Strategies

To improve the data base, collaboration in vital statistics with the Department of Justice will be strengthened, internal supervision will emphasize proper reporting, and relations with private agencies will be developed so that information is shared in support of mutual goals.

Recruitment and motivation for family planning will be promoted by means such as:

a) retraining and maintaing collaboration with traditional birth attendants, who can be effective supporters of family planning.
b) adequate communication and collaboration with the private sector agencies, and
c) health education via health workers at primary care level, via various media of communication, and via collaboration with other sectors, especially schools.

Strengthening of services will focus on continued priority to family planning in the developing primary care programme. Family planning will be a major responsibility within the Medical Assistants' training, in the pilot study of village level primary health workers, and at every rural health facility. To ensure effectiveness, training will focus on thorough procedures and proper supervision. Continued international support will be required particularly to ensure adequate supplies. It is also needed to support education for national programme leadership via fellowships and local training, meanwhile providing a limited amount of consultant services.

VII WHO関係資料

〔1〕 PLAN OF OPERATION FOR THE DEVELOPMENT OF HEALTH LABORATORY SERVICES IN TONGA

The Government of Tonga, hereinafter referred to as "the Government", and the World Health Organization, hereinafter referred to as "WHO",

Being desirous of obtaining mutual agreement concerning an assistance project for the development of health laboratory services in Tonga, particularly with reference to the purposes of this project and the responsibilities which shall be assumed by each of the parties,

Declaring that these responsibilities will be fulfilled in a spirit of friendly cooperation,

HAVE AGREED AS FOLLOWS:

PART I

Basis of relationships

The Basic Agreement concluded between the Government of Tonga and WHO on 8 October 1970 provides the basis for relationships between the Government and WHO in this project and the articles of this plan of operation are to be interpreted in the light of the Agreement.

PART II

Area

Health laboratory services are the responsibility of the Director of Health, with technical supervision in the hands of a laboratory technician (NZMLT).

A. Structure and functions of the laboratory service

(1) Health laboratory services are provided by laboratories in Vaiola, Ngu and Niu'ui hospitals. Vaiola Hospital laboratory is the Central Laboratory and referral centre in the Kingdom.

(2) The laboratory technician (NZMLT) at present in charge of the Central Laboratory at Vaiola Hospital, is the most senior staff member of the service, acting under the responsibility of the Director of Health.

(3) It is contemplated to extend the laboratory service to seven rural dispensaries with the basic equipment and supplies received from UNICEF.

B. Staffing

The country, with an estimated population of approximately 90,000

(1972 census), has 10 laboratory workers as follows:

Laboratory technician - 1 (New Zealand trained)

Assistant laboratory technicians - 4 (Fiji graduates)

Laboratory and X-ray assistants (combined category) - 5 (locally trained)

Of these 10 laboratory workers, 8 are working at Vaiola Hospital laboratory. Ngu and Niu'ui hospitals have one laboratory and X-ray assistant each.

Staff shortage is reported and said to be aggravated by staff taking annual leave or "time off" in lieu of payment for calls and other overtime work.

Based on 1973 figures, the workload per technician is about 250 tests/technician/month at Vaiola Hospital, 150 at Ngu Hospital and 100 at Niu'ui Hospital. Improvement in management should raise these figures at least towrd 700 tests/technician/month.

C. Activities

In all 20,767 specimens were tested in 1973, about 83 % being done at the central level. In spite of much improvement in the past few years, the range of diagnostic service remains narrow and there are possibilities of improvement for more efficiency in the laboratory. For example, in spite of the presence of typhoid, no Widal sero-diagnosis is made. Peripheral hospitals have sent very few samples for environmental sanitation control or clinical specimens for referral testing. Aside from water analysis, no other public health examinations are performed. Education of laboratory utilizers is one of the main tasks in ensuring extensive and efficient use of the laboratories.

D. Workload and budget

Further analysis of the workload and cost of the laboratory service needs to be carried out. A system of reporting on the functioning of the laboratory has been organized and should be utilized as a managerial tool.

The health laboratory has its own budget and the Government is expected to consider a budgetary measure which will enable the laboratory to have a full year's stock in hand for the third year, thus avoiding shortage of supplies due to delay in importation.

PART III

Objectives

The Government, with assistance from WHO, has the main objective of strengthening and developing of health laboratory services to meet the needs of the country's health and medical services.

This project has the following objectives:

1. To strengthen the Central Laboratory at Vaiola Hospital and develop its function as central referral laboratory of the Kingdom, able to provide all the support necessary for the control of diseases.
2. To organize and develop intermediate and peripheral laboratories.
3. To train and prepare various categories of technicians essential for operation of the health laboratory network of the Kingdom.
4. To establish administrative procedures that will contribute to the smooth functioning of the health laboratory network as a whole, consonant with the needs of the health services.

PART IV

Methods

The parties agree to implement and develop activities according to the technical methods and procedures recommended by WHO. These methods include:

1. Assessment of the needs in strengthening the Central Laboratory at Vaiola Hospital to fulfil its function as central referral laboratory and training centre for laboratory staff in the Kingdom.
2. Institution of necessary corrective measures, introduction of the required procedures and techniques, and implementation of public health laboratory activities as applicable.
3. Assessment of needs in health laboratory services at the peripheral level.
4. Strengthening of existing peripheral laboratories and organization of new laboratories as necessary.
5. Establishment of relevant supporting administrative functions at each level including procedures for reports and records, referrals, supplies and equipment, and staff assignment.

PART V

Plan of Action

1. The plan of action of the project shall be as follows:

A. Strengthening of the Central Laboratory at Vaiola Hospital

A careful assessment will be made of the present services provided; and remedial action will be taken according to the needs expressed by the clinician and within the limit of the available resources.

- The assessment will be concerned with the type of analysis needed, the workload and the staffing.
- The remedial action will relate to the volume and quality of work done and establishment of a better balance between individual patient care and public health or community health activity. Internal and external quality control programmes will be implemented.

Referral activities will be organized and developed. All staff will be given adequate training according to their category and duty, not only in technical skills but also in laboratory work organization and management.

Particular emphasis will be given to the training of a senior technical officer for the supervision of health laboratory services.

B. Development and peripheral laboratories

Assessments will be made of the existing laboratory units at the peripheral level. The existing units will then be strengthened and new units will be organized as requested. The functions and activities of different categories of units and their staffing will be defined.

Methods will be standardized accordingly and a manual of methods will be prepared at the central level.

The programme of activities will include all tests requested for the support of national disease control programmes.

Emphasis will be given to the establishment of a close relationship between utilizers and services for optimal efficiency and effectiveness of the laboratory service.

C. Training of staff

In coordination with the strengthening of existing units and the

organization of new units, refresher courses will be organized to upgrade the quality of work, and if necessary new staff will be trained at assistant level on in-service lines.

All the training will be based on standard methods specified in the laboratory manual to be prepared.

D. Administrative procedures

Inter-relationships, including channels of referral between each category of laboratory, will be defined. Recording, reporting, inventory and supply systems will be revised or improved as needed. Staff assignment and methods for laboratory budget evaluation will be specified.

2. Target time schedule

1975 - Recruitment of a microbiologist and strengthening of the central level. Preparation of a manual and organization of refresher and in-service training.

1976 - Strengthening of the laboratory at the intermediate and peripheral levels, evaluation of the work achieved and consideration of new developments in the framework of the national plan.

3. Plan of work

The plan of work will be prepared by the Government and WHO within three months of the WHO microbiologist's arrival in the country. It will be prepared according to the WHO guidelines for preparing project plans of work. It will give details of implementation and specify the framework for evaluation of the activities to be undertaken in the project. The plan of work and the results will be reviewed yearly and may be modified as technically indicated within the terms of this plan of operation.

4. The assistance provided by WHO for implementing the project is expected to continue through mid.-1982.

PART VI

Administration and assignment of responsibility

1. The project will be conducted under the responsibility of the Government with the technical advice of WHO.

2. The microbiologist provided by WHO shall act as technical adviser to the Director of Health in regard to the organization and improvement of health laboratory services at the central and peripheral levels.

3. WHO shall be represented by its Regional Office for the Western Pacific, with the delegation of authority to the WHO Representative for the South Pacific, in carrying out all the functions, activities, rights and duties of WHO as provided for in this plan of operation; and any personnel appointed to the project by WHO shall be responsible to WHO and act under its supervision and direction through the Regional Office. In all matters concerning technical assistance to be provided under this plan of operation, the Organization, through its Regional Office and WHO Representative, shall deal with the Ministry of Health.

PART VII

Commitments of WHO

WHO agrees to provide, subject to budgetary limitations, the following:

1. Personnel

   A health laboratory adviser (microbil logist) up to 30 June 1982.

2. Fellowships

   Fellowships necessary for continuation of the project, if requested by the Government. These will be provided subject to budgetary limitations and will be administered in accordance with the WHO fellowship regulations.

3. Supplies and equipment

   Supplies and equipment and printed materials for the project may be provided in an amount to be determined by WHO in accordance with existing policies, provided that the title to the equipment and supplies furnished by WHO shall be retained by WHO until the termination of the international assistance, at which time they will be disposed of in accordance with paragraph 3 of Part IX.

PART VIII

Commitments of the Government

1. The Government will provide all personnel, materials, supplies, equipment and local expenses necessary for the project, except as provided in Part VII, including the following:

   (a) Personnel

   A counterpart for the microbiologist.

   (b) Premises

   An office for the WHO microbiologist.

2. The Government will also provide the following:

(a) storage and internal transportation of WHO supplies and equipment;

(b) cost of necessary telephone, telegraph and postal communications;

(c) cost of public information in connexion with the programme;

(d) cost of incidental expenses necessary for the successful execution of the programme.

3. The Government will supply for the international personnel provided by WHO:

(a) office accommodation, furnishings, equipment, stationery and secretarial assistance as required;

(b) transportation at the duty station and within the country while on duty, including transportation from the place of residence to the place of work, and return;

(c) assistance in obtaining suitable accommodation during the period of their official duties in the country;

(d) such other facilities as may be agreed upon between the Government and WHO.

4. Reports from the Government

The Government will kepp WHO informed of the progess of the project. Such reports as are required will be prepared periodically by the Government and submitted to WHO.

5. Publications

The Govenment and WHO will consult regarding the publication, both national and international, of findings and reports compiled in connexion with the project.

6. Continuation of the project

The Government will continue the programme within the scope of available resources after assistance from WHO has ended.

7. Evaluation facilities

Evaluation facilities will be made available by the Government to WHO when necessary, including access to statistical and other records, and assistance from statistical and other governmental services and use of their facilities.

8. Costs to Government

The estimated cost to the Government of carrying out its commitments in

this project is US$8,387.09.

9. Third party liability

The Government shall isure WHO, its advisers, agents and employees for civil liability under the laws of the country in respect of vehicles provided for the project.

10. Administrative advice and assistance

The Government agrees to afford to WHO all necessary facilities to enable WHO to provide, at its own costs, adminsitrative advice and assistance to the programme relating to the handling and distribution of supplies and equipment and any other administrative or financial question which may arise in the operation of the programme.

PART IX

Final Provisions

1. This plan of operation will come into effect upon signature by the parties and will remain in effect until the international assistance provided by WHO is withdrawn, including such period of time as may be necessary for winding-up arrangements.

2. This plan operation may be modified by mutual consent of the parties.

3. Upon termination of this project, supplies and equipment furnished under Parts VII and VIII of this plan of operation, to which WHO has remained title, shall be disposed of in accordance with the appropriate rules and policies and as mutually agreed between the Government and WHO.

IN WITNESS WHEREOF the undersigned, being duly authorized, have signed this plan of operation.

DONE in five copies in English.

For the Government of Tonga:

Signature:

Name : Mr.

Title: Acting ... Government

At Nukualofa on 28/4/75

For the World Health Organization:

Signature:

Name : Dr I H Hirshman

Title: WHO REPRESENTATIVE

At ________ on ________

〔2〕 BASIC AGREEMENT
BETWEEN
THE WORLD HEALTH ORGANIZATION
AND THE GOVERNMENT OF TONGA

For the provision of technical advisory assistance.

The World Health Organization (hereinafter referred to as "the Organization"); and

The Government of Tonga (hereinafter referred to as "the Government").

Desiring to give effect to the resolutions and decisions of the United Nations and of the Organization relating to technical advisory assistance, and to obtain mutual agreement concening the purpose and scope of each project and the responsibilities which shall be assumed and the services which shall be provided by the Government and the Organizatipn;

Declaring that their mutual responsibilities shall be fulfilled in a spirit of friendly co-operation,

HAVE AGREED AS FOLLOWS:

ARTICLE I

Furnishing of Technical Advisory Assistance

1. The Organization shall render technical advisory assistance to the Government, subject to budgetary limitation or the availability of the necessary funds. The Organization and the Government shall co-operate in arranging, on the basis of the requests received from the Government and approved by the Organization, mutually agreeable plans of operation for the carrying out of the technical advisory assistance.

2. Such technical advisory assistance shall be furnished and received in accordance with the relevant resolutions and decisions of the World Health Assembly, the Executive Board and other organs of the Organization.

3. Such technical advisory assistance may consist of:

   (a) making available the services of advisers in order to render advice and assistance to or through the Government;
   (b) organizing and conducting seminars, training programmes, demonstration projects, expert working groups and related activities in such

places as may be mutually agreed;

(c) awarding scholarships and fellowships or making other arrangements under which candidates nominated by the Government and approved by the Organization shall study or receive training outside the country;

(d) preparing and executing pilot projects, tests, experiments or research in such places as may be mutually agreed upon;

(e) providing any other form of technical advisory assistance which may be agreed upon by the Organization and the Government.

4. (a) Advisers who are to render advice and assistance to or through the Government shall be selected by the Organization in consultation with the Government. They shall be responsible to the Organization;

(b) in the performance of their duties, the advisers shall act in close consultation with the Governfment and with persons or bodies so authorized by the Government, and shall comply with instructions from the Government as may be appropriate to the nature of their duties and the assistance to be given and as may be mutually agreed upon between the Organization and the Government;

(c) the advisers shall, in the course of their advisory work, make every effort to instruct any technical staff the Government may associate with them, in their professional methods, techniques and practices, and in the principles on which these are based.

5. Any technical equipment or supplies which may be furnished by the Organization shall remain its property unless and until such time as title may be transferred in accordance with the policies determined by the World Health Assembly and existing at the date of transfer.

6. The Government shall be responsible for dealing with any claims which may be brought by third parties against the Organization and its advisers, agents and employees and shall hold harmless the Organization and its advisers, agents and employees in case of any claims or liabilities resulting from operations under this Agreement, except where it is agreed by the Government and the Organization that such claims or liabilities arise from the gross negligence or wilful misconduct of such advisers, agents or employees.

ARTICLE II

Co-operation of the Government concerning Technical Advisory Assistance

1. The Government shall do everything in its power to ensure the effective use of the technical advisory assistance provided.

2. The Government and the Organization shall consult together regarding the publication, as appropriate, of any findings and reports of advisers that may prove of benefit to other countries and to the Organization.

3. The Government shall actively collaborate with the Organization in the furnishing and compilation of findings, data, statistics and such other information as will enable the Organization to analyse and evaluate the results of the programmes of technical advisory assistance.

ARTICLE III

Administrative and Financial Obligations of the Organization

1. The Organization shall defray, in full or in part, as may be mutually agreed upon, the costs necessary to the technical advisory assistance which are payable outside the country, as follows:

   (a) the salaries and subsistence (including duty travel per diem) of the advisers;
   (b) the costs of transportation of the advisers during their travel to and from the point of entry into the country;
   (c) the cost of any other travel outside the country;
   (d) insurance of the advisers;
   (e) purchase and transport to and from the point of entry into the country of any equipment or supplies provided by the Organization;
   (f) any other expenses outside the country approved by the Organization.

2. The Organization shall defray such expenses in local currency as are not covered by the Government pursuant to Article IV, paragraph 1, of this Agreement.

ARTICLE IV

Administrative and Financial Obligations of the Government

1. The Government shall contribute to the cost of technical advisory assistance by paying for, or directly furnishing, the following facilities and services:

   (a) local personnel services, technical and administrative, including the necessary local secretarial help, interpreter-translators and related assistance;
   (b) the necessary office space and other premises;
   (c) equipment and supplies produced within the country;

(d) transportation of personnel, supplies and equipment for official purposes within the country;
(e) postage and telecommunications for official purposes;
(f) facilities for receiving medical care and hospitalization by the international personnel.

2. The Government shall defray such portion of the expenses to be paid outside the country as are not covered by the Organization, and as may be mutually agreed upon.

3. In appropriate cases the Government shall put at the disposal of the Organization such labour, equipment, supplies and other services or property as may be needed for the execution of its work and as may be mutually agreed upon.

ARTICLE V

Facilities, Privileges and Immunities

1. The Government, insofar as it is not already bound to do so, shall apply to the Organization, its staff, funds, properties and assets the appropriate provisions of the Convention on the Privileges and Immunities of the Specialized Agencies.

2. Staff of the Organization, including advisers engaged by it as members of the staff assigned to carry out the purposes of this agreement, shall be deemed to be officials within the meaning of the above Convention. This Convention shall also apply to any WHO representative appointed to the South Pacific area who shall be afforded the treatment provided for under Section 21 of the said Convention.

ARTICLE VI

1. This Basic Agreement shall enter into force upon signature by the duly authorized representatives of the Organization and of the Government.

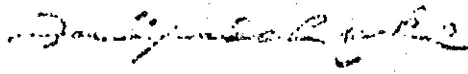
2. This Basic Agreement may be modified by agreement between the Organization and the Government, each of which shall give full and sympathetic consideration to any request by the other for such modification.

3. This Basic Agreement may be terminated by either party upon written notice to the other party and shall terminate 60 days after receipt of such notice.

IN WITNESS WHEREOF the undersigned, duly appointed representatives of the Organization and the Government respectively, have, on behalf of the Parties, signed the present agreement in three copies.

At Nuku'alofa, on 8 October 1970

For the Government of Tonga

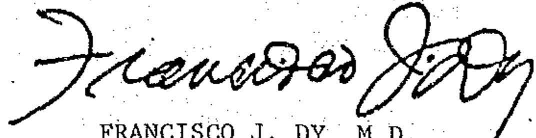


(Designation)

Prime Minister of Tonga

At Manila, on 11 August 1970

For the World Health Organization



FRANCISCO J. DY, M.D.

Regional Director

(3)

29 November 1979

ENGLISH ONLY

WORLD HEALTH ORGANIZATION

IN THE SOUTH PACIFIC

Résumé of main activities

Suva, Fiji
September 1979

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MAP OF THE SOUTH PACIFIC]

1. HEALTH FOR ALL BY THE YEAR 2000

The World Health Assembly, in its resolution WHA30.43, decided that:

> the main social target of governments and WHO in the coming decades should be the attainment by all the citizens of the world by the year 2000 of a level of health that will permit them to lead a socially and economically productive life.

The starting point in the process of developing policies and strategies for attaining this vital social target, popularly known as "health for all by the year 2000" is the adoption of some basic principles. These principles form the foundation upon which a common understanding of the problem is based. Once a foundation is made, the building of policies and strategies can proceed.

The subject of "health for all by the year 2000" has been debated for some time. The debate has generated a number of basic principles, of which the following are examples:

- An acceptable level of health by the year 2000 can only be attained through the coordinated efforts of the health sector and relevant activities of other social and economic development sectors.
- It is the duty of governments and the health professions to provide the public with relevant information on health matters so that people can assume greater responsibility for their own health.
- There should be a more equitable distribution of health resources, including special allocation to those in greatest social need, so that the health system adequately covers all the population.

There should be:

- An emphasis on preventive measures, well integrated with curative measures.
- Primary health care as adopted by the Alma Ata Declaration should form an integral part of a country's health system and be the main agent for delivering health care.

It is within this overall broad context that the energies of WHO in the South Pacific are now being directed.

2. THE SOUTH PACIFIC AREA

2.1 General characteristics*

The South Pacific area** covers approximately 90 million squre kilometres, of which less than 2% is land. It comprises about 10,000 islands (many uninhabited) grouped into 19 political entities, of which just over half have gained full self-governing or independent status. This number is steadily increasing, the Solomon Islands, Tuvalu and the Gilbert Islands (now Kiribati) having recently gained independence. Independence is envisaged for the New Hebrides in 1980. With the termination of the US Trust Territory mandate in 1981, four additional entities can be expected to be created in Micronesia.

The total land area of the South Pacific is slightly less than 90,000 square kilometres. The small size of the Pacific countries and areas and their scattered distribution over an immense area of ocean present numerous problems for economic and social development, such as problems of transport, communication, marketing, industrial development. These constraints have, however, been a factor in successfully encouraging cooperation.

The population of the South Pacific totals about 1,8 million. The Melanesian islands, with densities of less than 10 persons per square kilometre, are sparsely populated. Five of the smaller island countries (American Samoa, Guam, Nauru, Tokelau, Tonga) have densities of over 100 persons per square kilometre. The rate of annual population increase for the area is close to 2%. This figure would have been considerably higher if there had been no out-migration. This outward movement is strong in many islands, and, in several cases, outweighs natural increase. Samoa lost 10 % of its population through out-migration in the 1971-76 period, while various other Polynesian countries (Cook Islands, Niue, Tokelau) now have a smaller population than five to ten years ago. Most of the international migration is directed to New Zealand, Australia, Hawaii, the mainland of the United States of America and Canada.

There is also much internal migration within the Pacific countries. Although the drift to the towns has slowed down to a certain extent, the urban areas still grow faster than the rural areas, particularly in Melanesian countries.

* Extracted from the background material prepared for the UNDP/ESCAP Intercountry Programming Mission to the South Pacific in 1978.

** This discussion excludes Australia and New Zealand.

It is significant that of the 60 countries in the world which the United Nations Fund for Population Activities (UNFPA) considers priority countries for purposes of its assistance in population activities, five are in the Pacific - Kiribati, Samoa, Solomon Islands, Tonga and Tuvalu.

Available evidence suggests that incomes per head of population are low by the standards of industrialized countries, with an average of US$400 per head for the area. However, incomes vary widely from one country or area to the next, ranging from a level of nearly $4000 in the American and some of the French areas to about $200 in Niue, Samoa, Solomon Islands and Tonga. Samoa is at present the only Pacific country designated as a least developed country. Nauru is an exception with a high income level, due to its rich phosphate deposit, but this supply will run out in about 13 years time. For the smaller countries with fewer resources (Kiribati, Tonga, Tuvalu), income per head is probably static or declining.

The importance of agriculture and fisheries to most Pacific countries is obvious, although the virtual absence of this kind of activity in a number of cases (American Samoa, Guam and Nauru) is striking. Industrial sectors have developed to a reasonable size in some cases (American Samoa, Nauru and New Caledonia), which is due largely to contributions from mining and the processing of natural resources such as timber, fish and fruit juices. Manufacturing is at an elementary stage except possibly in Fiji where a fairly extensive range of manufacturing is carried out; however the further development of this sector is being actively encouraged throughout the region. Tourism has become a major sector in Fiji and several other countries are actively promoting it. The volume of tourist traffic, after the slump in 1974/5, is again steadily increasing. It is however debatable how beneficial tourism is, both culturally and economically, to the South Pacific region; much of the revenue generated tends to flow out of the countries (partly because local production cannot yet supply the industry's requirements), and the distribution of benefits among the population tends to be limited to the fortunate few; for these and other reasons, countries are therefore approaching tourism with rather more caution than previously.

Trade consists essentially of the export of a limited range of raw materials and semi-processed products in exchange for a wide assortment of manufactured goods, raw foodstuffs, industrial materials and capital equipment.

Passenger and freight rates for both air and sea travel are among the highest in the world and services are comparatively infrequent.

Since 1973 the dependent economies of the Pacific area have faced unusually high rates of inflation. In 1974, the average rate was 18 %, and it appears that not a single country has experienced price increases of less than 12 %, some even reaching rates of over 22 %. Since 1975, however, price increases have moderated in reflection of the general world trend to levels of just under 10 %. There are several notable exceptions where the inflation rate still appears to be running high, such as Cook Islands, Niue, Samoa, and Tonga, all of which have strong trade links with New Zealand.

The energy crisis has obviously hit the South Pacific but is not as critical as in other parts of the world, and to date, there have been very few actual shortages of products. The energy crisis has been felt mostly in increased petrol and electricity rates, which have been rising rapidly. The impact of increasing costs is obviously felt mainly in the urban centres and the majority of the population in the rural areas are less effected. Many countries are, however, attempting to raise the level of awareness of the people to the energy problems, and to conserve energy through campaings.

Nearly all Pacific governments and administrations are involved in preparing and implementing development programmes, aimed at improving living conditions and achieving greater economic independence and self-reliance, and many have produced comprehensive development plans. A major concern in these programmes is the promotion of employment opportunities and the development of available natural resources in agriculture, fisheries, forestry and on/offshore mining. The potential of these resources has recently improved considerably with the advent of 200 mile exclusive economic zones.

2.2 General health situation and services

2.2.1 Population

Fertility is generally still high in the region and may even be increasing in some Melanesian countries (Solomon Islands). It is thought that crude birth rates in these areas are over 40 per thousand. Family planning was introduced in Fiji in the early 1960s and has reduced the crude birth rate to below 30 per thousand. Family planning also had an impact on the size of families in Cook Islands and Tonga - and to a lesser extent - in Kiribati, Samoa and other Polynesian countries, but birth rates there still vary between 30 and 40 per thousand. Death rates have been reduced significantly since the Second World War and are now very low by world standards in some of the islands. The resulting high level of natural

increase will continue to cause a rapid growth of population if out-migration cannot be maintained and family planning is not strengthened. Having regard to the limited resource base of the Pacific islands, this could lead to serious socioeconomic problems in the next 20 to 30 years.

If it were possible to find an 'average' South Pacific situation, it would be characterized by a crude birth rate of 40 plus per thousand, a crude death rate of 8 per thousand, an infant mortality of 40 plus per thousand and an out-migration of 6 per thousand.

The population location is characterized by 20 % living in the major cities, 60 % along coastal areas in small villages and 20 % in interior regions.

2.2.2 *General health status*

Disease patterns. The main causes of illness and death in the South Pacific islands are respiratory and diarrhoeal diseases. These are the two main killer diseases, particularly in childhood. Other communicable diseases follow in importance. Malaria in the South Pacific is confined to Solomon Islands and New Hebrides.

Significant bacterial diseases are tuberculosis, leprosy, the main venereal diseases, meningitis, leptospirosis, tetanus and pertussis. The pneumonias and broncho-pneumonias are included under respiratory diseases, usually the leading causes of morbidity and mortality. Gastroenteritis, typhoid and the diarrhoeal diseases as a whole are the second largest causes of mortality and morbidity. Cholera reached the South Pacific in Kiribati in 1977 and in Nauru in 1979.

Of the viral diseases, hepatitis, dengue, influenza and the viral components of diarrhoeal and respiratory infections are important. Poliomyelitis is no longer common. Rabies is not endemic in the South Pacific.

Parasitic diseases are still important, malaria being foremost followed by filariasis and intestinal parasitic infections (ascaris, hookworm, amoebiasis). Fungal infections are frequent but in the main effect only the skin. Malnutrition, particularly during the weaning period, is a common problem, as is anaemia in women. Nutritional problems are aggravated by parasitism and by infections, whether malarial, intestinal or other.

As in the larger developed and developing countries, the chronic diseases are assuming importance as communicable diseases come under control and the population ages. Thus heart disease, hypertension, cancer and diabetes need increasing attention. Diabetes is particularly prevalent in Micronesia and Polynesia. Obesity is common.

The image of the carefree islander is a myth. Mental illnesses and stress syndromes are not infrequent. Alcoholism is increasing but drug abuse is still comparatively rare.

Traffic accidents and other injuries are a significant cause of hospital occupancy, death and disability.

2.2.3 Family health

Maternal and child health. Ante-natal coverage in South Pacific countries is quite high; however, there is generally room for qualitative improvements in the services. The general trend is toward more hospital deliveries. Post-natal coverage is normally not as high as pre-natal coverage.

Reported immunization coverage also is quite high. There is some concern about the efficacy of the immunization programmes, which is being investigated, especially with regard to BCG.

The coverage of the young child, in terms of visits by public health workers, is usually very high in most countries. However, the content of these visits is generally of low qualitative value and much can be done to improve this preventive service.

Family planning. Population planning - mainly reduced growth - is a high priority social development goal in most countries. However the coverage is varied. Fiji and Tonga are probably the highest with around 25-30 % while most countries are around 10 %. The programmes are weak in most countries and lack firm commitment from the health departments.

2.2.4 Environmental health

Water supply and sewerage. Throughout most of the year, there is a sufficient supply of water at the sources but the water quality, distribution and management need to be upgraded in most countries, particularly at the village level.

Less than 50 % of rural people have access to a safe protected water supply. Possibly 25 % have an insufficient supply for at least part of the year.

Less than 10 % of rural water supplies are subject to regular examination for quality.

Although most urban centres have a reasonable water supply, more planning and development are necessary to cater for the rapidly increasing urban population, particularly "squatter" settlements.

There are very few community sewerage disposal systems outside the main city centres and lagoon pollution is causing increasing concern.

Most rural communities have unsatisfactory latrines or none at all, with the resultant contamination of water supplies, and breeding of flies.

Solid wastes. Although all urban centres in the area have garbage collection services, at least 90 % of the centres have an unsatisfactory disposal method.

Sewerage and drainage. Standards vary in each country but less than 30 % of the urban population are provided with adequate sewerage systems.

Food safety. Rural communities have little knowledge of safe food handling or storage, thus encouraging the incidence of foodborne illness.

Most countries in the area require new or improved food legislation. There is a need for training in food hygiene and providing advice to health authorities on modern methods of food hygiene control, particularly in view of the increased population and tourism.

Pollution control. Increased population, agricultural and industrial activities have resulted in greater water and land pollution.

2.3 Health resources

2.3.1 Facilities. The public sector provides almost all health services, with the exception of Fiji where htere is some limited private medical practice. Health service administrations are highly centralized in the main national centres. The hospital system consists of a large national hospital and much smaller district hospitals, with in-patient beds in some health centres. Most countries have at least three beds per 1000 population. At the periphery, the health system consists of health centres and nursing stations.

A number of countries are also developing a village aid type of worker. An average of 3000 people are served by a health centre/clinic or nursing type of facility.

In many countries, the public health division also provides services through a network of centres staffed by public health nurses. These services include immunization, maternal and child health, school health, nutrition and communicable disease control.

2.3.2 Organization. The Ministries are usually headed by a Minister (political appointment), who is responsible for formulation of health policy. The Director of Health or Permanent Secretary of Health is responsible to the Minister for the day-to-day management of the Ministry.

Administratively, countries are often divided into districts, the larger ones having a district hospital. The headquarters is usually divided into four or five divisions (medical/hospital services, public health, dental, nursing and administrative services).

2.3.3 Manpower. The largest category of health personnel is the nurse, accounting for half the total personnel. Nurses perform hospital duties as well as staffing of nursing stations.

The second largest category is the physician. Physicians are usually in the hospitals, a few being posted to health centres.

The third largest category of health personnel is usually the health inspector.

The overall quantity of manpower in the health services is quite resonable, e.g. approximately one physician to every 3 - 4000 population and one nurse for every 300 people, but in most countries, the overall ratios are rather meaningless, since nearly 50 percent or more of the physicians and nurses are in the central hospital. Scattered, sparsely populated outer island areas often have very limited or no access to a health professional. Thus, the problem is one of distribution of health personnel in the country rather than one of shortage in terms of numbers.

The main health manpower concern in most countries at the present time is to provide populations with ready access to a health worker and to upgrade the overall level of the staff, especially in the area of supervisory and management skills, all of which is designed to provide some form of primary

health care.

2.3.4 Financial resources. In many countries, the expenditure on health is approximately 10 % of total government expenditure. Services are provided free by the government with a small fee for inpatient care and sometimes for outpatient services. This income would represent no more than 5 % of the total health expenditure in a country.

A large national hospital will typically absorb one half or more of the total health budget.

The per capita expenditure on health is quite varied, ranging from A$7 in Solomon Islands and Tonga to A$50 in Cook Islands, and over A$100 in American Samoa.

The rising cost of pharmaceuticals is causing increasing concern in the South Pacific.

2.3.5 Training. The great majority of the medical officers in the South Pacific have been trained at the Fiji School of Medicine, while most of the postgraduate training for medical officers is done in New Zealand.

All countires, with the exception of the few very small ones, have their own nursing school for basic training. Postbasic courses are offered in Fiji and New Zealand.

The majority of the technical staff, e.g. health inspectors, assistant pharmacists, are also trained at the Fiji School of Medicine.

More countries are now establishing their own training programmes for medical assistants, e.g. Fiji, Kiribati and Tonga. Others are looking in that direction - Cook Islands, Samoa, Solomon Islands.

2.4 Relationship with WHO

There are five countries in the South Pacific area that are members of WHO: Australia, Fiji, New Zealand, Samoa and Tonga. As such, these countries are regularly represented at the World Health Assembly and on the Regional Committee. Most of the time, a Member State from the South Pacific area has been one of those elected to designate a person to serve on the WHO Executive Board; at present Samoa is so elected.

There are four independent countries that are not members of WHO: Kiribati,

Nauru, Solomon Islands and Tuvalu. The first three of these show some interest in joining WHO.

The remaining 10 areas are represented by the metropolitan Powers: United States of America (American Samoa, Guam and Trust Territory of the Pacific Islands), United Kingdom (New Hebrides), France, (French Polynesia, New Caledonia, New Hebrides, Wallis and Futuna), New Zealand (Cook Islands, Niue and Tokelau).

These areas are represented in WHO through their metropolitan Governments. As such, they should theoretically have access to all the policy materials of WHO. However, the distribution of these materials does not usually reach the Pacific area.

In the Pacific area WHO considers all governments the same as far as collaboration efforts are concerned, regardless of their formal relationship with WHO.

3. MAJOR WHO PROGRAMME AREAS

3.1 Family health

The South Pacific populations are growing fast. Consequently, 45 to 50 % of the opulation are in the age group under 15 years and another 20 % are women of childbearing age. The importance of developing maternal and child health and family planning programmes can hardly be overemphasised. Countries where an active programme on family health is in operation (with UNFPA financial assistance) are: Cook Islands, Fiji, Kiribati, New Hebrides, Samoa, Solomon Islands, Tonga and Tuvalu). With the phasing out of WHO country staff on family health projects in Samoa and Fiji, and the likelihood of initiating a project in TTPI, the demand for intercountry services will be increasing.

The major problems with family health programmes in the countries are the shortage of trained staff at supervisory level to manage the programmes and the lack of reliable statistics on which the planning and evaluation of the programmes have to be based.

3.2 Primary health care

In general, community participation in the development of health programmes has been active in most South Pacific countries but intersectoral coordination among the government departments in the development of health services has

been rather weak. The development of voluntary health workers is essential in order to widen the health coverage and to enhance the community involvement in the health services development in the South Pacific.

WHO's major function in the area of primary health care has been to promote primary health care activities among the countries. National seminars on primary health care have been conducted in Fiji, Samoa, Solomon Islands and Tonga. A subregional conference of the senior health officials on primary health care and diarrhoeal diseases control was held in August 1979. Primary health care activities, particularly the training and utilization of primary health care workers, have been initiated in Kiribati, Samoa, Solomon Islands and Tuvalu and from 1980 onwards, most countries have some budgetary provision for primary health care activities.

3.3 Expanded programme on immunization

National inventories of immunization activities were conducted in 1976-77 among seven countries. The major problems with immunization programmes are the inadequate cold chain facilities; difficulties in ordering, handling and distribution of vaccines to countries and within countries due to the scattered nature of the islands; poor recording and reporting, which make the evaluation of performance very difficult; and an inadequate grasp of the importance of completing the immunization series, including the booster.

The six diseases covered by the programme are not serious problems in the South Pacific countries. Diphtheria and paralytic poliomyelitis are rare or non-existent. Pertussis cases are reported from time to time in most countries, but not usually in an epidemic form. Tetanus cases do occur among newborns, children and adults in varying degrees. Tuberculosis is a problem of public health importance in most countries. Measles is epidemic at certain time intervals in the countries where measles vaccine has not been introduced on a large scale.

3.4 Epidemiological and surveillance services

All countries of the South Pacific have some form of epidemiological and surveillance services, organized initially by the former colonial countries. Hence, the system differs, depending on whether they are former American, British or French territories.

The system involves the reporting of notifiable diseases in each country from the periphery to the centre, where reports are consolidated and

disseminated to various bodies, including the South Pacific Commission and WHO. The major constraints in carrying out these activities are: lack of trained personnel for epidemiological surveillance, poor communication between the outlying islands and the capitals, lack of statistical services in some of the countries, and late or inadequate reporting.

3.5 Control of certain communicable diseases of importance

The South Pacific countries are fortunate in not having major communicable diseases like the rest of the world. It is free from smallpox, plague, yellow fever and, until recently, cholera, which occurred in Kiribati in 1977 and Nauru in 1979. However, certain diseases need specialized attention, such as malaria, dengue, filariasis, tuberculosis and leprosy.

3.5.1 Control of arbovirus diseases and surveillance of the vector Aedes aegypti

A dengue outbreak in 1975 affected all the South Pacific countries. Following this outbreak, WHO supported governments in setting up vector control units and vector surveillance activities, training of medical personnel in the management of dengue and haemorrhagic cases, and in collection of specimens for laboratory diagnosis. Aedes aegypti surveys were conducted and the local national staff were trained in vector surveillance activities. Personnel were also trained in the use of spraying machines and formulation of insecticides.

An epidemic of Ross River fever occurred in Fiji in 1979. An active vector control campaign was launched with the assistance of a WHO entomologist, and an epidemiologist provided by Australian bilateral assistance.

3.5.2 Filariasis control by the application of mass drug administration methods

Filariasis control has been conducted in all the countries of the South Pacific by the method of mass drug administration, using diethylcarbamazine, with the assistance of the WHO team. Tonga was one of the last countries to adopt a control programme. Preparation for a national drug administration involves listing of the entire population in the country, taking body weights, assessing the drug doses and health education. Preliminary pre-control surveys are carried out. Mass drug administrations are conducted on a weekly and monthly basis for a period of 15 months to two years. Post-control surveys are conducted in all the countries. The

surveillance of the disease is in progress. A filariasis research project has been set up in Apia, Samoa, by WHO.

3.5.3 Cholera preparedness and diarrhoeal disease programme

With the outbreak of cholera in Kiribati in 1977, preparedness against cholera was advocated in countries of the South Pacific. Cholera preparedness seminars were conducted in several countries and an Inter-country Cholera Workshop was conducted in Suva in January 1979. The diarrhoeal disease control programme has just commenced with the visit of a consultant on diarrhoeal disease control. Oral rehydration has been encouraged, along with the management of the diarrhoeal disease patient, sanitation and health education.

3.5.4 Sexually transmitted diseases

In the 1950s, WHO conducted a yaws campaign throughout the South Pacific, which eliminated yaws from all these countries. With the disappearance of yaws, syphillis has started to reappear. An intercountry workshop on sexually transmitted diseases was conducted in April 1979.

3.6 Leprosy control

Leprosy was introduced in many South Pacific islands towards the end of the last century and the beginning of this century. In some of the countries (Nauru, New Caledonia and also Hawaii), the diseases showed confirmed epidemic characteristics.

The decline of the disease can be observed in Fiji, New Hebrides, Solomon Islands, Tonga, etc., where effective control measures have been taken in the past. The situation remains stable in other island groups and indications of a possible aggravation of the problem have been observed in American Samoa, Kiribati and Samoa. This may be due to more extensive case-finding activities.

At the beginning of this century, control activities were non-existent or limited to isolation procedures by confinement of leprosy patients in special hospitals (leprosaria), in certain cases for life.

WHO support, through the provision of consultants, was initiated during the 1960s.

At present, information about the leprosy problem is incomplete or non-existent in certain countries in the area (Cook Islands, French Polynesia,

Niue, Tokelau, Tuvalu, TTPI, Wallis and Futuna).

As a consequence of the late diagnosis of the disease and the improper treatment and follow-up of patients, the number of disabled among leprosy cases is relatively high compared with those in other countries.

The management of leprosy patients by missionary organizations or government specialized institutions (leprosaria), the stigma attached to the disease, the lack of interest on the part of physicians and health workers and the low priority given to the disease by health administrators are factors that have retarded the organization and progress of leprosy control programmes.

The main constraints on improved leprosy control were expressed by the Regional Working Group on Leprosy in December 1978. It is clear that the need for the training of health personnel at all levels is the first priority for most of the countries, followed by the need for supervision. Other priority areas considered by the governments are the improvement of leprosy information systems, provision for training and material support for physical rehabilitation and health education, the supply of certain anti-leprosy drugs (rifampicin and clofazimine).

3.7 Environmental health

Countries are very small and have only a limited number of qualified people in the environmental field or for training. Other government agencies often offer better prospects for career development, which tends to further cut down on the number of desirable candidates. The shortage of staff and the geographical distribution makes management and implementation of programmes and projects very difficult and can result in considerable delay. Most countries rely on expatriate staff to provide sanitary engineering services.

The economy in many countries is on a subsistence level, offering very limited possibilities and poor prospects for future development. Most of the development projects for improving basic sanitation tend to depend on external aid (multilateral or bilateral).

WHO is providing both advisory and engineering support in the development of plans for rural water supply schemes, which in most cases are partially assisted by UNICEF; advisory and technical support to governments on various aspects of rural and urban sanitation, including sewerage, solid wastes

management, housing standards, food hygiene and pollution control; advisory support to governments on questions dealing with (a) organization of health inspection services, training of health inspectors and subsidiary personnel; (b) health inspection programmes; support to the Fiji School of Medicine's health inspector' course through the provision of lecturers; support to governments in the development of sanitation demonstration projects; the promotion and organization of intercountry and country seminars/courses on the administration, staff training, and other technical aspects of environmental health programmes.

3.8 Health planning and management

The management of health services in the former colonial period can be characterized as "family style" management. This was a reasonable approach to take, given the very limited number of trained managers, paucity of health staff and budgetary constraints.

In the last few years, given the rapid social and economic dvelopment, there has emerged the need for a more appropriate type of management. The number of trained national personnel has increased, transportation has opened up new areas, which must be provided with services, new hospitals are more sophisticated, and the cost of services has greatly increased the health service budgets.

All countries now recognize the urgent need to modernize their approach to the management of health delivery systems.

WHO is collaborating with countries in two primary ways. The first is by working with countries to develop a formal planning and evaluation process as a routine function of the ministries. The second approach is to train managers for their role in implementation of the planning process as well as in operating in specific technical functions.

3.9 Health manpower development

The training of health manpower is the main collaborative strategy adopted by WHO in the South Pacific. As previously mentioned, some countries allocate 40 % of their WHO budget directly to fellowships. Over 60 % of the WHO field staff are involved directly in the training of health staff. WHO is providing five field staff, who are involved full-time in formal national training programmes (one medical school, two nursing, one health inspector and one medical assistant training).

The intercountry teams are also mostly involved in training programmes of one type or another. Some teach at the Fiji School of Medicine. All at some time

or another have conducted and continue to conduct local *ad hoc* training sessions, and a great deal of their time is spent in supporting countries in the development of local training activities.

4. WHO SUPPORT

4.1 Financial

Approximately US$6.3 million is budgeted through the WPC/Suva Office in the 1978/1979 biennium. This money will be distributed in the following manner:

	1978/79	1980/81* (Estimate)
Country allocation from WHO	45 %	53 %
Country allocation from UNDP, UNICEF, UNFPA, etc.	23 %	20 %
Intercountry projects both in Suva and Manial	27 %	23 %
Office of WPC/Suva	5 %	4 %

The country allocations are distributed by WHO appropriation section in the following way:

Development of comprehensive health services	- 33 %
Disease prevention and control	- 15 %
Environmental health	- 12 %
Health manpower development	- 40 %

During 1978 there were 146 fellowships awarded to Pacific personnel for 1862 months of study. New Zealand and Fiji are the locations for 30 % each of the total number of fellowships. These are followed by Papua New Guinea, United States of America, Australia and the Philippines each with 6-10 % of the remaining fellows.

4.2 WHO Suva Office

The Suva Office serves as a South Pacific office, responsible to the WHO Regional Office for the Western Pacific, at Manila. The office, headed by the WHO Programme Coordinator for the South Pacific, covers 19 countries and areas. At present (September 1979) there are 39 international staff and 9 general service positions coming under the WHO Programme Coordinator.**

Of this number, 26 full-time international staff are stationed in South Pacific countries/areas; Cook Islands (2), Fiji (2), Kiribati (2), New

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* The estimate for the 1980/81 period is US$7.5 million. Most of the increase is in larger country allocations. At this time it is difficult to project all of the 'other agency' funds.

** A small number of posts are not filled - recruitment is under way.

Hebrides (5), Samoa (5), Solomon Islands (5), Tonga (5), all of whom come under the responsibility of the Suva Office. In addition, several WHO consultants serve these countries from time to time.

There are 13 international staff working in intercountry teams in Suva. The members of these teams travel a great deal and serve the whole of the Pacific in their respective technical fields, which include:

- public health advisory services;
- epidemiological surveillance and disease control in the South Pacific Services;
- leprosy control advisory services;
- environmental health advisory services; South Pacific.

There are seven administrative and secretarial staff in the Suva Office, with one in Honiara, one in Apia.

4.3 Intercountry projects in the South Pacific

There are four intercountry projects operating within the South Pacific that are based in Suva. These projects are:

- Public health advisory services (ICP/SPM/002)
- Epidemiological surveillance and disease control in the South Pacific (ICP/ESD/001)
- Leprosy control advisory services (ICP/BVM/005)
- Environmental health advisory services, South Pacific (ICP/BSM/001)

A staff member from the intercountry health planning and management project (ICP/GPD/002) is also based in Suva.

In addition, the intercountry project staff based in Manila also visit the South Pacific countries.

4.3.1 Public health advisory services (ICP/SPM/002). The intercountry team on public health advisory services for the South Pacific, consists of the following project staff:

Dr. Y.T. Kuo	- Medical Officer/Team Leader
Ms. M. Leavy	- Public Health Nurse
Dr. M. Chia	- Medical Statistician
Mr. G. Urquhart	- Field Development Officer (Expanded Programme on Immunization)
(vacant)	- Nutritionist

The major functions of the team are to advise and collaborate with countries and areas of the South Pacific in the development of general health services, with particular emphasis on the programmes of family health and nutrition, primary health care, Expanded Programme on Immunization and country health programming. The team also serves as a focal point for programmes such as tuberculosis control, cancer control, cardiovascular and metabolic diseases, mental health, radiation health and dental health, although the advisory services of such programmes in the field are usually carried out by the consultants or the intercountry team based in Manila.

4.3.2 Epidemiological surveillance and disease control in the South Pacific (ICP/ESD/001). The intercountry team on epidemiological and surveillance advisory services is composed of:

(vacant)	- Epidemiologist/Team leader
Dr. M. Gunaratne	- Epidemiologist
Dr. M. Rao	- Entomologist
(vacant)	- Microbiologist

The team provides support in the development of epidemiological and surveillance in 18 countries in the South Pacific. The team visits these countries and provides the following services:

- development of epidemiological services in the South Pacific;
- support and advice in consolidation, analysis, interpretation and dissemination of information on communicable diseases and reports;
- planning, organization and implementation of epidemiological services;
- development of health laboratories and statistical elements of the epidemiological services;
- conducting control measures on special communicable diseases of importance to the South Pacific countries, such as filariasis, dengue, cholera and sexually transmitted diseases;
- collaborating with governments by carrying out periodical assessment of progress of these special control programmes;
- proposing operational research and control of certain communicable diseases, where appropriate.

4.3.3 Environmental health advisory services, South Pacific (ICP/BSM/001) The intercountry team on environmental health advisory services consists of:

Mr. A.E. Dekel - Sanitary Engineer/Team Leader

(vacant) - Sanitary Engineer

Countries are visited as required by project staff, who promote, plan and provide technical support with the porject activities. Consultants in specialist fields such as pollution control are provided, as well as fellowships to permit the training of national environmental health staff.

The principal activities of the project are to:

- collect basic information to establish present service level;
- promote and collaborate in planning and programming of community water supplies and waste disposal projects;
- collaborate with national and multinational agencies with a view to mobilizing resources for the implementation of sanitation programmes;
- promote and collaborate in formulating policies and legislation and setting up infrastructure for the surveillance of drinking water quality and waste disposal and pollution control;
- promote the development of programmes to ensure food safety and the supply of information for their planning and information;
- evaluate manpower needs;
- collaborate in the development of training programmes at regional and country levels (courses, in-service training, seminars and fellowships).

4.3.4 Leprosy control advisory services (ICP/BVM/005). This project was started in 1972 with the financial assistance of the Leprosy Trust Board (New Zealand) and has since provided services to American Samoa, Kiribati, New Hebrides, Samoa, Solomon Islands, and Tonga. Since 1976 its activities have been strengthened with financial assistance from the Japan Shipbuilding Industry Foundation (JSIF). In 1978 a technical officer was added to the team.

The intercountry team on leprosy control advisory services consists of:

Dr. L. Lopez-Bravo - Leprologist/Team Leader

(vacant) - Technical Officer

The objectives of the intercountry project are as follows:

- to assess the magnitude of the problem in each country;
- to study, test and develop measures for leprosy control which can be applied on a nationwide scale;

- to train health workers at different levels of the health service in practical methods and techniques in leprosy control;
- to promote the integration of leprosy control into the general health services and primary health care;
- to introduce a modern leprosy information system;
- to intensify case-finding and case-holding procedures and to maintain regular treatment, particularly of the infectious cases;
- to make a census of household contacts of leprosy patients, especially the contacts of infectious cases;
- to promote health education activities aimed at leprosy patients, health workers and the general population.

4.3.5 Health planning and management (ICP/GPD/002). The following member of the intercountry project on health planning and management is stationed in Suva:

Mr. M.J. Anderson - Project Management Officer

- working with countries in developing a country health programming process. The countries of Fiji and Samoa are in the second phase of this activity while Cook Islands, Kiribati, Solomon Islands and Tonga have just begun.
- developing and conducting management training programmes in collaboration with the University of the South Pacific. A senior management course was held in August 1978, a hospital administration course in November 1978. Both of these are planned to be held from time to time. Special seminars are also held using the satellite facilities of the USP Extension Services.
- providing support with the WHO programme and budgetting process.

[4] TONGA SECTION I. COUNTRY STUATION

(a) General political and socio-economic situation

According to statistics released this period, inflation of Tonga's Consumer Price Index had risen to 27 % annually. Trade deficits continued at a high level.

In November 1980, Mr. Bernard Coleman replaced Mr. Humphrey Arthington-Davy as British High Commissioner. The Australian High Commissioner, Miss Maris King, was active in bilateral matters including, for example, the opening of an Automatic Exchange extending telephone service to the rural areas of Western Tongatapu. She has also expressed interest in learning about the primary health care plans of Tonga.

Following the November Intergovernmental Meeting in Dacca on Intercountry Programming for Least Developed Countries, Tonga was accorded treatment as a Least Developed Country, pending expected formal designation as such in 1981.

During this period, Government, through an Interministerial Committee, hosted a UNFPA Headquarters Review Mission visit, is still developing its response to the UNFPA Needs Assessment Mission of June 1980.

Tonga's Fourth National Development Plan, 1980-1985, is still awaiting completion.

(b) Country health situation

The measles and dengue epidemics tapered off during this period. No other unusual disease occurrences were noted. An apparently high incidence of liver neoplasms during the previous year received attention, with the confirmation of high levels of Hepatitis B infection among unrelated individuals as well as among families of cases.

The reconstructed Ngu Hospital in Neiafu, Vava'u, built with Australian assistance, was officially opened in February by His Majesty King Taufa'ahau Tupou IV. In December his Majesty had opened the Fua'amotu Health Centre in rural Tongatapu, built with New Zealand aid.
Three Tongan graduates of Medical Assistant training in Papua New Guinea returned to service at the end of 1980.

In January 1981, the Hon. Sione Tapa, Minister of Health, was relieved of his additional duties as Acting Minister of Finance, and was able to begin six months' leave. The Hon. Ma'afu Tupon, Governor of Vava'u, is serving as Acting Minister of Health.

SECTION II. COORDINATION

The good collaboration continued between WHO and Government, UN, bilateral and voluntary agencies in Tonga. A dozen US Peace Corps volunteers were serving in health projects, most of them working directly with WHO-assisted projects. Collaboration among the 14 United Nations Personnel stationed in Tonga was strengthened by the first visit, in January, of the new Resident Representative, Mr. Arthur N. Holoombe.

SECTION III. PROJECT REVIEW

(a) TON/SPM/004 - Planning and Management of Health Services (RB)

A major thrust of the project was toward the expansion of health centre services. Two began operation in December and January, at Fua'amotu and Nukunuku in Tongatapu. For the four financed by the Asian Development Bank loan, at Kolonga, Houma and Vaini in Tongatapu and Falevai in Vava'u, architectural plans were finalized and construction begun. A project appraisal was drafted for a proposed second ADB loan, for Vava'u rural development, which covers new health centres at Tefisi and Ta'anea. New Zealand aid funds were committed to upgrade the Niuafo'ou dispensary to a health centre. The National Health Planning Committee approved a request for multi-bilateral assistance from Japan, one component of which would upgrade the dispensaries in Ha'afeva and Nomuka, Ha'apai and in Niuatoputapu to health centres. This request is now under revision, at the direction of Tonga's Development Coordination Committee, to deal with its implications for recurrent costs. The request also includes provision for communication and transportation support for primary care. Meanwhile, where telephone lines are available, phones are being installed in Tongatapu health centres. To save transport costs and improve service, health centres are being designed with staff quarters, and two- rather than four-wheel vehicles are being specified for staff use in outreach from the centres.

A detailed Programme of Immunization for 1981 was prepared and adopted. It was used as a basis for training of courses for the Expanded Programme

on Immunization, conducted 14-15 January in Tongatapu and 21-22 January in Vava'u. Preparation and conduct of these courses was directed by the Public Health Division and assisted by the Tonga Health Training Centre and by the WHO Field Development Officer, Mr. Gary Urguhart, who was in Tonga 6-10 December 1980 and 5-24 January 1981 for that purpose. Updating of the tuberculosis control programme was assisted by the September visit of the WHO Tuberculosis Control Team (Dr. Lin, Mr. Eng and Mrs. Wilson). Development of programming was initiated for the International Drinking Water Supply and Sanitation Decade, with instructions from the National Health Planning Committee to involve the WHO Planning and Management, Water Board Development and Urban Sewerage and Drainage Projects and to prepare for interministerial consultations.

Health information system activities included assessment of a trial improvement in mortality reporting through public health nurses, and discussions on morbidity reporting improvements.

(b) TON/PHC/001 - Primary Health Care

Refresher training of the first group of traditional birth attendants began at the end of February, assisted by the 17 February-7 March visit of the Intercountry Nursing Adviser, Miss Maura Leavy.

(c) TON/MCH/FP/001 - Maternal and Child Health/Family Planning UNFPA

Supervisory visits and inservice training were continued by national staff of the project, with the WHO Medical Officer post remaining vacant for the final four months of this project.

A national survey of current users of contraceptive methods and reasons for discontinuation was conducted 22 November-4 December with the assistance of Dr. J. Kierski, short-term consultant from the Suva-based intercountry ICP/MCH/FP project.

A proposed new project on Community MCH/FP Health Education was approved in January by the National Health Planning Committee and is being considered together with proposals from other ministries for submission to UNFPA.

(d) TON/ATH/001 - Health Laboratory Services (RB)

The First National Training Course on the Utilization of Laboratory Services was conducted in August 1980 as scheduled. Following the

course, a summary report of the training course with secretariat recommendations was prepared and submitted to WHO and Government.

Assistance was given to the Medical Assistant Training project on the aspects of laboratory activities at health centre level - to determine the scope and range of tests to be performed and equipment and supplies required. Based upon the discussion, lists of equipment and supplies and the costing were prepared for seeking assistance from the Asian Development Bank.

For the Laboratory Procedural Manual for the peripheral level, Part I (Collection, Preservation and Shipment of Specimens) and Part III (Urine, Stool, CSF Clinical Chemistry) were completed and mimeographed. However Part II (Basic Laboratory Techniques) is in draft manuscript form pending typist service.

The staff of the project participated in the Regional Training Course on Monitoring and Surveillance of Drinking Water Supply for the Control of Diarrhoeal Diseases held in Suva in December 1980, to deliver lectures and conduct laboratory sessions in collaboration with Dr. K.M. Yao, the course director. The staff also assisted Dr. Yao in the preparation of a summary report on completion of the course. In this connexion, a Laboratory Procedure Manual for Water Analysis was prepared for the Ministry of Health (draft manuscript).

In October 1980, the water bacteriologic quality control programme, which had been interrupted since early 1980, was reinstituted. Since then, in collaboration with the Environmental Health Section of the Ministry, regular and more systemic bacteriological has been established at the Central Laboratory; the monitoring was indicated on a map and a summary report was prepared monthly and submitted to the Director of Health and WHO Planning and Management Project.

Following the Regional Training Course, the project assisted the Senior Health Inspector in planning and programming the First National Training course on Water Monitoring and Surveillance for 8 health inspectors/ assistant health inspectors, to be held at the end of March 1981.

Consultative service and assistance were given to the Urban Sewerage and Drainage Project on laboratory aspects of the project.

A draft Plan of Work for the project extension upto June 1982 is being

prepared.

(e) TON/BSM/001 - Tonga Water Board Development (UNDP $ RB)

1. The Board is presently installing three 21-foot diameter windmills, 45 feet high, to drive 3 pumps for the Nuku'alofa Water Scheme as a pilot project financed by a Government of Tonga loan from the Asian Development Bank. Wind velocities and water output will be continuously recorded by the installation of automatic recording anemometers and water meters. The project should be completed in April 1981.

   Also for the Nuku'alofa Water Scheme, seven new pumps given under Australian Aid will be installed this year over wells that were drilled under New Zealand Aid.

2. The Board has submitted in December 1980 to Government a request for fund allocation from expected shortfall of funds from Australian Aid or New Zealand Aid for necessary improvements of existing water schemes in the main towns of Ha'apai and Vava'u groups.

3. A drilling programme to cover all the remaining villages in the main island of Vava'u will be started in April 1981 under New Zealand Aid, which will also give the pumping equipment, pipes and tanks. After this programme, the drilling equipment is proposed to be shipped back to Nuku'alofa to start the drilling of new wells for the overall improvement of village water schemes in the main island of Tongatapu, a project already approved for Australian Aid.

4. The Board assisted in the first training of village water scheme personnel conducted by the Ministry of Health. Three 2-day sessions were held from 17-27 November 1980. The first two were held in Nuku'alofa for Tongatapu workers and the third was held in Neiafu, Vava'u for all Vava'u village water scheme workers. A total of 72 participants comprising Village Water Committee Chairmen, Treasurers, and Pump Operators/plumbers attended. Subjects covered by the training were principally on basic functions, duties and responsibilities of village water scheme personnel with field trips to give participants on-site lectures and demonstrations on proper operation, maintenance and repair of pump/engine and discuss specific problems. Certain deficiencies and problems were noted in this first training and these will be rectified in the next training

scheduled in 1981 for the remainder of the village water scheme personnel who could not be accommodated in 1980. It is expected that WHO funds will again be available this year.

(f) TON/BSM/002 - Urban Sewerage and Drainage (UNDP)

Four pilot installations using the mound type biological bed have been completed and are being put into operation.

The public toilet at the police station has been improved by the installation of a new septic tank and drainfield of adequate size. The previous system was inoperative.

The public toilet sewage treatment system at the Market has been designed and construction started.

A new office and project headquarters was moved into during December.

Precasting of ferrocement septic tanks has started on a trial basis.

(g) TON/PTR/002 - Training of Medical Assistants (RB)

The training programme for medical assistants is proceeding on schedule. The medical problem-solving unit which began in June 1980 continued throughout the period. Field assignments of the students were started in January 1981.

The new training centre at Fua'amotu was opened by His Majesty King Taufa'ahau Tupon IV in December 1980 bringing the total number of training health centres now in operation to two. The medical assistant trainees have been assigned to the training health centres for their field experience. Two additional US Peace Corps Physician Assistants have been assigned to the project to operate the Fua'amotu facility.

A bipartite review of the project was held in October 1980 and was attended by government representatives, US Peace Corps representatives, WPC/Suva, HMD(G)/WPRO and WHO staff members in Tonga. The Project underwent a successful evaluation. The scope of the project was broadened to include support to all local training programmes. The Tonga Health Training Centre will be designated as the focal point for health manpower planning and training in Tonga. The review also recommended that an STC be recruited to assist the Centre staff with an evaluation of their educational programmes and with developing a protocol for a

long-term evaluation of the impact of the health officers on access to health services, health status and individual and community self-responsibility in health care.

(h) Other activities

16 September meeting with UNDP-ESCAP Intercountry Programming Mission.

4-6 December visit of Miss Elizabeth Preble of UNICEF New York.

9 December visit of Mr. Harry Brown, ILO Regional Rehabilitation Adviser.

13 February meeting with Tongan Government representatives to Intergovernmental Meeting of Development Assistance Coordinators in Asia and the Pacific.

SECTION IV. OVERALL COUNTRY REVIEW

Despite the delays in adoption of Tonga's Fourth National Development Plan, the Ministry of Health was moving forward in implementation of sectoral plans. The several WHO country projects were addressing major aspects of these plans, which, in turn, were well coordinated with the national strategy for Health for All by the Year 2000. The major focus is on implementation and management issues, although some policy issues, such as relate to the International Drinking Water Supply and Sanitation Decade, require attention.

[5] COUNTRY REVIEW MEETING FOR TONGA Manila, November 1980

I. Introduction

A. General

The economy of Tonga is in its early stages of development. The main constraint in economic development is the limited resource base. The agricultural sector employs fifty per cent of the active labour force. Public services employ thirty-five per cent of the labour force while providing fifty per cent of the total wages and salaries in the country.

There is limited manufacturing done in Tonga. The main industry is coconut oil processing. A Small Industries Centre has been established this year.

The present economy continues to show a negative balance of payments. This results from the stagnating exports and the increased value of imports. The balance of payments shortfall has been partically contained by increasing tourism, remittances from Tongans living overseas and development aid. The Government recognizes the negative impact of this situation and particularly that tourism and remittances cannot be relied upon in the future to resolve negative balance of payment accounts.

The overall national development is guided by a Central Planning Department. The Central Planning Department is responsible for the preparation and monitoring of a national development plan. The Fourth National Development Plan covers a five year period starting from July 1980. The Fourth Plan is still being prepared - the health sector component of the plan has been submitted.

Assessment of the Third National Development Plan (1975-1980) shows a significant increase in public service expenditures. Most of the increase, however, was due to inflation. The real value increase in the priority development sector - agriculture - was very low. There was a significant increase in small scale industrial development. As the initial industrial base was so small, the impact of this contribution on the total economy was minimal.

The Government recognizes that increased foreign exchange is a priority need to finance development of a long term viable economy. The strategy to achieve this goal is based on the development of a stronger agricultural

sector - with priority on the production on exported goods. The limited success to date in developing the agriculture base is partly due to the system of land tenure. Much of the land in Tonga is allotted in 8 ¼ acre family plots tied into a system strongly influenced by a small noble class. In the past, economic development of agriculture did not give sufficient consideration to this system. It is however, recognized that future economic development strategies must give full consideration to Tongan land tenure. This will be important not only for the traditional coconut and banana crops, but also for diversification including the highly promising beginnings in production of vanilla.

B. National Development

The Fourth National Development Plan (1980-1985) will reflect balanced concerns for realistic economic policy and cultural values. The Development Plan expresses these concerns in the following statement of objectives:

- to achieve a sustained increase in the production of goods and services and the real incomes of the people;
- to achieve effective management of the national economy;
- to achieve a fair distribution of goods, services and incomes between people in different parts of the Kingdom;
- to enhance the quality of life and security of the people, the cultural heritage of the nation and the preservation of the environment;
- to develop harmonious relations and mutual cooperation in the economic, social and related spheres with all nations and international organizations.

The above objectives clearly outline the national policy of striving to increase the cash economy of the country. This is a necessity for the immediate future. It is further recognized that this policy may result in some income distribution inequities; consequently the strategies to implement this policy will be closely monitored and assessed against the objectives of fair distribution and quality of life. In the long term, the policy is clearly to achieve a viable economy through active community participation in all aspects of social and economic development.

The objective of developing harmonious relations and cooperation reflects underlying value systems of Tonga, with their emphasis on human relationships. This is also a useful posture in view of Tonga's dependence on external assistance. It is evidenced in official relationships, with

Tonga becoming a member of UNESCO this year, and with a resident Australian High Commission being established, joining those of the United Kingdom and New Zealand and the Embassy of the Republic of China. The United States Peace Corps continue to provide many volunteers. Aid from voluntary sources is also welcomed, for example from the Rotary Club of Warringah, Australia, for the construction of a rural health centre which will serve as a training site.

II. Health Development

A. Current Situation

The health problems of Tonga, and their underlying causes, reflect a stage of development which so far has triumphed over only a few of those conditions typical of less developed areas. Leprosy has been controlled nearly to the point of elimination; protein-calorie malnutrition is very uncommon. Filarial infection rates are down to 1 %, having been 17 % prior to mass drug administration with active community participation. But the situation remains one with prominence of infectious diseases; diarrhoeal and respiratory diseases are the most frequent manifestations, reflecting unsatisfactory excreta disposal and deficient personal hygiene as well as smoking habits. The incomplete control of typhoid fever and tuberculosis reflects inadequate epidemiologic control measures as well as economic and environmental conditions. In the past year there have been epidemics of measles and dengue fever. Ross River Fever and brucellosis have been identified for the first time.

At the same time, Tonga is experiencing health problems related to advances in development. Diabetes, obesity and anemia have become prominent, rooted in dietary habits distorted by increased use of imported foods. Cardiovascular diseases are aggravated by obesity and smoking, as well as by inadequate control of hypertension and rheumatic fever. Smoking also relates to the increases in malignant neoplasms. Accidents have become an important problem.

The excessive natural increase of population poses problems for health services as well as for socio-economic development. Attitudes of many families have yet to develop full understanding and support of family planning. There is uncertainty about future possibilities for emigration to relieve population pressure.

The health care delivery system has the strength of a continuing relatively high level of Government support, even in the face of restricted availability of Government finance. The Ministry of Health receives about US$18 per capita, which is over 12 % of national budget. Another strength is the Tongan emphasis on literacy and education. Tonga is also increasingly able to make good use of international assistance. This advantage, however, is limited by the fact that the health leadership rests with a small number of individuals, who can become overloaded with all the relationships and obligations involved in absorbing aid.

Major health service problems include those of manpower. Maintaining and increasing the numbers of health workers, currently not adequate for full service to all areas of the country, is difficult because of attrition during training and losses of trained personnel, in particular through emigration. Facilities are also inadequate, especially in rural areas and for certain specialized needs such as public health laboratory, physiotherapy and medical stores. Health services management is handicapped by deficiencies of the information base. Under-registration of deaths remains substantial, while birth registration has improved. There is deficient production, analysis and use of information to assist mangement. Supervision and communications pose important problems for administration. Intersectoral collaboration for health is under-developed. Thus the current situation in health may be described as posing various specific problems, but also offering certain basic strengths and advances on which to build.

B. Policy

The Government of Tonga clearly accepts that the social target in the next decades shall be the attainment by all its citizens by the year 2000 of a level of health that will permit them to lead a socially and economically productive life. The Government further recognizes that to achieve this target will require the combined efforts of all its people guided by the policies of the Government. To this end the Ministry of Health will take a leading role in defining its policies and using its resources to achieve the priority social target of the Government.

The fundamental goal for the Ministry of Health is to promote the highest quality of health for the people appropriate to the Kingdom's social and economic development. The Government recognizes that the only long term way for its people to improve and maintain their health is by their own

knowledge and practices of healthy living in a safe environment. The Ministry will support this goal by placing high priority on ensuring that the morbidity and mortality from preventable disease are reduced. In addition, high priority will be placed on assisting the people in such a way as to achieve a reduction in the rate of natural growth of the population.

The people of Tonga have the right to receive a level of curative care that meets their health demands. The Government recognizes, however, that in the long run a curative oriented service will not really achieve the desired level of health for the people. The Ministry of Health is now placing high priority on the development of its services toward a comprehensive delivery system which will include promotive, preventive, curative and rehabilitative services. The development of a comprehensive health delivery system will focus early on strengthening of health manpower both in number and in improved work effectiveness. The service elements of the health system will give high priority to family health and to services for providing a safe and healthy environment.

The Government's guidelines are clear, that, in order to achieve its desired goals, the main thrust of the health delivery system will be to develop and support the capacities of local communities to improve and maintain their health and the safety of their environment.

C. Objectives

The Ministry of Health has stated its objectives in its submission for the Fourth National Development Plan (1980-1985):

Increased social and economic productivity as a result of improved health of the population. Good health is of major importance in promoting productive work and study, as well as for social development and quality of life. Improved health can be expected from further reductions in preventable diseases, from prompt, effective diagnosis, treatment and rehabilitative services, and from the development of more healthful habits of living. This aim involves the avoidance of premature mortality as well as of morbidity and impairment.

Improved quality of family life through education and opportunities for families to be planned. Natural growth rate of population brought into balance with socio-economic development. These aims are combined

because it is believed that the benefits to Tonga from moderation of growth rate are closely related to the benefits to individuals and families of having the desired number and spacing of children.

To support these aims, family planning is to be extended to cover more eligible females,so that an annual birth rate target of 25 per thousand population will be achieved by 1985.

Increased equity in the health service system

- maximal development of the abilities of Tongan nationals within the system
- greater equilization of levels of service to all island groups and rural areas

Equity in these matters is a social benefit in itself, and also contributes to improving levels of health as talents are fully employed and as the population segments with greatest health needs are better served.

Increased efficiency in the health service system. The aim is to achieve the greatest possible results from the limited resources available, while combatting waste and the inflation of costs.

Increased protection of the population from hazards of the environment. Protection will always be needed against the threats of pollutants, epidemics, accidents and other hazards.

D. Strategy

The Government accepts that the stated goals present a great challenge and that an explicit strategy must be formulated to guide the attainment of the desired goals. To this end the Government has adopted primary health care as the highest priority service element in the health delivery system. In addition, the development of the remaining components of the health system will be directed by the foundation which is laid for providing primary health care for the people.

The overall strategy for the development of a comprehensive health system will be implemented in the following ways:

Communities will be assisted to mobilize their local resources to improve the health of their people and to maintain a safe environment. The Ministry of Health will provide organizational and technical support.

The Ministry of Health will also assist with the coordination of external resources that are needed but are beyond the means of the communities. The coordination of resources from, and activities of, other ministries working in the local communities will receive high priority attention. The health services of the Ministry of Health will continue to extend clinical facilities nearer to each community. However, the role and capabilities of the workers assigned to rural health centres will be significantly expanded. Specifically, the number as well as the capability of medical assistants (new names: Health Officers) will be increased to provide primary health care support to the community. The medical assistant training programme, with the collaboration of WHO, gives high priority to the promotion of health in local communities. In addition, the nurses that work in the local communities will also have an expanded function of supporting primary health care in the community.

The development of the remaining components of the health system will be guided by requirements which emerge to support the main thrust of the overall health system.

For health manpower, the new strategy dictates that the priority concern is to increase the effectiveness of all health staff in support of primary health care. Therefore, manpower development will emphasize training in the areas of 1) improving a worker's ability to assess community health needs and utilize community resources, 2) improved technical capabilities to solve the priority health problems and 3) strengthening of organizational and management skills to make the most efficient use of the Ministry's resources.

The primary health care approach adopted by the Government can be implemented by using the existing categories of health staff. The exception will be in small communities in more remote islands where local health workers will need to be developed. The Ministry of Health will continue to place more emphasis on training and coordinating the work of the traditional healers and the traditional birth attendants within the activities of primary health care.

The financial and other resources used by the Ministry will continue to be allocated to the curative services in order to maintain them at an appropriate level. The Ministry, however, will ensure that preferential allocation of resources will be made to the development of primary health care. The Ministry will seek assistance from external sources to supple-

ment local resources in the implementation of these plans.

Management of this development strategy will be guided by the functions of the planning process which is being implemented by the Ministry of Health in collaboration with WHO. The Ministry recognizes that the process envisaged involves the interactive functions of planning, implementing, monitoring and evaluating. Monitoring the health plan implementation will be improved by integrating health information and reporting with the specific needs of each programme area and with the overall management plan.

The strategy is elaborated in a plan of action which has been outlined in the Ministry of Health's submission for the Fourth National Development Plan. The plan of action, discussed in the next section, gives highest priority to primary health care, with major priority also to family planning and to environmental health, with particular emphasis on water supply.

E. Plan of Action

Action planned for the top priority service element, primary health care, features the local training, geared to national and community needs, of Health Officers. This medical assistant training programme will graduate its first class in 1981, and initial postings will be to under-served rural areas. Synchronized with this is the improvement of peripheral health facilities, for which external assistance has been requested. Attention will be given to provision of support for effective functioning of primary health care staff in matters such as staff quarters, appropriate types of transport for community work, supply and supervision, and also communications improvements for clinical, supervisory and administrative needs. Better systems of records and reports will be designed to support and monitor primary care, and will include supplying needed health information to the families served to enable their own self-help. Self-help will be promoted at the level of communities as well as individuals and families. Collaboration will be strengthened with the traditional practitioners in the communities. In some of the smaller and more isolated communities, where Health Officers cannot efficiently be posted, there will be study of new roles in primary health care for public health nurses and for people of the community.

The second priority element, family planning, needs strengthening of the

data base to define its targets and monitor its progress. Obtaining firmer knowledge of fertility data and of family planning acceptance and continuation is planned, to be correlated with programmes of the Ministry of Health and of the private agencies. To increase participation, the plan is to focus on health education including key groups that influence attitudes. Males, church youth groups and school leavers are targetted for more attention at community level. Another part of the plan is the strengthening of services, which will involve attention to family planning by Health Officers as well as nurses, and will require leadership training, improved supervision and strengthened procedures and supply management.

The priority action in environmental health is to assure that 100 % of the country has safe water supply by 1985. This involves constructing new systems, using "reainwater catchment" in many areas of low coral islands, while in larger islands existing water systems need to be expanded to meet population needs. In all areas efforts are required to strengthen operations and maintenance and to increase monitoring of drinking water quality. Also among the actions planned in environmental health are improvements inhandling of excreta. In urban areas with drainage problems, this will involve operational studies of a variety of approaches to enable people safely and economically to provide for their needs. Rural areas will also require study of appropriate techniques, and Government assistance to enable people to improve their situation.

Another area for early attention during the 1980-85 period is in laboratory services. The important emphasis are in developing the role of the " central laboratory" in backing up the services at peripheral hospitals and health centres, and in developing public health laboratory services for water quality control as well as other aspects of disease control.

A number of other details of the plan of action have been submitted by the Ministry of Health, including actions in "disease control", "immunizations", "epidemiology", "dentistry", "efficient hospital services", "health information", "nursing education and administration", and "vector control and other environmental action". For all of the above programmes, strengthening of management is an approach integral to the plan. Attention to implementation of planning is featured. Training in supervision is required. Supply improvements call for upgraded facilities, and for regional drug purchasing and quality control, in collaboration

with neighbouring countries. Improvements of transportation and accounting are other actions planned. The planning functions of management are also aimed at the integration of health service plans with health manpower development plans.

III. Relationship of WHO Country Programme to National Health Development Objectives

The relationship to national health objectives, as detailed in the plan of action, of existing WHO Projects is shown in tabular form in Appendix I. Also shown are other sources of aid related to the national objectives. Profile summaries of the WHO Projects are given in part IV of this presentation.

The tabulation demonstrates the interrelations of multiple WHO and other projects with any given national objective. Experience in Tonga indicates that this is a useful arrangement, as it allows a variety of talents to be applied toward the objectives. It does, however, present a potential risk on inconsistency and incoordination, thus requiring means of coordination. While coordination is basically a national responsibility, dealing with uncoordinated inputs places excessive and undersirable stress on the national counterparts involved. It is therefore seen important to provide a WHO programme coordinating role. This has been workable in Tonga.

Review of the tabulation points up a relatively satisfactory correlation of WHO attention with the priorities of national objectives. A large portion of WHO's resources are being applied to the three leading national priorities.

Perhaps there is a tendency to have too many projects and visitors involved in certain less-than-top priority objectives. An example might be the areas of communicable and diarrhoeal disease control and epidemiology. Tonga is also finding that epidemiologic approaches are important for chronic and noncommunicable as well as acute communicable diseases. WHO's categorization in this respect may be less than ideal.

There are two sub-areas of priority to Government which presently are receiving relatively light WHO attention. First are the inter-related matters of community participation, self-help and health education. The need for more WHO input is under discussion at national level, focusing on

a possible Community Health Education Project to succeed the Maternal and Child Health/Family Planning Project with UNFPA support. Second is in the operation and maintenance of rural water supplies. This had been relatively neglected for some years, but is now beginning to receive attention. An example is the local training for village water personnel this biennium with support of project TON/BSM/001. This is not likely to be a complete answer to the need,but may provide experiences leading to decisions on the approaches to be taken subsequently.

The question of approaches to be taken by projects deserves careful attention. The approach of project TON/PTR/002 on Training of Medical Assistants is an example of much promise. Its attention to acceptability by building from a known category of personnel, and to an educational approach tied to health service objectives and minimizing attrition appears to be leading to substantial contributions to national health development. The recent shift in approach of project TON/ATH/001 on Health Laboratory Technology - to more emphasis on laboratory support for primary care and for disease control - brings it into closer alliance with priority national objectives. On the other hand, the approach tried by project ICP/SPM/002 in promoting Lay Reporting of Mortality has been unproductive, possibly because it did not adequately address the national problem of under-registration of mortality.

IV. Budget Details of WHO Country Programme

Following is the budgetary information on the WHO programme in Tonga as available at this time. For 1980/81, the information includes draft budget modifications which are currently being processed. For 1982/83, it includes draft budget details which are under consideration at national level for submission before the end of 1980.

PROGRAMME CLASSIFICATION	Project No.	1980-81		1982-83		REMARKS
		Regular Budget	Other Sources	Regular Budget	Other Sources	
2.2 GENERAL PROGRAMME DEVELOPMENT AND MANAGEMENT						
2.2.2 Country Health Programming (Share of costs of WHO Programme Coordinator's Office, Suva, Fiji)	AWP 001	47,600		47,300		
		47,600		47,600		
3.1 HEALTH SERVICES DEVELOPMENT						
3.1.1 Health Services Planning and Management						
Planning and management of health services	SPM 004					
Public Health Administrator		92,000		121,200		
Fellowships		9,200				
Local Costs				10,000		Local training diarrhoeal disease control
Supplies and Equipment		6,000		10,000		
Consultants				10,000		STCs filariasis & cardiovascular diseases
		107,200		151,200		
3.1.2 Primary Health Care						
Primary Health Care	PHC 001					
Local costs		11,000		20,000		Local training village health workers
Supplies and equipment		9,000		20,000		
		20,000		40,000		

PROGRAMME CLASSIFICATION	Project No.	1980-81		1982-83		REMARKS
		Regular Budget	Other Sources	Regular Budget	Other Sources	
3.1.5 Appropriate technology for health						
Health Laboratory Technology	ATH 001					
Medical Officer		92,000		30,300		
Fellowships		9,200				
Supplies and equipment		4,000		4,000		
		105,200		34,300		
3.2 FAMILY HEALTH						
3.2.1 Maternal and child health	MCH 001		129,500			
Metermal and child health/ family planning						
Community Health education			46,600		83,500	
			176,100		83,500	
4.1 COMMUNICABLE DISEASE PREVENTION AND CONTROL						
4.1.3 Bacterial, viral and mycotic diseases						
Training in Diarrhoeal Disease Control	BVM 001	7,500				
		7,500				

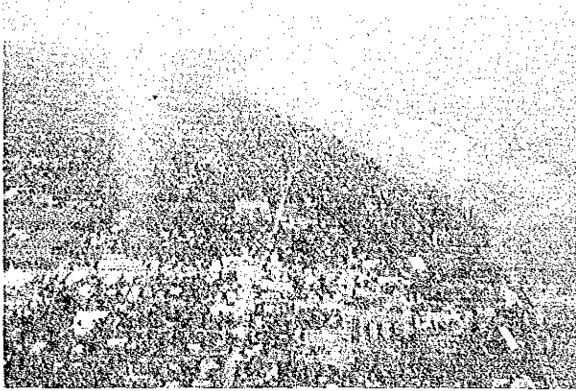
PROGRAMME CLASSIFICATION	Project No.	1980-81		1982-83		REMARKS
		Regular Budget	Other Sources	Regular Budget	Other Sources	
5.1 PROMOTION OF ENVIRONMENTAL HEALTH						
5.1.2 Basic Sanitary Measures						
Tonga Water Board Development	BSM 001		92,000		25,000	
Fellowships		18,900				
Local costs		6,000		5,000		Local training village water personnel
Urban Sewerage and Drainage	BSM 002		176,200		96,000	
Supplies and equipment				25,000		
Consultants				20,000		STCs rural water supply and sanitation
		24,900	268,200	50,000	121,000	
6.1 HEALTH MANPOWER DEVELOPMENT						
6.1.2 Promotion of Training						
Training of medical assistants	PTR 002					
Educational coordinator		92,000				
Supplies and equipment		7,400		15,000		
Local costs		4,500				
Fellowships				14,000		
Consultants				85,000		STCs teacher training and curricula of specialized fields
Fellowships	PTR 099	22,300		110,500		
		126,200		214,500		
TOTAL - TONGA		438,600	444,300	547,300	204,500	

Ⅷ　集収資料リスト*

1. Tonga Five Year Development Plan 1975 - 1980
2. TONGA, MID-TERM REVIEW, THIRD DEVELOPMENT PLAN 1975 - 1977
3. *Kingdom of Tonga*, CENSUS OF POPULATION AND HOUSING 1976, Volume 1, ADMINISTRATIVE REPORT AND TABLES.
4. GOVERNMENT OF TONGA, REPORT of the MINISTER of HEALTH for the year 1979
5. FIJI SCHOOL OF MEDICINE, HANDBOOK 1981
6. THE SYLLABUS AND CURRICULUM GUIDE FOR THE BASIC PREPARATIONS OF NURSE - FIJI - 1975

*プロジェクトファインデング調査（昭和56年3月28日～4月11日）により集収したものを含む。

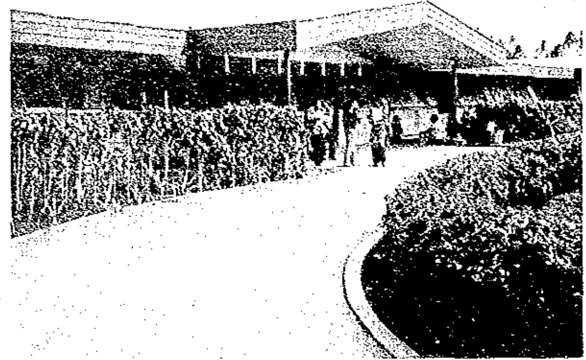
Ⅸ　写真集（プロジェクトファインディング調査で撮影したものも含む）



首都Nuku'alofa

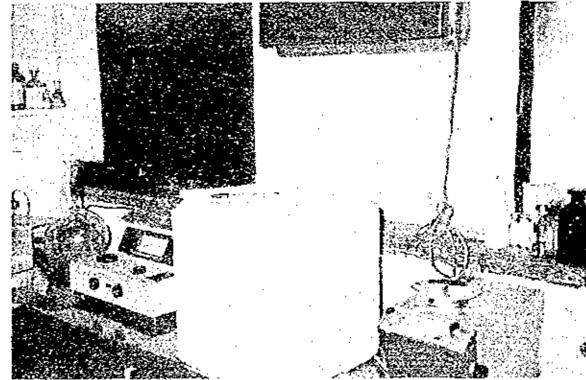
Nuku'alofa市街

マーケット



Vaiola病院

Vaiola病院検査室



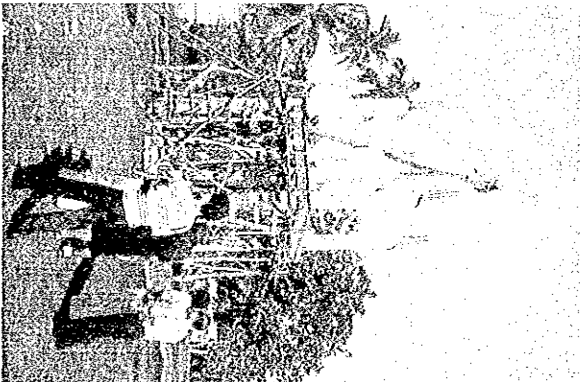
Vaiola病院検査室

Queen Salote School of Nursing
(Vaiola病院敷地内)

WHO Urban-Sewage and Drainage Project
(water seal latrine)

WHO Urban-Sewage and Drainage Project
(septic tanks)

Water Supply Scheme at Puke Village(井戸)



Water Supply Scheme as Puke Village
(タンクの建設)

Puke Village

Nukunuku Health Centre

Kolovai Health Centre

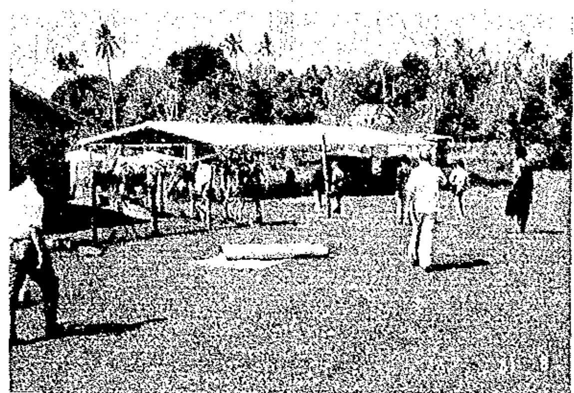
Health Training Centre

Neiafu市街（Vava'u島）

Ngu病院（Neiafu, オーストラリアからの300万US$の援助により，1981年2月完成）

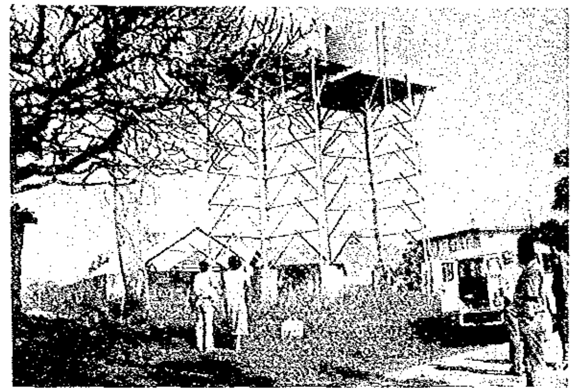
Ngu病院検査室

Ngu 病院検査室



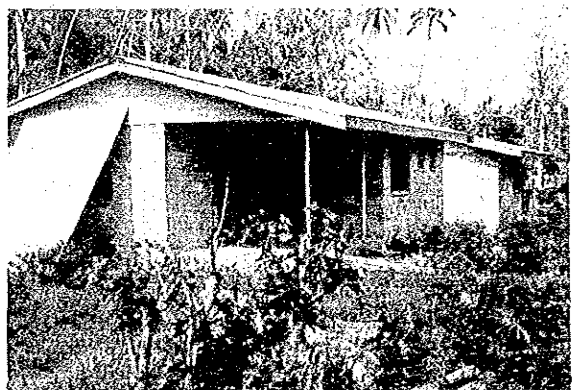
Rain Water Catchment System
(Longomapu village, Vava'u 島)

Tefisi Health Centre (Vava'u 島)



Reticulated Water Supply
(Leimatu'a village, Vava'u 島)

Falevai Health Centre (Falevai 島, Vava'u 諸島, アジア開発銀行の融資で建設中－2 Health Centres が建設予定で経費は合計 152,400US$)



Falevai Health Centre, 附属施設

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