

**Filariasis: A Study of Knowledge, Attitudes and Practices of the People of Sorsogon**

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Final report of a project supported by  
the TDR Social and Economic Research Component

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*UNDP/WORLD BANK/WHO Special Programme for Research and Training in Tropical Diseases (TDR)*

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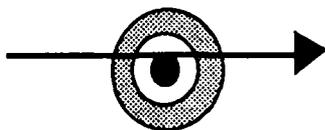
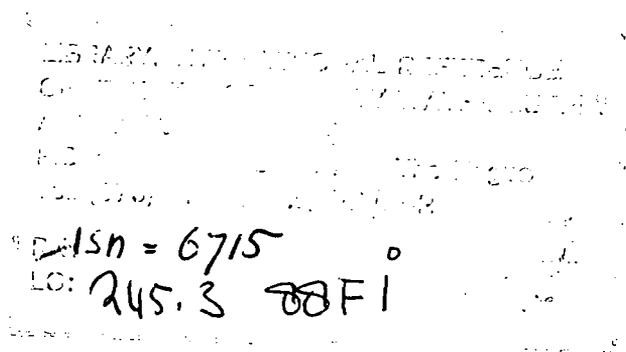
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*Authors alone are responsible for the views expressed in SER Project Reports and for the presentation of the material contained therein.*

## Foreword

The UNDP/WORLD BANK/WHO Special Programme for Research and Training in Tropical Diseases (TDR) is a globally coordinated effort to bring the resources of modern science to bear on the control of major tropical diseases. The Programme has two interdependent objectives:

- To develop new methods of preventing, diagnosing and treating selected tropical diseases, methods that would be applicable, acceptable and affordable by developing countries, require minimal skills or supervision and be readily integrated into the health services of these countries;
- To strengthen -- through training in biomedical and social sciences and through support to institutions -- the capability of developing countries to undertake the research required to develop these new disease control technologies.

Research is conducted on a global basis by multidisciplinary Scientific Working Groups on the six diseases selected for attack: malaria, schistosomiasis, filariasis (including onchocerciasis), the trypanosomiasis (both African sleeping sickness and the American form, Chagas' disease), the leishmaniasis and leprosy. Scientific Working Groups are also active in the "trans-disease" areas of biological control of vectors, epidemiology, and social and economic research. The training and institution strengthening activities are limited to the tropical countries where the diseases are endemic.

The *Social and Economic Research Project Reports* series represents a new communication venture undertaken by TDR's Social and Economic Research (SER) Component. This series has been launched to facilitate and increase communication among social scientists and researchers in related disciplines carrying out research on social and economic aspects of tropical diseases and to disseminate social and economic research results to disease control personnel and government officials concerned with improving the effectiveness of tropical disease control.

Research reports published in this series are final reports of projects funded by TDR and usually include more material than ordinarily published in peer review journal articles. TDR considers this material to be valuable both for investigators involved in the study of social and economic aspects of tropical diseases and for professionals involved in training programmes in the social sciences, economics and public health. The series should acquaint those working on similar problems with approaches undertaken by others, in order to test new approaches in different settings, and should provide useful information to personnel in disease control programmes and related agencies.

In the interests of rapid dissemination of social and economic research findings, supporting material, e.g., tabulated data, has not been included in the present report. This material is, however, available upon request to interested researchers. All requests for such material, citing in full the number, title and author(s) of the *SER Project Report*, should be addressed to: Dr C. Vlassoff, Secretary, Steering Committee on Social and Economic Research, TDR, World Health Organization, 1211 Geneva 27, Switzerland.

Tore Godal, Director

Special Programme for Research  
and Training in Tropical Diseases  
TDR



## Preface

Since 1979 the Social and Economic Research (SER) Component of the UNDP/WORLD BANK/WHO Special Programme for Research and Training in Tropical Diseases (TDR) has been supporting research aimed at improving the effectiveness of disease control programmes through the incorporation of social, cultural and economic factors into the design and implementation of control programme activities. In aiming towards this overall final objective, two intermediate objectives guide TDR's social and economic research activities:

- To determine the impact of social, cultural, demographic and economic conditions on disease transmission and control.
- To promote the design and use of cost-effective and acceptable disease control programmes and policies.

The report of the late Dr Aida Lu and her team is one of the first completed projects carried out under the first intermediate objective of the SER Component. In this innovative project, Dr Lu and her team analysed, from an interdisciplinary perspective, the cultural aspects of filariasis in the Philippines and the social practices of the population of Sorsogon in relation to transmission, treatment and prevention of the disease. Data were collected through a variety of techniques: informal interviews, questionnaires and participant observation. The research team consisted of an epidemiologist, sociologist, anthropologist and entomologist. Data were collected with the assistance of the local filariasis control programme staff and midwives working in the project area.

Following analysis of the data, the team presented its findings to the community where they had worked as well as to personnel in the filariasis control programme. At the request of the control programme, a TDR-supported follow-up project is now under way to examine in more detail the problems of compliance with blood collection and treatment and, ultimately, to develop a definitive health education programme for the control of filariasis in that area.

Reactions to this report were highly favourable, some reviewers pointing out that it was probably the first interdisciplinary approach to the study of the social aspects of filariasis. Other reviewers noted that the report highlighted the need to develop a better understanding of filariasis at the community level and to improve health education aimed at its control. The results of the project are also being used to formulate guidelines for the filariasis control programme, particularly for its health education control strategies.

The untimely death of Dr Lu, Principal Investigator of the project, deprived health researchers both in the Philippines and in the international scientific community of a dedicated and creative investigator. Dr Lu's concern for the development of a strong, multidisciplinary team has ensured continuation of the work by her colleagues in the Philippines.

Patricia L. Rosenfield, Former Secretary,  
Scientific Working Group and Steering Committee on  
Social and Economic Research

Special Programme for Research  
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## PART I

### THE EXECUTIVE SUMMARY

#### 1. PROJECT INFORMATION

1.1 Project I.D. 800063: **A Study of the Knowledge, Attitudes, and Practices of the People of Sorsogon on Filariasis**

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## 2. Highlights of the Research Findings

The population of Magallanes has developed, through many years of exposure to filariasis and the stories of elders, a system of beliefs and practices surrounding the disease. Their knowledge about the causation, symptomatology, treatment and prevention of the disease, though not scientifically sound, follows a logical sequence. Regarding the respondent's level of scientific knowledge of the disease, the respondents gave correct answers to only 50% of the knowledge questions. Generally, the older respondents have more knowledge about the disease than the younger ones and those with higher socio-economic status tend to have a better understanding of the disease.

The community has developed local terminologies for the disease. All of the existing terms are indicative of the recognizable symptoms of the disease. Thus, various illness categories were developed pertaining to signs of the various phases of the disease. It is interesting to note that these terms broadly describe any sign or symptom regardless of cause. For example, "bungao" is a term used for any enlargement of the scrotum in males and "buwa" of the labia in females. In this sense, hernia cases are also identified by these terms.

The respondent's theory of causation and transmission of the disease are similar, namely: the entry of coldness into a person's body through contact with ordinary cold water after heavy work and the carrying of heavy loads. These aspects of the disease are viewed as occupationally related. Male adults who work as loaders or farmers constitute the majority of observed cases. These occupations are closely associated with heavy loads and perspiration. Thus to attribute filariasis to these factors is justifiable within their world. A very limited number of respondents pointed to mosquitos as the direct cause. Knowledge about the disease organism is virtually nil. However, in areas where mosquitos abound, more respondents ascribe the disease to it.

Likewise, due to the prevailing theory of causation/transmission of the disease, preventive practices consist of avoidance of getting wet when fatigued and of carrying heavy loads. To them, this is more logical than the use of mosquito nets when sleeping. No other measures are undertaken. For example, houses are built within abaca and banana plantations to facilitate the work done in these areas. No attempts were made to change the materials and structure of houses for protection against mosquitos.

Very few respondents and key informants are comfortable in discussing their knowledge, attitudes and practices regarding "bungao" or "buwa", the terms used for the male and female versions of the disease. The disease affects the body part considered "delicate" and taboo in open discussion. Especially in females, early detection of cases is difficult, if not impossible, since the disease is equated with promiscuity and thus carries a social stigma.

"Bungawons", the male "bungao" cases are subject to ridicule but not ostracized. The disease is not considered contagious since, according to indigenous perception, it is not caused by a disease organism. Therefore, cases are not segregated and continue living with the family. Afflicted people are welcome in community gatherings. But at times they are laughed at due to the enlarged scrotum. Different titles are conferred on them. In view of this, "bungao" cases felt disturbed upon knowing they had the disease. Some indulged in self-pity and became very embarrassed by their condition.

Only about half of the respondents know about the exact symptomatology of the disease. The symptoms are the clinical or recognizable signs only. They are not equally familiar with the various phases of the disease by severity, although in general, the respondents' perception of the severity and prognosis of the disease seemed to correspond with the size of the scrotal enlargement and the degree of physical incapacitation.

The early symptoms of the disease are virtually unknown to the majority of respondents. Fever, which is one of the earliest symptoms is not considered symptomatic of the disease. Occurrence of such symptoms may have been attributed to other diseases or not given any attention at all. The disease is equated exclusively with the enlargement of the scrotum, labia and lower extremities, which signs characterize the latter stages of the disease. Consequently, the urgency to submit oneself to blood and other types of examination for early detection is overlooked. Of those very few who are aware of the relevance of blood examination, only a very restricted number can give an accurate reason for the nocturnal collection of specimens.

Surgery and medications are considered the best forms of treatment. These, however, cannot be availed of by most of the cases interviewed due to financial constraints. Some of them resort to economically more accessible forms of folk surgery in combination with other forms of traditional and modern practices. Most

of the respondents are not aware of the existence of a filariasis control program in Magallanes nor have they consulted the center for filariasis problems.

### **3. Some Insights on the Data Collection Methods:**

Among the data collection methods used in this study, the depth interview with key informants yielded the most comprehensive and relevant information.

The attitude scale negate some of the interview findings. It was found in other studies in the Philippine setting that this type of data gathering is a dismal failure.

The vignettes appeared interesting to the respondents since these are expressed in popular terms.

## PART II

### THE SCIENTIFIC REPORT

#### INTRODUCTION

Disease is attributable to some cause, known or unknown. Throughout history, the cause or causes of disease have been ascribed to a variety of factors, these being influenced by changing human thought and diverging interpretations of man's observations on the circumstances surrounding the development of disease. Consequently, certain manifestations of particular diseases have been correlated to the known causes, while practices on prevention and control are directed to avert risk of exposure. In some areas, much of the past thinking on disease causation and transmission has persisted in the public mind in spite of the progressive modernization of medical knowledge and techniques. These communities seem to have developed a cultural system which has made it possible for people to evolve their own definition of the causation, transmission and symptomatology of certain diseases.

Several studies conducted in the Philippines by foreign and local anthropologists and sociologists in the recent past have also discerned a persistent adherence to the traditional and supernatural beliefs as to the causation of the disease (Lieban, 1962; 1966). Thus, people included in a study of folk medicine in the Philippine municipality stated (Jocano, 1973):

... Sakit (illness) is due to a disturbance of elements in the body or external to it. This disturbance is brought about by changes in season, improper diet, sorcery, witchcraft, accidents and the general conduct of life....

This stubbornness, among other factors, has given continued currency to indigenous, traditional health practices and provided local healers with a sizeable clientele.

#### GENERAL CHARACTERISTICS OF THE STUDY AREA

The Bicol region dominates the southernmost peninsula of the island of Luzon and extends to the island provinces of Catanduanes and Masbate. The province in the mainland include Camarines Sur, Camarines Norte, Albay and Sorsogon.\*

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\*The study site is situated in the province of Sorsogon.

This region was formerly known as "Ibalon" which means lowland, indicating that this place is mostly composed of flat land. In 1846, the province of Albay was created and this included Sorsogon. Half a century later, in 1894 Sorsogon assumed the status of a separate province. How "Ibalon" became known as "Bicol" was not very clear. According to Don Mariano Goyena, a well known historian and authority on the Bicol culture, the original name just faded away and was replaced by "Bicol" which he theorized was derived from the name of the famous river in the region.

The Bicol Peninsula is a conglomeration of several sub-peninsulas with a very lengthy, rugged and irregular coastline. In view of this, there are numerous harbors. The terrain is hilly with large rivers, many streams and a number of lakes formed by the lava emanated by the majestic Mayon Volcano.

The Bicolanos are the most congenial among the various ethnic groups in the Philippines. They are known for the mildness and docility of their character and the temperance of their customs (O'Brien, 1968). Their customs and political ways of life most closely approach natural reason. They are calm and temperate people and particularly honest and retired (Cabalquinto, 1965).

They are very religious. Churches abound in this region and it is not rare to see men going to church by themselves. The women are always finishing a novena or starting a new one, cleaning or beautifying the altar. The dead are spoken of as though alive and with reverence. Memories of them are woven into endearing anecdotes retold many times.

The Bicolanos are fond of social dealings and are adjusted to live in clustered compact villages (O'Brien, 1968). As is true for most part of the Philippines, the bicolano family is the first and most important socializing agent. Transfer of customs, beliefs, values and ideals occur through the family. Thus, society mandates the desired and expected behavior of children mostly through their parents. The functional aspect of kinship is reflected when relatives are approached if someone is confronted with a problem. The Bicolano can count on the help of not only his parents, but also the wide circle of other relatives. They pool their resources together when in need, acting as a cushion against hard times.

Sorsogon, one of the provinces of the Bicol region, lies at the southeasternmost tip of the island

of Luzon. It is in the form of a "fish hook" surrounded by embayments and straits at its northeastern border. The western portion, however is characterized by hilly mountainous terrain where vegetations abound especially abaca and banana. The province knows practically no dry season and gets maximum rainfall from November to January (Type II rainfall variety). Lying at the heart of the typhoon belt of the Philippines, it is often visited by weather disturbances come November and December.

This province has a total land area of 214,144 hectares with 24,514.5 hectares arable for farms. It is composed of 16 municipalities with a total population of 446,502 (as of 1975); 81% of which resides in the rural area with only 19% in town centers or poblacions. Of the population, 5 years and over, 93.1% are living in the same barangay where they have resided since 5 years ago. Majority are gainfully employed, mostly as farmers, loggers, fishermen and related workers. Its literacy rate is 78.4% and about 70.3% of the population, 10 years and over, completed at least a year of elementary education.

Four hundred sixty-six (466) km. of roads/100 sq. km. help link the barangays for easy flow of products. Almost all the municipalities had waterworks so that 35.6% of households are supplied with piped water. However, 32.3% still have open wells as source of water.

Mabulos Magalles is the dialect spoken in this province. Tagalog (Filipino language), however, is understood and spoken by everybody.

Magallanes, a fourth class coastal town of the southwestern part of the province of Sorsogon, named after the famous sailor and discoverer, Fernando Magallanes, is the setting of the study. It has a sprawling area of 14,435 hectares of agricultural lands, fishpond sites and green forests crisscrossed by streams and patches of swamps and mud flats. Long stretches of beach areas define the shorelines of this town. It is 653 kms. from Manila and 47 kms. from the capital town of Sorsogon.

Thirty-five barangays\* compose this municipality of which 8 comprise the poblacion; 5 are situated along the municipal road, 11 are in the coastal areas and the other 11 make up the interior portion of the town. The total population is 28,336 (as of 1981).

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\*A barangay is the smallest political unit with about 100-200 households.

Three of the 35 barangays, namely - Bacolod, Bacalon and Siuton were the scenes of the anthropological portion of this study. Barangay Bacolod is part of the "Poblacion" and is situated on a reclaimed area along the pier on the northwestern border. It has a total land area of 3.3639 hectares with 70% utilized for residential purposes and the rest for commercial purposes. The houses are mostly made of nipa thatch for roofs and walls, bamboos for posts and flooring. Except for a few, most houses have no separate sleeping rooms nor are kitchens walled off from dining rooms. As a rule, the family sleeps together in the living room. Mosquito nets are not commonly used because they claim there is no need for one since there are no mosquitoes. The drainage system of the town proper empties right into the entrance of the barangay. The "flow" spreads out in rivulets into the yards and under the houses before it finally goes out to the sea. The unused pier now serves as a breakwater blocking the flow of sewage and causing some parts of the barangay to be constantly under water. Such conditions do not obviously concern the locals for their response is to construct their houses on stilts some two feet above the ground. The pier is left undisturbed, the mud and the dirt too. They have found their solution and that is to build higher and higher above the ground. The unused pier serves as the playground for the children.

One of the nearest barangays to the "poblacion" is Bacalon, 4.5 kms. east of the town proper. It is the third biggest barangay of Magallanes in terms of land area (6.96 hectares). Percentage of land use is mainly agricultural (85.5%) with some parts planted with coconut trees or converted to fishponds by landowners. The terrain is hilly with few kilometers of valleys marshy in character in the northwestern border with springs and swamps cutting across 3.5 kilometers of rough roads. The Bacalon river, however, is utilized by the people for transporting agricultural products like coconut, banan, rice, cassava, vegetables and other rootcrops. This barangay is the least progressive area in the entire municipality which could be explained by its relatively low population density and scarce human resources.

The third barangay studied is Siuton. The name originated from the word "siut nin tubig", meaning wedged by two big rivers which surround the community proper. It is an agricultural community with 80% of the total land area (2.722 hectares) devoted to planting coconuts, rice and corn, abaca, coffee and bananas. During the pre-war days, abaca plantations dominated the area but with the slump in the demand for Manila hemp in the local and world markets, the residents decided to replace these with coconut trees. The soil is fertile

so that the land abounds with vegetation. Blessed with suitable climatic conditions and a good amount of rainfall, the barangay is thriving. Like in the other barangays the houses are made of bamboo, wood, nipa thatch and dried abaca stalks and are mostly situated along streets, with some near the bank of the river and in the uplands. The barangay is linked with other surrounding areas by roads and by Gibaldon river. Two jeepneys commute regularly between the poblacion and Siuton, serving the people's need to travel to the center of the town.

## HEALTH BASELINE DATA AND FACILITIES

The various health indices computed for 1981 are comparable to the national values. The Crude Death Rate is 9.98/1,000 population with Pneumonia, Diseases of the Heart and Pulmonary Tuberculosis as the leading causes of mortality. The age-specific death rate is highest in the age group 60 years and above followed by the 0 to 4 years (275.18 and 42.35/10,000 population respectively). The Infant Mortality Rate is 54.45/1000 livebirths and 5 leading causes of infant deaths are Bronchopneumonia, Diarrheal Diseases, Asphyxia Neonatorum, Meningitis and Tetanus Neonatorum. Majority of the cases consulted to the health center and barangay health stations are diarrheal and respiratory diseases.

To take care of the health needs of the municipality, a rural health team mans the local health center. A public health nurse, 7 midwives, a sanitary inspector and a dentist compose the team. The municipal health officer's position had been vacant for several months now. From time to time, one or two rural practice doctors\* are assigned to the area for 6 months. There is a small community hospital in a nearby barangay which is complemented by a medical team consisting of a resident physicians and several nurses, a medical technologist and nurse-aides. The midwives, except for one who stays at the main health center in the poblacion, are fielded in the various barangay health stations. They have been trained as primary health care providers and administers to the health needs of the people within their catchment areas. Levels of referrals are observed in this unit. Severe cases are referred to the public health nurse in the main health center and if still beyond the capabilities and facilities in the health center, these are sent to the

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\*Medical graduates are required to serve in the rural areas for 6 months before acquiring their licenses.

community hospital. Lay barangay health workers (10) had been trained to augment health care delivery at the grassroots. Likewise, 30 indigenous healers and 30 traditional birth attendants had also been given training on treatment and prevention of simple ailments and aseptic attendance at delivery respectively. Several "botikas sa barangay" (village drugstores) had been established to provide essential drugs at low cost to the people.

The sanitary inspector takes care of the environmental sanitation of the whole town and is assigned at the main health center. He is also in-charge of the local Filariasis Control activities which are implemented in coordination with the Provincial Filariasis Unit. This unit is based at the provincial health office in the capital town and composed of a medical specialist, a research entomologist, 6 medical technicians and several laboratory aides. They conduct screening, treatment and educational campaigns as well as entomological studies in Magallanes sporadically. Hence, there are no regular clinics held at the health center for filariasis, neither are there medicines available for treatment. Campaigns are held at the barangays but people are very reluctant in joining blood screening and treatment clinics. Persons diagnosed as having the disease refuse to take the medicines given as these make them more sick. To avail of surgery, the patients had to go to the capital town and seek admission to the provincial hospital. This may entail several visits and so becomes very expensive.

## **THE FILARIASIS PROBLEM IN THE PHILIPPINES**

Infectious diseases still account for a high proportion of deaths and illnesses in the Philippines. Some of these are a perpetual menace to some parts of the country due to their endemicity. One of these diseases is filariasis. Scattered widely in many islands, the disease occurs mostly in rural environments. In 1977, the national incidence rate was .02/100,000 population (DIC Report, MOH, 1977), all the cases having come from the endemic areas such as Sorsogon, Palawan, Negros Oriental, Leyte del Norte (with a rate of 0.2/100,000 population) and Eastern Samar (0.7/100,000 population). However, unlike other reportable diseases, filariasis is grossly underreported. The prevalence rate which was revealed in a survey conducted by the Filariasis Control Unit of the Department of Health in 1965, was 3.7%; 29 out of the 48 provinces were again surveyed of which 37 were positive for filariasis with infection rates ranging

from 0.02% to 10.08% or an average rate of 4.06%. Of the Luzon provinces, Sorsogon has the highest prevalence rate of 8.40%, while in the Visayas, Samar ranked highest with 4.04%. Sulu archipelago, however, had the highest prevalence rate among all the provinces surveyed, the rate being 10.18% (Cabrera and Arambulo, 1973).

Several epidemiologic surveys have been conducted by the Filariasis Control Unit in the 16 municipalities of Sorsogon since 1964. In the 9 municipalities studied between 1966 and 1970, the prevalence rates ranged from 5.54% to 11.66%. Succeeding surveys conducted 10-15 years later showed a decreasing trend; the prevalence rates ranging from 2.47% to 5.08%. Results of surveys from 1970 in the 6 other municipalities revealed lower prevalence rates (range of .53% to 4.77%). Two surveys were conducted in Magallanes, the first in 1965-66 with a prevalence rate of 5.76% and the second in 1979 with a rate of 4.58%.

The most common mosquito vectors in this province, as revealed by entomological surveys conducted by the Filariasis Control Unit are *Aedes poicillus*, *Culex quinquefasciatus* and *Mansonia uniformia*. The main vector, however, is the *Aedes poicillus* whose usual breeding place is the axil of the abaca and banana plants. Though there was a decrement in the abaca plantations in the province and the emergence of such in other areas in the country, banana plants abound. Continuous breeding occurs due to characteristic steady rainfall throughout the year.

To date, there is a dearth of studies on the social aspect of this disease. Attempts have been made to calculate the annual peso loss from filariasis. This has been found to be in staggering amounts since the provinces which have been established as endemic are agriculturally productive areas and the persons most affected belong to the labor force. Moreover, this disease affects the abaca-producing areas and abaca is one of the main agricultural exports of the country. However, the social stigma attached to the pathologic sequelae of the disease tells more heavily on its victim than its tangible pecuniary cost (Cabrera and Arambulo, 1973). There are no known local studies on the existing indigenous perceptions of the disease among the rural population. Neither their attitudes towards the disease nor the practices pertaining to it have been investigated. The serious neglect coupled with the realization of the impact the social dimension of the disease has on its prevention and control, motivated this study on the knowledge, attitudes and practices of the people of Sorsogon on filariasis. Planned and conducted with financial and technical assistance of the

Social and Economic Research Component of the UNDP/World Bank/WHO Special Programme for Research and Training in Tropical Diseases, this project study started in April of 1981 and terminated in February 1982. The research team consists of specialists from several disciplines: a physician in Community Health, a sociologist, an entomologist, an anthropologist, a parasitologist and a statistician.

## **OBJECTIVES OF THE STUDY**

1. To determine the knowledge, attitudes and practices of the people of Sorsogon on filariasis. Specifically, the study seeks
  - i.1. To describe the people's indigenous and traditional knowledge of the causation, transmission and symptomatology of filariasis.
  - 1.2. To describe the existing local attitudes and perceptions towards the disease and to the current prevention and control program.
  - 1.3. To describe the cultural definition of the disease and the social practices of the people relating to the transmission, treatment and prevention of filariasis.
2. To utilize data in formulating guidelines for planning various approaches to prevention and control of filariasis especially in educational programs.
  - 2.1. To determine target groups
  - 2.2. To design the appropriate strategies.

## **METHODOLOGY**

### **Selection of the Study Population**

A combination of stratified, 2-stage random sampling was utilized in this study. The municipality of Magallanes was divided into three strata using the poblacion (Stratum I) as the initial center of reference. On the basis of distance from the center point the barangays in each stratum were listed. In

Strata II and III, the barangays were further subdivided into two groups, namely, the coastal and interior barangays.

Random sampling of 50% of the barangays in each stratum and sub-group was done, thereby ultimately including 18 barangays in the study.

There are a total of 4410 households (as of 1980) in Magallanes. Ten percent (10%) or 441 of these were proportionately allocated to the selected barangays in each stratum. Four members of each household, the father, the mother, one randomly chosen male and female child above 10 years old constitute the respondents in the study. A total of 1261 respondents from 461 households were interviewed.

### **Collection of Data**

Two methods of data collection were adopted to fulfill the objectives of the study, namely: the semi-structured interview utilizing a pre-tested questionnaire and participant-observation techniques.

The interview schedules contained the following items:

1. The respondent's understanding of the causation, transmission and symptomatology of filariasis based on their indigenous body of facts, experiences and observations.
2. The belief system and feelings surrounding the causation, transmission, treatment and prevention of the disease.
3. Local habits and customs of the people in relation to transmission, treatment and prevention of filariasis.

The interview schedule consisted of three parts, specifically, a series of closed and open-ended questions, statements with a likert scale response and a set of "vignettes". Special questionnaires were also formulated for adult and child cases if ever these existed in the sample households. The likert scale is composed of discriminatory statements on popular beliefs about the disease and feelings toward the existing control program. Agreement or disagreement to these statements were elicited. The "vignettes", on the other hand, are portrayals of the disease worded in non-technical language. Respondents were asked their perception of the status of the disease in terms of

severity and prognosis.

Six (6) field interviewers administered the interviews. With the permission of the Provincial Health Officer and in coordination with the Provincial Filariasis Control Unit, six midwives in the Magallanes Rural Health Unit were recruited and trained in interview techniques and later fielded in the sample barangays. The town mayor furnished the midwives a letter enjoining the cooperation of all the barangay captains of the involved areas. Periodic supervision and re-training were provided by the research team.

Alongside these procedures, observations of the domestic, social and occupational activities of the people were conducted in order to obtain factual information on those practices which are related to the exposure to the disease agent and transmission of the disease. Moreover, this aspect of the study provided validation of and depth to the interview results. Participant observation was done in three randomly chosen barangays representing each of the sampling stratum. These were Bacolod (Stratum I), Banacod (Stratum II) and Siuton (Stratum III). A doctoral student in Anthropology at the University of the Philippines lived in these areas for a month followed by two sociology graduates from the Bicol State University for two and a half months. In addition, the collaborating socio-anthropologists, a faculty member of the Bicol University, together with 6 senior students in Sociology, stayed in these places for a week to determine the ethnography of the three barangays. Field and diary notes were written and compiled to record the daily observations.

Depth interviews were likewise made with key informants, and group discussions with community leaders and members were held to supplement the observations. Key informants were selected on the basis of a set of criteria, namely:

1. Clinical case
2. Non-case
  - representing various occupational groups in the community
  - chosen on the basis of age, length of stay in the barangay and degree of credibility in the barangay.

A photo-ethnography portion was included to provide in-depth dimension to the research output. Furthermore, the following portions of the study were documented.

1. Entry of the team into the study area, including the training and supervision of the interviewers.
2. The geographical terrain and the ecology of the community.
3. The many faces of the respondents in their home setting, and finally,
4. The description of the various occupations in the community.

To validate the research findings, feedback discussions were arranged and conducted with different groups representing the providers and consumers of health services. A meeting was held at the Provincial Health Office with the rural health personnel of various units in Sorsogon. The Filariasis Control Unit was however met separately. Six graduating students from the Bicol University prepared the community feedback. In spite of the inclement weather, barangay captains of the sample barangay, the municipal mayor, vice mayor and some community leaders attended the conference. A member of the Filariasis Control Unit and the health center staff were also present.

### **Data Analysis**

Frequency distribution tables were initially constructed for all the variables to determine the trend of responses and thereby ascertain the prevailing knowledge, attitude and practices of the respondents. To know the level of knowledge and attitude on the causation, transmission, symptomatology, prevention and treatment of the disease, scores were obtained for each of the respondents which were later quantified for overall results. Mean scores for each attitude statement were computed and interpreted according to a qualitative continuum of levels of agreement or disagreement. The vignette responses were assigned a score based on a pre-set table (Appendix A) of values for each of the five questions. The scores then were analyzed by stratum and respondent type to determine profile of composite community perception of each of the portrayed disease (in different levels of severity). Likewise, differences in knowledge, attitudes and practices among the three strata were assessed to determine the influence of distance from the center of the town.

Cross tabulations of knowledge, attitudes and

practices with respondent types (father, mother, son and daughter) were done. Moreover, correlation analysis was performed to ascertain the relationship of socio-demographic characteristics with knowledge, attitudes and practices. The associations between knowledge and attitudes and between practice and attitude were also explored.

The results of the anthropological observations were utilized in supplementing and explaining the interview findings. Practices related to transmission, prevention and control of the disease were derived by observations in the three barangays.

## **RESULTS OF THE STUDY**

### **Characteristics of the Respondents/Study Barangays**

More than 10% of the 4410 households were included in the survey consisting of 1261 respondents from 461 households. Of these, 21.16% (393) are fathers while 32.91% (415) were mothers; 17.04% (215) daughters, and 17.20% (217) sons, with 1.66% (21) other respondent types like older sisters, brothers or aunts who are considered heads of families. Generally, the respondents are young with a mean age of 22.75 years. The average ages by respondent type are as follows:

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<b>Respondent Type</b>	<b>Mean Age in Years</b>
Fathers	44.2
Mothers	41.9
Daughters	20.7
Sons	19.2
Others	45.7

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### **Socio-Economic Profile of Respondents/ Study Barangays**

Most of the respondents are native to the area having stayed there since birth or having lived there for over 25 years. the families, consisting of husband and wife living with children (usually, family size is 6 and above), stay in single houses which are one room affairs. They however, own their houses, except for some families, especially in the sample barangays of Stratum I, who are either renting the house or squatting

on other people's land. Majority of the houses are constructed of bamboo and nipa or wood and nipa. Most often the household owners raise chicken and poultry animals in their backyards for food or to be sold in the market. Typically also, they have dogs and cats as part of their familial surroundings. Families in barangays belonging to Stratum II and III own carabaos for tilling the rice farms. These families cultivate banana and other fruit-bearing plants in their yards as well.

Since most of the houses have only one room, very few have separate sleeping quarters. It is very common to have the wife and husband sleeping together with the children on a single floor mat with or without the protection of a mosquito net, the latter being reserved for important visitors. Such sleeping arrangements pose health problems especially in the mode of transmission of illnesses, such as filariasis, in the area.

More than half (54.5%) of the respondent fathers are farmers, followed by fishermen (21.4%), while the rest (24.2%) are vendors, teachers, employees and abaca gatherers. Majority of the mothers (82.4%) are housekeepers and some help their husbands in vending and farming. Daughters and sons are mostly students (63.7% and 55.8% respectively) with the others out of school and helping their mothers at home or their fathers in farming and fishing.

Farming is the predominant occupation in the barangays of the second and third strata (represented by Bacalon and Siuton) since agricultural lands abound. However, "absentee landlords" (about 2% of the total number of families) own almost 80% of these lands. The sharing system between farmer-landowner is as follows: 50-50 for coconut and 75-25 for rice. For nipa thatch making: 2 pieces for maker and one for nipa owner. The farmers work on a tenancy basis. Consequently, they are so poor that they cannot even send their children to elementary school, much less to high school. Instead, children early in their lives, are utilized as extra hands in the field.

In the barangays of Stratum I, especially in the shorelines (represented by Bacolod), fishing is the main source of livelihood. Sometimes, fish is used as a medium of exchange in the barter system practiced by the local people.

Leadership in the barangays rests on the barrio captain, councilmen, council secretary and treasurer, kabataang barangay chairman (youth counterpart of the barrio captain) and the barangay brigade. The midwife assigned to the barangay, however, seems to be an

important figure in the barangay. She spearheads activities both in the political, social and religious domains.

The majority of them sees no relevance in joining community organizations or clubs except for membership in the Barangay Brigade (which is almost compulsory in the present political structure). Only a few (22%) indicated affiliation with Parent-Teachers Association, Boy Scouts and Girl Scouts and the Samahang Nayan.

### The Indigenous Knowledge of the Disease

Two-thirds (64.2%) of those interviewed know that there is an illness called filariasis. Fathers (87.5%) are more aware than mothers (76.4%) and so are sons (33.2%) more aware than daughters (29.8%). Because of their actual exposure to people afflicted with the disease, most of the respondents (44.6%) get to know about filariasis. Others (33.2%) have heard stories from elder members of the community while some (6.2%) learned about it from the filariasis clinic.

### Local Terminology for Filariasis

Filariasis is associated with several categories of local disease shown in the following table.

F I L A R I A S I S		
M a l e s	F e m a l e s	Both Sexes
Bungao Tustus Tagu-api	Bubuwa or Buwa	Tibak

The above diagram indicates that sex is an important sorter of the disease. Among males, "tagu-api" (congenital enlargement of one of the testes) and tustus (lowering of intestines into scrotum) indicate early stages of "bungao" (full-blown disease with enlarged scrotum). Several terminologies are used to identify the disease in females namely: "bubuwa" or "buwa" and "bubuya" or "buya" (enlargement of the vaginal labia or lowering of the "matres" or uterus). These terms came from the local words "bubong nagyaya" or "bubong nagwawa" which mean descending or protruding tissue in the female external genitalia. "Tibak" on the

other hand (enlargement of extremities) occurs among males and females. The word "tibak" was derived from the word "tigbak" which means death. The natives tell stories of afflicted people who hide in the mountains until death to escape ridicule from the community. Likewise, the word "bungao" seemed to have originated from the word "bunao" (testes). A person afflicted with the disease is labelled a "bungawon" (with enlarged scrotum) or "tibakon" (with swollen legs and feet).

### Theory of Causation:

The prevailing view on disease causation is "nasurip na ugat". Specifically, it refers to the entry of "lamig" (coldness) into a person's body by way or his/her "ugat\*" through contact with ordinary cold water after heavy work. A farmer or abaca stripper who allows his perspiration to dry up on his body without changing his clothes, may develop "bungao". Fishermen may also acquire the disease from prolonged exposure to sea water. Thus, the swelling of the scrotum is explained to be due to accumulation of water in these body parts. Other reasons ascribed to the enlargement of the scrotum are fatigue, carrying of heavy loads, washing after sexual intercourse, and too much exposure to heat. Some, however, noted that a person with "tagu-api" is prone to have "tustus" which later progresses to "bungao". On the other hand, in women, carrying heavy loads, "relapse" after child birth\*\*, taking baths and washing during menstruation, or promiscuity may be causes of "buwa" or "buya". "Tibak" has also been attributed to long walks, prolonged standing or squatting (especially among fishermen while mending nets).

Depth interviews with a lawyer, a school teacher and political figures in the barangays, however, revealed a different opinion on the causation of filariasis. According to them the disease is due to mosquito bites.

The polarization of knowledge on the cause of the disease between the popular view of "surip" (sudden exposure to heat or cold) and mosquito bites indicates the role of education in the acquisition and internalization of scientific information on the disease.

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\*Ugat may mean vein, nerves, or lymphatic vessels.

\*It is believed that parturients who do not recover completely after delivery are "nabinat" (relapsed).

Key informants who attributed "bungao" to mosquito bites live in Bacalon and Siuton which are mosquito-infested areas, in contrast to the Bacolod residents who imputed the disease more to "surip" since mosquito density is low in that area. These inhabitants alleged that if this were true, then "bungao" would not be endemic in the area. Seemingly, the Magallanon's disease world is preconditioned by the ecological situation.

### **Mode of Transmission**

"Pasma" (same meaning as "surip" - i.e., sudden exposure to heat or cold) and too much work were expressed as the mode of transmission of the disease, responses which are similar to their idea of the causation of the disease. The respondent's concept of causation cannot be distinguished from the concept of mode of transmission. For them what causes the disease would be easily believed as the mechanism of transmission.

Their theory regarding mode of transmission is derived from their observation of "bungao" and "tibak" cases, while son and daughter respondents learned more about this from other people in the barangay.

More than half of the respondents (69%) say that there is no possibility for other members of the family to acquire the disease if the father is afflicted with it. Those who think otherwise attributed this to inheritance or working in same place.

It is interesting to note that, given their own concept of etiology and their observations of the features of the disease, adult males are pointed out as the most likely group to have the disease. The occupational groups of "kargadores" (loaders); farmers, abaca strippers and fishermen are said to be the most prone to the disease since these groups are associated with the carrying of heavy load, fatigue, heavy perspiration, mosquito-infested surrounding and a water environment.

### **Symptomatology**

Only 51% of the respondents know the symptomatology of the disease. Daughters, sons and other types of respondents are not aware of the symptoms of the disease. Depth interviews with key informants, however, provided more information on this aspect of the disease.

There are three terms that describe the symptomatology of "bungao," namely: "sakit" (pain), "paglaki" (enlargement) and "bumababa" (lowering). Pain is associated with "puson" (lower abdomen), "balakang" (hips) and "bayag" or "bunao" (scrotum). At the initial stage of the enlargement of the scrotum, pain ranges from absent to minimal. As it is increasing in size, pain becomes recurrent, sometimes severe and intolerable and accompanied by muscular cramps attributed to the heaviness of the enlarged scrotum. A sensation of "something" descending into the scrotum may also be felt.

Among affected females, the "matres" (uterus) is pushed downward ("bumababa") and the labia of the vagina swells. She walks awkwardly and wets her dress and chair upon sitting.

"Tibak" is a kind of disease characterized by enlargement of the feet and legs. Initially, the disease is identified as "kolebra" (infection of legs and feet). Rashes then spread all over the legs. Subsequently, the legs and feet become swollen and enlarged to abnormal proportions. The "tibak" patient runs a fever and occasionally suffers from chills ("giniginaw"). The veins ("ugat") in the legs and feet may become "bukol-bukol" (nodular swelling).

There are treatment modalities available for a "bungao" case and once cured, the symptoms subside. Recurrences do not usually happen unless there is a relapse, a condition brought about by resumption of activities on the part of the person carrying heavy loads. It may also recur when treatment is not complete.

#### **Diagnosis, Treatment and Prevention:**

Two-thirds of the respondents (64.2%) do not know how the disease is detected. Those who claim they know, stated that blood examination is the procedure done for this purpose. However, the majority (88.2%) is not aware of the reasons why blood samples are obtained at night. Some believe that perhaps it is because "blood is normal at night since people are at rest."

Almost all the respondents (91.4%) thought that the disease is curable and the best methods of treatment are surgery and medication. They also mentioned that prevention is attainable by avoidance of carrying heavy loads and preventing exposure to water when fatigued.

To control the disease, 72.8% suggested submitting oneself to medical examination with very few mentioning

control of mosquitoes.

**The Respondents' Overall Level of Scientific Knowledge of the Disease:**

All the questions on knowledge were given corresponding scientifically accepted answers and each item was assigned a score of one. The total perfect score is 18. Individual respondent's scores were obtained depending on the number of correct answers they have. Mean scores for each respondent type were then computed. The following tables shows the results:

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Respondent Types	Knowledge Mean Score
Father	10.5
Mother	9.5
Daughter	8.5
Son	8.1
Others	7.7

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Results show that there is no considerable difference by respondent type. However, the children who are younger got lower scores. It is also interesting to note that the "others" respondent category, which is composed of older aunts and older males and females acting as heads of parentless families, had the lowest score. These may be the traditionally more adherent members of the community who refuse to internalize newer scientific facts about filariasis.

Compared with the perfect score of 18.0 points, the respondents obtained right answers for only 50% of the knowledge items which indicates lack of scientific knowledge of the respondents on filariasis.

The relationship between demographic and socio-economic characteristics of the respondents with their knowledge of the disease was explored. Considered as socio-economic characteristics of the respondents are household size, housing materials, number of rooms in the house and house ownership while the socio-demographic characteristics are age, length of stay in barangay and membership in organizations.

Male and female parents in good socio-economic standing tend to have better understanding of the disease. But membership in organizatins was shown to be

inversely related with level of knowledge. Male and female parents who are members of organizations (mostly Barangay Brigade) are likely to have lower level of knowledge of the disease. Formal and informal discussion on the disease might not have been done in the meetings of these organizations.

#### **Attitudes Towards the Disease:**

"Bungao" is not considered contagious because it is not caused by a "mikrobio" (disease organism). It is generally held that one can sit on a chair previously occupied by a "bungao" case without getting the disease. Children may not get the disease although their parents are afflicted with it. To separate the bedding and eating utensils of the case is deemed not necessary to prevent the disease spreading to other members of the family. Also the majority believe that "bungao" cases can go to church and attend social functions.

Likewise they say "bungao" patients can marry and beget children. The parent respondents think that having an enlarged scrotum will not be a deterrent in sexual activities. However, the son and daughter respondents disagreed with their parents on this.

The disease is believed to be preventable. For them the use of mosquito nets while sleeping provides protection against the mosquitoes which are regarded as causing the enlargement of the scrotum. This is inconsistent, though, with their prevailing theory of causation of the disease. The wearing of "anting-anting" (amulets) is not effective either in warding off the disease since it is not due to divine punishment for sins nor to evil spirits.

Whenever afflicted, it is best to consult a doctor because he knows the disease very well and all the required examination for diagnosis. Most of them are even willing to submit to blood examination if need be. they fear getting the disease on account of the enlargement of the scrotum which is bothersome. Moreover, being called a "bungawon" carries a social stigma. Family members often feel the impact of the illness more because they are stigmatized along with the afflicted father. For them, it is an embarrassment. A daughter of a "bungao" case overheard a derogatory remark directed at her: "Yes, she is beautiful, but her father is "bungawon." Another case was teased about always carrying his wealth in his enlarged scrotum. He recalls how sensitivity to his "bungao" affected him as

he relates the following:\*

"When I worked in a mining company, my co-workers told me I did not have to work since being a bungawon made me a rich man. At first, I was very sensitive especially with the thought that the ailment was not of my own doing. Later, I learned to accept myself and all the notions attributed as a bungawon."

An observer recounts a "bungao" friend's attitude as:

.... so irritable and seldom went out of the house... often the butt of ridicule from other barrio folks... branded with names as "tesurero kan baryo" (barangay treasurer) or a "pacific bank" (so named because he had a big one; having a small "bungao" merits the name of "a rural bank")... In the end, his interaction with other community members returned to normal and the people accepted his condition. He even attends the New Year dance at the municipal park....

Another case had been referred to as "Gundo, duwa an payo" (Gundo, with two heads - his head and his bungao). He was so much annoyed by this, so that, when teased, he resorted to fisticuffs or arming himself with a bolo to attack those who made fun of him.

Unwholesome attitudes, however, revolve about the woman inflicted with "buwa" or "buya." Contracting this illness is frowned upon by the community. Any "buya" patient is presumed to be promiscuous.

On the other hand, being a "bungawon" is considered as indicative of one's industry and devotion to family, the person developing the disease being hardworking and diligent. A case utilized his "bungao" as an identity in business transactions. His influence in "regaton" (fish dealership) was strengthened by the name he assumed as "Beatong Bungawon" (Beato, the "bungao" case). Such name became the basis of his livelihood so that the acceptance of his fate never compelled him to submit himself to surgery. For one

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\*Taken from the anthropological field notes, June 1982

thing, he could not overcome his fear of the operation. For another, a stigma dies a natural death.

For all the attitudes associated with filariasis, an observation made by the rural health midwife of Bacolod is noteworthy. She claims that "bungao," "tigbak" or "buya" patients seldom go to the health center because of "supog" (shame). The physical defect is so demeaning that not a single incidence has been reported to the clinic. If there were one, however, nothing would be done since the center has no medicine for these ailments.

"Tustus" however carries a lesser stigma than "bungao". It seems that it is considered a normal occurrence to have an enlarged scrotum so long as corrective measures to stop further enlargement is resorted to. Otherwise the enlargement develops into a "bungao." Those who can afford an operation can tell the community that his is a case of hernia. Those who cannot afford an operation become "bungawon" all their life. These facts show that having "bungao" indicates a low economic status.

The socio-economic characteristics of the respondents were correlated with attitudes towards the disease. Household size was shown to be positively but weakly related towards the disease among male parents. Likewise, female parents belonging to a bigger household tend to have a more positive attitude towards treatment of the disease.

#### **The Community's Perception of the Disease:**

Anecdotal portrayal of five (5) cases in different levels of severity were presented to each of the respondents to determine their perception of the disease.

The presented case with pain in the scrotum and nodular swellings at the neck are considered of mild gravity, so are the cases with enlargement of the labia of vagina and the scrotum (size of a coconut fruit). The case with scrotal enlargement as big as a sack is however perceived as serious.

According to respondents, all the cases portrayed have better prognosis except those with scrotal pain and labial enlargement who some respondents like daughters

and others\* who were interviewed believe will stay the same for some time. In fact, the "older" respondents and mothers state that those with coconut-sized scrotal enlargement can even get worse.

Marriage is perceived possible for all the five cases except for those with the extreme scrotal enlargement. All of them can continue living with their families. They can also work/go to school with the exception of the case with the big scrotal enlargement.

The respondents have seen cases similar to those described in the vignettes except for the one with coconut-sized scrotal enlargement. The older "other" respondents and those in Stratum III had not seen cases with nodular swelling of the neck.

There is no considerable variation in the perception of the disease represented by respondent type nor by stratum. They seem to have parallel views of the disease having stayed in the area for long and having been exposed to afflicted persons. The "other" respondents however tend to view the disease in a better light since they are older and had lived in Magallanes longer. Contrary to this, the respondents of Stratum I (poblacion) are more inclined to perceive the diseases as becoming serious and worse. The poblacion is the center of the municipality, thus people are more exposed to health information.

### **Practices Related to Treatment and Prevention of Filariasis**

There is a significant blending of traditional and modern practices for treatment and prevention of "bungao" and "tibak." The traditional practices come in the form of body massage, hot compress, medicinal herbs and barks. Their meager medical knowledge adopted to complement the conventional ones consist in the application of pulverized antibiotic tablets, vaporub, rubbing alcohol and gasoline.

Specifically, for "tagu-api" and "tustus" hot compresses are applied to the enlarged testes/scrotum. Pumice stone is thus heated, then covered with coconut shell with the three holes directed towards the affected area to allow direct evaporation of heat. The hot vapors from the heated stone is expected to stop the

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\*Others are the aunts, older brothers or sisters who are considered head of families.

swelling of the testes/scrotum. Some of the afflicted individuals had abdominal massage with upward strokes by their own selves or by folk healers. A widespread practice is to utilize herbs (locally called moton-boton, buyo or tuba leaves) which are heated. The sap is extracted and applied to the enlarged part of the scrotum. A folk healer combines the extracted sap with salt and rubbing alcohol which he later massages on the lower abdomen.

The sap of a variety of medicinal leaves is also applied to the enlarged scrotum of "bungao" patients namely kumintang, puli, suragga, tuba, moton-boton and taligbuhay. Wrapping the scrotum momentarily with the leaves of "bunguran" (a species of banana) is also done by some folk healers. The leaves, however, are removed right after application, otherwise if you prolong the applications the testes may disappear and cause the death of the patient. Folk surgery was performed by a patient turned healer in the process of discovering the cure for his ailment. Tiyo Dado (the folk healer who had later treated almost all cases of bungao, tibak, buya and tustus in the area) recalls vividly how he solved his own "bungao" problem, thus:

.... When my wife was away to do some marketing in the poblacion, I bathed and cleaned myself thoroughly with boiled concoction of leaves of guava and "dapdap", some heart-shaped leaves and fruits with pods. A blade was then provided with an improvised handle and placed in the boiling concoction. I sat on a stone and gently massaged my oversized scrotum, squeezed it between two bamboo splits, then put it on a metal piece. I boxed and pounded on my scrotum to test its resistance to pain. When I felt I could withstand the pain, I incised the scrotum with the blade and extracted a reddish white fluid. Then I put my testes back into its place, and in droplets, applied the juice of "dapdap" leaves. The smarting pain almost made me cry. The powdered penicillin tablets were then applied on the wound which was covered with heated "dapdap" leaves. I wore a "bahag" or supporter to protect the wound, took penicillin tablets twice a day and cleaned the wound regularly with the same concoction. To prevent infection I also applied heated leaves of "dusol" ... after nine days of treatment, the wound was healed. I lost my "bungao" but I gained weight because by then I was relieved of my embarrassment and anxiety as a "bungawon".

For the "buwa" or "buya" patient, a clean heated piece of cloth or tuba leaves are applied to the swollen labia. No sure cure can be prescribed for "buwa" patients, since this involves a delicate part. "Tibak," likewise, is considered by many as an incurable disease. Thus, a patient remarked: "Kapag tinibak, mangadye ka na sa tabak" (even at the point of a knife, the ailment will not leave you). The accumulated fluid, "microbes" and dirt are sucked by a leech after which a mentholated ointment\* or oil is spread on the surface to prevent bleeding. This is a folk healer's way of reducing the enlarged "tibak" leg. A patient also had resorted to a gasoline and alcohol rub on the affected leg.

To prevent "bungao," "tustus" or "buya," people are advised to refrain from lifting heavy loads and indulging in hard work or being wet when fatigued. Interestingly, all of these measures are seemingly directed to the known and accepted etiology of the disease. Furthermore, upon meeting a "buwa" patient, one must tear the hem of her skirt to avoid contracting the disease. A parturient must also take the "panurip" dring (a mixture of Chinese wine and boiled extract of "anonag" and "manonggal" bark) to prevent relapse (considered a cause of "buwa").

Attempts at preventing or treating any form of the disease are, however, futile among the economically deprived group who are mostly affected. For them, not to continue working to earn their daily bread is unrealistic. Moreover, the fear of the medical intervention and the expenses it entails, creates a barrier to proper care. Henceforth, any folk healer's prescription becomes the rule for the treatment of the disease, not only because it is most accessible but more significantly because the prescribed "cure" is locally available and the cost is not prohibitive.

#### **The Adult "Bungao" Patients Attitudes and Practices:**

Twenty-two (22) adult males with "bungao" were identified in the sample households. Additional information was asked from them to assess their feelings and practices related to the disease including effects of the disease on himself and his occupation.

Most of the cases interviewed were farmers (almost 50%) while some (23%) were abaca workers. These latter

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\*Locally known as Vicks Vaporub.

workers had to go to work early, walking for about 10 minutes to the abaca plantations. They strip the abaca stalks the whole day until early evening with very minimal clothing (usually shorts and t-shirts). Sometimes sons or daughters would accompany them to work. The said activities therefore, provide possible exposure to mosquitoes thriving in the abaca plants.

Upon knowing that they have "bungao," almost half of the cases said they started having no peace of mind due to the pain felt in the scrotum, the continuing scrotal enlargement and the uncertainty of cure (30% of respondents felt frustrated and lost hope). Some of the respondents indulged in self-pity ("nahihirak sa buhay") and became embarrassed by their condition. Almost 30% had lost their work, had to stay home and depend on their families. Others, however, denied any effect on work or well-being since they alleged that the scrotal enlargement was not yet noticeable. Their working hours were not also affected except for some who said they had to work 4-6 hours less especially when the scrotum had become bigger.

At the onset of scrotal enlargement, the cases either went to see a doctor or sought treatment from "herbolaryos" (herbal medicine man) while some did nothing. Treatments given were surgery, tablets or herbs.

The majority (77%) said they had not been involved in the Filariasis Control Programs. Of those who were, 25% said they were given tablets or helped in the distribution of these.

### **Correlation Between Knowledge, Attitudes and Practices**

In general, the correlation analysis failed to reveal any substantial relationship between overall knowledge and attitudes. However, these (knowledge and attitudes) were found to be associated in terms of certain aspects of the disease, i.e. causation, transmission, diagnosis, symptomatology, control, prevention and treatment. Variation in relationships between these aspects of the disease among the respondent types was also noted.

Respondents who had better knowledge of the treatment of the disease were shown to have positive attitudes towards the disease. The parent's knowledge on treatment correlates substantially ( $p < .01$ ) with attitudes towards the causation, prevention, transmission and treatment of the disease. This relationship however was not found among the male and

female children. Instead, the female children who had knowledge of the causation, control, prevention and transmission of the disease tended to have negative attitudes towards the causation of the disease.

It is interesting to note that negative relationships were demonstrated between practices and knowledge. Thus the male parents who submit to examination for filariasis are likely to be those who are not knowledgeable of the disease, especially the control and diagnosis aspect. The respondents were asked whether they will practice control measures if a family member gets afflicted with the disease.

Those who said they will use separate utensils and beddings for the afflicted member, are those who do not know the treatment of the disease.

Considerable differences were shown by the various categories of respondents in the relationship between their practice and attitudes related to the disease. The male parents who submit for examination, will use separate utensils and beddings for a sick member of the family and those who will segregate the sick member are likely to have a negative attitude towards the disease. On the other hand, female parents and children who will segregate the sick member of the family tend to have a positive attitude towards the disease.

#### Feedback Sessions at the Provincial and Municipal Levels:

Three feedback sessions were conducted at the provincial and at the municipal level with the aim of presenting the research findings to the providers and consumers of health services. Upon hearing the results of the study, the immediate reaction of the field staff of the Provincial Filariasis Control Unit was that of surprise. The results indicated that despite all efforts and creativity exerted by the field staff in the planning and implementation of screening and educational campaign, the people of Magallanes continued to demonstrate adherence to traditional beliefs and practices in connection with the disease. In the course of the discussions, stories of their difficult but challenging experiences were related to the research team in an attempt to explain their approaches and strategies in breaking down people's reluctance to join the control activities. The control unit utilized group singing and musical entertainment to draw the attention of the people to the control program. Despite much effort in making people aware of the disease, it appears that the people had failed to internalize the teachings about the disease. The

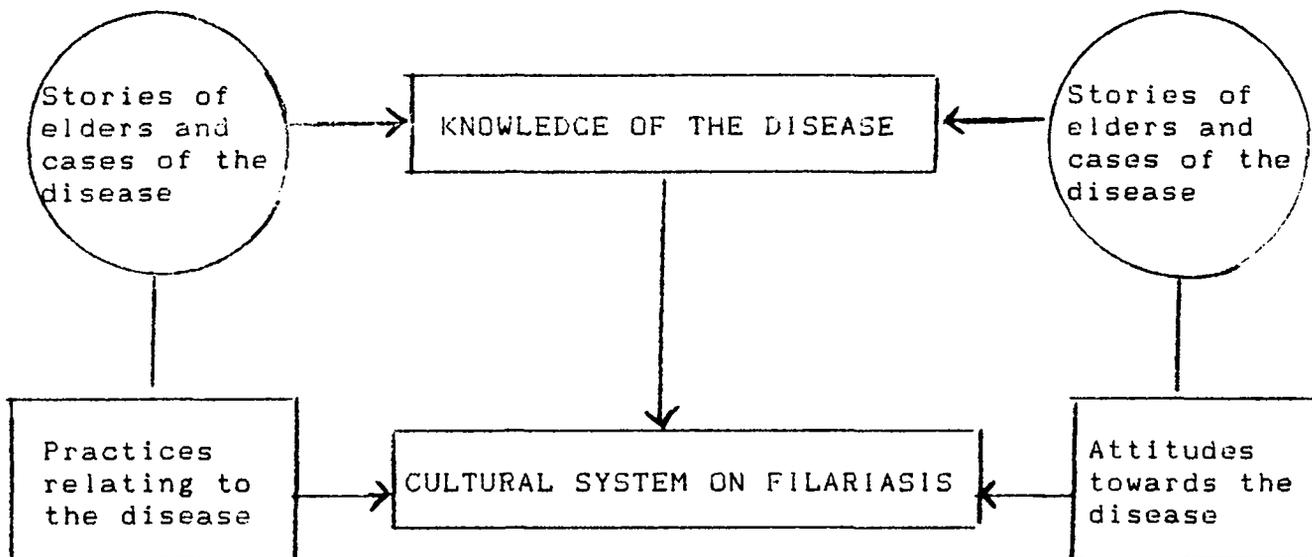
control people nevertheless had expressed the willingness to revitalize the existing strategies to make them more responsive to the people's needs. They, in turn requested a copy of the research findings so that they can use this for future planning of activities.

At the municipal level, the research team received thanks for choosing Magallanes as the study site. According to the participants, the research created awareness about filariasis. It was however stressed to the people of Magallanes that if they persist in their traditional beliefs and practices regarding the disease, any attempts to successfully control it may not succeed. Both the participants present during the feedback session and the respondents share a common belief system regarding the disease. Having the same culture, they have similar ways of coping with the disease.

The research team encouraged the participants to offer suggestions on how to modify their prevailing disease world. The response of a barangay captain was to comment on the quality of health education and teaching, saying that there was an absence of higher motivation and interest among the educators. In other words, to accomplish their objectives, the health educators must be imbued with greater dedication to their work, so that the people may be made more aware of the importance of proper health practices. Furthermore, it was suggested at the barangay level, that meetings should be scheduled so as not to disrupt occupational routines.

## **ANALYSIS AND DISCUSSION**

The findings indicate that indeed the population of Magallanes has developed through many years of exposure to cases of filariasis and to stories of elders a cultural system surrounding the disease. This includes knowledge, attitudes and practices related to the disease. The following diagram summarizes this system:



As soon as the residents of the area start to mingle and interact with peers, the exposure to actual cases and exchange of information on these cases commence. These result in the development of awareness of the disease. Continuing observation of afflicted individuals reinforce the initial discoveries about the disease which later became incorporated in their daily lives either consciously or unconsciously. The form of knowledge assimilation that has taken place is more real and meaningful to them since it comes first hand.

Continued exposure to cases in the barangays led to frequent discussions about the disease. The need for words to identify the disease resulted in the emergence of local terminologies. In the light of their situational knowledge as part of their "coping mechanism" several disease categories were developed. "Bungao" was coined to mean any enlargement of the scrotum; "buya" or "buwa" of the labia and "tibak" of the leg (irrespective of cause). This system of naming the disease categories was shaped into the experiences and behavior of the local people and within the limits of their understanding. Since these three signs constitute the earliest changes visible to the natives, the terminologies were adopted to identify the disease. As long as the enlargement is not noticeable, one is not labelled a "bungawon". To be called as such invites ridicule from the community so that a case in its early stages will not be discerned or branded as "bungawon." This may be construed to indicate an attempt to reduce the impact of stigmatization. Furthermore, it also tends to show that the early symptoms of the disease are virtually unknown to the majority of respondents. Fever, which is one of the earliest symptoms, is not considered symptomatic of the disease. Occurrence of

such symptoms may have been attributed to other diseases or not given any attention at all. Only half of the respondents are knowledgeable of the signs and symptoms of the disease. The disease is equated exclusively with the enlargement of the scrotum, labia and lower extremities, which signs characterize the acute latter stages of the disease. Consequently, the urgency to submit oneself to blood and other types of examination for early detection of the disease is overlooked. This partly explains why it is very difficult to motivate people for blood screening. Merely 36% of the respondents know how the disease is diagnosed and that is by blood examination. Their knowledge on this is also meager, since they cannot conceive why nocturnal collection of blood samples has to be done. However, an equal proportion of respondents had submitted themselves to blood examination. Whether previous knowledge of a diagnostic procedure necessarily precedes acceptance of this, was not conclusively shown by the study. Nonetheless, the correlation analysis revealed that those male parents who will submit themselves to blood examination are likely those who are not knowledgeable of the diagnosis of the disease. This may be an indication of curiosity or wanting to learn the diagnosis of the disease. On the other hand, one is construed to challenge this contention, since Bicolanos are known to be congenial and to be surrounded by a wide kinship circle. Presumably, submission of a few peers, or relatives can maximize voluntary submission of others to the procedure.

There is a clear overlapping of the native theory of causation and transmission of the disease. To them, causation cannot be dissociated from transmission since both lead one to develop the disease. Moreover, these aspects of the disease were viewed as occupationally related.\* Male adults who work as loaders or farmers constitute the majority of observed cases. These occupations are closely associated with heavy loads and perspiration. Thus, to attribute filariasis to these factors is justifiable within their world. The daily lives of the natives revolve mainly around their occupations and to say that the disease is due to mosquito bites will run counter to their real life situations. In some areas (Stratum I), people witness the development of cases despite the low mosquito density. This further strengthens their assumed cause.

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\*Getting wet during or after heavy work and carrying heavy loads are the prevailing theory of causation and transmission.

The respondent's knowledge of the treatment and control of the disease, however, conforms with the current intervention of the disease. Surgery and medication are considered by the respondents as the best form of management. Not many, though, can afford to seek these modalities of treatment for financial reasons and fear of the operation. Some "tustus" and "bungao" cases who were able to seek surgical treatment were relieved of the scrotal enlargement. People had been witness to the successes of this form of treatment and thus they came to learn about this modern management of the disease. It is quite logical to say so, since, only a quarter of the respondents are aware of preventive and control services in the municipality and of these, only a few (11%) have sought assistance from this service once. Furthermore, almost all of the respondents have not read any educational material on filariasis. This may account for the very low level of scientific knowledge among the respondents (they obtained correct answers for only 50% of the questions).

"Bungawons" are subject to ridicule but not ostracized. They are not segregated and can continue living with the family. Afflicted people are welcomed in the community gatherings. But at times they are laughed at due to the enlarged scrotum. Different titles are conferred on them. They are either called a "Rural bank" or a "Pacific bank" according to the size of the scrotum. In view of this, "bungao" cases felt disturbed upon knowing they had the disease. Some even indulged in self-pity and become embarrassed by their condition. In contrast, those belonging to the higher socio-economic class who can afford surgical and medical treatment do not worry since they are confident that after the intervention they will be back to normal. In general, the respondent's perception of the severity and prognosis of the disease seemed to correspond with the size of scrotal enlargement and the degree of physical incapacitation. Cases with minimal scrotal enlargement who can continue daily work are considered mild cases with better prognosis. For the less fortunate who cannot afford surgical intervention, the people's perception of the severity and prognosis of their affliction, will progress later from mild to serious and from better to worse. Thus the attitude of an interviewed case is "once a 'bungawon' always a 'bungawon'". Evidently, the people's perception of "bungao" cases contributes to the enhancement of social stigma.

Very few respondents and key informants are comfortable in discussing their knowledge, attitudes and practices on "buwa". The disease affects the body part considered "delicate" and taboo in open discussion. Early detection of cases is difficult if not impossible

since this disease is equated with promiscuity.

The healing practices related to the disease consist of syncretization of traditional and modern ways. Based on their prevailing knowledge of the symptomatology of the disease and influenced by their poverty, most cases resorted to folk healing and herbal medications supplemented by popularized home remedies.\*

Likewise, due to the prevailing theory of causation/transmission of the disease, preventive practices consist of avoidance of getting wet when fatigued and carrying heavy loads. To them this is more logical than the use of mosquito nets when sleeping. No other measures are undertaken. Houses are built right within abaca and banana plantations to facilitate the work done in this areas. No attempts were made to change the materials and structure of houses for protection against mosquitoes. The traditional nipa hut still predominates in the area. Farmers, loggers and abaca strippers often work with minimal clothing. Alterations in these conditions and activities to prevent being afflicted with "bungao" are meaningless to them. However, male parents who are inclined to practice control measures against filariasis at home tend to view the disease with fear. Presumably, apprehension of the filariasis with its gradually increasing enlargement of the scrotum, may provide the stimulus for male parents to seek knowledge on preventive and control measures against the disease.

From all the findings of this research, it was clearly shown that should a control and preventive program be planned and implemented, the first step should be to gain entrance to this disease world. In so doing, the very foundations on which a relevant scheme is to be built must be thoroughly understood. Otherwise, costly programs and projects will continue to be ineffective if not total failures.

#### **SOME INSIGHTS ON THE DATA GATHERING METHODS UTILIZED**

Several methods of data collections were employed in this study, namely: the interview method, the use of the attitude scale, the vignettes, participant observation and depth interviews of key informants.

Among all these methods, the depth interviews of

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\*These include rubbing with alcohol and mentholated ointments on painful or swollen body part.

key informants yielded the most accurate and comprehensive information on all aspects of the disease. Due to the repeated interaction, there was a progressive development of rapport between interviewer and key informant. The relaxed atmosphere resulted in a more exhaustive discussion of the various issues about filariasis. On the other hand, interrogating four members of a household in a one sitting provided superficial question and answer type of data gathering with few opportunities for probing. Nonetheless, the combination of these two methods strengthened the research output. The depth interview filled in the gaps left out by the interview and provided explanations to doubtful interview results.

The results of the attitude scale negated some of the interview findings. Whether this inconsistency is real or due to inherent weaknesses in the instrument remains a problem to be studied. However, the results of another study (Feliciano, 1982; *The Limits of Western Social Research Methods in Rural Philippines*) supported this inconsistency. It was found out that:

... the use of the attitude scale at the barrio level was a dismal failure in terms of the seemingly erratic responses yielded. Low literacy levels, value system and possibly a nebulous understanding of the interviewer's role probably influenced the barrio folk to respond in a manner which did not reflect their real attitudes.....

It was therefore possible that the respondents in Magallanes when requested by the interviewers, who happened to be midwives catering to their health needs, gave favorable answers if only to please them.

The vignettes, however, produced more insights on the perception of the disease. The anecdotal accounts of several cases appeared interesting to the respondents since these were expressed in familiar language. Moreover, this afforded relief from the long question and answer session immediately preceding the vignettes. Nevertheless, more careful preparation of the anecdotes is needed to fully project the disease.

Thus, it is essential that at the pre-test stage of the methods of data collection, a careful assessment of the effectiveness and strength of these methods be undertaken.

## GUIDELINES FOR FUTURE HEALTH EDUCATION PROGRAMS ON FILARIASIS IN SORSOGON

Based on the results of this study, the following guidelines were developed:

### A. The Target Groups

The study revealed that socio-demographic factors, like occupation, education, sex, age, economic status, membership in organizations and length of stay in the barangay, are associated with knowledge of and attitudes towards the disease. In view of these, the following groups should be given priority in educational programs on filariasis:

1. The male members of the community since they are the most prone to the disease due to higher risk of exposure to mosquitoes. This group is made up mostly of fathers, so that educating them may have a multiplier effect if they echo what they have learned to their families.
2. The younger members of the community so that they will acquire knowledge of the disease early.
3. Families of low socio-economic status.
4. Individuals with low educational attainment.
5. People who have lived in the barangay for a short duration.
6. Individuals who are members of organizations.

### B. Recommended Approaches/Strategies:

1. Indigenization of strategies by making the teachings within the level of understanding of the people and in the context of their disease world.
2. Multisectoral approach
  - 2.1. Involvement of the schools in the education program. A memo of agreement should be drafted and signed between the Provincial Health Officer and the Provincial Superintendent of Schools to integrate teachings on filariasis in the health education course.

- 2.2. Coordination with the Ministry of Information to set up an information drive in the dialect of the region.
- 2.3. Involvement of the Ministry of Agriculture and Natural Resources so that their community workers will include developing awareness on filariasis in their sessions with farmers, fishermen and abaca workers.
- 2.4. The formation of an intersectoral group or committee at the municipal level to plan and monitor activities on filariasis education.
- 2.5. Involvement of private organizations in the community especially in the dissemination of information during their meetings.

### 3. Community Participation

- 3.1. Holding formal and informal community assemblies to discuss aspects of filariasis.
- 3.2. Involving the community in planning educational programs.
- 3.3. Tapping volunteers and interested members of the community to serve as lecturers/teachers.
- 3.4. Utilization of indigenous healers.

### 4. To the Health Center Staff

- 4.1. The designated health educator/health center staff should be trained to understand the uniqueness of the cognitive process of the people, their way of understanding the causation, and transmission, the local terminologies used for the disease and the perceived symptoms of the disease.
- 4.2. Emphasize on the diagnosis of the disease, the procedures done to detect the disease and the importance of early detection.
- 4.3. Conduct intensive information campaigns before mass screening programs.

- 4.4. Develop teaching materials consistent with the perceived gradient of the disease, stressing on the early signs and symptoms.
- 4.5. Conduct counseling sessions with cases so they will seek treatment.
- 4.6. Develop a workable referral system with the provincial hospital for surgical intervention of cases.

5. To the Filariasis Control Unit

- 5.1. Shift strategies from mass campaigns which are done sporadically, to community-based surveillance of the disease, utilizing barangay health workers and health center staff.
- 5.2. Coordinate more with local health center staff and barangay officials and other key leaders in the community. Involve these people in the planning and implementation of local programs.

**SUGGESTIONS FOR FURTHER RESEARCH ON FILARIASIS**

1. A more detailed study to compare practices related to exposure to the mosquito vectors of known cases and non-cases of filariasis.
2. A study on the factors influencing acceptance and non-acceptance of diagnostic procedures and treatment of filariasis.
3. The economic impact of the disease (by levels of severity) to the individual case and to the family.
4. A Health Education Intervention model for filariasis.
5. Community participation in research and preventive/control programs.



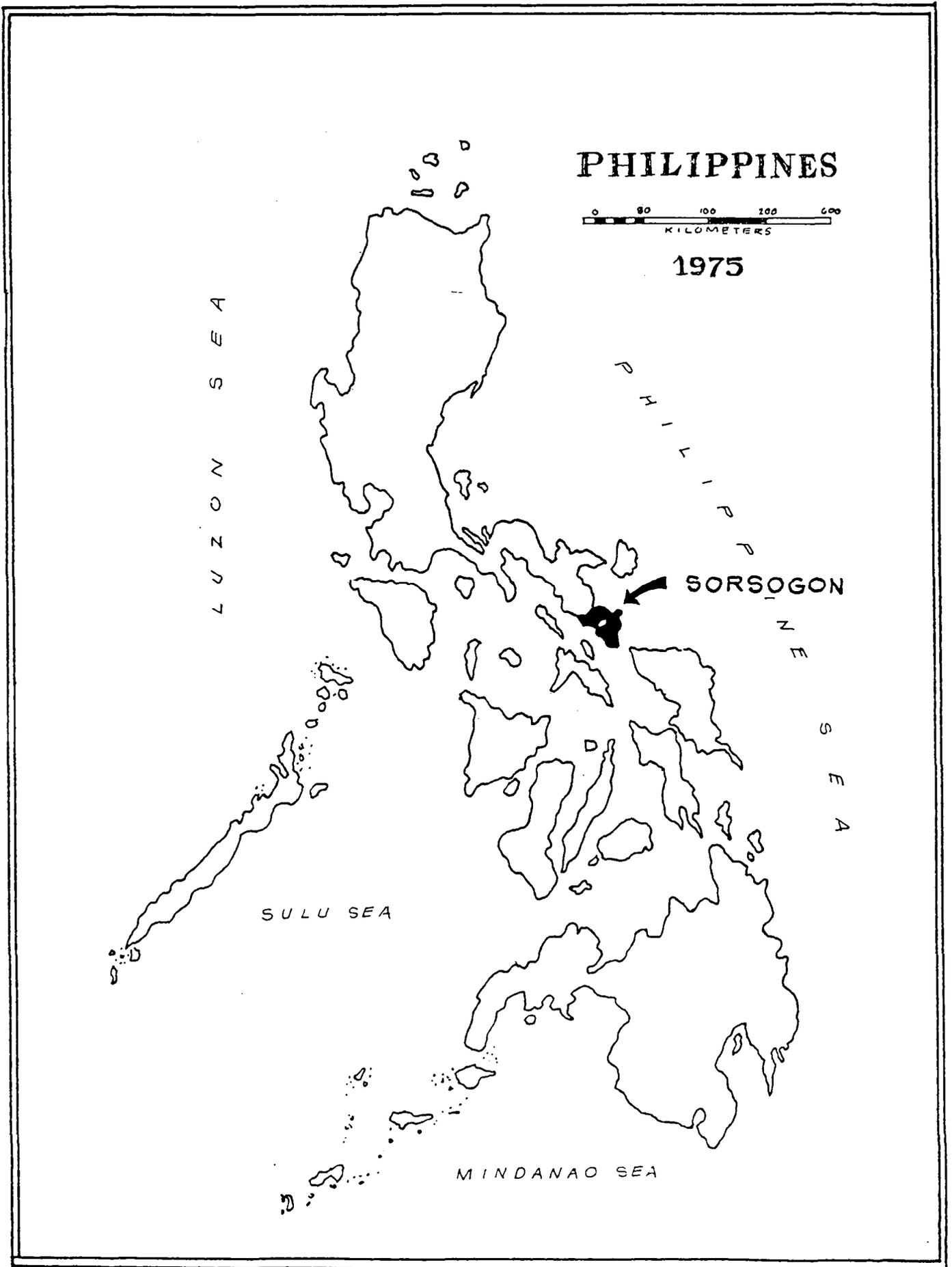
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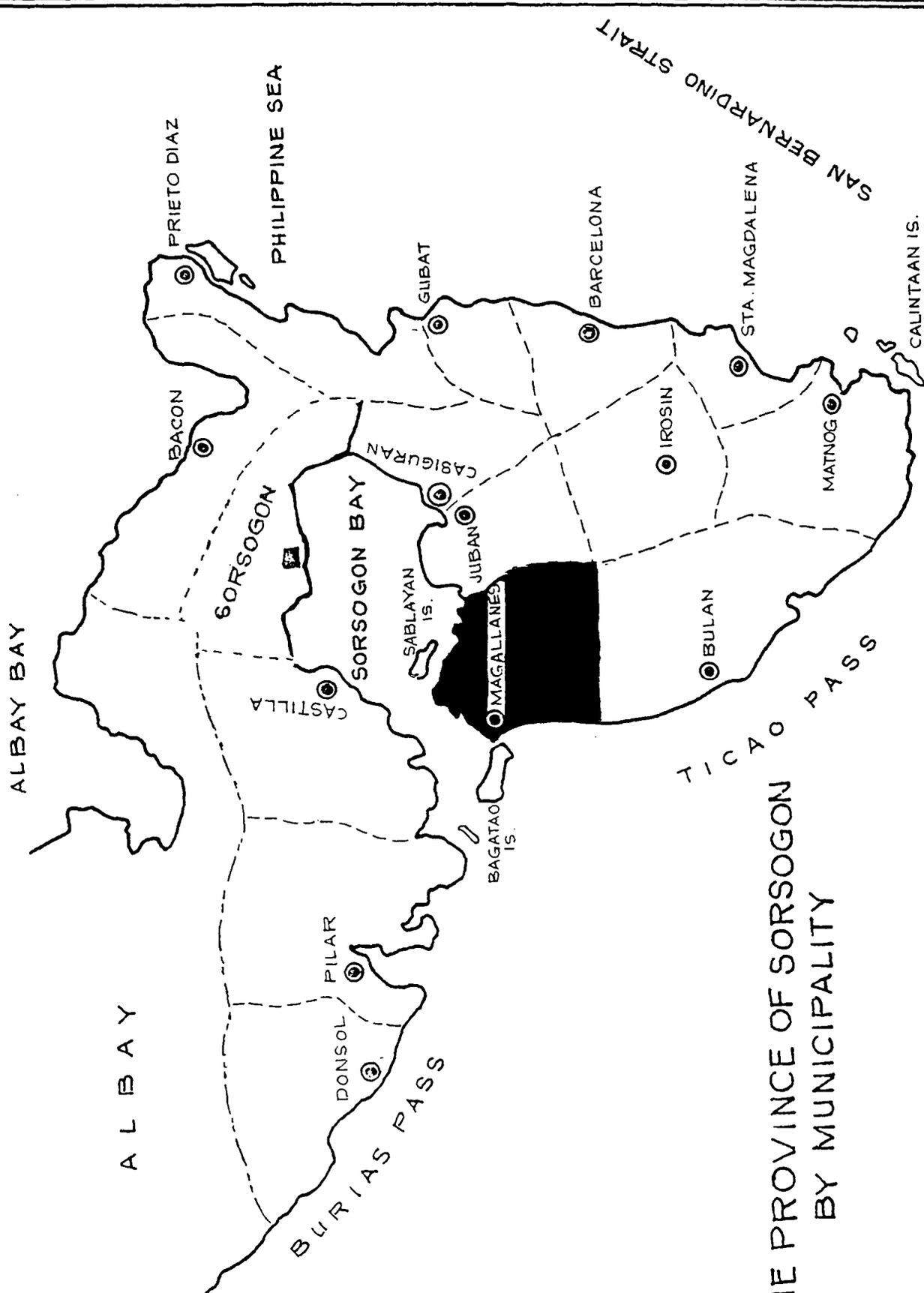
- . Maps of Sorsogon
- . Sample Questionnaires



APPENDIX I

MAPS OF SORSOGON





THE PROVINCE OF SORSOGON  
BY MUNICIPALITY





APPENDIX II

SAMPLE QUESTIONNAIRES

I. HOUSEHOLD MEMBER INFORMATION

A. Respondent Information

1. Name of Respondent \_\_\_\_\_

2. Respondent No. \_\_\_\_\_

3. Age \_\_\_\_\_

4. Sex \_\_\_\_\_

5. Occupation (Describe actual work being done)

1) Farmer

2) Fisherman

3) Abaca plantation worker

4) Vendor

5) Housewife

6) Employee

7) Teacher

8) Others, specify \_\_\_\_\_

6. Marital Status

1) Single

2) Married

3) Separated

4) Widow/Widower

5) Others, specify \_\_\_\_\_

7. Length of residence in barangay \_\_\_\_\_

8. Religion

1) Catholic

2) INK

3) Protestant

4) Aglipayan

5) Others, specify \_\_\_\_\_

9. Are you a member of any organization, club, or association?

1) Yes

2) No

If Yes, specify name of organization

\_\_\_\_\_

KNOWLEDGE

10. Do you know of a disease called Filariasis?

- 1) Yes
- 2) No

11. From whom did you learn about it?

- 1) Heard from the old people
- 2) Neighbors
- 3) Friends
- 4) Person with the disease
- 5) Filariasis Clinic
- 6) Read from books and/or magazines
- 7) Others, specify \_\_\_\_\_

12. Have you seen a person with this disease?

- 1) Yes
- 2) No

If Yes, how does he look?

- 1) Enlarged legs and feet
- 2) Enlarged scrotum
- 3) Swollen lymph nodes
- 4) Others, specify \_\_\_\_\_

13. What is the possible cause of this disease?

- 1) Microbes
- 2) Inherited
- 3) Infection
- 4) Inflammation of the veins
- 5) Always standing
- 6) Over-fatigue
- 7) Hernia
- 8) Mosquitoes
- 9) Withcraft
- 10) Malnutrition
- 11) Don't know
- 12) Others, specify \_\_\_\_\_

14. How does one contract this disease?

- |                                 |                          |
|---------------------------------|--------------------------|
| 1) Contracted from sick person  | 5) "Pasma"               |
| 2) Always in contact with water | 6) Over-work             |
| 3) Mosquito bite                | 7) Others, specify _____ |
| 4) Inherited                    | 8) Don't know            |

15. What is your reason for answer on the preceding question?

- 1) Observation from sick person
- 2) Heard from others
- 3) Learned from Filariasis Control Clinic
- 4) Read from reading materials
- 5) Others, specify \_\_\_\_\_

16. If the father has this disease, is it possible for other members of the family to have this disease?

- 1) Yes
- 2) No
- 3) Does not know

If Yes, what is the reason?

- 1) Same place of work
- 2) Sleeping habits
- 3) Same food eaten
- 4) Contracted from sick person
- 5) Inherited from father
- 6) Others, specify \_\_\_\_\_

17. Who do you think will be more prone to have this disease as to:

- Sex:
- 1) Male
  - 2) Female
  - 3) Both

- Age:
- 1) Children
  - 2) Adults
  - 3) Both

Occupation:

- 1) Farmer
- 2) Abaca worker
- 3) Fisherman
- 4) Employee
- 5) Stevedore
- 6) Others, specify \_\_\_\_\_

18. Can a person who has been treated from this disease have this disease again?

- 1) Yes
- 2) No
- 3) Does not know

If Yes, why? \_\_\_\_\_

19. Do you know the symptoms of this disease?

- 1) Yes
- 2) No

(If No, proceed to Q. No. 22)

20. What are the most common symptoms of this disease?

- 1) Stomachache
- 2) Aching of the whole body
- 3) Pain in the genital area
- 4) Fever
- 5) Loss of feeling of the extremities
- 6) Loss of appetite
- 7) Dizziness
- 8) Paleness
- 9) Others, specify \_\_\_\_\_

21. How long does this symptom persist?

- |                    |                          |
|--------------------|--------------------------|
| 1) Once in a while | 5) One year              |
| 2) Few days        | 6) Until death           |
| 3) One week        | 7) For a very long time  |
| 4) One month       | 8) Others, specify _____ |

22. Is there treatment for this disease?

- 1) Yes
- 2) No
- 3) Does not know

(If No, proceed to Q. No. 24)

23. What is the treatment that you know?

- 1) Medicine
- 2) Surgical Operation
- 3) Herbal medicine
- 4) Prayer of witch doctor
- 5) Offering for the "Nuno sa Punso"
- 6) Others, specify \_\_\_\_\_

24. Can this disease be prevented?

- 1) Yes
- 2) No
- 3) Does not know

(If No, proceed to Q. No. 26)

25. What preventive practices do you know?
- 1) Avoid persons with this disease
  - 2) Refrain from carrying too heavy objects
  - 3) Clean the breeding places of mosquitoes
  - 4) Eat the right kind of food
  - 5) Avoid over-exposing one's self to water specially after work
  - 6) Others, specify \_\_\_\_\_

26. Do you know how this disease is diagnosed?

- 1) Yes
- 2) No

(If No, proceed to Q. No. 28)

27. What is the diagnostic procedure for Filariasis?

- 1) Stool examination
- 2) Urinalysis
- 3) Blood examination
- 4) Physical examination
- 5) Others, specify \_\_\_\_\_

28. In the diagnosis of this disease, do you know why blood is taken at night?

- 1) Yes
- 2) No

If Yes, why? \_\_\_\_\_

- 1) The parasite is present in the blood at night
- 2) Blood is normal since person is at rest
- 3) Does not know
- 4) Others, specify \_\_\_\_\_

29. Do you know that there is a Filariasis Control Unit?

- 1) Yes
- 2) No

If Yes, have you asked for help?

- 1) Yes
- 2) No

If Yes, how many times? \_\_\_\_\_

30. Have you read an article on the prevention and control of this disease?

- 1) Yes
- 2) No

If Yes, what is the message? \_\_\_\_\_

31. What measures do you know in order to control this disease?
- 1) Clean the surroundings
  - 2) Separate the sick person
  - 3) Consult a doctor
  - 4) Others, specify \_\_\_\_\_
32. Does killing of mosquitoes help in the control of this disease?
- 1) Yes
  - 2) No

If Yes, why? \_\_\_\_\_

#### ATTITUDES

33. What do you feel when you see a person with this disease?
- 1) "Nandidiri"
  - 2) Sorry
  - 3) Fear
  - 4) None
  - 5) Others, specify \_\_\_\_\_
34. Do you think this person can still marry?
- 1) Yes
  - 2) No
  - 3) Does not know
35. Can a man with this disease still father a child?
- 1) Yes
  - 2) No
  - 3) Does not know
36. If a mother has this disease, can she still breastfeed her baby?
- 1) Yes
  - 2) No
  - 3) Does not know
37. Can a sick person still go to church?
- 1) Yes
  - 2) No
  - 3) Does not know
38. Who do you think will you consult if you are sick with this disease?
- |              |                          |
|--------------|--------------------------|
| 1) Doctor    | 4) Midwife               |
| 2) Arbularyo | 5) Others, specify _____ |
| 3) Nurse     |                          |

39. Why? \_\_\_\_\_

40. Have you been examined for Filariasis?

1) Yes

2) No

If No, proceed to Q. No. 42)

If Yes, what activities were disturbed? \_\_\_\_\_  
(e.g. eating time, sleeping, praying, etc.)

41. What do you feel when you were pricked by the health personnel?

1) Fear

2) Annoyance

3) None

4) Others, specify \_\_\_\_\_

If Fear, why? \_\_\_\_\_

#### PRACTICES

42. If a member of the family is sick with Filariasis, do you:

1) Separate his eating utensils

2) Separate his beddings

3) Separate from other members of the family

4) None

5) Others, specify \_\_\_\_\_

43. What kind of food will you give a sick person?

\_\_\_\_\_

44. What kind of work can a sick person be allowed to do?

\_\_\_\_\_

45. What can be done to prevent this disease?

\_\_\_\_\_

46. What can be done to control this disease?

\_\_\_\_\_

II. ADULT WITH FILARIASIS  
(15 years and over)

Ask the following questions if respondent has Filariasis:

47. How did you feel when first afflicted with the disease?
- 1) Frustrated
  - 2) Hopeless
  - 3) In favor
  - 4) Insecure
  - 5) Others, specify \_\_\_\_\_
48. What effect does this disease have on your personal life?
- 1) I shun my family's company
  - 2) I lost my job
  - 3) I stopped studying
  - 4) I became dependent to my family for moral support
  - 5) I can not get married
  - 6) I learned to feel sorry for myself
  - 7) None
  - 8) Others, specify \_\_\_\_\_
49. What effect does this disease have on your role as a member of your community?
- 1) Stopped going out
  - 2) Lost friends
  - 3) Lost identity as member of community
  - 4) No effect
  - 5) Others, specify \_\_\_\_\_
50. What did you do when you noticed the swelling of your legs/enlargement of scrotum?
- \_\_\_\_\_
51. What treatment did you use?
- \_\_\_\_\_
52. What steps have you taken to prevent members of your family in having the disease? (e.g. used a separate room, used separate sleeping quarters, eat separately from the family, etc.) \_\_\_\_\_
- \_\_\_\_\_

53. What is your occupation before you got sick?

- 1) Farmer
- 2) Fisherman
- 3) Worker in abaca plantation
- 4) Employee
- 5) Others, specify \_\_\_\_\_

If abaca plantation worker, ask the following:

- A. How far is your place of work from your house in terms of time spent in going there? \_\_\_\_\_
- B. At what time do you usually go to work? \_\_\_\_\_
- C. How many times do you go to work? \_\_\_\_\_
- D. How long do you stay there? \_\_\_\_\_
- F. What do you usually do during your breaktime?  
\_\_\_\_\_
- G. Who among your family do you usually take in your place of work \_\_\_\_\_
- H. At what time do you usually go home? \_\_\_\_\_

54. How much do you earn before you got sick? \_\_\_\_\_

- 1) Daily
- 2) Weekly
- 3) Monthly

55. How much do you earn now? \_\_\_\_\_

- 1) Daily
- 2) Weekly
- 3) Monthly

56. How many hours do you spend on your work before you got sick with Filariasis? \_\_\_\_\_

57. Is there a difference in time spent in your work now?

- 1) Yes
- 2) No

If Yes, How many hours \_\_\_\_\_

58. Have you been involved on any program about Filariasis?

- 1) Yes
- 2) No

If Yes, what have you done to help in the control of this disease? \_\_\_\_\_

III. CHILD WITH FILARIASIS  
(10-14 years old)

Ask the following questions to children sick with filariasis:

59. Do you still go to school?

- 1) Yes
- 2) No

If No, why? (Probe: If failure to go to school is due to sickness)

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60. Do you go with your parents when they leave for work/or to their working place?

- 1) Yes
- 2) No

If No, why? \_\_\_\_\_

61. Do you still play with your friends?

- 1) Yes
- 2) No

If Not anymore, why? \_\_\_\_\_

62. Do you play different games now? (Actually, is there a change in your playing habits?)

- 1) Yes
- 2) No

63. What household chores can you not accomplish at the present due to your sickness? (e.g. laundry, fetch drinking water, etc.)

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#### IV. ATTITUDE STATEMENTS

Please answer the following sincerely. There is no right or wrong answer, your own thinking should be followed. Answer according to the following:

SA (strongly agree)  
A (agree)  
D (disagree)  
SD (strongly disagree)

SA    A    D    SD

1. My parents have Filariasis, hence it is possible that I will also have the disease
2. I will wear "anting-anting" (amulet) so I will not be sick of Filariasis
3. I will not sit on the chair previously occupied by a "Bungao" case.
4. I believe that the cause of the enlargement of my scrotum is due to mosquitoes.
5. My swollen legs can be cured by a traditional healer.
6. I believe that blankets, spoon and plates of case should be separate to prevent spread of the disease.
7. I refuse to submit myself for blood examination because I might collapse at the sight of blood.
8. I prefer to consult the traditional healer for my swollen leg since his treatment is not painful.
9. Pallor and anorexia might lead to Filariasis.
10. The enlargement of my scrotum is a curse of God due to my sins.
11. My enlarged scrotum will be a hindrance to my work.
12. I will not be bothered by the enlargement of my legs or scrotum.

13. It is better to use mosquito nets while sleeping to prevent Filariasis.
14. The enlargement of my scrotum and legs will be cured with the use of herbs.
15. The activities of the health center staff will help in the prevention of Filariasis
16. I believe that Filariasis is caused by eating contaminated food.
17. Filariasis can be prevented.
18. I believe that the enlargement of my scrotum is due to sitting in hot places always.

For adult respondents only:

19. I believe that I can beget children inspite of the enlargement of my scrotum.
20. I will not be able to have intercourse with my wife/husband since my scrotum/labia is enlarged.

## V. VIGNETTES

- I. Jose is a fourth grader at a primary school in one barangay of Magallanes. He helps his father in his work in the abaca plantation whenever he doesn't have a class. These past few weeks, he has been complaining of recurrent pain in his scrotum which lasts for three days.
  
- II. Ka Indo is a healthy workers. He is patient and industrious with his work. He often goes to other barangays to earn extra income. He has changed this past year. He stopped working in his ricefield and is seldom seen out of the house. Once a neighbor accidentally saw Ka Indo while he's taking a bath and he discovered that Ka Indo's scrotum have grown as big as a coconut fruit.
  
- III. Aling Juana's husband, Ka Juan is a worker at abaca plantation. She frequently brings her husband's food in the working place especially if he works until night. She used to wear pants but these past few months, she has been wearing loose dresses. She finds it painful to wear pants since her labia has swollen to a size.
  
- IV. Roel is a very active boy. He plays and poker at every corner of their yard. He often comes home at night with plenty of insect bites due to his naughty activities. Her mother noticed that Roel has nodular swelling at the sides of neck when she embraced him one time.

V. Lolo Kikoy was branded Kikoy Sako by his towmmates since he always carry a "sako" (sack) wherever he goes. He cannot work anymore due to his age and he finds it hard to walk and carry his "sako." They accidentally discovered that the "sako" contains his scrotum which have grown as big as the jackfruit when some naughty boys poked sticks on the "sako" and Lolo Kikoy screamed in pain.

ANSWER SHEET FOR VIGNETTES

Each vignette is read to each respondent. Responses are recorded separately.

I II III IV V

1. What do you think of this person?

- 1) Not sick
  - 2) With slight symptom but not sick
  - 3) With mild disease
  - 4) With severe disease
  - 5) Other responses (specify)
- 

2. What will probably happen to this person?

- 1) Will be better in a few weeks
  - 2) Will be better in 6 months to one year
  - 3) Stay much the same for sometime
  - 4) Get worse quickly
  - 5) Get worse slowly
  - 6) Other responses (specify)
- 

3. Could such a person stay living with their family?

- 1) Yes
- 2) No

4. Can get married

- 1) Yes
- 2) No

5. Continue working or studying

- 1) Yes
- 2) No

6. How often have you come across this case?

- 1) Never
  - 2) Occasionally
  - 3) Frequently
  - 4) Other responses (specify)
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