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JAPAN INTERNATIONAL COOPERATION AGENCY(JICA)

No. 32

MINISTRY OF PUBLIC HEALTH,
THE REPUBLIC OF HONDURAS

THE STUDY
ON
THE STRATEGIES AND PLANS
FOR
THE UPGRADING OF HEALTH STATUS
IN
THE REPUBLIC OF HONDURAS

FINAL REPORT
VOLUME I
EXECUTIVE SUMMARY

SEPTEMBER 1996

SYSTEM SCIENCE CONSULTANTS INC.

JAPAN INTERNATIONAL COOPERATION AGENCY(JICA)

MINISTRY OF PUBLIC HEALTH,
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In this report, project cost is estimated at March 1996 price and at an exchange rate of US $ 1.00=11.00 Lempira(Lps.).

PREFACE

In response to the request from the Government of the Republic of Honduras, the Government of Japan decided to conduct the Study on the Strategies and Plans for the Upgrading of the Health Status and entrusted the study to the Japan International Cooperation Agency (JICA).

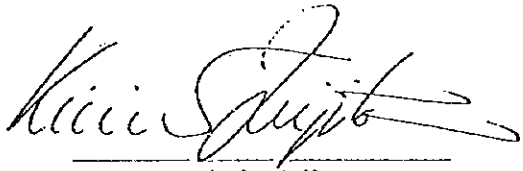
JICA sent to Honduras a study team headed by Mr. Tateo KUSANO of SYSTEM SCIENCE CONSULTANTS INC. several times between January 1995 to July 1996.

The team held discussions with the officials concerned of the Government of Honduras, and conducted field surveys at the study area. After the team returned to Japan, further studies were made and the present report was prepared.

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

I wish to express my sincere appreciation to the officials concerned of the Government of the Republic of Honduras for their close cooperation extended to the team.

September, 1996



Kimio Fujita
President
Japan International Cooperation Agency

September 1996

Mr. Kimio Fujita
President
Japan International Cooperation Agency
Tokyo, Japan

Dear Mr. Kimio Fujita

LETTER OF TRANSMITTAL

We are pleased to submit to you the report of the Study on the Strategies and Plans for the Upgrading of Health Status in the Republic of Honduras. The report contains the advice and suggestions of the relevant authorities of the Government of Japan and the Government of Honduras as well as the formulation of the above mentioned project.

This study has been conducted by System Science Consultants Inc., based on a contract with JICA, from January 6, 1995 to October 24, 1996. In this study, we formulated a nationwide master plan and model programs for the selected model zones in the country.

In view of the urgency of improving the health status in the Republic of Honduras, we recommend that the Government of Honduras implement the proposed plans as a priority.

We wish to take this opportunity to express our sincere gratitude to the relevant officials of JICA, the Ministry of Foreign Affairs, and the Ministry of Health and Welfare of Japan. We also wish to express our deep gratitude to the concerned officials of the Ministerio de Salud Pública (MSP), Secretaría de Planificación, Coordinación y Presupuesto (SECPLAN), Servicio Nacional de Acueductos y Alcantarillado (SANAA), Secretaría de Recursos Naturales (RRNN), Secretaría de Estado en el Despacho del Ambiente (SEDA), Secretaría de Educación (SEP) and Instituto Hondureño de Seguridad Social (IHSS) in Honduras, and the Embassy of Japan and the JICA office in the Republic of Honduras for their close cooperation and assistance extended to the team during the study.

Very truly yours,

T. Kusano

Tateo Kusano
Team Leader
The Study on the Strategies and Plans
for the Upgrading of Health Status
in the Republic of Honduras
System Science Consultants Inc.

The Study on the Strategies and Plans for the Upgrading of Health Status
in
the Republic of Honduras

BRIEF SUMMARY

I. Background and Methodology

Health has been one of the most important sectors for the Government of Honduras and international organizations have been extending development assistance to improve this sector. Although these efforts have been contributing to health improvement of the population, it is recognized that to develop comprehensive and integrated plan is essential for optimal use of the existing resources and for maximum improvement in health and health services.

In this regard, the Government of Honduras requested the Government of Japan to implement the Study on the Strategies and Plans for the Upgrading of Health Status in the Republic of Honduras with the overall goal of developing Master Health Plan (MHP) integrated with strategies and plans for the target years of 2000 and 2010.

The study methods have been approved by the CONSUMI, Cooperation Committee, counterparts and representatives from local parties concerned through the study period.

During the Phase I Study, the Study team conducted field visits to identify the existing health and health-related conditions, also assessed from existing data provided by concerned agencies. In addition, workshops have been held to identify priority health problems and to formulate basic strategies.

Sample survey was implemented in the Phase II Study to clarify household and community behavior, to assess operational conditions of health facilities, and to evaluate behaviors of exit patients. In order to formulate model health programs based upon consensus of concerned people, workshops and discussions were held both at the central level and local level during the Phase III Study.

Additionally, during the Phase III of the study, the themes discussed through the seminars and workshops with CONSUMI, Coordination Committee and counterparts were access to

health services, extension of the service network, improvement of problem-solving capacity, referral system, facility/equipment maintenance, environmental health, occupational health, water and sanitation, human resources development, health education, social participation, and health financing for completing master health plan with implementation plans.

II. Priority Health Problems

Eleven priority health problems were identified through the workshops and the discussions with Coordination Committee for the Study during the Phase I Study.

1) Infant Mortality Rate (IMR)
2) Maternal Mortality Rate (MMR)
3) Malnutrition
4) Access to water and sanitation
5) HIV/AIDS
6) Vector-borne diseases
7) Accidents
8) Violence
9) Chronic degenerative diseases
10) Environmental health
11) Occupational health

III. Master Health Plan

The MHP is composed of National Master Health Plan (NMHP) with fifteen priority strategies and the three model health programs for selected areas. The NMHP and the model programs have been developed so as to interact with each other effectively and efficiently for attaining the goals of MHP.

A. National Master Health Plan

The strategies are grouped into the three basic dimensions of the conceptual model: context, household and community behaviors and health service delivery.

1. Strategies related to context

- Alleviation of poverty
- Access to food/food security
- Access to water and basic sanitation
- Legal and institutional context

2. Strategies related to household and community behaviors

- Reduction of illiteracy
- Improvement in health education interventions
- Improvement in social participation
- Reduction of fertility rate

3. Strategies related to health services delivery

- Access to health services
- Management of facilities and organizations
- Improvement of referral system
- Improvement of drug logistics system
- Maintenance of facilities and equipment
- Human resource development
- Health financing

B. Model Health Programs

The purpose of the model health programs is to develop activities for implementation of local and regional based initiatives identified in the MHP as important for improving health in Honduras. Each of the model health programs has a particular emphasis selected for its potential importance within the Honduran setting as follows:

- **Model health program for urban area** : emphasizing municipal operations and support and focusing on improved strategies for community health education and promotion
- **Model health program for poverty area** : emphasizing both rural and urban settings and focusing on strengthening community participation and leadership
- **Model health program for integrated development area** : emphasizing improved planning and financing in areas of economic growth and focusing on improving the effectiveness of public health expenditures

IV. Implementation Program

MSP central level will focus on policy making, programming, budgeting, standard setting, supervising, and monitoring. The current MSP's functions of managing and operating individual programs and projects will be decentralized step by step to the health regions and to municipal authorities considering their capabilities. The nationwide restructuring of health service institutions should not be implemented in a short-term range without gaining consensus of various levels of health service providers and users. In addition, a coordination system among MSP, IHSS, other governmental agencies concerned, NGOs,

and donors will need to be more emphasized and strengthened both at central and local levels.

A. Short-term (target year 2000)

- Political dialogue among the health-related institutions;
- Policy making and programming for decentralization within MSP;
- Improvement of management abilities of each institution with small-scale physical expansion;
- Development and implementation of model projects included in the health model programs.

B. Medium-term (target year 2005)

- Monitoring and evaluation on the projects of improving management abilities of each institution within the scope of the NMHP fifteen strategies;
- Monitoring and evaluation on the cost-effectiveness of model projects which will be provided by the model programs;
- Expansion of the target areas based on the feedback.

C. Long-term (target year 2010)

- Accomplishment of MHP

V. Recommendation of Follow-up Actions

The Honduras Government is expected to take the following actions for further implementation of the Master Health Plan (MHP)

A. To organize the Committees for implementation of the MHP

1. National Committee : Coordination at the central level among MSP, IHSS, SANAA, RRNN, SEP, SEDA, SECPLAN, private sectors (NGOs, associations etc.)
2. Regional Committee : Coordination at the local level among Health Region, Department Government, Municipal Government, private sector (NGOs etc.) and communities
3. Coordination Committee with donors : Coordination of external cooperation among MSP and donors

B. To identify the long-term and the urgent needs

Restructuring of institution and management in the health and health-related sectors will be implemented in a long term basis and sustainable development of the on-going programs/projects and model development will be promoted without significant delay.

C. To execute the short-term programs/projects to meet urgent needs

1. NMHP

- Upgrading of hospital management and physical rehabilitation
- Sustainable development of drug control system
- Equipment supply to hospitals and health centers
- Sustainable development of water supply and sanitation control

2. Model programs

- Designing of the Health Promotion and Information Center in San Pedro Sula
- Feasibility Study of the "healthy village" development for the rural poverty area in the Dept. Intibucá
- Data base development for health

D. Follow-up study in vertical approach

The detailed plan for the vertical line to follow up this MHP is expected to be prepared by agencies concerned.

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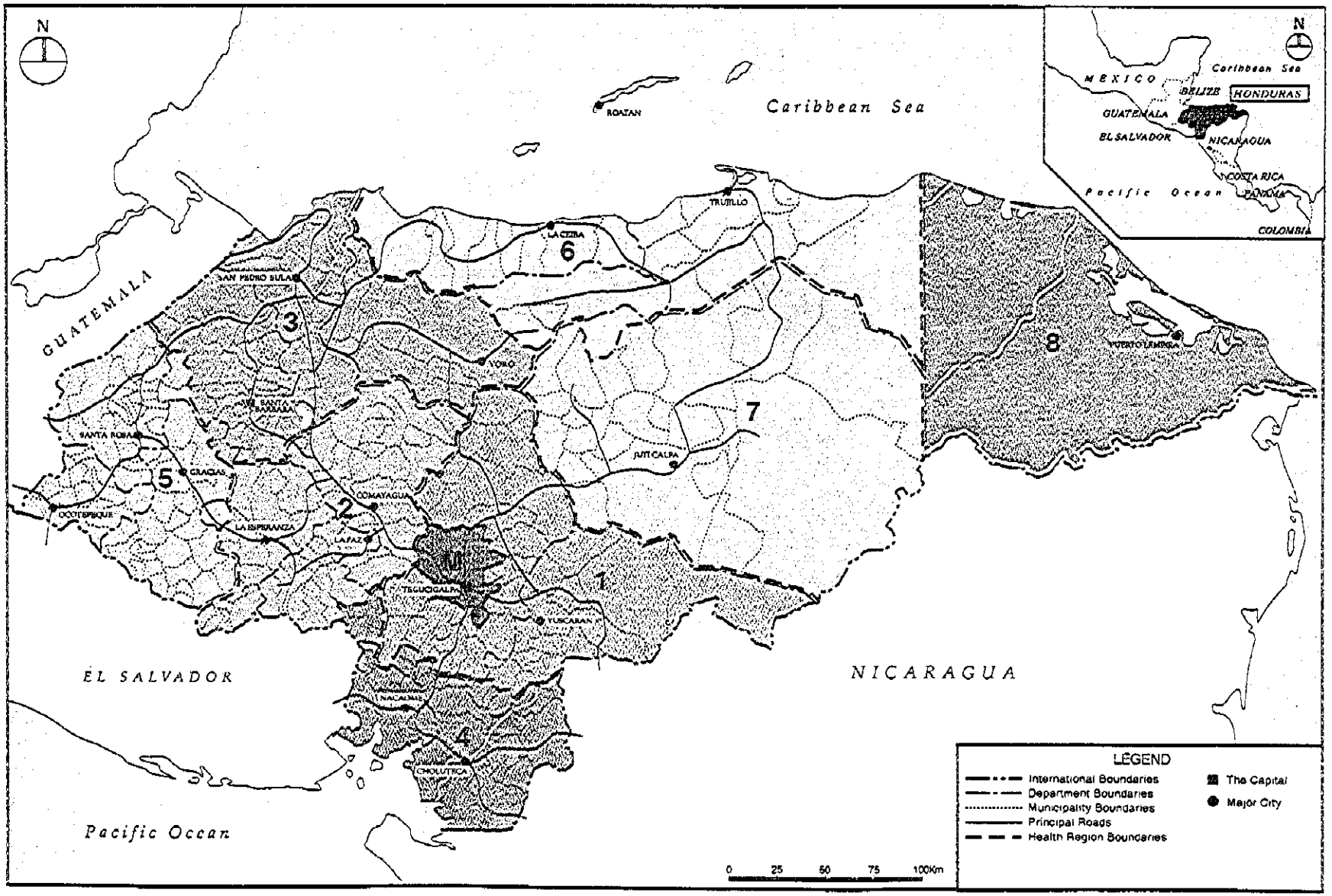
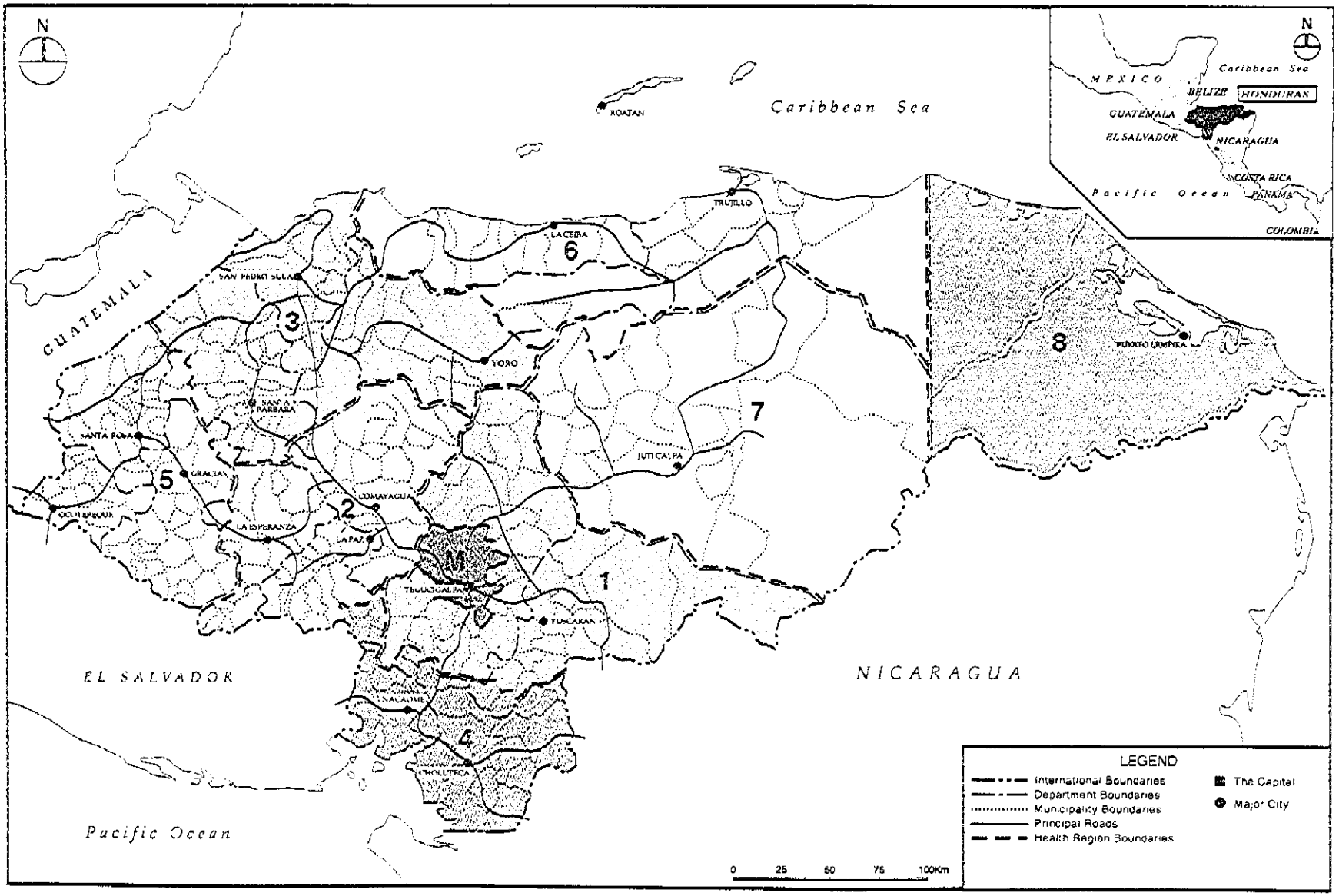
VOLUMEN V (S)	RESUMEN EJECUTIVO (Spanish version of Executive Summary)
VOLUMEN VI (S)	INFORME PRINCIPAL (Spanish version of Main Report)



Map of Honduras (Health Regions)



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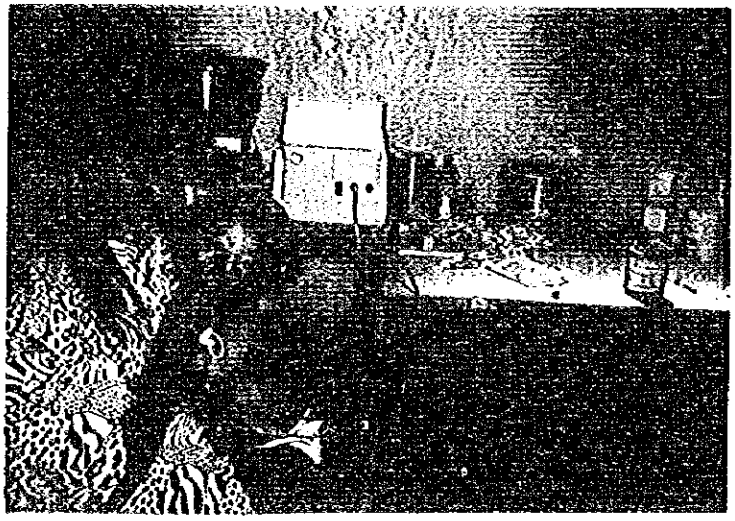
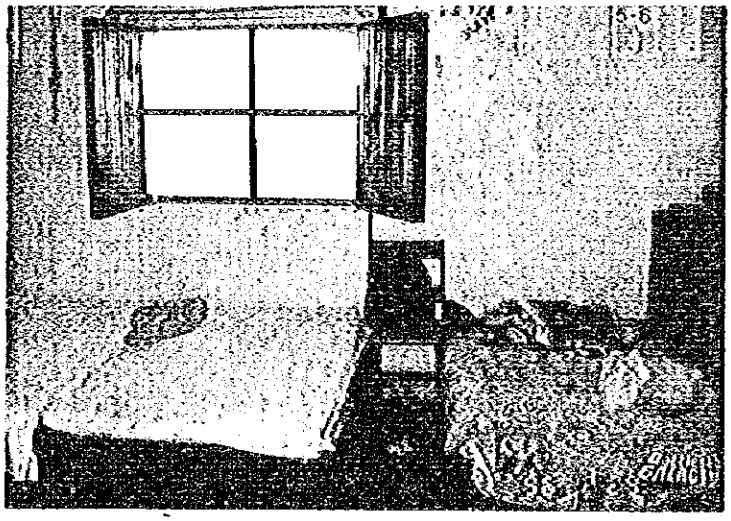


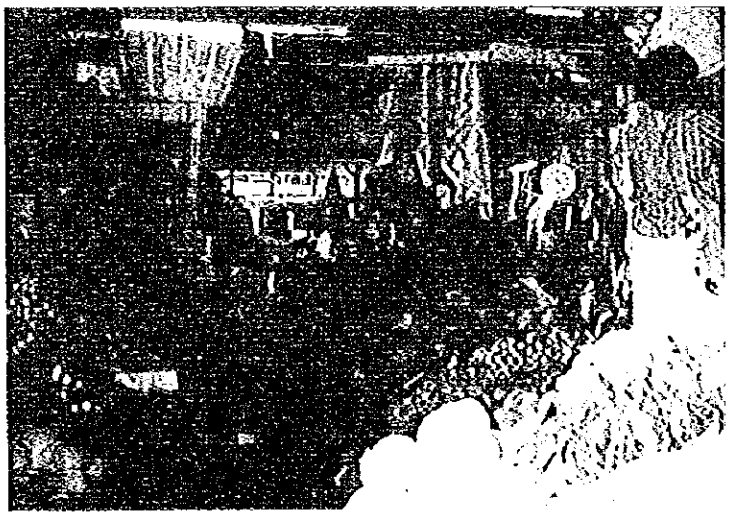
High levels of infant mortality

Significant progress has been made in Honduras in the last twenty years; however, the Infant Mortality Rate is still high comparing with the international standards.



High levels of maternal mortality

Maternal Mortality Rate in rural area is still high. In order to solve the problem, a Maternal Inn has been established near regional and area hospitals for taking care of pregnant women of high risk delivery expected.



Malnutrition

Protein-energy malnutrition is widespread among children and pregnant/lactating women. There are various kinds of vegetables sold in rural market, but most of the rural people can not afford them.

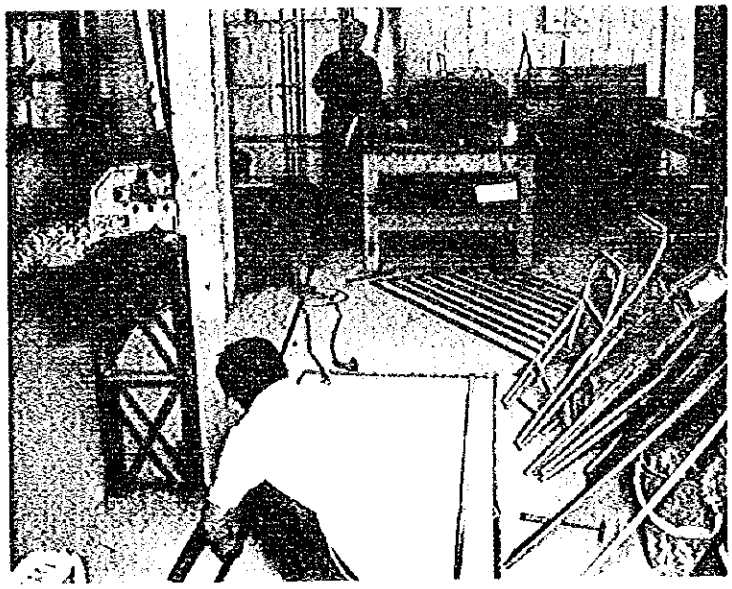
Plate 1 Current Situation of the Health-related Sector (1)

Poor access to safety water

Poor accessibility to safe water is a serious problem all over the country. In the marginal areas of Tegucigalpa, children carrying big bucket full of water can be seen.

High mortality from accidents

In the urban areas, high mortality rate from accidents including traffic accidents has been one of the most serious problems. With the rapid growth of the population, the emergency service provided by public hospitals can not meet the needs in the urban areas.



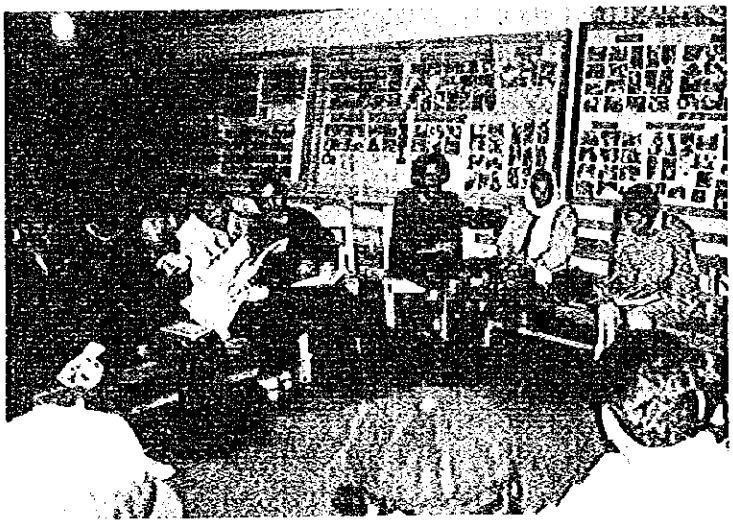
High mortality from violence

Besides the traffic accidents, violence is another serious problem which causes high mortality and morbidity in the urban areas. NGOs, MSP and IHADFA have implemented various programs providing vocational training, recreation facilities etc. in order to cope with juvenile delinquency.

Plate 2 Current Situation of the Health-related Sector (2)

Poverty alleviation programs

In rural areas, NGOs in coordination with RRNN have actively implemented income generation programs including agriculture training and seed fund provision programs.



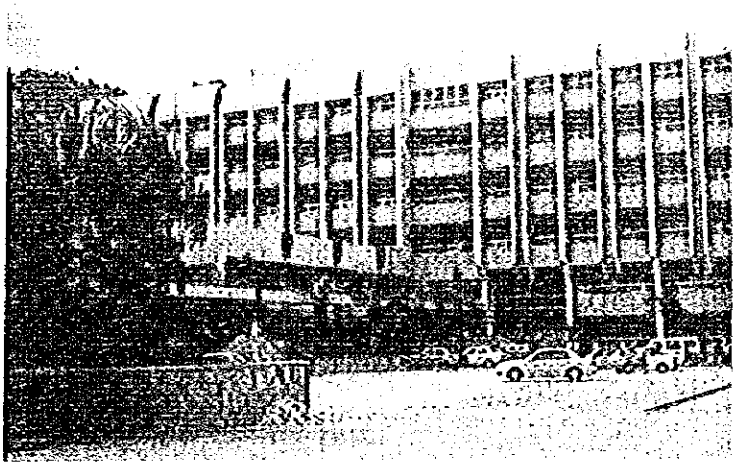
Health promotion through social participation

Community development organizations have been established by the UNDP programs in the western mountain areas in Honduras. Those organizations have made development activity plans through discussions among community members.

Drug supply logistics

Although the drug management system of health centers has been improved through the assistance of international agencies such as USAID and OPS, many health institutions suffer from insufficient supply of drugs in realty.

Plate 3 Current Situation of the Health-related Sector (3)

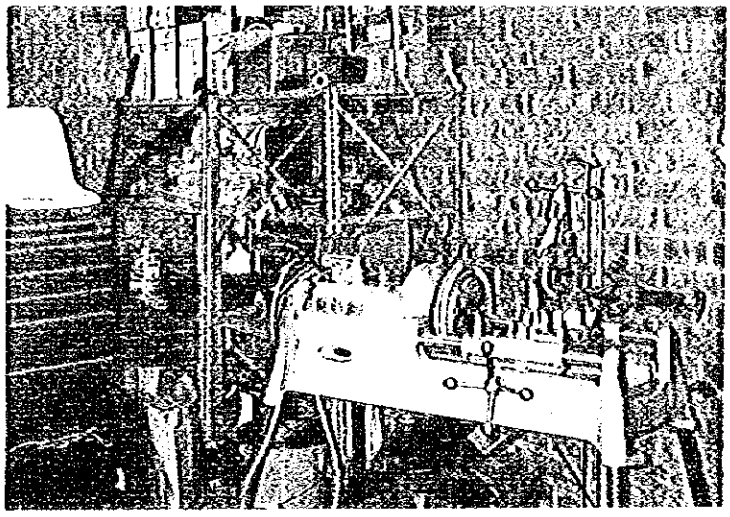


Hospital Mario Catarino Rivas

This hospital is the only tertiary health service provider in the northern region of Honduras. In addition, it is also the only public hospital providing birth delivery and emergency care services in San Pedro Sula. The workload of the hospital has been growing to cope with the rapid population growth.

AIDS prevention campaign

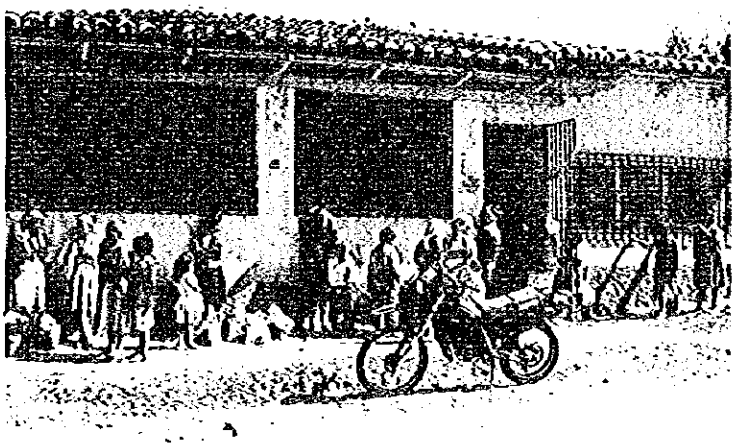
As one of the AIDS prevention programs (COMVIDA) conducted by the municipality and MSP, information about AIDS and AIDS prevention has been presented to the public in the Kiosk located in the central park.



Workshop of the Health Region Office

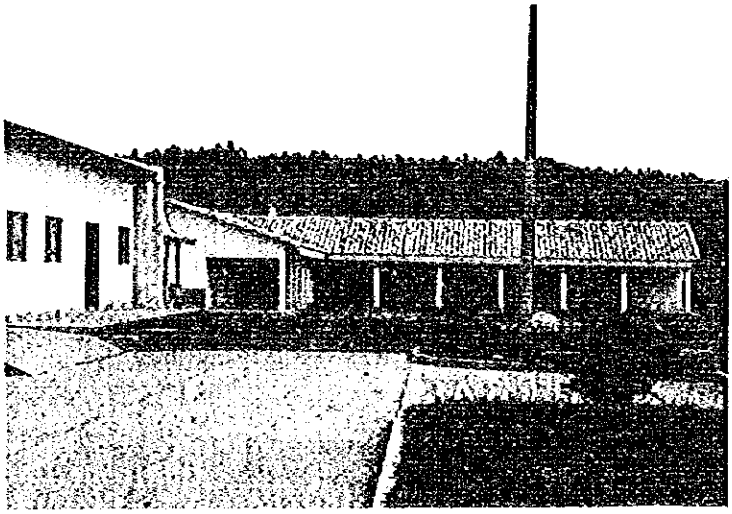
CENAMA of MSP, which is responsible for maintenance and operation of facilities and equipment, can not provide adequate technical assistance to local health service providers due to lack of financial resources.

Plate 4 Urban Area Model : San Pedro Sula



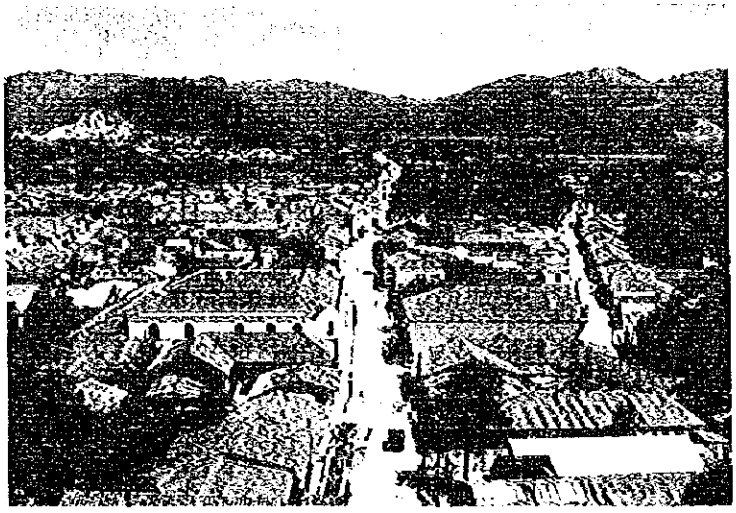
Health center (CESAR) in the mountain areas

This health center is located in Yamaranguila municipality, which has serious poverty rate and most of whose population are lenca people. Some people, living far from the health center, need to walk to the center for about 5 hours.



Establishment of maternal inn

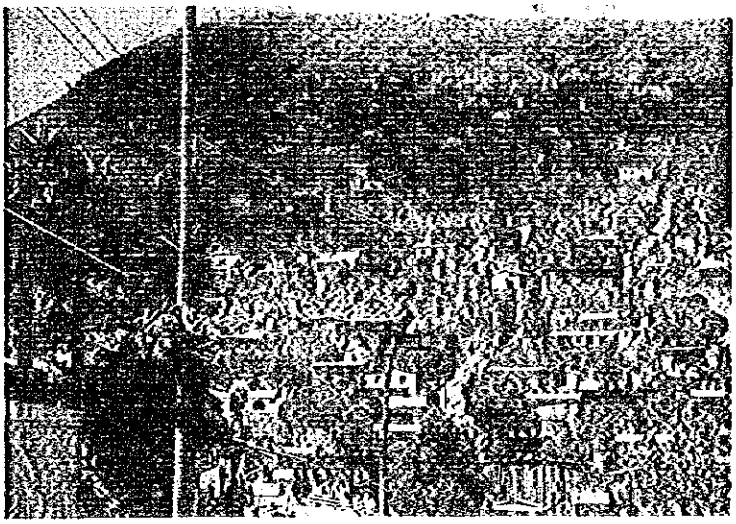
A maternal inn was constructed in the backyard of Hospital La Esperanza through social participation activities in cooperation with MSP.



Downtown area of La Esperanza municipality

La Esperanza, is the center of the Dept. of Intibucá, where the municipal administration offices are located. Infrastructures such as water supply, electricity, and road have not been well developed in this area.

Plate 5 Rural Poverty Area Model : The Dept. of Intibucá



Housing conditions in the marginal areas

The number of immigrants, who come from the rural areas and live in the marginal areas of Tegucigalpa, has been rapidly increasing. They live in the steep slope of the mountains where there is no sufficient infrastructure.

Poor accessibility to safe water

SANAA and UNICEF have been actively implementing water supply programs in the marginal areas. However, the management system has not functioned well due to lack of maintenance care of water source. In this photo, community members are collecting water spilt out of the broken public faucet.

Day care center

NGOs provide various programs including day care center service, informal education, health education etc. in order to allow single mothers to go work and to cope with the problem of street children.

Plate 6 Urban Poverty Area Model : Marginal Area of Tegucigalpa

Active agriculture production

The Dept. of Olancho enjoys its rich agriculture production because of plenty of natural resources and effective support through the foreign aid programs including CIDA.

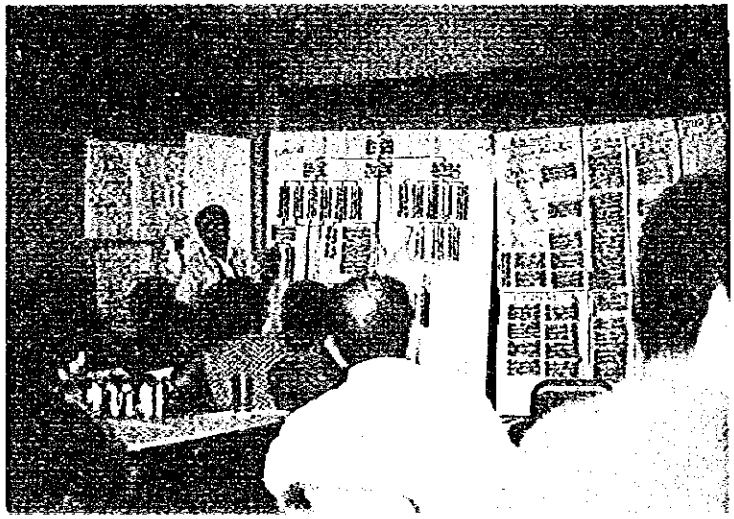
MCH Clinic

MCH clinics have been constructed in order to improve accessibility to maternal health services in the rural areas in the Dept. of Olancho.

Hospital San Francisco

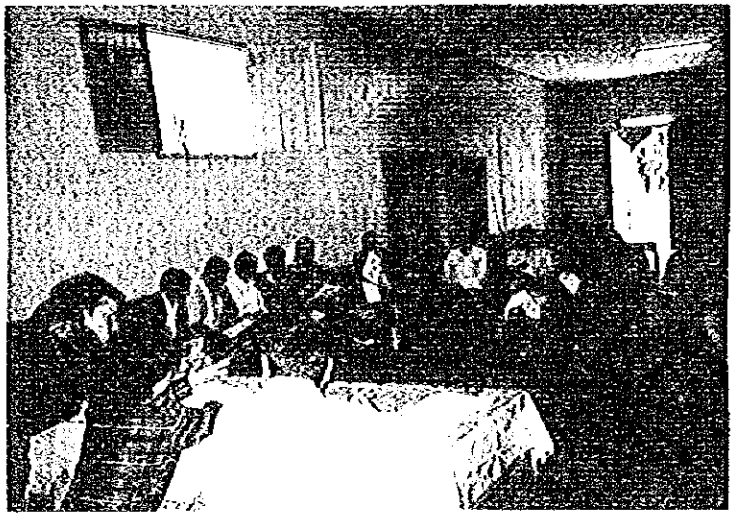
This regional hospital has provided health services with community members' acceptance.

Plate 7 Integrated Development Area Model : The Dept. of Olancho



PCM/ZOPP Workshop

During the fieldstudy in the Phase I and Phase II study period, PCM workshops were held for problem analysis and formulating common basis for planning; officials from related ministries were involved in these workshops.



Small group discussions

During the field study in the Phase III study period, small group discussions were held for obtaining the consensus from the concerned people; health staff, community leaders etc. participated in the discussions.

Interviews with community members

During the field study in the Phase III study period, the study team members made interviews with community members in order to reflect actual needs of ethnic people and especially voices of women to planning.

Plate 8 Field Survey : Participatory Development Method

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Acronyms / Abbreviations

AHMON	:	Asociación Hondureña de Municipalidades
AIDS	:	Acquired Immune Disease Syndrome
AIDSCAP	:	AIDS Control and Prevention
ARI	:	Acute Respiratory Infection
ASHONPLAFA	:	Asociación Hondureña de Planificación Familiar
AV	:	Audio-visual equipment
AZT	:	Azathioprine
BCH	:	Banco Central de Honduras
BCIE	:	Central American Bank for Integration and Economy
BHN	:	Basic Human Needs
CAD	:	Computer Assisted Design
CDM	:	Comité de Derechos de la Mujer
CENAMA	:	Centro Nacional de Mantenimiento
CESAL	:	Special Health Commission
CESAMO	:	Centro de Salud con Médico y Odontólogo
CESAR	:	Centro de Salud Rural
CESCCO	:	Centro de Estudio para el Control de Contaminantes
CMI	:	Clínica Materno Infantil
CODA	:	Consejo de Desarrollo Agrícola
COHDEFOR	:	Corporación Hondureña de Desarrollo Forestal
COHEP	:	Consejo Hondureña de la Empresa Privada
CONSUMI	:	Consejo Superior del Ministerio
COTIAS	:	Technical Committee on Environment and Health
DALY	:	Disability-Adjusted Life Years Lost
DIMA	:	División de Ingenieria y Mantenimiento
EAP	:	Economically Active Population
EMD	:	Engineering & Maintenance Division
ENEE	:	Empresa Nacional de Energía Eléctrica
ENESF	:	Encuesta Nacional de Epidemiología y Salud Familiar
ENT	:	Ear, Nose and Throat
EPI	:	Expanded Program for Immunization
FHIA	:	Fundación Hondureña de Investigación Agrícola
FHIS	:	Fondo Hondureño de Inversión Social
GDP	:	Gross Domestic Product
GOH	:	Government of Honduras
GTZ	:	German Cooperation Agency
HED	:	Health Education Division
HRD	:	Human Resource Development Division
IBRD	:	International Bank for Reconstruction and Developement (World Bank)
ICU	:	Intensive Care Unit
IEC	:	Information, Education and Communication
IHADFA	:	Instituto Hondureño de Alcolismo, Drogadicción y Farmaco Dependencia
IHSS	:	Instituto Hondureño de Seguridad Social
IMR	:	Infant Mortality Rate
INFOP	:	Instituto de Formación Profesional
IPPF	:	International Planned Parenthood Federation
JNBS	:	Junta Nacional de Bienestar Social
JOCV	:	Japan Overseas Cooperation Volunteer
JUPSA	:	Jovenes Unidos Para la Salud
KAP	:	Knowledge, Aptitude and Practices
M&E	:	Maintenance and Evaluation

Acronyms / Abbreviations

MCH	:	Maternal Child Health
MHP	:	Master Health Plan
MMR	:	Maternal Mortality Rate
MNR	:	Magnetic Nuclear Resonance
MPH	:	Masters of Public Health
MSP	:	Ministerio de Salud Pública
MSPS	:	Municipality of SPS
MTPS	:	Ministerio de Trabajo y Protección Social
MWM	:	Men who have sex with men
NAC	:	National AIDS Committee
NGO	:	Non-Governmental Organization
NMHP	:	National Master Health Plan
O&M	:	Operation and Maintenance
ONALSIDA	:	Comisión Nacional sobre SIDA (AIDS National Commission)
OPS	:	Organización Panamericana para la Salud
ORT	:	Oral Rehydration Therapy
PAHO	:	Pan American Health Organization
PANI	:	Patronato Nacional de la Infancia
PCM	:	Project Cycle Management
PDAE	:	Proyecto Demostrativo de Agricultura
PIAS	:	Investment Plan for Health and Environment
POSSS	:	Proceso de Organización y Simplificación del Sistema de Suministros
PRAF	:	Programa de Asignación Familiar
PROAGRO	:	Agriculture Plan for Field Development
PRONASSA	:	Programa Nacional de Servicios de Salud
SANAA	:	Servicio Nacional de Acueductos y Alcantarillado
Sec.RRNN	:	Secretaría de Recursos Naturales
SECPLAN	:	Secretaría de Planificación, Coordinación y Presupuesto
SEDA	:	Secretaría del Ambiente
SEP	:	Secretaría de Educación Pública
SIDA	:	Síndrome de Inmuno Deficiencia Acquirida
SPS	:	San Pedro Sula
SPU	:	Social Participation Unit
STD	:	Sexually Transmitted Diseases
TAS	:	Técnico en Operación y Mantenimiento
YLD	:	Years of Life Disabled
YLL	:	Years of Life Lost

1. INTRODUCTION

The Republic of Honduras is located at the center of Central America, with common borders with Guatemala and El Salvador to the West and with Nicaragua to the East. Honduras also has the Caribbean sea to the North and the Pacific ocean to the South. Honduras has a land area of 112,088 square kilometers consisting mainly of non-volcanic mountains. Major portion (70%) of the population has inhabited the highland areas of the northern-central part of the country.

Its total population was estimated as approximately 5.5 million in 1995, and one third of this population concentrates in the two major cities, Tegucigalpa and San Pedro Sula. In these metropolitan areas, urbanization has brought various problems, such as an increasing poverty, contamination of environment and urban social problems. On the other hand, in the rural areas, there are areas with agricultural potentials but also poor rural villages with little resources. The diversity of life-styles and great disparity in economic status are important issues that need to be considered in the Honduran development policy.

Health has been one of the most important sectors for the Government of Honduras and international organizations have been extending development assistance to improve this sector. Although these efforts have been contributing to health improvement of the population, it is recognized that to develop comprehensive and integrated plan is essential for optimal use of the existing resources and for maximum improvement in health and health services.

In this regard, the Government of Honduras requested the Government of Japan to implement the Study on the Strategies and Plans for the Upgrading of Health Status in the Republic of Honduras with the overall goal of developing Master Health Plan (MHP) integrated with strategies and plans for the target years of 2000 and 2010. Upon receiving the request, the Government of Japan dispatched a preliminary study team to Honduras. Based on the Scope of Work (S/W) agreed upon by the two governments in April 1994, the Study team was dispatched to Honduras on January 21, 1995. After the one and half year study, the Draft Final Report was presented on July 24, 1996.

The Study was conducted by System Science Consultants Inc. (SSC) in association with Management Sciences for Health (MSH) with the following schedule:

Phase I Study: January 6 - March 31, 1995
for developing inter-sectoral strategies
Phase II Study: June 12 - December 27, 1995
for formulating an integrated master health plan
Phase III Study: January 25 - October 24, 1996
for completing master health plan with implementation plans

Continuous collaboration was provided by CONSUMI, Coordination Committee consisting of the representatives and counterparts of MSP, SECPLAN, RRNN, SEP, SEDA, SANAA and IHSS. The study team submitted a progress report and an interim report for each phase and the contents have been approved by these institutions. In addition, technical counterparts from the MSP and other relevant institutions were involved in the various stages of the elaboration of the MSP.

During the Phase I Study, the Study team conducted field visits to identify the existing health and health-related conditions, also assessed from existing data provided by concerned agencies. In addition, workshops have been held to identify priority health problems and to formulate basic strategies utilizing the problem analysis (ZOPP) method developed by GTZ.

Sample survey was implemented in the Phase II Study to clarify household and community behavior, to assess operational conditions of health facilities, and to evaluate behaviors of exit patients. In order to formulate model health programs based upon consensus of concerned people, workshops and discussions were held both at the central level and local level during the Phase III Study. For the model program development, social participation was essential as one of the key approaches.

Additionally, during the Phase III of the Study, a series of weekly meetings were held attended by the Vice-Minister for Service Network, the Vice Minister for Institutional Development and Sectoral Policy, and relevant counterparts to review the strategies proposed in the Master Health Plan and to acknowledge the recent advances in existing national programs and projects. The themes discussed were access to health services, extension of the service network, improvement of problem-solving capacity, referral system, facility/equipment maintenance, environmental health, occupational health, water

and sanitation, human resources development, health education, social participation, and health financing.

2. CONCEPTUAL DESIGN

The analysis was made focusing on three broad dimensions which affect health outcomes; namely context, household/community behaviors, and health service delivery in order to explore the ways of modifying these dimensions for improvement of health conditions in Honduras, as explained in the following paragraphs:

As for the context, the health of a society reflects many factors, some of which are deeply rooted in the nature of the setting: its geography, demography, economic resources and social context. Issues related to the context establish the fundamental conditions of risk, which generate the baseline incidence and prevalence of death, illness and disability. Improving these contextual factors is a central goal of all society development plans.

Individual and household behaviors rooted in ignorance, artificially limited choices, and traditional behaviors often worsen the impacts caused by inadequate resources, poor infrastructure, hostile geography, and low-level education. Changes in these behaviors are expected to improve health outcomes without necessarily addressing the fundamental inadequacy of supply.

Adequate access to a network of health facilities and institutions offers a wide and comprehensive range of services and organizational efforts, which leads to improvement of the quality and effectiveness of these services and contributes to minimizing the morbidity and mortality associated with a given level of risk.

3. PROBLEM DESCRIPTION

3.1 Priority health problems

The following eleven major health problems were identified through the workshop held in Phase I Study.

3.1.1 High levels of infant mortality

Although significant progress has been registered in Honduras in the last twenty years, Infant Mortality Rate (IMR, 49.9 per thousands in 1990) is still high, in comparison with the international and regional standards. Moreover, the difference between the urban and rural IMRs has remained the same, reflecting a prevailing pattern of inequality of health status determined by living conditions. The current levels of IMR can be attributed to the following three basic disease components: diarrhea diseases, acute respiratory infections and pneumonia, and also complex of perinatal diseases.

3.1.2 High levels of maternal mortality

High maternal mortality ratio, which was an unrecognized problem until recently, were documented in Honduras in 1990 through a nationwide survey of mortality in Women of Child Bearing Age (WCBA, 12 to 50 years old). The overall MMR was 221/100,000 live births. The average national ratio, however, covers large regional differences. Two thirds of all deaths in WCBA and two thirds of maternal deaths occurred outside of hospitals, indicating a serious problem of poor accessibility to obstetrical care. Hemorrhage was by far the most frequent cause of non-hospital deaths, whereas infections and hypertensive problems dominated among the hospital deaths. Major risk factors were identified as ages above 35 years old and parity over 4. Low levels of maternal education, rural residence and single civil status were also recognized as risk factors for maternal deaths.

3.1.3 High prevalence of malnutrition, absence of food security

The natural history of malnutrition in Honduras is relatively well known: child growth follows standard patterns until the fourth month. Then, premature introduction of other foods and high prevalence of infectious diseases progressively lead to an established deficit in growth and development. Protein-energy malnutrition is not limited to children.

Both calories and protein uptake are low compared to the world standards. The protein-calorie deficit is associated with deficits in specific micronutrients: anemia is widespread among children and pregnant/lactating women, owing both to an important parasite load and to deficient consumption. Low levels of Vitamin A have also been detected in the same population groups, leading to the implementation of supplement and fortification programs. Iodine deficit is a local problem being addressed through salt fortification in the mountainous regions of central and western Honduras.

3.1.4 Limited access to water and basic sanitation

The intensive education campaign and acceleration of infrastructure building that took place at outbreak of Cholera in 1991 were shown to be associated with overall decrease in the incidence of diarrhea diseases in children under 5 years old. Access to water has been greatly improved in the last few years because of activities linked with the Infancy and Childhood Development Plan. However, a large number of residents in the urban marginal area of Tegucigalpa still have to buy water from trucks.

The availability of washable or hydraulic latrines has been improved in recent years but still very low in the rural area. The large majority of waste water and sewage flows directly back into the river because of lack of treatment plants. Garbage disposal is organized in the main cities and garbage is used as landfill. Elimination of hospital biological wastes by burning is not yet universal, as not all hospitals have incinerators. It should be emphasized that the water and sanitation problem is now being perceived by the concerned institutions as an integral part of the overall environmental control problem. Another important aspect of water management is its role in the natural history and control of vector-borne diseases.

3.1.5 High incidence of AIDS and sexually transmitted diseases

With only 17 percent of the population of the sub-region, Honduras has 57% of the reported AIDS cases (4,142 cases reported since 1985). San Pedro Sula has the highest rate of infection in the country. For the year 2000, between 10 and 17 percent of the population of San Pedro Sula is expected to be infected with the virus, while a minimum of 3,200 new AIDS cases would be reported annually by the end of the century.

Both public and private sectors have implemented educational programs; however, the public sector in-school program is in a development stage. A number of NGOs have begun to undertake targeted comprehensive prevention programs aimed at the highest risk populations. USAID has provided a large supply of condoms for both the public and private sectors through the public sector logistics systems.

PAHO has assisted in the creation and operation of the National AIDS Commission and the logistics for a safe blood supply. World Bank and the UN have assisted a variety of small educational and training activities. In 1995, USAID provided a major amount of funding and technical assistance for both public and private sector activities, and this support is scheduled to continue until August of 1997. Honduras is known to be on the USAID list of priority countries for the next initiative.

As more and more AIDS cases and deaths are inevitable, the needs for hospices, home care, and education to diminish rejection of AIDS sufferers will increase. In 1993, the estimated cost to care for AIDS patients was Lps. 6 million in SPS and Lps. 2 million in Tegucigalpa. These costs are projected to rise to Lps. 21-29 million in SPS and Lps. 12-32 million in Tegucigalpa by the end of the century.

3.1.6 High incidence of vector-borne diseases

Malaria, dengue, and Chagas disease and leishmaniasis are the major vector-borne diseases observed in Honduras. The burden of malaria is mainly one of frequent morbidity and temporary disability in the economically active population, especially those seasonally employed in banana, rice or sugar cane fields. In addition to the natural conditions, the epidemiological profile for malaria has been determined in the recent years by the fluctuating patterns of control program organization (i.e., vertical and horizontal/ decentralized), with a yearly parasitic incidence oscillating between 5 and 18 cases per 1,000 persons.

During the past few years, outbreaks of common dengue have been registered in the main cities of Tegucigalpa, Danlí, Comayagua, La Ceiba and Puerto Cortés. Two cases of hemorrhagic dengue were reported in 1993. In 1995, 18,152 clinical cases were reported to the MSP and 2,601 cases were confirmed by serologic examination. Serologic control

of blood donors in 1995 revealed prevalence of 1.9% for MSP, 1.2% for the Honduran Red Cross and the IHSS. The rate of seropositivity has been maintained constant between 1.35 and 1.6% since 1992.

3.1.7 High mortality and morbidity from accidents

The civil death register shows that external causes are the first cause of death (28% in 1990) among the male population, although more than one third of the deaths were linked to homicides. Accidents, homicides and suicides were the third cause of death among women of reproductive age, according to the maternal mortality survey. Among the factors implicated in the increase in traffic accidents, in particular during vacation times, are the lack of road signs, especially for night time driving; the low level of maintenance of heavy vehicles; the lack of respect for driving rules and enforcement of traffic regulations; the lack of traffic-related education of both drivers and pedestrians; a certain culture of fatalism, linked to the "machismo" concept; and above all, the high level of alcoholism, which has been shown to be implicated in 80% of road accidents. The actual extent of home accidents, especially among children is not known with accuracy.

3.1.8 High mortality and morbidity from violence

Although there are no national data related to intra-family violence, usually directed to women and children, and to peer violence, several recent studies have investigated the extent, characteristics and causes of these phenomenon, deeply rooted in cultural patterns ("machismo", lack of conflict-solving education, alcoholism etc.). On the other hand, the recent increase in violence linked to common delinquency is accentuated by the easy availability of all sorts of weapons, including heavy automatic guns, and by increasingly visible socio-economic differences. A specific aspect of violence is that of the children of the street. Little institutional answer is available, except from the NGO sector.

3.1.9 Increasing mortality/morbidity from chronic degenerative diseases

The burden of malignant diseases and chronic cardiac-vascular and endocrine ailments on the health system is likely to increase in Honduras in the next few years, as a better control of infectious diseases and maternal mortality allows for a longer life expectancy (the current levels were estimated at 67 years in the 1988 Census). The increased interest

manifested in this category of diseases stems from the felt need to act now on prevention, rather than 15 years from now, when the control and treatment costs will be unaffordable for the country.

Malignant tumors were found to be the fourth cause of death among WCBA, with uterine cervix cancer responsible for 5% of total deaths in WCBA. Death from cardiovascular diseases and diabetes mellitus represented 12% and 2% in 1993, respectively, of all hospital deaths. Of concern as emerging causal factors of mortality and morbidity are the changes occurring in the Honduran urban population: increase in sedentary behavior and consumption of fat in the upper/middle class, high prevalence of alcoholism and tobacco addiction.

3.1.10 Insufficient level of activities in environmental health

The Ministry of Environment (SEDA) was created in 1993 to enforce the Environmental Law ("Ley General del Ambiente"), formulate environment policies and coordinate environment-related actions on the National Territory. The Honduras Environmental Development Project financed by the World Bank aims at strengthening institutional capacity and support municipal projects.

Recent official initiatives linking health and environment are pushing towards regional integration though the several rounds of ECOSAL Conferences and the regional Investment Plan for Health and Environment (PIAS) discussed in the Inter-institutional Technical Committee on Environment and Health (COTIAS), which schedules investments for rehabilitation and new infrastructure in Environment Protection and Control and Health Care. Needs for the Latin American/Caribbean Region were estimated at US$ 217 millions for the period 1992-2004 and an investment fund was to be created for this purpose.

The CESCCO (Center for Studies and Control of Contaminants) was created in 1986, with joint funding for ten years by the Government of Honduras, the Swiss Government Cooperation and PAHO. Its objectives are the development of an investigative and administrative institutional structure for the study and control of contaminants, with consolidation and self-financing scheduled for the 3rd phase (1992-96).

3.1.11 Insufficient level of activities in occupational health

Honduras entered the International Labor Organization in 1959 and since then, has benefited from the support of the International Labor Organization and the Government of Spain. The National Workers Health Plan, elaborated in October 1992 by the National Commission on Occupational Health, estimated the economically active population at 1,674,650, that is 31.8% of the total population.

In addition to the MSP, the Ministry of Work and Social Prevision (MTPS) and the IHSS also contribute to the implementation of occupational health activities. The MTPS covers roughly 160,000 workers in all departments, while the IHSS covers around 180,000. The IHSS has developed modalities for health services delivery on worksite ("salud-empresa") in order to increase coverage.

Six health problems related to the working environment have attracted particular attention from medical authorities:

- work accidents;
- pesticide intoxication of workers;
- noise in the manufacturing sector;
- the widespread use of chemical products;
- reproductive health for female work force;
- mental health problems, such as depression and alcoholism.

More specific problems in the health sector includes occupational risk for laboratory workers (AIDS and Hepatitis transmission), X-ray technicians, staff in charge of hospital waste and psychiatric hospital workers. Little data are currently available on these topics. Information has started to be collected by the MTPS but needs to be organized into a usable data bank.

The Workers' Health Plan includes the creation of a National fund, financed by an increased social security contribution from workers and employers, that would finance occupational health activities (not including pensions for work-related health disorders).

3.2 Factors affecting health outcomes

3.2.1 Factors related to context

(A) Natural conditions

Climatic conditions play an essential role in the prevailing epidemiological patterns, especially with regards to distribution of vector-borne diseases, a main problem in the north-eastern areas. Difficult geographical conditions explain some problems of access to services that characterize the western and eastern part of the country.

(B) Economic conditions

Sustainable improvements in health will have to be implemented within weak economic structure. Public sector deficits are not sufficiently controllable by public authorities to be modified greatly in the short term. The relatively large volume of public sector employment and the consequent large share of public budget used to pay salaries adds to the political complexity. Few short run solutions to these fundamental structural problems present themselves and this reality will limit both the implementation and the impacts of the actions proposed here.

(C) Social conditions

Levels of poverty can be estimated through different methods, one of which is the estimation of per capita GDP. The figure for Honduras ranks this country among the poor countries, compared to a world average. The historical and cultural context in Honduras, as well as the deterioration of general socio-economic conditions within the last decade have both contributed to determine the present condition of women, still characterized by inequality.

The deterioration of living conditions and rapid population growth have led to significant rural-urban migration, more frequent among young women, especially with the recent installation of labor-intensive, duty-free industries ("maquilas") in the northern part of the country.

(D) Regional development

In spite of the promotion of decentralization policy, there is a lack of systematic regional development strategy, except for the two major cities. Even in the development strategies for those two cities, unplanned and densely populated settlements which are mostly located in the fringes of the cities are not well-considered.

Given the saturation level have reached closely to the maximum, efforts would be dedicated to the promotion and development of new "poles", centered around smaller cities such as Comayagua, Choluteca, El Progreso, Juticalpa, La Ceiba, Tocoa and Trujillo where agricultural resources coexist with potential for industry and services development, according to SECOPT. That would offer more employment opportunities and better social services, and consequently improve living conditions of the urban marginal population.

(E) Access to food

(1) Government policies

Two policy statements have been published from the government. The first one is "Lineamientos de Política de Seguridad Alimentaria Nutricional, 1995-1998" (Guidelines for policy on nutrition and food security) issued by SECPLAN. The other policy is the "Plan Agricola para el Desarrollo del Campo, (PROAGRO) 1995-1998" (Agriculture plan for field development) issued by Consejo de Desarrollo Agricola - CODA - (Agriculture Development Committee), which relates to the agricultural policies within the macroeconomic framework and the sectoral topics.

(2) Present action on agricultural development

UNDP has shifted to a "Project-wise Approach", which implies better coordination, and focuses particularly on poverty alleviation and education. On the other hand, FAO still emphasizes technical cooperation style to solve bottlenecks in this area. Many bilateral donors and NGOs are working independently in agricultural development to solve food security problems in the country. Almost all projects include not only a direct production component, but also supporting components such as access to credit, nutritional education and market information system. Such supporting systems are very important to improve farmers' living standards.

(3) Present action on "Food Security"

Much effort has currently been done by two institutions: CARE, funded by USAID, and PRAF, supported by UNDP and funded by the Central American Bank for Integration and Economy (BCIE). They both assist the Central Government in the implementation of the social compensation program through the food security strategy and cooperate with the Ministry of Health. PRAF has issued "Food Coupons" to mothers heads of household for which family monthly income is less than Lps. 400. PRAF also promotes survival strategies of rural women by assisting in acquisition and operation of micro-business.

(F) Water, sanitation and other environment

(1) Master / Action Plan for Water and Sanitation

UNICEF/SANAA has initiated the Preparation of Municipal Water and Sanitation Plans for the national level. The aim is to obtain funds to implement the municipal plans based on low cost technologies and to promote the rational use of water and financial resources. Infrastructure construction for water projects is being managed by MSP in small communities and by SANAA in larger ones. A few cities, such as San Pedro Sula (with DIMA) manage their own system, an orientation strongly supported under the State Modernization plan. To promote the decentralization of water management and services to the municipalities, training of technicians in water storage, liquid waste and sanitation areas has begun in 35 municipalities. Eventually enough municipality technicians will be trained to undertake and manage the municipalities' water and sanitation plans.

3.2.2 Factors related to household and community behaviors

(A) Cultural/anthropological aspects

(1) Ethnic groups and traditional believes and practices

There is little cultural resistance to accept the institutional health services provided by the government, seen as a complement to traditional providers. Indeed, people living in the isolated areas emphasized the poor accessibility due to insufficient extension of the network of health services and providers, and to the high cost of medicines in private drugstores. Interestingly, the MSP and NGO health providers in the Lenca area of La Esperanza have been promoting the use of traditional herbal medicine. On the other hand,

traditional providers do keep a stock of western medicines that they give to some of their patients.

(2) "Machismo", women' status and sexuality

Among the Latin population of Honduras, the most influential cultural pattern is the country's brand of "machismo", mostly sustained by male attitudes and behaviors, but also imbedded in women's education and perspectives. "Machismo" is commonly held as the most important causal factor in the persisting lower social status of the woman, high fertility rates, irresponsible sexuality and fatherhood patterns, resistance to more extended use of effective family planning methods and diffusion of STDs and AIDS. However, it should be noted that persistent high fertility role models in ethnic population also correspond to concerns with population survival.

(B). Social participation

Social participation programs will be divided into the following three categories :

- *Category A*
  (programs which require community participation in supporting roles only):
  They are fully dependent upon external executors for programming.
- *Category B*
  (Programs which train community members to make them reach self-sufficiency level): Community members receive training, but are not involved in the decision making process.
- *Category C*
  (Programs which include community members in the actual planning process):
  Community members form part of the directive board of programs, with a voice in their management and development.

(C) Illiteracy/education

Honduras still has a high illiteracy rate (32%), explained by the following problems in the education system:

1) *Low coverage of preschool, secondary and higher education*
2) *Lack of primary school teachers:*
   in 1992, 42% of the country's schools had only one teacher for all grades
3) *Centralized, inefficient structure:*
   impeding proper management of resources, lack of coordination between levels.
4) *Constraints from the teachers' point of view:*

lack of opportunities for career and merit-based promotion, decrease of social status, and low levels of real salary (50% decrease in the last 10 years)

5) *Financing of education:*
Even though the education budget represented in 1992 was 54% of the state's social expenditures, 97% of this was spent in salaries and current operating cost, leaving only 3% for investment. However, this sector of activities has been supplemented since 1990 by the social compensation programs (construction and repair of schools by FHIS). In addition, there is a fundamental inequity in the spending of public education funds by educational levels (more funding for superior schools).

(D) Demographic structure and dynamics

Based upon the 1974 and 1988 Household Census data, Honduran population for 1993 was estimated at 5,173,141, with a 2.8% growth rate, which implies a population doubling time of 26 years. Increase in life expectancy, due to steady fall in mortality rates, will bring an increase in the proportion of elderly people, thus modifying the epidemiological profile (more chronic degenerative diseases), increasing the burden on pension systems and on the economically active population. Continuing rural-urban migration, in the absence of strict urban planning, will increase the proportion of marginal areas in large/medium cities and increase the burden on health services in these areas.

The total fertility rate was still 5.2 in 1991-92, in spite of a contraceptive prevalence rate of 46% (including traditional methods). There is an unsatisfied demand for family planning which needs to overcome organization and motivation obstacles within the institutions and deep cultural patterns in the population. In particular, there is a need to work more closely with men.

(E) Health related education

(1) MSP activities

Health education activities in the MSP are directed by the Health Education Division, which includes both medical and communication technical staff and disposes of audio-visual equipment for preparation of education material. Regional health teams have a human resource development/communication person in charge of distributing printed education material to the health facilities and training personnel.

(2) Other sources

The IHSS has developed a series of videotape education material, mainly on reproductive risk and maternal health concepts, to show in the institution's clinics and hospitals waiting room. ASHONPLAFA has also its own printed material, the contents of which has been reviewed with MSP technical staff for consistency. NGOs either use the MSP or ASHONPLAFA material or an adapted version of the same, more rarely producing their own. There are a small number of health-related national radio or TV emissions, where MSP and IHSS personnel are frequently invited and thus offered an opportunity to diffuse their institutions' policies and guidelines. Breastfeeding promotion, in particular, has benefited from a strong and frequent presence on the air.

(3) Intersectoral activities

Since 1989, an integrated plan was implemented to provide school teachers with technical support material (self training modules) and organize methodology/contents training sessions conducted by joint MSP/SEP teams. More recently, AIDS-related education activities have been initiated as a joint action of both ministries.

3.2.3 Factors related to the delivery of health services

(A) Health policies

The principles of equity (availability of equal services to rich and poor), efficiency (lowering costs), effectiveness (anticipated results are obtained), and social participation have been maintained throughout periods of relatively liberal spending in the social sector, as well as during the more difficult times, linked to the economic structural adjustment. The "global option" principles prevailing under the latter conditions emphasized three critical orientations: food security, basic water and sanitation, and access to health services.

More recently, another guiding policy of the Honduran government has been the state modernization project and it focuses on decentralization, with more responsibilities, and implicitly more means, to be given to the municipal level. In the health sector, this has been interpreted as the need to promote and organize participation of the local community in the identification of their needs and problems and, eventually, in the local

administration of the health services. In June 1994, the 293 mayors of Honduras agreed to support the "Plan de Acción Nacional Desarrollo Humano, Infancia y Juventud" and use it as a base to develop their own municipal plans. A year later, they committed themselves to support the "Pacto de la Infancia" whereby municipalities will identify municipal programs, projects and activities directed to children, making these a priority over other pressures.

The decentralization process complements the impact of local programming, an older strategy already implemented by the MSP to improve the response to local needs and better reach the population with low or very low access to health services. Local programming involves bottom-to-top strategies and local intersectoral coordination in problem identification and resource allocation. The process is based on the needs and characteristics of the individual "espacio-poblaciones", i.e., each health service providing unit and its catchment area. Local problems are identified, based on the available human and financial resources priorities are set and activities which can in fact be accomplished are programmed.

(B) Laws and regulations

Although health related laws already exist or have been drafted, their actual implementation is hampered by lack of specific regulations and controls by the corresponding government institutions. Response to emergency demands overrule established processes. Although the Social Security Law permits "breaking" the Lps. 600 salary ceiling, technicalities and some opposition from employers, unions and the establishment have not resulted in changes on a ceiling set more than 30 years ago.

The municipality law establishes the transfer of funds to the municipalities, but in reality, full transfers have not been made yet. Drug procurement still requires improvements. Despite the creation of the Special Health Commission and the Special Procurement Office, differences in interpretation of the articles of the Agreements which created these two units slow down the acquisition process.

(C) Institutions and organization of the health sector

There is insufficient coordination amongst institutions working in the health sector, thus resulting in inefficient use of available physical and human resources to solve the existing health problems. The MSP and IHSS duplicate primary health care services; the IHSS provides tertiary care that the MSP also tries to provide. Although the MSP is responsible for providing water and sanitation to communities of less than 2,000 inhabitants and SANAA to bigger communities, limited coordination results in misuse of scarce resources and deficient provision of services.

The MSP is too concerned with the provision of services, yet there are not enough resources for regulation and standard setting, for monitoring and supervision. Private for profit sector is mainly located in urban areas and thus has limited coverage.

FHIS activities appear to overlap and/or take over the mandates for which other institutions exist. Close coordination is required between FHIS, SANAA and the Programa Nacional de Servicios de Salud (PRONASSA), the MSP unit responsible for construction and maintenance of health facilities.

(D) Organization/facility management

Rural health centers, especially those where an auxiliary nurse is the only staff present, are frequently closed because the auxiliary nurse is on sick or maternity leave, is performing outreach activities, or is attending a training course. Employees' wages are increased due to labor union pressures, but institutional budgets are not increased to meet these recurrent personnel cost increases; as a result, non fixed costs, such as maintenance, supplies, and supervision, are suffered.

Generally speaking, crisis management and national emergencies prevent achievement of scheduled activities at local and regional level. Hospital and regional budgets are not decentralized because it is difficult to meet programmed activities and acquire services and supplies when needed. The limited budget and priority assigned to preventive maintenance of equipment, vehicles and infrastructure, and the lack of corresponding items in most donors' projects results in short lives for these assets. Few region and hospital directors have administration/management training or experience and have to face

strong local political pressures. Union pressures and the goal of "health for all" limits the reduction in the MSP's role and the increase in the patients' participation.

Excessive centralization at the HSS slows down administrative procedures. Large contributions from the north western affiliates (San Pedro Sula and vicinities) may be subsidizing the entire system.

Cost recovery policies are not fully implemented and charges have not kept up with inflation. Exemption policies are not always applied properly. There is a need to improve cost recovery incentives. However, most of the community participation to date in health facilities activities are related to material, financial and in-kind contributions rather than participation in management and decision making.

(E) Referral system

Although the reference form is usually filled out, as it is needed to ensure that the patient is attended at the secondary level, the counter-reference form was found to have been written in only 1.4% of references send during a three month period. Deficient interpersonal relationships between institutional and community personnel, and inadequate patient reception patterns often prevent the community health workers from sending patients. Stockout of supplies or drugs in a given health center are rapidly known by the client population, who then bypasses its assigned facility; the presence of a physician is also a frequent reason for bypassing CESARes in favor of CESAMOs.

The absence of separate primary level facilities in the health regions' main towns and in the two main cities (Tegucigalpa, SPS) implies that often this primary care role is taken over by secondary or tertiary care institutions. The specific problems of the lack of low risk maternity wards and night-time emergency facility in Tegucigalpa and San Pedro Sula, with the subsequent congestion of supposedly tertiary care facilities, is one of the main examples.

(F) Drug supply logistics

(1) The public sector drug supply situation

One of the biggest problems facing health care is the chronic shortage of drugs and medical supplies in public health institutions. The field survey showed that only one third

of out-patient receive either a portion or all of the medicines prescribed in the facility they visit. In those cases, private pharmacies are the most common way to purchase medicines not provided by the original health provider. The chronic drug shortage causes dissatisfaction among health institutional personnel and a loss of trust by the general public. As IHSS drug supply system is similar to the MSP system, the situation in IHSS institutions is also similar.

(2) The drug budget

Although the government has made efforts to secure a stronger drug budget within the limited public health budget, high inflation, population growth, rising drug prices and expanded health care coverage has limited the government's ability to purchase enough drugs to meet the nation's needs.

(3) Procurement System

The centralized purchase of drugs is done through a public bidding. Previously, centralized purchases were made by the National Procurement Office. After this office was eliminated in April 1995, the MSP established its own Special Procurement Division in July to oversee its own purchases. This newly created office is expected to improve the lengthy process used by the National Procurement Office.

(4) Programming, storage and distribution

The major problem facing the programming system is the reliability level of the estimates. The system improvements implemented by the Health Sector II Project, an effective approach to drug management, critically needs supervision and support by regional and area offices.

The regional office is responsible for the distribution of drugs from the regional warehouse to each health center. It usually lacks sufficient transportation and must often rely on local transportation or people who come to the office for other matters.

(5) Use of Drugs

Frequent irrational prescriptions are wasting limited resources and promoting the use of expensive drugs. Pharmacists do not have the authority to replace a prescribed medicine

with a less expensive generic drug. Hospitals should have an active therapeutic committee to discuss and control the irrational use of drugs. Doctors are not always cooperative and existing committees are not active.

(G) Facilities and equipment

Insufficient maintenance conditions of medical facilities/ equipment is a common problem in Honduras.

(1) Lack of service network for donated products from foreign aid

Lack of standardization for medical equipment is partly responsible for heterogeneous procurement by foreign assistance, a problem made worse due to limited availability of spare parts and technical information. Furthermore, a rather small domestic market for medical equipment acts as an obstacle to develop service networks from the private sector.

(2) Financial restrictions

The MSP cannot afford the cost of contracts with private sector to maintain their medical equipment, since public facilities, including HSS hospitals and CESAMOs and CESARs can't allocate sufficient budget for maintenance, rehabilitation or repair works, even taking into account the cost recovery systems.

(3) Institutional definition problem in MSP

Currently, two departments of MSP, CENAMA and PRONASSA are involved in facilities maintenance. PRONASSA is responsible for renovation, rehabilitation and expansion of facilities as well as project management and planning while CENAMA is mainly in charge of supervision of installation works, training, documentation and maintenance/repair work of facilities and equipment. However, the above demarcation doesn't seem to be clear between these two departments, resulting in insufficient coordination and collaboration.

(4) Capability of maintenance staff

Though each public hospital has its own technical staffs for maintenance, personnel needs to be retrained for knowledge and skills relevant to repair works and also for preventive maintenance and quality control. It is difficult for PRONASSA and CENAMA to support

all MSP and other public medical facilities in Honduras with their limited financial and human resources.

(II) Human resources development, training and supervision

The MSP currently employs 1,067 physicians, 526 professional nurses, 3,764 auxiliary nurses, 100 dentists and 59 microbiologists. In 1993, the IHSS employed 387 physicians, 120 professional nurses, 600 auxiliary nurses and 19 odontologists. The Physicians Association reports, for 1994, 3,961 active physicians in Honduras, among them 1,409 specialists and 2,552 general practitioners. The working conditions (i.e., salary scales, incentives for working in remote locations or with specific professional health risks) of most public sector health personnel, is woefully inadequate when compared to their experience and level of responsibility and to the current cost of living.

The ratio of physicians and nurses to population is very low, especially in the rural areas and these areas of highest needs; the nurse/physician ratio is also quite low. Most professionals prefer to stay in the larger cities and/or fill administrative positions and do not provide direct health care services to the population. Newly graduated physicians in charge of CESAMOs, are often not knowledgeable of the policies and strategies of the MSP. Their training generally has a strong curative emphasis. The problem is similar for newly graduated professional nurses in charge of supervision at sector or area level.

In service refresher courses using the trickle-down method for operational staff have not had the expected result on the quality of services. Among other health professionals, there is a notable lack of laboratory technicians and most of all, maintenance technicians, leading to shorter life of donated material and equipment. Supportive supervision is hampered by lack of political support (priority activity) and logistics problems. Lack of unified model and system for supervision makes it difficult to organize and maintain training.

(I) Health financing

All systems operate with inadequate resources reflecting budgetary deficiencies and institutional limitations. For MSP, resource limits are worsened by severe cash flow problems related in part to the inclusion of SANAA funds in the MSP budget and in part

to the difficulties associated with centralized resource management. In a relative sense, however, public health has been supported consistently in the public budget. The MSP receiving between 9 to 10% of national central government funds over the last decade. As a result, Honduras has spent approximately 2.5% of GDP on public health services. Significant increases in this share would not be expected during the life of the NMHP.

On a per capita basis, the MSP budget has been increasing Lps. 70.9 in 1990 to Lps. 128.3 in 1995. Although still small, user fees represent a growing source of revenue for the MSP, increasing from Lps. 1.18 to Lps 2.49 over the same period. The importance of user fees varies considerably among institutions. Although national hospitals generated the most revenues, user fees represented only 2.83% of their budgets as compared to 3.52% and 4.95% for regional and area hospitals respectively.

The Honduran Social Security program (IHSS) covers approximately 20% of the population, concentrated primarily in the Tegucigalpa and San Pedro Sula areas. This represents over one million beneficiaries. The system is financed by a tax on wages up to the level of Lps. 600 per month. This limit has remained unchanged since the establishment of the program over 25 years ago when it represented 10 times the official minimum salary. It currently covers the wages of fewer than 20% and represents less than the current minimum salary. Failure to modify the financing of IHSS has limited greatly the ability of the system to meet its original objectives of providing more comprehensive services to a growing proportion of Hondurans.

Outside of the Tegucigalpa/San Pedro Sula area, IHSS acts as an insurer and contracts with public or private providers to deliver services to beneficiaries. This activity has been expanded in recent years and is likely to be the source of IHSS growth in the future. In these settings, IHSS contracts typically call for premiums to be paid on a higher level of salary and represent a significant difference in both the financing and the service provision activities of IHSS.

Although the private sector role in service provision is not well documented, their role in service provision is important. In the Tegucigalpa/SPS area, over half of the curative care visits were obtained from private providers. For the sample as a whole, over 45% of the curative care visits were to private providers, a share only slightly less than that for the

public providers (47%). Even for preventive services, the private provider was an important source accounting for 27% of all such visits. For hospitalization, the role of the private provider is less important with only 13.3% of the hospitalizations coming from that source. However, that share is only slightly lower than the IHSS share of 15.7%.

4. PLANNING FRAMEWORK FOR THE MASTER HEALTH PLAN

4.1 Goals and targets

The goal of the Master Health Plan (MHP) is to improve the health status of the Honduran population through the resolution of eleven priority health problems and the improvement of factors that affect health outcomes.

Goals of Master Health Plan

priority health problems	1990	1996	2000	2010
1. infant mortality rate(/1,000)	**50**	**44**	**33**	**20**
2. maternal mortality rate(/100,000)	**220**	**181**	**110**	**50**
3. malnutrition among under-5 years of children(%)	**38**	**-**	**27**	**20**
4. access to safe water and basic sanitation				
(1) access to safe water(% households)	**66**	**-**	**100**	**100**
1) urban	**88**	**-**	**100**	**100**
2) rural	**49**	**-**	**100**	**100**
(2) access to basic sanitation	**62**	**-**	**100**	**100**
1) urban area	**89**	**-**	**100**	**100**
2) rural area	**41**	**-**	**100**	**100**
5. AIDS and sexually transmitted diseases				
decreased incidence of HIV infection				
a. stabilization of AIDS incidence				
b. safe blood supply				
6. Vector-borne diseases				
decrease endemic levels of parasitic infection, outbreak avoided				
7. Accidents				
incidence decreased				
8. Violence				
incidence decreased				
9. Chronic-degenerative diseases				
prevention/screening measures implemented				
10. Environmental health				
legal support provided				
11. Occupational health				
development of legal and regulatory system				

Remarks : Goals of priority health problems 1-4 for the year 2000 were defined under National Action Plan for Infancy and Childhood, 1991.
Source (for data of 1996) : National Epidemiology and Family Health Survey 1996

The Government of Honduras has already set numerical goals for IMR, MMR, malnutrition rate and access to water and sanitation for the year 2000, under the National Action Plan for Infancy and Childhood, agreed upon at the Regional Conference in 1991.

However, the extrapolation of these goals to the year 2010 and the definition of measurable goals for all of the priority problems is made difficult by lack of baseline data for some of the health problems.

4.2 Scenarios

4.2.1 Socio-economy and demography

The growth of GDP, the population growth and the resulting growth in per capita GDP will influence the implementation of the MHP over the scheduled timeframe, as estimated in the following tables:

(1) Average annual growth of GDP

	Actual	Future	
Cases	1980-1994	1994-2000	2000-2010
Case G1 (Pessimistic)	3.10	3.10	3.30
Case G2 (Medium)	3.10	3.50	3.70
Case G3 (Optimistic)	3.10	4.00	4.20

(2) Average annual growth of population

	Actual	Future	
Cases	1988-1995	1995-2000	2000-2010
Case P1 (Pessimistic)	2.90	2.90	2.75
Case P2 (Optimistic)	2.90	2.55	2.13

(3) Average annual growth of per capita GDP

	Case G1		*Case G2*		*Case G3*	
Pop. growth (%)	2000	2010	2000	2010	2000	2010
Case P1	0.20	0.55	0.60	0.95	1.10	1.46
Case P2	0.55	1.17	0.95	1.53	1.45	2.07

4.2.2 Long-term policy

This section will recognize the main policy orientations sustained, with a remarkable continuity in spite of changes in the leading political party, by the Government of Honduras over the previous years, acknowledging that these orientations constitute an important element of the planning framework for MHP.

(1) Basic principles of health policy: equity, effectiveness, efficiency, social participation
(2) State modernization, decentralization and local programming
(3) High risk approach and gender focus

(4) Regional development policy
(5) Financial sustainability
(6) Encouragement of social security system

4.2.3 Vision for the future

Although there have been draft proposals elaborated for a "single" health system (sistema único de salud), where resources of both MSP and IHSS would be included into a unique organization, the NMHP considers the continuation of a mixed provider system as a more viable solution within the Plan's timeframe. Under this perspective, the goal of the health system would be to progressively increase the private financing of health care, either through increased coverage of the IHSS, through private insurance schedules or through improved cost recovery mechanisms, thus making more resources available for the public sector to achieve its social mission of providing services to the least affluent group of the society, and eventually increasing the access to these comprehensive services.

5. MHP STRATEGIES

The MHP is composed of National Master Health Plan (NMHP) with fifteen priority strategies and the three model health programs for selected areas. The NMHP and the model programs are formulated so as to interact with each other effectively and efficiently for attaining the goals of MHP. The major components of NMHP, contribution of the model programs, and the main organizations concerned are summarized as follows for each strategy. The strategies are grouped into the three basic dimensions of the conceptual model: context, household and community behaviors, and health service delivery.

5.1 Strategies related to context

5.1.1 Alleviation of poverty

(A) Components of NMHP

- Institutional strengthening for promoting community activities
- Establishment of training and extension centers for community leaders
- Facilitation of information on income generation projects

(B) Contribution of the Model Programs

- Institution building among community development committees
- Establishment of Health Promotion and Information Center for community leaders
- Coordination of municipal development plans and municipal health plans
- Provision of training and information services for food production/marketing and for the other income generation activities
- Strengthening of social participation activities
- Support of community funding system development

(C) Major Organizations Concerned

MSP, Health Regions, Municipalities, Community Development Committees (CODEMs and CODECOs etc.), Resource Center (proposed by the urban poverty model program), Training and Extension Center (proposed by the rural poverty model program), NGOs

5.1.2 Access to food/food security

(A) Components of NMHP

- Institutional strengthening for promoting community activities
- Political support

- Improvement of low-cost irrigation system, crop diversification, access to credit and technical inputs, dissemination of organic composting system, post-harvest technology, marketing information, and networks
- Strengthening health and nutrition education system

(B) Contribution of Model Programs

- Improvement of production, marketing, transportation, and information system
- Strengthening of health and nutrition education system
- Training about cooking and food preservation practices
- Inclusion of health/nutrition education in training/information activities
- Links with NGOs for development and management of small-scale agricultural projects
- Improvement of training and information for agriculture and food production

(C) Major Organizations Concerned

MSP, Health Regions, Region/area Hospitals, Health Areas, CESAMOs/ CESARes, Community Development Committees, Resource Center, Training and Extension Center, Health Promotion and Information Center (proposed by the SPS program), NGOs

5.1.3 Access to water and basic sanitation

(A) Components of NMHP

- Rationalization of control and management of water resources between concerned institutions
- Reinforcement of protection and control of water resources: review of Water Law, enforcement of regulations relevant to Water and Environmental Laws
- Support of regional and municipal development plans that anticipate water and sanitation needs
- Transfer of technical and managerial capabilities to the municipalities: training of municipal water and sanitation O&M technicians by SANAA
- Improving maintenance of water/sanitation network through stricter implementation of cost-recovery mechanisms
- Education on environmental and health impact of water and sanitation
- Support for development and functions of local water boards

(B) Contribution of Model Programs

(1) model program for urban area

- Involvement of DIMA in elaboration of municipal health plans
- Promotion of the role of DIMA in transfer of technology to other municipalities

(2) model program for rural poverty area

- Support for community development committees' participation in design/ implementation and control of water/sanitation projects

- Training and equipment lending services for water supply projects to community members
- model program for urban poverty area
- Institution building for community-based local water board

(C) Major Organizations Concerned

MSP, SANAA, Municipalities, Health Regions, Health Areas, Community Development Committees, Water Boards, Resource Center, Training and Extension Center, Health Promotion and Information Center, NGOs

5.1.4 Legal/institutional context

(A) Components of NMHP

- Reinforcement of relevant regulations for specific aspects of the Health Code/ social security law
- Implementation of increase in IHSS salary limits, together with administrative reforms and plans for improvement/expansion of services
- Follow-up of procedures to ensure full transfer of national funds to municipalities
- Local, inter-sectoral coordination with municipalities to organize transfer of services management)

(B) Contribution of Model Programs

(1) model program for urban area

- Encouragement of transfer of technology for management of environment-related health services to municipalities
- Strengthening of health unit of municipal gov.

(2) model program for Integrated development area

- Development of alternative service delivery models for IHSS (contracting of MSP or private provider services)

(3) model program for urban poverty area

- Strengthening of Health region's function
- Establishment of coordination system at local level
- Encouragement of transfer of technology for management of environment-related health services to municipalities

(C) Major Organizations Concerned

MSP, IHSS, Municipalities, AMHON

5.2 Strategies related to household and community behaviors

5.2.1 Reduction of illiteracy

(A) Components of NMHP

- Incorporation of "transversal axes", including health and hygiene, into the curricula; development of Integrated Preventive Education program
- Improvement of living/working conditions for teachers, especially in rural areas
- Implementation of National Education Plan for Vocational Development of Youth and Adults

(B) Contribution of Model Programs

- Promotion of contacts with teachers for joint activities in health-related education/training
- Integration of health/nutrition and income generation related contents in community-level
- Adult education activities (women's group)

(C) Major Organizations Concerned

MSP, SEP, Municipalities, Health Regions, Health Areas, CESAMOs/CESARes, Community Development Committees, Resource Center, Training and Extension Center, Health Promotion and Information Center, NGOs

5.2.2 Improvement in health education interventions

(A) Components of NMHP

(1) Improve efficiency of health education interventions

- Definition of health education policy, HED's roles and sources of funding, based upon joint proposal by HED, HRD, SPU and EMD of MSP
- Increase of regional/local capacity to elaborate, produce and evaluate educational material
- Motivation and trainning of staff in use of educational material and interpersonal communication

(2) Develop a culture of health promotion/disease prevention

- Design of health promotion interventions: topics, messages, audiences, media, sequence
- Implementation through multi-media interventions, intersectoral activities, reinforcement from health personnel

(3) Look for possible partners in health education

- Cooperation with the Ministry of Education: development of Integrated Preventive Education program (self-esteem, gender focus, mental health, drug addiction)

- Cooperation with businesses, "maquilas" (AIDS, occupational health, reproductive health, accidents)
- Cooperation with women and community organizations (MCH, malnutrition, accidents, vector control)

(B) Contribution of Model Programs

(1) all model programs

- Implementation of health education campaigns according to regional/local specificity; field testing of messages and media
- Promotio of contacts with teachers for joint activities in health-related education/ training

(2) model programs for urban area

- Establishment of health promotion/education center: production of educational material, training, counseling
- Follow-up on JUPSA project
- Identification of businesses suitable for multiplication of health education messages

(3) model programs for rural and urban poverty areas

- Promotion of working with women's group and other community organizations in development of community projects and education activities

(C) Major Organizations Concerned

MSP, SEP, Municipalities, Region/area Hospitals, Health Regions, Health Areas, CESAMOs/CESARes, Community Development Committees, Resource Center, Training and Extension Center, Health Promotion and Information Center

5.2.3 Improvement in social participation

(A) Components of NMHP

- Improvement of the formal process/systems for social participation
- Improvement of the environment to foster social participation (multi-sectoral approach)
- Improvement of government functions to support social participation activities (democratization, transparency)

(B) Contribution of Model Programs

(1) all model programs

- Strengthening of regional social participation unit in health sector, with focus on intersectoral cooperation

(2) model programs for urban area and integrated development area

- Development of community participation in elaboration of municipal health plans

(3) model programs for rural and urban poverty areas

- Strengthening of referral functions through training of community leaders and provision of information on available services
- Education/training/information for institutional strengthening of community development committees; coordination with municipalities

(C) Major Organizations Concerned

MSP, AMHON, Municipalities, Health Regions, Health Areas, CESAMOs/ CESARes, Community Development Committees, Patronatos, Water Boards, Resource Center, Training and Extension Center, Health Promotion and Information Center

5.2.4 Reduction of fertility rate

(A) Components of NMHP

- Periodic revision of existing population policy and integration within other important aspects of human development, including reproductive health and gender development
- Provision of family planning information and services to persons and couples willing to delay, space or reduce their pregnancies:
    - * training and motivation of staff
    - * timely supply of contraceptive products
    - * specific approach to the male population

(B) Contribution of Model Programs

(1) all model programs

- Provision of FP information and services as part of integrated package of health services, including community providers

(2) model program for urban area

- Development of strategies to support AIDS prevention

(C) Major Organizations Concerned

MSP, National/region/area Hospitals, MCH Clinics, Emergency Clinics, Health Regions, Health Areas, CESAMOs/CESARes, Maternal Inns, Resource Center, Training and Extension Center, Health Promotion and Information Center, NGOs

5.3 Strategies related to health services delivery

5.3.1 Access to health services

(A) Components of NMHP

(1) Physical expansion of facility network to meet the demand

- Development of community-based support facilities: maternal inns, community birthing homes, community health centers,
- Building of new ambulatory facilities (CESARes, CESAMOs, CMIs) in the areas which currently have no services (provided funds for O&M are available)
- Reconstruction of old area/regional hospitals (Choluteca, Danlí, La Ceiba, Trujillo)
- Construction/rehabilitation of low-risk maternity: San Felipe Hospital (Tegucigalpa) and Hospital L. Martínez (SPS)

(2) Improvement in current problem-solving capacity

- Community management of common diseases and problems
- Assigning two health persons per CESAR in order to increase community outreach without closing facilities
- Delivery of Basic Health Package/movement of personnel
- Improvement in problem-solving capacity of higher level PHC facilities: expanded scope of work including low-risk delivery and immediate complications, emergency care related to accidents, dental care, laboratory/X-ray support on a 24-hour/day basis
- Improvement in problem-solving capacity of area hospitals (emergency, surgery, obstetrics, lab support)

(3) Improvement of transport and transport financing mechanisms

- Preventive management of problems to avoid needs for emergency transportation from places with difficult road access
- Use of existing private sector or non-health public sector for transport from point of access towards primary care site
- Consideration of MSP/IHSS system or Red Cross for referral transport

(B) Contribution of Model Programs

(1) model program for urban area

- Establishment of community birthing homes attached to integrated health center model
- Strengthening of PHC network and decongestion of secondary level hospital (MSP project)
- Establishment of four integrated health centers in peripheral areas; links with MSP's Project for Management of Emergency Care on the Tegucigalpa-SPS axis

(2) model program for rural poverty area

- Evaluation of existing facilities and replication in other isolated areas
- Improvement of cultural and physical accessibility through strengthening outreach programs
- Training and supervision/logistics support; links with local NGOs
- Strengthening of self-support, solidarity mechanisms

(3) model program for urban poverty area

- Improvement of cultural and physical accessibility through strengthening outreach programs
- Marketing proper use of the maternal and emergency referral system newly established by the projects of rehabilitation of San Felipe Maternity Hospital and construction of three emergency clinics

(4) model programs for integrated development area

- Establishment of integrated health centers as part of PHC service network and as short-term substitute for area-level hospitals
- Strengthening of self-support. solidarity mechanisms
- Exploring of IHSS reimbursement mechanisms for transport

(C) Major Organizations Concerned

MSP, IHSS, National/region/area Hospitals, MCH Clinics, Emergency Clinics, Health Regions, Health Areas, CESAMOs/CESARes, Maternal Inns, Health volunteers, Midwives, NGOs

5.3.2 Management of facilities/organizations

(A) Components of NMHP

- Implementation of decentralization of management of health services
- Streamlining administrative procedures
- Promotion of client-oriented focus through operational investigation and training in interpersonal relationships
- Strengthening of quality assurance mechanisms in hospitals: self-evaluation and accreditation processes
- Provision of priority to supportive supervision
- Municipalization of information system and strengthening of analytic capacity of local decision makers
- Application of integrated computer network systems for epidemiological surveillance, diagnosis/treatment/referral support

(B) Contribution of Model Programs

(1) model program for urban area

- Development of models for participation of municipalities in management and provision of health services (within the "healthy city" concept)
- Effective inclusion of hospitals within network of health services and reinforcement of integration with surrounding communities through improvement of quality control mechanisms (for instance, implementation of counter-reference system)
- Strengthening municipality-based HIS with pooling of information from different providers

(2) model program for urban poverty area

- Strengthening community organizations' capacity and willingness to exert control over health activities
- Effective inclusion of hospitals within network of health services and reinforcement of integration with surrounding communities through improvement of quality control mechanisms (for instance, implementation of counter-reference system)
- Strengthening municipality-based HIS with pooling of information from different providers

(3) model program for integrated development area

- Development of models for regional programming based upon epidemiological and organizational data (DALY model)
- Strengthening municipality-based HIS with pooling of information from different providers
- Strengthening HIS for actual use of DALY model

(C) Major Organizations Concerned

MSP, IHSS, National/region/area Hospitals, MCH Clinics, Emergency Clinics, Health Regions, Health Areas, CESAMOs/CESARes

5.3.3 Improvement of referral system

(A) Components of NMHP

- Definition, discussion and acceptance of the respective functions of each level
- Improvement of problem-solving capacity at primary care level
- Appropriate management of referred patient through priority attention and use of counter reference mechanisms
- Improvement in secondary and tertiary levels of care

(B) Contribution of Model Programs

(1) all model programs

- Identification of community needs and definition of functions strengthened through support to social participation (municipal health plans)
- Development of referral specialties and improvement in procurement/allocation of support equipment

(2) model program for urban area

- Motivation and training for systematic use of counter-reference mechanisms
- Low-risk maternity facilities and reinforcement of area hospitals

(3) model program for urban poverty area

- Low-risk maternity facilities and reinforcement of area hospitals

- Marketing of proper use of the referral system of maternal and emergency care providers
- Coordinated MSP/IHSS equipment plan

(4) model program for integrated development area

- Low-risk maternity facilities and reinforcement of area hospitals
- Coordinated MSP/IHSS equipment plan

(C) Major Organizations Concerned

MSP, IHSS, National/regional/area Hospitals, MCH Clinics, Emergency Clinics, Health Regions, Health Areas, CESAMOs/CESARes, Maternal Inns, Health volunteers, Midwives

5.3.4 Improvement of drug logistics system

(A) Components of NMHP

- Implementation of essential drug policy
- Assessment of local production by pharmaceutical industry
- Improvement of procurement system
- Improvement of planning/information system: strengthening of the POSSS at UPS level; computerized inventory control systems at regional/central level
- Improvement of distribution and delivery system
- Improvement of rational use of drugs
- Promotion of community involvement in drug management (community drug funds)
- Promotion of pilot project for community-controlled sale of drugs in health centers
- Strengthening of planning mechanisms for drug needs through supervision and application of epidemiological model
- Exploring mixed transportation system involving municipality-owned or private sector resources

(B) Contribution of Model Programs

- Support for community drug funds

(C) Major Organizations Concerned

MSP, IHSS, National/region/area Hospitals, Health Regions, Health Areas, CESAMOs/CESARes, UNICEF, NGOs, Health volunteers

5.3.5 Maintenance of facilities and equipment

(A) Components of NMHP

- Strengthening central level management of maintenance system: redefine roles of PRONASSA and CENAMA

- Establishment of at least one regional maintenance center, providing training, technical support for maintenance and repairs, assistance for spare parts to health facilities
- Increasing sustainability through reliance on external sources: participation of municipalities in financing of the regional center; outside services contracting; exchange of information and services with private facilities
- Improvement of sustainability through availability of trained technicians

(B) Contribution of Model Programs

(1) all model programs

- Standardization of facility design and equipment specifications among projects and regions in order to facilitate O&M

(2) model program for urban area

- Establishment of facility/equipment maintenance center: repair and maintenance functions for hospitals and health centers in the region, and information and training functions
- Outside service contracting for maintenance of large equipment also used in other businesses

(3) model program for urban poverty area

- Promotion of inclusion of training in O&M of biomedical equipment in INFOP-type training

(4) model program for integrated development area

- Promotion of inclusion of training in O&M of biomedical equipment in INFOP-type training

(C) Major Organizations Concerned

MSP, IHSS, National/region/area Hospitals, PRONASSA, CENAMA, Regional Center for Maintenance, Training and Information Center

5.3.6 Human resource development

(A) Components of NMHP

- Sustainable development of human resource considering the employment structure
- Promote preventive concept of health services and prepare better future health resources to respond to work site demands
- Training plan elaborated at regional/area level, based upon epidemiological and organizational assessment
- New role for normative divisions
- Selection of public health managers
- Facilitating working conditions of technically competent personnel working at the peripheral levels of the health system

(B) Contribution of Model Programs

- Enforcement of community participation in elaboration of training needs for health personnel through improved development of municipal health plans
- Identification of suitable persons for training in public health management

(C) Major Organizations Concerned

MSP, IHSS, SEP, Private providers, National/region/area Hospitals, MCH Clinics, Emergency Clinics, Health Regions, Health Areas, CESAMOs/CESARes

5.3.7 Health financing

(A) Components of NMHP

- Expansion of cost-recovery activities
- Implementation of raises in IHSS salary limits together with administrative reforms and plan for improvement/expansion of services
- Expansion of IHSS coverage outside of Tegucigalpa and SPS under special agreements with existing providers (MSP and private)

(B) Contribution of Model Programs

(1) model program for urban area

- Systematization of implementation of cost-recovery mechanisms and derive conditions for replication

(2) model program for urban poverty area

- Systematization of implementation of cost-recovery mechanisms and derive conditions for replication

(3) model program for integrated development area

- Development of alternative service delivery models for IHSS (contracting of MSP or private provider services)

(C) Major Organizations Concerned

MSP, IHSS, Private providers, National/region/area Hospitals, MCH Clinics, Emergency Clinics, Health Regions

6. MODEL HEALTH PROGRAMS

6.1 Development of model health area

The purpose of the model health programs is to develop activities for implementation of local and regional based initiatives identified in the MHP as important for improving health in Honduras. Each of the model health programs has a particular emphasis selected for its potential importance within the Honduran setting as follows (refer to Figure-1):

- **Model health program for urban area**: emphasizing municipal operations and support and focusing on improved strategies for community health education and promotion -- The municipality of San Pedro Sula (SPS) was selected.
- **Model health program for poverty area**: emphasizing both rural and urban settings and focusing on strengthening community participation and leadership -- The catchment area of the La Esperanza Area Hospital was selected for the rural poverty program, while the urban marginal area of Tegucigalpa was selected for the urban poverty program.
- **Model health program for integrated development area**: emphasizing improved planning and financing in areas of economic growth and focusing on improving the effectiveness of public health expenditures -- The Dept. of Olancho was selected.

The specific settings have been selected as they represent typical conditions appropriate for the strategies and, additionally, as the study team has been able to identify both a capacity and a willingness to initiate the program activities in the near future in those areas. Institutions and individuals in each setting have participated in the initial planning and priority setting exercises and are prepared to move toward implementation as needed resources are made available. The identified projects, together with the national initiatives identified elsewhere in the NMHP represent the short-term agenda for improving health in Honduras.

6.2 Model program for urban area

6.2.1 Model program

The goal of the model health program is to establish the "healthy city" where citizens live in clean and safe environments, public health services and curative services are available to all citizens, primary education is provided to all citizens, urban economies is active and diversified, and all citizens have access to transportation. The "healthy city" status will be achieved through implementation of the "healthy city plan" prepared by the local

government with good coordination and collaboration with the health region office of the MSP, and other institutions and organizations. The citizens' involvement and control over decision making on the issues relating to their life, health and well being is essential for both planning and implementation of "healthy city". Active social participation in health activities is also needed.

Contributing strategies for the priority health problems in SPS will be summarized in the Figure-2. The urban model program in SPS will focus on the following points identified from the above mentioned "matrix" in close linkage with NMHP;

(1) To plan health services to respond increase and changes in needs/demands within the frame of the urban development plan.
(2) To define the municipal role in health services: more focus on preventive and control care than curative care.
(3) To reinforce capacity of the Municipality in health services delivery, and prevention and control diseases.
(4) To use available resources efficiently and equitably to optimize the limited resources and to avoid duplication.
(5) To promote social participation by expanding UNDP project.
(6) To focus on comprehensive PHC including improvement of access.
(7) To focus on urban specific health problems including HIV/AIDS, reproductive health, and occupational/environmental health.

6.2.2 Model projects

The urban area model program will be composed of the following three priority model projects in SPS:

(A) Model projects 1: Project for HIV/AIDS prevention and health promotion/ education

(1) Purpose and Objectives

The purpose of the project is to establish coordinated health promotion/education mechanism for the population of SPS and the municipalities nearby, which coordinate the effort in health promotion/education and disease prevention activities and to reinforce the health unit of the municipality. It is based on the NMHP strategies of "improvement of health education" and "improvement of social participation", and will be a urban model in which the strategies are materialized.

Since HIV/AIDS problem is one of serious problems and needs urgent actions in Honduras, it will be taken as the first priority for health promotion and education activities in urban areas of the country under the national HIV/AIDS control policy and supervision from the central government. In SPS, the problem is more serious than other areas, which rationalize the establishment of a model project in SPS. The model will be replicated in other urban areas, such as Tegucigalpa, Comayagua and La Ceiba, where HIV seropositive prevalence is increasing.

(2) Target area

a. In Short-term: San Pedro Sula City and surrounding areas
b. In Mid/Long-term: Health Region 3

(3) Function of the project

- Coordination: leadership for coordination of health education and promotion activities of MSP, MSS, IHSS, NGOs and other agencies
- Project planning and implementation of health education/promotion and disease prevention program
- Training and education: for personnel working in health education/promotion and disease prevention and for the general public on health and prevention of diseases, particularly HIV transmission prevention, and the need for acceptance persons with HIV/AIDS.
- Documentation and information: dissemination of basic health information to SPS communities, health personnel, municipal officers responsible for health planning, and students working in health sector.
- Counseling: to decrease HIV transmission by serving as a center of early diagnosis of HIV infection and providing related counseling.

(4) Management

The following two options are proposed here: difference is whether the Center will be for health promotion and education activities including HIV/AIDS part, or will specifically focus on HIV/AIDS. In both cases, the MSP will provide policy guidelines and technical assistance and supervise the Center. The Center will be governed by a Board of Directors (Junta Directiva) made up of representatives of the municipality, Health Region 3, MSP, but the municipality will routinely operate the Center. The coordination committee will be also organized with IHSS, NGOs, donors and etc.

1) Option 1 (refer to Figure 3)

The project is comprised of two separate sub-projects: one is the "Center for HIV/AIDS Prevention and Information" project, and the other one is the "Strengthening of Municipal Health Promotion and Education Activities" project. The short term scope of work of the former project will be municipal with regional extension. Depending upon initial success and forthcoming additional funding in the mid and long term plan, this model will be expanded in other urban areas, for the extension of the model in other urban areas. The latter one aims at strengthening of health unit of the municipality in community health promotion and education, and for the AIDS part, there will be collaborative activities with the "Center for HIV/AIDS Prevention and Information". As such, the former sub-project will contribute to the national needs, while the latter one to SPS city itself.

2) Option 2 (refer to Figure 4)

The above mentioned sub-projects are integrated into the "Center for Health Promotion and Information". The Center will be a municipal center for SPS population. It will be a center to coordinate efforts and programs in health prevention and education in SPS, particularly, in various activities of HIV/AIDS prevention at the initial stage of the project. The range of activities will be gradually expanded to all health promotion and education areas. For the long term basis, this integrated model project will be applied to other municipalities in the country.

(5) Effectiveness

1) Contribution to basic principle of health policy

The project will support and promote national health policy. The project will strengthen effectiveness of health prevention activities by giving technical support in prevention and promotion health. Better coordination and cooperation will reduce duplication of efforts and make services more efficient, facilitating the optimization of resources. Social participation will be one of the important strategies in health promotion project, and the project will promote and give technical support to related organization through training and provision of information.

2) Contribution to priority health problems

Health education and promotion activities will impact all priority problems as shown in the matrix of strategies and health problems (Figure 2). Particularly, the project will give great impact on HIV/AIDS and chronic degenerative diseases, for both of them there are no immediate curative solution and medical treatment is extremely expensive, although HIV/AIDS is more urgent matter and chronic degenerative diseases is more likely future problem which needs start of strong preventive action now. Accidents and violence will have great impact by education and promotion, which has little systematic activities now.

3) Contribution to resource saving

Curative services always cost more than preventive service. The project will contribute to reducing the cost for curative care of diseases by reinforcing a preventive focus in the target communities. For instance, cost for hospital care of AIDS patients is estimated from Lps. 21 to 29.3 million in 2000. If preventive activities are conducted effectively by the project, HIV infection and AIDS incidence will be kept to the minimum level with a resulting saving of Lps. 8.3 million for hospital care cost. Better coordination and cooperation will also reduce duplication of efforts and make services more efficient, facilitating the optimization of resources.

(B) Model project 2: Reinforcement of CESAMOs' functions (refer to Figure 5)

(1) Purpose and objectives

To improve access to primary health care services and to improve quality of services in delivery and emergency care at Hospital Mario Catarino Rivas and in primary health care sites.

(2) Target area

San Pedro Sula City and surroundings

(3) Function of the expanded CESAMOs

- To provide 24 hours maternity care service:
  Normal delivery care will be established in CESAMOs for selected sectors of the marginal area (Chamelecon, Cofradia, Calpules and Rivera Helnández). High risk delivery will be referred to Hospital Mario Catarino Rivas.

- To provide 24 hours emergency care service:
  Pre-hospital emergency care unit will be opened in CESAMO Miguel Paz Barahona, and a CESAMO in the same selected sectors of the marginal area.
- To provide laboratory service:
  Basic clinical laboratory examination will be carried out in all CESAMOs above mentioned.
- To provide dental care service:
  Dental equipment will be installed and the service will be provided in all CESAMOs above mentioned.
- To provide emergency transport to emergency patients who need hospital care in collaboration with Red Cross.

(4) Management and operation

The Metropolitan, Health Region 3 and the Municipality will be responsible for the operation of CESAMOs with systematic coordination.

(5) Effectiveness

1) Contribution to basic principle of health policy

The project will improve access to basic health services since the CESAMO in the community of the city will provide wider range of services than current services, particularly in marginal areas. This will contributes to equity of health services together with the ACCESS project being implemented by MSP. The project also improve the referral system in SPS which should reduce the workload of Hospital Mario Catarino Rivas, thereby improving the quality of their services. This means that the project will contribute improvement of efficiency of the health services system as well as effectiveness.

2) Contribution to problem-strategies Matrix proposed

Reproductive health of increasing young girls and mothers working in maguilas/ industries in SPS and its surrounding areas are one of the growing problems. Improvement of birth delivery care and perinatal care by the project will be expected through the improvement of the referral system in SPS, improvement of access to MCH services in the community, and to reduce the workload of Hospital Mario Catarino Rivas, thereby to improve the quality of their services.

3) Contribution to resource saving

From the view point of operating costs, the initial stage of the project will require greater resources compared to the present system. However, in the future, the improved system will operate at a lower overall cost since the national hospital will need fewer health personnel to treat its reduced share of the projected overall patient load.

(C) Model project 3: Maintenance/Information center for medical facilities and equipment (refer to Figure 6)

(1) Purpose and objectives

To develop a model for maintenance system , including a national center and a regional self-supporting system, that will contribute to the completion of the nationwide O&M network system in the long term.

(2) Target area

MSP and other public health or medical facilities in urban and rural area of Health Region 3, and PRONASSA/CENAMA of MSP

(3) Function and Activities

1) Main center expansion at the central level: PRONASSA and CENAMA

The existing workshop at CENAMA will be renovated as a main center for the newly proposed maintenance system here.

- Planning, designing, construction management of medical facilities, rehabilitation programs
- Training of trainers
- Standardization of design and O&M
- Coordination with other related projects
- Information exchange and dissemination
- Assistance in spare parts procurement
- Documentation & Printing
- Quality control programming

2) Regional center at the local level

- Supervision visits for installation , maintenance & repair, training of trainers and staff
- Documentation
- Spare parts procurement
- Information exchange

- Quality control training
- Mobile outreach activities

(4) Management and operation

The maintenance and information center in SPS should be managed by a Board of Directors made up of representatives of the Municipality, Health Region and major medical institutions. It should include a Technical Advisory Committee comprised of CENAMA & PRONASSA - MSP, maintenance staff of major medical institutions and other technical institutes. Close coordination is required between PRONASSA/CENAMA and a merger of two departments would be encouraged.

(5) Effectiveness

1) Contribution to basic principle of health policy

The project aims at improving of the efficiency and effectiveness of maintenance system of medical facilities and equipment, through decentralization system with training, promotion of preventive maintenance, coordination and clear demarcation of CENAMA and PRONASSA, standardization of specifications and incidental procedures of medical facilities and equipment, improvement of information system on maintenance, and use of private companies for maintenance of sophisticated high technology equipment.

2) Contribution to problem-strategies Matrix proposed

Improvement of maintenance system of medical facilities and equipment is needed not only in urban areas but also other areas, and which related to health service provider aspect at all level of care. This is a pilot project of the improved maintenance system through setting-up the regional maintenance center and better coordination of CENAMA and PRONASSA and information system.

However, the problem is more serious in hospitals, where many equipment easily become unworkable due to lack of preventive maintenance, there is too many variety in the equipment from donor agencies resulting in technical difficulties of maintenance and obtaining of spare-parts, and there is many unrepaired equipment in the hospital warehouse.