: Central Press, July 1972), p. 14. The program originally started with the monetary, material and technical assistance from the US ICA, but the joint Fund basis with United States through USAID was terminated on December 31, 1962, after which, local costs are being borne entirely by I.E.G. after this day the MES became a government organization, but part of the income comes the USAID and WHO and other supports were continued like provide advisory staff, equipment and supplies which include vehicles, insecticides, spraying equipment, etc. The WHO had supplemented the above through its Pre -Eradication Program under which it had provided advisory personnel, and some supplies and equipment. "A Report on the Special Investigation of Malaria Eradication Service," NALA, File No. 16.1.12.06. ; "MPH: MES Annual Report for the Five Year 1957 EC," *MES Bulletin,* Vol. NO. 6, (Oct.-Dec., 1965), pp. 8, 10. ; Eleven buildings provided by USAID. "MPH: Annual Report for the Five Year 1957 EC," *MES Bulletin,* Vol. No. 6, (Oct.-Dec., 1965), p. 9.

[217] "A Report on the Special Investigation of Malaria Eradication Service," NALA, File No. 16.1.12.06.

[218] "A Report on the Special Investigation of Malaria Eradication Service," NALA, File No. 16.1.12.06. ; Shafa, "The Role of Physicians in Hospitals and Other Health Workers in the Malaria Eradication Program in Ethiopia," {Reprinted from *Ethiopian Medical Journal,* Vol. IV, No. 4, (July, 1966), *MES Bulletin,* Vol. No. 8, (Dec.-Feb. 1967), p. 33.

Recruitment and training of staff was other activities carried out by the program during the preparatory phase. Staff was recruited and sent to the METC at Nazareth as well as to the international malaria training centers for training. Upon the successful completion of the training, they would assign to the required positions of the organization. Until 1966, six round malaria graduates in various fields of expertise were trained both at home and abroad and got hired.[219] A further reference to the status of the employees by echelon and permanency has been provided by the following table.

Table 1: Malaria Eradication Service Employees by Echelons and Degree of Permanency in May 1970

	Total	Permanent	Project	Temporary
Headquarters	300	300	-	-
Zone Bases	438	409	29	-
Sectors	7164	1176	968	5020
Malaria Eradication Training Center	24	24	-	-
Total	7926	1909	997	5020

Source: "Report of A Strategy Review Team, May 6-27, 1970"

The number of malaria workers- permanent, project, and temporary- increased through time. For example, the number of workers in July 1964, excluding USAID, WHO PEPT, and METC, were 676[220] while the number rose to 7926 in May 1970 including all classes of malaria workers.[221] When the program was downgraded from "Eradication" to "Control" in 1971, it had over 8,000

[219] *MES Bulletin*, Vol. No. 4, (January-March, 1965), pp. 9-10.
[220] *Ibid.*
[221] MES, "Report of A Strategy Review Team, May 6-27, 1970," p. 3. IES Archive File No. 72-12955.

workers (1,000 more than the rest of the Ministry of Public Health). Of these 3,000 were permanent workers and 300 were at the HQs.[222]

The program carried out various works consisting of deploying and maintaining the condition of vehicles, insurance, fuel demand planning and control through its transportation unit.[223] The service and number of vehicles run by the program rose through time. In 1964, for example, 107 Jeeps were imported to Ethiopia for MES from the US through USAID. In 1965, the MES had a total of 228 vehicles. Of these 154 vehicles were received from USAID in 1964 and 1965. The division was responsible for deploying these vehicles to divisions, zones, sectors, and *qäbälès*.[224]

The MES had its own central garage at the old airport, around Tor-Hailoch to give independent service for the MES.[225] But in 1977 this shifted to Tenna Garage. This was because the place was taken over by the military following the outbreak of the Ethio-Somalia War.[226] Preventive and running maintenance was carried out by the central garage at HQs as well as at regional levels

[222] Yayehyirad Kitaw *et'al*, *The Evolution of Public Health in Ethiopia 1941-2015* (3rd Revised Edition), (Addis Ababa: Ethiopian Public Health Association (EPHA), 2017), p. 18. ; Informant: Yayehyirad.

[223] "Communication and Transport division Director Work Guideline," Letters from MES to *Ato* Yoseph Bushen Communication and Transportation Division Chief (Amharic), No.፡ዘ/ጠመ/1/65፣ Date፡ 22/12/65. ; *MES Bulletin*, Vol. No. 4, (Jan., -Mar., 1965), pp. 7, 12. ; Informants: Kelklew and Megersa. Later the responsibility was given to the communications division. "Communications Division," *Pictorial Review*, (Addis Ababa: Central Press, July 1972), p. 36. ; Tenna Garage Archive, "Job Description for MES Director of Communication." ; Letters from MES to *Ato* Yoseph Bushen Communication and Transportation Division Chief (Amharic), No.፡ዘ/ጠመ/1/65፣ Date፡ 22/12/65. It was established in the early 1960s and administered by the transport director with a national counterpart at the head of the garage. Other supplementary staff was also appointed for the sections of administration, unit rebuilding, painting, body repairs, auto electric, general service, washing and greasing, stores and training sections. *MES Bulletin*, Vol. No. 6, (Oct.-Dec., 1965), p. 12. First transportation division was changed into communication and Transport Division. It was also renamed MES Central Garage instead of Transport division in 1972. Letter wrote from DG to all Concerned Body, No.፡ H/ተረ/1/64, 8/12/64 EC. ; Letter from Technical Department Chief to *Ato* Yoseph Bushen, No.፡ የሰ2/30/67, 26-12-62. ; Letter from Administrative Department Chief to Transport and Vehicles Maintenance Division, No.፡ ተ3/ጠከ/264/67, 9/12/67. ; "It was no longer The Transport Division," *MES Monthly Bulletin*, Vol. 5, No. 11, (July-Aug. 1972), p. 6.

[224] *MES Buulletin*, Vol. No. 6, (Oct.-Dec., 1965), p. 12.

[225] MES, "Minutes of the Malaria Advisory Board Meeting on 16th July 1964 at 5:00 pm: in the Conference Room of the MPH," NALA, File No. 17.3.357.01. ; MES, "Malaria Eradication Service Progress Report for the First Two Years of the Second Five Years Development Plan," NALA, File No. 17.3.357.01. ; *MES Bulletin*, Vol. No. 6, (Oct.-Dec., 1965), p. 12.

[226] Informant: Megersa.

through mobile maintenance units. It also provided a mechanic for vehicles that were operating in inaccessible areas to give minor repairs and maintenance service.[227]

The MEP used air, land, and water transportation in implementing its program. The service used water, air and pack animals transportation in inaccessible areas instead of using vehicles. The anti-malaria workers had to travel on foot several kilometers during the spray season.[228]

In the preparatory phase, the program carried out various activities through its pedagogy and foreign affairs and control sections.[229] In this regard, the program produced useful materials, publications, and others that were needed for health education. It organized exhibitions on MES activities, showed dramas on malaria and other related issues. Production and disseminating useful health education aids like pamphlets and posters, arranging exhibitions of malaria eradication activities as well as publication of quarterly MES bulletin and monthly MES newsletter were performed.[230] It also provided training for MES field workers in health education. At field level, the program was involved in organizing visits by audio-visual mobile units and showing films in various localities.[231] For instance 61 localities were visited in 1965.[232]

[227] Dumped materials found at Tenna Garage, Letters from MES to *Ato* Yoseph Bushen Communication and Transportation Division Chief (Amharic), No.፡ሸ/መመ/1/65፣ Date፡ 22/12/65. ; "Central Garage," *Pictorial Review*, (Addis Ababa: Central Press, July 1972), p. 34. *MES Bulletin*, Vol. No. 6, (Oct.-Dec., 1965), p. 12.

[228] "Urgent Note," NALA File Nos. 17.1.5.17.03. ; "Letter wrote to Emperor Haile Selassie I from Abigar and Yembo regions in Akobo district, Gambella, aristocrats on behalf of the local people," NALA, File No. 17.1.9.19.13. ; Tenna Garage Archive, "Pack animal Rent," and "Boat Rent," Letters from MES to *Ato* Yoseph Bushen Communication and Transportation Division Chief(Amharic), No.፡ሸ/መመ/1/65፣ Date፡ 22/12/65. ; "presentation of Cattle Rent planning," letters from MES to Main and Sub-main Sectors Planning offices (Amharic), No.፡ H/መመ/3/60, 2/2/66 EC. ; Contract Agreement between the Supplier of Mule and Donkey Saddles and the MES. ; "Transportation," *Pictorial Review*, (Addis Ababa: Central Press, July 1972), p. 22.

[229] *MES Bulletin*, Vol. No. 4, (Jan. - Mar., 1965), pp. 9-10.

[230] For detail see MPH, MES (unpublished document), pp. 1-6, 36-40. IES Archive, File No. 71-11385. ; "MPH: Annual Report for the five Year 1957 EC," *MES Bulletin*, Vol. No. 6, (Oct.-Dec., 1965), p. 12. ; "Measures Taken to Eradicate Malaria from Ethiopia (Amharic Version)," *MES Bulletin*, Vol. No. 8, (Dec.-Feb. 1967), p. 4.

[231] For detail see MPH, MES (unpublished document), pp. 1-6, 36-40. Or IES Archive, File No. 71-11385. ; "MPH: Annual Report for the five Year 1957 EC," *MES Bulletin*, Vol. No. 6, (Oct.-Dec., 1965), p. 12.

[232] MPH, "Annual Report for the five Year 1957 EC," *MES Bulletin*, Vol. No. 6, (Oct.-Dec., 1965), p. 12. ; "Importance of Local Film Production," *MESN*, Vol. 4, No. 4, (Oct. 31, 1969), pp. 3-4.

Furthermore, the program worked to bring desirable change in health knowledge, attitudes and practices among populations who faced the risk of malaria. Educating the people of malarious *qäbälès* through various ways to enhance cooperation and support of the people was operated by the MES. Moreover, the program was involved in training malaria workers about the techniques and principles of public relations as to how to approach the targeted group and the purpose of the MES. It established a community organization or malaria council that contained individuals who had acceptability and respect in their respective localities to teach the people through them. Malaria education was delivered to the public through divergent ways, religious leaders, local governors, teachers, students, health staff etc. as well as existing local institutions, churches, mosques, schools, *edir*, *equb*, *Mahbär, Sänbätè,* health centers, market places, etc. The program dedicatedly worked to establish close communication and collaboration with local people to obtain people's active participation and support for MEP, and to encourage them to fully utilize the service provided by the MES.[233]

[233] For detail see MPH, MES (unpublished document), pp. 1-6, 36-40. Or IES Archive, File No. 71-11385. ; MES, "Public Relations Hand Book for Malaria Workers," (Health Education Division: Artistic Printers 5971G, Sept., 1964), pp. 1-19. ; "Guideline to Malaria Control Program in Ethiopia," (Addis Ababa: Graphic Printers, Sept. 1983), pp. 234-244. ; *MES Bulletin*, Vol. No. 4, (Jan. - Mar., 1965), pp. 9-10. ; "Importance of Local Film Production," *MESN*, Vol. 4, No. 4, (Oct. 31, 1969), pp. 3-4. ; *MES Bulletin*, (no vol. no. and year), pp. 16-21. IES Archive, File No. 69-8644. Or see Petros, "Malaria Eradication Problems in Ethiopia," *MES Bulletin*, Vol. No. 5, (April-June, 1965), p. 24. ; "Health Education and Public Relations," MES, *Pictorial Review*, (Addis Ababa: Central Press, July, 1972), p. 30. ; Shafa, "The Role of Physicians in Hospitals and Other Health Workers in the Malaria Eradication Program in Ethiopia," {Reprinted from *Ethiopian Medical Journal,* Vol. IV, No. 4, (July, 1966), *MES Bulletin*, Vol. No. 8, (Dec.-Feb. 1967), pp. 35-36.

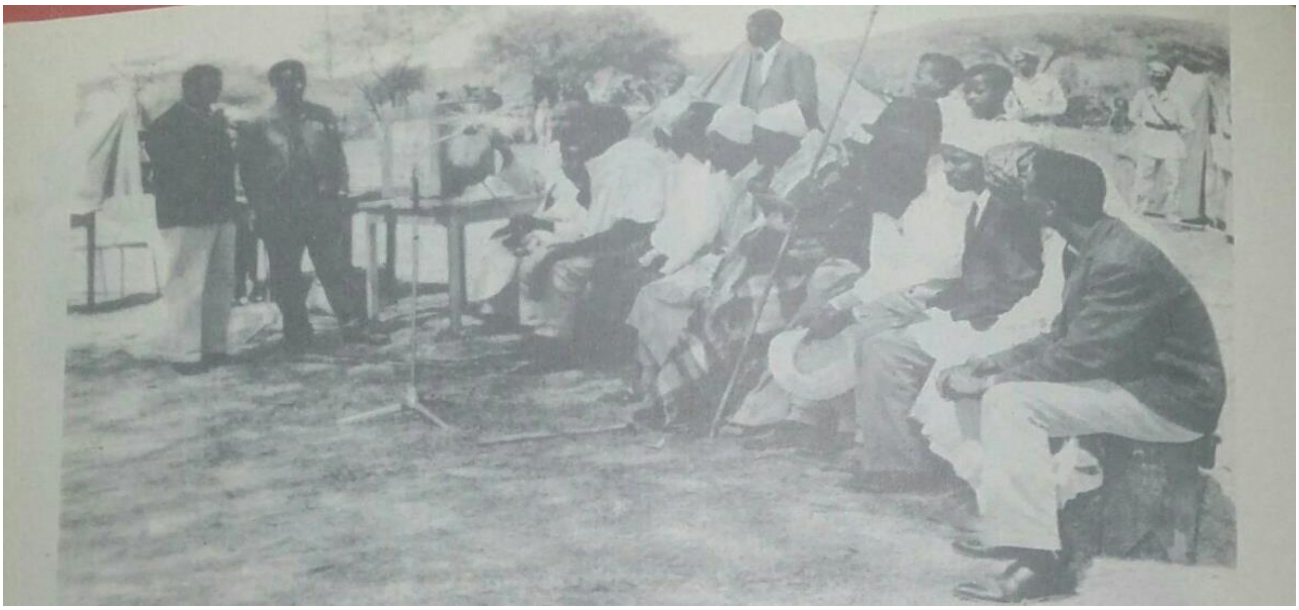
Figure 7: The health education team giving health education to students in one of the schools in Begemdir province.

Source: *MES Bulletin* Vol. No. 4, (Jan.-Mar., 1965), p. 8.

Figure 8: Members of the community listening to the presentation given by the Malaria Eradication Service (the place is not mentioned in the source materials)

Source: *MES Bulletin*, (it has no volume number and date), p. 12.

Figure 9: The Governor explains to the people about the activities of the malaria eradication program (the place is not indicated in the source materials)



Source: *MES Bulletin*, (it has no Vol. No. and date), p. 14.

During the preparatory phase, the MEP conducted a survey of blood examination from the community, who inhabited the domain of malaria vulnerable regions in order to identify the presence of malaria parasite and to acquire the necessary baseline data for the program to delimit malarious areas, and made the region ready for the attack phase. This was performed by parasitologists. They collected blood specimens and distribute drugs, examine the collected blood smears to know the presence of malaria parasites, and recorded properly and evaluated the status.[234]

If 5% parasite rate found in a given sector with a 10% serial parasitological survey undertaking, it would be singled out and delimited as a malaria risk area.[235]

[234] "Letter wrote to lieutenant colonel Tamrat Yigezu, Deputy of Harar Province," NALA File No. 17.1.7.16.04. ; MES, "Manual of Parasitology Division," (Addis Ababa: MPH, July, 1963), pp. I, 1-4. IES Archive File No. 88-25999. For detail see the appendix. ; Petros, "Malaria Eradication Problems in Ethiopia," *MES Bulletin*, Vol. No. 5, (April-June, 1965), p. 23. IES Archive File No. 69-8644. ; *MES Bulletin*, Vol. No. 4, (Jan.-Mar., 1965), pp. 4-5.

[235] *MESN*, Vol. 2, No. 4, (March 31, 1967), p. 2. ; Informant: Abdulaziz.

Although the given number varied from document to document, the program examined hundreds of thousands of people who inhabited malaria vulnerable areas. Periodically, the number of examinees also increased.[236]

Drawing on the aforementioned blood investigations, the study revealed that plasmodium *falciparum* was the predominant species followed by *plasmodium vivax* and *malariae* respectively.[237] However, recent studies have of the indication that all malaria species appeared in Ethiopia albeit the degree of parasite rate is varied.[238]

Figure 10: Employees of the Malaria Eradication Service collecting blood from the people

Source: *MES Bulletin*, (it has no volume number and date), p. 14.

[236] Chand, "Progress Report of the Malaria Program in Ethiopia up to June, 1964," p. 57. ; *MESN*, Vol. 1, No. 4, (March 24, 1966), p. 9.

[237] Awash "Malaria in Ethiopia," pp. 23-24.

[238] Tarekegn Abose, *et'al*, "WHO: Reorientation and Definition of the Role of Malaria Vector Control in Ethiopia: The Epidemiology and Control of Malaria with Special Emphasis on the Distribution, Behaviour and Susceptibility of Insecticides of Anopheline Vectors and Chloroquine Resistance in Zwai, Central Ethiopia and other Areas (unpublished document)," p. 1. Or see WHO/MAL/98.1085.

Insect study, performed by entomologists, was another significant issue that the program carried out during the preparatory phase. The work included researching the origin of malaria cases and identifying mosquitoes breeding sites. Under this phase the program collected anopheles mosquitoes, adults and *larvae* to investigate vector presence, measure its load and their geographical distribution and limit, discriminate identities of mosquitoes and vectors in the studied regions. Furthermore, it studied their seasonal prevalence, resting habits, and detected the development of resistance through periodical treatment of susceptible tests and its level of susceptibility to the chosen insecticide. Entomologists were also involved in detecting vector species and their behavioral changes, examine the duration of residual insecticide deposit by survival rate/bio-assay. Since 1965, the program started vector-man contact fluctuation, vectors indoor and outdoor night time behavior and day time haunts study.[239] Besides, it was involved in identifying unsprayed and sprayed areas or pilot projects, prepare malariometric data to DDT and Dieldrin, sporozoite rate, multi and nulli party rate, human blood ratio assess residual effect of insecticide and formed catching stations.[240]

The arrival of 107 new Jeep vehicles in 1965 transformed the work of entomologists from individual effort in each sector into teams on a zonal basis.[241] The MES started this work with the anticipation of covering each sector in area "A" until each locality would be surveyed for

[239] "A Note Present to the Malaria Eradication Board," NALA, File No. 17.3.355.01. ; Petros, "Malaria Eradication Problems in Ethiopia," *MES Bulletin,* Vo. No. 5, (April-June, 1965), p. 22. IES Archive, File No. 69-8644.; MPH, "Annual Report for the five Year 1957 EC," *MES Bulletin,* Vol. No. 6, (Oct.-Dec., 1965), pp. 10-11. ; Chand, "Progress Report of the Malaria Program in Ethiopia up to June, 1964," p. 57. ; IES, Archive File No. 84-22702. ; Jolivet, "Senior Course in Malaria Entomology: New Revision 1961 (Restricted), The Entomologist's Role in Malaria Eradication Program," (Unpublished document), Malaria Eradication Center Nazareth-Ethiopia, p. 2. ; "Entomology Section," *MES Pictorial Review,* (AA: Central Press, July 1972), pp. 23-24. ; "Entomological Activities in the MEP," *MESN*, Vol. 3, No. 4, (no date and year), p. 14. ; *MESN*, Vol. 1, No. 1, (Dec. 21, 1965), p. 3. ; *MESN*, Vol. 4, No. 1, (Jan. 31, 1969), p. 9. ; "Guidelines to MCP in Ethiopia," (Addis Ababa: Graphic Printers, Sept. 1983), pp. 72-122. ; Awash, "Malaria in Ethiopia," pp. 17-20.

[240] Jolivet, "Senior Course in Malaria Entomology: New Revision 1961 (Restricted), The Entomologist's Role in Malaria Eradication Program," (Unpublished document), Malaria Eradication Center Nazareth-Ethiopia, p. 2. IES, Archive File No. 84-22702. ; "Guidelines to MCP in Ethiopia," (Addis Ababa: Graphic Printers, Sept. 1983), pp. 72-122.

[241] Due to lack of enough vehicles assigned to the division, up to 1964 the entomological activities mainly conducted along the main highway and trail where public transportation was easily accessible. MPH, "Annual Report for the five Year 1957 EC," *MES Bulletin,* Vol. No. 6, (Oct.-Dec., 1965), pp. 10-11. ; *MES Bulletin,* Vol. No. 4, (Jan.- Mar., 1965), p. 6.

anopheles distribution. This was to determine the distribution of vector species and provides data which with parasitological information would permit the delimitation of malarious areas.[242] In the same year, "observation or indicator" and spot survey posts were selected in some zones on the bases of high vector density and suspected vector species, degree of malaria endemicity, accessibility throughout the year, and other topographical and climatological conditions. It began a monthly routine entomological work in the selected post that included indoor resting collections, outlet trap, outdoor collections, night biting catches, and dissection of ovaries.[243] All of these were to get baseline data and delimit malarious areas, in collaboration with parasitologists, and devise measures to be taken on epidemiological findings for quick elimination of transmission. Besides, entomologists were involved in identifying and reporting the presence of secondary vectors and unusual vector densities that were essential to modify spray operations of the program.[244]

Accordingly, there were certain accomplishments credited to the program at its first phase, which is carried out by entomologists. In 1961, for instance, they discovered and reported 31 species of *anopholine*s,[245] which increased to 34 in 1964.[246] Although the investigation increased the number of *anophelines* species, it did not bring significant difference regarding important

[242] MPH, "Annual Report for the five Year 1957 EC," *MES Bulletin*, Vol. No. 6, (Oct.-Dec., 1965), pp. 10-11. ; *MESN*, Vol. 1, No. 1, (Dec. 21, 1965), p. 3. ; *MES Bulletin*, Vol. No. 4, (Jan. - Mar., 1965), p. 6.

[243] *MESN*, Vol. 1, No. 1, (Dec. 21, 1965), p. 3. ; "Entomological Activities in 1965," *MESN*, Vol. 1, No. 8, (July 30, 1966), p. 7.

[244] Petros, "Malaria Eradication Problems in Ethiopia," *MES Bulletin*, Vo. No. 5, (April-June, 1965), p. 22. IES Archive, File No. 69-8644. ; MPH, "Annual Report for the five Year 1957 EC," *MES Bulletin*, Vol. No. 6, (Oct.-Dec., 1965), pp. 10-11. ; Chand, "Progress Report of the Malaria Program in Ethiopia up to June, 1964," p. 57. Jolivet, "Senior Course in Malaria Entomology: New Revision 1961 (Restricted), The Entomologist's Role in Malaria Eradication Program," (Unpublished document), Malaria Eradication Center Nazareth-Ethiopia, p. 2. IES, Archive File No. 84-22702. ; "Entomology Section," MPH, *MES Pictorial Review*, (AA: Central Press, July 1972), pp. 23-24. ; "Entomological Activities in the MEP," *MESN*, Vol. 3, No. 4, (no date and year), p. 14. ; *MESN*, Vol. 1, No. 1, (Dec. 21, 1965), p. 3. ; *MESN*, Vol. 4, No. 1, (Jan. 31, 1969), p. 9. ; "Guidelines to MCP in Ethiopia," (Addis Ababa: Graphic Printers, Sept. 1983), pp. 72-122. ; Awash, "Malaria in Ethiopia," pp. 17-20.

[245] Jolivet, "Senior Course in Malaria Entomology: New Revision 1961 (Restricted), The Entomologist's Role in Malaria Eradication Program," (Unpublished document), Malaria Eradication Center Nazareth-Ethiopia, annex I, p. 1. IES, Archive File No. 84-22702. ; For detail see the appendices; Chand, "Progress Report of the Malaria Program in Ethiopia up to June, 1964," p. 57.

[246] Shaka, "Malaria Eradication in Ethiopia," *MES Bulletin*, Vol. No. 3, (April-June, 1964), p. 18. ; Awash, "Malaria in Ethiopia," pp. 16-20. For detail see appendices.

malaria transmit vectors. Rather, they confirmed previous entomologists' studies that *an. gambiae* was a primary vector with hypo endemic (areas with little transmission) with scattered foci of mesoendemic (varying intensity of transmission) and *an. funestus,* and *an. faraonsis* as secondary level malaria transmitter vectors.[247]

In all six zones entomologists carried out a research on a larva in 1, 232 localities, and adult, 2, 259 localities, of *an. gambiae, an. faraonsis, an. funestus* and others to know their geographical distributions.[248] Out of 4997 approved localities in 1965, an entomological survey covered 2560 localities in area "A".[249] 246, 950 and 400, 000 mosquitoes were identified in 1963 and 1964 respectively. 837, 788 and 1, 200, 000 bio-assay and susceptibility tests carried out.[250] The study revealed that September to November (*Sädäy*) was that main malaria transmission season while March to April (*Bälg*) was a minor malaria transmittable season.[251] However, frequent malaria epidemic outbreaks might have happened in good circumstances for malaria transmission.[252] The program decided to spray DDT twice in a year in malarious areas during the above months though it was not pragmatic and not execute timely. The study of outdoor resting habits of the *anopheline* species in Asmara, Gondar, and Dessie, and Nazareth zones disclosed their existence in such places like "under bridge", "culverts", and "animal sheds or stables". Entomologists also unearthed that the distributions of species varied from place to place.[253]

[247] MES, "Report of A Strategy Review Team, May 6-27, 1970," P. 2. IES Archive, File No. 72-12955. ; Awash, "Malaria in Ethiopia," pp. 19-20.

[248] MPH, "Annual Report for the five Year 1957 EC," *MES Bulletin,* Vol. No. 6, (Oct.-Dec., 1965), p. 11.

[249] "Entomological Activities in 1965," *MESN*, Vol. 1, No. 8, (July 30, 1966), p. 7.

[250] Chand, "Progress Report of the Malaria Program in Ethiopia up to June, 1964," p. 57.

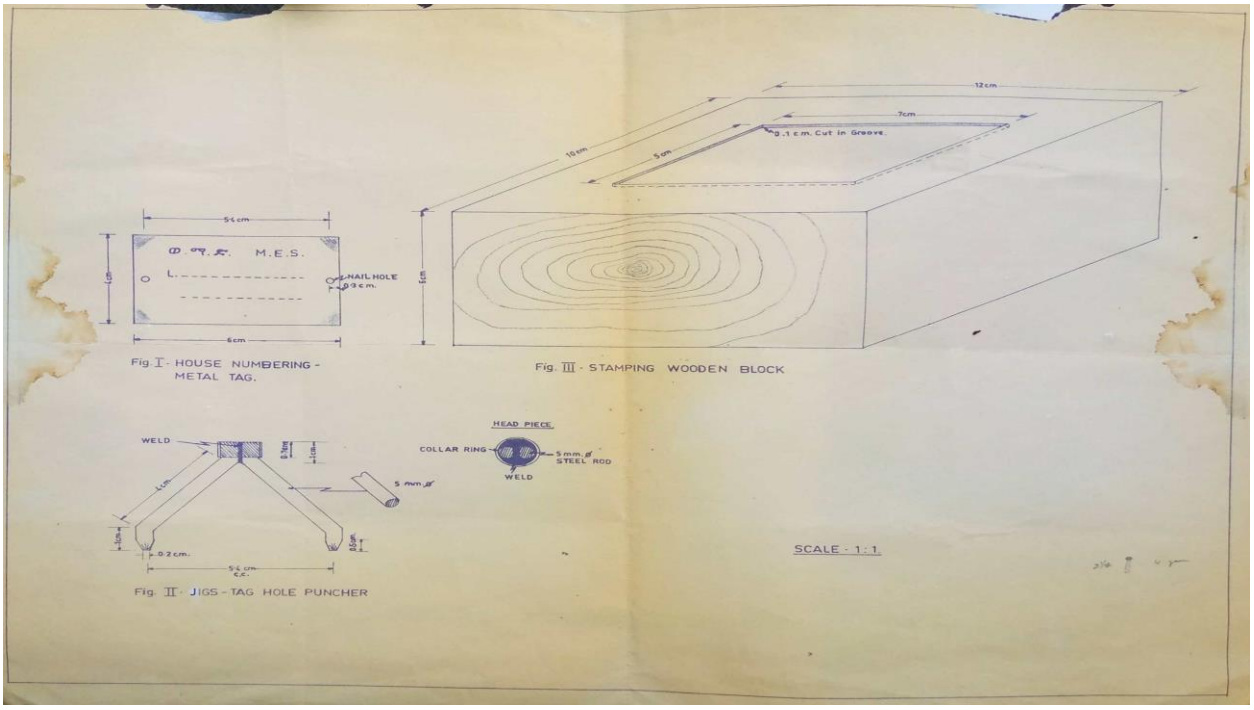
[251] *MESN*, Vol. 1, No. 4, (March 24, 1966), p. 10.

[252] MES, "Report of A Strategy Review Team, May 6-27, 1970," P. 2. IES Archive, File No. 72-12955. ; Awash, "Malaria in Ethiopia," pp. 19-20.

[253] *MESN*, Vol. 1, No. 4, (March 24, 1966), p. 10.

Preparation of zone and sector maps and drawing locality maps of malaria risk areas were other essential operations the program undertook in the preparatory phase through the GR and spray section. This involved the collection of general locality information, enumeration and recording the number of population including their health status in each respective locality to know the quantity of antimalarial drugs needed to treat the affected society. Numbering of all existing houses, issuing house cards and tagging them were also done during this phase. Moreover, the units measured the internal size of the houses in order to know and determine the amount of residual insecticides, DDT, Dieldrin, to be sprayed as well as working days.[254]

Figure 11: A measured internal part of a house by the GR Personnel



Source: Tenna Garage Archive

[254] MES, "Detailed Work Plan Prepared by the Program to Eradicate Malaria from Ethiopia," NALA, File No. 17.3.357.01. ; "A Note Present to the Malaria Eradication Board," NALA, File No. 17.3.355.01. ; "Letter wrote to lieutenant colonel Tamrat Yigezu, Deputy of Harar Province," NALA File No. 17.1.7.16.04. ; Dumped materials found at Tena Garage, "GR and Anti-insect Drug Spray Division Chief Work Guideline," (Amharic Version). ; MES, "Report of a Strategy Review Team, May 6-27, 1970," pp. 3-4. IES Archive, File No. 72-12955. ; Petros, "Malaria Eradication Problems in Ethiopia," *MES Bulletin*, Vo. No. 5, (April-June, 1965), pp. 22-23. IES Archive, File No. 69-8644. ; *MES Bulletin*, Vol. No. 4, (Jan.-Mar., 1965), p. 7. ; WHO Geographical Reconnaissance for Malaria Eradication Programmes: Division of Malaria Eradication, (Geneva: Switzerland, Dec. 1965), p. 8. ; Informants: Kelklew, Adisu, Abdulaziz, and Birhanu.

This included the preparation of operational plan, directives, maps and instructions in respect of GR and insecticidal spraying for the 36 spraying and reconnaissance sectors in the six zone of area "A". It carried out the operational requirements study for all the malaria risk areas of Ethiopia. Direct and supervises directly and indirectly the operational techniques and ensure compliance by the field personnel of the standard procedures and techniques were also the function of GR. In addition, it was Collecting, compiling and analyzing the spraying and GR data.[255] The program exhibited good progress in drawing locality maps that increased through time though the figures varied from document to document. From 1961 to 1964, the program, through its GR section, prepared 3997 locality maps. 1, 100, 120 houses and 3, 384, 168 population were registered.[256] Though the GR activities had begun since 1961[257], the work of GR in area "A" started in 1964 and lasted until 1966.[258] From July 1964 to June 1965 the GR mapped 3, 444 localities, which had 1, 768, 632 population. It counted and recorded 489, 829 *tukuls*. This was out of the plan to accomplish 4, 497 localities, 2, 905, 859 people, and 701, 265 houses respectively. Accordingly, 197, 348 people were protected; 58, 065 houses were sprayed; and 140 numbers of localities covered.[259] In the early 1966, 7, 638 localities were mapped, 1, 146, 760 houses registered where 3, 795, 800 people inhabited.[260]

[255] Dumped materials found at Tenna Garage, "GR and Anti-insect Drug Spray Division Chief Work Guideline (Amharic Version)." ; *MES Bulletin*, Vol. No. 4, (Jan.-Mar., 1965), p. 7. ; WHO Geographical Reconnaissance for Malaria Eradication Programmes: Division of Malaria Eradication, (Geneva: Switzerland, Dec. 1965), p. 8. ; Informants: Kelklew, Adisu, Abdulaziz Abdulmali, and Birhanu. Petros, "Malaria Eradication Problems in Ethiopia," *MES Bulletin*, Vo. No. 5, (April-June, 1965), pp. 22-23. IES Archive File No. No. 69-8644.

[256] *MESN*, Vol. 1, No. 4, (March 24, 1966), p. 9.

[257] Awash, "Malaria in Ethiopia," p. 14.

[258] MES, "Report of a Strategy Review Team, May 6-27, 1970," pp. 3-5. IES Archive, File No. 72-12955. ; MPH, Annual Report for the Five Years 1957 EC," *MES Bulletin*, Vol. No. 6, (Oct.-Dec., 1965), p. 10.

[259] MPH, "Annual Report for the Five Years 1957 EC," *MES Bulletin*, Vol. No. 6, (Oct.-Dec., 1965), p. 10.

[260] *MES Bulletin*, Vol. No. 8, (Dec.-Feb, 1967), pp. 3-4. ; Awash, "Malaria in Ethiopia," pp. 14-15.

Figure 12: Employees of the Malaria Eradication Service performing Geographical Reconnaissance activities

Source: *MES Bulletin*, (it has no volume number and date (no ND)), 13.

Based on the above facts and reasons, the program decided that area "A" should have 2 spray rounds in a year with 2 gm/m^2 that lasted for two months.[261] However, Birhanu argued that during the attack phase due to the altitudinal exposure to malaria regions below 1500 m above sea level were sprayed twice in a year while areas above 1500 m were sprayed once a year for 3 successive years without break.[262]

The work of the preparatory phase in area "A" was completed in early 1966 and the program then moved to the attack phase, which was the central component of the MES/P. It was the phase in which that actual battle between the program, particularly the spray men armed with their weapon DDT and mosquito would start. This phase was to last until the discontinuation of transmission witnessed. The first attack phase of the malaria eradication campaign in Ethiopia,

[261] "Memo Issued from the Office of the Technical Counterpart to the DG, to the OD, Regarding the Spraying and GR activities in 1966," *MESN*, Vol. 2, No. 12, (Nov. 30, 1967), p. 6. ; *MESN*, Vol. 1, No. 4, (March 24, 1966), p. 10.

[262] Informant: Birhanu.

therefore, was inaugurated in area "A" on Saturday 13 March, 1966 by HIM Emperor Haile Selassie I at Nazareth. On the occasion, the emperor made the following speech:

> Malaria is the most predominant communicable disease that seriously impairs the health and efficiently of the greatest number of our people in our empire. We have, therefore, established the Malaria Eradication Service under the direction of our Ministry of Public Health. Since its inception, the Malaria Eradication Service has been studying the techniques and methods of attacking and eventually eradicating this scourge in the context of Ethiopia.
> With these objectives in view, the country has been divided in to four Areas of Operations. Today, it gives us pleasure to inaugurate and launch the Attack Phase in Area "A" for which the necessary preliminary activities (of the preparatory phase) is just completed. This area received priority in the program because it is the most highly populated and economically fast developing area of the Empire.
> We have realized that preparatory effort for the eradication of malaria, so far has been fruitful and rewarding. We have no doubt that future activities will be successful.
> Since malaria eradication demands full support and cooperation of the entire nation, we trust Provincial Governors General, Deputy Governors General, District Governors, and all officials as well as community leaders will actively participate in the education of the citizens for securing the necessary support and cooperation for the success of the program.
> With this objective in mind, you the officials and employees of the Malaria Eradication Service have dedicated yourselves to the service of our people. It is obvious that you will encounter hardship and challenges in the performance of your task. Nevertheless, we will trust that you will remain firm in your struggle to accomplish your sacred mission…[263]

From this text we understand how much the government had given priority to the program. It also indicated the progress of the program and its stage reached as well as required resources to achieve the planned goal.

[263] "A Speech made by Emperor Haile Selassie I in the Inauguration of malaria eradication attack phase," NALA File No. 1.2.42.17. ; The Emperor's Speech (both in Amharic and English). ; "HIM Inaugurates 1st Attack Phases on March 13/1966," *MES Newsletter*, Vol. 1, No. 4, (March 24, 1966), pp. 2-3. ; "HIM Inaugurates 1st Attack Phase of Malaria Eradication Program," *MES Bulletin*, (no Vol. No. and year, but it might be No. 7), pp. 5, 15. See the Amharic version on page 5. A speech made by Emperor Haile Selassie I in the inauguration of attack phase at Nazareth, on 13 March, 1966. The HIM Emperor Haile Selassie I himself inaugurated the program by spraying a tukul in Nazareth in March 14, 1966. "HIM Inaugurates 1st Attack Phase of Malaria Eradication Program," *MES Bulletin*, (no Vol. No. and year, but it might be No. 7), pp. 5, 15. ; Informants: Tesfaye and Abera.

Figure 13: HIM Haile Selassie I Inaugurating the Attack Phase of the Program in Nazreth

Source: *MES Pictorial Review*, (Addis Ababa: Central Press, July 1972), p. 3.

Figure 14: Part of the Audience present in the inaugural ceremony

Source: *MES Bulletin*, (it has no volume number and date), p. 13.

Figure 15: HIM Haile Selassie I Spraying DDT

Source: *MES Pictorial Review*, (Addis Ababa: Central Press, July 1972), pp. 4, 18.

The principal work of the program through its OD was insecticidal spraying (DDT and Dieldrin-in some extent), over all sprayable areas (houses and other structures) through its spray operations section. This was done at the recommended dosage and cycle in the identified, delimited and mapped regions.[264] Regarding this, from 1966-1971, area "A" had received insecticide spraying with different numbers of sectors, houses, and population.[265] At the beginning, not all area "A" sectors were included in the attack phase. For example, from 1966-1967 only 31 sectors were under spraying. During the second cycle second round spray season the number of sectors which transitioned into spraying operation increased to 33. The number of

[264] *MESN*, Vol. 1, No. 3, (Feb. 26, 1966), p. 1. ; *MESN*, Vol. 4, No. 1, (Jan. 31, 1969), p. 9.

[265] "Spot-light on Spraying Round No. 1 Cycle No. 2 1970," *MESN*, Vol. 5, No. 3, (*Megabit* 30, 1962EC), p. 3. ; *MESN*, Vol. 1, No. 3, (Feb. 26, 1966), p. 1. ; Jolivet, "Senior Course in Malaria Entomology: New Revision 1961 (Restricted), The Entomologist's Role in Malaria Eradication Program," (Unpublished document), Malaria Eradication Center Nazareth-Ethiopia, annex I, p. 1. IES, Archive File No. 84-22702.

sectors which achieved above 95% spray coverage was not satisfactory though it demonstrated good progress through time. For detail see the following report.

Table 2: Frequency Distribution of Spray Coverage by Sector (Area A, Excluding Asmara Zone)

Round of Spraying	Time Period of Operation	Total No. of sectors under op.	No. of sectors in which the calculated spraying coverage is					
			Less than 75%	75-79.9%	80-84.9%	85-89.9%	90-94.9%	95% and above
I-1	27/2/66-31/7/66	31	4	3	4	6	4	10
I-2	2/10/66-22/1/67	31	8	1	1	5	8	8
II-1	12/3/67-16/7/67	31	0	1	2	5	8	15
II-2	2/10/67-28/1/68	33	0	0	1	1	6	25
III-1	7/3/68-22/6/68	36	1	0	1	1	4	29
III-2	4/10/68-25/1/69	38	1	0	0	6	4	27
IV-1	12/3/69-27/769	38	0	0	2	0	4	32
IV-2	29/9/69-4/2/70	38	1	0	4	0	3	30

Source: MES, "Report of A Strategy Review Team, May 6-27, 1970," p. 6.

In the first round first cycles spraying operation, the program covered 7538 localities. 1, 146, 757 houses and structures were sprayed. Approximately 3, 248, 754 people received protection by using 275, 127.539 kg DDT.[266] Supervision was also carried out both during and after the spraying operations carried out to assure whether the spraying fulfilled the standard, like total coverage, right dosage, or not.[267]

[266] "Spraying Result of 1958 EC," *MESN*, Vol. 1, No. 9, (Aug. 31, 1966), p. 2.
[267] "Supervision in Spraying Operation," *MESN*, Vol. 1, No. 5, (April 28, 1966), pp. 1-2.

In the interval periods between spray operations, the MES/P performed various activities required for the next spray season. For example, it continued locality mapping of malaria areas and updating GR data; and made the transport facilities and service ready for its next work. It also offered the necessary health education both to the people and malaria workers; carried out research for future work and prepared plans.[268] An inventory work at sectoral and zonal level was also done.[269] Entomologists and parasitologists also carried out surveillance activities to examine the efficacy of previously used anti-malaria insecticides and drugs by investigating malaria transmitter mosquito vectors and taking blood smears from people who received insecticide spraying in malaria vulnerable *qäbälès* and provided anti-malaria drugs monthly respectively.[270]

Entomologists were involved in identifying critical technical problems to design and find remedial measures to meet it. The entomologists appraised the progress of the level of malaria transmission decrease, reduction of vector man contacts, probability of survival of mosquitoes feeding in the sprayed houses, and vector susceptibility tests. They carried out bioassays of the residual deposits and determined the existence and degree of outdoor resting.[271] They then determine the causes of failure in the foci of residual transmission and problem areas and plan remedial measures.[272] To procure dependable parasitological data through evaluating the degree of parasite rate declination by assessing the efficacy of the spraying campaign, Parasitologists made serial parasite surveys in every six months interval (April-May and Oct.-Nov.) from most malarious localities. Specified numbers of specimen were collected from the houses of the

[268] *MESN*, Vol. 1, No. 7, (June 27, 1966), p. 27. ; *MESN*, Vol. 2, No. 12, (Nov. 30, 1967), p. 7.
[269] "Memorandum to Zone Chiefs from Executive Director, MES," *MESN*, Vol. 1, No. 8, (July 30, 1966), p. 2.
[270] *MESN*, Vol. 1, No. 7, (June 27, 1966), p. 27. ; *MESN*, Vol. 2, No. 12, (Nov. 30, 1967), p. 7.
[271] "Entomological Activities in MEP," *MESN*, Vol. 3. No. 4, (it has not date and year), p. 14. ; *MESN*, Vol. 4, No. 1, (Jan. 31, 1969), p. 9. ; "Entomological Activities in the Early Part of the Attack Phase," *MESN*, Vol. 3, No. 5, (April 30, 1968), pp. 1-3.
[272] "Entomological Activities in the Later Phase of the Attack Phase," *MESN*, Vol. 3, No. 5, (April 30, 1968), p. 4. ; *MESN*, Vol. 4, No. 1, (Jan. 31, 1969), p. 9.

selected localities from all ages within a month. They conducted spot surveys, carried out monthly in localities under 1800m which were considered as highly malaria risk areas, and case detection activities.[273] Parasitologists had set out a bi-annual malaria survey in selected localities and households in all attack sectors since Oct. 16, 1967.[274] While the attack phase entered its fourth year in area "A", surveillance activities were initiated in 25 area "A" sectors to discover whether the malaria transmission continued or not and to eliminate the focus of infection by alternative actions.[275]

When the attack phase was launched in area "A", the preparatory phase was also started in area "B".[276] Most of the area "B" zones were established in 1967. This continued up to the end of the eradication era. Up to 1970, the GR mapped 8788 localities, counted 798, 863 houses, and registered 2, 721, 269 population in area "B".[277] Some area "B" sectors started the attack phase. Area "C" and "D" sectors did not start any activities in MEP of Ethiopia.[278]

The third phase under the eradication program was the phase of consolidation, which covered the period from the discontinuation of all spraying to the declaration of eradication. Blood test was a principal undertaking of this phase which sought to detect any remaining parasite infections. The objective was to treat the last malaria cases using Chloroquine and other anti-malaria drugs; and to make sure that mosquitoes would not be re-infected with malaria parasites.[279]

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[273] "Supervision in Spraying Operation," *MESN*, Vol. 1, No. 5, (April 28, 1966), p. 2. ; "Evaluators Role in the Bi-annual Spray," *MESN*, Vol. 3, No. 5, (April 30, 1968), p. 1.

[274] "Importance of Parasitology Survey," *MESN*, Vol. 2, No, 10, (Sept. 30, 1967), p. 1. ; "Evaluators Role in the Bi-annual Spray," *MESN*, Vol. 3, No. 5, (April 30, 1968), pp. 1-2

[275] "No Point of Return," *MESN*, Vol. 4, No. 7, (Aug. 31, 1969), p. 1.

[276] *MESN*, Vol. 1, No. 4, (Mar. 24, 1966), p. 9.

[277] "Development of Basic Health Service in Ethiopia with Special Reference to the MEP," *MES Bulletin*, Vol. No. 10, (April, 1970), p. 26.

[278] see table on page 77.

[279] Stepan, *Eradication: Ridding the World of Diseases Forever?*, p. 165.

In the context of Ethiopia, there is disagreement among source materials on whether the consolidation phase had been launched in the country or not. Some local sources state that the consolidation phase had been initiated although it did not cover all sectors of area "A".[280] But some others are attesting against this and note that the consolidation phase had not commenced in the history of MEP in Ethiopia.[281] Originally the program planned to advance area "A" into consolidation phase in 1970 and to the maintenance phase (a phase in which close surveillance activities carried out to ensure no malaria infection resumed from outside the eradicated zone) in 1972.[282] This means if the MEP had been implemented according to the plan, it would have come to an end before the year planned in which consolidation phase is scheduled to begin. Therefore, there is no logical ground to conceive consolidation phase had started. For detail related to malaria eradication phasing both by area and time in Ethiopia to know the plan and its actual progress, see the following tables. The first two tables (table 3 and 4) show the plan of MEP whereas the last one portrays the actual progress of the program reached in 1970.

[280] Informant: Yayehyirad.

[281] Petros, "Malaria Eradication Problems in Ethiopia," *MES Bulletin*, Vol. No. 5, (April-June, 1965), pp. 21-22. See the following table also.

[282] MES, "Report of A Strategy Review Team, May 6-27, 1970." IES Archive File No. 72-12955.

Table 3: Malaria Eradication Phasing in Ethiopia, 1963-1979.

Calendar year / Area	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
A	P	P	P	A	A	A	A	C	C	C	M	M	M	M	M	M	M
B				P	P	A	A	A	A	C	C	C	M	M	M	M	M
C						P	P	A	A	A	A	C	C	C	M	M	M
D								P	P	A	A	A	A	C	C	C	M

P-Preparatory phase C-Consolidation Phase
A-Attack phase M-Maintanance phase
Maintenance phase would go on united global malaria eradication has achieved.

Source: Shaka, "The Role of Physicians in Hospitals and other Health Workers in the Malaria Eradication Program in Ethiopia," *MES Bulletin*, Vol. No. 8, (Dec.-Feb., 1967), p. 38.

Table 4: Program Phasing by "Area": As Envisaged in Plan of Operations

Phase	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978
Preparatory	A	B	B	C	C	D	D							
Attack		A	A	A B	A B	BC	BC	C D	C D	D	D			
Consolidation						A	A	A B	B	BC	C	C D	D	D
Maintenance									A	A	A B	A B	A BC	A BC

Source: MES, "Report of A Strategy Review Team, May 6-27, 1970," p. 3.

Table 5: Actual Situation of the MES/P in Ethiopia

Phase	1965	1966	1967	1968	1969	1970
Preparatory	A		B	B	B	B
Attack		A	A	A	A	A
Consolidation						
Maintenance						

Source: MES, "Report of A Strategy Review Team, May 6-27, 1970," p. 3.

The MEP in Ethiopia was suspended while it was in the attack phase in area "A". With the exception of a few sectors, the program in area "B" came to an end while it was in the process of launching the preparatory phase. It could be said that the program had not reached the consolidation and maintenance phases in Ethiopia. This analysis is to area "A" and "B", but not to "C" and "D", where none of the phases was initiated. Table 5 further strengthens the above conclusion because it shows that the program did not proceed as originally planned.

Strategies and Execution Mechanisms Employed by the MEP

The GMEP used different strategies, drugs and methods to eradicate malaria. Internationally, scholars had used different treatment approaches to cure malaria, like mosquito sanitation, clinical treatment by using quinine (*atebrine*)-the old drug employed to cure malaria disease, as a means of malaria control.[283] The German aniline dye industry produced a drug which could cure malaria known as "families of compounds" and a wide variety of chemicals that repelled mosquitoes.[284] In 1955, the World Health Assembly (hereafter, WHA) adopted the World Malaria Eradication Campaign (hereafter, WMEC) principally by utilizing two major anti-malaria approaches to exterminate malaria from the face of the living planet. These were the strategy of interruption of malaria parasite transmission by vector control followed by an emphasis by case detection and treatment.[285]

In line with the WHO strategies, MES in Ethiopia employed two major methods to achieve its goal. These were prophylaxes and treatment mechanisms.[286] As regards prophylaxes, the primary method applied was vector control through interruption of the malaria parasite transmission by attacking and eradicating the disease transmitter vector-the *anopheles mosquito*. This was by Indoor residual spraying (IRS), twice a year, on all the sprayable interior surfaces of the houses and other structures in the malaria vulnerable areas from three to four years to prevent the female

[283] J. Kevin Baird, "Resurgent Malaria at the Millennium Control Strategies in Crisis, Parasitic Diseases Program," *US Naval Medical Research Unit No. 2*, (Jakarta: Indonesia, 2000), pp. 721-722.

[284] Baird, "Resurgent Malaria at the Millennium," pp. 721-723.

[285] "A Note Present to the Malaria Eradication Board," NALA, File No. 17.3.355.01. ; Baird, "Resurgent Malaria at the Millennium," pp. 721-723. ; Oscar Gish, "Malaria Eradication and the Selective Approach to Health Care: Some Lessons From Ethiopia,", p. 179.

[286] "A Note Present to the Malaria Eradication Board," NALA, File No. 17.3.355.01. ; IES, File No. 69-8644, "Malaria," (Unpaged) *MES Bulletin*, Vol. No. 1, (1 Sept., 1963). ; *MESN*, Vol. 1, No. 1, (21 Dec., 1965), p. 1. ; Awash, "Malaria in Ethiopia," p. 12. ; Informants: Adisu, Awash, Kelklew, Birhanu, Yayehyirad, and Girma.

mosquito vector from transmitting the disease.[287] Furthermore, it aimed to achieve its goal by filling up, drying up or avoiding convenient mosquito habitation sites near dwellings such as swampy areas, stagnant pools, receptacles, ponds, stored waters and so forth. All long grass that provides protection and may conceal habitation places was cut. Attacking mosquitoes at their larval and pupal stages by spreading oily substance like paraffin and abate chemicals on the water that prevents their breathing trumpets/gills was also another preventive mechanism used. There was also an attempt to destroy them by sprinkling poisonous powders over the water. Another measure of killing larvae was stocking streams with small fish which eat the larvae. There was also a wire netting and sleeping nets preventive mechanisms.[288] Although not widely practiced, all of the options listed above were attempted in Ethiopia.

Treatment was the second technique used by the MES/P to fight malaria. The first-line anti-malaria drug to attack malaria parasite has been chloroquine with different dosage regardless of age and sex.[289] Besides, quinine, primaquine, and fansidar had also been utilized.[290] However, due to side effects, Dieldrin and primaquine, from/for both prevention and treatment respectively, were not used much.[291]

[287] "A Note Present to the Malaria Eradication Board," NALA, File No. 17.3.355.01. ; Yoseph Ofga, "Methods of Mosquitoes Control," *MES Monthly Bulletin*, Vol. 5, No. 11, (July-Aug., 1972), p. 36. ; Informant: Awash, Kelklew, Birhanu. Birhanu argued this. See on page 67. ; *MESN*, Vol. 1, No. 1, (Feb. 26, 1966), p. 1. ; *MESN*, Vol. 2, No. 3, (Jan. 31, 1966), p. 1.

[288] "Malaria," (Unpaged) *MES Bulletin*, Vol. No. 1, (1 Sept., 1963). IES, File No. 69-8644. ; Yoseph Ofga, "Methods of Mosquitoes Control," *MES Monthly Bulletin*, Vol. 5, No. 11, (July-Aug., 1972), p. 36. ; Informant: Birhanu.

[289] "Pharmacy, Drug and Medical Equipment," NALA File No. 11.1.30.1. ; MES, "Current Recommended Drug and Dose for Treatment of Malaria: Quick Reference sheet," (Addis Ababa: Ethiopia, Nov. 1968). (For further see appendices) IES, File No. 72-12955. ; MPH: *MES Bulletin*, Vol. No. 3, (April-June, 1964), pp.2-3.

[290] "Pharmacy, Drug and Medical Equipment," NALA File No. 11.1.30.1. ; "Malaria," (Unpaged) *MES Bulletin*, Vol. No. 1, (1 Sept., 1963) IES, File No. 69-8644. ; MES, "Current Recommended Drug and Dose for Treatment of Malaria," (for further see appendices). IES, File No. 72-12955. ; Informant: Kelklew.

[291] Informants: Kelklew and Girma.

Achievements and Significance of the Program

Internationally, the World Malaria Eradication Campaign (WMEC) had great accomplishments. Malaria was eradicated or reduced into low transmission rate in different parts of the world, especially Europe, America, and Southeast Asia. It vanished from the US, Japan, Korea, Taiwan, Spain, Italy, the Balkans, Greece, and others where malaria occurred seasonally.[292]

Although the Ethiopian MEP did not achieve its planned goal, it did contribute to improving the lives of citizens in health and socio-economic sectors by taking measures to reduce and eliminate the cyclic malaria epidemic.[293] In area "A", the MEP in Ethiopia had shown promising progress. However, the time was that the GMEP was already close to change its eradication strategy to malaria control. For example, no malaria epidemic outbreak was reported from 1966 to 1968 in area "A". In this area malaria no longer posed a public health problem.[294] Furthermore, it was understood that the service reduced the degree of malaria epidemic in the region. For example, an estimated 30 to 40% of malaria cases dropped to 2%,[295] although the percentage is questionable. The period that reduction of malaria epidemic was not remained long period and was limited areas covered. Therefore, the achievement accomplished was confined by time and area. Malaria epidemic outbreak, for example, halted from 1966 to 1968 in area "A". However, the situation would not continue in the 1970s and 1980s even though the degree of epidemic outbreak was not of the same magnitude as the outbreaks before the mid-1960s.

[292] "Additional Manifestation on the Current status of the Malaria Eradication Service (MES) and its future plan," NALA, File No. 17.3.357.01. ; "A Note Present to the Malaria Eradication Board," NALA, File No. 17.3.355.01. ; Baird, "Resurgent Malaria at the Millennium," pp. 724-725.

[293] MES, "The Current Situation and Future Plan of the MES/P," NALA, File No. 17.3.357.01. ; "MOVBDCP Structure Manifestation," NALA, File No. 8.1.116.1. ; *MES Bulletin*, Vol. No. 3, (April-June, 1964), p. 3.

[294] MES, "Report of Strategy Review Team, May 6-27, 1970," p. 2. IES Archive File No. 72-12955. ;

[295] MES, "The Current Situation and Future Plan of the MES/P," NALA, File No. 17.3.357.01

Nevertheless, according to various government reports, the MES was able to protect approximately six and half million people from the risk of malaria. The reduction of malaria encouraged people to move down to the fertile lowland areas where the danger from malaria was no more a serious threat to them.[296] As a result, the condition of areas with sparse population and that produced little agricultural products but had large economic potential improved both in terms of habitation and economy. It also allowed investment activities to be started in these areas.[297] Many investment activities in the empire such as the Awash Valley Agricultural Site (የአዋሽ ሸለቆ የእርሻ ልማት ጣቢያ), Cheffa farming, Wonji, Metehara Sugar Estate, Setit Humera, Bahir Dar, Tendaho Cotton Plantation, Qokka and Bobben electric power/energy, Sodere and Langano recreational areas, and other projects were launched following the MES/P.[298]

For instance, before the beginning of the MEP, Mojo was one of the places debilitated by recurrent malaria outbreaks. A popular saying described the pervasiveness of malaria and its human impact on the population of the town and its hinterlands as follows: "ሞጆ አገሩ ቆንጆ እሬሳ አይጠፋም ከጎጆ". ("Though Mojo is a beautiful area, one always finds at home a dead body [from malaria]"). But the situation changed following the implementation of the anti-malaria program in the region. Mojo became a lively town and a center of investments which led to the abandonment of the local saying that associated Mojo with virulent malaria. As one source noted: "የሞጆ ወባ ይገንድስህ" እሚባለውም እርግጣን ተረስቷል።[299] "The curse that may Mojo's malaria kill you has been forgotten". Yayehyirad reports another saying which described

[296] MES, "The Current Situation and Future Plan of the MES/P," NALA, File No. 17.3.357.01. ; "MOVBDCP Structure Manifestation," NALA File No. 8. 1.116.1. ; "Malaria Situation," *MPH: MES Pictorial Review,* (Addis Ababa: Central Press, July 1972), p. 9. ;

[297] *MES Bulletin*, Vol. No. 3, (April-June, 1964), p. 3. ; "Malaria Situation," *MPH: MES Pictorial Review,* (Addis Ababa: Central Press, July 1972), pp. 6, 8. ; *MESN*, Vol. 3, No. 6, (May 31, 1968), p. 13.

[298] *MES Bulletin*, Vol. No. 3, (April-June, 1964), p. 3. ; *MESN*, Vol. 3, No. 6, (May 31, 1968), p. 13. ; "Malaria Situation," *MPH: MES Pictorial Review*, (Addis Ababa: Central Press, July 1972), p. 9.

[299] "Malaria Situation," *MPH: MES Pictorial Review*, (Addis Ababa, July 1972), pp. 6-8.

conditions in one of the malarious areas of the country, the region of Wonji, "ወንጅ አገሩ ጠጅ ወባው ነው እንጅ"።[300] "Wenji the country is the land of mead (*täji*), had it not been for the malaria". But, like Mojo, the reduction of the malaria pandemic turned the region into one of the centers of investment in the empire. The local saying was also subsequently abandoned.[301]

The program also left substantial experience and knowledge for the future anti-malaria activities.[302] In short, although it is impossible to state the exact changes brought by the program in figures, one can conclude that the program had contributed in improving conditions in the health and socio-economic sectors of malaria ridden areas.

Figure 16: The magnitude of agricultural production and population settlement before the anti-malaria program started (place is not mentioned in the source material)

Source: "Malaria Situation," *MES Pictorial Review,* (Addis Ababa: Central Press, July, 1972), p. 10.

[300] Informant: Yayehyirad.

[301] *Ibid*.

[302] WHO Expert Committee on Malaria: Fourteenth Report, Technical Report Series No. 357 (Geneva, 1967), pp. 8-11. ; Informant: Awash.

Figure 17: The magnitude of agricultural production and population settlement after the anti-malaria program started

Source: "Malaria Situation," *MES Pictorial Review*, (Addis Ababa: Central Press, July, 1972), p. 10.

Problems and Challenges

The MES/P encountered numerous problems and challenges. The problems can be divided into internal and external. Administrative and technical problems of the program can be treated as internal factors. Many administrative problems were observed in the process of the implementation of the MEP. Not taking immediate action on the outbreak of an epidemic was one of the administrative problems. The 1964 malaria epidemic in Begemeder-Semien demonstrated the late response of the service to the epidemic. The problem emanated due to inadequate reporting and bureaucracy (clumsy and hierarchical letter communication system

from echelon to center level and vice versa).[303] Malaria epidemic management activities were conducted based on reports that came from local officials' and laymen. These reports were generated and passed in a manner that maintained the hierarchical order of the bureaucracy from local level to the central MES/P levels. This made reporting cumbersome and time consuming. The reports usually also did not present a clearly identified and specific disease epidemic. Rather they simply noted the outbreak of an unknown disease epidemic. There were other febrile diseases that had a similar seasonal pattern and symptom, of which typhus and relapsing fever were the most important. On reception of such reports, the service was required to send anti-malaria agents to investigate the case, determine whether the pestilence is malaria or not and take measures.[304] It can be understood that the absence of well-structured and well-organized anti-malaria station and team at lower echelons of the program. Moreover, false malaria epidemic reports from various regions that emanated from lack of awareness also caused personnel wastage. Miscommunication and misunderstanding were other problems that the program faced.[305] For further reference of this discussion we can look at the cases which were undertaken in Werehimano *Awraja*:

> …በሽታ ገብቷል ወደተባለበት ክፍል የተላከዉ የህክምና ቡድን በየቀበሌው እየተዘዋወረ ምንም አይነት ተላላፊ በሽታ የያዛቸዉ ሰወች ያላገኘ መሆኑን እና አንዳንድ ሰወችም በብርድ በሽታ ብቻ

[303] Minutes of the Personnel Committee meeting Held on August 13, 1965, at 2:30 PM in the Conference Hall of the MES, August 16, 1965. ; Dennis Carlson and Zemed Alemu, "Some Administrative Aspects of the 1964 Malaria Epidemic Control Program in Begemidr-Semien Province," *Journal of Health,* Vol. 6, No. 1, (Gondar: April 1966), pp. 26-33.

[304] A number of letters wrote from different localities to the head office of the program and from head office to different localities that found in different NALA Archives. Example see "About the Disease in the Wag Region," NALA File Nos. 2.2.38.09. ; "About the Disease in the Werehimeno *Awraja*," NALA, File No. 2.2.54.06. ; "Shewa Province Administration: About Public Health Care," NALA, File No. 17.1.03.03.04. ; Letters found in "Tegulet and Bulga Awuraja *Gizat* (Region)," 17.1.3.29.04. ; "Arsi Province: About Public Health Care," NALA, File No. 17.1.4.02.03. ; "Bale Province: About Public Health Care," NALA, File Nos. 17.1.5.01.02. and 17.1.5.17.03.; 17.1.5.16.15. ; "Borena *Awuraja Gizat* (Region): *Hikmna* (Healing)," NALA, File No. 17.1.6.19.09. ; "Harargie Province Administration: About Health Care," 17.1.07.04.02. ; "Wollo Province Administration: About Health Care," 17.1.12.24.11. ; "Gondar Province: About Puplic Health Care," NALA, File No. 17.1.13.o2.02. ; see also E. Shafa, "Epidemiological Investigation of A Malaria Epidemic in Begemdir and Semien Province of Ethiopia," *Journal of Health,* Vol. 6, No. 1, (April 1966), p. 11-23.

[305] "Bale Province: About Public Health Care," NALA File Nos. 17.1.5.01.02. and 17.1.5.17.03. ; "Harargie Province Administration: About Health Care," 17.1.07.04.02.; Shafa, "Epidemiological Investigation of A Malaria Epidemic in Begemdir and Semien Province of Ethiopia," p.

ታመው ማግኘቱን በ17/5/59 ዓ.ም በተጻፈ ራፖር የገለጸልን ሲሆን …፣ የቡድኑ መሪ በራፖሩ እንደገለጸዉ የአውራጃ ግዛቱም ሆነ የወረዳ ግዛት በሽታ ገብቷል ብሎ በቀጥታ ወደ ጠቅላይ ግዛቱ ጽ/ቤት ከመጻፉ በፊት በክፍሉ ከሚገኘዉ ክሊኒክ ጋር በመነጋገር አስፈላጊውን እርዳታ ከክሊኒኩ ካገኘ በኋላ ምናልባት ክሊኒኩ በመድሀኒትም ሆነ በሰራተኛ ተጨማሪ እርዳታ ቢያስፈልገዉ እንዲላክለት ቢጠይቅ በአፋጣኝ ችገሩ ሊወገድ የሚችል መሆኑን እየገለጽን ሀሳቡን በማስረዘም ቀጥታ የአውራጃው ግዛት የክፍሉን ክሊኒክ በማለፍ ወደ ጠቅላይ ግዛቱ በሚጽፍበት ጊዜ ጉዳዩ ፍጻሜ እስከሚያገኝ ድረስ ብዙ ህዝብ በበሽታዉ ለመጎዳት የሚችል መሆኑን አስረድቷል፣ የቡድኑ መሪ ዕንደገለጸዉ ሁሉ የአውራጃዉ ግዛት በየጊዜው በቀጥታ ክሊኒኩን አልፎ የሚጽፈው ደብዳቤ ለስራው ቀና መንገድ ካለመስጠቱ በላይ እኛም ከጠቅላይ ግዛቱ በሚደርሰን ደብዳቤ በትክክል የተላላፊ በሽታ መግባቱ ከመረጋገጡ በፊት የምንልከዉ የህክምና ቡድን ተፈላጊዉን አገልግሎት ሳያበረክት በመንገድ ኪሳራ እና በሥራ መፍታት በመንግሥቱ ላይ ከባድ ጉዳት የሚያደርስ በመሆኑ ይታሰብበት ለወደፊት መስመሩን ጠብቆ እንድፈጸምልን እያሳሰብን፣

1. ክሎሮኮይን……..47.000 ፍሬ
2. ክሎራምፌኒኮል……..17.000 እንድሁም ሌሎች በርከት ያሉ መድሃኒቶች የሚገኙ ሲሆን በመጀመሪያ ለክሊኒኩ ቢገለጽ…::[306]

(…the medical team sent to the regions that communicable diseases were introduced said that they did not find any infected people in each *qäbälè* that they round. Some people were only suffering from colds, reported by 17/5/59 E.C. as the team leader expressed in his report, before directly sent letter to provincial office, both the *Awraja* and *Wäräda* would communicate with the clinic which found in the region. Then after, if additional medicine and health professionals needed they would request and could solve the problem. If not the time consuming communication would cost many deaths and manpower wastage. According to the leader of the group, the letter from the province does not always give the right direction to the clinic. We are concerned,

1. Chloroquine…….47.000 “
2. Chloramphenicol…….17.000 “. there are also a number of other medications found. So, it can be good deal with the clinic first … .)

Ineffective, overambitious and impractical planning was another administrative impediment to the successful implementation of the program.[307] Plan was set to enter into consolidation phase in area “A”; attack phase in area “C”; preparatory phase in area “D” in 1970; and the attack phase in area “B” in 1968. However, none materialized. Besides, area “A” was designed to reach

[306] “A letter wrote from Bekele Yehualashet, Wollo Province public health administrative counterpart, to Wollo Province office,” NALA, File No. 2.2.54.06.

[307] See tables on pages 74, 75. ; *MESN*, vol. 1, No. 7, (June 27, 1966), p. 24. Interview of Ethiopian radio station with Lemma Menouta, the then vice chief of health education and public relation of MES (reprinted in *MESN* in Amharic). ; *MESN*, vol. 1, No. 8, (July 30, 1966), p. 3.

maintenance phase in 1972/73, but this was also not achieved. The program could only reach the attack phase in area "A" and in some sectors of area "B".[308] The plan to enter into the attack phase in area "B" in 1968 was postponed due to the slow rate of progress in GR which prevented the preparatory phase from being completed as planned. Another planning failure was the plan to spray 8, 000 *qäbälès* in the first round first spray cycle. However, only 4200 *qäbälès* were sprayed.[309] It can be said that the goal of malaria eradication by 1980 would impossible if the program had continued without strategy change.

Drawing from the above planning failures one can discern that the program did not have an effective plan applicable to local contexts. The fact that the plans of the program designed with the guidance of expatriate scholars who were not acquainted with the topography, climate, level of literacy, and so forth of the country might partly explain the failure in planning. Furthermore, insufficient research from Ethiopia's socio-economic, folk culture, geography, health infrastructure and trained health personnel and political and other context might be another source of failure. It does mean that the poor socio-economic status and deep rooted traditional and religious culture and attitude of the local communities, inhabited in malaria stricken areas, towards the MEP was not adequately examined, which were essential to design appropriate plan. Additionally, insecurity issues, heterogeneous topography and low health infrastructure and insufficient health personnel of the country was not properly researched while such itineraries designed. To adopt suitable plan which was suitable and applicable with the existing situation on the ground, the aforementioned points above would require detailed research and properly addressed.

[308] See page 74, 75. ; MES, "Report of a Strategy Review Team, May 6-27, 1970," p. 2. Or see IES Archive File No. 72-12955.

[309] *MESN*, Vol. 1, No. 7, (June 27, 1966), p. 24. Interview of Ethiopian radio station with Lemma Menouta, the then vice chief of health education and public relation of MES (reprinted in *MESN* in Amharic).

Other challenges the service faced emanated from insufficient supply of critical operational equipment such as vehicles, spray pump, spare parts, altimeter, compass, map board, shovels, tow cable, first aid kit, snake bite kit, and other camping equipment. This problem was sometimes caused by a delay in reaching program agreement between USAID and IEG. This also led to late ordering of commodities resulting in slow deliveries of critical items which further delayed field work.[310]

Furthermore, there were damages to operational materials due to lack of awareness and carelessness by the spray men.[311] Breakage of goods, glasses, bees-hives and deaths of cats, puppies, chickens etc. during spraying also caused some public resistance.[312] Improper use of lab-instruments was the other problem observed.[313]

Poor implementation of the plan of operations, mistakes and low quality of work regarding total coverage in respect of place, time, and quality were another shortfall of the program. Related to time, for example, there was absence as well as shortage of residual insecticide deposit during the malaria transmission season. Moreover, lack of thorough spraying (for example, failing to spray the ceilings and all the mosquito resting places in the house like behind the saddles, granaries, jars skins, boxes, missing houses and villages) was observed.[314] There were also incomplete, insufficient and irregular coverage. Defective GR such as some dwellings were missed as well as absence of a sufficient network of rural health units were other responsible

[310] MES, "Malaria Eradication Service Progress Report for the First Two Years of the Second Five Years Development Plan," NALA, File No. 17.3.357.01. ; *MESN*, Vol. 2, No. 3, (Jan. 31, 1967), pp. 1-2. ; *MESN*, Vol. 2, No. 9, (Aug. 31, 1967), p. 5. ; "Reports of the first zone administrative assistants' meeting was held from Aug. 28-31, 1967." ; *MESN*, Vol. 3, No. 3, (Feb. 29, 1968), p. 2.

[311] *MES Bulletin*, Vol. No. 5, (April-June, 1965), p. 24. ; Tena Garage Archive, MES, Gambella Sector Physical inventory Report, Sept. 24/1972.

[312] *MES Bulletin*, Vol. No. 5, (April-June, 1965), p. 24.

[313] *MESN*, Vol. 1, No. 3, (Feb. 26, 1966), pp. 3-4.

[314] *MESN*, Vol. 1, No. 3, (Feb. 26, 1966), pp. 3-4. ; *MESN*, Vol. 1, No. 5, (April 28, 1966), p. 1.

challenges the program encountered.[315] Another problem occurred due to lack of attention to update maps in order to bring metal tags and die-set to prepare numbers for newly built or polished houses.[316] During the second round of first cycle spray operations, only 84% were sprayed.[317] The program had a principle stating that if there is a house unsprayed, it is conceived as a house with malaria.[318] The minimum acceptable standard for a successful eradication campaign was perfection. Thus, the above total coverage figure portrayed the failure to "attain total coverage".[319] This happened due to security problems in certain areas, deficiency of transportation facilities, and delay of materials to deliver field base and lack of adequate supervision owing to insufficient number of supervisors and indiscipline supervision.[320] Shortage of residual insecticide, and financial deficiency further scaled up the problem.[321] Besides, there was inadequate training of squad chiefs and spray men and their inappropriate approach.[322]

The MEP also suffered from the corrupt practices of some of its anti-malaria personnel. One of these, for example, was connected to the issue over the payment for the use of pack animals. Some of the employees of the project requested more money than the market price required to rent pack animals without actually renting them.[323] Other reports disclosed another form of corruption as follows:

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[315] *MESN*, Vol. 1, No. 8, (July 30, 1966), pp. 3-4.
[316] *MESN*, Vol. 1, No. 3, (Feb. 26, 1966), pp. 3-4.
[317] *MESN*, Vol. 1, No. 3, (Feb. 26, 1966), p. 3. ; *MESN*, Vol. 1, No. 5, (April 28, 1966), p. 1.
[318] *MESN*, Vol. 2, No. 3, (Jan. 31, 1967), pp. 1-2.
[319] "Report of the first zone administrative assistants' meeting was held from Aug. 28-31, 1967," *MESN*, Vol. 2, No. 9, (Aug. 31, 1967), p. 5.
[320] MES, "Malaria Eradication Service Progress Report for the First Two Years of the Second Five Years Development Plan," NALA, File No. 17.3.357.01. ; *MESN*, Vol. 2, No. 3, (Jan. 31, 1967), pp. 1-2. ; "Reports of the first zone administrative assistants' meeting was held from Aug. 28-31, 1967," *MESN*, Vol. 2, No. 9, (Aug. 31, 1967), p. 5.
[321] MES, "Malaria Eradication Service Progress Report for the First Two Years of the Second Five Years Development Plan," NALA, File No. 17.3.357.01. ; *MESN*, Vol. 2, No. 3, (Jan. 31, 1967), pp. 1-2.
[322] Reports of "the first zone administrative assistants' meeting was held from Aug. 28-31, 1967," *MESN*, Vol. 2, No. 9, (Aug. 31, 1967), p. 5.
[323] "Malaria Eradication Service Workers," NALA, File No. 17.3.358.02. ; Various letters found at Tenna Garage, for example, "Dispensing with your Service," a letter written from Administrative Counterpart to DG, MES, to *Ato* Gebremedihn Gebreyesus,

የድርጅቱ ሰራተኞች የተከራዩት/አቸው የጋማ ከብት/ቶች ከጠፋ/ፉባቸው ወይም በአዉሬ ከተበሉባቸው ጭራ ቆርጠዉ እንዲያመጡ ማዘዝ ተጀመረ። በዚህም ምክንያት አንዳንድ የ ወባ ማጥፊያ ድርጅት ሰራተኞች ከጋማ ከብት አከራዮች ጋር እየተነጋገሩ የተከራዩት የጋ ማ ከብት ሳይጠፋ ጠፋ በማለት እና በየወሩ ጅራት/ጭራ ቆርጠው በማምጣት ብር ማ ወራረድ ይጀምራሉ። በእዚህም ምክንያት በሰሜን ክፍለ ሃገር ዉስጥ ጅራተ ቆራጣ አ ህያ እየበዛ ይመጣል። የጎንደር አህዮች ጂራተ ቆራጣ ሆኑ እየተባለ ይተረትም ነበር። በዚህ ምክንያት ተቋሙ የራሱን የጋማ ከብት መግዛትም ጀምሮ ነበር።[324]

(The institution began ordering its employees/staff to cut off and bring the tails of their leased pack animals if they were lost or eaten by wild animals. As a result, some MES workers are begin talking and negotiate with pack animals renters to cut off and bring it to betting money without they lost them. Consequently, in the northern part of the country, the number of tail cut donkeys' are increasing. It had been a rumored that Gondar donkeys' have become deer. As a result, the company began buying its own pack animals.)

But, the attempts made by the program to have its own pack animals were not successful. It was due to attempts to have own pack animals was costly to the service. In addition to animal purchasing, having own pack animals requires high cost for the herdsmen and animals' food when there was no anti-malaria work/operations seasons.

Improper material use and cash properties of the institution also handicapped certain functions of the program. Uses of the MES's vehicles for other purposes outside the organization for example were other disruptive factors of the office's work.[325] Finance related problems led to the hiring of

Adm. Asst.-Supply on Sept. 23, 1964. ; "Various Evidences," prepared by fiduciary division chief of the MPH and send it to Administrative Court of General staff of the Public Service Administration," ; *MESN*, Vol. 3, No. 4, (it has no date and year, but it might be March, 1968), p. 8.

[324] Informants: Awash, Adisu, Tesfaye, and Abera.

[325] "Malaria Eradication Service Workers," NALA, File No. 17.3.358.02. ; "A Report on the Special Investigation of Malaria Eradication Service," NALA, File No. 16.1.12.06. ; "Malaria Control Service Audit Report," NALA, File No. 16.1.12.07. ; Various letters and personnel minutes in dumped materials found at Tenna Garage, for example, letters wrote to *Ato* Kassa Demssie by Administration Director of MES, No. 47/64. ; Personnel minutes on 1/5/64, Addis Ababa. ; "A Farewell to NMETC

an internal auditor, directly responsible to the MES DG or Administrative counterpart. He/she has the duty to audit the service's property.[326] The beginning of auditing sparked off examination and exposing various problems associated with finance in the organization. Through discipline committee the organization was able to make individuals who had committed corruption accountable by bringing some of them to the courts. Although the result was not that much satisfactory, the action had shown betterment in identifying problems and establish accountability.

The submission of exaggerated reports was one of the serious problems the program faced. There were discrepancies in the reports presented to the operation division from various sectors during and after spraying. During the spraying period, a spate of reports by the anti-malaria field workers were written, stating emphatically that the targeted communities had refused to take part in the project. Ironically, however, reports submitted to HQs after the completion of the spray operations gave more than 95% achievement rate.[327]

Disputes among anti-malaria workers such as between the porters of spray cans and sprayers, drivers and their immediate bosses, authorities and malaria workers at large also had its own share in undermining the success of the project. Such discordances not only gave birth to antagonism and non-cooperation, but also led to disobedience and insolence of anti-malaria

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Treasurer, *Ato* Kassa Demssie by MES (Amharic Version)" ; "Trip Report to Gambella from Audit Section to the General Manager." ; "Purchase of Donkey and Mule Saddles Ref. p.v.No.2264 of June 30, 1964. ; "Report on Saddles," from Clerk Procurement to Administrative counterpart to the DG (both English and Amharic version), July 10, 1964. ; "Donkey Saddles," letter wrote from MES Administrator to Adm. Counterpart to the DG, MES, July 15, 1964. "Contract Agreement between Mule and Donkey Saddles supply and Manufacture, Semah Gebremichal and MES." ; "Re-Purchase of Donkey and Mule Saddles," from Finance Administrative Assistant, Ahmed A. Moen, to DG, Diwan Chand, of the MES, Nov. 18, 1965. ; Letter from Administrator to DG of the MES, Spt. 7, 1965, No. 39872/65. ; "Strict warning," (Amharic) *MESN*, Vol. 4, No. 7, (Aug. 31, 1969), pp. 10-11. ; Informant: Girma.

[326] Special committee meeting minutes on the necessity of Internal Auditor held on Jan. 18, 1967 at the Administrative counterpart office (Amharic Version), Feb. 1967.

[327] *MESN*, Vol. 5, No. 2, (*yekatit* 30, 1963 EC), pp. 6-9. It is presented in the form of an interview with *Ato* Tilahun Abebe, the then Operations Division chief.

workers among themselves and to authorities of the service.[328] Consequently, anti-malaria workers started their resentment. There was also anti-malaria workers strike in different parts of the country that emanated from the absence of incentives, like hardship allowance and delayed *per diem* payment, promised by the managing staff. The protests were also instigated by maladministration of the lower echelons of anti-malaria workers. The demonstrators halted their work occasionally to press for the promotion of their demands. Nonetheless, the strike infuriated the managing staff, who soon undertook strong measures on anti-malaria workers, who had supposed to play a leading role in agitating the strike.[329] Therefore, it had its own negative impact in effecting the implementation of the program.

Incomplete study of the bionomics of the vector coverage and wrong diagnosis were other technical problems that the program confronted.[330] Sometimes the anti-malaria workers made a wrong formulation/dosage in commingling of insecticides and marking of the sprayed houses.[331] Sometimes such problems emanated from incapability of some staff and negligence of malaria

[328] "Malaria Eradication Service Workers," NALA, File No. 17.3.358.02. ; Various conversations among MES workers through letters found at *Tenna* (Health) Garage, such as Letter written from Administrative Assistant to Fantu Demma, No. 37357350965, (May 22, 1965). ; Letters wrote from entomology technician to Dire Dawa zone Entomology Supervisor, July 2, 1965. ; "Loss of Evaluation Equipments and Supplies," Letters wrote from Personnel section to Dire Dawa zone chief, (Sept. 29, 1965), ; Letter sent from MES GM, Hailu Meche to minister of the MPH, Dr. Jemal Abdul-qadir in 1968 EC. ; "Personnel Friction at Combolcha," letter wrote by Combolcha Sector Chief to Act. Asst. Personnel officer, *Ato* Afeweork Sisay," (Addis Ababa: MES, Mar. 28, 1963). ; "Investigation Trip to Combolcha," Report from Personnel Clerk, Manker Germa, to Adm. Asst.-Personnel, Ato Afework Sisay. ; MES, April 3, 1963. *MESN*, Vol. 1, No. 3, (Feb. 26, 1966), pp. 3-4. ; A letter wrote to MPH from malaria workers to present their resentment about the GM of the program, *yekatit*, 24/1954 EC, dumped materials found at Tenna Garage.

[329] "Malaria Eradication Service Workers," NALA, File No. 17.3.358.02. ; "A letter wrote to MPH from the office of Wollo Province," NALA, File No. 17.3.357.01. ; Letters wrote from antimalarial workers to province officials and MPH and a reverse and from MPH to the Imperial Crown prince Merid Azmach Asfa Wossen Haile Selassie Special Office found in "Malaria Eradication Service Workers," NALA, File No. 2.2.57.02. ; *MESN*, Vol. 3, No. 4, (it has no date and year, but it might be March, 1968), pp. 1-7. "Unique Message from MES DG, Bekele Tegegne, for Officials and all malaria workers (Amharic)." dumped materials found at Tenna Garage. ; "Obtain from Administrative Direction," MESN, Vol. 4, No. 3, (April, 1969), p. 7. It contained the list of fired anti-malaria workers due to their leading role to the plot.

[330] *MESN*, Vol. 1, No. 8, (July 30, 1966), pp. 3-4.

[331] *MESN*, Vol. 1, No. 3, (Feb. 26, 1966), pp. 3-4. ; *MESN*, Vol. 1, No. 5, (April 28, 1966), p. 1

professionals. Sometimes spray men hire other unaware ordinary persons for spraying operations.[332]

Externally, the program faced various problems and challenges. One of these challenges emanated from churches and mosques. The Ethiopian Orthodox Church refused the spray of DDT on its premises. Its clergy, in some parts/areas of the country, claimed that, except *Kosso (hagenia abyssinica),* allowing medicine into monasteries was condemned by their forefathers, who founded the monasteries. Furthermore, the clergy believed that they have come to this worldly life to experience earthly adversity; to give their weak flesh to earthly hardship; and to deal with earthly diseases.[333] Mosques also refused the spray of DDT for religious reasons though source materials do not present the specific reasons. Such places, therefore, remained sources of malaria transmission. Besides spraying problem, there was a refusal of giving blood specimen by the priests and some Muslim communities for their own religious reasons. To Muslim communities, there was a thought for example giving blood specimen to parasitologists during fasting is religiously prohibited.[334]

Unfavorable and negative attitude of the people towards the program; suspicion to new modern concepts, government programs and government personnel; and fatalism (a predetermined belief about what will happen) were other challenges the program confronted. These challenges emanated mainly from lack of clear cognition about why and how malaria eradication program

[332] Decision passed by personnel Committee Meeting held on *Senie* 22, 1960 EC., dumped materials found at Tenna Garage.

[333] A letter wrote to the General/Head office of the Ethiopian Orthodox Church from the Ministry of Interior in June 8, 1964 EC, No. 14569/21. ; A letter wrote to the Patriarchate of the Ethiopian Orthodox Church from Begemdir and Semien Province in May 28, 1962 EC, No. 7/Φ225/68/42. ; A letter wrote to the Deputation of Begemdir and Semien Province from MES/P in 21/9/64 EC, No. 4293/64. ; A letter wrote to the Head Office of the Ethiopian Orthodox Church from the Begemdir and Semien Province in May, 1962 EC, No. 3/Φ255/68/42. ; A letter wrote to the Head Office of the Ethiopian Orthodox Church from Ministry of Interior May 14, 1962 EC, No. 11932/39. ; A letter wrote to the Ministry of Interior from Begemdir and Semien Province in April, 1962 EC, No. 2/Φ255/68/42. ; A letter wrote to the *Mahbär e* Selassie Monastery Teacher in Feb. 5, 1962 EC, No. 1/Φ255/68/42. All are found in NALA, File No. 17.3.357.01. ; *MES Bulletin*, Vol. No. 5, (April-June, 1965), pp. 23-24.

[334] *MES Bulletin*, Vol. No. 5, (April-June, 1965), pp. 23-24.

would be conducted; low educational status and an age-old and deeply rooted traditional and cultural beliefs and practices of malaria stricken area communities.[335]

As a result, certain groups of people refused to allow anti-malaria operations when field technicians carried out spray operations, GR, and surveillance activities.[336] For example, some villagers did not volunteer to give blood samples to field parasitologists. They believed that field parasitologists would take blood sample to determine their children's competence for military recruitment or not. Moreover, they thought that parasitologists would take their blood to use for other patients; and sell to foreigners. There was also a supposition that parasitologists would take blood to made witchcraft against them.[337]

GR operations also faced similar challenges from sections of the population who lived in malaria ridden areas. Some people suspected that anti-malaria workers mapped areas to move them from their ancestral lands to other locations. Numbering premises were also seen as a threat to the house holder. Moreover, taking a census by GR workers and their attempts to establish the number of people who lived in the house was also seen by the local people to know the number of people who lived in the house to bring equivalent amount of poisonous chemicals and kill them.[338]

Some villagers also put up resistance against field insect collectors (entomologists) to not collect/catch up mosquitoes from their house. They claimed mosquitoes were not harmful. They

[335] Fredrick C. Gamst, "A Note on A Malevolent Malaria Spirit and Its Significance for Public Health Workers," *Journal of Health*, Vol. 6, No. 1, (April 1966), pp. 24-25. ; *MES Bulletin*, Vol. No. 5, (April-June, 1965), p. 23. ; *MES Bulletin*, Vol. No. 8, (Dec.-Feb., 1967), pp. 9-11.

[336] A letter wrote to Wollo Province Deputation from Ministry of Interior in April 23, 1963, No. 4/172/21, NALA, File No. 17.3.357.01. ; A letter wrote to Ministry of Interior from MPH in April 6, 1963, No. 3/5836/Φ8/23, NALA, File No. 17.3.357.01. ; *MES Bulletin*, Vol. No. 5, (April-June, 1965), pp. 23-24. *MES Bulletin*, Vol. No. 8, (Dec.-Feb., 1967), pp. 9-11. ; *MESN*, Vol. 1, No. 4, (Mar. 24, 1966), p. 12. ; Informant: Kelklew.

[337] *MESN*, Vol. 1, No. 4, (Mar. 24, 1966), p. 12. ; *MES Bulletin*, Vol. No. 5, (April-June, 1965) p. 24. ; Informant: Kelklew.

[338] *MESN*, Vol. 1, No. 4, (Mar. 24, 1966), p. 12.

saw entomologists as spies who ostensibly searched for mosquitoes while actually intending to carry out harm against them. Besides, villagers believed that the collectors of *larvae* had come to their villages to kill their spirits which was supposed to be helpful for their existence.[339] The aforementioned reasons made some local communities reluctant to accept modern science generally and malaria eradication field operations particularly.

From the above discussions, one can understand that the program did not carry out adequate and comprehensive indigenous research pertinent to antimalarial operations. The Health education division also did not deliver the necessary preparatory phase activities that clarify villagers' confusion as required. It is also understandable that sufficient time was needed to change the deep rooted traditional and religious outlook of the population.

Some people also opposed the spraying of insecticides on their houses. This was due to belief that some insects would develop resistance to DDT and the insecticide spraying would cause to breed insects, like bed bugs and fleas. Many villagers in different parts of Ethiopia therefore began to believe that the spraying had no value rather increases insects breeding.[340] Kelklew, one of my key informants, elaborated this, what they encountered when they went to different parts of malaria ridden regions, as follows:

> ሪዚስታንስ ደቨሎፕ ከማድረጉ በፊት ዝንቡንም ምኑንም ይገድል ስለነበር መጀመሪያ ላይ ከመስጅድም ከቤተክርስቲያንም ዲዲቲ ካልሰጣችሁን እያሉ ያስቸግሩን ነበር። ከዚያ ሪዚስታንት

[339] *MESN*, Vol. 1, No. 4, (Mar. 24, 1966), p. 12.

[340] N. Rishikesh, "Report on Trip to Dessie during January 1967" reprinted in *MESN*, Vol. 2, No. 3. The report disclosed that the bed bugs have developed resistance in some frequently sprayed areas like Alamata, since 1957, and Bati, 1962. This was witnessed even in areas never sprayed in the past. But, this was not true for all sectors. ; *MESN*, Vol. 2, No. 3, (Jan. 31, 1967), pp. 4-6. ; *MESN*, Vol. 2, No. 9, (Aug. 31, 1967), p. 5. ; "Reports of the first zone administrative assistants' meeting were held from Aug. 28-31, 1967." ; Petros, "Malaria Eradication Problems in Ethiopia," *MES Bulletin*, Vol. No. 5, (April-June, 1965), p. 23. Or see IES Archive, File No. 69-8644. ; Informant: Kelklew.

> ደቨሎፕ ሲያደርግ የነዚህ ነፍሳቶች ስርጭት በመጨመሩ ምክንያት ህብረተሰቡ ምን ትኋን አመጣችሁብን አንፈልግም ማለት ጀመረ ይላሉ።[341]
>
> Before they developed resistance, the DDT would kill flies and other bugs. Hence, at first people from the mosques and churches would come and pester us to give them DDT. But, later when resistance developed, the number of such insects increased and the community began to say, what kind of pest you bring, we do not want it.

This portrayed that the program especially the health education section did not perform its responsibility as much as required.

Another cause for the refusal of villagers to collaborate with anti-malaria sprayers had to do with issues related to the spraying season itself. The spraying operations coincided with the period when major agricultural activities were conducted. During spray operations, local people would request to offer support to the anti-malaria sprayers by arranging their house materials in appropriate places and spending some time with them. Local people, therefore, considered this collaboration with anti-malaria workers as an extra burden at a time when their labor was needed on their farming fields.[342]

Some town dwellers also resisted their houses from being sprayed with DDT. They thought and feared that the insecticide would discolor the beauty of their homes. Others like hotel owners or business centers refused to spray DDT in order not to have lots of materials to take out. They also believed that the spraying activities would interrupt their regular activities.[343] Spray operations would prevent hotel owners from their day-to-day business activities and would lessen hotels rooms' attractiveness.

[341] Informant: Kelklew.
[342] Petros, "Malaria Eradication Problems in Ethiopia," *MES Bulletin*, Vol. No. 5, (April-June, 1965), pp. 23-24. IES Archive, File No. 69-8644.
[343] *Ibid*., p. 23.

Re-plastering of houses was another operations factors.[344] Some of the people had washed and brushed the sprayed walls of the house during holydays.[345] Inability to obtain water to mix DDT was other problem that the anti-malaria workers faced during spray season.[346]

Before going to anti-malaria workers to be diagnosed malaria, some malaria infected people had taken drugs like *aspro/aspirin* and injections that hide the disease were other shortcoming observed.[347] Likewise, Kelklew recounts that "በበሽታው የተያዙ ሰወች መድሃኒቱን ውሰዱ ሲባሉ የዋጡ አስመስለው ምላሳቸው ስር ያስቀምጡት እና ከባለ ሙያው ስር/ፊት ዘወር ሲሉ ይተፉት ነበር"።[348] (When the infected persons were ordered to take the medicine, they hold it under their tongues and then spit it out when they go away from the anti-malaria workers). This means these infected individuals with parasites became a reservoir for the infections of others.

Insecurity issues were another source of difficulty that anti-malaria service confronted. As various reports indicate, there was lack of security in some parts of the country such as Yifat and Timuga *Awraja*, Fentale *Wäräda*, Begemdir and Semien province, Shire *Awraja*, and others to perform anti-malaria activities freely. Bandits for example caused damages to property and the lives of employees.[349]

[344] "MOVBDCP Structure Manifestation," NALA File No. 8.1.116.1. ; *MESN*, Vol. 2, No. 12, (Nov. 30, 1967), p. 6.
[345] *MES Bulletin*, Vol. No. 3, (April-June, 1964), p. 8. ; Informant: Birhanu.
[346] Informant: Girma
[347] *MESN*, Vol. 4, No. 8, (Oct. 31, 1969), p. 12.
[348] Informant: Kelklew.
[349] A letter wrote to Shire *Awraja* ruler (*gexi*) from the Head office of Tigre Province No.፡ 4933/4805/49/, *tahisas* 13, 1963. ; A letter wrote to Sheko, Arusi, Begemdir and Semien, Tigre Provinces in Tahisas 2, 1963. ; A letter wrote to HE Bitwdad Zewude Gebrehiwot, minister of Ministry of Interior, from Ketema Abebe, MPHt, MES ቁጥር፡ 888/63, 15/3/63. NALA, File No. 17.3. 357.01. ; Informants: Adisu and Girma. For detail see appendices.

Another predicament of the program was transportation. Inaccessibility owing to difficult terrain of the country and rain, shortage of transportation service, and lack of pack animals were enlisted as a drawback of the program.[350]

Absorption/Sorption was also another serious handicap that reduced the persistence and effectiveness of DDT and dieldrin by reducing its duration on the inner surface of houses.[351] It was most probable that the problem emanated from low quality and nature of *tukuls*. It is known that most of Ethiopia's rural community had poorly constructed mud houses. Almost all rural houses walls, for instance, were made from mud, which later create halls or cracks on the wall that absorb insecticides like DDT. This therefore subsided the duration and efficacy of insecticides sprayed on the inside wall of the house.

As Randal Packard clearly recounts, the same and universal GMEP was launched, partly due to, with the wrong supposition of the WHO expert committee that all rural houses had the same quality all over the world.[352] It was surprising how the expert committee thought this absolutely impossible thing. Rather the assumption might have been made by not taking Africa and other under developed states in other continents under consideration. Furthermore, this indicated how much the issue was not treated as it actually required.

Inadequacy of health workers and General Health Service (hereafter, GHS) were other chronic challenges confronted by the MES. In 1958, there were only 54 hospitals, 160 physicians, of these only 5 Ethiopian physicians, and 362 clinics with low performance.[353] In 1961, there were only 33 rural health services, 84

[350] *MESN*, Vol. 2, No. 12, (Nov. 30, 1967), p. 6.

[351] Jolivet, "Senior Course in Malaria Entomology: New Revision 1961 (Restricted), The Entomologist's Role in Malaria Eradication Program," (Unpublished document), Malaria Eradication Center Nazareth-Ethiopia" or see IES, Archive File No. 84-22702.

[352] Packard, *A History of Global Health*, pp. 159-161.

[353] "MPH Five Years Work plans/Program," NALA File Nos. 11.1.5.21. ; Wen-Pin Chang, "General Review of Health and Medical Problems in Ethiopia," *Ethiopia Medical Journal*, Vol. 1, No. 1, (Addis Ababa, 1962), pp. 9-16. ; Wen-Pin Chang,

health officers, 76 sanitarians and 14 laboratory technicians at the national level. This is to serve the then estimated more than 20 million people.[354] The absence of horizontal health service/care development had also been another challenge that militated against the success of the program.[355] It does mean that there was no focus to horizontal health care delivery systems as the basis of a mixed strategy of disease control/health-promoting activities. At this critical period the main stress of health programs was wiping out single disease by adopting categorically specific and hierarchically organized eradication programs.

The program had support from international organizations and friendly nations in an ongoing basis. This support was not however free from hindrance. Initially, the problem was the late arrival of supplies. This emanated from logistical problems and delay in reaching program agreement between the USAID and the IEG, which led to late ordering and slow delivery of the necessary USAID commodities (vehicles, campaign equipment etc.). It further postponed the execution of field work.[356] Through time, financial and other form of support from abroad dwindled and finally the aid stopped completely, as envisioned initially, and it became one problem that limited the efficiency of the program.[357] What worsened the problem was the unsteady local financing, which hampered operations.[358] If the program was capable financially, it could have continued the anti-malaria operation without foreign aid, but not.

"Health Manpower Development in an African Country: The Case of Ethiopia," *Journal of Medical Education,* Vol. 45, No. 1, (Jan. 1970), pp. 29-39. ; Chang, "Development of Basic Health Sevice in Ethiopia," *Ethiopia Observer*, Vol. 12, No. 4, (1969), pp. 230-238.

[354] Chang, "General Review of Health and Medical Problems in Ethiopia," pp. 9-16. ; Idem, "Health Manpower Development in an African Country: The Case of Ethiopia," pp. 29-39. ; Idem, "Development of Basic Health Sevice in Ethiopia," pp. 230-238. ; Informants: Awash and Asnakew.

[355] Informants: Awash and Asnakew.

[356] MES, "Malaria Eradication Service Progress Report for the First Two Years of the Second Five Years Development Plan," NALA, File No. 17.3.357.01. ; Chand, "Progress Report of Malaria Program in Ethiopia, Up to June, 1964," pp. 54-57.

[357] "The type and amount of assistance that expected to be available from US government for MEP," NALA, File No. 17.3.357.01. ; MES, "Malaria Eradication Service Progress Report for the First Two Years of the Second Five Years Development Plan," NALA, File No. 17.3.357.01. ; Chand, "Progress Report of Malaria Program in Ethiopia, Up to June, 1964," pp. 54-57.

[358] Letter wrote to Ministry of Interior from MPH number፡ 3/008/12/62, 4/6/62 EC. ; MES, "Malaria Eradication Service Progress Report for the First Two Years of the Second Five Years Development Plan," NALA, File No. 17.3.357.01. ; Informants: Awash and Asnakew.

Protracted building construction for the service and extended training was another critical problem that the program confronted. For example, delay in approval to the construction of additional building at HQs which caused some space difficulties, which imported from abroad. Training was extended owing to different schedule classes of International Malaria Training Schools. This happened partly due to delay in recruitment of anti-malaria trainees. This retarded staffing stations at zones level.[359]

Limitation of facilities at Nazareth METC caused slower rate of staffing with consequent slower rate of program progress. The training center activities sometimes were hampered by shortage of international instructors and shortage of staff. Such limitation and training related problems were further aggravated by the increased rate of resignation of malaria technicians. This led to shortage of skilled malaria personnel. Lack of supervision due to absence of trained supervisory staff at intermediary level was another challenge confronted by the program.[360]

Seasonal population movements from unsprayed to sprayed parts of the country due to famine, search of pasture and water for herds, religious festivals, and labor migration had made their own contribution to the program's failure.[361] Prothero elaborated this as follows: "the mobility of the population is undoubtedly an element in the transmission of malaria through the movement of

[359] MES, "Malaria Eradication Service Progress Report for the First Two Years of the Second Five Years Development Plan," NALA, File No. 17.3.357.01. ; Chand, "Progress Report of Malaria Program in Ethiopia, Up to June, 1964," pp. 54-57.

[360] MES, "Malaria Eradication Service Progress Report for the First Two Years of the Second Five Years Development Plan," NALA, File No. 17.3.357.01. ; Chand, "Progress Report of Malaria Program in Ethiopia, Up to June, 1964," pp. 54-57. ; Informants: Awash, Girma, and Asnakew.

[361] A letter wrote to Ministry of Public Life Development and Social Affairs from MES, ቁጥር፡ ማ/ለለ/36/65 in 7-9-65, NALA, File No. 17.3.357.01. ; "MOVBDCP Structure/Chart Manifestation," NALA File No. 8.1.116.1. ; "Reports of the first zone administrative assistants' meeting was held from Aug. 28-31, 1967," *MESN*, Vol. 2, No. 9, (Aug. 31, 1967), p. 5. ; WHO Expert Committee on Malaria: Fourteenth Report, Technical Report Series No. 357 (Geneva, 1967), p. 17. ; R. Mansell Prothero, Reader in Geography the University of Liverpool, "Public Health, Pastoralism, and Politics in the Horn of Africa," The Sixth Melville J. Horskovits Memorial Lecture Delivered under the Auspices of the Program of African Studies, (Northwestern University, on 9 Oct. 1967), pp. 1-26.

persons infected with parasites providing a reservoir for the infections of others."[362] In addition to this he noted that "adult anopheles mosquitoes may be transported in the belongings of nomads as they move from one grazing area to other".[363] To take one example, it was difficult to deliver chemotherapy and chemoprophylaxis anti-malaria medicine to temporary workers who worked in the different agricultural schemes like Setit Humera and Awash Valley and hence contain the spread of the disease.[364] Some ex-anti-malaria workers described this as "እየታጠቡ ፍቃ" (bathing in mud). It was therefore difficult to track down and treat the nomads as well as temporary workers.[365]

Outdoor transmission was the other difficulty the program faced. This resulted from the fact that temporary workers in agricultural scheme regions like Setit Humera and Awash Valley did not have houses or shelter.[366] Desert area people have also a habit of sleeping outside their house due to the weather condition of the areas. They therefore were easily infected by mosquitoes. It was therefore difficult to contain the disease by spraying the inner surface of a specific house. What is more it was difficult to provide anti-malaria drugs and to treat the temporary workers due to their mobile nature of living.[367] Therefore, it can be said that the strategy adopted by MES was

[362] Prothero, Reader in Geography the University of Liverpool, "Public Health, Pastoralism, and Politics in the Horn of Africa," The Sixth Melville J. Horskovits Memorial Lecture Delivered under the Auspices of the Program of African Studies, (Northwestern University, on 9 Oct. 1967), p. 13.

[363] *Ibid*.

[364] A letter wrote to Ministry of Public Life Development and Social Affairs from MES, No. ፡ ማ/ለለ/36/65 in 7/9/65, NALA, File No. 17.3.357.01. ; Informants: Birhanu, Tesfaye, Abera, Asnakew.

[365] *Ibid.*

[366] A letter wrote to Ministry of Public Life Development and Social Affairs from MES, ቁጥር፡ ማ/ለለ/36/65 in 7/9/65, NALA, File No. 17.3.357.01. ; "MOVBDCP Structure/Chart Manifestation," NALA File No. 8.1.116.1. ; WHO Expert Committee on Malaria: Fourteenth Report, Technical Report Series No. 357 (Geneva, 1967), p. 17. ; Informant: Adisu.

[367] A letter wrote to Mministry of Public Life Development and Social Affairs from MES, No. ፡ ማ/ለለ/36/65 in 7/9/65, NALA, File No. 17.3.357.01. ; "MOVBDCP Structure/Chart Manifestation," NALA File No. 8.1.116.1. ; WHO Expert Committee on Malaria: Fourteenth Report, Technical Report Series No. 357 (Geneva, 1967), p. 17. ; Prothero, Reader in Geography the University of Liverpool, "Public Health, Pastoralism, and Politics in the Horn of Africa," The Sixth Melville J. Horskovits Memorial Lecture Delivered under the Auspices of the Program of African Studies, (Northwestern University, on 9 Oct. 1967), pp. 10-16. ; Informant: Adisu.

inappropriate for areas which did not have stable populations and for desert population who have a habit of sleeping outside their house.

Anopheles species migration from abroad was another challenge to the program. Anopheles species were re-introduced through migration from neighboring malaria affected states.[368] One of my informants stated that a malaria epidemic occurred in Metemma caused by *an. ovale*, which migrated from Sudan. This happened after it was confirmed that malaria had been eliminated from the area. The technicians revealed this by carrying out research on children and elders who could not leave their village. It was done to examine whether the anopheles species is endemic or not.[369] Anopheles Stephensi/on, transmit both plasmodium vivax and falsifarum, for example migrated from South Asia into Ethiopia in 2016 and widely spread out in different north eastern and eastern urban centers (Awash Sebat Kilo, Bati, Dire Dawa, Degehabur, Erer Gota, Godey, Gewane, Jigjiga, Semera, and Kebridehar) of Ethiopia.[370]

The analogy to the eradication of malaria was taken from yellow fever, which means by using the same methods that applied for yellow fever, because both are insect-borne diseases. However, the analogy was wrong, because malaria and yellow fever have totally different agents of disease transmitter, socio-ecological approach, and degree of prevalence.[371]

The malaria eradication experiment carried out in the late 1940s in divergent areas proved that well established/endemic vectors could not be eradicated by using DDT and chloroqine though

[368] Informants: Birhanu, Tesfaye, Abera, Asnakew.
[369] Informant: Birhanu.
[370] Fitsum *et'al*, "An. Stephensi as an Emerging Malaria Vector in the Horn of Africa with High Susceptibility to Ethiopian P. Vivax and P. falciparum Isolates," in Fitsum Girma, *Appreciating the Invisible: The Prevalence, Density, and Transmissibility of Asymptomatic Plasmodium Vivax and Plasmodium falciparum infections in Ethiopia*, (Radbound: Institute for Health Sciences, 2020), pp. 281-286. ; Meshesha Balkew *et'al*, "Geographical Distribution of Anopheles Stephensi in Eastern Ethiopia," Open Access, pp. 1-8.
[371] Stepan, *Eradication: Ridding the World of Diseases Forever* pp. 143-146.

the medicine used could reduce malaria considerably. To epitomize this, we can take the failed experiment made in Sicily. The failure was due to malaria's endemicness in Sicily. However, for regions where invader species found, the malaria eradication experiment made by using the above insecticide and treatment medicine was successful or feasible. The program achieved its goal in Brazil and Egypt, which had invader vectors. The model to eradicate malaria from the world in general and from Ethiopia in particular therefore was taken from such states, which was not appropriate.[372]

Most scholars argue that internationally the program failed primarily due to political reasons. They believed that the program was commenced to drive hidden political agendas of the cold war period. One of the supper powers state, particularly USA (the main actors of the malaria eradication initiatives) by the name of the malaria eradication program.[373] But it does not mean that administrative and technical/operational problems not attribute to the failures of the program. Others have argued that in Africa and particularly Ethiopia the main reason for its failure was lack of commitment and public refractoriness to cooperate antimalarial operations rather than lack of epidemiological knowledge.[374]

In the final analysis, depending on all the aforementioned reasons, it can be said that it was known that the program was not feasible, especially in areas where well established malaria vector appeared, from its inception. Moreover, it was probable that the program deliberately designed to inculcate the super powers political agendas by the name of health and using WHO as an agent. If there was no politics, the program would not have been launched at global level with the failed malaria eradication pilot test knowledge, which was conducted in regions that

[372] Stepan, *Eradication: Ridding the World of Diseases Forever* pp. 156-160. ; Informants: Adisu and Birhanu.
[373] Packard, *A History of Global Health*, pp. 156-164. ; Stepan, *Eradication: Ridding the World of Diseases Forever* pp. 153-156. ; Baird, "Resurgent Malaria at the Millennium," pp. 724-725.
[374] *MESN*, Vol. 1, No.1, (Dec. 21, 1965), p. 1.

well established or endemic malaria vectors found. One can conclude that the failure of the GMEP therefore started when a universal method applied over the heterogeneous areas without considering epidemiological heterogeneities of the disease from place to place, low health infrastructures of under developed states, existence of different cultural and religious aspects pertinent to the program and others.

However, politics was not the only reason for the enfeeblement and final abandonment of the GMEP. Of all states that malaria eradication launched, 26 achieved their goal and were able to received malaria eradication certificate. This proves that other administrative and technical problems had also attributed to the failure of the program. If not other malaria eradication member states could also accomplish their goal. Whatever the degree of effects varied on retarding the progress of the program as well as impeding it from achievement, all of the above enumerated hindered factors had their own contribution in the abandonment of the idea of eradication and its replacement by the more modest goal of control.

In the case of Ethiopia, I argue that numerous reasons were responsible for the failure of the program. Both internal (administrative and technical), and external (political, socio-economic, ecological, health infrastructure, public refractoriness due to unfavorable or negative cultural and religious beliefs of the considerable portion of the people), influence of WHO and other reasons contributed to the failure of the program.

The End of the Eradication Campaign

The WHA requested to re-examine the status of the MEP in different countries in its twenty-first assembly in 1968. This was due to the setbacks and slow progress of the international MEP. Accordingly, various teams were dispersed to different member states to carry out an evaluation

of MEPs. In 1969 when the twenty second WHA was held, the teams revealed that malaria could not be eradicated within short period of time. Internationally, therefore, the WHO malaria eradication campaign to defeat malaria changed its strategy from eradication to control in 1969.[375] About Ethiopia's MEP evaluation, the strategy review team reported the following point:

> "In pursuance of this recommendation the Regional Director, Eastern Mediterranean Region, WHO, sought the agreement of the Imperial Ethiopian Government (IEG) to a visit of a multi-disciplinary team under the leadership of a national health director. He noted that the recommendations would be placed before the government immediately upon the completion of the review. In his cabled reply dated April 26, 1970, His Excellency the Minister of Public Health informed the Regional Director that the Imperial Ethiopian Government agreed to the proposal and to the composition of the team."[376]

On 26 April, 1970, though it was late, the IEG agreed with the World Health Organization Eastern Mediterranean Regional Office (WHO-EMRO) to evaluate the status of the MEP in Ethiopia. As part of the GMEP evaluation, a Strategy Review Team was, therefore, organized that consisted of eight high malaria experts, both national and international. The team carried out an investigation from May 6 to 27, 1970. They visited representative sectors and field stations in three area "A" zones from May 13 to 16, 1970. However, major malaria eradication evaluation analysis was carried out on Debre Zeit, Nazareth, and Awash sectors.[377]

The major ideas raised in the report were the malaria program, the public health services, communicable diseases, and their relationship to the malaria program, and recommendations. The scrupulous epidemiological studies revealed the existence of malaria transmission in area

[375] Packard, *A History of Global Health*, pp. 156-164. ; Stepan, *Eradication: Ridding the World of Diseases Forever* pp. 177-180. ; Gish, "Malaria Eradication and the Selective Approach to Health Care: Some Lessons from Ethiopia," p. 179. ; "Note," to HE *Bitwadad* Zewude Gebrehiwot, Minister of Ministry of Interior, from Bekele Abera, Inspection vice minister, 8/10/62 EC. NALA, File No. 17.3.357.01. ; "A file that contain government agencies and organizations as well as the offices under the Ministry with their new names," NALA File No. 1.1.41.10. ; "MOVBDCP Structure/Chart Manifestation," NALA, File No. 8.1.116.1. ; "MES: Report of a Strategy Review Team, May, 6-27, 1970," IES Archive File No. 72-12955. ; Informants: Adisu, Girma, and Awoke.

[376] "MES: Report of a Strategy Review Team, May, 6-27, 1970."

[377] *Ibid*.

"A". The team ascertained the impossibility of malaria eradication within the given time in Ethiopia. Reduction of malaria prevalence was witnessed but transmission was not interrupted, the team reported. According to the report, to contain malaria transmission in areas covered by the program, critical review on methods of attack and new and more effective attack measures are required.[378] It further elaborated this as follows: "until and unless an effective methodology has been formulated through field research and confirmed by field demonstrations, it would be impossible to estimate, with any degree of certainty, a target date for achieving a country-wide malaria eradication".[379] The team underscored the following points:

> "the logical strategic approach will thus be: (1) to retain malaria eradication as a long-term goal; (2) to maintain the gains already achieved and extend anti-malaria activities with the means available as necessary and valid steps towards this long term goal of eradication; and (3) to carry out field research aimed at an improved methodology for malaria eradication, adapted to the socio-economic and operational conditions of Ethiopia."[380]

Therefore, the study recognized eradication would be a long term program. Instead of eradication it recommended the strategy of malaria control.[381] The team also recommended seven major points to the program. Of these some are presented as follows: The first was "the gains already achieved by anti-malaria activities in area "A" should be maintained by continuing DDT spraying operations in a more discriminating manner. One annual round of spraying is recommended for the areas where transmission is minimal or absent during the dry season. In the areas where the transmission has two peaks annually …"[382] The second recommendation of the team was that "intensive anti-malaria activities should be conducted in agricultural or other

[378] "MES: Report of a Strategy Review Team, May, 6-27, 1970."
[379] *Ibid*.
[380] *Ibid*.
[381] "A file that contains government agencies and organizations as well as the offices under the Ministry with their new names," NALA File No. 1.1.41.10. ; "MOVBDCP Structure/Chart Manifestation," NALA, File No. 8.1.116.1. ; Informants: Adisu, Girma, and Awoke.
[382] MES, "Report of a Strategy Review Team, May, 6-27, 1970," IES Archive File No. 72-12955

development areas in all parts of the country."[383] Thirdly, they recommended that "case finding should be used in areas under anti-malaria activities as the most sensitive means evaluating trends in malaria incidence and detecting epidemics."[384] Fourthly, they recommended:

> "the integration of the MES and the basic health service should be done as soon as possible. A special committee should be appointed by the Minister of Public Health to plan the phasing and steps for carrying out this integration. As a preparatory step for the full integration the health station personnel and MES field staff should be immediately re-trained and charged with additional duties for surveillance of tuberculosis, smallpox, and other fevers and epidemics"[385] and others.

The above recommendation was given in part because the WHO planned to transform the responsibility of maintaining eradication, after once achieved, from specialized MES/P to the basic health organization of the country. This plan however had not been successful anywhere in tropical areas including Ethiopia. Due to this reason, the team recommended to make partial integration or merges communicable disease control and the MES/P in areas where no progress beyond attack phase has been made. As the report stated, careful preparation, training support, and supervision from higher to lower echelon level would be required to successfully integrate communicable disease control with the MES/P. However, in area "A", a well-organized anti-malaria activity had started the integration of the MES with the basic health services could start. Besides, the team also suggested the program to conduct a definitive study in ecologically heterogeneous areas in order to determine whether malaria transmission could be contained in Ethiopia or not.[386] The program therefore continued its anti-malaria activities based on the above recommendations.

[383] MES, "Report of a Strategy Review Team, May, 6-27, 1970."
[384] *Ibid*.
[385] .*Ibid.*
[386] *Ibid*.

In Ethiopia, the period from March 1970 to June 1971 was considered as an interim period or a period of transition from eradication to control with the Budget of ETH$11, 500, 000.[387] Therefore**,** unlike other states MES/P, the end of eradication and transition into control overstayed for extra two years in Ethiopia.[388] The report says nothing about activities conducted in these years. I cannot find any report which portrays activities carried out in this period.

Nevertheless, the GMES/P transformed into malaria control program in 1969. As part of the GMES/P, though it was a little bit late, the MES/P in Ethiopia had also accepted what the new internationally introduced strategy changes, malaria control instead of eradication, due to a number of internal and external reasons mentioned above. As a result, the name NMES/P was changed into National Malaria Control Service or Program of Ethiopia in 1971[389] that we will explore in the following Chapter.

[387] MES, "Report of a Strategy Review Team, May, 6-27, 1970."

[388] Gish, "Malaria Eradication and the Selective Approach to Health Care: Some Lessons from Ethiopia," p. 179. ; "MOVBDCP Structure/Chart Manifestation," NALA, File No. 8.1.116.1.

[389] The Ethiopian Malaria Control Professionals Association (EMCPA), "The 1st quarter work performance report on the round 8 global fund support activities on malaria control through IEC/BCC interventions at the 12 malarious *Worädas* of west Shoa Zone, Oromia National Regional State of Ethiopia". ; "RBM Initiative In Ethiopia: Background," *Proceedings of the National Conference on Roll Back Malaria In Ethiopia*, Malaria and Other Vector-Borne Diseases Control Team: Epidemiology and AIDS Department, (Addis Ababa: Ministry of Health, 7-9 February 2000), p. 20. ; Same noted that the Ethiopia's MES accepted the reform by the pressure of the WHO. Informants: Adisu, Girma, and Awoke.

CHAPTER FOUR

Changes and Challenges Encountered to the Malaria Control Service/Program in Ethiopia, 1971-1995

In this chapter I will evaluate the story of malaria control in Ethiopia and its difference from that of eradication. Changes in the program over the period will also be examined. I will also examine whether the new reforms were realistic or not. Another substantial issue that will be treated in this section is malaria and the concept of integration as well as the fate of vertical disease eradication, later control programs. Furthermore, it highlights the endeavor made to integrate malaria control project with the other basic health service and challenges and hindrances it faced. It also assesses the extent to which the program was able to integrate with the other vector-borne diseases. The final integration, decentralization, and dissolution of the vertical Malaria Control Service (MCS) will also be discussed.

Changes Attempted and Introduced to Malaria Control Service in Ethiopia

As has been discussed in chapter three, by the late 1960s, the WHO had come to the conclusion that global malaria eradication was not feasible and therefore shifted its strategy from a short and time limited eradication program to a long term malaria control program. Similarly, in Ethiopia, a centralized Malaria Control Service/Program (Henceforth, MCS/P) evolved from MES/P in 1971.[390] It worked under this structure until its integration with the basic or general health service in 1978.

[390] "MOVBDCP Structural/Chart/Manifestation (Amharic)," NALA, File No. 8.1.116.1. The MCS/P was ruled by Amha Eshet ie and Tilahun Abebe, see MPH, "List of Head Office officials from 1953 to 1966 EC," NALA, File No. 1.1.24.13. Yemane Tekeste, Awash Teklehaimanot, and Assefa Nega and Desta Alamrew- he was a vise/deputy of Awash and run the institution lastly in the absence of Awash at later period. Informants: Girma, Awash, and Aweke.

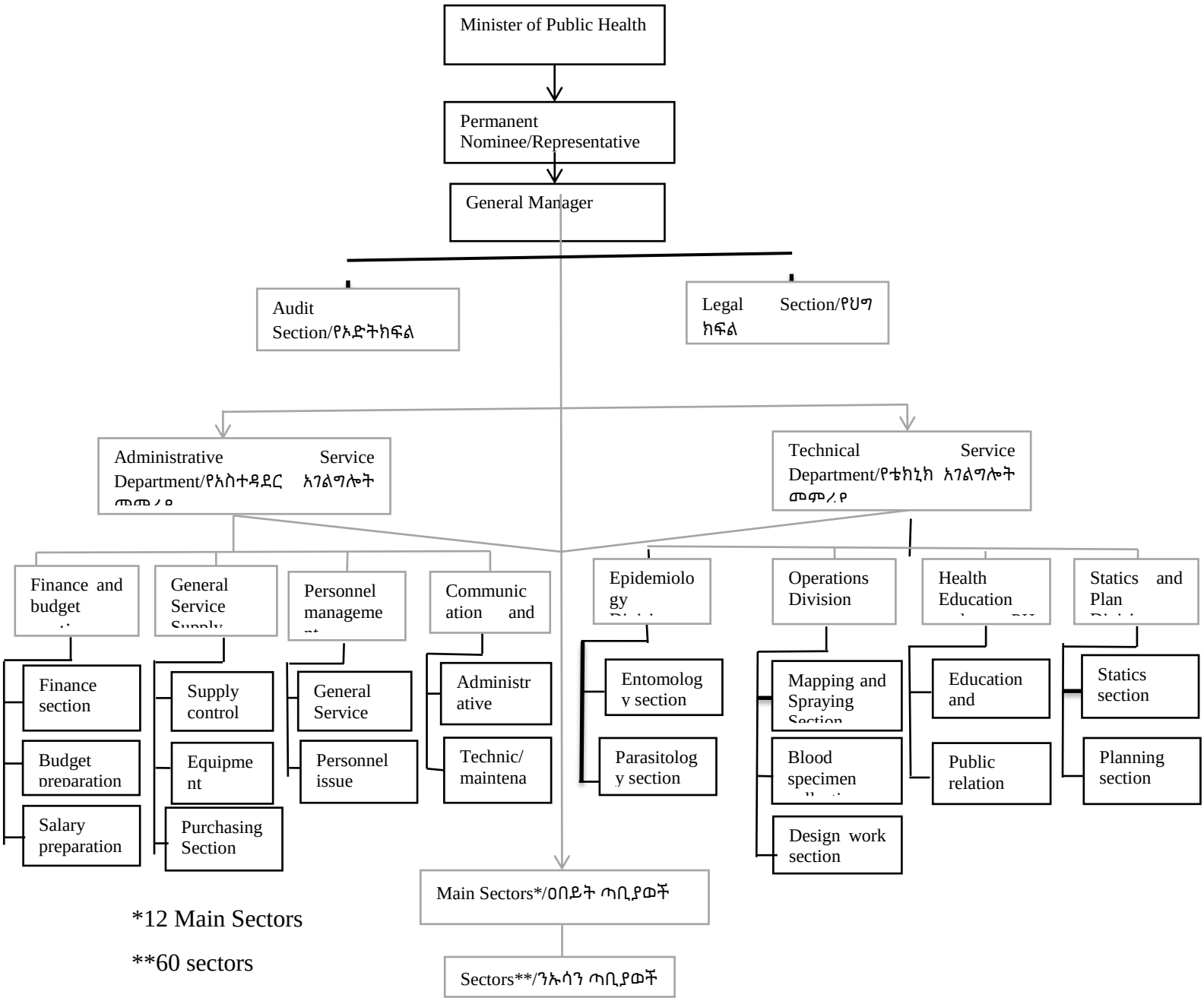
Following the above strategy reform, Ethiopia's MCS/P introduced some changes with regard to its structure, objectives, and strategies. At least theoretically, unlike eradication, the objective of malaria control program was to prevent malaria from becoming a major public health problem.[391] This was to be done by offering case management, prevention and vector control service.[392] As regards prophylaxis and treatment, the first line antimalarial insecticides and drugs continued to be DDT and chloroquine respectively.[393] Drugs like malatine also began to be used in some limited areas where mosquitoes have developed resistance to DDT during the control period.[394] Increasing community participation was also adopted as a strategy in this phase.[395]

No significant change was made regarding organizational structure. It is possible to simply compare the previous structure of the program discussed in chapter three and the newly proposed organizational structure, I have presented below:

[391] Seife Bashaye, "History of Malaria Control in Ethiopia (Unpublished document). ; Informants: Awash and Seife Bashaye.
[392] Wakgari Deressa, Dereje Olana, and Shelleme Chibsa, "The Retirement of Malaria Control Workers as a Critical Problem for Vector control in Oromia, Ethiopia," *Ethiopia Journal of Health Development*, Vol. 17, No. 1, (2003), p. 79.
[393]Informants: Adisu, Awash, Aweke, Girma, Birhanu.
[394] Informant: Birhanu, Dereje Olana, and Seife.
[395] Informants: Asnakew and Dereje.

Figure 18: The structure of the MCS/P

Organizational Structure of the Malaria Control Service/Program[396]



Source: The Provisional Military Government of Socialist Ethiopia, "MPH Organizational Structure: Special Position Projects, MCS (Amharic)," (Addis Ababa: May 1976), No. ፡ ሙጠ1/15/39/32, p. 184.

[396] I did not go to the detail explanation about the function of each division because there is no difference with that described in chapter three. For detail see The Provisional Military Government of Socialist Ethiopia, "MPH Organizational Structure: Special Position Projects, MCS," (Addis Ababa: May 1976), No. ፡ ሙጠ1/15/39/32, pp. 183-288. See the Amharic version in the appendices.

From this MCS/P structure, it can be understood that there was no significant structural change except that the term "eradication" was replaced by "control".

Of the changes that were introduced during this era, it is noteworthy that operating malaria control activities by dividing the entire nation geographically was halted. Instead, an anti-malaria control operation was given priority in areas where agricultural and other development projects were underway. Furthermore, unlike the eradication era, the spray operations were carried out based on the degree of disease prevalence rather than by dividing areas. As a result, spraying twice was pursued in areas where high malaria prevalence rate was reported. Areas previously known as area "A" also started to be sprayed once a year rather than twice a year.

The program also extended its scope into previously unreachable areas[397] categorized under area "B", "C" and "D" before. Accordingly, the number of sectors of the program increased to 60.[398] As noted above, NMES/P changed its strategy from one of eradication to control. This was to align itself with the 1969 international reforms made by the WHO. However, the new changes created confusion and disillusionment among anti-malaria workers in Ethiopia. This happened because of the attempt to implement the changes without carrying out adequate research on its practicability on the ground and without creating a firm conception about changes introduced for the anti-malaria workers. Changing the attitude of the malaria eradication staff from the already accustomed concept of eradication to control was also a difficult task.[399]

[397]"Note to HE *Bitwadad* Zewude Gebrehiwot, Minister of Ministry of Interior, from Bekele Abera, Inspection vice minister, 8/10/62 EC. NALA, File No. 17.3.357.01. ; MES, "Report of a Strategy Review Team, May, 6-27, 1970," IES Archive File No. 72-12955.

[398] The Provisional Military Government of Socialist Ethiopia, "MPH Organizational Structure: Special Position Projects, MCS (Amharic)," (Addis Ababa: May 1976), No.: ማጤ1/15/39/32, p. 184.

[399] Yayehyirad *et'al*, *The Evolution of Public Health in Ethiopia 1941-2015*, p. 119. ; Informants: Girma and Yayehyirad.

As in Venezuela it would have been better to extend the timeframe and carry out deep research to fill the program's gaps rather than abandon or change the program totally.[400] Furthermore, the time to introduce and implement the new change was insufficient. This included reorienting, restructuring or reorganizing the program; making comprehensive investigation; and other desirable matters as the reform required.

Integration Concept and Attempts to End Vertical Diseases Control Program

The other significant development of this period was the attempt to integrate the MCS/P with the other basic health services section. From the inception of the program, at least theoretically, there was a plan to integrate the MEP step by step with the general public health service when it reached the maintenance phase, a stage in which close surveillance system was carried out to prevent the re-introduction of cases from outside the eradicated zone.[401] However, eradication strategy changed to control before the program reached the maintenance phase in Ethiopia. But the idea of integration did not die out. The 1970 SRT recommendation (to have a selective, gradual, and careful integration approach) was further consolidated by the 1972 malaria review team. Oscar Gish also confirmed the second malaria review team revealed "eradication of malaria from Ethiopia is not feasible under present circumstances even in the foreseeable future. The team recommended some limited unification of the Malaria Eradication Service (MES) with the basic health services in the delivery of multi-purpose health services to the population so long as the primary responsibility of the MES toward malaria is ensured by its strength."[402]

Based on the 1970 and 1972 malaria expert teams' recommendation, "between 1972 and the malaria review of the 1977, some attempts at joint multipurpose activities between the MES and

[400] Stepan, *Eradication: Ridding the World of Diseases Forever?,* pp. 167-168.
[401] "MOVBDCS/P Structure/Chart Manifestation," NALA, File No. 8.1.116.1.
[402] Gish, "Malaria Eradication and the Selective Approach to Health Care: Some Lessons from Ethiopia," p. 189.

the basic health services were pursued…"[403] Based on this concept most of area "A" sectors such as Dire Dawa, Nazareth, Assab, Jimma, Dilla, Awassa/Hawassa and others anti-malaria operations were left to the general health service. However, practically, the endeavor remained fruitless.[404] The major obstacle for this was the existence of two independent institutions that were the MCS and the GHS with separate budgets, staffs, and administrations.[405] Despite a tendency to work together of the MCS/P and basic health service in the above limited areas, the plan to integrate MCS/P with the other basic health service was not applicable and practical until 1977. Moreover, the integration attempt was caused to affect the above areas that left to the general health service by the 1973/74 malaria epidemic. The above integrated malarious sectors also show rise of malaria infection by 60% when compared it with its previous malaria infection, prevalence and intensity status.[406] Gish further elaborated this by raising the case of the Awash Valley and describes it as follows: it was the country's most significant new development area, but "for the period at least from October/December 1974 to October/ December 1975, the situation has worsened; with the difference between percentages being highly significant, the parasite rate increased from 3.4% to 9.0% during that period."[407]

All the above discussions tell us the absence of perceptible changes (in methodology, strategy and structure of the program) in practice compared to previous eradication era anti-malaria operations. Oscar Gish stated this as follows: "although the MES had already changed its title and stated goal to that of a Malaria Control Service, in practice its overall use of resources,

[403] Gish, "Malaria Eradication and the Selective Approach to Health Care: Some Lessons from Ethiopia," p. 189.
[404] "MOVBDCP Structural/Organizational Chart/Manifestation (Amharic)," NALA, File No. NALA, File No. 8.1.116.1.
[405] Gish "Malaria Eradication and the Selective Approach to Health Care: Some Lessons from Ethiopia," p. 189. "MOVBDCP Structural/Organizational Chart/Manifestation (Amharic)," NALA, File No. NALA, File No. 8.1.116.1.
[406] "MOVBDCP Structural/Organizational Chart/Manifestation (Amharic)," NALA, File No. NALA, File No. 8.1.116.1.
[407] Gish, "Malaria Eradication and the Selective Approach to Health Care: Some Lessons from Ethiopia," p. 187.

operational methodology, and means of evaluation had changed hardly at all."[408] In any case, the MCS/P also continued with its previous organizational status until 1977.

The concept of integration with Primary Health Care (PHC) was born following the failure of malaria eradication campaign in the late 1960s as a basic international strategy for health improvement. After a decade of rehearsal the PHC Conference was held in Alma-Ata, Russia, in September 1978. This was aimed at ending the period of vertical disease eradication, later control program (categorically organized and discrete disease control programs) and improved health and health care systems by increasing popular participation and developing the basic health service infrastructure.[409] One can take 1978 as the beginning of the end of vertical disease eradication, as well as the later control program in general and vertical malaria eradication, later control program/service in particular.

In 1977 another research team further supported the 1970 and 1972 integration concept in Ethiopia and recommended its implementation. The team argued for the necessity of integration in the context of Ethiopia since malaria was a health issue and should not have a separate institution.[410] The change however seems to align the national program with international health care reforms. Accordingly, the separate vertical malaria control program in Ethiopia was forced to merge with the general health service.[411] As a result, except the finance and general service sections, the administrative department of the program, which was the backbone of the technical department, was integrated with the other basic health service department. The program therefore lost its authority over recruitment, hiring and firing of personnel as well as over discipline issues.

[408] Gish, "Malaria Eradication and the Selective Approach to Health Care: Some Lessons from Ethiopia," P. 190.

[409] Gish, "Malaria Eradication and the Selective Approach to Health Care: Some Lessons from Ethiopia," P. 183-192. ; Kloos, "Primary Health Care in Ethiopia: From Haile Selassie to Meles Zenawi," pp. 83-84.

[410] Informants: Girma and Abera.

[411] Gish, "Malaria Eradication and the Selective Approach to Health Care: Some Lessons from Ethiopia," p. ; Yayehyirad *et'al*, *The Evolution of Public Health in Ethiopia 1941-2015* (3rd Revised Edition), p. 119. ; Yayehyirad Kitaw, Fisseha H/Meskel and Oli Djirata, "Problems, Policy, Planning Options in Malaria," Review Article of Ethiopia Journal Health Development, (1998), pp. 123-135. ; EPHA Expert Group Report.

Authority over such issues was given to the basic health service department.[412] Hence, the MCS lost its autonomous status and fell under the supervision or directive of the general health service department in 1978. The technical department lost the support that came from the administrative division. This later became another challenge to effectively run the program's operations.[413]

The integration attempt, however, was unsuccessful. It was implemented hastily and without carrying out a comprehensive study. What is more, the combination attempt between MCS and Basic health service was done even without creating an integration conception to the public health service as well as the MCS/P workers. The integration attempt did not follow the procedures and attention to issues pointed out by the strategy review team in 1970. Therefore, it can be said that the integration was physical and forced.[414] Though the MCS/P and basic health service departments were physically integrated, the work of malaria was left to the antimalarial workers. As has been stated above, the basic health service did not have capability to perform the newly incorporated MCS activities. This was due to the shortage of human resources, finance, and lack of awareness about the concept of integration. Moreover, the unsuccessful integration endeavor was partly responsible for the outbreak of a malaria epidemic in 1981/82 in different parts of Ethiopia.[415] The program was unable to give proper response to the 1981 malaria epidemic.[416]

[412] "MOVBDCP Structural/Organizational Chart Manifestation (Amharic)," NALA, File No. 8.1.116.1. for more see Appendices

[413] "MOVBDCP Structural/Organizational Chart Manifestation (Amharic)," NALA, File No. 8.1.116.1. for more see Appendices About its structural change see the appendices. For detail see MOH, "MOH Organizational Position," (Addis Ababa: Research Management and Training Institute of Ethiopia), *yekatit* 1972), No. ማጠ1/15/39/67, date 4-10-72. As discussed in chapter three, there was no significant change in terms of the functions of the divisions of the program. So, it is not the concern of this chapter.

[414] Yayehyirad *et'al*, *The Evolution of Public Health in Ethiopia 1941-2015* (3rd Revised Edition), p. 119. Informants: Yayehyirad and Girma.

[415] "MOVBDCS/P Structure/Chart Manifestation," NALA File No. 8.1.116.1.

[416] Yayehyirad *et'al*, *The Evolution of Public Health in Ethiopia 1941-2015* (3rd Revised Edition), p. 119.

As a result, the anti-malaria program was forced to review, reconsider and re-evaluate its entire process and its integration again in the first half decade of the 1980s.[417]Consequently, an anti-malaria team conducted research about the amalgamation of anti-malaria control service with the other vector-borne diseases in the early 1980s. The research team recommended the reconsideration of the decision to combine malaria control program/service with the other vector-borne diseases to the higher officials of the program and the Ministry of Health (MOH). This was to use the anti-malaria personnel all year round, because malaria is seasonal. Therefore, when malaria transmission became low, the anti-malaria experts would involve in the other vector-borne diseases control activities. There was also an assumption that the MOVBDCP could be established with low cost. It was due to the existence of relatively well-organized MCS. Therefore, it simply added the work of other vector-borne diseases to the existing structure of MCS. Moreover, the existence of malaria and other vector-borne diseases in the same geographical areas was the other factor which further supports the thought that the program can be easily established.[418] Accordingly, MCS activities were detached from basic health service and became a semiautonomous institution, which was directly responsible to vice minister of the MOH. Besides malaria, the new institution was given responsibility over other vector borne diseases (selected communicable diseases). These were typhus, relapsing fever, sleeping sickness, yellow fever, leishmaniasis, trypanosomiasis, bilharzia, and onchocerciasis.[419]

Such a major program merges or change would have required sufficient preparation from different dimensions. This included for example preparing multi-purpose trained manpower and

[417] "MOVBDCP Structural/Organizational Chart/Manifestation (Amharic)," NALA, File No. NALA, File No. 8.1.116.1.

[418] Tenna Abere, *"Bäeityopiya yäwäba bäšita tarikawi hidäte, näbarawi huneta ena yäwädäfit sgat"* (Historical Process of Malaria Disease in Ethiopia, Current Situation and Future threats)." Addis Ababa: Forum for Social Studies, 1999 *Megabit* (March) EC. P. 19. ; Informants: Dereje and Awash.

[419] "A proclamation Issued to Establish MOVBDCS (Amharic) in 1986 EC.," NALA, File No. 8.1.120.5. ; "MOVBDCP Structural/Organizational Chart/Manifestation (Amharic)," NALA, File No. NALA, File No. 8.1.116.1. ; MOH, "MOVBDCS: Organizational Chart and Work Directives (Amharic version)," NALA, File No. 8.1.120.11. ; NALA, File No. 8.1.119.5. Informants: Awash, Abera, Dereje, Seife. The study was done by the initiative as well as leadership of Awash Teklehaimanot, supposed to be the last General Manager (GM) of the program.

carrying out deep investigation. Whatever the case, the program was reorganized again in 1985 by providing the leading role to malaria control service.

Malaria and the Other Vector-Borne Diseases Control Service/Program (MOVBDCP) in Ethiopia, 1985-1993

The national Malaria and Other Vector-Borne Diseases Control Service/Program (MOVBDCP) evolved out of the MCS/P in 1985.[420] It operated with one central office, 17 regional or zonal offices, consisting of 70 sector offices and more than 1,400 malaria detection and treatment posts.[421] The primary objective of the national MOVBDCS/P was:

> ከአገሪቱ የሶሻልና የኢኮኖሚ ሁኔታ ጋር የሚጣጣሙ ዘመናዊ የቴክኖሎጅ እድገትን የተከተሉ ልዩ ልዩ የወባና ሌሎች ቬክተር ወለድ በሽታወች መቆጣጠሪያ ዘዴወችንና ስልቶችን ከሥራ ላይ በማዋል፣ በወባና ሌሎች ቬክተር ወለድ በሽታወች ምክንያት የሚታመሙና የሚሞቱ ሰወች ቁጥር በየጊዜው እየቀነሰ እንዲሄድ በማድረግ ወባና ሌሎች ቬክተር ወለድ በሽታወች በአገሪቱ የማያሳስቡ በሽታወች የሚሆኑበት ደረጃ ላይ ማድረስ ብሎም ማጥፋት ነው።[422]
>
> By adopting modern technologies in line with the social and economic conditions of the country, various malaria and other vector-borne diseases control method and strategies; reduce the number of morbidity and mortality caused by malaria and other vector-borne disease through the passage of time; making it not one of the most serious problems or diseases of the people in the country and then eradicate it.

What distinguished the MOVBDCS/P from the former MECS/P was that it included the work of other vector borne diseases under its purview. To achieve this objective, the service facilitated and offered additional other vector borne diseases training to its antimalarial workers. Additionally, the program brought some other vector borne diseases experts (such as

[420] "A proclamation Issued to Establish MOVBDCS (Amharic) in 1986 EC.," NALA, File No. 8.1.120.5. ; "MOVBDCP Structural/Organizational Chart/Manifestation (Amharic)," NALA, File No. 8.1.116.1. ; Wakgari *et'al,* "The Retirement of Malaria Control Workers as a Critical Problem for Vector control in Oromia, Ethiopia," pp. 79-83. Tenna Abere, "Historical Process of Malaria Disease in Ethiopia, Current Situation and Future threats (Amharic)," Social Study Forum, PP. ; Informants: Sheleme, Asnakew, Seife, Aweke, Birhanu, and Abera.

[421] Seife, "History of Malaria Control in Ethiopia (Unpublished document). ; Informant: Seife.

[422] "A proclamation Issued to Establish MOVBDCS," NALA, File No. 8.1.120.5. ; MOH, "MOVBDCS: Organizational Chart and Work Directives (Amharic version)," NALA, File No. 8.1.120.11. ; NALA, File No. 8.1.119.5. These archives contain organizational objective, function, and structure; work elaboration and job requirement manifestation/details; human resource requirement estimation, and proclamation issued to establish the service.

leishmaniasis) into the program.[423] Training in other vector borne diseases was given both at home and abroad in countries like Sudan and Egypt. Accordingly, after taking the training course in other vector borne diseases, the anti-malaria workers involved in case detection and diagnosis activities of the other vector-borne diseases.[424] It, however, did not bring a noteworthy change as required. Instead it became an additional burden to the malaria control program operations.

Structural change over the program was not made; rather it simply added the purposes of other vector-borne diseases work based on MCS previous structure.[425]

In respect to its pragmatisms and workableness, the 1985 reform was not different from program changes or reforms made in 1971, 1972 and 1978. It was a bold decision to enter into such major program change without sufficient research, which was followed by poor implementation. It did not bring any significant change but rather increased the program's burden. It had a negative impact on the development of the program and its efficacy. What is more, the initiative itself emanated from authorities rather than the expert. Such points tell us the revision had not a firm ground. So, it can be said that repeated program's structural and strategic changes affected the program development and control performance.

All changes made in 1971, 1978 and 1985 did not bring notable and witnessed changes rather it created confusion, disillusionment and enfeebled of the program's development.

In addition to the above unsuccessful changes and reform related problems, MCS/P faced a number of problems and challenges, from the 1970s until its final dissolution in 1993. One of these was the beginning and development of mosquito antimalarial drug and insecticides

[423] "MOVBDCP Structural/Organizational/Chart Manifestation (Amharic)," NALA File No. 8.1.116.1.; Informant: Abera.

[424] Informants: Abera, Sheleme, Dereje and Girma.

[425] For further information about chart the Amharic version is attached at appendices. MOH, "MOVBDCS: Organizational Structure/Chart and working directives," Vol. 1 and 2, (Addis Ababa: Management Institute of Ethiopia, *Tir* (January) 1985), NALA, File No. 8.1.119.5. ; "A Proclamation Issued to Establish Malaria and the Other Vector-Borne Diseases Control Service (Amharic) in 1986 EC.," NALA, File No. 8.1.120.5. ; MOH, "MOVBDCS: Organizational Chart and Work Directives (Amharic version),"NALA, File No. 8.1.120.11. [425] ; "MOVBDCP Structural/Organizational/Chart Manifestation (Amharic)," NALA, File No. 8.1.116.1.

resistance. At global level, resistance development of vectors or mosquitoes to insecticides and parasites to anti-malaria drugs was reported from other parts of the world in the 1950s. However, in the 1960s the issue of mosquitoes and plasmodium resistance development to insecticide and drug respectively became a focus of attention. This was one of the major reasons for the global malaria strategy change from eradication to control in 1969.[426] However, in Ethiopia, there was no vectors' and parasites' resistance development report up to the mid-1980s. In 1985 plasmodium's anti-malaria drug resistance development to chloroquine was reported and it became another challenge to the program.[427] However, in the earlier period (1950s to 1970s) various technical problems that facilitated mosquito's insecticides and parasite anti-malaria drug resistance development were observed in Ethiopia. One can mention some problems, like culpable/mistaken application of biomedical technologies (wrong mix-up of DDT and spray operations), mass drug distribution like chloroquine to the public during the outbreak of malaria epidemics and community's misuse or poor utilization of anti-malaria drugs and insecticides that encourage parasites and anopheles anti-malaria drug and insecticide resistance development in Ethiopia. From this it can be understood that sufficient inspection and studies regarding mosquito drug resistance development was absent. So, it gives us reason to doubt some vectors and parasites might have developed insecticide and anti-malaria drug resistance in Ethiopia if a convincing research was being carried out. It therefore was other probable problems that hindered the efficacy of the program. Some of my informants like Awash and Asnakew also shared this doubt with me. Therefore, mosquito insecticide resistance as well as parasite anti-

[426] Stepan, *Eradication: Ridding the World of Diseases Forever?*, pp. 163-166. ; Packard, *A History of Global Health*, p. 178. ; "MOVBDCP Structure/Chart Manifestation," NALA File No. 8.1.116.1. ; WHO Expert Committee on Malaria: Fourteenth Report, Technical Report Series No. 357 (Geneva, 1967), p. 17.

[427] Awash Teklehaimanot, "Chloroquine-resistant Plasmodium falciparum Malaria in Ethiopia," *Lancet* (1986 July 19; 2) (8499), pp. 127-129. ; Tarekegn Abose, Yemane Yeebiyo and others. "WHO: Reorientation and Definition of the Role of Malaria Vector Control in Ethiopia: The Epidemiology and Control of Malaria with Special Emphasis on the Distribution, Behaviour and Susceptibility of Insecticides of Anopheline Vectors and Chloroquine Resistance in Zwai, Central Ethiopia and other Areas (unpublished document)." p. 1. Or see WHO/MAL/98.1085.

malaria drug resistance development might have appeared before the time they were reported in Ethiopia.

Lack of cooperation between the government and non-governmental institutions in the process of control activities was the other problem the program faced at the time.[428] Poor water management system and the rapid development of urbanization also played a great role in maintaining the vector breeding places.[429]

War and disturbance had also a negative impact on the efficacy of the program. Such as the 1980s and early 1990s rebellions and war prevented the program to operating or delivering the necessary anti-malaria control activities in rebellious areas. Such kind of episode created a convenient condition for the disturbance lover mosquito. Therefore, war and disturbance in different parts of the country had a negative impact over the implementations and effectiveness of the program.[430]

Regime change also negatively affected the program. The new strategy of control was introduced only three years before the outbreak of the 1974 revolution. The new socialist government did not give attention to the program. Moreover, the military government suspected some educated and activist teams of malaria control program as government opponents.[431] The government also forced them to disperse into different regions.[432] The government also took over the service's vehicle for political activities.[433] Some others were left without repair and gathered in the MOH provincial towns stations.[434] The 1970s and 1980s war and disturbance plus government's less

[428] Informant: Awash.
[429] Mekonnen, "Characterization of the Epidemiology of Urban Malaria in Nazareth, Ethiopia," ; Informant: Adisu.
[430] Kloos, "Primary Health Care in Ethiopia: From Haile Sellassie to Meles Zenawi," pp. 89-105. ; McCann, *The Historical Ecology of Malaria*, pp. 92-100.
[431] McCann, *The Historical Ecology of Malaria*, pp. 94-100.
[432] Informants: Girma and Aweke.
[433] Tenna Abere, "Historical Process of Malaria Disease in Ethiopia, Current Situation and Future threats (Amharic)," (Addis Ababa: Social Study Forum), PP. V-VI. An opening speech delivered by Prof. Shiferaw Bekele. ; McCann, *The Historical Ecology of Malaria*, pp. 97-100.
[434] McCann, *The Historical Ecology of Malaria*, pp. 97-100.

attention to the malaria control program created a pleasant environment and opportunity to high mosquito breeding, epidemic outbreak longevity/duration and impact. When the new government came to office, new policies have also been adopted. Such reforms also affected some institutions and programs work including malaria control service. For example the 1974 socialist government introduced a resettlement and villagization program that later affected malaria control activities.[435] McCann noted the following on resettlement program:

> "one of the key elements of scientific socialism under the military government had been an aggressive and controversial plan called resettlement…, which included forcing farm families to move into villages (*mender serata*); and several student work campaigns, which sought to move famine-vulnerable highland populations to villages in lower-altitude zones that the government planners deemed appropriate to cash crops and agricultural mechanization. … The mosquitoes loved it and moved into the vacuum."[436]

From this it can be understood that there was little or no coordination between the malaria control service and the resettlement programs.

In May 1991, another revolution took place that dethroned the socialist government from power; and a Transitional Government of Ethiopia (TGE) was established in 1991. It was another critical year that further faltered the operation of MOVBDCP/S in Ethiopia. The TGE dissolved the program by a political decision in 1993. This happened before the 1985 program reform was sufficiently reorganized.[437]

Consequently, the MOVBDCP was fully dissolved, decentralized and integrated with the Ministry of Health under the epidemiology and AIDS Department as a unit in 1993. It was done

[435] MES, "About Chart Structure," NALA, File No. 8.1.115.3. ; Wakgari *et'al,* "The Retirement of Malaria Control Workers as a Critical Problem for Vector control in Oromia, Ethiopia," pp. 79-83. Informants: Sheleme, Asnakew, Seife, Aweke, Birhanu, Abera, and others.

[436] McCann, *The Historical Ecology of Malaria,* p. 96.

[437] "A letter wrote to the MOVBDCS/P by the TGE Office of the Prime Minister: about the MOVBDCS/P Department Structural Adjustment, *yekatit* (Feb.) 1987 EC" NALA, File No. 8.1.115.3. ; 79-83. Informants: Sheleme, Asnakew, Seife, Aweke, Birhanu, Abera, and others.

by the political decision of the TGE.[438] The decentralization and integration of MOVBDS/P was made based on the new regional state administration system.[439] "The activities of malaria control became the responsibility of the Regional Health Bureaus based on the health policy that is in line with decentralization and federalism in the country."[440]

The TG ordered the minister's office to have only five experts, one unit leader and four experts, in their position at headquarters to run the MOVBDP task. The TGE also ordered the Ministry to disperse the remaining experts of the program into different regions and employed them in different clinics and basic health services.[441] Malaria workers were named generalists, who perform different anti-communicable diseases activities, besides malaria and dispersed in the existing health service without having a clear idea of what and how the dispersion and integration and decentralization of the MOVBDCS/P would be implemented.[442] Those experts who served for 20 years and were aged 45 years old and above were also forced to go into early retirement.[443] Hence, as in previous cases, the integration was hasty, not well guided and researched.[444] It can be said that the sector has not learned from its past failures or did not give care for the implementation of the activities and development of the program.

After decades of a complicated pathway the story of the Malaria Eradication/Contro1 program came to an end in 1993 due to different reasons. The factors can be categorized internal and

[438] "A letter wrote to the MOVBDCS/P by the TGE Office of the Prime Minister: about the MOVBDCS/P Department Structural Adjustment, *yekatit* (Feb.) 1987 EC" NALA, File No. 8.1.115.3. Informants: Sheleme, ASnakew, Seife, Aweke, Birhanu, and Abera.

[439] Wakgari *et'al,* "The Retirement of Malaria Control Workers as a Critical Problem for Vector control in Oromia, Ethiopia," pp. 79-83. Informants: Sheleme, ASnakew, Seife, Aweke, Birhanu, and Abera.

[440] Wakgari *et'al,* "The Retirement of Malaria Control Workers as a Critical Problem for Vector control in Oromia, Ethiopia," p. 81.

[441] MES, "About Chart Structure," NALA, File No. 8.1.115.3. ; Informants: Abera, Tesfaye and Seife.

[442] Yayehyirad *et'al*, "Problems, Policy, Planning Options in Malaria," Review Article of Ethiopia Journal Health Development, (1998), pp. 123-135. ; EPHA Expert Group Report. ; Yayehyirad *et'al*, *The Evolution of Public Health in Ethiopia 1941-2015* (3rd Revised Edition), p. 119. ; Informants: Girma, Dereje, Seife and others.

[443] MES, "About Chart Structure," NALA, File No. 8.1.115.3.

[444] Wakgari *et'al*, "The Retirement of Malaria Control Workers as a Critical Problem for Vector control in Oromia, Ethiopia," pp. 79-83.

external. Internal factors embraced technical and administrative related problems. External factors also contained political, socio-economic, ecological and international organizations influences. Nevertheless, the MECS/P had passed a complicated historical development in the second half of the 20th century, as explored in this thesis. After nearly half a century long journey, the MECS/P was dissolved without accomplishing its goal that it set out. Its failure was associated with a number of reasons that can be categorized as internal (technical and administrative issues) and external (sociological, economic, political, ecological, cultural, religious and other aspects). Due to all the above factors together, Malaria remained as a major health and socio economic bottleneck of Ethiopia yet. The Mosquitoes also continues its dance yet by defeating decades' battle conducted with man armed with DDT and chloroquine.

Conclusion

International and national malaria related initiatives and developments in the 1950s led to the establishment of malaria control pilot projects, in selected areas of Ethiopia in 1955. The pilot projects were pre-requisite surveys so as to examine the technical and administrative feasibility of malaria eradication in Ethiopia. Based on the promising findings of these pilot projects, a national malaria eradication service or program (NMES/P) was established in 1959 as part of GMES/P. However, the study carried out to launch the program was insufficient to reach the conclusion that malaria eradication was feasible in the country and to determine the establishment of the MES/P in Ethiopia. The pilot project studies did not represent Ethiopia's heterogeneous or varied topography and climate. Furthermore, the pilot studies did not make a reasonable evaluation on the low socio-economic development, low health infrastructure, literacy level, existence of deep-rooted traditional and religious folk culture, and the unfavorable attitude of the people towards state-sponsored programs. Furthermore, the nature of the disease required cross-disciplinary or multi-disciplinary studies which were not undertaken at the time. Therefore, this thesis has shown that the findings of these pilot projects were incomplete, lacked comprehensiveness, were over-optimistic, and overambitious, leading to a false conclusion and a decision to set unachievable project goals.

On the basis of the pilot project studies, a large, relatively well-organized and semi-autonomous and later autonomous vertical antimalarial organization was established in Ethiopia in 1959. Although it did not achieve the goal of eradicating malaria from Ethiopia, it did play a role in reducing the health risks, burdens and prevalence of malaria and opening new socio-economic developments in malaria prone areas. However, the optimistic progress of the program lasted only for a short period of time.

Rather than showing improvement, the working potential of the program was degraded from time-to-time due to internal and external factors. The program encountered technical and administrative challenges to translate its theoretical framework into practice. Internally, this was due to inadequate indigenous study to initiate and implement the program; and lack of commitment in the implementation. As a result, overambitious plan was enacted without considering the actual situation on the ground in Ethiopia. Externally, international organizations influence; curtailment of funds and partly the program's economic dependency on such funds/lack of economic potential; ecological factors, people's deep-rooted socio-cultural and religious attitudes and their refractoriness to cooperate; limited health infrastructure; recurrent structural changes to align with international strategic reforms; regime change, war and others were also other chronic impediment to the program.

Recurrent structural and strategy changes had a negative impact on the development and efficacy of the program and did not help with the eradication or control of malaria and other vector-borne diseases. This occurred when Ethiopia's MECS/P tried to align itself to changes or reforms introduced by international organizations. Reforms proposed by the WHO were received and executed by the MES without research about its functionality and applicability in the local context at local context. Therefore, it can be said that Ethiopia's MECS/P was the receptor and executor of agendas that came from the international organization rather than having its own working stand and economic potential to achieve the goal that it had already set, especially in the first two decades. The program was dependent on foreign financial and technical philanthropy. If we look at the 1971 and 1978 changes made in the institution, it is east to see how this is true. In order to achieve the established goal, all reforms introduced changed nothing except lingering about and brought disillusionment in the program. Moreover, the program did not set a sufficient

time to acquaint and adapt to new changes. Moreover, the gap created during frequent change of the program create convenient situation and gave more time to the Anopheles breading and prevalence.

Furthermore, in Ethiopia, changing malaria eradication strategy along with the developed world countries which started their actual malaria eradication operation in 1955 was not right. Because, it could be said that in Ethiopia the actual attack operations of the program was started in the late 1960s. Hence, Ethiopia's malaria eradication program strategy was changed immediately when it entered its actual attack operation in area "A". Therefore, it would have been better to elongate or postpone the program as Venezuela did for the next decades with the same motivation, pace and strategy of malaria eradication.

Regime change and war or disturbance had negative impact on the efficacy of malaria eradication and control program in Ethiopia. It can be seen that the 1974 and 1991 revolutions, and the 1980s war, between the socialist government and different militant groups in different areas, aggravated the malaria burden in Ethiopia. Besides, changes in national health policies and strategies due to regime change had equally influenced malaria control activities. Surprisingly, the program was finally dissolved and integrated with the Ministry of Health (MOH) as a unit in 1993 by a political decision rather than expert recommendation. Malaria defeated the war and remains as a major public health problem and mosquitoes also continue her dance in Ethiopia.

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List of Informants

Roll No.	**Name of Informants**	**Sex**	**Age**	**Date of Interview**	**Place of Interview**	**Remarks**
1	Abdulaziz Abdulmali (*Ato*)	M	**81**	27/03/2021	Dire-Dawa	He was a second round malaria trainee at METC, Nazareth, in 1960. He was a parasitologist and served in different positions in the MES/P from technician to sector chief level for more than 40 years. He had a close connection with the program and knows the history of the program..
2	Abera Taddesse (*Ato*)	M	**73**	30/09/12 E.C or 07/06/2020	Adama/Nazareth	He joined the program as an entomology technician in 1967 and served in the organization at different posts and different place like Hossa'ena, Wellayita, Gammo-Goffa. He has a plenty of work experience in the organization in general and with regard to entomology in particular.
3	Abere Mihretie (*Ato*)	M	**67**	09/06/2021	Addis Ababa.	He is one of the founders of the Health, Development and Anti-Malaria Association and affiliated with the anti-malaria institution and actual operations of the program.
4	Addisu Asrat (*Ato***)**	M	83	30 /01/2021 or 22/05/2013	Addis Ababa:	He took technical and administrative trainings for six months at Nazareth Training Center Ethiopia, and Manila Philippines in 1971 under USAID Sponsorship. He worked in the MES from its foundation to 1974 as a field technician. He worked as supervisor (stationed at HQs) in the service and head of the Geographical Reconnaissance section. He also travelled all over the country with the WHO PEP Team for feasibility study.
5	Asnakew Kebede	M	56	24/06/2012 E.C	Addis Abeba	He has more than 35 years of work experience related to malaria. He joined the program in 1986 and served at different posts and different places. For example, He served as a zone chief of Debre-markos for one year. Later he was transferred from Debre-markos to Nazareth in 1989 and worked there for more than 10 years. Besides, he worked in the WHO for five years. Now, he is working in MACEPA as a geo-specialist and health analyst or expert.
6	Awash Teklehaim	M	69	09/07/2020 GC	Addis Ababa	He worked for a long period of time, in different positions-from malaria technician up to managerial

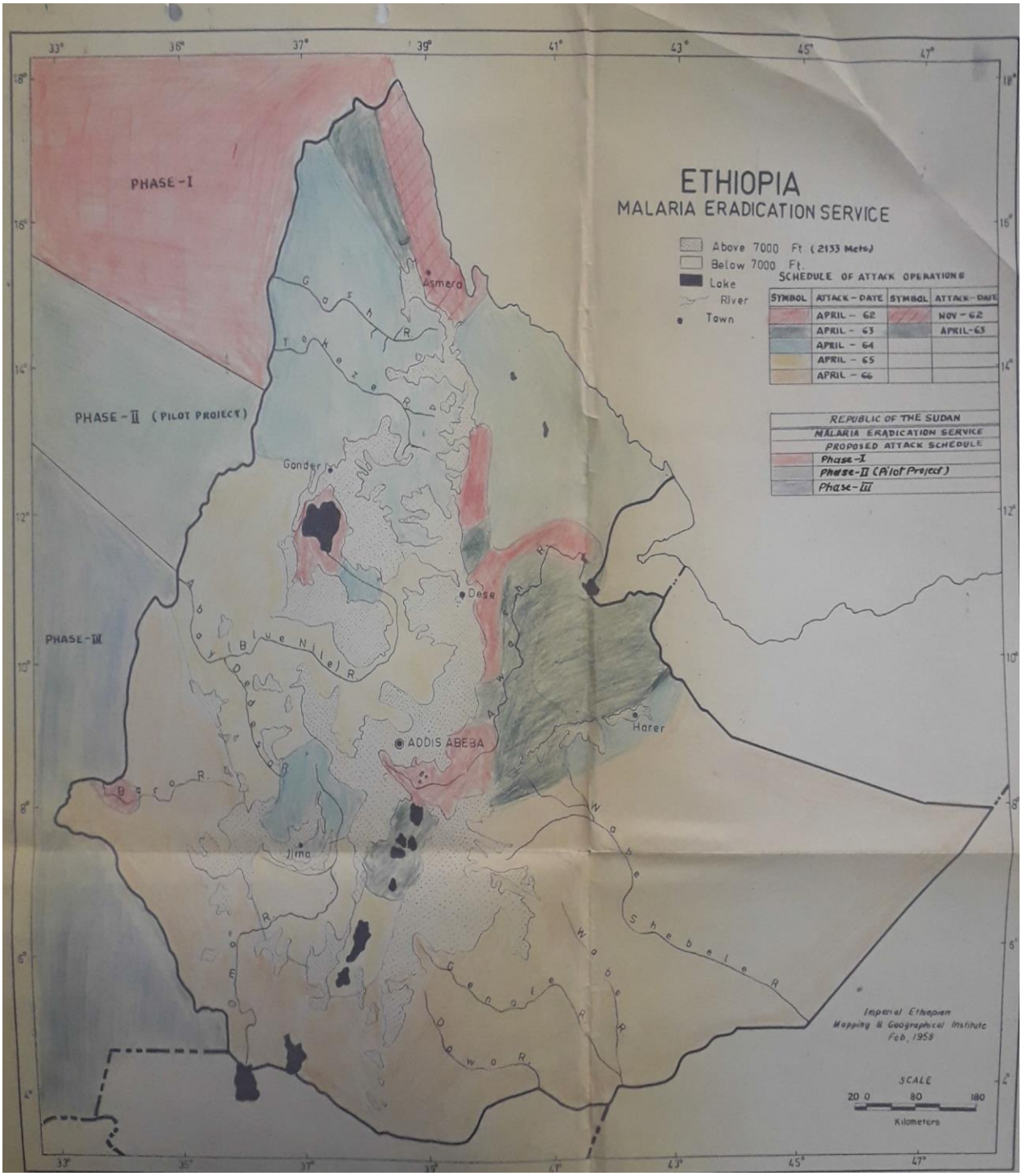
	anot (Prof.)			09/06/12 EC		posts, at the MES from the beginning of the program up to his resignation. He began his career as a malaria technician, after taking malaria training at Nazareth in 1959. He then joined the actual work in North Wollo, specifically Woldia area for six months as GR during the Pre-eradication era. After he took a monitoring course, and became a director of Darita district. He took a laboratory diagnostic course for six months and became the director of Tigrai and Eritrea provinces for two years. He worked at the WHO for thirteen years and at the CDC. Later on he returned to Ethiopia with other CDC Malaria workers and became the manager of the Malaria and other Vector Borne Diseases Control Program. Besides, he worked in different institutions as program officer and as an instructor. Now he has his own institution known as CNHD and he is the manager of the institution.
7	Aweke Abera Yilma (*Ato*)	M	**66**	15/06/2013 EC or 22/02/2021	Addis Ababa	He served at various posts as a technician as well as *Nägärä Fäj* (consellor*)* of the institution. He was also a close supporter of the DG. He therefore knows very well about the historical evolution of the program.
8	Birhanu Seifu (*Ato*)	M	**76**	27/06/2013 E.C/05/03/2021	Addis Ababa	He served as a technician, sector chief, supervisor, adviser as well as epidemiologist in the organization from 1965 to 1996. This was in different particular areas of the country. He knows the story of the program as well.
9	Daraje Olana (*Ato*)	M	**56**	09/07/2021	Addis Ababa	He has more than 37 years' work experience both in the program and other related organizations. He worked as malaria expert. He also worked as zone chief in Pawe, Jimma, and Nazareth Zones. After the dissolution of the program he became a team leader in East Shewa Zone. Furthermore, he was a department head of MOVBDCP. He worked in PMI USAID, WHO country office, Research Triangle Institution (RTI), and now he is a chief of vector link control, USAID. Above all he involved in malaria related research works.
10	Girma Gebray (*Ato*)	M	**74**	29-30/05/2013 EC or 07-09/02/20	Awassa	He served in the organization at various positions from technician level to zone chief level. He served in various parts of Ethiopia in this institution from north to south and east to west. He served at Adwa, Setit Humera, Jimma, Illubabor, Awassa,

				21		Arbaminch, Wellayita and other places as technician, supervisor and chief. He has more than forty years work experience in the institution.
11	Kelklew Tadesse (Sanitary Engineer)	M	**87**	20/06/2013 or 27/02/2021	Addis Ababa	He served in different position of the organization from 1962-1969 in the environmental and hygiene division as sanitary engineer in the service. He worked as a discipline committee and GR/mapping.
12	Mastewal Sinshaw(*W/o)*	F	**57**	01-03/03/2021	Addis Ababa	She served in the service as archive and record section leader since 1970s up to its final integration. Since its integration with the minister office, she became archive and record section team leader of the MOH; and is still serving there.
13	Megersa Komore (*Ato*)	M	**62**	01-04/03/2021	Addis Ababa	He has been working in the program's garage since the 1970s up to now. Therefore, he knows well the story of the MECS/P, especially about the transportation division in particular and MECS/P in general.
14	Seife Bashaye (*Ato*)	M	**59**	07/10/2013 or 14/06/2021	Addis Ababa	He has more than 35 years' work experience in the program. He worked in different posts in the institution and related organizations. For instance, he was disease prevention and control manager; malaria prevention and senior expert at zonal level; malaria research field coordinator in Addis Continental Institute of Public Health; malaria risk mapping and program review technical advisor in WHO; malaria vector control program technical specialist of the Global Fund. Currently, he is serving as a senior malaria expert in MOH, disease prevention and control directorate.
15	Sheleme Chibsa (*Ato*)	M	**57**	7/27/2021	Virtual interview	He joined the program since 1978. He served the institution for decades in different positions. He has also research experience in the issue.
16	Teferi Mengesha (*Ato*)	M	**45**	17/03/2021	Dire Dawa	He has worked for years in the sector as medical laboratorist and public health worker. Now he is a Global Fund Malaria Advisor.

17	Tesfaye Balhere (*Ato*)	M	**78**	30/09/12 E.C. or 07/06/2020	Adama/Nazareth	He has a lot of experience in the institution from Dec. 1963 to 1998. He worked in the service at different positions and different parts of the country such as Hawassa (1963-1972), Nazareth Zone 1972-1984) in the same position, *Qetena Lemmat*/Qetena plan in the same zone from 1984-1986, and Asossa, from 1986/1994 as worker and administrator and served their up to his final retirement, 1998.
18	Yayehyirad Kitaw (Associate Prof.)	M	**80**	23/02/2021 or 16/06/2013	Addis Ababa	He had a close connection with the program. He served as an advisor and participated in the preparation of the program's guideline and other health related issues. Moreover, he produced numerous research related to malaria, including research on malaria eradication. He was also one of the members who prepared primary health care, health for all in 2000.

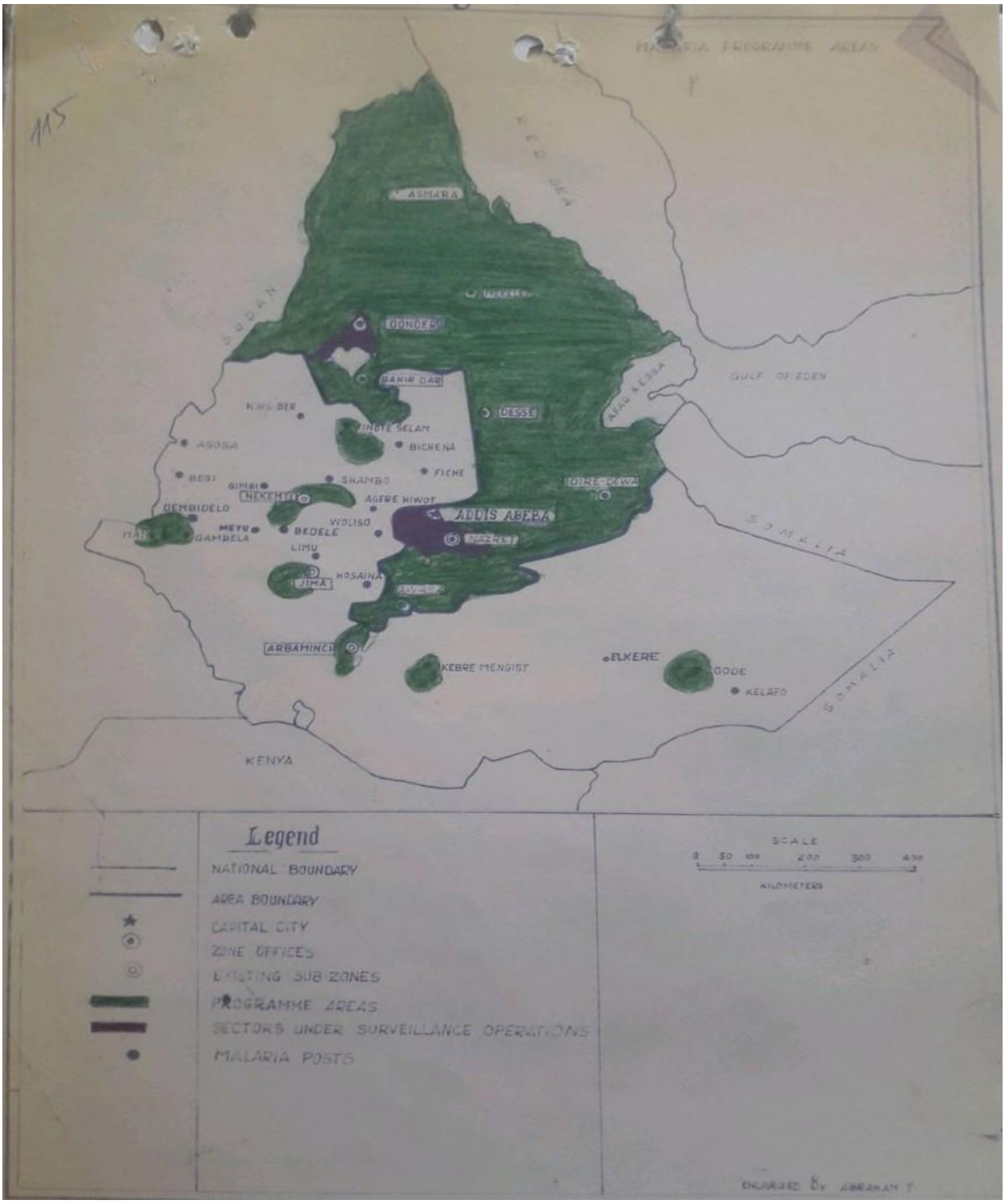
Appendices

Appendices 1: Maps showing malaria regions of Ethiopia by time and geography/area



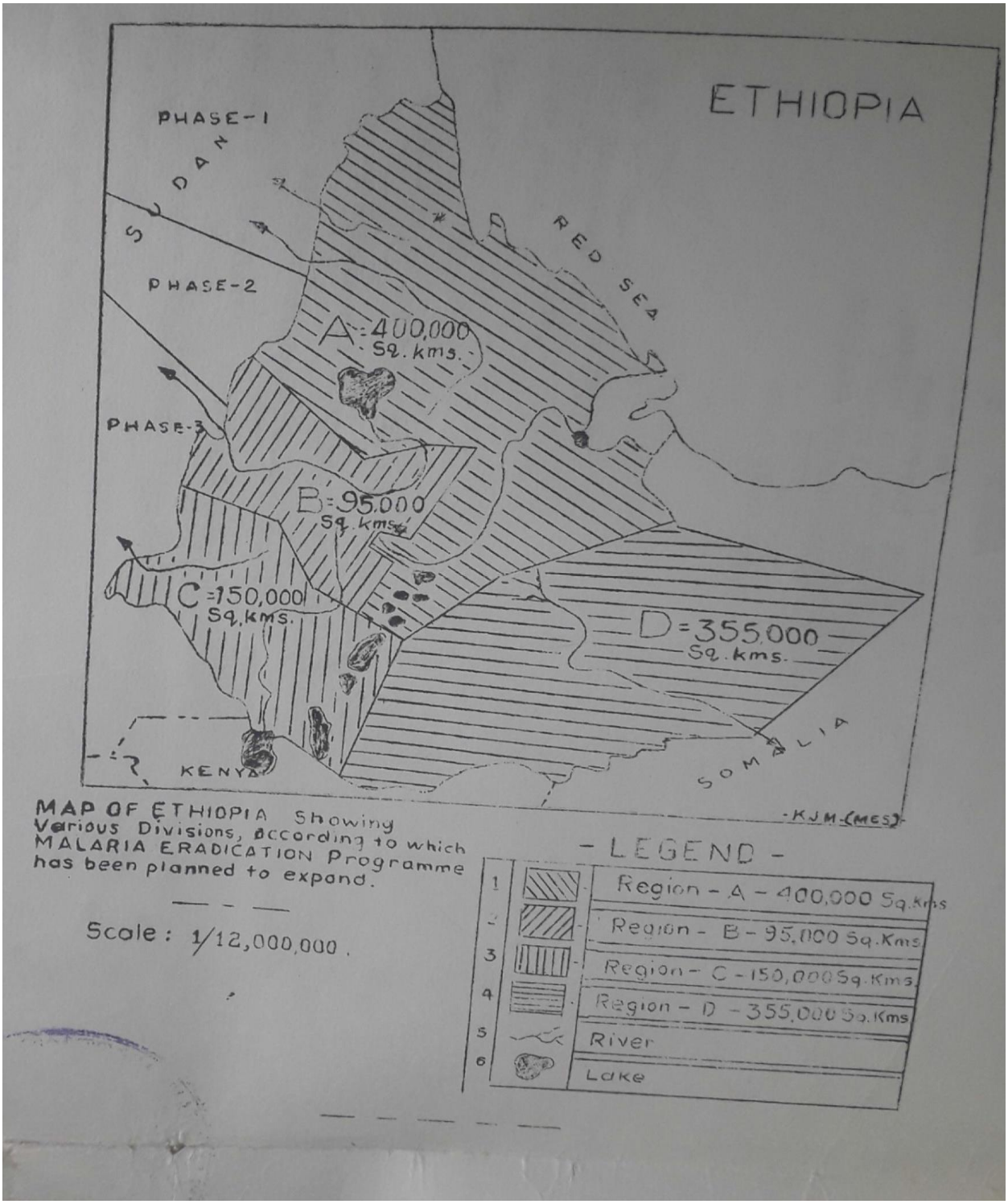
Source: NALA, File No**.** 17.3.355.01.

Appendices 2: Hand drawing map which indicate malaria eradication areas



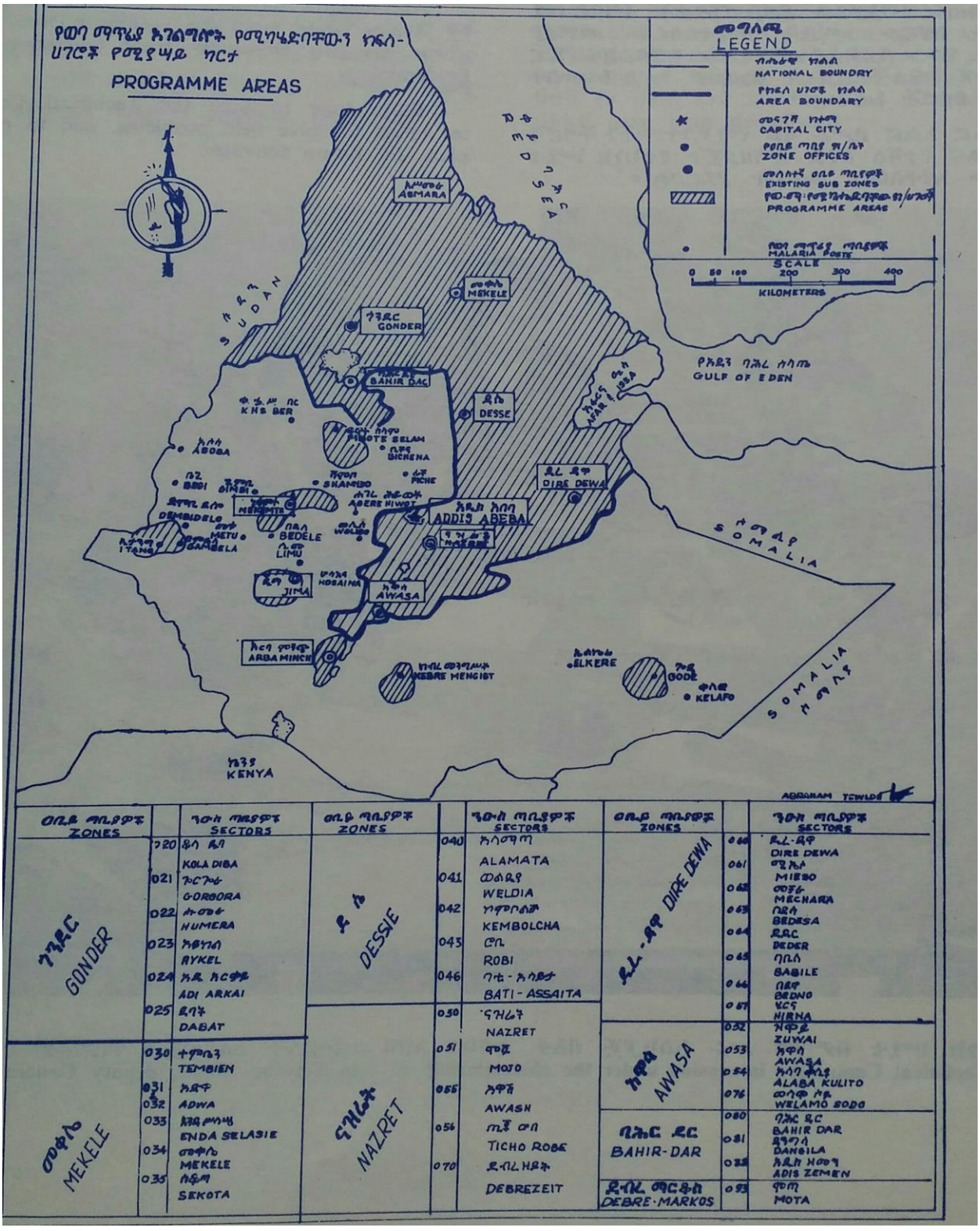
Source: NALA, File No. 17.3.357.1.

Appendices 3: Map which portray divisions by area with approximate population in each areas



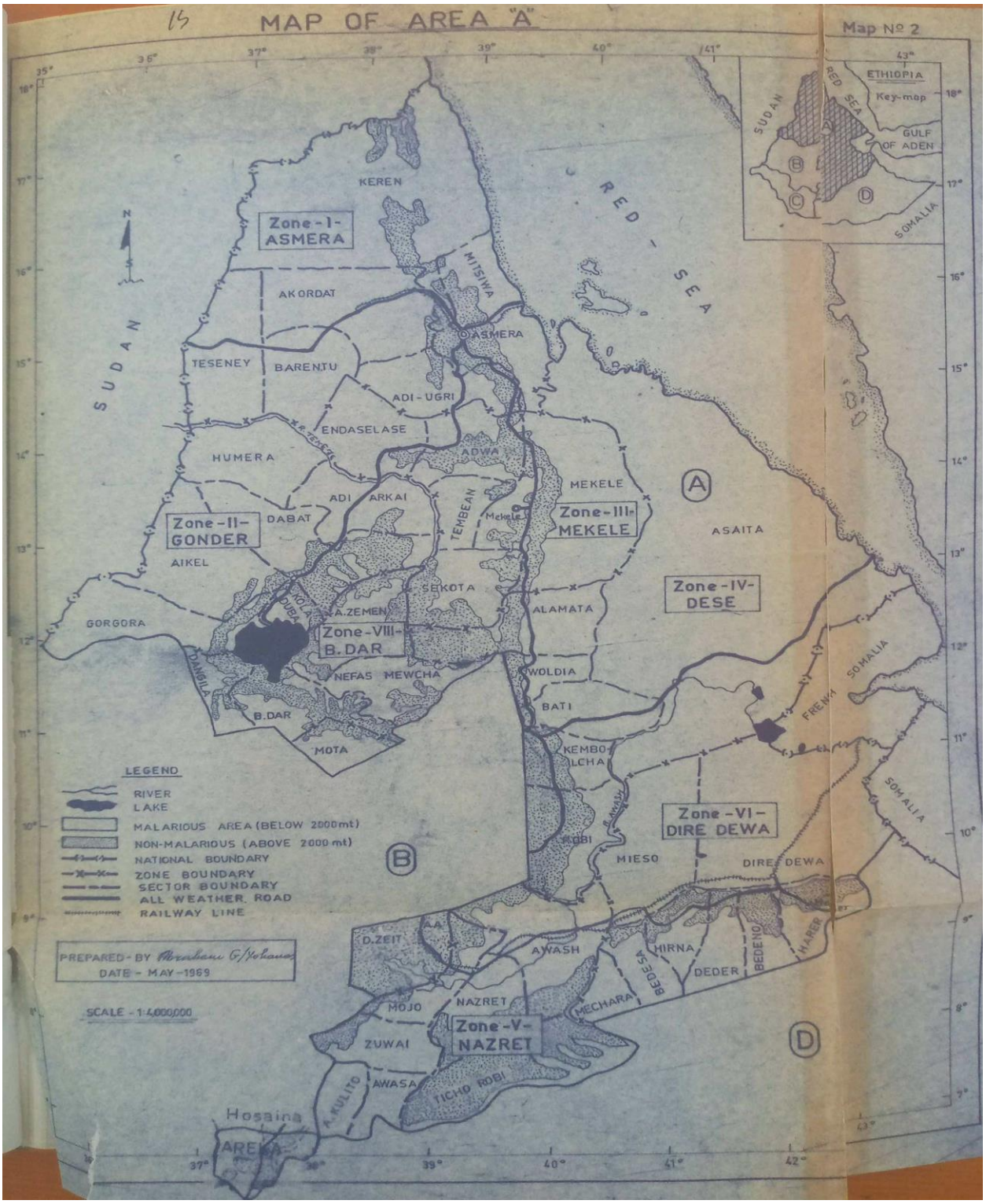
Sources: NALA, File No. 17.3.357.1. It is also found in MES, "Report of a Strategy Review Team, May 6-27, 1970" and Awash, "Malaria In Ethiopia"

Appendices 4: Map demonstrate areas that malaria eradication service operations conducted



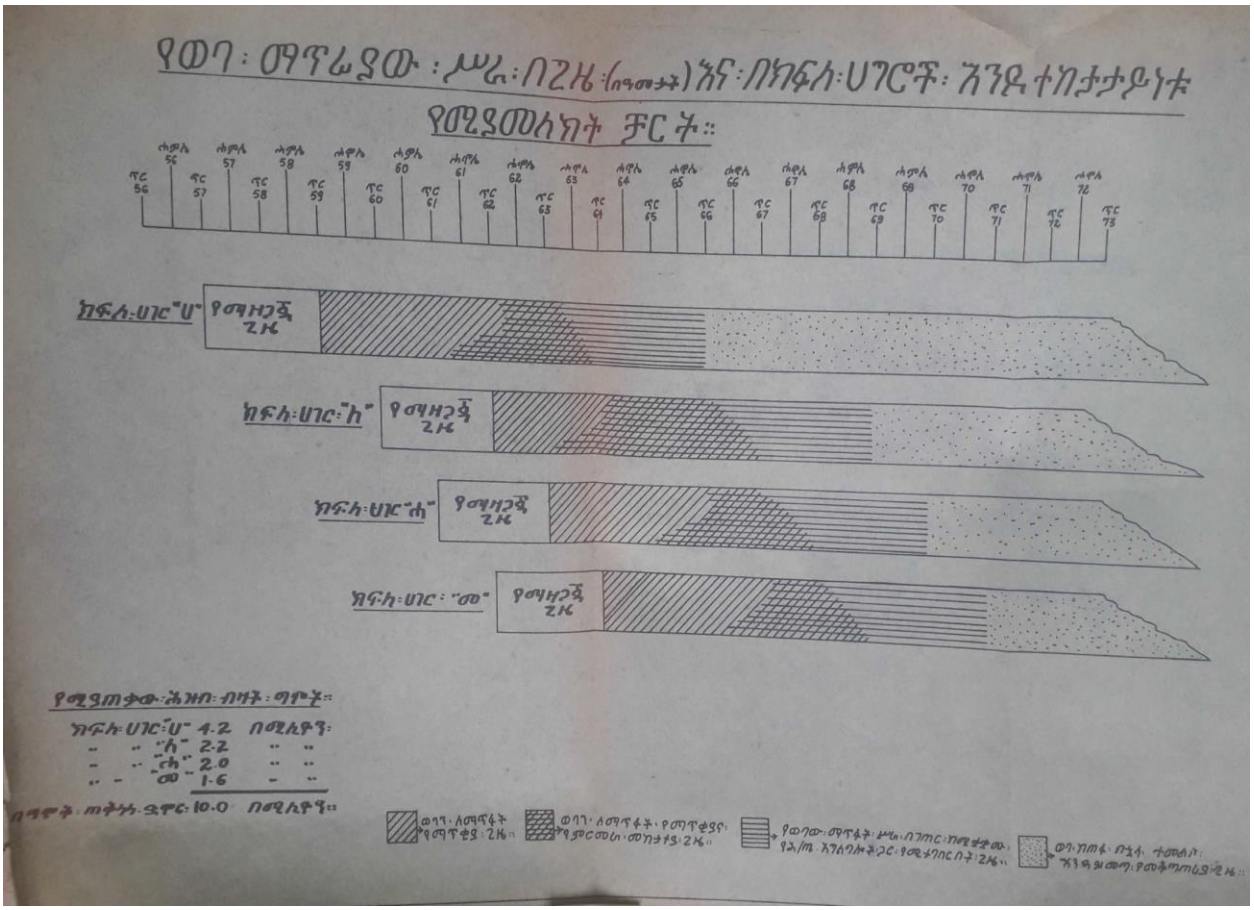
Source: MES: Pictorial Review, (Addis Ababa: Central Press, July, 1972), p. 15.

Appendices 5: It shows malaria eradication service area "A" Zones and regions of Ethiopia



Source: MES, "Report of A Strategy Review Team, May 6-27, 1970"

Appendices 6: A Document that shows MES/P activities in time and Provinces



Source: NALA, File No. 17.3.355.01.

Appendices 7: A speech delivered by Emperor Haile Selassie I during the Attack Phase was launched in 1966.

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58-01-14 (39)

ወባ፡ በንጉሠ፡ ነገሥቱ፡ መንግሥት፡ ግዛታችን፡
ውስጥ፡ ካሉት፡ በሽታዎች፡ ሁሉ፡ ብዙ፡ ሰው፡ በማጥቃት፡ አይሎ፡
የሚገኝ፡ እንደኛ፡ ጠላት፡ ሊባል፡ የሚገባው፡ በሽታ፡ መሆኑንና፡
ብዙው፡ ሕዝባችን፡ በጤንነቱ፡ ረገድ፡ ከባድ፡ ጉዳት፡ የሚደር
ስበት፡ መሆኑን፡ ዓይተን፡ በሕዝብ፡ ጤና፡ ጥበቃ፡ ሚኒስቴራችን፡
ሥር፡ የሚተዳደርና፡ የሚመራ፡ የወባ፡ ማጥፊያ፡ ድርጅት፡
መሥሪያ፡ ቤት፡ እንዲቋቋም፡ ካደረግን፡ ቆይቷል። እስከ፡ ዛሬ፡
የወባን፡ በሽታ፡ የማጥቃቱ፡ ሥራ፡ በተሻለ፡ ሁኔታ፡ የሚከናወ
ንበት፡ ዘዴ፡ ሲጠና፡ ቆይቶ፡ ከኢትዮጵያ፡ ምድር፡ ይህን፡ በሽታ፡
ጨርሶ፡ ለማጥፋት፡ አገሪቱ፡ በአራት፡ ክፍል፡ እንድትመደብ፡
ተደርጓል።

ዛሬም፡ ይህ፡ ድርጅት፡ "ሀ" በተባለው፡ ክፍል፡ ብዙ፡
ሰው፡ በሚኖርበትና፡ የልማት፡ ክፍል፡ በሆነው፡ አገር፡ ውስጥ፡
ወባን፡ ለማጥፋት፡ ዝግጅቱ፡ ተሟልቶ፡ ~~[illegible]~~ የወባ፡
ማጥፋት፡ ~~[illegible]~~ ጊዜ፡ ከዚህ፡ ቦታ፡ ላይ፡ ተገ
ኝተን፡ ሥራውን፡ ስንመለከትና፡ መርቀንም፡ ስንከፍት፡ በጣም፡
ደስ፡ ይለናል።

ይህ፡ የወባ፡ ማጥፋት፡ ሥራ፡ የሕዝቡን፡ እርዳታ፡
የሚጠይቅ፡ እንደመሆኑ፡ መጠን፡ ሕዝባችንም፡ በሙሉ፡ ልቡ፡
ለዚህ፡ ለተቀደሰ፡ ሥራ፡ ተባባሪ፡ እንደሚሆን፡ እምነት፡ እንጥ
ልበታለን። በተለይም፡ ጠቅላይ፡ ገዥዎች፣ እንደራሴዎች፣ የአ
ውራጃና፡ የወረዳ፡ ገዥዎች፣ ባላባቶችና፡ ምስለኔዎች፣ ጭቃ
ሹሞች፡ የሕዝብ፡ መሪ፡ እንደመሆናቸው፡ መጠን፡ ከድርጅቱ፡
ጋር፡ በመተባበር፡ ሕዝቡን፡ እንዲያስተምሩና፡ እንዲያበረታቱ፡

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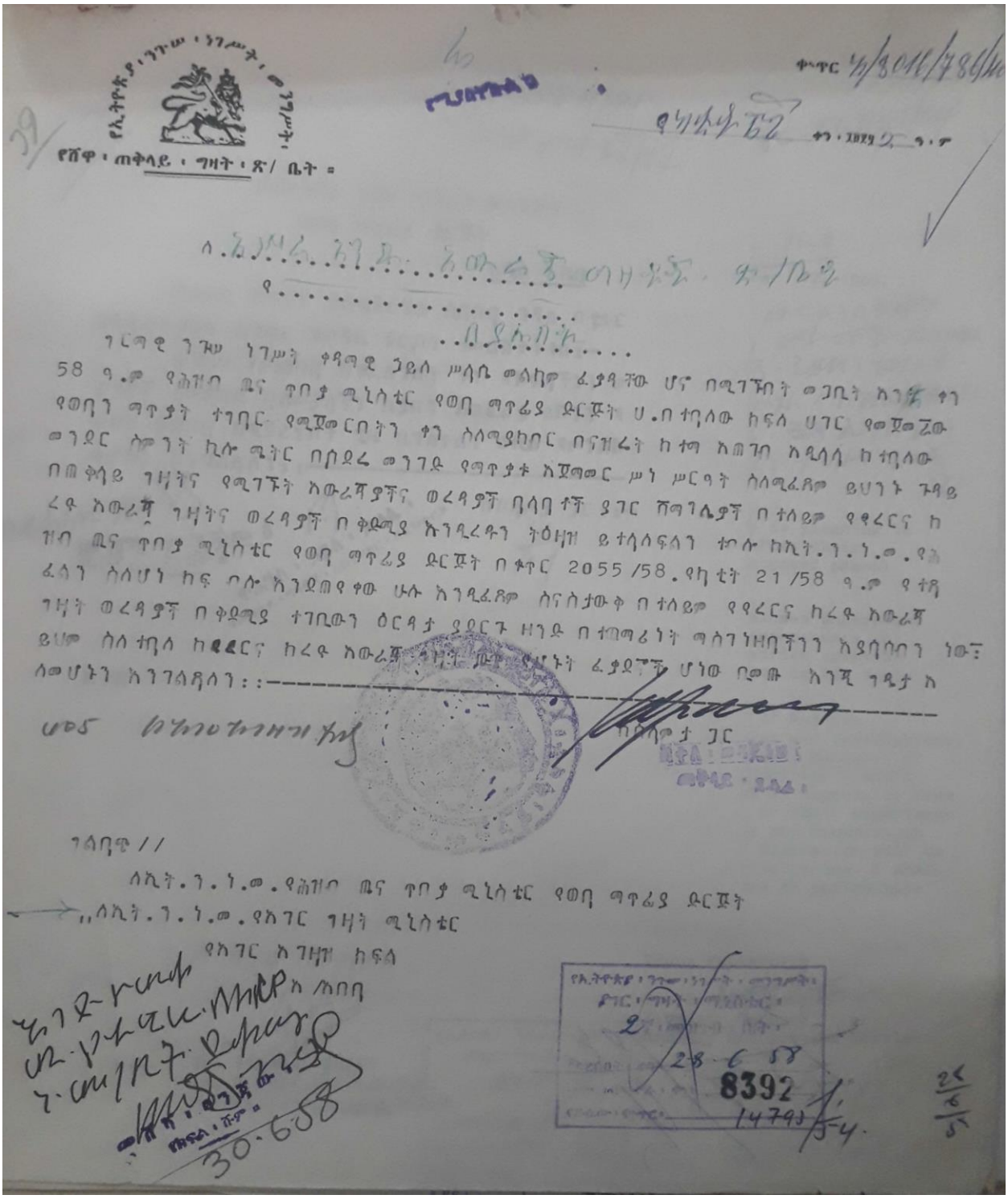
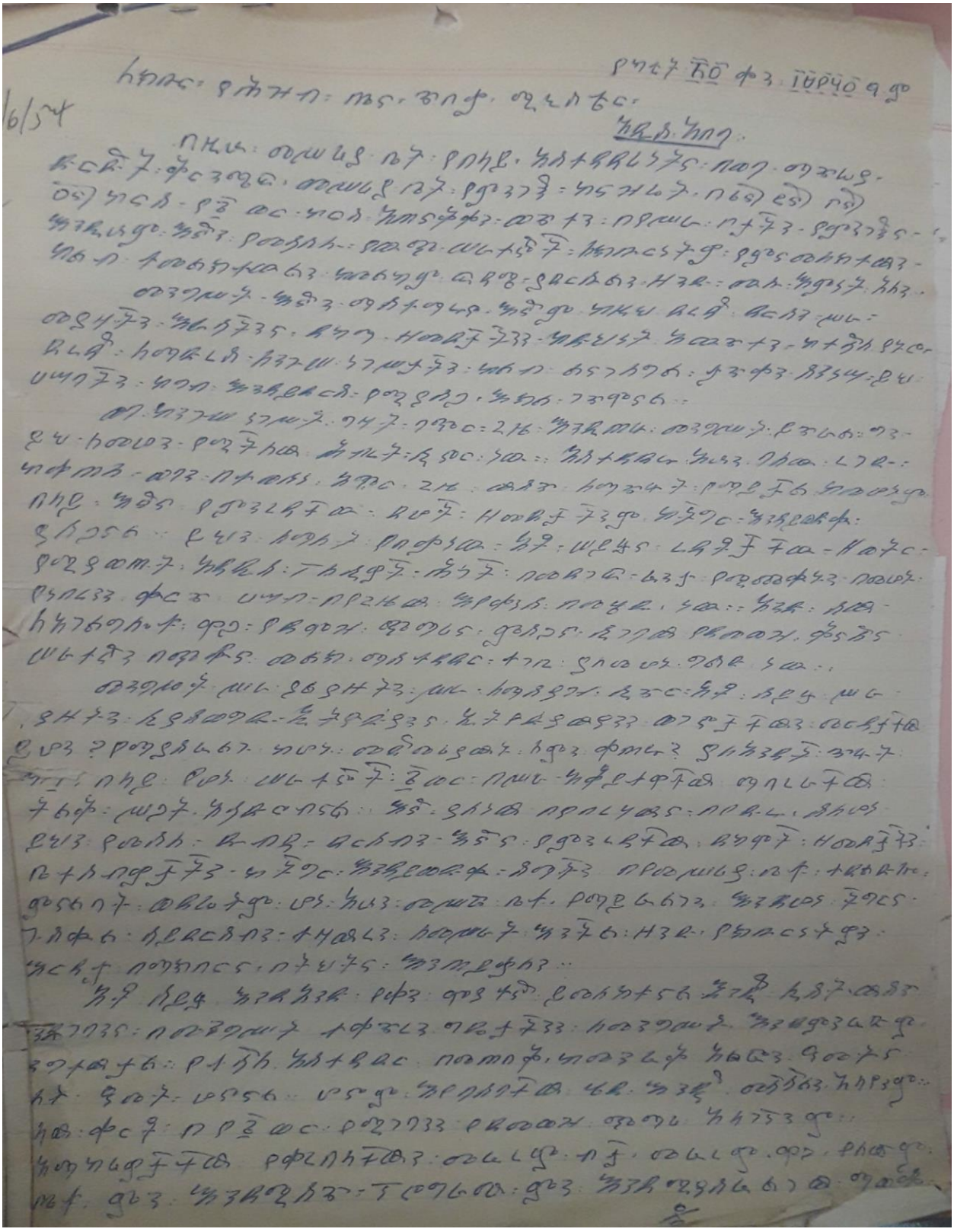
Source: NALA, File No. 1.2.42.17.

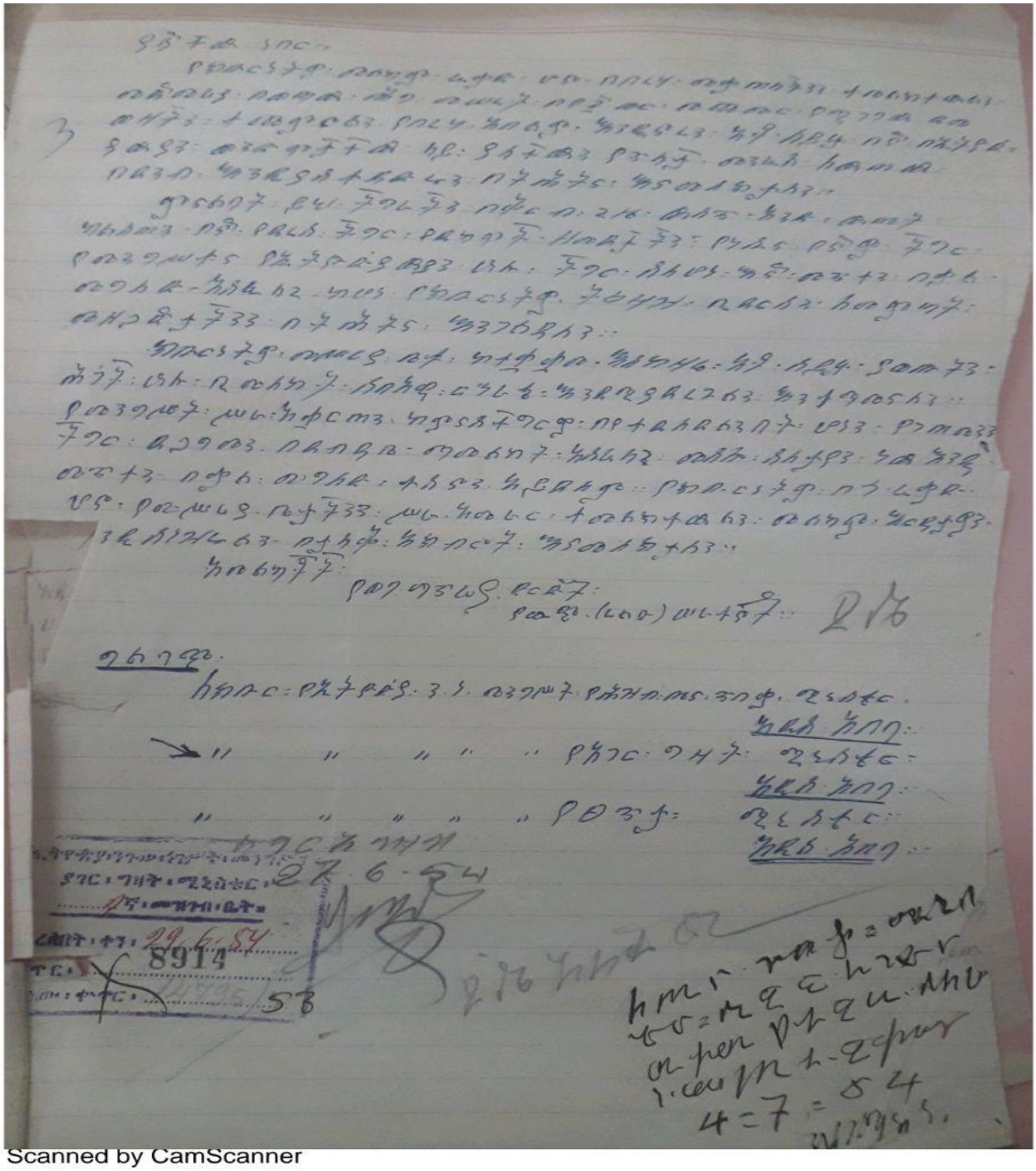
Appendices 8: Letter wrote to all provinces to announce the commencement of the MES attack phase in area "A"



Source: NALA File No. 17.3.355.01.

Appendices 9: petition letter wrote from anti-malaria workers to the MPH about the maladministration made by MES high officials

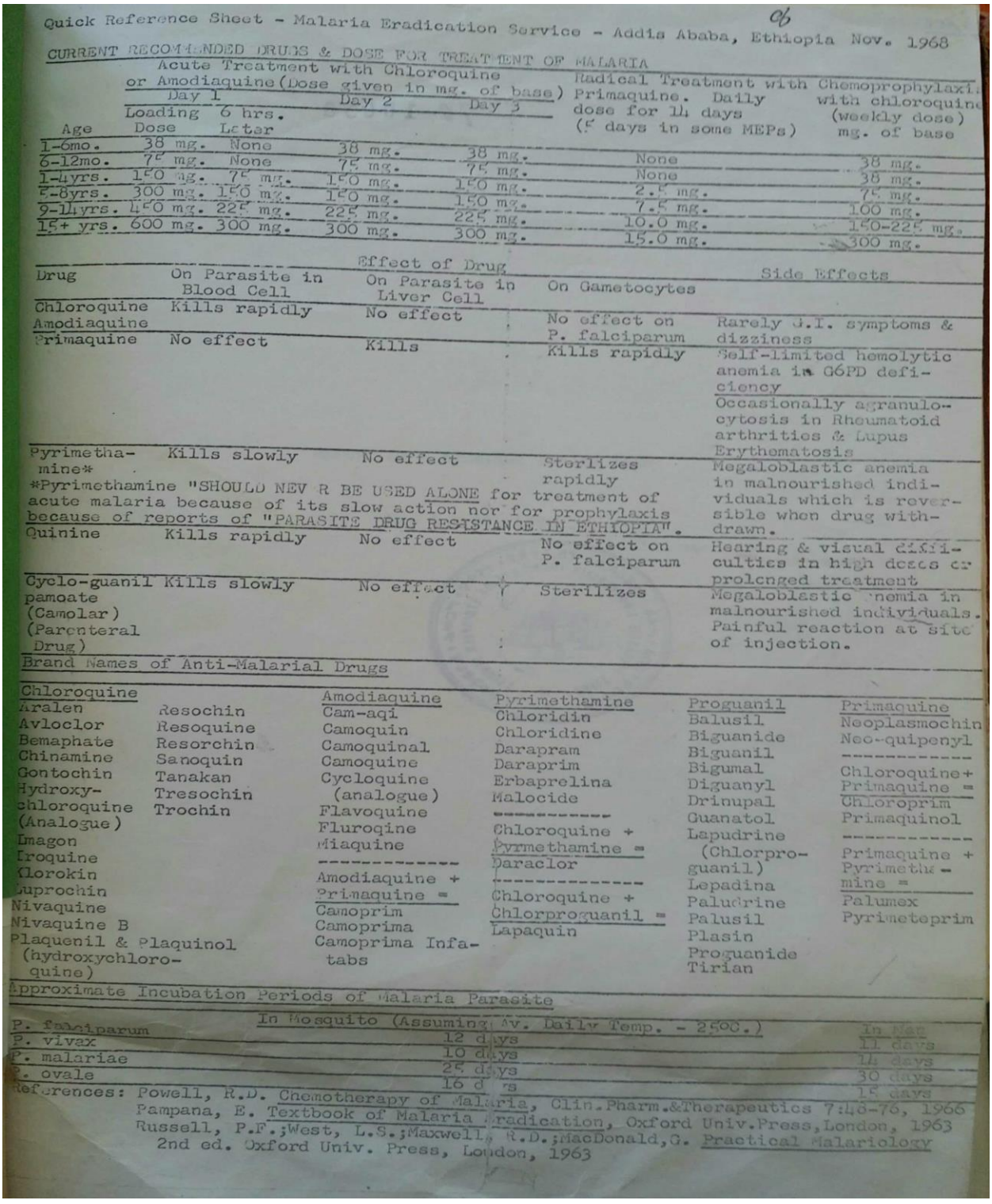




Scanned by CamScanner

Source: NALA File No. 17.3.355.01.

Appendices 10: Recommended anti-malaria drugs during eradication era



Quick Reference Sheet - Malaria Eradication Service - Addis Ababa, Ethiopia Nov. 1968

CURRENT RECOMMENDED DRUGS & DOSE FOR TREATMENT OF MALARIA

Age	Acute Treatment with Chloroquine or Amodiaquine (Dose given in mg. of base) Day 1 Loading Dose	Day 1 6 hrs. Later	Day 2	Day 3	Radical Treatment with Primaquine. Daily dose for 14 days (5 days in some MEPs)	Chemoprophylaxis with chloroquine (weekly dose) mg. of base
1-6mo.	38 mg.	None	38 mg.	38 mg.	None	38 mg.
6-12mo.	75 mg.	None	75 mg.	75 mg.	None	38 mg.
1-4yrs.	150 mg.	75 mg.	150 mg.	150 mg.	2.5 mg.	75 mg.
5-8yrs.	300 mg.	150 mg.	150 mg.	150 mg.	7.5 mg.	100 mg.
9-14yrs.	450 mg.	225 mg.	225 mg.	225 mg.	10.0 mg.	150-225 mg.
15+ yrs.	600 mg.	300 mg.	300 mg.	300 mg.	15.0 mg.	300 mg.

Drug	Effect of Drug: On Parasite in Blood Cell	On Parasite in Liver Cell	On Gametocytes	Side Effects
Chloroquine	Kills rapidly	No effect	No effect on P. falciparum	Rarely G.I. symptoms & dizziness
Amodiaquine				
Primaquine	No effect	Kills	Kills rapidly	Self-limited hemolytic anemia in G6PD deficiency
				Occasionally agranulocytosis in Rheumatoid arthritics & Lupus Erythematosis
Pyrimethamine*	Kills slowly	No effect	Sterilizes rapidly	Megaloblastic anemia in malnourished individuals which is reversible when drug withdrawn.
Quinine	Kills rapidly	No effect	No effect on P. falciparum	Hearing & visual difficulties in high doses or prolonged treatment
Cyclo-guanil pamoate (Camolar) (Parenteral Drug)	Kills slowly	No effect	Sterilizes	Megaloblastic anemia in malnourished individuals. Painful reaction at site of injection.

*Pyrimethamine "SHOULD NEVER BE USED ALONE for treatment of acute malaria because of its slow action nor for prophylaxis because of reports of "PARASITE DRUG RESISTANCE IN ETHIOPIA".

Brand Names of Anti-Malarial Drugs

Chloroquine		Amodiaquine	Pyrimethamine	Proguanil	Primaquine
Aralen	Resochin	Cam-aqi	Chloridin	Balusil	Neoplasmochin
Avloclor	Resoquine	Camoquin	Chloridine	Biguanide	Neo-quipenyl
Bemaphate	Resorchin	Camoquinal	Darapram	Biguanil	----------
Chinamine	Sanoquin	Camoquine	Daraprim	Bigumal	Chloroquine+ Primaquine = Chloroprim
Gontochin	Tanakan	Cycloquine (analogue)	Erbaprelina	Diguanyl	
Hydroxy-chloroquine (Analogue)	Tresochin	Flavoquine	Malocide	Drinupal	
	Trochin	Fluroqine	----------	Guanatol	Primaquinol
Imagon		Miaquine	Chloroquine + Pyrmethamine = Daraclor	Lapudrine (Chlorproguanil)	----------
Iroquine		----------	----------	Lepadina	Primaquine + Pyrimethamine = Palumex
Klorokin		Amodiaquine + Primaquine = Camoprim	Chloroquine + Chlorproguanil = Lapaquin	Paludrine	
Luprochin				Palusil	Pyrimeteprim
Nivaquine		Camoprima		Plasin	
Nivaquine B		Camoprima Infa-tabs		Proguanide	
Plaquenil & Plaquinol (hydroxychloroquine)				Tirian	

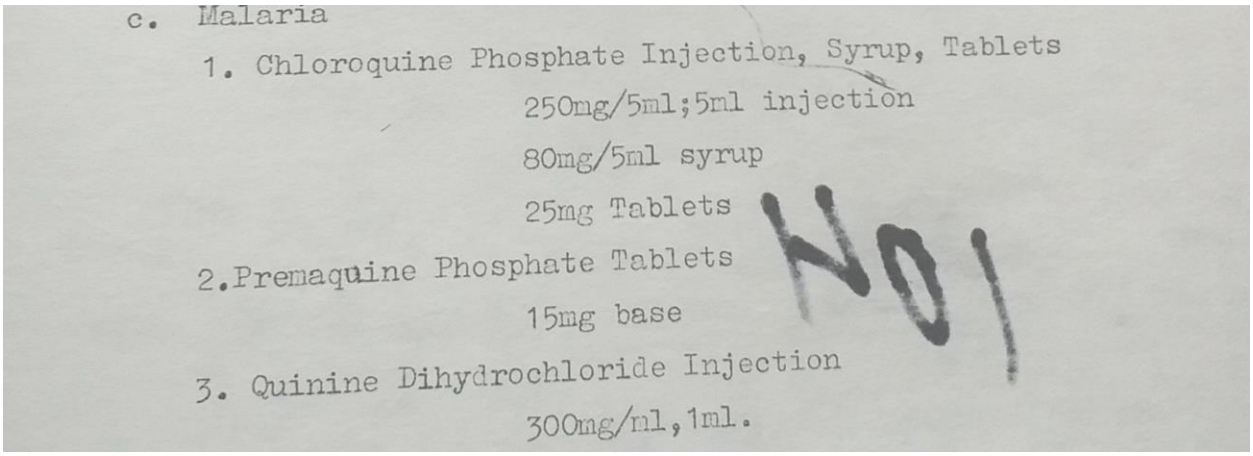
Approximate Incubation Periods of Malaria Parasite

	In Mosquito (Assuming Av. Daily Temp. - 25°C.)	In Man
P. falciparum	12 days	11 days
P. vivax	10 days	14 days
P. malariae	25 days	30 days
P. ovale	16 days	15 days

References: Powell, R.D. Chemotherapy of Malaria, Clin.Pharm.&Therapeutics 7:48-76, 1966
Pampana, E. Textbook of Malaria Eradication, Oxford Univ.Press,London, 1963
Russell, P.F.;West, L.S.;Maxwell, R.D.;MacDonald,G. Practical Malariology 2nd ed. Oxford Univ. Press, London, 1963

Source: MES, "Current Recommended Drugs and dose for Treatment of Malaria," IES Archive.

Appendices 11: Anti-malaria drugs



c. Malaria

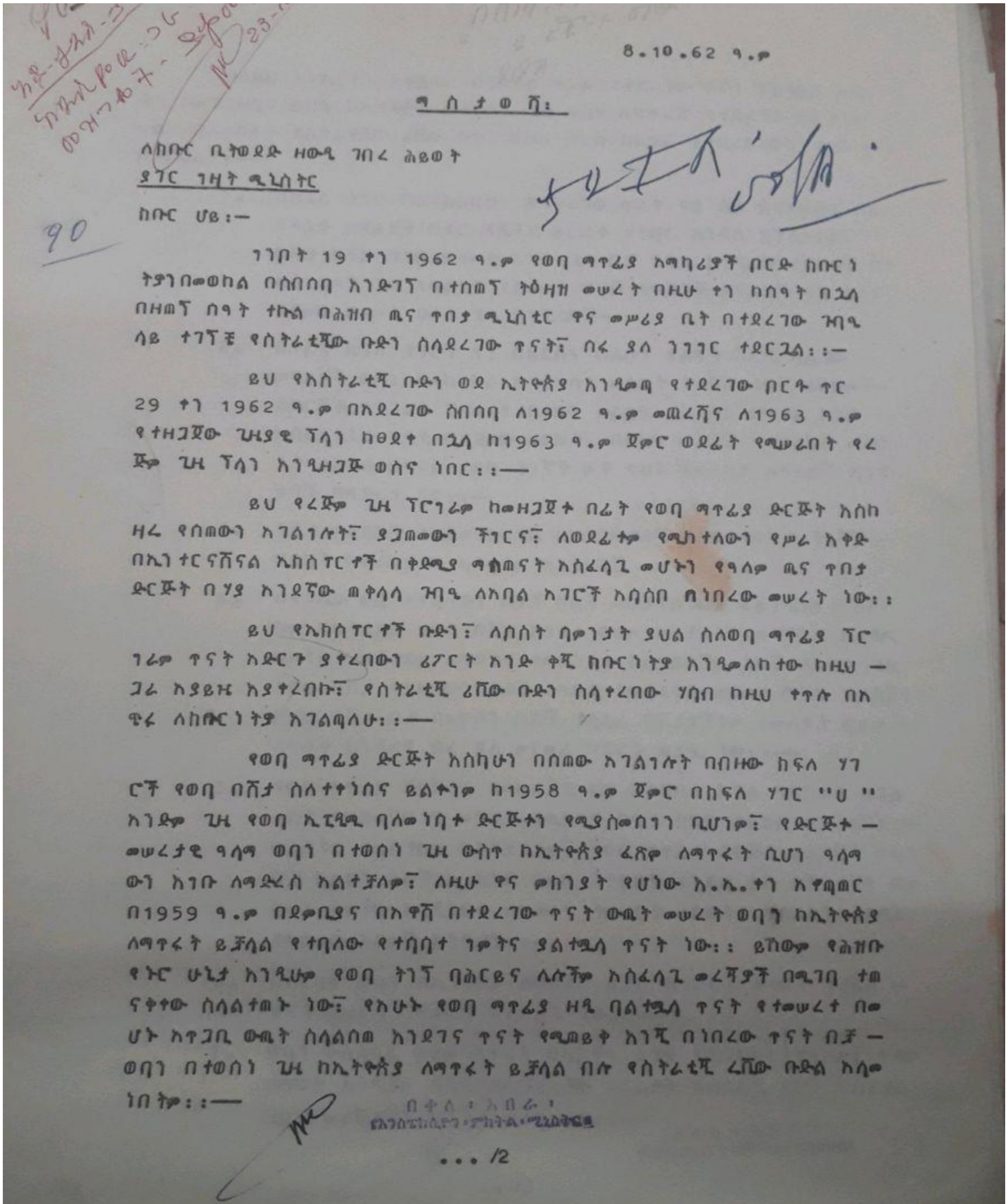
1. Chloroquine Phosphate Injection, Syrup, Tablets
   250mg/5ml;5ml injection
   80mg/5ml syrup
   25mg Tablets

2. Premaquine Phosphate Tablets
   15mg base

3. Quinine Dihydrochloride Injection
   300mg/ml,1ml.

Source: NALA, 11.1.30.1.

Appendices 12: A note wrote to the Ministry of Interior about points reached by A strategy review team report in 1970.



8.10.62 ዓ.ም

ማስታወሻ፡

ለክቡር ቢትወደድ ዘውዴ ገብረ ሕይወት
የአገር ግዛት ሚኒስትር

ክቡር ሆይ፡—

ግንቦት 19 ቀን 1962 ዓ.ም የወባ ማጥፊያ አማካሪዎች ቦርድ ክቡርነትዎን በመወከል በስብሰባ እንዱገኝ በተሰጠኝ ትዕዛዝ መሠረት በዚሁ ቀን ከሰዓት በኋላ በዘጠኝ ሰዓት ተኩል በሕዝብ ጤና ጥበቃ ሚኒስቴር ዋና መሥሪያ ቤት በተደረገው ጉባዔ ላይ ተገኝቼ የስትራቴጂው ቡድን ስላደረገው ጥናት፣ በሩ ያለ ነገር ተደርጓል፡፡—

ይህ የእስትራቴጂ ቡድን ወደ ኢትዮጵያ እንዲመጣ የተደረገው በርዱ ጥር 29 ቀን 1962 ዓ.ም በአደረገው ስብሰባ ለ1962 ዓ.ም መጨረሻና ለ1963 ዓ.ም የተዘጋጀው ጊዜያዊ ፕላን ከፀደቀ በኋላ ከ1963 ዓ.ም ጀምሮ ወደፊት የሚሠራበት የረጅም ጊዜ ፕላን እንዲዘጋጅ ወስና ነበር፡፡—

ይህ የረጅም ጊዜ ፕሮግራም ከመዘጋጀቱ በፊት የወባ ማጥፊያ ድርጅት እስከ ዛሬ የሰጠውን አገልግሎት፣ ያጋጠመውን ችግርና፣ ለወደፊትም የሚከተለውን የሥራ እቅድ በኢንተርናሽናል ኤክስፐርቶች በቅድሚያ ማስጠናት አስፈላጊ መሆኑን የዓለም ጤና ጥበቃ ድርጅት በሃያ አንደኛው ጠቅላላ ጉባዔ ለአባል አገሮች አሳስቦ በነበረው መሠረት ነው፡፡

ይህ የኤክስፐርቶች ቡድን፣ ለስድስት ሳምንታት ያህል ስለወባ ማጥፊያ ፕሮግራም ጥናት አድርጎ ያቀረበውን ሪፖርት አንድ ቅጂ ክቡርነትዎ እንዲመለከቱ ከዚሁ ጋራ አያይዤ እያቀረብኩ፣ የስትራቴጂ ሪቪው ቡድን ስላቀረበው ሃሳብ ከዚህ ቀጥሎ በአጭሩ ለክቡርነትዎ እገልጣለሁ፡፡—

የወባ ማጥፊያ ድርጅት እስከሁን በሰጠው አገልግሎት በበዙው ክፍለ ሃገሮች የወባ በሽታ ስለተቀነሰና ይልቁንም ከ1958 ዓ.ም ጀምሮ በክፍለ ሃገር "ሀ" አንድም ጊዜ የወባ ኢፒዲሚ ባለመነሳቱ ድርጅቱን የሚያስመሰግን ቢሆንም፣ የድርጅቱ መሠረታዊ ዓላማ ወባን በተወሰነ ጊዜ ውስጥ ከኢትዮጵያ ፈጽሞ ለማጥፋት ቢሆን ዓላማውን እንቡ ለማድረስ አልተቻለም፣ ለዚሁ ዋና ምክንያት የሆነው እ.ኤ.ቀን አቆጣጠር በ1959 ዓ.ም በደምቢያና በአቆሽ በተደረገው ጥናት ውጤት መሠረት ወባን ከኢትዮጵያ ለማጥፋት ይቻላል የተባለው የተሳሳተ ግምትና ያልተሟላ ጥናት ነው፡፡ ይኸውም የሕዝቡ የኑሮ ሁኔታ እንዲሁም የወባ ትንኝ ባሕርይና ሌሎችም አስፈላጊ መረጃዎች በሚገባ ተጠናቅቀው ስላልተጠኑ ነው፣ የአሁኑ የወባ ማጥፊያ ዘዴ ባልተሟላ ጥናት የተመሠረተ በመሆኑ አጥጋቢ ውጤት ስላልሰጠ እንደገና ጥናት የሚጠይቅ እንጂ በነበረው ጥናት ብቻ ወባን በተወሰነ ጊዜ ከኢትዮጵያ ለማጥፋት ይቻላል በሉ የስትራቴጂ ሪቪው ቡድል አሳመነበትም፡፡—

በቀለ፡ አበራ፡

... /2

ስለዚህ እ.ኤ.ተን አቆጣጠር በ1959 ዓ.ም የተደረገው ጥናት ያልተሟላ መሆኑን በመገንዘብና ወባን ከኢትዮጵያ በተወሰነ ጊዜ ውስጥ ለማጥፋት የተደረገው ጥረት — ውጤት ባለመስጠቱ የስትራቴጂው ሪቪው ቡድን ከዚህ ቀጥሎ በአጭሩ የተዘረዘረውን ሃሳብ — አቅርቧል፡፡—

1. በክፍለ ሃገር "ሀ"እስካሁን የተደረገው ጥረት ቀጋ ቢስ እንዳይሆን ከአ ንዳንድ ሥፍራዎች በቀር የዲዲቲ መርጨቱ ተገባር እንዳለ እንዲቀጥል፤ በዚሁ ክፍለ ሃገር በዓመት አንድ ጊዜ በቻ ዲዲቲ እንዲረጭ ተደርጉ፤ በዓመት ሁለት ጊዜ የበልግና የክረምት ዝናብ የሚያገኙ ሥፍራዎች ግን እንደ ቀድሞው በዓመት ሁለት ጊዜ እንዲረጩ፤—

2. በቀሩት ክፍለ ሃገሮች ግን በእርሻና በሌሎች የልማት ፕሮጂ ባላቸው — ሥፍራዎች ወባን በመከላከል አገልገሎት መስጠት የተሻለ ነው፤ ይኸውም፤— ለድርጅቱ በነጋሪት ጋዜጣ የተሰጠውን ሥልጣን ሥራ ላይ በማዋል እንደ አስፈላጊነቱ ዲዲቲ በየጊዜው መርጨት፤ በወባማ ወራት፤ የመከላከያ መድኃኒት ለሕዝቡ በማደል ለወባ ትንኞች ምቹ የሆነ የመራቢያ ሥፍራዎች እንዳ ያገኙ በማድረግ ነው፡፡—

3. ዲዲቲ ለመርጨት የሚያመቸው ጊዜ በኢፒዲሚዮሎጂ ረገድ ተጠንቶ ትንኞች — በበዛት ከመራባታቸው አስቀድሞ እንዲሆን፤

4. በየጊዜው ወባ የያዛቸውን ሰዎች በዛት መከታተል ሊዝ ፋይንዲንግ / ይኸውም በጠቅላላው የወባ በሽታ እያየለ ወይም እየተቀነሰ መሄዱንና ኢፒዲሚ ከመነሳቱ አስቀድሞ ለማወቅና ለመጠንቀቅ ስለሚያስችል ነው፤ በአሁኑ ጊዜ የወባ በሽታ የያዛቸውን ሰዎች ለማወቅ የሚደረገው ምርመራ /የኬዝ ዲቴክሽን / በዚህ በሽታ በቻ ሳይወሰን ሌሎች ተላላፊ በሽታዎችንም ለመለየት ወይም — ለማወቅ እንዲረዳ በሩ ያለ ምርመራ ማድረጉ ጠቃሚ ነው፡፡—

5. የወባ ማጥፊያ ድርጅትና የመሠረታዊ ጤና አጠባበቅ ክፍል የሚሰጡት አገልግሎት የሚጣመርበትን መንገድ የሚያጠና ኮሚቴ ክቡር የሕዝብ ጤና ጥበቃ — ሚኒስትር በአስቸኳይ እንዲያቋቁሙ፤ የወባ ማጥፊያ ድርጅት ሠራተኞች ወባን በቻ ሳይሆን ሌሎችንም እንደ ሳምባ ነቀርሳና ፈንጣጣ ያሉ በሽታዎችን በምርመራ ለይተው እንዲያውቁ ለማድረግ ትምህርት መስጠትና ማሰልጠን ቀደሚያ የሚሰጠው እርምጃ እንዲሆን፡፡—

6. በእርግጥ ወባን ከኢትዮጵያ ለማጥፋት ይቻል እንደሆን ለማወቅ የተሟላ — ጥናት /ሪሠርች/ ማድረግ አስፈላጊ ነው፡፡—

7. ወባን መከላከል ወይም ማጥፋት በኢኮኖሚ ረገድ የሚሰጠውን ትክክለኛ ጥቅም ለማወቅ እንዲቻል ዲዲቲ በሚረጭባቸው ሥፍራዎች አስፈላጊ የሆነ እስታቲስ ቲካዊ መረጃዎችን ማግኘት ጠቃሚ ነው፡፡—

በቀለ፡ አበራ፡
የኢንስፔክሲዮን፡ምክትል፡ሚኒስትር

— 3 —

ከዚህ በላይ በአጭሩ እንዳስረዳሁት ሁሉ ጉባዔው በብዙ ዝርዝር ጉዳዮች ሃሳብ ለ ሃሳብ ተለዋውጧል፤ የወባ ማጥፊያ ፕሮግራም በኢትዮጵያ በተጀመረ ጊዜ ጎረቤት ሃገርችም ይጀምራሉ ተብሎ ታምኖ ነበር።—

ነገር ግን እስከ ዛሬ ድረስ ምንም ዓይነት ግንኙነት ስላልተደረገ፤ ለወደፊቱ ከጎረቤት አገሮች ጋራ በቀጥታ በመነጋገር ወይም በአፍሪካ አንድነት ድርጅት አማካይነት ወይም በዓለም የጤና ጥበቃ ድርጅት አማካይነት አንድ ግንኙነት ማድረግ አስፈላጊ መሆኑን ጭምር ጉባዔው ተነጋግሮበታል።—

ከዚህ በላይ በተመለከቱት ጉዳዮች ላይ ቦርዱ ሃሳብ ለ ሃሳብ ከተለዋወጠ በኋላ፦

ሀ. የስትራቴጂው ቡድን ሪፖርት በመሠረቱ ከዚህ ቀደም ቦርዱ ከሰጠው መምሪያና ውሣኔ፤ የተለየ ስላልሆነ፤

ለ. ለአዲሱ ፕሮግራም የሚያስፈልገው ወጭ መታወቅ ስላለበት፤

ሐ. የወባ ማጥፊያ ድርጅትና የመሠረታዊ ጤና አጠባበቅ አገልግሎት የሚዋሃዱበት መንገድ በዝርዝር መጠናት ስላለበት፤

መ. ምናልባትም ድርጅቱ የተቋቋመበትን አዋጅ ማሻሻል ወይም መለወጥ የሚያስፈልግ ይሆናል ተብሎ ስለተገመተ፤

ሠ. ለ1963 ዓ.ም የበጀት ዓመት የሚያስፈልገው በድር ጥያቄ በመዘጋጀት ላይ ስለሆነ፤

ረ. ለመጭዎቹም ዓመታት የሚያስፈልገው ወጭ ወደፊት ከዝርዝርፕላን ጋር የሚዘጋጅ በመሆኑ፤ የስትራቴጂ ሪቪው ቡድን ያቀረበውን ሪፖርት ቦርዱ በመሠረቱ ተቀብሎ የዝርዝሩ ጥናት በኮሚቴው ተጠንቶ ለቦርዱ ይቀረብ

ሲል ወስኖ ጉባዔው መነሳቱን ለክቡርነትዎ በትሕትና አገልጣለሁ።—

ታዛዥዎ፡

[signature]

በ[illegible]

የኢንስፔክሲዮን ምክትል ሚኒስትር

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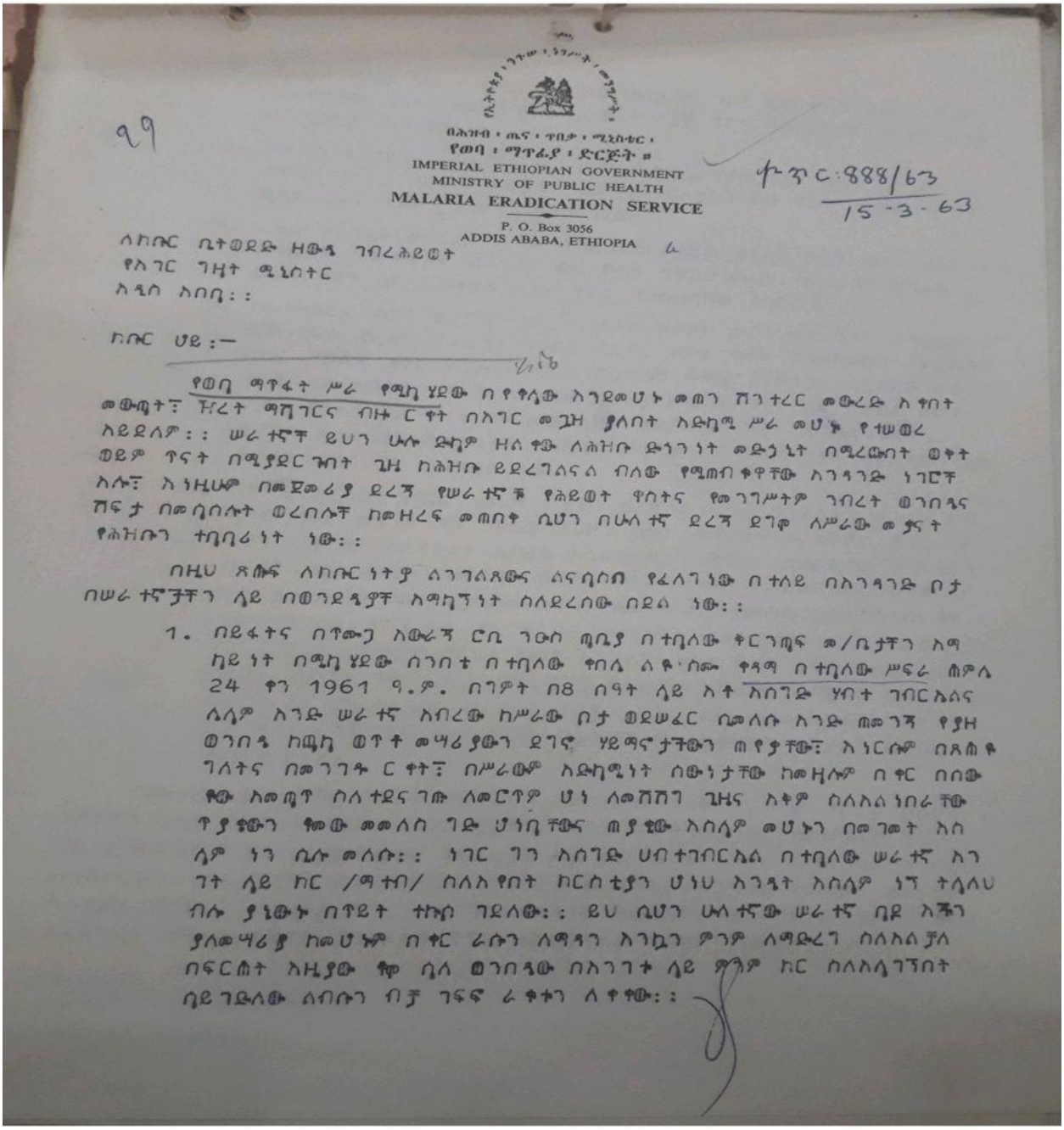
Source: NALA Archive File No. 17.3.357.1.

Appendices 13: It shows challenges and problems that the anti-malaria workers in different areas



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በሕዝብ ፡ ጤና ፡ ጥበቃ ፡ ሚኒስቴር ፡
የወባ ፡ ማጥፊያ ፡ ድርጅት ፡
IMPERIAL ETHIOPIAN GOVERNMENT
MINISTRY OF PUBLIC HEALTH
MALARIA ERADICATION SERVICE
P. O. Box 3056
ADDIS ABABA, ETHIOPIA

ቁ.ጽ.ር.888/63
15-3-63

ለኮሎር ቢተወደድ ዘውዴ ገብረሕይወት
የለገር ገዛተ ሚኒስተር
አዲስ አበባ::

ኮሎር ሀይ:—

የወባ ማጥፋት ሥራ የሚካ ሄደው በየቀሌው እገደመሆኑ መጠን ሽገተረር መውረድ አቀበተ መውጫተ፤ ኑረተ ማሽገርና ብዙ ርቀት በአገር መጋዘ ያለበተ አድካሚ ሥራ መሆኑ የተመወረ አይደለም:: ሠራተኖቹ ይህን ሁሉ ድካም ዘለቀው ለሕዝቡ ድነገነት መድኃኒት በሚረውበት ወቀተ ወይም ዮናተ በሚያደርገው ጊዜ ከሕዝቡ ይደረግልናል ብለው የሚጠብቀዋቸው አገዳገድ ነገሮች አሉ፤ አነዚሁም በመጀመሪያ ደረጃ የሠራተኞቹ የሕይወተ ዋስተና የመገግሥትም ገብረተ ወገበዳና ሽፍታ በመሳሰሉት ወረበሎች ከመዘረፍ መጠበቅ ሲሆን በሁለተኛ ደረጃ ደግሞ ለሥራው መቃናተ የሕዝቡን ተባባሪነት ነው::

በዚህ ጽሑፍ ለኮሎር ነተዎ ለገገለጸውና ልናሳስብ የፈለገነው በተለይ በአገዳገድ ቦታ በሠራተኖቻችን ላይ በወገደዳዎች አማካኘነት ስለደረሰው በደል ነው::

1. በይፋተና በጥሙጋ አውራኛ ሮቢ ገውስ ጣቢያ በተባለው ቀርገጢፍ መ/ቤታችን አማካይነት በሚካሄደው ሰገበተ በተባለው ቀበሌ ልዩ ስሙ ቀዳማ በተባለው ሥፍራ ሐምሌ 24 ቀን 1961 ዓ.ም. በግምት በ8 ሰዓት ላይ አተ አሰገድ ሃብተ ገብርኤልና ሌሌም አገድ ሠራተኛ አብረው ከሥራው ቦታ ወደሠፈር ሰመለሱ አገድ ጠመገኛ የያዘ ወገበዳ ከጫካ ወጥተ መሣሪያውን ደገኖ ሃይማኖታችውን ጠየታቸው፤ አነርሱም በጸሐፍ ግለትና በመገገጭ ርቀት፤ በሥራውም አድካሚነት ሰውነታቸው ከመዛሉም በቀር በሰው ቅው አመጣጥ ስለተደናገጡ ለመርጥም ሆነ ለመሸሽገ ጊዜና አቅም ስለአልነበራቸው ጥያቄውን ቶመው መመለስ ግድ ሆነቢቸውና ጠያቂው አሰሌም መሆኑን በመገመት አሰሌም ነን ሲሉ መለሱ:: ነገር ግን አሰገድ ሀብተገብርኤል በተባለው ሠራተኛ አገገተ ላይ ኮር /ማተብ/ ስለአየበተ ኮርስቲያን ሆነህ እገዳት አሰሌም ነኝ ተሌለህ ብሎ ያነውኑ በጥይተ ተኩሶ ገደለው:: ይህ ሲሆን ሁለተኛው ሠራተኛ ቢደ እጹገ ያለመሣሪያ ከመሆኑም በቀር ራሱን ለማዳን እገኪገ ምንም ለማድረገ ስለአልቻለ በፍርሐተ አዚያው ቶሞ ሲለ ወገበዳው በአገገተ ላይ ምንም ኮር ስለአሌገኘበተ ሲይገድለው ለብሱን ብቻ ገፍፍ ራቁቱን ለቀቀው::

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- ፪ -

2. አሁንም በዚሁ አውራጃ ከሚጎ በተባለው ቀበሌ በግንቦት ወር ውስጥ 1962 ዓ.ም ሠራተኞቻችን በሥራ ላይ እንዳሉ ባልታወቁ ሰዎች ጥይት ተተኩሶባቸው ሥራውን ጥለው እንዲበርሩ ተደርገዋል::

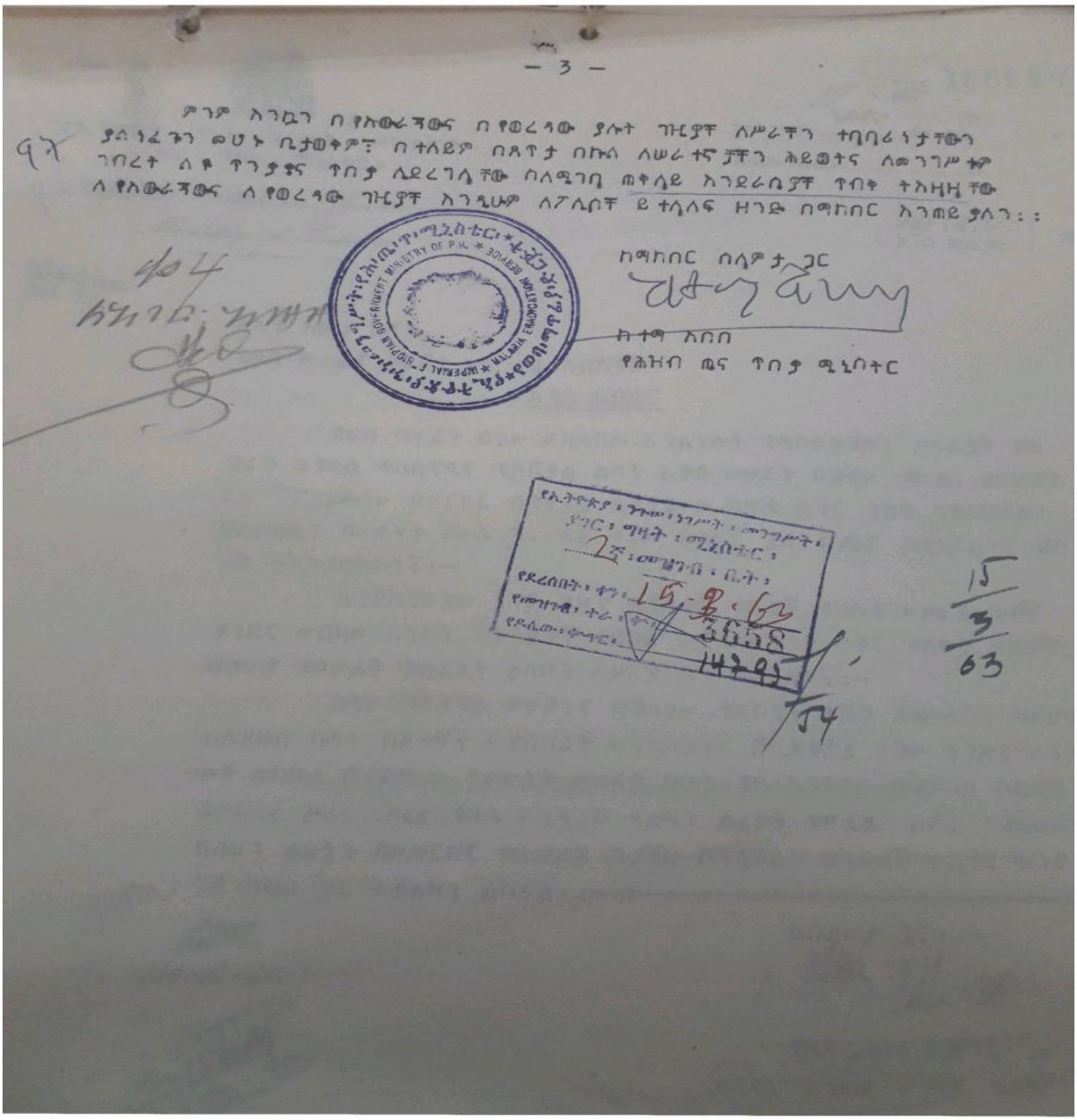
3. በአዋሽ ቅርንጫፍ መ/ቤታችን ሥር በሚካሄደው በፈንታሌ ወረዳ ውስጥ በግንቦት ወር 1962 ዓ.ም. በአንድ መድኃኒት ረጪ ላይ ባልታወቀ ሰው ጥይት ተተኩሶበት በየጫካው ሮጦና ተደብቆ ራሱን ለማዳን ችሏል::

4. በዚሁ ቅርንጫፍ መ/ቤታችን ሥራ በሚካሄደው በአሩሲ ጠቅላይ ግዛት ውስጥ ቲቢላ በተባለው ልዩ ሥፍራም በግንቦት ወር ውስጥ 1962 ዓ.ም. መድኃኒት በሚረጩ ሠራተኞቻችን ላይ ባልታወቁ ሰዎች ጥይት ተተኩሶባቸው ተባርረዋል::

5. በበጌምድርና ሰሜን ጠ/ግዛት በሊቦ አውራጃ ኮምከም ወረዳ ጧራ ገዳም በተባለው ልዩ ሥፍራ የካቲት 24 ቀን 1962 ዓ.ም. ለሥራ ጉዳይ የተሠማራውን የመ/ቤታችን መኪና የሠሌዳ ቁጥር እ.እ. 2998 ወረበሎች በኃይል በድንጋይ ሰባብረው ከሠራተኞች ላይ ልብስና ገንዘብ ለመዝረፍ ሲሞክሩ መኪናው ጉዳት ላይ ቢወድቅ ሠራተኞች ለማምለጥ ችለዋል:: በመኪናው ላይም የደረሰውን ጉዳት ለማስጠገን የኢ. $700 እንደሚፈጅ በመ/ቤታችን ሜካኒክ ተገምቷል:: ይህም ጉዳይ በወረዳው ፖሊስ ጽ/ቤት በኩል ገና እየተጣራ ነው::

6. በትግሬ ጠ/ግዛት በሽሬ አውራጃ አዲያቦ ወረዳ ልዩ ስሙ ጉባ/ዐዳጋ ባሪያ/ በተባለው ሥፍራ ሰኔ 4 ቀን 1962 ዓ.ም. ሰባት የመ/ቤቱ ሠራተኞችና የአዲ ጭእ ገደገ ጭቃ ሹም በረዳትነት አብረው እንደተሰማሩ ሰማቸውና አድራሻቸው የማይታወቁ ሽፍቶች በጫካ ውስጥ አድፍጠውና ከበበው በጥይት ተኩስ አስፈራርተው ሽፍቶቹ በርከት ያሉ በመሆናቸውና ጭቃ ሹሙ በያዙት ጠመንጃ ብቻ ሊመልሱ ባለመቻሉ ሽፍቶች ተጠግተው ከሠራተኞች ላይ የኢ.$306 ከመንግሥት የተሰጣቸውን ሁለት ብርድ ልብስና ልዩ ልዩ ዕቃዎች በሽንጣ ውስጥ እንዳሉ፣ የጭቃ ሹሙን አጭር አለበን ጠመንጃ ከአሥራ ስምንት ጥይት ጋርና የኢ.$35 ከኪሳቸው ዘርፈውና ደብድበው ለቀዋቸው:: ይህንኑ ድርጊት ለአዲያቦ ወረዳ ግ/ጽሕፈት ቤት እና ለሽሬ አውራጃ ግዛት ጽ/ቤት የክፍሉ ቅርንጫፍ መ/ቤታችንና ሠራተኞቹ ማመልከቻቸውን በደረሰን መግለጫ ተረድተናል::

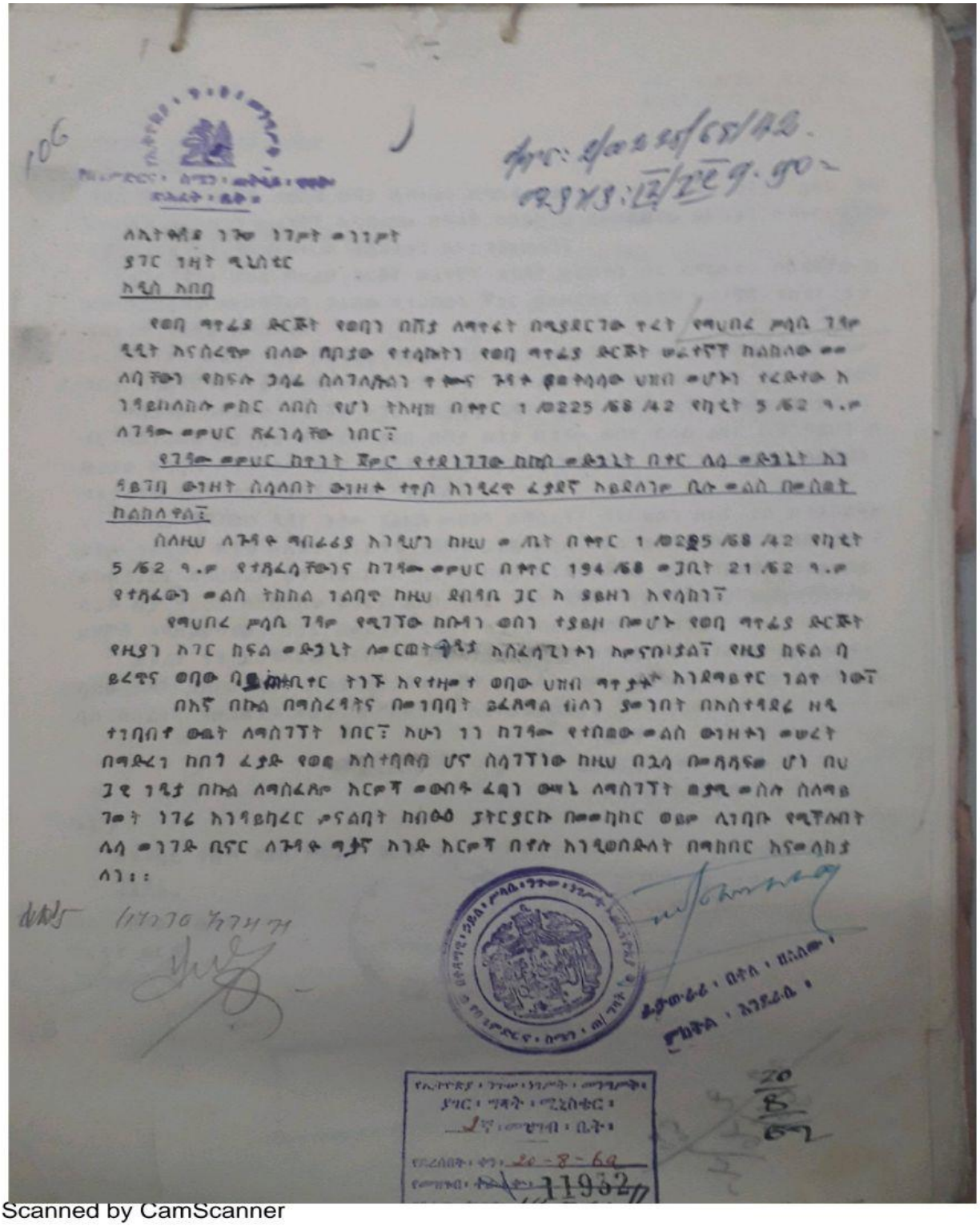
በመ/ቤቱ ሠራተኞችና ንብረት ላይ ይህን የመሰለው ጉዳት ተደጋግሞ የደረሰ ስለሆነ ለሥራችን ታላቅ እንቅፋት ሆኗል:: ሠራተኞቻችንም በዚሁ ፍራቻ በየገጠሩ ለመሠማራት የነበራቸው ፈቃደኛነት እየቀነሰ በመምጣቱና የመ/ቤቱም ሥራ በዚያው መጠን ዝቅ እያለ በመሄዱ በጣም ነባሰበናል:: ሠራተኞቻችን ለሕይወታቸውና ለንብረታቸው ዋስትና አግኝተው ሥራቸውን ያለስጋት ንዲሠሩ ለማድረግ በየክፍለ ሐገሩ የሚገኙት አንዳንድ ወረበሎች የሚጠፋበት መንገድ በቅድሚያ ፈለግበት የሚገባ በመሆኑ የገጠመንን ችግር ለክቡርነትዎ ማስገባት ግድ ሆነ::



Scanned by CamScanner

Source: 17.3.355.01.

Appendices 14: document that portrays the resistant of the clergies of *Mahbre* Selassie Monastery to spray DDT



Scanned by CamScanner

Source: NALA File No. 17.3.355.1.

Appendices 15: Explanation about the status and future program of the MES

የወባ ማጥፊያ ድርጅት አሁን ያለበት አቋምና የወደፊት

ፕሮግራም የተዘጋጀ ተጨማሪ መግለጫ

1. ጠቅላላ መግለጫ

በኢትዮጵያ ከሚገኙት ከተላላፊ በሽታዎች ውስጥ፣ የወባ በሽታ አብዛኛውን ሕዝብ በማሰቃየትና በመግደል፣ በአንደኛ ደረጃ አጥቂ ሆኖ በመገኘቱ፣ ይህንን አሰቃቂ በሽታ ለመከላከልና ለማጥፋት በ1951 ዓ.ም. በነጋሪት ጋዜጣ ትዕዛዝ ቁጥር 22/1951 ዓ.ም. በሕዝብ ጤና ጥበቃ ሚኒስቴር ሥር የሚተዳደር ልዩ አቋም ያለው የወባ ማጥፊያ ድርጅት መሥሪያ ቤት ተቋቋመ:: ከ1951 እስከ 1958 ዓ.ም. አስፈላጊው ጥናትና ዝግጅት ተደረገ:: በዚሁም ጊዜ ውስጥ በአንዳንዱ የወባ በሽታ በብዛት ለአጠቃው ክፍለ ሐገር የተወሰነ የመከላከል አገልግሎት ሲሰጥ ቆየ::

በ1958 ዓ.ም. የመጀመሪያው ጥናት ተጠናቅቆ ሐገሪቱ በአራት ዓቢይ ክፍለ ሐገር ከተመደበች በኋላ በክፍለ ሐገር "ሀ" ማለት በኤርትራ፣ በትግሬ፣ በወሎ፣ በበጌምድርና ስሜን ጠቅላይ ግዛቶችና እንዲሁም በከፊል በሸዋ፣ በአሩሲ፣ በጐጃምና በሲዳሞ ጠቅላይ ግዛቶች የወባ ማጥፋት ፕሮግራም ሲከናወን ቆየ:: ምንም እንኳን የሳይንስ ሊቃውንት የወባን በሽታ ለማጥፋት ቤቶችን ዲዲቲ በመርጨት የወባ ትንኞች በኩሬዎችና ወንዞች እንዳይራቡ በማድረግ፣ ሕመምተኞችን ወዲያውኑ በማከም በዚህ አኳኋን ሥራው ባለማቋረጥ ከተሠራ የወባ በሽታ ከአሥር ዓመታት ባልበለጠ ጊዜ ውስጥ ይጠፋል ብለው ቢገምቱም፣ በብዙ የደቡብ አሜሪካ፣ በእስያና እንዲሁም በአፍሪካ ሐገሮች በተደረገው ሙከራ፣ ውጤቱ በቴክኒክና በሥራ አመራር ችግር ምክንያት እንደታሰበው ባይሆን ቀረ:: በኢትዮጵያም የወባ በሽታ ቀድሞ ከ30 % እስከ 40 % በላይ የነበረው ፕሮግራሙ ከተጀመረ በኋላ ወደ 2 % የተቀነሰ ቢሆንም በመጀመሪያ የዓለም ጤና ጥበቃ ድርጅት በአወጣው ዕቅድና ስትራተጂ መሠረት ይህንን ደዌ ከኢትዮጵያ ምድረ-ገጽ በጭራሽ ለማጥፋት አዳጋች ሆኖ ተገኘ::

በልዩ ልዩ አገሮች ወባን ለማጥፋት የገጠሟቸውን ችግር በመገንዘብ በግንቦት ወር 1961 ዓ.ም. በቦስተን ከተማ ላይ ተሰብስቦ የነበረው የ22ኛው የዓለም ጤና ጥበቃ ድርጅት ጠቅላላ ጉባኤ ስለወባ ማጥፋት ፕሮግራም ውይይት አድርጎ በአሁኑ ጊዜ ወባን ከዓለም ላይ ለማጥፋት ፕሮግራሙ ዓለም አቀፍና ረጅም ጊዜ የሚጠይቅ መሆኑን ተረድቶ ለችግሩ ሌላ የሳይንስ ዘዴ እስኪገኝ ድረስ ጊዜያዊ የስትራተጂ ለውጥ እንዲደረግ አባል ለሆኑ አገሮች ሁሉ አሳሰበ::

በዚሁ መሠረት የወባ ማጥፊያ ፕሮግራም ያላቸው ሐገሮች ሁሉ "የወባ ማጥፋትን" የረጅም ጊዜ ዕቅዳቸው አድርገው የወባ በሽታን ለመከላከልና ለመቆጣጠር የስትራተጂና የፕሮግራም ለውጥ ለማድረግ በኤክስፐርቶች እንዲጠና ጉባኤው ወሰነ:: ኢትዮጵያም ይህንኑ ሃሳብ በመቀበል በ1962 ዓ.ም. ከአሜሪካ፣ ከዓለም ጤና ጥበቃ ድርጅትና ከኢትዮጵያ መንግሥት በተውጣጡ የኤክስፐርቶች ጓድ የድርጅቱን የሥራ እርምጃና የወደፊት ዕቅድ አስጠንቶ ኤክስፐርቶቹ ያቀረቡትን ሪፖርትና መምሪያ ለወባ ማጥፊያ አማካሪዎች ቦርድ ቀርቦ ቦርዱ ከፀደቀው በኋላ ሥራ ላይ እንዲውል ተደረገ::

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ከዚህ በላይ በተጠቀሱት ከፍለ ሀገሮች ለህ፣ ለ፣ ሐ፣ መ / ሁለት ሚሊዮን ገጢ ሆነ በት በዓመት አንድ ወይም ሁለት ጊዜ በሚቲቲ የሚረጭ ቢሆን፣ የወባ በሽታ ሰያዘ ቸው ሕመማንም የሕክምና አገልገሎት ይሰጣል:: በጠቅላላው በድርጅቱ አገልገሎት ውስጥ የሚገኘው ሕዝብ በዘት ስድስት ሚሊዮን ተኩል ናሚሆልጥ ነው:: ከፍለ ሀገሮቹንም የሚ ያሳይ ካርታ በገጽ 6 ተያይዘ ቀርቧል::

2.3. ከዚህ በላይ ከተጠቀቡት ሥፍራዎች ሌላ የጤና ጣቢያዎችና ከሊኒኮች በሚገ ኙባቸው ቦታዎች ሁሉ የወባ ማጥፊያ ድርጅት ሠራተኖችን በማዳበል የደም ምርመራ ማድረግና የወባ መድኃኒት በመስጠት አገልገሎት ይሰጣል:: የወባ ማጥፊያ ድርጅት ሠራተኖች ጎጤና ጣቢያዎች፣ ሆስፒታሎችና ከሊኒኮች ባሉ ባቸው ተዳብለው አገልገሎት አንዳሰጡ የሚደረገባቸው ሥፍራዎች ከዚህ ቀጥሎ የተዘረዘሩት ና ቸው::

1. ብቸና ከሊኒክ
2. ገምቢ ጤና ጣቢያ
3. ሸምቡ ጤና ጣቢያ
4. ኤልከረ ከሊኒክ
5. ሶጮ ቡንቶ ከሊኒክ
6. ጊኒር ጤና ጣቢያ
7. ቀለፍ ጤና ጣቢያ
8. ቢጊ ከሊኒክ
9. አቦሰ ጤና ጣቢያ
10. ደምቢደሎ ጤና ጣቢያ
11. ቡኖ በደሌ ጤና ጣቢያ
12. መቶ ጤና ጣቢያ
13. ወሊባ ጤና ጣቢያ
14. ፍቼ ጤና ጣቢያ
15. ቀ.ኃ.ሥ.በር ጤና ጣቢያ
16. ጉዲ ሆስፒታል
17. ሐገረ ሕይወት ጤና ጣቢያ
18. ሆሣዕና ጤና ጣቢያ
19. አባይታ ጤና ጣቢያ

2.4. አሳይ ከተዘረዘሩት ሥፍራዎች ውጭ ሰሚኖረው ሕዝብ የድርጅቱ ፕሮግራም ወደ ፊት አየተሰፋፋ ሲሄድ በወቅቱ አገልገሎት አንዲያገኝ ይደረጋል:: ሆኖ ከፍተኛ የወባ ኢፒዲሚክ በማነኛውም የኀገሩ ነገሥቱ ገዛት ውስጥ ቢነባ አስፈላጊው የመከላከልና የሕክምና አርዳታ ለመስጠት ድርጅቱ ምንጊዜም ዝግጁ ነው:: ድርጅቱ ተቋቁሞ አገልገሎት መስጠት ከጀመረበት ጊዜ ከፍተኛ የወባ ኢፒዲሚክ ፈጽሞ አልተነበም::

3. <u>ከ1951 — 1964 ዓ.ም. ለወባ ማጥፊያ ፕሮግራም የተደረገ ወጪ</u>

ከ1951 — 1962 ከአሜሪካን ተራድኦና ከዓለም ጤና ጥበቃ ድርጅት በሰጦታና በብድር ዕርዳታ የተደረገው ወጪ $36,024,638.17 /ሰላሣ ሰድስት ሚሊዮን ሃያ አራት ሺ ስድስት መቶ ሰላሣ ሰምንት ብር ከአሥራ ሰባት ሣንቲም / ሲሆን፣ የኢትዮጵያ ንጉሠ ነገሥት መንግሥት ደግሞ በበኩሉ ለዚሁ ፕሮግራም ያደረ ገው ወጪ $38,926,740.87 /ሰላሣ ሰምንት ሚሊዮን ዘጠኝ መቶ ሃያ ሦስት ሺ ሰባት መቶ አርባ ብር ከሰማኒያ ሰባት ሣንቲም / ነው:: በጠቅላላው ሰ14 ዓመት የተደረገው የተጣራ ወጪ $68,500,129.04 /ስድሣ ስምንት ሚሊዮን

አምስት መቶ ሺ አንድ መቶ ሃያ ዘጠኝ ብር ከአራት ሣንቲም/ ነው። በዝርዝር ለመረዳት ከውጭ አገር ዕርዳታ ከኢትዮጵያ መንግሥት ወጪ የሆነው ሂሣብ ማሳያ ለያና የመዋጮ ማመዛዘኛን የሚያስረዳ በሠንጠረዥ መልክ ተዘጋጅቶ በገጽ 7 አባሪ ሆኖ ቀርቧል።

4. የወደፊት ዕቅድ

አሁን የወባ ማጥፊያ ፕሮግራም ባልተቋቋመባቸው ቦታዎች፣ በተለይ የአር ሲና ሲዳሞ የልማት ፕሮጀክቶች እንደሚቋቋሙ ይታመናል። በእነዚህም ሥፍራዎች አያሌ ሰው ሥራ ስለሚዘዋወርና በአካባቢውም ሊኖር ስለሚችል፣ የወባ መከላከልና ማጥፋቱ ፕሮግራም ተቀዳሚነት የሚሰጠው ነው። በዚሁ መሠረታዊ ዓላማ ድርጅቱ ለወደፊት ፕሮግራሙን የሚያስፋፋበት ቦታዎች የሚከተሉት ይሆናሉ፡

1. በባሌ ጠቅላይ ግዛት — ጊኒር፣ ኢሚ፣ ኤልከሬ
2. በትግሬ ጠቅላይ ግዛት — ወቶ
3. በሐረርጌ ጠቅላይ ግዛት — ጉጂ፣ ቀሉፍና ቀብሪ ደሀር
4. ከዚህ በፊት በከፊል ፕሮግራም የተቋቋመባት በታዎች ለምሳሌ ጅማ፣ ጉኝም... ወዘተ እንደበሽታው አስጊነት እየታየ የወባ ማጥፋቱና መከላከል ተግባር ይስፋፋል።
5. የኢትዮጵያ ንጉሠ ነገሥት መንግሥት አዲስ የልማት ፕሮጄክቶች በሚያቋቁሙበት ቦታ ሁሉ የወባ መከላከል አገልግሎት ይሰጣል።

5. የ1965 ዓ.ም. በጀት

ለ1965 ዓ.ም. የበጀት ዓመት የተፈቀደው ገንዘብ $10,900,000.— /አሥር ሚሊዮን ዘጠኝ መቶ ሺ ብር/ ነው። ከተፈቀደው ጠቅላላ በጀት ውስጥ፡—

ሀ/ ለአገር ውስጥ ወጪ	የኢት.$
ለቋሚ ሠራተኞች ደመወዝ	$5,220,420.—
ለፕሮጀክትና ለቀን ሠራተኞች	961,860.—
ለሥራ ማስኬጃ	2,608,660.—
ለ. በውጭ አገር ለሚገዙ	
ለዕቃዎችና መሣሪያዎች ወጪ	2,109,060.—
	$10,900,000.—

ከዚህ በላይ እንደተመለከተው ለቋሚና ለጊዜያዊ ሠራተኞች ክፍያ የሚያስፈልገው ወጪ ብቻ $6,182,280.— /ስድስት ሚሊዮን አንድ መቶ ሰማንያ ሁለት ሺ ሁለት መቶ ሰማንያ ብር/ ሲሆን ይኸውም ከጠቅላላው በጀት 58% ማለት ነው። ከአሜሪካን ተራድኦ ድርጅት ጋር በተደረገው የብድር ውል ስምምነት መሠረት፣ በአገር ውስጥ ለሚደረገው ወጪ

....../5

የኢትዮጵያ መንግሥት 60 % ሲከፍል፣ የአሜሪካን ተራድኦ ድርጅት 40 % ይከፍላል፡፡ ከውጭ አገር ለሚገዙ መሣሪያዎች፣ መድኃኒት፣ ዲዲቲና ሌሎች ዕቃዎች መግዣ በሙሉ /100 %/ የአሜሪካን ተራድኦ ድርጅት ይከፍላል፡፡

በአሁኑ ወቅት የወባ ማጥፊያ ድርጅት ከስድስት ሚሊዮን ተኩል ለማያንስ ሕዝብ ግልግሎቱን በመስጠት ላይ ይገኛል፡፡ በዚሁ መሠረት ለ1965 ዓ.ም. ለፕሮግራሙ የተፈቀደው $10,900,000.— /አሥር ሚሊዮን ዘጠኝ መቶ ሺ ብር/ በጀት፣ በነፍስ ወከፍ ለአንዳንዳንዱ ሰው የሚደረገው ወጪ/ PER CAPITAL EXPENDITURE / $1.65 /አንድ ብር ከስድሣ አምስት ሣንቲም/ እንደሚሆን ተገምቷል፡፡ ይህ ወጪ በየወረቱ ሥራ ፍለጋ ከቦታ ቦታ በሰዘት የሚዘዋወረውን ሕዝብና እንደዚሁም አገር ጎብኚዎችን ሳይጨምር ነው፡፡ የእነዚህ ሰዎች ቁጥር ሲጨመር በነፍስ ወከፍ የሚደረገው ወጪ ከ$1.65 ሊያንስ ይችላል፡፡

Є. <u>የወባ ማጥፊያ ድርጅት አማካሪ ቦርድ በአጸደቀው የሥራ ፕላንና ዕቅድ መሠረት ለጠቅላላው የወባ መከላከልና ማጥፋት ፕሮግራም ከ1963–1964 የተደረገ ወጪና ከ1965 – 1968 ድረስ የሚያስፈልገው</u>

<u>በ ጀ ት</u>

የበጀት ዓመት	በአገር ውስጥ ወጪ	በውጭ አገር ወጪ /ለዕቃ መግዣ/	ድ ም ር
1963	8,600,000.—	3,000,000.—	11,600,000.—*
1964	7,598,000.—	2,400,000.—	9,998,000.—
1965	7,166,667.—	3,733,333.—	10,900,000.—
1966	9,068,118.—	3,011,019.36	12,019,137.36
1967	9,340,584.—	4,412,209.46	13,482,793.46
1968	10,335,668.—	3,898,437.72	14,234,105.72

ከዚህ በላይ እንደተመለከተው በጀቱ ከ1964 ዓ.ም. ጀምሮ በየዓመቱ አንድ ሚሊዮን ብር እየጨመረ ሄዷል፡ ይህም ሊሆን የቻለበት፣ ለቀን ሠራተኞች የሚከፈለው ገንዘብ በየጊዜው እየናረ በመሄዱ፣ በአገር ውስጥና በውጭ አገር በሚገዙ ዕቃዎች ላይ ታክስ በመጨመሩና ድርጅቱ የፕሮግራም ለውጥ በማድረጉ ነው፡፡ የዝርዝሩን ሁኔታ ለመረዳት ከ1966–1968 የሚያስፈልገው በጀት አባሪ ሆኖ በገጽ 8 ቀርቧል፡፡

* ለ1963 ዓ.ም. ከተፈቀደው በጀት ውስጥ በፕሮግራሙ ለውጥ ምክንያት $1,438,301.46.— /አንድ ሚሊዮን አራት መቶ ሰላሣ ስምንት ሺ ሦስት መቶ አንድ ብር ከአርባ ስድስት ሣንቲም/ በሥራ ላይ ሳይውል ቀርቷል፡

Source: NALA File No. 17.3.355.1.

Appendices 16: letter wrote to ministry of community service development and social affairs from the MES General Manager

የኢትዮጵያ ፡ ንጉሠ ፡ ነገሥት ፡ መንግሥት ፡
የወባ ፡ ማጥፊያ ፡ ድርጅት ፡
IMPERIAL ETHIOPIAN GOVERNMENT
MINISTRY OF PUBLIC HEALTH
MALARIA ERADICATION SERVICE
P. O. Box 3056, Addis Ababa, Ethiopia

ቁጥር ፡ መ/ክክ/36/65
ቀን ፡ 7 - 9 - 65

ለሕዝባዊ ኑሮ አድገትና ማህበራዊ ጉዳይ ሚኒስቴር
አዲስ አበባ ።

የወባ ማጥፊያ ድርጅት በሕግ ታውቆ ከተቋቋመ ወዲህ የወባን በሽታ ከኢትዮጵያ ንጉሠ ነገሥት ግዛት ጨርሶ ለማጥፋት የሚያደርገው ከባድ ጥረት ምንም አንኳ ጥሩ ውጤት ያስገኘ ቢሆንም በአንዳንድ ሥፍራዎች በልዩ ልዩ ምክንያቶች ከድርጅቱ አቅም በላይ የሆኑ ችግሮች ገጥመውት ይገኛል ።

የድርጅቱ ሥራ ውጤት አጥጋቢ ሊሆን የሚችለው በድርጅቱ ድካም ብቻ ባይሆን ጉዳዩ በሚመለከታቸው የመንግሥት መሥሪያ ቤቶች፣ የግል ድርጅቶችና የሕዝቡም እርዳታ ሲጠመርበት መሆኑ ግልጽ ነው ።

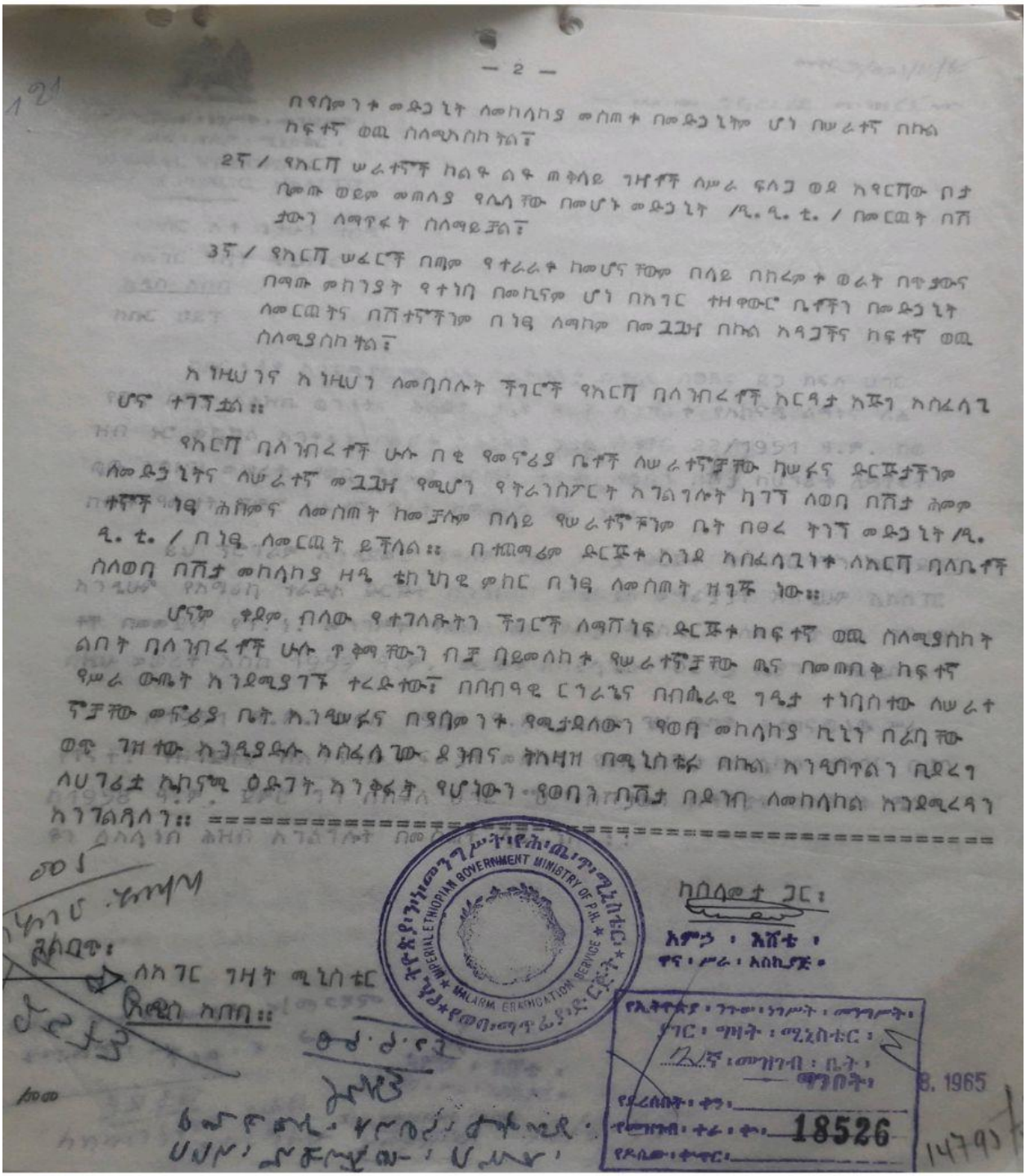
በተለይም ባሰቲት ሁመራ፣ በአቀሸ ሸለቆ.....ወዘተ አካባቢ በእርሻ ሥራ ላይ ተሰማርተው ለሚገኙት ሠራተኞችና ገበሬዎች ድርጅቱ እስካሁን ድረስ ቤቶችን በመርጨትና በሽተኞችን በማከም የተቻለውን ያህል ከወባ በሽታ ቢከላከል ቢቆይም በአንዳንድ ችግሮች ምክንያት ያቀደውን ያህል አጥጋቢ ውጤት ሊያገኝ አልቻለም ። እነዚህም ችግሮች የሚከተሉት ናቸው ።

1ኛ/ ሀ. የእርሻ ሠራተኞች ዝላዩ በመሆናቸው ከሥፍራ ወደ ሥፍራ ስለሚዘዋወሩ ተከታትሎ አስፈላጊውን ሕክምና ለመስጠት አስቸጋሪ በመሆኑ፣

ለ. ለአብዛኛው ሠራተኛ ቤት ባለመኖሩ አውጭ ስለሚያድርና ወባ በቀላሉ ስለሚይዘው መከላከያ መድኃኒት በየጊዜው ማደል አስፈላጊ ቢሆንም እንደዚህ ለሰው ተዘዋዋሪና አውጭ በየእርሻው ለሚያድር ሠራተኛ ሁሉ

.../2

እምሩ ፡ እሸቴ ፡
ዋና ፡ ሥራ ፡ አስኪያጅ ፡



Scanned by CamScanner

Source: NALA File No. NALA File No. 17.3.355.1.

Appendices 17: false reports about malaria epidemic outbreak in Elkerie Awraja

የኢትዮጵያ ፡ ጤና ፡ ጥበቃ ፡ ሚኒስቴር ፡
የወባ ፡ ማጥፊያ ፡ ድርጅት ።
IMPERIAL ETHIOPIAN GOVERNMENT
MINISTRY OF PUBLIC HEALTH
MALARIA ERADICATION SERVICE
P. O. Box 3056, Addis Ababa, Ethiopia

ቁጥር፡ ወ/ጥ ሠ/9/65
ቀን፡ 28-12-65

ለዶክተር ፈለቀ ገድለጊዮርጊስ
ሌ/ኰሎኔል
የወንጀልና የትራፊክ ጥናት ክ/ኸም
<u>አዲስ አበባ</u>

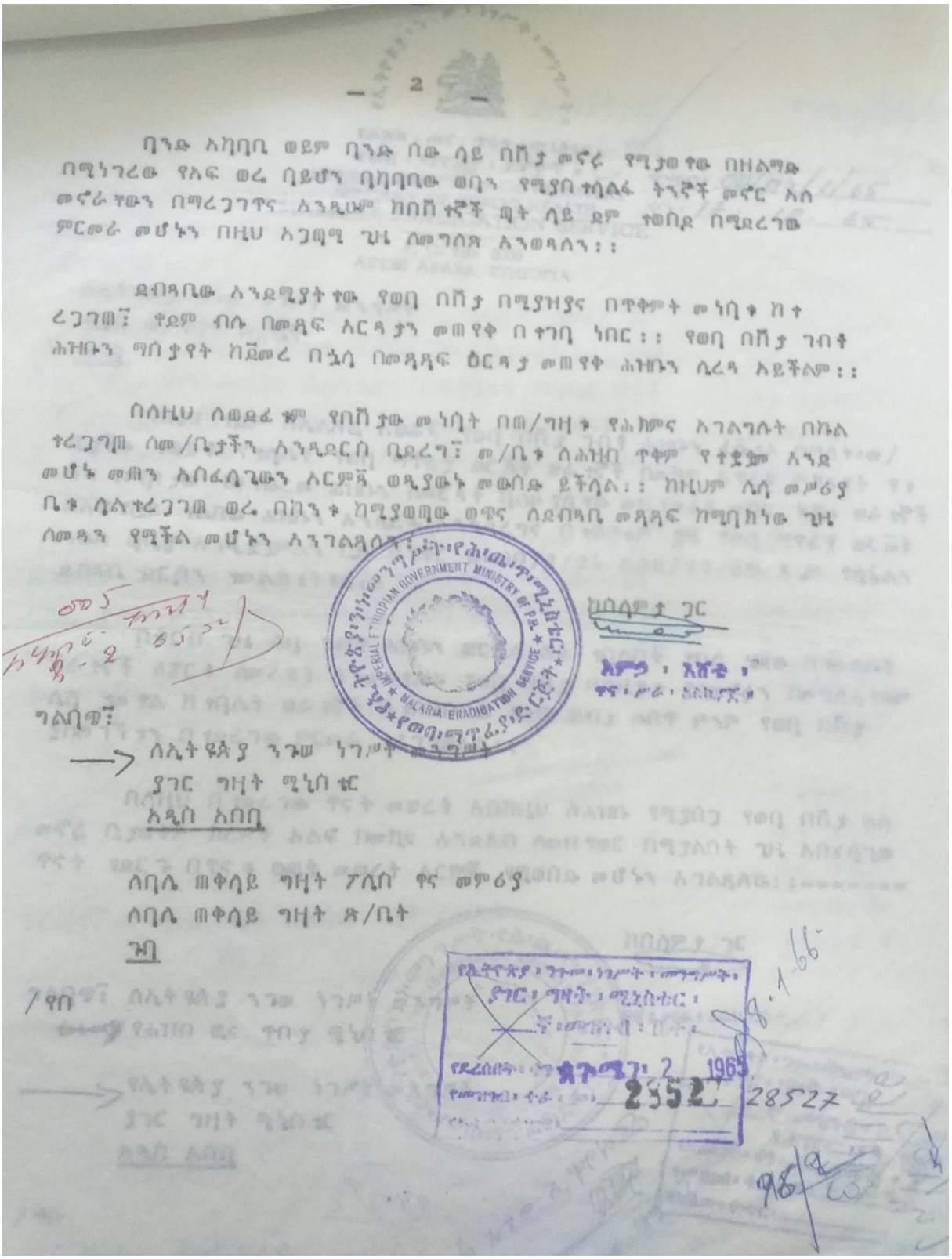
በባሌ ጠቅላይ ግዛት በዶሎባይ፣ በቡኩሳሬ፣ በኤልቁራኝና በለበሽሊንዲን የወባ በሽታ ገብቷል ብሎ የባሌ ጠ/ግዛት ፖሊስ ዋና መምሪያ በቁጥር የጉ/መ/ቁ/51/65 የጻፈውና አርሲ ያም በቁጥር 3/ፐጠ4/11/52 በ13/9/65 ዓ.ም የጻፋትን ደብዳቤ መሠረት በማድረግ በቁጥር መ/በ1/4/65 በ23/9/65 ዓ.ም አቶ ገ/ሚካኤል ጧላቸ አቶ ዓባይነህ ጋሻው ወናን ከበቂ መድኃኒት ጋር ልከን በጊዜያቱ ተነሳ የተባለው በሽታ ባለመኖሩ የያዙትን መድኃኒት ለየገዥያችና ለየፖሊስ አዛዦች በሽታው በተነሣ ጊዜ ሕዝቡን ለመርዳት እንዲችሉ ሰጥተው መመለሳቸው የሚታወስ ነው::

ይኸንኑን ምክንያት በማድረግ ኰሎኔል ወልዱ ወልደ ሚካኤል የወባውን በሽታ ሁኔታ እንዲያጠኑና እርዳታ እንዲያደርጉ የተላኩት ሠራተኞች ሐሰት ሪፖርት ነው ያቀረቡት በማለት በቁጥር 7935/3856/5 ነሐሴ 7/1965 ዓ.ም ለፖሊስ ሠራዊት ጠቅላይ መምሪያ ጽፈው ከአንዱ ገጽ ትክክል ግልባጭ ጋር የተላከልንና አርሲ ያም ደግሞ ሪፖርቱ ከደረሰ ከአንድ ወር በኋላ ሠራተኞቹ ስለተላኩ የነበረውን በሽታ ሊያገኙ አልቻሉም በማለት በቁጥር 3/ፐጠ4/11/59 በ15/12/65 ዓ.ም ለሕዝብ ጤና ጥበቃ ሚኒስቴር ጽፈው ወደ መ/ቤታችን የመራው ደብዳቤ ደርሶን ተመልክተነዋል::

ሠራተኞች ሐሰት ሪፖርት አቀርበዋል ለተባለው ዶሎባይ ከተማ ደርሰው ከቀኛዝማች ገርማ አበበ የኤልከሬ አውራጃ ገዥ፣ ከኰሎኔል ገሷን ቡርጌ የባሌ ጠቅላይ ግዛት የፈጥኖ ደራሽ ፖሊስ አዛዥ ከሦስት ወረዳ ገዥያችና ከዶሎባይ የፖሊስ ጣቢያ አዛዥ ጋር በመነጋገር በጊዜያቱ የወባ በሽታ ያለመኖሩን ከማረጋገጣቸውም በላይ ከነዳንዱ ቦታ በተሰበሰበው የደም ጠብታ ውስጥ የወባ በሽታ ያለመኖሩን በዋናው መሥሪያ ቤታችን በተደረገው ምርመራ ለማረጋገጥ ተችሏል::

አምኃ ፡ እሸቴ ፡
ዋና ፡ ሥራ ፡ አስኪያጅ ።

…/2



— 2 —

ባንድ አካባቢ ወይም ባንድ ሰው ላይ በሽታ መኖሩ የሚታወቀው በዘልማድ በሚነገረው የአፍ ወሬ ባይሆን ባካባቢው ወጣ የሚያስ ተላልፉ ትንሮች መኖር አለ መኖራቸውን በማረጋገጥና አንዲሁም ከበሽተኞች ጣት ላይ ደም ተወስዶ በሚደረገው ምርመራ መሆኑን በዚህ አጋጣሚ ጊዜ ለመግለጽ እንወዳለን::

ደብዳቤው እንደሚያትተው የወባ በሽታ በሚያዝያና በጥቅምት መነሳት ከተ ረጋገጠ፤ ቀደም ብሉ በመጻፍ አርዳታን መጠየቅ በተገባ ነበር:: የወባ በሽታ ገብቶ ሕዝቡን ማስታየት ከጀመረ በኋላ በመጻጻፍ ዕርዳታ መጠየቅ ሕዝቡን ሊረዳ አይችልም::

ስለዚህ ለወደፊቱም የበሽታው መነሳት በጠ/ግዛቱ የሕክምና አገልግሉት በኩል ተረጋግጦ ለመ/ቤታችን እንዲደርስ ቢደረግ፤ መ/ቤቱ ለሕዝብ ጥቅም የተቋቋመ እንደ መሆኑ መጠን አስፈላጊውን አርምጃ ወዲያውኑ መውሰድ ይችላል:: ከዚህም ሌላ መሥሪያ ቤቱ ሳልተረጋገጠ ወሬ በስጉቱ ከሚያወጣው ወጭና ለደብዳቤ መጻጻፍ ከሚከስነው ጊዜ ለመዳን የሚችል መሆኑን እንገልጻለን፤

ከሰላምታ ጋር

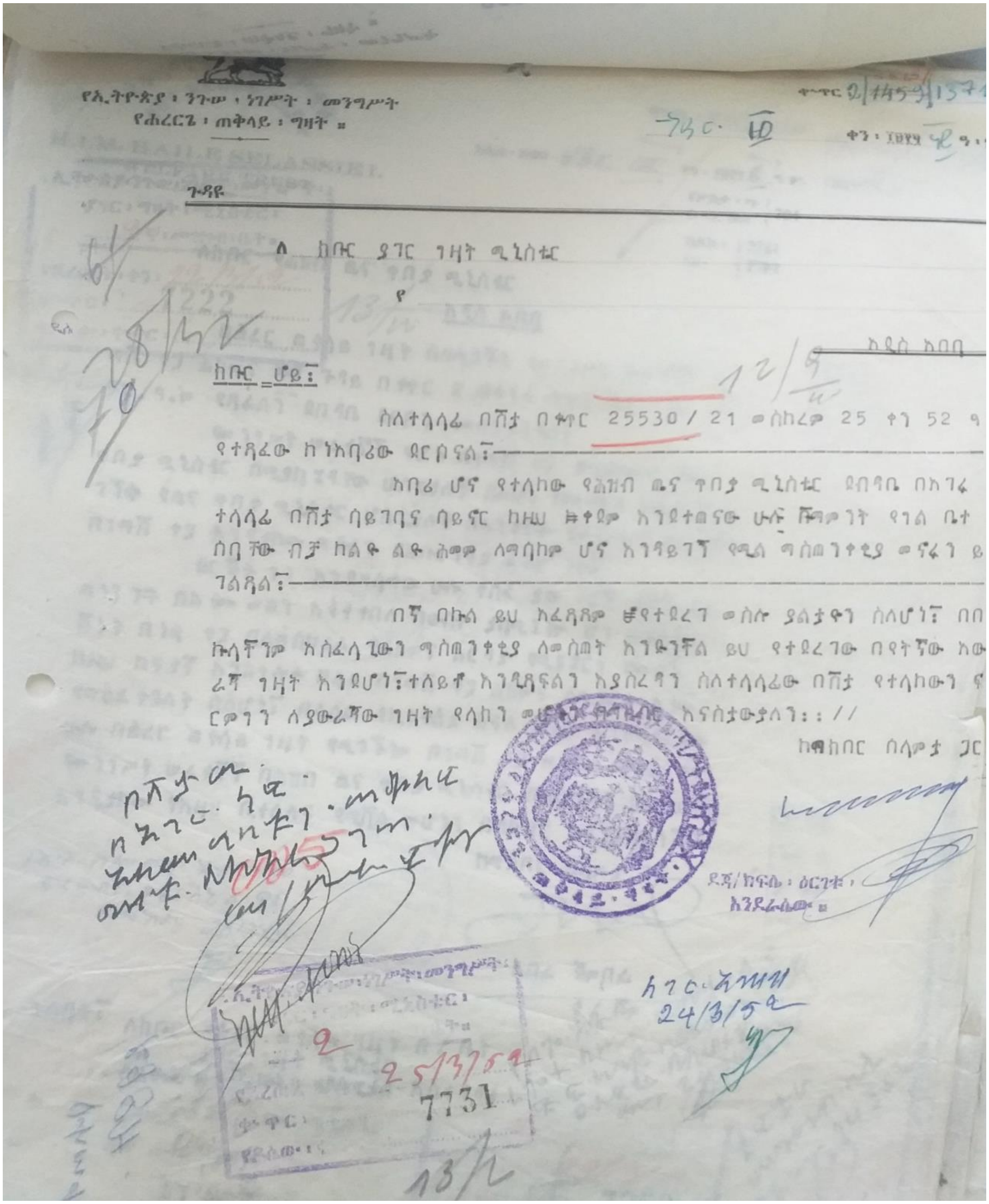
ግልባጭ፤

→ ለኢትዩጵያ ንጉሠ ነገሥት ጃንሆይ
ያገር ግዛት ሚኒስቴር
አዲስ አበባ

ለባሌ ጠቅላይ ግዛት ፖሊስ ዋና መምሪያ
ለባሌ ጠቅላይ ግዛት ጽ/ቤት
ዝ/ያ

Source: NALA File No. 17.5.16.15.

Appendices 18: False report about the appearance of infectious diseases to medicate officials' family



የኢትዮጵያ ፡ ንጉሠ ፡ ነገሥት ፡ መንግሥት
የሐረርጌ ፡ ጠቅላይ ፡ ግዛት ፡፡

ቁጥር 2/1459/157
ቀን ፡ ፲፱፻፶

ጉዳዩ

ለ ክቡር አገር ግዛት ሚኒስቴር

የ

አዲስ አበባ

ክቡር ሆይ ፤

ስለተላላፊ በሽታ በቁጥር 25530/21 መስከረም 25 ቀን 52 ዓ የተጻፈው ከነአባሪው ደርሶናል ፤

አባሪ ሆኖ የተላከው የሕዝብ ጤና ጥበቃ ሚኒስቴር ደብዳቤ በአገሩ ተላላፊ በሽታ ሳይገባና ሳይኖር ከዚህ ቀደም እንደተጠናው ሁሉ ቸልተኝነት የግል ቤተሰባቸው ብቻ ከልዩ ልዩ ሕመም ለማሳከም ሆኖ እንዳይገኝ የሚል ማስጠንቀቂያ መኖሩን ይገልጻል ፤

በኛ በኩል ይህ አፈጻጸም ተደረገ መስሎ ያልታየን ስለሆነ፤ በበኩላችንም አስፈላጊውን ማስጠንቀቂያ ለመስጠት እንድንችል ይህ የተደረገው በየትኛው አውራጃ ግዛት እንደሆነ፤ ተለይቶ እንዲጻፍልን እያስረዳን ስለተላላፊው በሽታ የተላከውን ፍርምን ለያውራጃው ግዛት የላክን መሆናችንን እናስታውቃለን፡፡ //

ከማክበር ሰላምታ ጋር

ደጃ/ክፍሌ ፡ ዕርገቱ ፡
እንደራሴ ፡፡

Source: NALA File No. 17.1.7.16.04.

Appendices 19: about the progress of anti-malaria Operations

5. <u>በአሁኑ ወቅት ያለው የሥራ ሁኔታ በአጭሩ</u>፡—

5.1 የወባ በሽታ ከአለው ጠባዩ ሁኔታ ሲገመገም፤

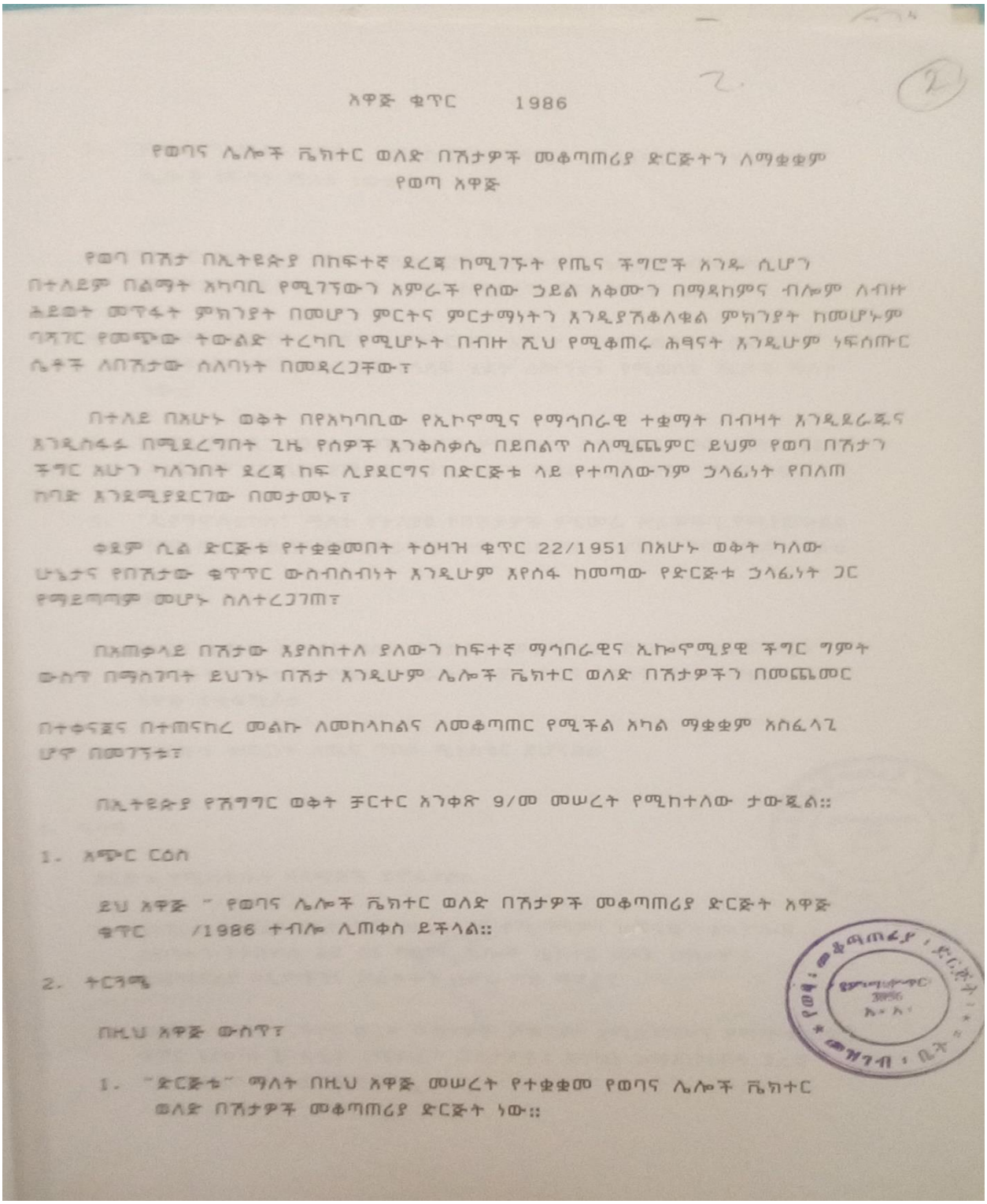
5.1.1 እንደ በሽታው መጠንና ስሬት በዓመት አንድ ጊዜና ሁለት ጊዜ ዲዲቲ በመርጨት የመቆጣጠሩ ተግባር ይከሄዳል፤

5.1.2 በወባው መቀነስ ምክንያት ሁኔታዎች ተገምገመው ከርጭት የተወገዱ /በተዘዋዋሪ መንገድ በቁጥጥር ሥር ያሉ/ በታዎች በስፋት በጣም ከፍ እያሉ በመሄዳቸውና በአካባቢው ያሉት የመሠረተ ጤና አገልገሎት ጣቢያዎች በወህደተ ትክክለኛ ጽንሰ ሃሳብ መሠረት የበሽታውን ቁጥጥርና መከታተል ኃላፊነት መረከብ ሁኔታ የተፈጠረላቸው ቢሆንም ኃላፊነቱ ከወባ መቆጣጠሪያ ድርጅት ላይ ሳይወርድ እንዳለ ሆኖ ቆይቷል፡፡ በወህደት ጽንሰ ሃሳብ መሠረት ከላይ የተጠቀሰው ተግባር ባይፈጸምም የወባ መቆጣጠሪያ ድርጅት የመሠረተ ጤና አገልገሎት ጣቢያዎችን ችግርና ያላቸውን የሰው፤ የበጀትና ወዘተ ...ሁኔታ በሚገባ ስለተረዳው መጠነኛ የሆነ የወረርሽኝና የመሰሰሉ ሁኔታዎችን እንዲቆጣጠሩና የክትትል ድጋፍ እንዲአበረከቱ ጥረት ቢደረግም የሠርቪይላንስ አቅዱ አሁንም በከፊል አልተሳካም፡፡ በዚህም ምክንያት ወረርሽኝ በብዛት ከርጭት ከተወገዱ በታዎች 60 %. ያህል ከሌሎች በታዎች ይበልጥ ጉልቶ ይታያል፡፡ ቢሆንም በወቅቱና በአፋጣኝ የመከላከል እርምጃ በወ.መ.ድ. በኩል እየተወሰደ ነው፡፡

5.1.3 ከርጭት የተወገዱት በታዎች በገጠር ያሉ ብቻ ስይሆኑ፤ ከ15 ዓመታት በላይ የወባ መተላለፍ ከአካባቢአቸው ጠርሶ ጠፍቷል ተብሎ የሚገመቱት እንደ ናዝሬት፤ ድሬደዋ፤ አዋሳ፤ ዲላ፤ ጂማ፤ በሕርዳርና አሰብ ያሉ ከተሞች አሁን ያሉበት የወባ መንሰራራትና አስጊ ሁኔታ አንዱና ከፍተኛው ምክንያት ይህ የቁጥጥር ተግባር አሁንም ለወባ መቆጣጠሪያ ድርጅት ብቻ በመተውና ሌሎች የመሠረታዊ የጤና አገልገሎት አካሎች የወህደትን ጽንሰ ሃሳብ በተለያዩ ምክንያቶችና ችግሮች እንዳልተገነዘቡትና በሥራም እንዳላዋሉ ያስረዳል፡፡ ድርጅቱ በተለይ ከቅርብ ጊዜ ወዲህ

Source: NALA File No. 8.1.116.1.

Appendices 20: MOVBDCS foundation proclamation



አዋጅ ቁጥር 1986

የወባና ሌሎች ቫክተር ወለድ በሽታዎች መቆጣጠሪያ ድርጅትን ለማቋቋም
የወጣ አዋጅ

የወባ በሽታ በኢትዮጵያ በከፍተኛ ደረጃ ከሚገኙት የጤና ችግሮች አንዱ ሲሆን በተለይም በልማት አካባቢ የሚገኘውን አምራች የሰው ኃይል አቅሙን በማዳከምና ብሎም ለብዙ ሕይወት መጥፋት ምክንያት በመሆን ምርትና ምርታማነትን እንዲያሽቆለቁል ምክንያት ከመሆኑም ባሻገር የመጭው ትውልድ ተረካቢ የሚሆኑት በብዙ ሺህ የሚቆጠሩ ሕፃናት እንዲሁም ነፍሰጡር ሴቶች ለበሽታው ሰለባነት በመዳረጋቸው፣

በተለይ በአሁኑ ወቅት በየአካባቢው የኢኮኖሚና የማኅበራዊ ተቋማት በብዛት እንዲደራጁና እንዲስፋፉ በሚደረግበት ጊዜ የሰዎች እንቅስቃሴ በይበልጥ ስለሚጨምር ይህም የወባ በሽታን ችግር አሁን ካለንበት ደረጃ ከፍ ሊያደርግና በድርጅቱ ላይ የተጣለውንም ኃላፊነት የበለጠ ከባድ እንደሚያደርገው በመታመኑ፣

ቀደም ሲል ድርጅቱ የተቋቋመበት ትዕዛዝ ቁጥር 22/1951 በአሁኑ ወቅት ካለው ሁኔታና የበሽታው ቁጥጥር ውስብስብነት እንዲሁም እየሰፋ ከመጣው የድርጅቱ ኃላፊነት ጋር የማይጣጣም መሆኑ ስለተረጋገጠ፣

በአጠቃላይ በሽታው እያስከተለ ያለውን ከፍተኛ ማኅበራዊና ኢኮኖሚያዊ ችግር ግምት ውስጥ በማስገባት ይህንኑ በሽታ እንዲሁም ሌሎች ቫክተር ወለድ በሽታዎችን በመጨመር

በተቀናጀና በተጠናከረ መልኩ ለመከላከልና ለመቆጣጠር የሚችል አካል ማቋቋም አስፈላጊ ሆኖ በመገኘቱ፣

በኢትዮጵያ የሽግግር ወቅት ቻርተር አንቀጽ 9/መ መሠረት የሚከተለው ታውጇል።

1. አጭር ርዕስ

ይህ አዋጅ " የወባና ሌሎች ቫክተር ወለድ በሽታዎች መቆጣጠሪያ ድርጅት አዋጅ ቁጥር /1986 ተብሎ ሊጠቀስ ይችላል።

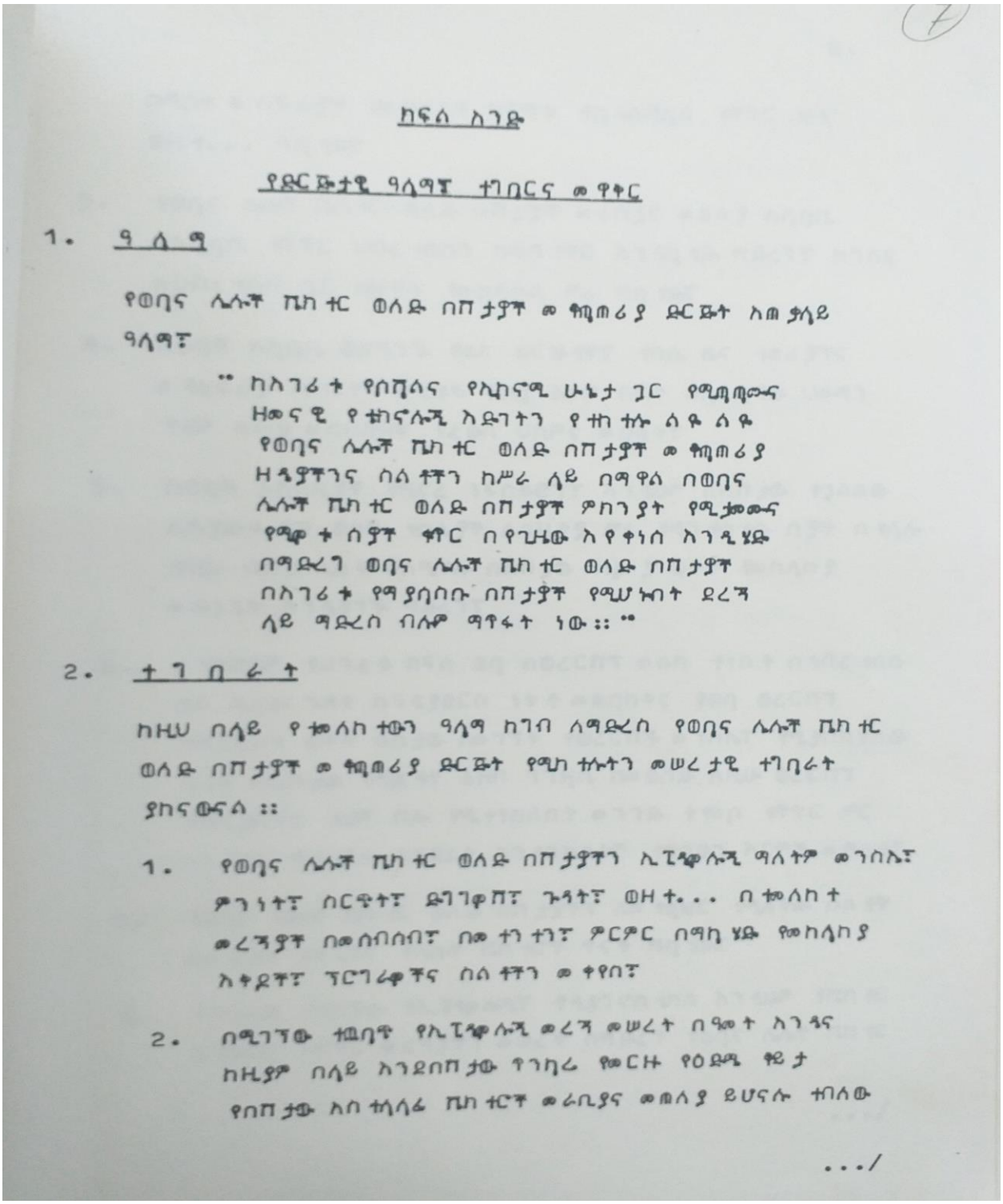
2. ትርጓሜ

በዚህ አዋጅ ውስጥ፣

1. "ድርጅቱ" ማለት በዚህ አዋጅ መሠረት የተቋቋመ የወባና ሌሎች ቫክተር ወለድ በሽታዎች መቆጣጠሪያ ድርጅት ነው።

Source: NALA, File No. 8.1.120.5.

Appendices 21: Objective(S) of MOVBDCS/P and Its Function



ክፍሰ አንድ

የድርጅታዊ ዓላማ፣ ተግባርና መዋቅር

1. ዓ ላ ማ

የወባና ሌሉች ሸክ ተር ወለድ በሽታዎች መቆጣጠሪያ ድርጅት አጠቃላይ ዓላማ፣

" ከአገሪቱ የሰሻሰና የኢኮኖሚ ሁኔታ ጋር የሚጣጣሙና ዘመናዊ የቴክኖሎጂ እድገትን የተከተሉ ሰዱ ሰዱ የወባና ሌሉች ሸክ ተር ወለድ በሽታዎች መቆጣጠሪያ ዘዴዎችንና ስልቶችን ከሥራ ላይ በማዋል በወባና ሌሉች ሸክ ተር ወለድ በሽታዎች ምክንያት የሚታመሙና የሚሞቱ ሰዎች ቁጥር በየጊዜው እየቀነሰ እንዲሄድ በማድረግ ወባና ሌሉች ሸክ ተር ወለድ በሽታዎች በአገሪቱ የማያሰቡ በሽታዎች የሚሆኑበት ደረጃ ላይ ማድረስ ብሎም ማጥፋት ነው ::"

2. ተ ግ በ ራ ት

ከዚህ በላይ የተመለከተውን ዓላማ ከግብ ለማድረስ የወባና ሌሉች ሸክ ተር ወለድ በሽታዎች መቆጣጠሪያ ድርጅት የሚከተሉትን መሠረታዊ ተግባራት ያከናውናል ::

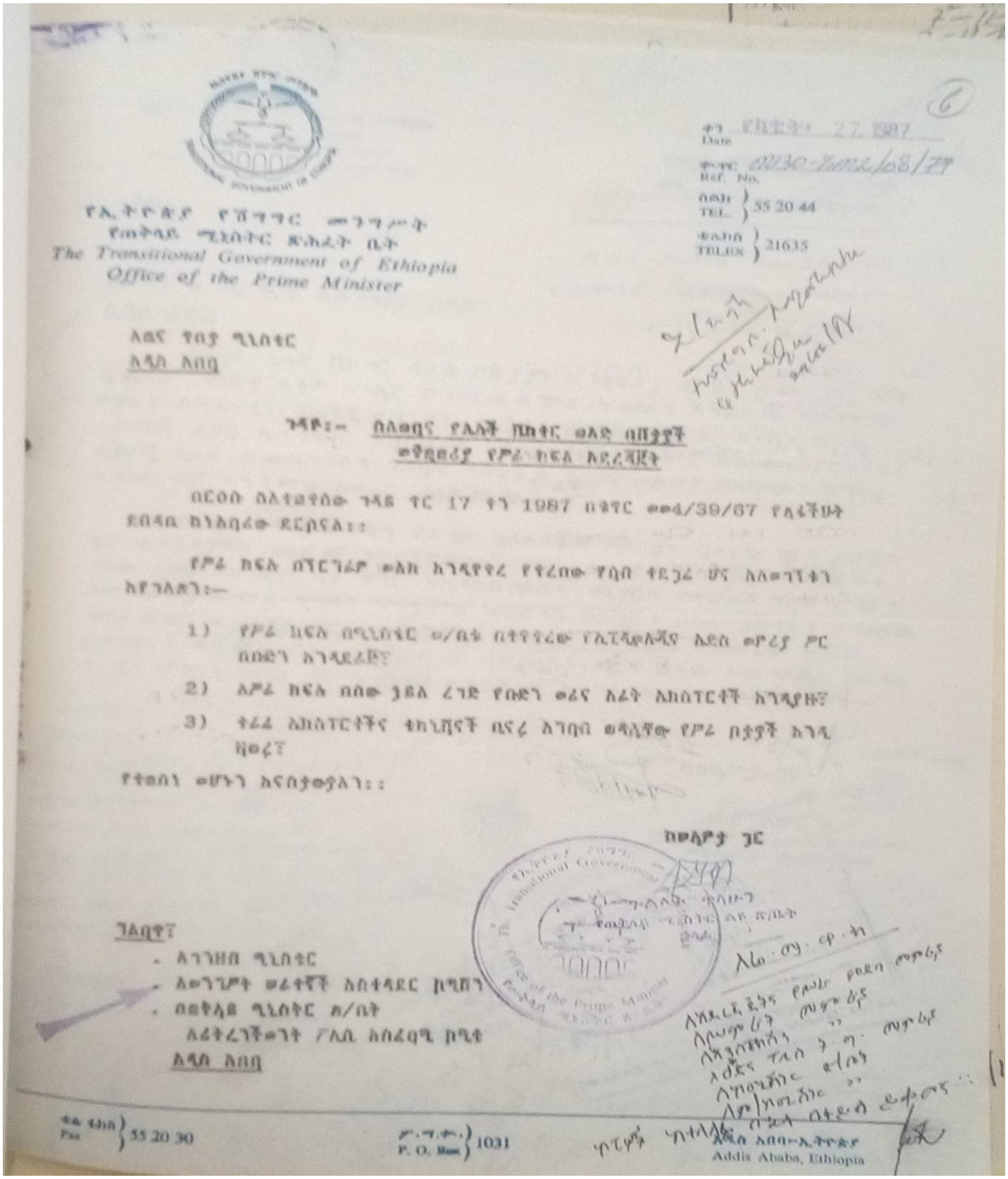
1. የወባና ሌሉች ሸክ ተር ወለድ በሽታዎችን ኢፒዲሞሎጂ ማለትም መንስኤ፣ ምንነት፣ ስርጭት፣ ይግባቦሽ፣ ጉዳት፣ ወዘተ... በተመለከተ መረጃዎች በመሰብሰብ፣ በመተንተን፣ ምርምር በማካሄድ የመከላከያ እቀደች፣ ፕሮግራሞችና ስልቶችን መቀየስ፣

2. በሚገኘው ተጨባጭ የኢፒዲሞሎጂ መረጃ መሠረት በዓመት አንዳና ከዚያም በላይ አገደበሽታው የገነባሪ የመርዙ የዕድሜ ቅድ ታ የበሽታው አስተላላፊ ሸክ ተሮች መራቢያና መጠለያ ይሆናሉ ተብለው

.../

Source: NALA File No. 8.1.120.11.

Appendices 22: It shows the final integration, decentralization, and dissolution of Malaria and other vector borne diseases control service in Ethiopia.



የኢትዮጵያ የሽግግር መንግሥት
የጠቅላይ ሚኒስትር ጽሕፈት ቤት
The Transitional Government of Ethiopia
Office of the Prime Minister

ቀን Date ... 27 1987
ቁጥር Ref. No.
ስልክ TEL. 55 20 44
ቴሌክስ TELEX 21635

ለጤና ጥበቃ ሚኒስቴር
አዲስ አበባ

ጉዳዩ፡- ስለወባና የሌሎች ጠንቆች ወለድ በሽታዎች መቆጣጠሪያ የሥራ ክፍል አደረጃጀት

በርዕሱ ስለተጠቀሰው ጉዳይ ጥር 17 ቀን 1987 በቁጥር ወ04/39/67 የላኩትሁት ደብዳቤ ከነአባሪው ደርሶናል፡፡

የሥራ ክፍሉ በቫርቲካል መልክ ከነጻየቀረ የቀረበው የሰብ ቶይንሬ ሆና ለለመገኘቱ እየገለጽን፡-

1) የሥራ ክፍሉ በሚኒስቴር መ/ቤቱ በተዋቀረው የኢፒዲሞሎጂና አይድስ መምሪያ ሥር በበጀት እንዲደራጅ፤
2) ለሥራ ክፍሉ በሰው ኃይል ረገድ የበጀት መሪና እሬት ኤክስፐርቶች እንዲያዙ፤
3) ቀሪዎቹ ኤክስፐርቶችና ቴክኒሻኖች በየክልሉ አገባብ ወዳሏቸው የሥራ ቦታዎች እንዲዛወሩ፤

የተወሰነ መሆኑን እናስታውቃለን፡፡

ከሠላምታ ጋር

ግልባጭ፤
- ለገንዘብ ሚኒስቴር
- ለመንግሥት መሥሪያ ቤቶች አስተዳደር ኮሚሽን
- ለጠቅላይ ሚኒስትር ጽ/ቤት
ለፊትረንዘንት ፖሊሲ አስፈፃሚ ኮሚቴ
አዲስ አበባ

ፋክስ Fax 55 20 30 ፖ.ሣ.ቁ. P. O. Box 1031 አዲስ አበባ-ኢትዮጵያ Addis Ababa, Ethiopia

Source: NALA, File No. 8.1.115.3.