

VF
13014



South Pacific Bureau
for Economic Co-operation



South Pacific Commission



Economic & Social
Commission for Asia and the Pacific



United Nations
Environment Programme

South Pacific Regional Environment Programme

SPREP/Country Report 14

Original: English

COUNTRY REPORT No.14

TRUST TERRITORY OF THE PACIFIC ISLANDS

**SPREP Information Centre
Received
2 - SEP. 1998**

**South Pacific Commission
Noumea, New Caledonia
June 1980**

SPREP / Country Report 14
June 1980

ORIGINAL : ENGLISH

SOUTH PACIFIC REGIONAL ENVIRONMENT PROGRAMME

Noumea, New Caledonia

TRUST TERRITORY OF THE PACIFIC ISLANDS

COUNTRY REPORT

Prepared by :
Trust Territory Environmental Protection Board.

604/81

TRUST TERRITORY OF THE PACIFIC ISLANDS

ENVIRONMENTAL COUNTRY REPORT

SOUTH PACIFIC REGIONAL ENVIRONMENT PROGRAM

JUNE, 1980



PREPARED BY

TRUST TERRITORY ENVIRONMENTAL PROTECTION BOARD

MR. NACHSA SIREN, EXECUTIVE OFFICER

MS. DONNA SCHEURING, ENVIRONMENTAL SPECIALIST

APPROVED BY DR. MASAO KUMANGAI, M.O., TTEPB CHAIRMAN

(i)

TABLE OF CONTENTS

<u>SUBJECT</u>	<u>PAGE</u>
I. TTPI BACKGROUND DESCRIPTION	1
A. Climate	1
1. General	1
2. Atolls	1
3. Low Islands	2
4. High Islands	2
B. Population	3
C. Political Situation	4
D. Socio-Cultural Conditions	7
E. Economic Conditions	9
1. Labor Force	9
2. Earnings	10
3. Gross Domestic Product	10
4. Per Capita Gross Domestic Product	12
5. Foreign Trade	13
II. MAJOR ENVIRONMENTAL PROBLEMS AFFECTING OR AFFECTED BY DEVELOPMENT ACTIVITIES	15
A. Health	16
B. Water Supply	16
C. Sewage Disposal Facilities	18
D. Water and Sewer Extension Projects in Progress	19
1. House Sewer Connection Program	19
2. Water Development Projects	21

TABLE OF CONTENTS (cont)

<u>SUBJECT</u>	<u>PAGE</u>
E. Solid Waste	21
F. Housing	23
G. Land Tenure	24
H. Environmental Management Problems	26
III. ENVIRONMENTAL CONTROL ACTIVITIES	29
A. Legislative Background	29
1. TT Environmental Enabling Act and Policy	29
2. TTEPB Rules and Regulations	31
a. Public Water Supply Systems Regulations	31
b. Earthmoving and Sedimentation Control Regulation	32
c. Pesticides Regulations	33
d. Toilet Facility and Sewage Disposal Regulation	34
e. Solid Waste Regulation	36
f. Marine and Fresh Water Quality Standards Regulation	36
g. Air Pollution Control Regulation	37
3. Other TTPI Environmental Protection Acts	38
a. Endangered Species Act	38
b. TTPI Fishing Law	38
c. Land Use Planning Act	39
4. U.S. Environmental Protection Policies and Laws Applicable to the TTPI	40
a. Clean Water Act of 1977 (P.L. 95-217)	40

(iii)

TABLE OF CONTENTS (cont)

<u>SUBJECT</u>	<u>PAGE</u>
b. Safe Drinking Water Act (P.L. 93-523)	42
c. Federal Insecticide, Fungicide, and Rodenticide Act (P.L. 94-140)	42
5. Other U.S. Environmental Protection Acts Applicable to the TTPI	43
a. National Housing Act of 1954, as amended (P.L. 83-560)	43
b. Housing and Community Development Act of 1974 (P.L. 93-383)	43
c. Housing Act of 1949, as amended (P.L. 89-117, 89-754, 92-310)	44
d. National Historic Preservation Act of 1966 (P.L. 89-665)	44
e. Fish and Wildlife Coordination Act, as amended (P.L. 85-624)	46
f. National Environmental Policy Act	46
IV. AGENCIES RESPONSIBLE FOR MANAGEMENT OF TTPI ENVIRONMENTAL POLICIES AND PROGRAMS	48
A. TTPI Headquarters (Saipan)	48
1. Trust Territory Environmental Protection Board	48
a. Establishment	48
b. Members	49
c. Functions	50
(1) Powers and Duties	50
(2) Activity Reports	52
(3) Board Meetings	52

TABLE OF CONTENTS (cont)

<u>SUBJECT</u>	<u>PAGE</u>
d. TTPI Environmental Program Plan	52
(1) Development	52
(2) Training	54
(3) Annual TTPI/U.S. EPA Agreement	55
(4) Annual Sewer Construction Grant Priority List	55
(5) Special Contracts and Research Projects	56
(6) Mid-Year Evaluation	60
e. TTEPB Headquarters Staff	60
2. Trust Territory Bureau of Public Works	61
a. Organization	61
b. Navy OICC	62
c. EPA Sewer Construction Grants Program	63
d. House Sewer Connection Program	63
e. Water and Wastewater Treatment Plant Operator Training Program	64
3. Trust Territory Bureau of Resources	65
a. Organization	65
b. TTPI Economic Development Program Goals and Objectives	66
c. Goals and Objectives of the Bureau of Resources	67
d. Foreign Investment	70
4. Trust Territory Office of Planning and Statistics	72
a. Organization	72
b. Federal Programs Coordinator	73

(v)

TABLE OF CONTENTS (cont)

<u>SUBJECT</u>	<u>PAGE</u>
5. Trust Territory Bureau of Health Services	74
a. Organization	74
b. International Cooperation	74
c. Environmental Health Branch	75
6. Community Development	76
B. State/Entity Level	77
1. State/Entity Environmental Protection Advisory Boards	78
a. Establishment	78
b. Members	78
c. Functions	79
(1) Powers and Duties	79
(2) Quarterly and Annual Reports	80
(3) Board Meetings	80
d. State/Entity Environmental Program Plan	81
(1) Development	81
(2) Village Environmental Health Activities	81
(3) Training	83
(4) Monitoring	83
e. Transition Plan	84
f. State/Entity Environmental Health Staff	85
g. Guidelines to the TTEPB Regulations	86
2. State/Entity Department of Public Works	87
3. Community Development	88

TABLE OF CONTENTS (cont)

<u>SUBJECT</u>	<u>PAGE</u>
4. Planning Office	88
C. U.S. Federal Agencies	89
1. U.S. Environmental Protection Agency	89
a. Organization	89
b. Grants	89
c. Other Assistance	91
d. Sewer Construction Grant Strategy	91
2. U.S. Army Corps of Engineers	92
a. Section 404 Permit Program	92
b. Construction Projects in the Marshall Islands	95
3. U.S. Coast Guard	95
a. Oil Spills	95
b. Fishing Violations	96
V. MAJOR DEVELOPMENT TRENDS IN THE TTPI	97
A. Investment Opportunities	97
1. Agriculture	97
2. Marine Resources	98
3. Tourism	99
B. Selected Business Ventures Meriting Investigation	100
1. Agriculture	100
a. Coconut Industry	100
b. Fruit Culture	100
c. Vegetable Culture	101

(vii)

TABLE OF CONTENTS (cont)

<u>SUBJECT</u>	<u>PAGE</u>
d. Staple Crop Culture . . . . .	.101
e. Flower Culture . . . . .	.101
f. Herb (Medicinal), Spice, Fibre and Perfumery Crop Culture . . . . .	.101
g. Forestry . . . . .	.101
h. Bee Culture . . . . .	.101
i. Livestock Industry . . . . .	.101
j. Agricultural Processing . . . . .	.102
k. Construction . . . . .	.102
2. Manufacturing or Assembly . . . . .	.102
3. Marine Resources . . . . .	.103
4. Non-Profit Science or Aesthetic . . . . .	.104
5. Service (Local Market) . . . . .	.105
6. Service (Tourism Oriented) . . . . .	.105
C. Requirements for Solving TTPI Environmental Problems . . . . .	.106
Environmental Management Model (SPC) . . . . .	.106
1. Regional Level . . . . .	.106
2. Governmental Level . . . . .	.107
3. Local or Village Level . . . . .	.108

TRUST TERRITORY OF THE PACIFIC ISLANDS

MARIANA, CAROLINE AND MARSHALL ISLANDS
97 INHABITED ATOLLS AND SEPARATE ISLANDS
OCEAN AREA APPROX. 3,000,000 SQ. MILES
LAND AREA APPROX. 700 SQ. MILES
2,141 ISLANDS

GRAPHIC SCALE
0 100 200
Nautical Miles

SYMBOLS

- DISTRICT ADMINISTRATION
- UNINHABITED
- DISTRICT ADMINISTRATOR'S OFFICE
- OFFICE OF THE HIGH COMMISSIONER
- TAKEN FROM LAST YEAR'S REPORTS

PREVAILING WINDS
115°-135°
145°-165°
175°-195°

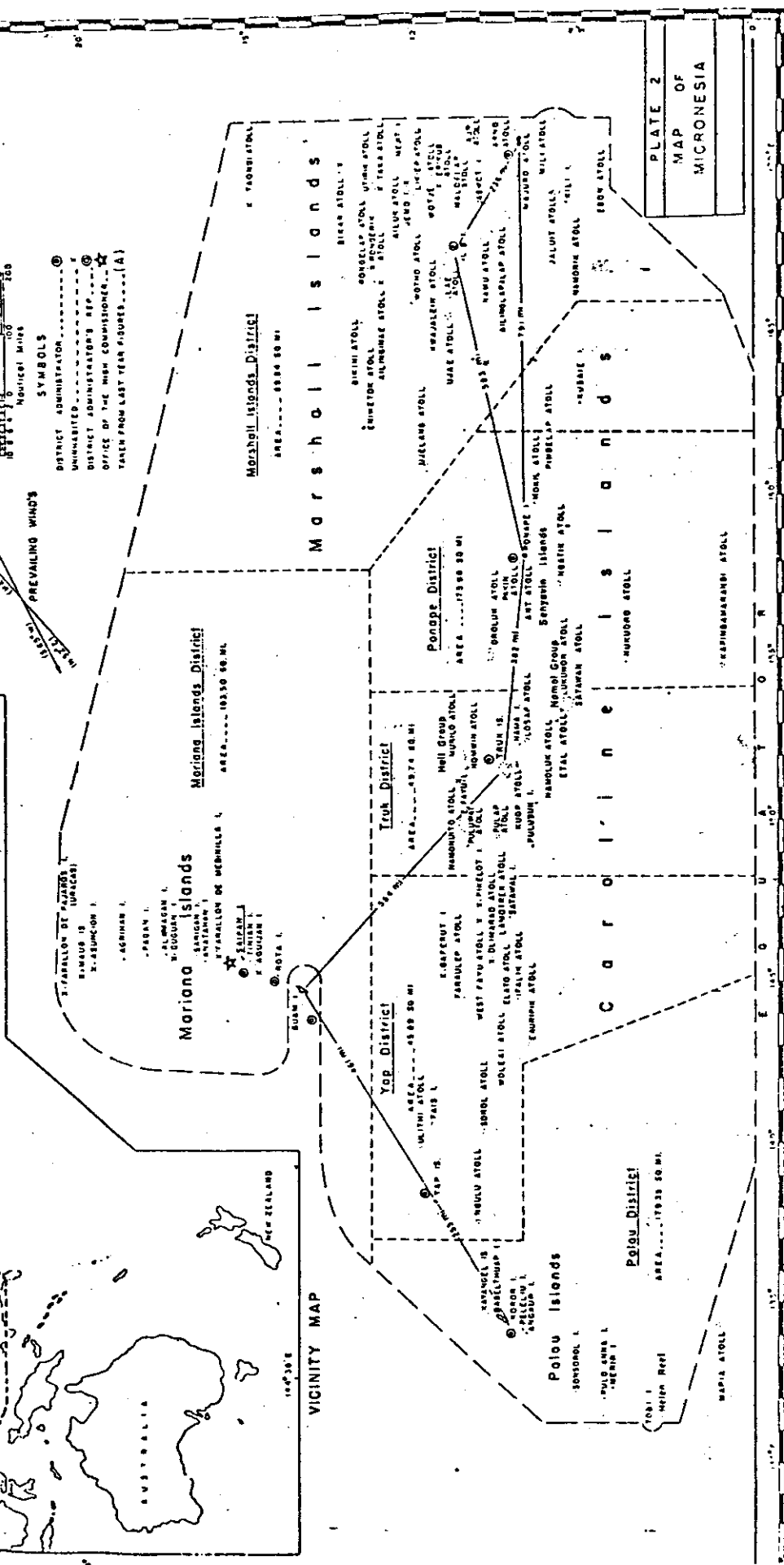
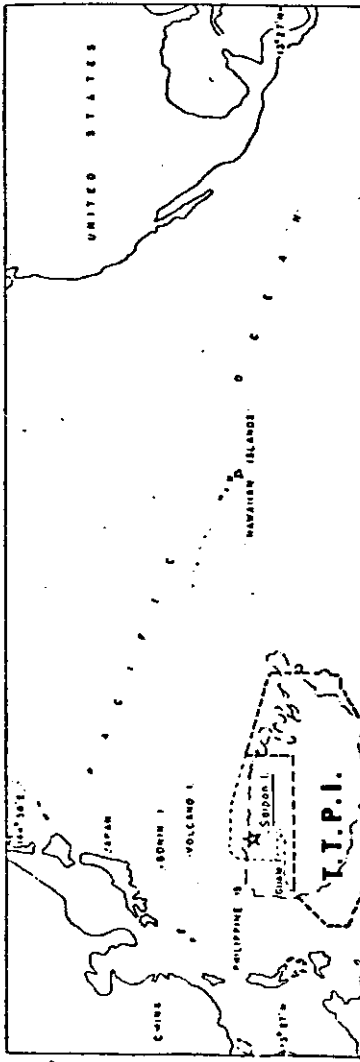


PLATE 2
MAP OF
MICRONESIA

I. TTPI BACKGROUND DESCRIPTION

A. Climate

1. General

All islands in the TTPI have a tropical marine climate characterized by uniform air pressure, temperature and humidity. Average monthly temperatures range from 79⁰ to 83⁰F. Usually there is a greater range in daily temperatures (approximately 10⁰) than in seasonal average temperatures. Relative humidity is usually above 75%, but ranges from 55 to 100%. Seasonal changes in wind direction and strength and in precipitation are the main variables in climate features. Most of the TT lies within the northeast trade wind zone, with steady winds over 70% of the time. These winds typically persist from October to June with average speeds over 10 miles per hour. The rest of the year, weaker trade winds, slight winds from the east, southeast, southwest, and west and calm periods are frequent.

Any part of the TT may experience devastating typhoons with winds sometimes over 150 miles per hour, but Truk, Yap, and Palau have the highest frequency of these storms, with an average of two passing somewhere through the western states/entities each year. The eastern states/entities only have a fully developed typhoon approximately once every five years.

2. Atolls

The atolls of the northern Marshall Islands have the lowest rainfall

of any TT island. For example, Enewetak averages only 55 inches of rain per year. Higher rainfall occurs on more southern atolls, such as Ebon, Majuro and Jaluit in the Marshalls and all the atolls in other states and entities, which generally have over twice the amount of rain of Enewetak due to the equatorial front which extends northwards in the northern summer. Humidity, as well as precipitation, tends to be less on low atoll islands than on high islands.

3. Low Islands

Low islands have the same climate features as atoll islands except for the absence of lagoons and reefs to protect from waves and salt spray.

4. High Islands

The higher islands of Palau, Yap and Truk do not have mountains lofty enough to produce rain shadows or to generate heavy clouds and rainfall. Nor are there noticeable temperature differences at different altitudes on these islands.

Dry seasons occur most commonly from January through April.

Average yearly rainfall is as follows:

	<u>Palau</u>	<u>Yap</u>	<u>Truk</u>
Inches of Rain:	146	122	137

Extremely heavy rains are experienced on Ponape due to the high

mountains. Rainfall at higher altitudes average 300 to 400 inches per year, while in the low coastal area of Kolonia the average is 192 inches per year.

Kosrae also experiences heavy rain due to its mountains. Records of maximum and minimum annual rainfalls are 236 and 122 inches on Kosrae's east coast. Inland areas would register much higher amounts of precipitation, if measured.

Because of the extremely high rainfall and humidity in all months, cloud forest occurs on peaks of Ponape and Kosrae. Dry areas caused by orographic rain shadow on these two high islands are not significant.

B. Population

Of the 2,000 islands and atolls in the TT approximately 100 are, at one time or another, inhabited. The first reliable population data came from the comprehensive census conducted in 1973. At that time there were approximately 100,400 persons residing in the TT. This population was widely dispersed among the six states and entities. Truk, the most populated state with 31,600 inhabitants, contained almost 1/3 of the total TT population. This was about eight times that of the least populated state, Kosrae, which had 3,989 inhabitants. Truk is followed in size of population by the Marshalls, 25,045, representing 25% of Micronesians; Ponape, 19,262 (19%); Palau, 12,673 (13%); Yap, 7,780 (8%); and Kosrae with about 4%.

Within each state and entity there are also vast differences in population densities. The outer island areas are typically sparsely populated while the governmental center areas contain high concentrations of population. A high birth rate, typical in underdeveloped regions, has fueled an explosive population growth. The birth rate, 35-40 per thousand population is expected to increase in the decade of the 1980's as the number of women in the 15-44 age group rises. The high birth rate coupled with a relatively low death rate for an underdeveloped region creates a rapid natural increase in population. The rate of population increase is estimated to be about 3.5% annually, varying only slightly among the states and entities.

The high birth rate has contributed to a skewed population distribution in the TT toward the younger age groups. According to census data, over 54% of persons are less than 18 years of age; over 66% are under age 25.

C. Political Situation

The general political structure of the Trust Territory Government is divided into three divisions, the executive branch headed by the High Commissioner with Chief Executives of each state and entity and the central FSM government, the legislative branch with six state/entity legislatures and a Congress of the FSM, and a judiciary branch composed of a High Court, state/entity Courts, and Community Courts.

Since 1969, negotiations have been periodically undertaken between

TTPI leaders and U.S. representatives charting the future political status of the islands. At present, a timetable has been established calling for the termination of the U.N. Trusteeship in 1981.

In July, 1978 the Micronesians voted on a constitution creating a Federated States of Micronesia (FSM). The four central districts, Yap, Truk, Ponape, and Kosrae approved the constitution while the districts of Palau and the Marshall Islands rejected it. Thus, the four central districts have been united as the Federated States of Micronesia. The constitution creates a democratic government with a popularly elected unicameral legislature, and a president as chief executive, elected by the legislature. Legislative elections were held in March, 1979. Each state has elected a Governor and legislature. Under the terms of the new constitution, power will be significantly decentralized.

Having voted not to unite with the Federated States of Micronesia, the Marshall Islands convened a constitutional convention to prepare a constitution establishing the Marshall Islands as a separate nation. The resulting document was approved in a popular referendum in March, 1979. The new government, thereby established, became effective May 1, 1979. The constitution establishes a parliamentary system of government with chief executive authority vested in a cabinet and president. The president is elected from among the legislative body, the Nitijela. Members of the Nitijela are popularly elected. A Council of Iroij (traditional chiefs) is also created with power to review and suggest amendments to proposed acts of the Nitijela.

The constitutional convention in Palau has been completed. The result of this convention was a document creating a government modeled after the U.S. system of federalism. The constitution calls for a new Republic of Belau with popularly elected president and bicameral congress. The timetable calls for the implementation of the new government structure on January 1, 1981.

A Secretarial Order from the U.S. Department of Interior was issued in 1979, effecting the administrative separation of Palau, the Marshall Islands, and the FSM from the TT Government. The High Commissioner has stated that the new governments will assume nearly all powers now held by the TT Government by October, 1980. The size of the TT Headquarters is being reduced to less than one-fourth its size in 1978. The proposed 1981 budget for Headquarters is about four million U.S. dollars, compared to the 1979 level of eighteen million dollars. Among the powers to be retained by the TT Government until termination of the Trusteeship Agreement are communications, federal programs, and finance and accounting functions for expenditure of federal grants by the new governmental entities.

These three new nations, the Republic of Belau, the FSM, and the Government of the Marshall Islands, are currently negotiating the details of a free association agreement with the U.S. The free association status proposed by the Micronesians provides full control over internal and external affairs by Micronesians while giving the U.S. authority in defense matters. Tentative plans call for a re-

evaluation of the compacts after a period of 15 years, at which time each of the nations may continue the status quo or pursue a different relationship with the U.S.

D. Socio-Cultural Conditions

The islands of the TTPI have differences in historical development, culture and traditional socio-political frameworks. Differences also sometimes exist even within states and entities. Differences in language, details of material culture, techniques of subsistence exploitation, and forms of social organization make each area unique. However, more important than these differences are the underlying similarities. Colonial heritage, common adaptation to the island environment, diffusion of people and ideas tend to create a sense of homogeneity among the islands.

A complex system of class ranking and social stratification are common elements, with variations, of all traditional Micronesian cultures. These systems are all founded on the control of land. Typically, land rights extend into the adjacent lagoon and reef areas. An individual's status in society is largely, if not wholly, determined by his land use rights.

Subsistence agriculture and fishing have traditionally been the mainstays of these island people. Taro, breadfruit, coconut, and, on high islands, yams and other root and tree crops provided dietary

staples. The lagoon, reef and ocean environment provided a source of protein. Land, lagoon, reef and surrounding sea therefore were all crucial elements for survival. They were regarded as basic and vital elements of an ecological and economic entity. Survival depended on the efficient use of these elements.

Four hundred years of political domination by colonial powers - Spain, Germany, Japan and the U.S.- have brought about significant changes. Social change has accelerated under the American Administration. The establishment of democratic forms of self-government on the local and state level has affected traditional political control by delimiting the control and authority of the traditional elite classes. The conflict revolving around traditional versus modern cultural forms has been a long-standing problem in the TTPI. Compromises have been necessary in the formation of the new governments to accommodate changing attitudes and lifestyles. The traditional versus modern conflict will continue to impact on social and political variables.

Social change has been further encouraged by the many people who have left their home islands to live and study in the governmental centers, other schools in the TT, Guam, or the U.S. These people have returned with changed attitudes in regard to social, economic, and political concepts.

An outgrowth of western influence and a catalyst for continued change is the on-going migration of persons from the outer islands to the

government centers, the seats of local government. This exodus is predominately made up of youthful job-seekers in pursuit of cash incomes. Employment opportunities, although meager, are far more prevalent in the government centers than on most outer islands. An additional attraction to the government centers are services such as medical care, utilities, and other social and physical infrastructures. Such amenities, usually lacking on the outer islands, are a powerful lure.

E. Economic Conditions

1. Labor Force

According to the 1973 census the potential labor force in the TTPI numbered 54,100. The number of persons employed or seeking work totalled 31,500, implying a participation rate of 58%. Of the active labor force 10,686 (34%) were engaged in the monetary economy. In 1973, unemployed persons numbered 7,124 persons, 22.6% of the active labor force. Unemployment varied from a low of 345 (11.6%) in Yap to a high of over 2,034 (29%) in Ponape/Kosrae. Unemployment in Truk was approximately 22.5% of the work force, in the Marshall Islands 25.3% and in Palau 24.1%.

Unemployment rates for women, exceeded 40% in all governmental centers except Koror and Colonia, where the rates were 24% and 20% respectively.

Unemployment was typically higher in the government centers than

in the outer islands. Most outer island residents were engaged in the village economy, primarily subsistence agriculture and fishing.

2. Earnings

Social security records indicate that in 1977 about 16,000 persons in the TTPI were wage and salary earners. Approximately 8,600 were employed by the TTPI Government and 7,600 in the private sector or for local governments. A dichotomy existed in earning potential between these two sectors. Average wage and salary earnings in the private sector were \$2,291 while earnings in the public sector were 57% higher averaging \$3,591. The government minimum wage is 80¢ per hour. There is no private sector minimum wage.

In summary, the average wage earner makes about \$2,900 annually and over 90% of all wage earners make less than \$5,000 annually. By western standards these wages are quite low, but in comparison with wage levels throughout the Far East and the rest of the less-developed world, they are actually very high. It is generally felt that the TTPI Government wages are set at artificially high rates and that private wages more accurately reflect the economic conditions of the area.

3. Gross Domestic Product (GDP)

Estimates indicate that during the period 1970-1975, GDP increased at an annual rate of 12% in current prices. During the same period, public expenditures and U.S. Government grants increased at a similar

rate (11%). However, from this high rate of growth must be subtracted the inflation rate, which has not been determined for the period.

Production from TTPI resources increased negligibly prior to 1975. In effect, there was no real growth in the economy, only an increase in money income as a result of U.S. transfers paid out through public expenditures for wages, salaries and other operating costs.

From FY 1975 to FY 1977 (27 months), GDP increased \$3.3 million to \$90.3 million, an increase of less than 4%. The increase was almost entirely attributed to the \$3.5 million increase in compensation to government employees. Wages and salaries also increased in the private sector from \$14 million to \$15 million and now account for 17% of GDP. Total compensation of employees rose \$3.9 million (9%) to \$47.1 million, which represents 52% of GDP. Compensation of employees in the private sector was only half that of public sector employees (which accounted for 33% of GDP). This reflects the extent to which government expenditures dominate the TTPI economy.

The increase in compensation of employees was partially offset by a fall in operating surplus (operating surplus includes rents, interest, profit, family paid workers, etc.). Total operating surplus declined by \$1.6 million, mainly due to the lower value of copra production which fell by \$1.3 million and a decline in output

in the subsistence sector of \$1.7 million. The total operating surplus, amounting to \$34.9 million, now accounts for 39% of GDP, down from 42% in 1975.

Total income originating in the private sector declined not only in absolute terms but also decreased slightly in its share of total GDP from 58% to 55%. There appears to be a continuing reliance on the government sector to sustain the economy.

The distribution of income among the states and entities varied widely from a high of \$24.1 million in the Marshall Islands to only \$3.3 million in Kosrae. The Marshall Islands were followed in size of GDP by Truk (\$19.2 million), Ponape (\$17.9 million), Palau (\$17.4 million) and Yap (\$8.4 million),

4. Per Capita Gross Domestic Product

Because population increased at a faster rate than did GDP there was a decline in per capita GDP in all but two states, Palau and Kosrae. Truk, which has the lowest per capita GDP (\$550) also experienced the greatest decline (12%), followed by the Marshall Islands (\$895), which fell by 10%. Ponape and Yap had only small changes, falling to \$850 and \$1,000 respectively. Kosrae had a per capita GDP increase of 10% to \$750; while in Palau it was up 11% to \$1,300, the highest in the TTPI. This illustrates the wide dispersion in GDP per capita, Palau having almost two and one half times that of Truk.

5. Foreign Trade

In Fiscal Year 1977 imports by the private sector totalled \$44.2 million. Approximately 60% of imports, including three-quarters of food and beverages, come from the U.S. About one-half of the remaining imports come from Japan.

Consumption goods accounted for \$30.8 million or 70% of total imports. Imports for industrial purposes made up the remaining \$12.7 million (30%). Imports of food and beverages for household consumption amounted to \$14.6 million or one-third of total imports and represented almost one-half of all consumer goods imported. Imports of fuels, cars, and parts are valued at \$7.9 million, 18% of total imports and one-fourth of all consumer goods.

The \$12.7 million in imported industrial goods includes \$4.5 million in copra imports for the mill in Palau. Of the remaining \$8.2 million in industrial imports, industrial supplies accounted for \$5.8 million. This included cement (\$326,000), chemicals (\$691,000), lumber (\$1,625,000), fabrics (\$1,240,000), glass (\$144,000), iron and steel (\$905,000), and other products (\$877,000). Cement, lumber, iron and steel products were primarily used for housing construction. Palau accounted for the largest volume of imports (30%) into the TTPI, followed by the Marshall Islands (22%), Truk (21%), Ponape (17%), Yap (8%), and Kosrae (1%).

Industrial imports in the TTPI were mainly to Truk (\$2.5 million),

Palau (\$1.8 million excluding imports of copra), and the Marshall Islands and Ponape with \$1.6 million each. The rather high percentage (20%) of industrial imports by Truk was due to the materials needed for reconstruction following Typhoon Pamela. Construction materials were also the largest industrial import in the other states and entities (\$0.8 million of goods not classified were imported).

The total value of exports from the TTPI (excluding the interstate trade) was \$10.3 million. The three major exports were processed copra (\$4.5 million), tuna (\$3.5 million), and tourism (\$2 million). These three items accounted for 97% of total export earnings. The remaining \$333,000 consists of handicrafts (\$248,000), other marine products (\$74,000), and Ponapean pepper (\$11,000).

With exports of processed copra, tuna, and the largest tourism industry in the TTPI (\$650,000), Palau had export earnings of \$8.7 million, thereby accounting for 85% of total Micronesian exports.

Tourism was the largest export earner in Ponape, Truk, and Yap, followed by copra exports to Palau, and handicraft sales. Copra sales were the largest export from Kosrae and the Marshall Islands, followed in the Marshall Islands by tourism and marine products. Kosrae was the only state lacking a developed tourism industry. This reflects the isolation of Kosrae from major transportation routes. The gap between imports and exports was approximately \$34 million in FY 1977.

II. MAJOR ENVIRONMENTAL PROBLEMS AFFECTING OR AFFECTED BY DEVELOPMENT ACTIVITIES.

As in other developing countries, Micronesia is experiencing both the environmental problems that reflect a lack of development, and problems that occur because of development itself. Such development are building airports, roads, docks, hotels, and industries. The three major industries in Micronesia are fisheries, agriculture, and tourism, which need careful environmental planning and management. The physical environmental problems caused by these development projects are destruction of mangroves, trees, taro patches, reefs, beaches, lands and lagoons by dredging and earthmoving, discharging pollutants in the lagoons, in the air (from asphalt plants, cars, and quarrying operations), and on lands. One of the things most damaging to the lagoons, the reefs, the fish and other marine life is "dynamiting", especially in Truk.

Because these development activities are mostly located in the government centers, people are moving from the outer islands to seek jobs, schools for their children, and the basic services not available in their home islands. This also creates other types of problems, such as lack of housing due to overcrowding (like on Ebeye in the Marshall Islands), inadequate drinking water, and improper garbage and sewer disposal systems which create economic, social and health problems. These facilities become inadequate because they were designed for fewer people, not considering the influx of people from the outer-islands, and tourists.

Not only that, but there is not enough money to expand or maintain these systems. Therefore, we need development such as tourism, agriculture, fisheries, etc. so there will be funds generated for the people to improve and maintain these systems. But the environment must be protected.

A. Health

The primary health problems of the Trust Territory include many environmentally related diseases and infections such as amebic and bacillary dysentery infections, hookworm disease and infectious hepatitis. The susceptibility of the population of the Trust Territory was dramatically illustrated when a virulent epidemic of infectious hepatitis spread through the islands with over 3,500 reported cases among the population of 100,000 (population at the time of the epidemic).

B. Water Supply

Individual home and community water systems in all six government centers as well as many rural villages and several remote islands do not meet accepted public health standards for safe and sanitary water supply systems.

At the present time, approximately 30,000 of the total population of 115,000 are served by some type of communal or community water system. Some of these community and communal water systems offer a degree of protection or treatment, but most, if not all,

have deficiencies which render the system inadequate or unacceptable from a public health standpoint. The deficiencies in these systems range from untreated raw water sources to a lack of integrity in distribution systems. One example is the common occurrence of low pressure and negative head conditions in most of the major governmental center systems. Another example is the loss of as much as 50 percent of the water in the governmental center water systems by leakage in the distribution system and/or household services. This large scale leakage is causing a water shortage crisis and is undoubtedly exposing the system to possible contamination. In most of the government centers water hours are enforced at the rate of 4 hours of water per day.

Except for the government centers and a very few other communities, the provision of water for domestic household usage is the responsibility of the individual family. Most individual home water supplies consist of some type of roof catchment system with storage in partially closed or open containers outside of the house. In almost all instances, no provision is made to discard the initial run-off with its contaminants from the roof or to provide any type of filtration or disinfection. With the exception of governmental buildings and staff housing, most homes do not have interior plumbing and the water is dipped out of open outside storage containers or carried in insanitary containers from watering points.

There is a major water and sewer program currently underway which is intended to make water and sewer service available to the government centers. In addition, there are some admirable efforts being made on a relatively small scale by elements of the Bureau of Health Services, Bureau of Public Works, the Division of Community Development, and the U.S. Military Civic Action Teams to assist some of the rural villages in obtaining some type of improved water system. These efforts include small village water systems with watering points or outside faucets for homes as well as some individual home roof catchment systems.

C. Sewage Disposal Facilities

At the present time, there are only four communities in the six states and entities which have some type of sewage collection and treatment facilities, usually serving hospitals, government buildings, staff housing, and some commercial buildings and private homes. These sewers receive wastes from an estimated 20,000 people. Sewage treatment facilities are poorly operated and maintained due to lack of resources.

Inadequate and unsafe cesspools, privies, over-water benjos and septic tanks receive raw sewage from almost the entire population of the Trust Territory. There are probably some septic tank systems with functioning absorption fields for liquid waste disposal but the number of such systems is negligible and there are very limited, if any, septic tank pumping facilities.

The ongoing water and sewer extension program in the governmental centers will make a significant contribution towards the solution of the sewage disposal problems. Some governmental agencies and outstanding individuals are trying to help improve the situation and reduce the threat to public health but their efforts are limited by insufficient funds and a lack of technical expertise.

D. Water and Sewer Extension Projects in Progress

A water and sewerage program for the TTPI was essentially initiated in 1967 with the completion of the water and sewerage master plan reports by Austin, Smith and Associates (Headquarters in Hawaii) for all six governmental centers. These reports, together with subsequent physical planning reports prepared by the firm of Hawaii Architects and Engineers in 1968, and the wastewater facility plans developed for each state and entity by various A/E firms under EPA grants from 1977-1979, have formed the basis of a capital-improvement program to construct water supply and sewage disposal facilities to serve the TT.

To date, this program has been estimated to make sewer mains accessible in the street to 40,000 people and water mains accessible to 60,000 people.

1. House Sewer Connection Program

As mentioned above, there are basic water and sewer systems

in the government centers of Palau, Yap, Truk, and Ponape. At present, very few homes are connected to these systems because of a lack of financial resources on the individual's part to procure the necessary sanitary fixtures. In recognition of this problem, the TTEPB and TT Bureau of Public Works have developed a House Sewer Connection Program for these states and entities whereby independent construction groups, under the supervision of the Bureau of Public Works, will be assigned to each of the states and entities to perform hook-ups from the homes to the sewer mains. House sewer connections for the government centers of the Marshall Islands and Kosrae will be a part of the total construction of their sewer systems.

The individual home-owners will be responsible for providing sanitary fixtures to be connected to the sewer system. Loans for this purpose are available from the Farmers Home Administration. It is also proposed to have the state/entity legislatures fund a revolving loan fund for this purpose to allow those individuals not eligible for FmHA loans to be able to construction proper sanitary facilities.

Aside from the House Sewer Connection Program, projects are also ongoing to make extensions of the sewer systems in the government centers, to make the system available to more of the community. Sewage disposal facilities for outlying

and outer islands will be septic tanks and leaching field systems for clusters of homes.

2. Water Development Projects

There is a program underway to improve the water supply systems in all six governmental centers. The funds for these projects are the waived matching funds for EPA sewer construction grants. The main improvements to be done include increases in the sources or storage (reservoirs) and improvement of treatment facilities. An essential part of this program is also to improve the operation and maintenance of the systems, since a major fault of the system is leakage in the distribution lines.

E. Solid Waste

All of the government centers have some type of a solid waste collection program for the governmental offices and staff housing areas. The final disposal ranges from an open dump, burned at irregular intervals, to a modified sanitary landfill and land reclamation operation.

Large quantities of rubbish, garbage, trash and other solid wastes can be observed around many homes and public areas. The solid wastes constitute a public health problem and an aesthetic blemish on the tropical island beauty of the Trust Territory.

Most of the non-governmental areas rely on the individual family to dispose of the solid waste which leaves much to be desired in meeting proper solid waste disposal principles. There are, of course, exceptions. Some of the individual families, as well as complete communities, have managed with government assistance to maintain their homes and public areas in fine appearance with a minimum of noticeable solid wastes in spite of a lack of resources for ease of disposal. One notable instance of governmental assistance is the town of Kolonia, State of Ponape, where the Mayor has arranged to use the Department of Public Works refuse collection vehicle after hours and on Saturdays. The Mayor reimburses the Department of Public Works for the fuel and drivers' wages by charging the individual 25 cents per 55-gallon drum of collected garbage. Since the vehicle is not always available, it is difficult to schedule adequate routine collection and it is often thirty days before service is provided to all who need and desire it.

With the encouragement and assistance of the Department of Health Services and the Department of Public Works, other communities are beginning to evidence interest in this type of program. There is however a lack of equipment, personnel, and funds to properly implement a solid waste disposal program at the present time.

F. Housing

Less than ten percent of the homes, other than those provided for Trust Territory governmental employees, have adequate space for the number of occupants, are structurally sound or have inside water-carried waste disposal facilities and/or running water within the home. Some Micronesian families have managed to obtain a well-constructed, attractive and adequately sized home with some of the modern conveniences such as electricity, interior plumbing, doors and windows. However, in the government centers and in most villages, the people must build their homes of a mixture of local materials, assorted scrap metal, scrap lumber and corrugated metal. In the more remote rural villages, local construction materials such as bamboo and thatching appear to be more widely used. These materials are used less and less in the government centers where a cash economy is trying to emerge. Few Micronesian families, other than government employees, can afford to build an adequate home with imported materials such as cement, lumber, glass, piping and electrical wiring. In most instances, some type of home improvement or addition would be required to house improved sanitation facilities.

In some states and entities, approximately ten percent of the homes are built on pilings over the water and would be extremely difficult to provide with sanitary facilities or home improvements in their present locations.

The former Congress of Micronesia recognized a need for housing improvement and established a revolving loan fund of \$500,000 in housing authorities. Since this is a revolving loan fund and any monies used by an individual must be repaid, the program has only proved useful in assisting the middle and upper income families in improving their housing. The same is true of the FmHA loans for home improvement.

Housing has not been recognized by the people as an urgent problem in many areas due to the favorable climate during the entire year. The home basically serves the purpose of protection from the rain, not as protection from extreme weather conditions. Housing to the visiting non-Micronesian appears to be a very significant problem that should be corrected at an early date; however, more study is needed concerning this item than has been possible to date. There are sociological and anthropological factors which must be considered.

G. Land Tenure

Traditional Micronesian land tenure patterns present a significant problem for the installation and improvement of public facilities. To Micronesians in a subsistence economy, land is not a commodity to be traded, but is deeply linked to personal and family identity and can establish social status. Land tenure patterns vary between the states and entities, but generally involve communal ownership of a single plot, single

ownership of several small and separate plots, or commercial use rights to land owned by traditional leadership.

Land records prior to and from the Japanese Administration have been substantially destroyed; however, most people know their traditional boundaries which do not always agree with government surveys. While a land cadastral program is currently being carried out by the Division of Lands and Surveys of the Trust Territory Government, the program is regarded with suspicion by some Micronesians and its progress has been delayed by many local disagreements.

The communal land ownership and the ill-defined land status resulting from overlapping boundaries and disputed surveys have caused problems which have plagued past construction projects and will cause more difficulties in future projects. In some instances, the projects were built without easements; however, there are many projects where the government has actually obtained the signatures of all the land owners involved in a land dispute in order to proceed legally.

The Trust Territory Government is empowered with the right of eminent domain, but has encountered sizable resistance on a number of public facilities projects involving land condemnation. The Trust Territory Government holds as much as 60 percent of the land in certain states and entities in trust status which is

substantially closed to development or use. Many Micronesians resent the restriction of these lands and fear their use by the Trust Territory Government or the United States. The former Congress of Micronesia has determined that decisions regarding land matters should be made at the state/entity level.

H. Environmental Management Problems

As indicated in this report there has been increasing interest in environment as a dimension of development. For example, the TTPI legislative and institutional arrangements have been made for dealing with environment in the context of development. However, complete and economic-wide integration of environment and development is hampered by several factors as outlined below:

1. Inadequacy of funds from the local governmental entities for the support of expansion of planning staff, and environmental programs and projects.
2. As in other countries, there is a widely held view by many of the upper level TTPI decision-makers that incorporating environment as a dimension of development will delay and raise the cost of development, either accumulatively or at the project level. This view rose out of identifying environment with "pollution and conservation". If, however, environment is understood broadly as resource management, taken into direct account in the context of developmental decision-making, it should be conducive to lowering the cost of

development, not only in the present but in the future.

3. The TTPI's existing institutional and legislative arrangements relating to the incorporation of environment into development needs to be implemented more effectively. Our institutional and legislative measures were in most cases based on the view that environment is concerned with pollution abatement and conservation problems. If, however, environment were to be interpreted as resource management, the existing institutional and legislative management might not continue to be relevant; or if relevant, only partially so.
4. Pre occupation of TTPI development planners with short term problems which precludes them from paying attention to the degradation of the environment, which becomes visibly significant only over a long-term period.
5. The inadequacy of readily usable and available techniques which effectively incorporate the environmental dimension in development planning at the TT-wide and local governmental levels. As indicated in other sections of this report, the TT EPB has been working on this problem through meetings, by laws, rules and regulations, etc. but there is much more to be done.
6. The domination by the private business sector in developmental decision-making activities prevents many social benefit considerations, which relate to environment, from becoming important elements in the economic analysis of development proposals.

7. Even in regard to projects in the public sector, most of the appraisal methods used relate to financial and economic rates of return rather than to social rate of return which would take into account the environmental ramifications of the projects. This is mainly due to inadequate funds for project appraisal.
8. Lack of an adequate, useful, updated record keeping system; lacking of dissemination procedures for environmental information; and lack of coordination of data collecting activities by various agencies is also a major problem. Efforts are now being made by the TTEPB to improve this, but because of a lack of manpower, efforts have been limited.

III. ENVIRONMENTAL CONTROL ACTIVITIES

A. Legislative Background

1. TT Environmental Enabling Act and Policy

In 1972 the former Congress of Micronesia enacted an act to provide for the protection and enhancement of environmental quality of the air, land and water of the TTPI, and to provide for the establishment of a Trust Territory Environmental Protection Board (TTEPB) (TT Code, Title 63, Chapter 13, Subchapter I; short title: The Trust Territory Environmental Quality Protection Act; Public Law 4C-78, see attachment). By amendment to this law (P.L. 7-19) state/entity Environmental Protection Advisory Boards were established as agents of the TTEPB.

Under this law (Section 2) a public policy was stated:

"The people of the Trust Territory of the Pacific Islands are dependent upon the air, land, and water resources of the islands for public and private water supply, for agricultural, industrial, and recreational uses, and as a basis for tourism. Therefore, it is declared to be the public policy of the Trust Territory of the Pacific Islands, and the purpose of this act, to achieve and maintain such levels of air, land and water quality as will protect human health, welfare and safety and to the greatest degree practicable prevent injury to plant and animal life and property, as foster the comfort and convenience of its people and their enjoyment of health, life and property and will promote the economic and social

development of the Trust Territory of the Pacific Islands and facilitate enjoyment of its attractions."

Implementation of the policy(s) are done through:

- a. Coordination and integration of TT development planning and environmental policy and laws with the TTPI Territorial, Federal, local governments and agencies, and the general public;
- b. Education by the TTEPB and their staff of both government agencies and the general public on environmental problems, policies, and programs through such activities as village meetings, public hearings, and announcements through the local media (TV, radio, newspapers, etc.); and
- c. Participation of the people through public meetings on proposed development projects, and proposed environmental rules and regulations.

More importantly, the TTEPB and other related agencies are making efforts to incorporate the environmental dimension in development planning at the Territorial, state, and local levels by policies requiring preparation of Environmental Impact Assessments and facility plans of new major development projects.

It should be noted however, that even with the above requirement, it is difficult to implement because the decision-makers are very reluctant to accept this concept. Like any other country's decision-makers, they hold the view that incorporating environmental aspects in development planning would raise the cost of development. This

view arose out of identifying environment with "pollution control" and "conservation". Therefore, the Board's effort is to have them see that environment is concerned with the totality of resources.

2. TTEPB Rules and Regulations

a. Public Water Supply Systems Regulations

This regulation requires any person planning to build or modify a public water supply system to submit a Notice of Intent to the TTEPB through the local EPA Board, for the TTEPB's approval. It also requires the supplier of this water to perform routine bacterial and chemical analyses of the water and to report the results to the TTEPB. If the bacterial or chemical standards are exceeded, the supplier (in case of the TTPI, local Departments of Public Works), must also inform the public using the water, and how to make the water safe for drinking.

This regulation has allowed the TTEPB the opportunity to assure that all public water supply systems are properly constructed and monitored. However, because of inadequately trained local Public Works manpower and inadequate funding, none of the public water supply systems in the TT are able to produce safe drinking water. The TTEPB is working with the TT Bureau of Public Works to obtain the necessary funds to improve these systems; and is assisting the Bureau of Public Works in training of the water operators through an EPA grant used to hire an operator trainer.

b. Earthmoving and Sedimentation Control Regulation

This regulation requires anyone doing any earthmoving activity (except small agricultural cultivation and construction of a family home) to apply for a permit from the TTEPB through the local EPA Board. The application includes an erosion and sedimentation control plan to minimize the environmental impact of the project. Public hearings are held on all significant earthmoving projects to obtain the public's comments.

A \$100 application fee is required to be submitted along with the application from private applicants (no fee is required from government agencies). This has caused some complaints but it is explained that such projects can have a great impact on the environment and should be carefully planned and carried out.

Some questions have also arisen by the people as to why the TTEPB should control earthmoving activities on their private lands. It is explained that the impact of such projects is not limited to the immediate area, but can affect areas far removed from the project site through runoff and other impacts.

Through this permitting system, the control of earthmoving activities in the TTPI, and the protection of the environment, is being carried out very effectively.

The U.S. Army Corps of Engineers also requires a permit for any filling of water and wetland areas in the TTPI, under Section 404 of the U.S. Federal Water Pollution Control Act (as amended). This permit is not issued until the applicants have received a TTEPB Earthmoving Permit, and all other locally required approvals. The TTEPB and the Army work closely together in administering these permitting programs. The TTEPB informs the Army of proposed projects requiring the Army's permit, and assists the Army in follow-up inspections on these projects, as the Army has no staff assigned to the TTPI.

c. Pesticides Regulations

This regulation is intended to control the importation, use, and disposal of all pesticides in the TTPI in order to prevent their becoming an environmental hazard.

The regulation requires all pesticides sold in the TTPI to be registered by the U.S. EPA. It also requires importers of restricted use pesticides, i.e., pesticides determined by the U.S. EPA or TTEPB to be especially dangerous, to be licensed by the TTEPB and inform the TTEPB through the local EPA Board when ordering such pesticides.

In addition, all users of restricted use pesticides must be certified by the TTEPB by passing an examination given by the TTEPB staff. These applicators are periodically recertified

to make sure their knowledge and ability in using these pesticides is current. The local EPA Board staff also periodically observe the applicators' use of these pesticides to assure proper usage and disposal procedures are being carried out.

Most pesticides used in the TTPI are mosquito coils and fly and ant sprays. A few restricted use pesticides are used by the local Department of Agriculture personnel and some construction companies (to control termites in newly constructed buildings). This regulation will control the amount and type of pesticides brought into the TTPI, and make sure they are properly disposed of. Stockpiling of unused pesticides will be kept to a minimum.

d. Toilet Facility and Sewage Disposal Regulation

Any person or agency planning to construct a new building or add a toilet facility to an existing building must apply for a Building Construction Permit from the TTEPB, through the local EPA Board. There is no application fee required under this regulation. The regulation also requires all existing buildings to have appropriate toilet facilities within five years of the effective date of the regulation (by 1982).

Where a public water supply system and a sewer system are

available, all such toilet facilities must be hooked up to the sewer system. Where there is no public water supply system or a sewer system, pit latrines are allowed, if there are no negative environmental impacts from such facilities such as possible contamination of drinking water sources.

The U.S. Department of Agriculture through the Farmers Home Administration agency provides low interest (1% for a 15 year period) loans to qualified private individuals for home improvements, including construction of toilet facilities. A TTEPB Building Construction Permit must be applied for and received before the applicant can receive such loans for toilet facilities. The Board staff also conduct pre-construction, mid-construction, and final inspections of these and all other toilet facility projects to assure proper methods are being followed.

This regulation has assured that all new buildings being constructed will have proper toilet facilities. It also is an important element in the House Sewer Connection Program being implemented by the TTEPB and TT Bureau of Public Works with U.S. EPA funds to hook up all existing homes to the government center sewer systems. This program uses EPA sewer construction grant funds to connect private and public toilet facilities to the sewer mains, with the owners responsible for providing the necessary sanitary fixtures.

At present, there are approximately 1,000 homes in Palau, 800 in Ponape, 200 in Yap, and 600 in Truk that can be connected to the central sewer systems.

e. Solid Waste Regulation

This regulation establishes standards for the storage, collection, and disposal of solid waste. The operator of a public solid waste disposal facility must apply for a permit from the TTEPB, through the local EPA Board. The application must include the operating procedures for the site and an application processing fee of \$10.

Private disposal sites need the written approval of the local EPA Board for their proper operation.

This regulation was promulgated in 1979, and is presently being implemented by educating the public and government agencies regarding their requirements under this regulation.

f. Marine and Fresh Water Quality Standards Regulation

This regulation establishes use classification areas for all fresh and coastal waters in the TTPI. The areas were classified through decisions reached with the villagers on the various islands through public hearings held by the local EPA Board staff. These areas are classified according to their use by the people, and the amount of discharge allowed in them depends on their use (no discharge in conservation areas, controlled discharge allowed in industrial areas).

This regulation also sets bacterial, chemical, and physical standards that must not be exceeded in the water areas. The TTEPB staff perform routine monitoring of these areas. If the standards are exceeded the public is notified that the water areas are unsafe, and an investigation is made to determine the cause of the excess pollution.

Any person wishing to discharge into these waters must apply for a zone of mixing from the TTEPB through the local EPA Board. This zone of mixing states the types and amounts of material allowed to be discharged, as well as establishing a monitoring program to be conducted by the discharger, with the monitoring submitted to the TTEPB through the local EPA Board.

A discharger must also apply for a NPDES (National Pollutant Discharge Elimination System) permit from the U.S. EPA, certified by the TTEPB, and perform monitoring testing under this permit. The results of the monitoring are sent to the U.S. EPA with copies to the TTEPB.

This regulation has been effective in controlling the pollution of TTPI's waters.

g. Air Pollution Control Regulation

This regulation was proposed in March, 1980 and will become effective in June, 1980. It sets standards for all stationary and mobile air pollution sources, as well as specifying

testing requirements.

Although there are no major air pollution problems at present in the TTPI, this regulation will control such sources as asphalt plants, power generators, etc., as well as future activities that may have a major impact on TTPI's air quality.

Under this regulation, any person wishing to establish a stationary or mobile air pollution source must apply for a permit from the TTEPB through the local EPA Board.

3. Other TTPI Environmental Protection Acts

a. Endangered Species Act

TTPI Public Law 6-55, passed in 1975, gave authority to the Director of Resources through the Office of the Chief Conservationist, to set up conservation programs aimed at conserving endangered and threatened species. These programs include research to adequately define which species are in fact endangered or threatened and, when necessary, the acquisition of land or aquatic habitat or interest in for the conservation of resident endangered or threatened species.

b. TTPI Fishing Law

A fishing law was enacted in 1972, Public Law 4C-65. This law prohibits fishing with explosives, poisons, chemicals and other substances in any waters of the TTPI. An exception

is the use of poisons for the collection of marine specimens for scientific purposes with the written approval of the High Commissioner.

The worst violation of this law is the use of explosives, which cause a lot of damage to the marine environment. Enforcement by the Public Safety Department has not been effective. This is a very serious problem in the TTPI, and efforts are being made to educate the public on the damage that dynamiting does to their reefs and marine life.

c. Land Use Planning Act

The Land Use Planning Act, passed in 1972 as Public Law 4C-76, gave authority to the states and entities to establish Planning Commissions with the authority to adopt master plans, and enact zoning and land use laws. Enforcement and appeal procedures are specified in the law. Palau has established zoning laws under this act for their district.

In relation to this act, the TTPI Office of Planning and Statistics is developing Land Use Guides, a Suitability Model in terms of values of land areas for different development purposes, and a Comprehensive Development Code. Public hearings are conducted by the Office of Planning and Statistics in the various states and entities as these documents are developed.

4. U.S. Environmental Protection Policies and Laws Applicable to the TTPI

The U.S. Federal Pollution Control Act Amendments were passed by the United States Congress in 1972 and includes the Trust Territory of the Pacific Islands. The overall objective of this act is to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." The law primarily mandates that programs be developed to address the problems of pollution of the nation's waters.

a. Clean Water Act of 1977 (P.L. 95-217)

Under Section 106 of this act, the U.S. EPA provides annual program grants and technical assistance to the TTPI for the administration of the TTEPB and local EPA Boards' water pollution control activities.

Sewer construction grants are also provided to the TTPI under Section 201 of this act, with the TTPI Bureau of Public Works as grantee. The funds are provided in three stages:
Step 1 - wastewater facility plans for each state and entity;
Step 2 - design of specific sewer construction projects; and
Step 3 - actual construction of the projects. The TTEPB is responsible for establishing a priority list for the construction of these projects, with input from the EPA Boards and the general public through public hearings on the list.

Under Section 208, a grant is given by the U.S. EPA to the TTPI to develop a comprehensive water quality management plan.

This country report is based on the TT Water Quality Management Plan, developed by the TT Office of Planning and Statistics for the TTEPB.

The U.S. Coast Guard, under Section 311, is responsible, in coordination with the TTPI, for the control of oil and hazardous substance spills into the waters of the TTPI. The Coast Guard periodically updates an oil spill contingency plan for the TTPI, outlining the procedures for local, headquarters and U.S. agencies to take in cases of oil or other hazardous substances spilled into the waters of the TTPI. The Coast Guard has enforced this law in the TTPI by imposing fines on various Japanese and other foreign and TTPI ships that discharge oil in the TTPI waters.

The U.S. EPA administers the NPDES permitting program under Section 402 of this act. This program administers permits for all discharges into the waters of the TTPI. The permits are reviewed by the local EPA Board and certified by the TTEPB. Permitted facilities in the TTPI include sewage treatment plant outfalls, Van Camps Fishing Co. in Palau, the Tobalar Copra Processing Plant in Majuro, and the Mobil Oil Co. bulk plants in the states and entities.

Section 404 is administered by the U.S. Army Corps of Engineers. This program is for permitting of all fill activities in the

waters and wetlands of the TTPI. It is coordinated with the TTEPB's Earthmoving Permit program. Public hearings are held for both these permitting activities if there is public interest in a specific project as shown through responses to the public notices issued concerning applications for these permits. Army Corps of Engineers 404 Permits have been issued in the TTPI for various projects including the construction of docks in Yap, Truk, and Majuro; airports in Truk and Kosrae, and small land-fill projects on which people plan to construct homes.

b. Safe Drinking Water Act (P.L. 93-523)

Under Sections 1443 and 1450, the TTPI receives annual program grants and technical assistance from the U.S. EPA for the TTEPB's and local EPA Boards' safe drinking water activities.

The TTEPB has received primary responsibility from the U.S. EPA to enforce this law in the TTPI. This includes enforcement of the water quality standards, approval of public water supply system construction, and certification of water system operators.

This law also establishes maximum contaminate levels for bacteria, chemicals, and radionuclides in public water supply systems. Part of the TTEPB grant under this act is used to perform routine monitoring of the public water supply systems in the TTPI.

c. Federal Insecticide, Fungicide, and Rodenticide Act (P.L. 94-140)

Under this act, the U.S. EPA registers all pesticides manufactured and/or imported into the U.S. In addition, the U.S. EPA

registers hazardous pesticides for restricted use only.

The U.S. EPA provides an annual program grant to the TTPI for the TTEPB and local EPA Boards' pesticides activities. These activities include licensing importers of restricted use pesticides, certifying restricted use pesticide applicators, and monitoring the pesticides that are imported into the TT.

5. Other U.S. Environmental Protection Acts Applicable to the TTPI

a. National Housing Act of 1954, as amended (P.L. 83-560)

Under Section 701 of this law, administered by the U.S. Department of Housing and Urban Development (HUD), grants are provided to the TTPI for the TT Office of Planning and Statistics to develop land use planning guides and land use controls.

b. Housing and Community Development Act of 1974 (P.L. 93-383)

This law, administered by the U.S. Department of Housing and Urban Development provides community development block grants (CDBG) for public projects in the TTPI.

Funds have been used for water and sewer projects, community buildings, roads, and recreational facilities in the villages of the TTPI. It is administered in the TTPI by the Office of Planning and Statistics.

Section 8 of this law provides rental subsidies to low income families in private housing. The families are required to pay between 15%-25% of the rental cost, depending on their income. This program is administered in the TTPI by the TT Housing Authority.

c. Housing Act of 1949, as amended (P.L.'s 89-117, 89-754, 92-310)

Under Section 504 of this act, the U.S. Farmers Home Administration (FmHA), within the U.S. Department of Agriculture, provides grants and loans to private individuals for repairs and improvements of their homes.

There are FmHA offices in Palau, Yap, Truk, and Ponape for the issuance of these loans and grants. Most loans and grants to date have been used for the construction of sanitary facilities, such as sanitary cores - a separate building containing shower, laundry and toilet facilities. An average of 58 loans and grants are applied for each month in Ponape. Palau, Truk, and Yap have fewer such loans with approximately one issued per month.

The TTEPB, under its Toilet Facility and Sewage Disposal Regulation, works closely with the FmHA on this program.

d. National Historic Preservation Act of 1966 (P.L. 89-665)

The objective of this law is to prepare comprehensive state wide (i.e. TT-wide) historic surveys and plans to preserve, for

public benefit, areas, sites, buildings, structures, and objects significant in national history, architecture, archaeology, and culture; and to assist historic preservation projects in the public and private sector.

Funds are available under this law to help finance surveys and plans for historic preservation activities in the TTPI.

All U.S. federally funded construction projects must have a clearance from the TT Historic Preservation Office that no historic sites or objects will be destroyed by such projects. These projects must also provide funds for the Historic Preservation Office to survey the construction site before any activity begins and to provide services for a historic preservation officer to be available during construction for investigation of any historic sites or objects that may be found during such construction activities.

During the development planning of the Truk Airport project, two villages adjacent to the site demanded compensation for the proposed destruction of their underwater fish lures. They were represented in this demand by the TT Historic Preservation Officer and the Micronesian Legal Services Corporation. The TTPI Government reached an agreement with the villages and the people were compensated accordingly.

e. Fish and Wildlife Coordination Act, as amended (P.L. 85-624)

This law, administered by the U.S. Fish and Wildlife Service, in the Department of Interior, provides information and technical assistance to public and private agencies and organizations for the improvement of conditions for the management of wildlife resources.

All Army Corps of Engineers Section 404 (of the U.S. Clean Water Act of 1977) permit applications for all major TTPI projects, such as for docks, airports, etc., are reviewed by the Fish and Wildlife Service for impact of the project on the marine environment. No permit can be issued by the Army without the concurrence of the Fish and Wildlife Service. The Service also has conducted several marine surveys in the TTPI to determine possible impacts of proposed projects on the marine environment.

f. National Environmental Policy Act

This law requires all U.S. Federal agencies, before reaching a decision on a proposed major action which may have a significant effect on the human environment, to analyze in detail the likely environmental consequences of the action, and make the analysis available to the public.

All U.S. federally funded projects in the TTPI must comply with this law. An Environmental Impact Assessment (EIA) is first developed on these projects, and a public hearing held. If

the assessment and the results of the hearing indicate that no major impact is expected, the requirement for a more detailed Environmental Impact Statement (EIS) may not be necessary.

Environmental Impact Statements have been made on airport projects for Kosrae, Truk, and Yap. Environmental Impact Assessments on other construction projects in the TTPI have shown there is no necessity for EIS's.

IV . AGENCIES RESPONSIBLE FOR MANAGEMENT OF TTPI ENVIRONMENTAL POLICIES
AND PROGRAMS

A. TTPI Headquarters (Saipan)

The executive and administrative authority of the TTPI Government is vested in the High Commissioner, appointed by the President of the United States and confirmed by the U.S. Senate.

The Office of the High Commissioner consists of the Deputy High Commissioner; the Departments of Administration, Community Services, and Development Services; the Offices of Special Assistant, Attorney General, Program and Budget Officer, and Office of Planning and Statistics.

Under the Department of Administrative Services are the Bureaus of Finance, Personnel, and Public Affairs. Under the Department of Community Services are the Bureaus of Education, Health Services, and Community Development. Under the Department of Development Services are the Bureaus of Public Works, Resources, and Transportation and Communication.

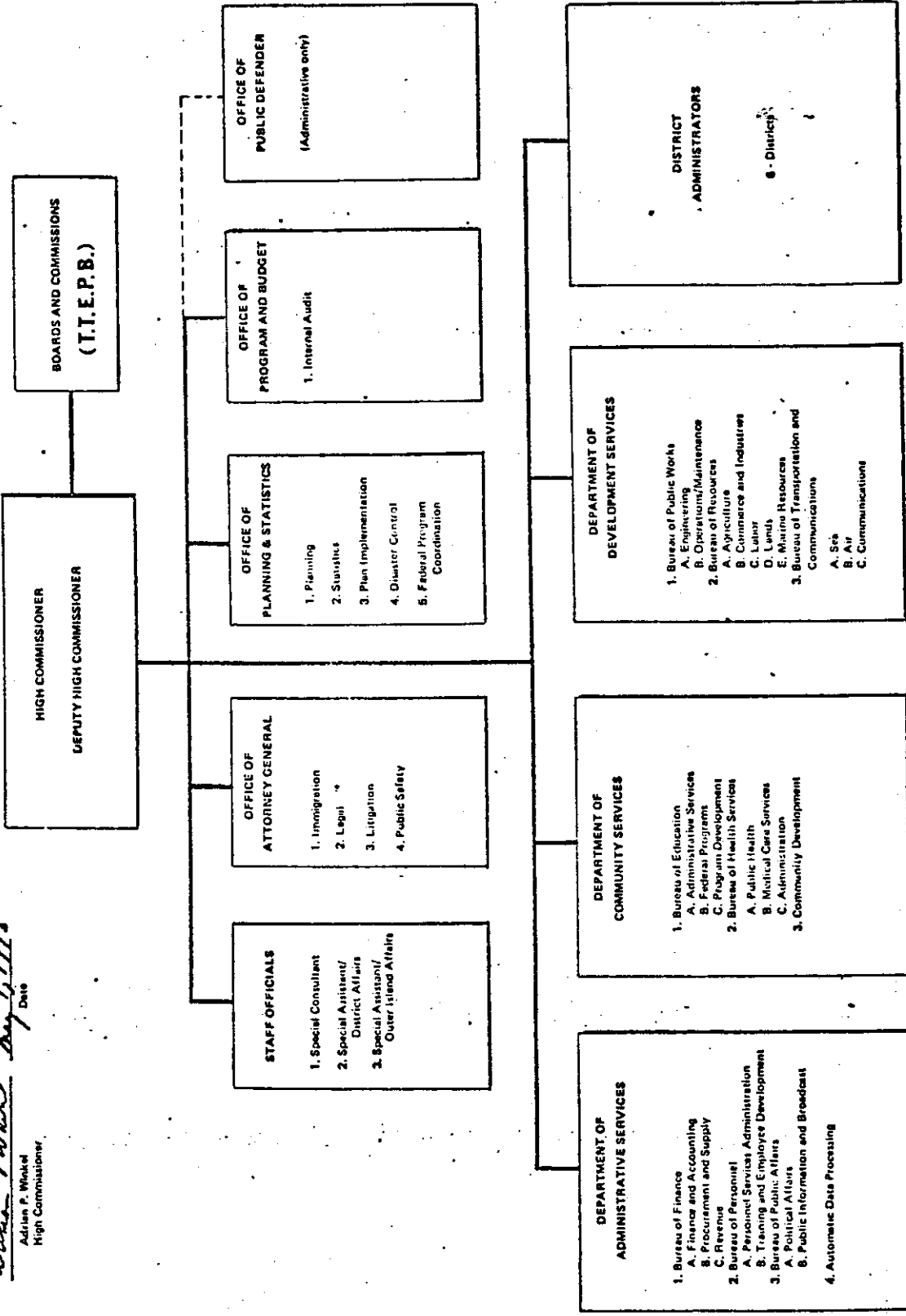
1. Trust Territory Environmental Protection Board

a. Establishment

The Trust Territory Environmental Protection Board (TTEPB) was established within the Office of the High Commissioner (see attached organizational chart) by the former Congress

GOVERNMENT OF THE TRUST TERRITORY OF THE PACIFIC ISLANDS
ORGANIZATION OF THE EXECUTIVE BRANCH

Approved: *Adrian P. Whikel* July 1, 1975
Date
Adrian P. Whikel
High Commissioner



of Micronesia in 1972 under Public Law 4C-78. This law states, "The Board shall have the power and duty to control and prohibit pollution of air, land, and water in accordance with the law and regulations adopted and promulgated by it."

b. Members

Public Law 4C-78 specifies the Directors of Health Services, Public Works, and Resources are members of the Board, with the Director of Health Services serving as Board Chairman. These three Directors were specifically selected because of their involvement in environmental matters through their job responsibilities. As environmental health matters were under the Director of Health Services responsibility before the establishment of the Board, this Director was selected as the Chairman of the Board. The other six members are chosen from each of the six administrative areas of the TTPI.

The law states the members are appointed by the High Commissioner with the advice and consent of the Congress of Micronesia. Since the Congress of Micronesia has been replaced by the legislatures of the three new entities, the re-appointments of the Board members are submitted by each state and entity Chief Executive to the High Commissioner for his approval.

In reference to the selection of the members, the law states, "The High Commissioner in his appointments shall select persons who are citizens and residents of the TTPI for their ability,

and all appointments shall be of such nature as to aid the work of the Board to inspire the highest degree of cooperation and confidence in carrying out the policy and purpose of this act."

The present members of the TTEPB are as follows:

Chairman, Director of Health Services, Dr. Masao Kumangai, M.O.

Director of Public Works, Mr. Koichi Wong

Director of Resources, Mr. Kozo Yamada

Vice Chairman, Mr. Demei Otobed, Palau (Palau Legislator and former TTPI Entomologist)

Mr. Louis Moongog, Yap (construction company manager)

Mr. Kristof Killion, Truk (construction company manager)

Mr. Kun Sigrah, Kosrae (Kosrae Lt. Governor, and former Vice Principal of Kosrae High School)

Mr. Moses Samuel, Marshall Islands (Director of Vocational Rehabilitation, Marshall Islands)

The Attorney General, or his representative, serves as the Legal Counsel for the Board, as specified by P.L. 4C-78.

c. Functions

(1) Powers and Duties

The duties and functions of the Board, as stated in the law are as follows:

- Adopt, approve, amend, revise, promulgate, and repeal

regulations, in the manner which is or may be provided by law, to effect the purposes of this act, and enforce such regulations which shall have the force and effect of law.

- Accept appropriations, loans, and grants from the United States Government or any agency thereof and other sources, public or private, which loans, grants and appropriations shall not be expended for other than the purposes of this act.
- Adopt and provide for the continuing administration of a Trust Territory-wide program for the prevention, control, and abatement of pollution of the air, land and waters of the Trust Territory, and from time to time review and modify such programs as necessary.
- establish criteria for classifying air, land, and waters in accordance with present and future uses.
- Establish and provide for the continuing administration of a permit system whereby a permit shall be required for the discharge by any person of any pollutant in the air, land, or water, or for the conduct by any person of any activity, including but not limited to the operation, construction, expansion or alteration of any installation, which results in or may result in the discharge of any pollutant in the air, land, or water; provide for the issuance, modification, suspension, revocation and termination of such permits, and for the posting of an appropriate bond.

- Collect information and establish record keeping, monitoring and reporting requirements as necessary and appropriate to carry out the purposes of this act.

The law also states the Board may call upon any TT department or agency for technical assistance in the performance of its duties.

(2) Activity Reports

The Board submits quarterly and annual reports to the High Commissioner, the three governmental entities, and the U.S. EPA, detailing its activities for each quarter and for the previous fiscal year.

(3) Board Meetings

The Board regularly meets four times a year, once each quarter. The meetings are rotated through the various states and entities, to give the public an opportunity to attend the meetings. Special meetings are held when the need arises. Special meetings usually occur once a year.

d. TTPI Environmental Program Plan

(1) Development

Each year the state/entity Environmental Protection Advisory Boards and the TTEPB prepare an annual program plan. The

state/entity program plans are prepared by the staff at an annual meeting of the Chief Sanitarians. The plans are then submitted to each Environmental Protection Advisory Board (EPA Board) at a meeting open to the public for the Board's review and approval.

The six EPA Board's plans, and the TTEPB Headquarters plan are then submitted to the TTEPB at a public meeting for the Board's review and approval. The plan is then submitted to the U.S. EPA for their approval and grant award.

The plans specify the environmental activities to be undertaken by the TTEPB, EPA Boards, and their staff for the coming fiscal year in the areas of safe drinking water, water pollution control, solid waste management, and pesticides. Budgets for the TTEPB Headquarters staff and each state and entity EPA Board and staff are also included.

The U.S. EPA has consolidated their grant awards to the TTPI, combining the funding for the safe drinking water, water pollution control, and pesticides programs. This allows the TTPI to use these funds where most needed, according to their program plan, rather than having certain funds used for only certain programs.

The U.S. EPA has also waived the local matching requirement for their program administration grants on the condition that the High Commissioner and the state/entity Chief Executives not reduce their support for these programs, either financially or in staffing. The High Commissioner and the Chief Executives have made written commitments to this effect.

(2) Training

An important element of the program plans is training of the Board staff. These training programs include TT-wide workshops conducted by the Headquarters staff with experts from U.S. EPA and other outside agencies; on-the-job training of local staff conducted by the Chief Sanitarians and other available expertise in the TTPI; and participation by the staff in regional and international training courses conducted by U.S. EPA, World Health Organization, South Pacific Commission, and other agencies.

The Board staff also receives training at the Health Manpower Development Program training center in Ponape. This program is administered by the TT Bureau of Health Services and funded by the U.S. Department of Health, Education, and Welfare. It is a three year project to upgrade the skills of all health service personnel including environmental health staff. One two-week sanitation training course was held in 1979 and emphasized water, wastewater, solid waste, and pesticide management. A second course will be held in 1980 and emphasize

occupational safety and health.

Workshops are also held with the state/entity EPA Boards to assist them in carrying out their duties and responsibilities as agents of the TTEPB.

(3) Annual TTPI/U.S. EPA Agreement

The TTPI High Commissioner and the U.S. EPA Region IX Administrator sign annual agreements that set forth, in general terms, the priorities, goals, responsibilities, and commitments of the TTPI and U.S. EPA for the implementation of environmental program plans for that fiscal year (see copy attached).

(4) Annual Sewer Construction Grant Priority List

The TTEPB develops an annual priority list for sewer projects to be constructed in the TTPI with U.S. EPA funds. The TT Bureau of Public Works, with their agent the Navy OICC, provide cost estimates for these projects based on the wastewater facility plans made for each state and entity. The U.S. EPA allocates a yearly sum for such sewer construction projects in the TTPI, based on the U.S. Congressional appropriations. The priority list shows those projects to be funded in the current fiscal year, as well as future projects to be funded in the following five year period.

The local EPA Boards hold public meetings to determine the

priorities for such projects in their states and entities.

These lists are then submitted to the TTEPB for finalization into a TT-wide list, developed during a public meeting of the Board. The criteria used to prioritize these projects include:

- Severity of health and pollution problems in the area to be served by the project.
- Improvement of the environmental quality and public health to be achieved by the project.
- The present population of the area to be served by the project.
- Sufficient water available in the project area.

The Board certifies sewer construction grant applications from the TTPI Bureau of Public Works, based on this priority list, and submits the application to U.S. EPA for approval and grant award.

A condition of the U.S. EPA's waiver of the 25% local matching requirement for their sewer construction grant funds was that the former matching money be used for water development projects. The Board is responsible for approving the water projects to be constructed with these funds.

(5) Special Contracts and Research Projects

The TTEPB Headquarters office serves as a resource center for environmental information, and enters into contracts, using

their federal program administration grant funds, with various public and private agencies, such as the University of Guam and University of Hawaii, to perform special research projects.

Studies done under contract with the TTEPB include the following:

- i. Limited Current and Underwater Biological Study in the Tuanmokot Channel, Ponape; by the University of Guam Marine Lab; 1974.
- ii. Limited Current and Underwater Biological Survey at the Point Gabert Wastewater Outfall on Moen, Truk; by the University of Guam Marine Lab; May, 1975.
- iii. Limited Current and Underwater Biological Survey of Proposed Sewer Outfall Sites in the Marshall Islands District; Ebeye, Kwajalein Atoll; by the University of Guam Marine Lab; December, 1975.
- iv. Limited Current and Underwater Biological Surveys of Proposed Sewer Outfall Sites in the Marshall Islands District; Darrit-Uliga-Dalap Area, Majuro Atoll; by the University of Guam Marine Lab; December, 1975.
- v. Limited Current and Underwater Biological Surveys of a Proposed Sewer Outfall Site on Malakal Island, Palau; by the University of Guam Marine Lab; March, 1976.
- vi. Limited Current and Underwater Biological Survey of the Donitsch Island Sewer Outfall Site, Yap, W.C.I.; by the University of Guam Marine Lab; April, 1976.
- vii. Solid Waste Management Plan for Truk, Ponape, and Majuro, TTPI; by the University of Hawaii School of Public Health, March, 1977.

- viii. Sanitary Survey of Major Municipal Water Systems, TTPI;
by the University of Hawaii School of Public Health;
April, 1977.
- ix. Limited Current and Underwater Biological Survey of
Proposed Truk Tuna Fishery Complex, Dublon Island, Truk;
by the University of Guam Marine Lab; June, 1977.
- x. Sanitary Survey of Outer Island Water Systems, TTPI;
by the University of Hawaii School of Public Health;
April, 1978.
- xi. Limited Current and Biological Survey at the Proposed
Fishery Complex Site on Tol Island, Truk; by the University
of Guam Marine Lab; August, 1978.
- xii. TT Water Quality Management Plan; by the TTPI Office of
Planning and Statistics; November, 1979.
- xiii. An Engineering Evaluation of Wastewater Treatment Ponds,
Kosrae District, TTPI; by Barrett, Harris, and Associates,
Inc.; December, 1979.
- xiv. A Study of Factors Related to Diarrheal Diseases on Moen,
Truk; by the University of Hawaii School of Public Health;
January, 1980.
- xv. Baseline Study of the Water Use Classification Areas in the
TTPI; by the University of Guam Water Resources Research
Center; February, 1980.
- xvi. Guidelines (Digest) to TTEPB Regulations for the District
Environmental Health Staff; by the University of Hawaii
School of Public Health; August, 1978.

In addition to the special studies listed above, in 1974 the Board contracted the production of a 30 minute TTPI environmental movie entitled "Endangered Paradise". The aim of this movie was to show the people of the TTPI the environmental problems present and efforts the government is doing to control and prevent them.

A second environmental movie will be produced during the summer of 1980, to be called "Endangered Paradise II". As well as a follow up to the first movie, showing environmental changes that have taken place since 1974, the movie will inform the people of the TTPI what they can do, as citizens of Micronesia, to protect and improve their environment. As in the first film, scenes will be shown of all the six states and entities, but narration will be given in the respective local language, explaining the purpose of the film and requesting the people's support for the environmental programs of the TTPI.

The WHO, by request of the TTPI, provided a consultant from their PEPAS (Promotion of Environmental Planning & Applied Studies) center, Dr. N.Y. Kirov, to review the TT's environmental program. Dr. Kirov visited TT Headquarters in Saipan as well as going to Truk and Ponape. His report stated that the TT has the necessary rules and regulations to protect and manage the environment,

and emphasis must now be made on public education and enforcement of the laws.

(6) Mid-Year Evaluation

During the middle of each fiscal year (approximately April), an evaluation is made of the TTEPB and EPA Board program plans by the U.S. EPA, TTEPB, and EPA Board staff. The plans are reviewed to see what accomplishments have been made to date, discuss problems that have arisen, and changes that should be made for the rest of the year's activities as well as for the coming fiscal year, based on previous experience in carrying out the programs.

These evaluations are also very helpful in having the U.S. EPA, the TTEPB and EPA Boards get together to discuss mutual ideas, policies, and programs. A report is made of the evaluation and submitted to the local, state/entity, and national governments.

e. TTEPB Headquarters Staff

The Chief of the TTPI Environmental Health Branch, within the Bureau of Health Services, serves as Executive Officer of the TTEPB. The other TTEPB Headquarters staff members are funded by the annual program grant from the U.S. EPA. The other staff members consist of a Sanitary Engineer, Environmental

Specialist (Laboratory), Environmental Specialist (Pesticides), and an Administrative Assistant. The Chief is a Micronesian while the other above mentioned Headquarters staff members are U.S. citizen, contract employees.

In addition, there are two Micronesian Area Sanitarians assigned to the field, one in Palau responsible for Palau and Yap, and one in Ponape responsible for Truk, Ponape, Kosrae, and the Marshall Islands.

As the TTEPB only functions during their meetings, routine activities are handled by the Board's staff. This includes the development of plans and reports, review and issuance of permits, certification of sewer construction grant applications, and other activities of the Board. Major actions of the Board are decided by the Board itself at their regular meetings or a special meeting is called for specific purposes. The staff makes the arrangements for the Board's meetings and public hearings, including the preparation of the agenda and related information. The staff also participates in inter-departmental meetings at the Territorial, state/entity, local, and U.S. Federal levels.

2. Trust Territory Bureau of Public Works

a. Organization

The TTPI Bureau of Public Works, within the Department of

Development Services, is responsible for developing and implementing an effective operations and maintenance program for all governmental infrastructures in the TTPI. They are also responsible for providing coordination between the TTPI Government, U.S. Federal agencies, and private architectural and engineering firms on the planning, design, and construction of capital improvement projects and EPA funded sewer construction projects in the TTPI. In addition, the Bureau provides in-house engineering for other construction projects.

As mentioned previously, the Director of the Bureau of Public Works serves, by law, as a member of the TTEPB.

b. Navy OICC

The U.S. Department of Interior, TTPI Government, and the U.S. Navy entered into an agreement in 1976 that the Navy OICC (Officer in Charge of Construction) would be the TTPI Government's agent to supervise and administer all capital improvement projects in the TTPI.

The Navy is responsible for the preparation and administration of contracts for the planning, design, and construction of these projects as well as on-the-job inspections.

c. EPA Sewer Construction Grants Program

The Bureau of Public Works is the grantee for the EPA sewer construction grants program in the TTPI. The Public Works Director submits the application to the TTEPB for certification that the project complies with the wastewater facility plan for that particular state or entity and is in compliance with the TTPI sewer construction grants priority list. The application is then submitted to EPA for approval and grant award. As the TTPI agent for construction projects, the Navy OICC administers these EPA sewer construction grants, and makes periodic reports to the TTPI Government and EPA on their status.

d. House Sewer Connection Program

The TTPI Bureau of Public Works and the TTEPB have developed a House Sewer Connection Program to connect all existing houses and buildings to the main sewer systems in Palau, Yap, Truk, and Ponape. The house connections for the DUD area of Majuro, Marshall Islands, and for Lelu, Kosrae will be a part of the sewer construction programs for these areas. This project will be funded by EPA as a result of their waiver allowing their funds to be used for such house connections. Grant applications have been submitted to EPA for the House Sewer Connection projects for Palau, Yap, and Truk. The application for Ponape will be submitted as soon as the design is completed.

The projects in Palau, Yap, and Truk will be done by a special group under the authority and supervision of the Director of Public Works. The project in Ponape will be done by a private contracting firm as this was the favored method chosen by the Ponape Government.

The High Commissioner and the Chief Executives of the states and entities have signed agreements detailing the TTPI Headquarters and state/entity responsibilities under this program. The state/entity Chief Executives have, as part of this agreement, established local House Sewer Connection Committees to assist in implementing this program (the Governors of Yap and Ponape have designated their EPA Boards to function as this committee). The TTEPB will hire a person to assist and inform the local governments and people in the provision of sanitary fixtures and general coordination of the program.

e. Water and Wastewater Treatment Plant Operator Training Program

The Bureau of Public Works has received an EPA grant to fund a two-year water and wastewater treatment plant operator training program. A Sanitary Engineer has been hired under this program to conduct the training. In addition to providing on-the-job and classroom training of these Public Works operators, the trainer will assist the state and entity governments in developing appropriate staffing and budgeting plans for these systems. Operation and maintenance manuals will also be

developed by the trainer, as well as a list of recommended spare parts to keep on hand.

By request of the TTPI, the WHO arranged for a consultant to visit the Trust Territory and review the water and wastewater facilities operations. This consultant, Dr. O.V. Natarajan, of Guam, discussed the purpose of his visit with TTPI Headquarters officials as well as with the TTEPB, and the Water and Wastewater Treatment Plant Operator Trainer. Although his report has not been finalized, he indicated that a major problem with these facilities is a lack of adequate funding for proper operation and maintenance.

3. Trust Territory Bureau of Resources

a. Organization

The Bureau of Resources consists of several specialists and technical advisors who coordinate programs in foreign investment, business development and tourism, administer copra purchasing agreements and development loan funds, direct the marine resources development program; and assist in the development of local cooperatives, credit unions, small businesses, and other commercial activities; and administer the agriculture, forestry development, and conservation programs.

As stated previously, the Director of the Bureau of Resources

serves, by law, as a member of the TTEPB.

b. TTPI Economic Development Program Goals and Objectives

These goals and objectives are developed by the state and entity authorities.

There are two basic objectives:

- (1) Reallocation of both domestic and foreign resources away from unproductive government expenditures and toward the productive sectors of the economy; and
- (2) Stimulation of more production and raising per capita income levels.

The three prime goals are:

- (1) Provision for raising the standard of living;
- (2) Creation of a restructured, balanced, and self-supporting Micronesian economy; and
- (3) Maintenance of essential government services.

The strategy to develop the economy is to:

- (1) Hold down the level of private consumption and encourage more savings;
- (2) Hold down investment for social infrastructure and increase productive investment;
- (3) Hold down the level of government operating expenditures and raise taxes; and

maximize use of domestic materials in order to generate increased employment, local revenues, and exports.

(5) Tourism

Assist each state and entity in developing its own capability for satisfactory tourism growth in both

quality and quantity with an overall growth goal of 20% annually.

(6) Marine Resources

Increase the production of marine resources products by no less than 5% per year per product line, and increase the exports of selected products by no less than 10% per year; build reefers, ice plants, and fishing boats.

(7) Agriculture

Increase the production of agricultural products by no less than 5% per year per product line, and increase the export of selected products by no less than 5% per year.

(8) Support Facilities

Create and develop vitally needed facilities and services to support commercially productive projects in agriculture and fisheries.

(9) Infrastructure

Support the provision of adequate physical infrastructure - water, sewer, power, better roads, harbors, airport facilities - and skilled manpower to accelerate social and economic progress and maximize productivity.

(10) Manufacture of Local Products

Realizing that resources are limited, establish the manufacture of products utilizing local materials and resources to benefit the small producer and the consumer.

(11) Trade

Promote economic stability and self-sufficiency by improving the balance of trade through encouragement of investment in productive industries, increasing import substitution, expanding production of local goods and services, and carrying out marketing programs.

(12) Marketing Systems

Emphasize the improvement of transportation and marketing systems to bring the producers closer to markets, both internal and external, in order to command fair prices in both local and world markets.

(13) Statistical Services

Establish a viable statistical service in the Territory within the Office of Planning and Statistics.

(14) Determine Mineral Resources

Encourage exploration by private companies for minerals both on land and offshore and work with international organizations to determine the extent of mineral resources.

(15) Joint Venture

Priority investment areas shall be established by investment boards and joint venture capital shall be actively sought for these projects.

(16) Strong Micronesian Businesses

Promote efficiency and effectiveness in the organization of Micronesian businesses, cooperatives, and credit unions by strengthening their capabilities in management,

financial control, and record keeping.

(17) Effective Community Business Organizations

Promote organizational effectiveness in chambers of commerce, tourist commissions, hotel associations, and other community/business associations.

(18) Pacific Basin Trade Center

Capitalize on Micronesia's favorable geographic location for the development of a trade center for our Pacific Basin neighbors.

d. Foreign Investment

The Director of Resources is responsible for ensuring that all investment is consistent with TTPI policy and will promote the general welfare and development of the Micronesian people.

The Foreign Investment Branch, which serves as the secretariat for purposes of administering the TTPI Foreign Investors Business Permit Act (TT Public Law 5-85, July 25, 1974), reviews business permit applications, runs credit checks, meets and assists prospective investors, prepares necessary documents, etc.

The documents are then forwarded to the state/entity Foreign Investment Board for review through public hearings and recommendations of approval or disapproval.

All business permit applications, including, but not limited to, processing, manufacturing, services, and construction, must be submitted to the TTEPB for review and endorsement.

Foreign business proposals are evaluated by the following criteria:

- (1) Economic need for the service or activity.
- (2) Degree to which the operation will effect a net increase in exports or a net decrease in imports.
- (3) Extent to which such an operation will deplete a non-renewable natural resource, or will disturb the environmental balance required for conservation of renewable natural resources or will pollute the atmosphere or water.
- (4) Extent of participation by TTPI citizens in the ownership and management of the enterprise at the outset and, in the case of noncitizen corporations chartered outside the TTPI, the degree of willingness to form a TTPI corporation at some time in the future and to offer a large degree of participation in the ownership and capital to TTPI citizens.
- (5) Willingness of the applicant to give employment preference to TTPI citizens, and to train TTPI citizens for positions in management and at other levels by instituting training programs.
- (6) Extent to which the capital, managerial skills, and

technical skills required for such an enterprise are available among TTPI citizens at the present time or can be expected to be available in the near future.

- (7) Extent to which such an operation will contribute to the overall economic well-being of the state or entity without adversely affecting the existing social and cultural values and ethnic conditions of the state or entity.

4. Trust Territory Office of Planning and Statistics

a. Organization

The Office of Planning and Statistics (OPS) was established by the former Congress of Micronesia through enactment of Public Law 7-37 in 1977. The Office is headed by a Director and has a Planning Division, Statistics Division, and Plan Implementation Division.

The following are the Office's main responsibilities and duties:

- (1) Formulate national and sectoral development plans.
- (2) Review and comment on projects and programs of the executive departments.
- (3) Coordinate foreign assistance granted to the TTPI Government for economic and social development.
- (4) Review and comment on all annual and long-term budget proposals with respect to those budgets meeting the

objectives, priorities, and policies of the development plans of the country.

- (5) Compile required statistical data.
- (6) Coordinate and mobilize all government resources, projects, and programs, and monitor and report on the implementation of all development plans.
- (7) Assist states and entities in the preparation of development plans and projects and related technical assistance.

b. Federal Programs Coordinator

The principal functions of this section are to review, monitor, and assess U.S. federally-funded programs extended to and/or applied for by the TTPI each year.

In addition, this section administers the Territorial Economic Opportunity Office, a coordinating agency provided to oversee the activities of the Micronesian Community Action Programs operating in all states and entities except Yap, through non-profit community corporations.

This section also developed and issued the regulations for the Territorial Executive Review and Notification System (TERNS) which govern the coordination of U.S. Federal programs in the TTPI.

5. Trust Territory Bureau of Health Services

a. Organization

The programs of the Bureau of Health Services are designed to improve health, environmental and sanitary conditions, minimize communicable diseases, establish standards of medical and dental care, encourage scientific investigation in the field of health, provide paramedical and auxiliary services such as nutrition and health education, and supervise and administer all government-operated hospitals, clinics, dispensaries, and other medical and dental facilities. No comprehensive health services exist outside the government.

The Bureau of Health Services at the Territorial level includes personnel in the field of medicine with public health background and skills in nursing, dentistry, pharmacy, medical records, vital statistics, hospital administration, accounting, health education, mental health, environmental health, health planning, maternal and child health, professional development and training.

b. International Cooperation

The Territory is affiliated with the World Health Organization (WHO), Western Pacific Region. The Territory actively supports and subscribes to the International Sanitary Regulations, and makes epidemiologic reports to WHO. The WHO and the South Pacific Commission (SPC) provide technical assistance upon request.

The U.S. Public Health Service (USPHS) and the Environmental Protection Agency cooperate with the Territory in providing some laboratory services, special grant assistance, and environmental and epidemiologic consultation.

During 1978, a number of consultants have been furnished by the USPHS, Energy Resources Development Agency, World Health Organization, South Pacific Commission, Tripler Army Medical Center, Naval Regional Medical Center on Guam, School of Public Health and School of Medicine of the University of Hawaii, and other universities in the United States. These organizations also offer training opportunities through fellowships and inservice training seminars.

c. Environmental Health Branch

Trust Territory Public Law 7-19 states that Headquarters and state/entity Environmental Health staff serve as staff for the TTEPB and EPA Boards.

As staff of the Bureau of Health Services, the Environmental Health staff are responsible for inspection of food establishments, property, institutions, swimming pools, ships, and for vector and rodent control.

A Memorandum of Understanding has been entered into between the Bureau of Health Services and the state/entity Departments

* see insert next page

of Health Services and the TTEPB regarding their respective areas of responsibility on environmental matters (see attached copy of the Memorandum).

6. Community Development

The task of the Community Development Division, within the Department of Community Services, is to build institutions and channel civic energies of Micronesians toward self-improvement and successful utilization of new ideas and resources. This includes providing and/or coordinating technical advice for self-help activities, such as grant-in-aid construction projects, and furnishing services that enhance self-reliance and developmental potential of Micronesians of all ages.

These efforts include community education broadcasting, traveling demonstration teams, youth services programs, a low-cost housing program, and services to the elderly. Also included is backstop support to various community groups such as women's clubs and voluntary service groups. The movement of outer islanders, particularly younger people, to the urban centers continues, and the Division has developed many community activities to meet the demand for responsive services.

The Community Development Division also coordinates the activities of the U.S. military Civic Action Teams in the states and entities. These teams construct community projects, such as water systems,

AGREEMENT BETWEEN
THE TRUST TERRITORY ENVIRONMENTAL PROTECTION BOARD
AND
THE BUREAU OF HEALTH SERVICES
(Headquarters and District Levels)

The purpose of this agreement is to clarify the areas of responsibility between the Trust Territory Environmental Protection Board (TT EPB) and the Bureau of Health Services regarding Trust Territory environmental programs, budgets, and areas of responsibilities of the Environmental Health staff of the Bureau of Health Services in serving as staff of the Board as prescribed by Section 3 of Public Law 7-19.

In relation to this, the High Commissioner, with commitments by the District Administrators, has signed an agreement with the EPA to maintain the level of TT Environmental Health financial and personnel support for both Headquarters and Districts, equal to that of FY '77.

The TT EPB has exclusive responsibility for issuing, amending, repealing, implementing, and enforcing regulations and programs concerning public water supply systems, marine and fresh water quality programs, wastewater systems, solid waste systems, pesticide control programs and related activities, as authorized by Section 1 of Public Law 5-2.

Each District Environmental Protection Advisory Board, as an agent of the TT EPB, is responsible for carrying out environmental programs in the district as approved by the TT EPB. Expenditures of Federal EPA program grant funds, control of vehicles, boats, equipment, etc. are the responsibility of the District Board and the Chief District Sanitarian (Administrative Officer) in compliance with Federal and TT policies. Specifically, vehicles, boats, and other federally funded equipment should be used primarily for Safe Drinking Water and Water Pollution Control programs and for other related environmental health programs.

The Chief District Sanitarian, who is subordinate to the District Director of Health Services, shall report to him on the Environmental Health staff's activities in carrying out the programs of the TT EPB.

All other areas of responsibility mandated by Title 63 and attendant regulations shall remain with the Bureau of Health Services including, but not limited to, food sanitation, vector control, barber shops and beauty parlors, air conditioning and ventilation, ship and aircraft inspection, poisons, fumigation, and institutional sanitation.

Both agencies recognize that they are two separate agencies created by different laws and yet coordinate with each other by sharing the same staff, goals, and objectives to provide for the protection of health and welfare of the people and their environment throughout the islands of the Trust Territory of the Pacific Islands.

(Insert 76.b)

Mamoru Iwano, M.D.
Director, Bureau of Health Services

Mamoru Iwano, M.D.
Chairman, TT EPB

Mimi I.
Dist. Director Health Services, Palau

Kemur Okada
TT EPB Member, Palau

Nishio Yama
Dist. Director Health Services, Yap

Okada
TT EPB Member, Yap

Momo
Dist. Director Health Services, Truk

Okada
TT EPB Member, Truk

Ernie L. Lumbino
Dist. Director Health Services, Ponape

Ernie L. Lumbino
TT EPB Member, Ponape

Arthur Lopez, M.D.
Dist. Director Health Services, Kosrae

Arthur Lopez
TT EPB Member, Kosrae

Eyn Rihlon
Dist. Director Health Services, Marshalls

Marcus F. Simeel
TT EPB Member, Marshalls

Kerch L. Wong
TT EPB Member, Dir. B/PW

Koo Yamada
TT EPB Member, Dir. B/R

roads, recreational facilities, etc., in the villages of the TTPI. The states and entities are responsible for providing the necessary materials and transportation, while the U.S. military provides the men and equipment. The teams also train local people in these construction methods.

The TTEPB coordinated a Sanitary Core Demonstration Program with the Community Development Division, funded by the U.S. EPA. This program funded several sanitary cores (buildings containing facilities for shower, laundry, and toilets) to be built at selected locations in each of the states and entities for demonstration purposes to inform the public of these facilities. The FmHA provides loans to individuals to construct these facilities.

B. State/Entity Level

As a result of the 1978 TT-wide constitutional referendum, the former six administrative districts were reorganized into three new entities; the Federated States of Micronesia including the former districts of Yap, Truk, Ponape, and Kosrae, and a new central FSM government located in Ponape; the Republic of Belau, former District of Palau; and the Government of the Marshall Islands, the former District of the Marshall Islands.

Until the termination of the Trusteeship Agreement, by which the U.S. administers the TTPI for the United Nations, all U.S. federal programs, U.S. budget allocations, and coordination with international

agencies remain the responsibility of the Office of the High Commissioner and his headquarters staff. Routine TTPI government functions are being transferred to the three new entities as they are capable of taking over such functions. It is scheduled that all these responsibilities will be transferred by September 30, 1980, in anticipation of the Trusteeship termination in 1981.

1. State/Entity Environmental Protection Advisory Boards

a. Establishment

State/entity Environmental Protection Advisory Boards (EPA Boards) were created as agents of the TTEPB in 1977 by P.L. 7-19. These Boards were established to provide more local involvement, decision making, and responsibility for environmental matters in their particular entities.

The state/entity governments, by law, provide office space, logistic and administrative support as required by the Boards and within the limits of availability of the governments.

b. Members

Public Law 7-19 specifies the EPA Boards shall consist of seven members, one of which will be the TTEPB member for that entity. The other six members shall serve four-year terms. The law also makes the entity Planning Officer an ex officio, non-voting member of the Board. This is

because of his involvement in local environmental management and development matters.

By law, the members are appointed by the entity Chief Executive with the advice and consent of the entity Legislature. Any member may be removed from the Board by the Chief Executive for inefficiency, neglect of duty, or misconduct in office.

The Board elects from among its members a Chairman, Vice-Chairman, and a secretary.

c. Functions

(1) Powers and Duties

As stated by Public Law 7-19, the powers and duties of the EPA Boards shall include, but not be limited to the following:

- collecting data and any information relative to identifying the local needs with respect to controlling, protecting, and enhancing the environmental quality of the state/entity and the TTPI islands;
- act as an agent of the TTEPB in implementing its programs at the state/entity level;
- conduct investigations, make studies, review local grievances, and make recommendations as needed to the TTEPB for constructive action;

- conduct its activities as a committee for the TTEPB under appropriate circumstances; and
- perform any other related activities within the jurisdiction of the TTEPB.

The law also specifically states: "The state/entity EPA Board shall be deemed for all purposes an agency of the TTEPB; PROVIDED, that the state/entity Board shall not be delegated with the powers and duties of TTEPB."

(2) Quarterly and Annual Report

The state/entity Boards submit quarterly and annual reports to the TTEPB on their activities under their annual program plan. The reports are submitted through their Chief Executive, with copies submitted to the local legislature.

(3) Board Meetings

By law, the Boards meet not less than once each quarter. Special meetings are also held. Meeting topics include review of permit applications, development proposals, and regulatory enforcement actions. Permit applications are submitted to the TTEPB with the EPA Board's comments and recommendations. All EPA Board meetings are open to the public.

d. State/Entity Environmental Program Plan

(1) Development

Each year the state/entity EPA Boards prepare an annual program plan indicating their activities on safe drinking water, water pollution control, solid waste, and pesticides for the next fiscal year. This plan also includes a budget indicating the funds required to carry out this program.

The plan is reviewed and approved at a Board meeting that is open to the public. The approved plan is then submitted to the TTEPB for inclusion in the TT-wide environmental program plan.

(2) Village Environmental Health Activities

An important element of the state/entity environmental program plan is village environmental health activities. This involves the assignment of an Environmental Health staff member to the outer islands.

The staff member assists the villagers in improving their water supply, sewage disposal, solid waste disposal, and other general village sanitary measures.

In coordination with the Department of Health Services, Public Works, Community Development, and other local governmental agencies, the Environmental Health person

also provides general public education information on environmental health matters. This includes the showing of films, and village-wide meetings to discuss their sanitary conditions and develop plans to improve them.

The sanitarian also informs them on the need to use their natural resources (fish, timber, water, etc.) wisely, and the damage caused by killing fish with dynamite, bleaching agents, and local poisons.

Visits are also made to these outer islands by the state/entity Chief Sanitarian, other Environmental Health staff members, and members of the EPA Board.

Task Forces have also been made up to visit all the villages and islands in the TTPI to talk with the people about environmental matters. Public meetings were arranged by the Village Chief, after the Task Force visited him to explain the purpose of their visit. At these meetings, the people were asked what they considered their main environmental problems, such as water supplies, wastewater disposal, solid waste, etc. They were also informed that all waters in the TTPI were to be classified according to their use, and were asked to inform the Task Force on how they wished their island's waters classified.

Based on the results of these meetings, the Task Force produced a report identifying the major environmental problems in the islands, and the proposed water classifications, based on the village meetings. These Task Force trips are scheduled to be done yearly to update and expand the information in the original report. The information is used as a basis for developing environmental improvement plans for the outer island areas.

(3) Training

As mentioned in the discussion of the TTEPB, training is another very important activity of the EPA Boards and staff.

Training includes both on-the-job training conducted by the Environmental Health staff, as well as participation in TTPI-wide and international training programs. Instruction includes both improvement of technical skills, as well as personnel management and program administration.

Environmental Health staff members are also taking U.S. Center for Disease Control (CDC) correspondence courses in water and food borne disease control.

(4) Monitoring

The Environmental Health staff conducts regular monitoring

of the public water supply systems and coastal water areas in the government centers and outer islands. Tests include coliform bacteria, turbidity, and chlorine residual. Chemical tests are sent to a commercial lab in the U.S. for analysis. The results of these tests are reported to TTEPB, local Public Works, and the general public.

If the test results show the bacterial standards have been exceeded, or there is a lack of sufficient chlorine in the drinking water, Public Works and the general public are notified. The public is informed on how to disinfect their drinking water (by boiling or addition of household bleach) or to avoid polluted coastal areas.

e. Transition Plan

In reference to the termination of the Trusteeship Agreement, the state/entity EPA Boards and staff are working with their government and traditional leaders in developing environmental legislation, including enabling acts and programs to set up their own environmental programs. Drafts of these laws and programs are scheduled to be completed by early 1981. The TTEPB has developed a Transition Plan that provides for the transfer of environmental program responsibilities to the states and entities, to allow them to be able to carry out their own program when the TTEPB is dissolved.

This plan was a major element in the FY 1980 TTPI/EPA Agreement, indicating that, through various training activities, as the state/entity EPA Boards and staff increase their capabilities in carrying out their environmental programs, more TTEPB responsibilities will be delegated to them.

f. State/Entity Environmental Health Staff

The Chief Sanitarian serves as Administrative Officer to the state/entity EPA Board. There are three EPA funded positions in each state/entity Environmental Health Division, a Safe Drinking Water Specialist, a Water Pollution Control Specialist, and a Clerk-Typist. These are all Micronesian citizens. These three federal funded people are mainly responsible for performing those activities indicated in the EPA Board program plan. This involves routine monitoring of the public water supply systems and coastal waters, periodic inspections of the solid waste disposal sites, earthmoving and toilet facility construction sites for compliance with the permit conditions, and inspections of the stores and agricultural stations for pesticides. They assist outside agencies doing special studies for the TTEPB, and receive training from these agencies in turn. They also assist developers and the general public on TTEPB requirements for proposed projects.

In addition, as technical specialists, they assist the TTEPB and EPA Boards in the conductance of public hearings and meetings.

The local Environmental Health Divisions have sanitary staff members funded by the regular Health Services budget. These people assist the EPA Boards in their activities as their Health Services duties allow.

There are a total of 43 Environmental Health staff members in the states and entities, including those funded by U.S. EPA. All these people are Micronesians.

Since the EPA Boards function only during their meetings, the staff handle the routine activities of the Boards. This includes development of plans and reports, initial review of permit applications, and inspections of permitted activities. The staff also make the necessary arrangements for the regular and special EPA Board meetings.

g. Guidelines to the TTEPB Regulations

In order to assist the state/entity EPA Boards and staff in carrying out their responsibilities, the TTEPB has developed a Guidelines to the TTPI environmental regulations. The Guidelines explain the purpose of the regulations, who must comply with the regulations, and the responsibilities of the EPA Boards and staff in administering and enforcing the regulations.

as new regulations are promulgated, or as existing regulations are revised, the Guidelines are modified accordingly.

2. State/Entity Department of Public Works

The state/entity Department of Public Works are responsible for the operation and maintenance of all public infrastructures and facilities in the government center. They are also responsible for the maintenance of outer island school and dispensary facilities.

The local Public Works Departments have also been performing limited house connections to the public water and sewer systems, as their budget and manpower allows. A majority of their time is spent in repairing broken water lines, maintaining roadways, and operating the government center power generation system. Budget and manpower constraints allow little time for trips to the outer islands for maintaining the government facilities there.

The Public Works Department works closely with the Environmental Health staff in the monitoring of the public water supply systems. Although the suppliers of water are, by law, responsible for doing their own monitoring, because of a lack of equipment and trained manpower, the Environmental Health staff are performing most of the testing that is done. The two agencies also work together on developing means to improve these systems.

3. Community Development

The state/entity Community Development Offices are responsible for administering the TTPI Grant-In-Aid projects to build community facilities for those areas not served by the government. They also provide the necessary equipment and materials to start local industries such as copra production and fishing.

They provide technical assistance to community groups such as youth and women's groups.

The Environmental Health Division works closely with this office in the design and construction of water systems and other projects in the villages.

4. Planning Office

The authority and responsibilities of the state/entity Planning Office include review of economic, social, and environmental impact of proposed projects, and to act as liaison with the TT Office of Planning and Statistics.

The state/entity Planning Officer also serves as technical advisor to the EPA Board, and the administrative and technical advisor to the state/entity Planning Commission.

C. U.S. Federal Agencies

1. U.S. Environmental Protection Agency

a. Organization

The U.S. Environmental Protection Agency (EPA) administers three federal environmental laws that are applicable to the TTPI; the Clean Water Act of 1977, the Safe Drinking Water Act, and the Federal Insecticide, Fungicide, and Rodenticide Act. The organization of EPA is divided into several regional offices, based on geographic location in the U.S. The Region IX office in San Francisco, California is responsible for U.S. environmental programs in the Pacific area, including Hawaii, American Samoa, Guam, the Northern Marianas, and the TTPI.

b. Grants

EPA provides two types of grant assistance to the TTPI: program administration grants, and sewer construction grants. Program grants are from the Safe Drinking Water, Water Pollution Control, and Pesticides appropriations, and are awarded to the TTPI for TTEPB and EPA Board programs. Sewer construction grants are given under Section 201 of the U.S. Clean Water Act to the TT Bureau of Public Works as the grantee.

EPA has made several waivers in their administration of their programs to the TTPI. These waivers have included the following:

- (1) Allowing the use of EPA sewer construction grant funds to connect homes and other buildings to the main sewer lines. This waiver was based on the inability of the people to afford such connections because of the low per capita income in the TTPI.
- (2) The U.S. EPA has also allowed their sewer construction grant funds to be used to construct salt water flushing systems in combination with central sewer collection systems. This was done because some islands in the TTPI lack sufficient fresh water to be used for the sewer systems.
- (3) Waiver of local 25% matching requirement for the sewer construction grants in the TT. This was primarily done because of the fact that, due to the negligible amount of local revenue, the matching funds used for these EPA grants came from other U.S. federal allocations to the TTPI, and were not truly local. These former matching funds were designated to be used for improvement of the TTPI public water supply systems.
- (4) Waiver of the local matching requirement for the EPA program administration grants, on condition that the TTPI not reduce its contribution to their Environmental Health activities, either in funding or personnel. This allows more flexibility in allocating the funds and manpower to deal with environmental problems on a realistic basis, instead of assigning people to certain

jobs strictly on the basis of the financial source of their salaries.

The primary responsibility of the EPA funded staff members in the TTPI, however, remains that of carrying out the TTEPB and EPA Board activities.

- (5) As mentioned previously, EPA has consolidated their three sources of funding for the TTPI into one grant, combining funds for safe drinking water, water pollution control, and pesticides programs. This allows the TTPI to use the funds interchangeably among these three programs.

c. Other Assistance

Aside from providing grant funds to the TTPI, EPA also provides technical assistance on environmental matters that require expertise not available locally. They also provide training for the TTEPB staff and Board members in order to increase their ability to carry out the TTPI's environmental programs.

d. Sewer Construction Grant Strategy

Because of the uncertainty of the continuation of EPA funding to the TTPI after the termination of the trusteeship, timely obligation of the sewer construction grants allotted to the TTPI before this time is a goal of both the TTPI and EPA.

EPA, therefore, proposed that quarterly strategy meetings be held between the TTPI Government (Bureau of Public Works and TTEPB), its agents (Navy OICC and Army Corps of Engineers), and EPA regarding the status of sewer construction projects in the TTPI.

These meetings have been very useful in making everyone aware of the progress of the projects, and has allowed potential problems to be anticipated and resolved before becoming a significant hindrance to the progress of the projects.

2. U.S. Army Corps of Engineers

a. Section 404 Permit Program

The Army Corps of Engineers is responsible for administering the permitting program established by Section 404 of the U.S. Clean Water Act. This program requires all persons and agencies who wish to fill in any coastal water or wetland areas, to apply for such a permit.

The TTEPB's Earthmoving Permit is also required for these projects, and the Army cannot issue their permit until the applicant has received the TTEPB's permit and met all other local requirements, such as historic preservation clearance, proof of land ownership or use of land, etc.

Public notices are issued in the TTPI on all applications for the Army's permit, and public hearings are held if public interest indicates a desire for one. These public hearings are held jointly by the Army Corps of Engineers and the TTEPB in the state/entity where the project is proposed to take place.

The application form for the Army's permit is quite detailed, and includes an assessment of the project's impact on the environment. The application also must include alternatives to the proposed action, such as the effect if the project were not implemented. These requirements have caused some concern by the people of the TTPI, as there is a lack of expertise locally available to fully determine the environmental impact of the proposal, as well as to draw up detailed engineering drawings of the project.

It is important, however, that these possible impacts be identified early in the planning stage, so a determination can be made on the benefit of the proposal against any negative impact it may have.

These applications are also distributed to various U.S. federal agencies for their review and approval. Under the U.S. Fish and Wildlife Coordination Act, the Fish and Wildlife

Service reviews the applications on the basis of their impact on the marine environment. Several applications from the TTPI have been disapproved because of Fish and Wildlife's findings of an unacceptable impact from the project, compared to the benefits to be realized from the project.

The TTEPB and the Army closely coordinate this program. The Army relies on the Board to inform them of proposed projects that may require an Army permit. The Board also assists the applicant in completing the form, and does follow up inspections on the projects once underway. In cases where the party responsible for the project is in violation of their permit from the Army, or threatens to be in violation, the Board informs the Army on the matter.

The Army's representative in Guam makes periodic visits through the TTPI to inspect on-going permitted projects, informs the governments and public on this program, and assists people in applying for the permit.

A bill was introduced into the Truk State Legislature to request the U.S. Government to revoke this permitting requirement from being applicable to Truk. After the Environmental Health staff explained that the program was of benefit to the people of Truk by protecting their resources and assuring that the projects that were built were

properly designed and constructed, the Legislature decided to withhold passage of the bill.

b. Construction Projects in the Marshall Islands

Although the Navy OICC is the TTPI's agent for administration of all construction projects in the TTPI, the Army Corps of Engineers is the administering agency in the Marshall Islands. The Army is responsible for developing plans, grant and permit applications, and supervision of the contractor's work on these projects in the Marshall Islands.

3. U.S. Coast Guard

a. Oil Spills

Section 311 of the U.S. Clean Water Act regarding oil and hazardous substance spills is administered by the U.S. Coast Guard. An Oil Spill Contingency Plan has been developed for the TTPI. This includes the procedures on immediate actions in case of oil or other hazardous substance spills in the TT, procedures for requesting outside assistance in case it is beyond the local capabilities, and reporting procedures. It also includes a list of individuals in each state and entity responsible for organizing immediate action in case of oil spill incidents. Usually, the Chief Sanitarian for each state and entity is this person.

The Coast Guard has responded on several occasions by sending

out teams from their office in Guam to investigate oil spills or potential spills, usually from ships that have run aground on reefs. They also recommend actions to be taken on these matters. In cases of gross negligence, the Coast Guard can take the polluter to court for violation of the U.S. Clean Water Act.

The costs of cleaning up the oil spills are assessed to the party responsible for the incident.

There have been no major oil spill incidents in the TTPI to date.

b. Fishing Violations

The Coast Guard makes periodic trips through the TTPI by ship. During these trips, and by request of the TTPI, they are empowered to seize foreign vessels illegally fishing in TTPI waters. This is a serious situation in the TTPI, mainly due to the lack of adequate surveillance ability by the TTPI Government to control such illegal fishing. Numerous vessels are caught each year, but many more are never apprehended.

V. MAJOR DEVELOPMENT TRENDS IN THE TTPI

Development trends in the TT which are dependent on environmental factors and require sound environmental management are as follows (information obtained from TTPI publication "Invest in Micronesia"):

A. Investment Opportunities

Foreign investment in Micronesia, in general, has been limited to service type industries. Outside of a fish freezing facility and a coconut oil processing plant in Palau, a coconut oil processing plant in Majuro, air and sea transportation, POL distribution system, and a few construction companies, most investment has not had a significant impact on the economy outside of employment. On the whole, Micronesia's problem has not been finding capital resources, but finding entrepreneurs and efficient managers.

A United Nations Development Program study to develop indicative plans for Micronesia and each state and entity has concluded that reliance on private foreign investment will need to continue in the foreseeable future since domestic savings will not increase significantly until the structure of the TT's economy is balanced more in favor of the production of goods and services instead of government consumption.

Areas in the economy which could be developed are summarized below.

1. Agriculture

Agriculture is the major productive sector of the Micronesian economy. It is the broadest and largest income and employment-producing sector and constitutes the main economic activity of approximately 50% of all

households. It is characterized by part-time family activity with most production for family consumption; nevertheless production is insufficient to meet the current food needs of Micronesia and imports of foods keep rising. This sector has a potential to produce commodities worth more than \$10 million.

Investment in the agriculture sector requires intensive use of land involving substantial capital investment and technology. Transportation and markets also need to be considered carefully.

Major areas for development include coconut products, staple crops, vegetable and fruit crops, pepper, rice, livestock (pork and beef), poultry and eggs, forestry and manufacturing and processing of these products.

A \$3 million copra oil mill in Palau is the major foreign investment in this sector.

2. Marine Resources

Micronesia's 3,000,000 square miles of ocean and hundreds of square miles of fringing reef and lagoons present opportunities for development of inshore fisheries, shark, oyster and pearl culture, trepang, mother-of-pearl, turtle, crocodiles, clams, crabs, reef fish, etc. While not being utilized to any major extent by Micronesians, the offshore resources are presently being exploited by Japan and other

countries whose boats must travel thousands of miles to catch the 100,000 tons of skipjack and 50,000 tons of yellow-fin which they harvest annually.

An American firm has developed a skipjack tuna fishery in Palau. From 3,000 to 5,000 tons of fish are landed there annually, making Palau the largest producer of island-caught skipjack in the Pacific, surpassing Hawaii, Tahiti, Fiji and other more highly developed areas. The offshore fisheries of the other five states and entities remain to be developed.

Micronesia's inshore resources offer a unique opportunity to "farm" lagoons. Oyster, shrimp, and fish cultivation are possible and an experimental farm has been started in Palau. A major pre-war fishery, which exported in excess of a million pounds of trepang annually, is now dormant. Turtles might be farmed, pearls cultured, marine algae harvested and perhaps cultivated. It has been estimated that the total yearly potential yield of the marine resources of the TTPI could be in excess of \$10 million.

3. Tourism

Tourism offers the most immediate opportunity to expand the TT's economic base, for creating new employment, and for increasing income. While tourism has grown at over 20% during the last few years, major efforts are being directed to return a higher percentage of tourist expenditures to Micronesia. Tourism has third priority in the TT's

development program and major emphasis is to use locally grown, produced and processed goods as well as services to provide support to this industry.

In 1977 there were 447 hotel rooms in Micronesia with another 50 rooms under construction. If trends continue and planned facilities are realized, the TT is anticipating an estimated 26,000 visitor entries in FY 1978 and upward of 42,500 visitors by 1980.

Visitors from the United States made up about 56% of total tourist entries to Micronesia in 1977; visitors from Japan, 21%. The remaining 23% arrived from the Philippines and other countries.

B. Selected Business Ventures Meriting Investigation

The following list of selected businesses and activities merit investigation as to their profit potential in one or more state/entity in the TT.

1. Agriculture

a. Coconut Industry

Copra, coconut toddy, refined coconut oil, coconut candy, coconut chips, coir fibre, handicraft, coconut cream, heart of palm, coconut yogurt, soap, breakfast cereal, lumber, charcoal.

b. Fruit Culture

Papaya - Fresh papaya, papain (preserves, meat tenderizer), jam, marmalade, pickles, pate candy, frozen papaya, papaya juice.

Pineapple - Fresh pineapple, canned pineapple, pineapple juice, pineapple wine.

Citrus fruit - Fresh orange/lemon/lime/tangerine juice, jam, preserves.

Avocado - Fresh, preserved, frozen, canned.

Other - mango, star-apple, guava, passion fruit, rambutan, mangosteen, and others.

c. Vegetable Culture

Tomatoes, bellpepper, head cabbage, green onions, eggplant, melons, daikon, cabbages, cucumber, ginger and others.

d. Staple Crop Culture

Taro, yam, cassava, rice, breadfruit, sweet potato.

e. Flower Culture

Plumeria, hibiscus, anthurium, cattleya, dendrobiums, chrysanthemum, roses, snap dragons, carnation, vanda orchid, ti-leaf, marigold, cycad, etc.

f. Herb (Medicinal), Spice, Fibre and Perfumery Crop Culture

Ramie-fibre, black pepper, lemon grass, citronella grass, ylang-ylang, candle flower, vites.

g. Forestry

Mahogany, Norfolk pine, coconut, Intsia bijuga, teak, tropical almond, balsa, eucalyptus, bamboo, charcoal mill, saw mill.

h. Bee Culture

Honey, wax for cosmetic base.

i. Livestock Industry

Cattle ranch or farm for beef and processed beef. Hog farm for fresh pork and preserved port . Poultry farm - fresh eggs and broilers. Duck farm for eggs, meat and preserves.

Dairy farm for fresh milk, cheese, and butter.

j. Agricultural Processing

Canning, pickling and preserving of fruit and vegetables.

Frozen food packing.

Banana, guava, passion fruit purees and others; banana, coconut, breadfruit chips.

Vegetable dehydration.

Lyophilization (freeze dried sea and agricultural food).

Pineapple cannery.

Feed mill.

Alcohol distillery.

Slaughterhouse.

Rice mill (small).

k. Construction

Saw mill.

Cement products.

Soil (pressed) building blocks.

Bricks (from clay).

Woodworking.

Building anchors (storm).

Storm shutters.

Standard window doors and frames.

2. Manufacturing or Assembly

Fiberglass projects.

Furniture.

Outboard motor assembly.

Leather or plastic sandals, belts, wallets, etc.

Block ice.

Carbon dioxide plant.

Molded wood products (pulverized coconuts).

Handicrafts and souvenirs (shell jewelry).

Ceramic products.

Printing shop.

Galvanizing sheet metal articles.

Solar water heaters - solar cookers.

Hammocks.

Beachwear (bathing suits).

Burlap-Jute Bag (copra manufacturing).

Metal fabrication.

Machine shop (light).

Bicycle and motorcycle assembly.

Fish net.

Fish boxes.

Distillery.

Feed.

Bottling (soft drinks).

Garments.

Aluminum windows and doors.

Styrofoam floats.

3. Marine Resources

Black and precious coral.

Live bait hatcheries.

Pearls (cultured).

Shark skin tanning.

Lobster (rearing from fry).

Trepang, Mother-of Pearl culture.

Fishing (skipjack tuna, sardines, sea turtles, clams, crabs, mackerel, reef fish, etc.).

Trochus.

Oysters.

Shark rendering plant.

Seaweed (agar, euchema).

Fish meal.

Aquaculture.

Mariculture.

Alligator farm.

Kamaboko (fish cake).

Katsuobushi (dried fish).

Prawns.

Shrimps.

Loin plant.

4. Non-Profit Science or Aesthetic

Astronomical observatory.

Archeological and Marine expeditions.

Botanical gardens (Arboreta).

Aquarium.

5. Service (Local market)

Auto and boat repair.
Automobile tire recapping.
Laundry, dry-cleaning.
Wet cell batteries (recharged from wind generators on outer islands).
Bowling alley.
Drive-in Theater.
Hotels.
Warehousing.
Equipment rental (power tools, vending machines, etc.).
Electrical and refrigeration repair shop.
Welding shop.
Accounting and tax services.
Bakery.
Outboard motor repair.
Provisioning foreign fishing vessels.
Upholstering.

6. Service (Tourism Oriented)

Boatel or Floatel (house-boats).
Tennis court.
Tourist guide.
Floating cocktail lounge.
Bicycle/diving equipment rental (beach chairs).
Swimming and diving instruction.
Bait supply and fishing equipment rental.
Boys' summer recreational camp.
Beauty shop.

Steam bath (for Japanese tourists).

Airboats (for lagoon, similar to swamp buggy rides).

Fast food carryout, pizzeria.

Golf course, driving range, miniature golf.

Sailboat rental.

C. Requirements for Solving TTPI Environmental Problems

The requirements for the solution of environmental problems, including the needs in environmental education, training, and information, and the strategy that will be used by the TTPI is the Environmental Management Model recommended by the South Pacific Commission's 16th Conference in 1977.

Environmental Management Model (SPC)

1. Regional Level

- a. Scientific and technical information referral systems or network, collecting, processing, and distributing both existing and new information on the islands and pertinent to island needs and problems, with special emphasis on environmental data, pollution control and appropriate technology.
- b. Regional management programs for certain oceanic or migratory resources (skipjack tuna, sea turtles, sea birds, etc.).
- c. Means for making consultant resource experts available to island governments for resource surveys and advice on specific problems, and for assisting with research on regional problems such as fish poisoning, appropriate indicator organisms for environmental

monitoring, and coral reef, mangrove, soil and forest management.

- d. Exchange programs to make the best use of expertise locally available in government departments, research organizations and educational institutions.
- e. Applied research into the environmentally-sound utilization of renewable materials and energy resources to meet local needs.
- f. Demonstration and training centers or projects for the formation of village-level extension personnel in such subjects as resource management, intermediate technology, village planning, and community development.
- g. Production of educational materials such as films, film strips, posters and textbooks to support the development of public and particularly village-level awareness and expertise in environmental management.
- h. Consultation and communication between governments, other institutions and individuals on environmental matters through periodic conferences, expert meetings, newsletters, etc., leading in particular to the sharing of experience and technical resources, the development of common environmental management policies, and a coordinated regional approach to international organizations, conferences, and aid agencies.
- i. Regional training and higher education programs to develop the necessary manpower for environmental activities and administration.

2. Governmental Level

- a. Environmental planning assistance as part of economic development

- planning, including in-service training of development planners.
- b. Resource inventories and surveys, and long-term monitoring of environmental resources, to provide an adequate planning base.
 - c. Preparation of legislation for environmental management and conservation, harmonized where possible on a regional basis.
 - d. Assistance with government organization to deal with environmental problems, particularly the integration of "horizontal" or multi-disciplinary planning into "vertical" administrative structure typical of most government departments.
 - e. Assistance with curriculum development and teacher training in environmental education at primary and secondary levels.
 - f. Ecological, social and technological reviews of major development projects to assist in sound project design, to avoid unexpected impacts or costs, and to support governments in negotiating conditions with developers.
 - g. Studies of over-use, exhaustion, and rehabilitation of natural resources, aiming for a sustainable economic base for development.
 - h. Development of conservation programs to ensure the survival of the distinctive ecosystems and evolutionary and genetic diversity of the Pacific Islands within the framework of the most efficient long-term development of natural resources.

3. Local or Village Level

- a. Extension programs in environmental education to reach all inhabitants, particularly village leaders.

- b. Locally-based conservation programs, involving locally proposed and managed reserves and wildlife or other resource management areas.
- c. Assistance to the subsistence sector to maintain basic productivity in the face of population growth and changes in technology and methods.
- d. Rural ecodevelopment projects based on the development of local expertise and local action groups supported by access to necessary scientific and technical advice, and involving:
 - (1) Techniques for evaluation of village resources; and advice on management or development of such resources for sustainable yields capable of meeting local needs and providing a base for economic activity.
 - (2) Local participatory planning, using maps, models, and training games, supported by audio-visual presentations and extension workers.
 - (3) Training in the construction and adoption of appropriate intermediate technology and other means of improving basic living standards and health conditions in rural human habitats.
 - (4) Development of village-level research and monitoring capabilities (the resource equivalent of the Chinese "barefoot doctors") to encourage local problem-solving and to provide adequate warning of environmental problems.

A N N E X I

FOURTH CONGRESS OF MICRONESIA
SECOND REGULAR SESSION, 1972

Public Law No. 4C-78
(H.B.No.127; H.D.1,H.D.2,S.D.1,
C.D.1)

AN ACT

To provide for the protection and enhancement of environmental quality of the air, land and water of the Trust Territory of the Pacific Islands; to provide for the establishment of a Trust Territory Environmental Protection Board; and for other purposes.

BE IT ENACTED BY THE CONGRESS OF MICRONESIA:

1 Section 1. Short Title. This act may be cited as the "Trust
2 Territory Environmental Quality Protection Act".

3 Section 2. Public Policy. The people of the Trust Territory of
4 the Pacific Islands are dependent upon the air, land, and water resources
5 of the islands for public and private water supply, for agricultural,
6 industrial, recreational uses, and as a basis for tourism. Therefore,
7 it is declared to be the public policy of the Trust Territory of the
8 Pacific Islands, and the purpose of this act, to achieve and maintain
9 such levels of air, land and water quality as will protect human health,
10 welfare and safety and to the greatest degree practicable prevent injury
11 to plant and animal life and property, as will foster the comfort and
12 convenience of its people and their enjoyment of health, life and property
13 and will promote the economics and social development of the Trust
14 Territory of the Pacific Islands and facilitate enjoyment of its
15 attractions.

16 Section 3. Definitions. The following words, for the purposes
17 of this act, shall have the following meanings:

18 (1) "Director of Health Services" shall mean the Director
19 personally or his duly authorized representative.

20 (2) "Pollutant" means one or more substances or forms of
21 energy which when present in the air, land or water, are or may be
22 harmful or injurious to human health, welfare or safety, to animal

1 or plant life, or to property, or which unreasonably interfere with
2 the enjoyment by the people of life or property.

3 (3) "Person" means the Trust Territory of the Pacific Islands,
4 a district, municipality, political subdivision, a public or private
5 institution, corporation, partnership, joint venture, association,
6 firm, or company organized or existing under the laws of the Trust
7 Territory of the Pacific Islands or any state or country, lessee or
8 other occupant of property, or individual, acting singly or as a
9 group.

10 (4) "Board" means the Trust Territory Environmental
11 Protection Board.

12 Section 4. Trust Territory Environmental Protection Board
13 created: membership; terms; vacancies; chairman; qualifications;
14 compensation; cooperation of other agencies; meeting of board;
15 quorum; secretary.

16 (1) There is hereby established in the Office of the
17 High Commissioner a board to be known as the Trust Territory
18 Environmental Protection Board to be composed of nine members as
19 follows: The Director of Health Services, Director of Public Works,
20 Director of Resources and Development, and six citizens of the
21 Trust Territory of the Pacific Islands, to be appointed by the
22 High Commissioner with the advice and consent of the Congress of
23 Micronesia; PROVIDED, that such appointments shall include one
24 representative from each of the six administrative districts.
25 The initial appointments of appointed members shall be made as

1 follows: two for a period of one year; two for a period of two years;
2 and two for a period of three years. Successors to the first appointees
3 hereunder shall be appointed for terms of three years each. Vacancies
4 other than by expiration of term shall be filled by the High Commissioner
5 by appointment, in the same manner as the original appointment was
6 made, for the unexpired term. The Chairman shall be the Director of
7 Health Services.

8 (2) The High Commissioner in his appointments shall select
9 persons who are citizens and residents of the Trust Territory of the
10 Pacific Islands for their ability, and all appointments shall be of
11 such nature as to aid the work of the Board to inspire the highest
12 degree of cooperation and confidence in carrying out the policy and
13 purpose of this act.

14 (3) Members of the Board shall serve without compensation
15 as such, but shall be entitled to receive reasonable travel costs and
16 per diem at standard Trust Territory rates when engaged in the perfor-
17 mance of the duties of the Board. Any employee of the Trust Territory
18 Government shall be granted leave with pay while engaged in the
19 performance of the duties of the Board.

20 (4) The Board may call upon any Trust Territory depart-
21 ment or agency for technical assistance. All departments or agencies
22 of the Trust Territory shall, upon request, assist the Board in the
23 performance of its duties.

24 (5). The Board shall meet at least once every three months.
25 Meetings may be held at any time or place to be determined by the Board

1 upon the call of the chairman or upon written request of any three
2 members. All meetings shall be open to the public, and public notice
3 of the time and place of such meetings shall be posted in public
4 places and shall be announced on the radio throughout the Trust
5 Territory.

6 (6) Five members of the Board shall constitute a quorum
7 for the transaction of business. .

8 (7) The Board shall designate a secretary who shall keep
9 all records of, and actions taken by, the Board. These records shall
10 be open to the public for public inspection.

11 (8) The Attorney General shall, upon the request of the
12 Chairman, act as legal advisor to the Board.

13 (9) The Board shall designate a full-time salaried executive
14 officer who shall administer the functions of the Board and shall have
15 such duties and responsibilities as may be delegated to him by the Board.

16 (10) The Board shall submit to the High Commissioner and
17 to the Congress of Micronesia, not later than September 1 of each
18 year, a Report detailing its activities during the previous fiscal
19 year.

20 Section 5. Powers and duties of the Board. The Board shall have
21 the power and duty to control and prohibit pollution of air, land, and
22 water in accordance with the law and regulations adopted and promulgated
23 by it, and for this purpose is authorized and empowered to:

24 (1) Adopt, approve, amend, revise, promulgate, and repeal
25 regulations, in the manner which is or may be provided by law, to

1 effect the purposes of this act, and enforce such regulations which
2 shall have the force and effect of law.

3 (2) Accept appropriations, loans, and grants from the
3 United States Government or any agency thereof and other sources,
4 public or private, which loans, grants and appropriations shall not
5 be expended for other than the purposes of this act.

6 (3) Adopt and provide for the continuing administration
7 of a Trust Territory-wide program for the prevention, control, and
8 abatement of pollution of the air, land and waters of the Trust
9 Territory, and from time to time review and modify such programs as
10 necessary.

11 (4) Establish criteria for classifying air, land, and
12 waters in accordance with present and future uses.

13 (5) Establish and provide for the continuing administration
14 of a permit system whereby a permit shall be required for the discharge
15 by any person of any pollutant in the air, land or water, or for the
16 conduct by any person of any activity, including but not limited to
17 the operation, construction, expansion or alteration of any
18 installation, which results in or may result in the discharge of
19 any pollutant in the air, land or water; provide for the issuance,
20 modification, suspension, revocation and termination of such permits,
21 and for the posting of an appropriate bond.

22 (6) Collect information and establish record keeping,
23 monitoring and reporting requirements as necessary and appropriate
24 to carry out the purposes of this act.

25 Section 6. Right of entry. Whenever it is necessary for the

1 purposes of this act, the Board, or any member, agent or employee when
2 duly authorized by the Board or by court order may, at reasonable
3 times, enter any establishment or upon any property, public or private,
4 for the purpose of obtaining information, making inspections, obtaining
5 samples, inspecting or copying records required to be maintained by
6 the provisions of this act and any regulations promulgated thereunder;
7 or conducting surveys or investigations for the purpose of carrying out
8 the purpose and policy of this act.

9 Section 7. Enforcement and Implementation.

10 (1) Whenever the Board finds that a discharge of waste is
11 taking place or threatening to take place within a district that
12 violates or will violate requirements prescribed by the Board or
13 that the waste collection treatment, or disposal facilities of a
14 discharger are approaching capacity, the Board shall require the
15 discharger to submit for approval of the Board, with such modifications
16 as it may deem reasonably necessary, a detailed time schedule of
17 specific actions the discharger shall take in order to correct or
18 prevent a violation of requirements.

19 (2) When the Board finds that a discharge of waste is
20 taking place or threatening to take place within its jurisdiction
21 in violation of requirements of discharge prohibitions prescribed
22 by the Board, the Board may issue an order to cease and desist and
23 direct that those persons not complying with the requirements or
24 discharge prohibitions a) comply forthwith, b) comply in accordance
25 with a time schedule set by the Board, or c) in the event of a

ANNEX I

1 threatened violation, take appropriate remedial or preventive action.
2 In the event of an existing or threatened violation of waste discharge
3 requirements in the operation of a community system, cease and
4 desist orders may restrict or prohibit the volume, type, or concen-
5 tration of waste that might be added to such system by dischargers
6 who did not discharge into the system prior to the issuance of the
7 cease and desist order.

8 (3) Public hearings for consideration of issuance of a
9 cease and desist order shall be conducted by the Board, adequate
10 notice of which and opportunity to appear and be heard at which
11 shall be afforded to all interested persons.

12 (4) Cease and desist orders of the Board shall become
13 effective and final as to the said Board upon issuance thereof.

14 Copies shall be served forthwith by registered mail upon the person
15 being charged with the violation of the requirements and upon other
16 affected persons who appeared at the hearing and requested a copy.

17 (5) Any person who discharges any pollutant into the water,
18 air, or on the land, of the Trust Territory in violation of any
19 discharge permit, requirement or other order issued by the Board or
20 who intentionally or negligently causes or permits any pollutant to be
21 deposited where it is discharged into the water, air or land of the
22 Trust Territory shall, upon order of the Board, clean up such pollutant
23 or abate the effects thereof. Upon failure of any person to comply
24 with such cleanup or abatement order, the Attorney General or his
25 designated representative, at the request of the Board, shall petition

1 the Trial Division of the High Court for that district for the issuance
2 of an injunction, mandamus or other appropriate remedy, requiring such
3 person to comply therewith.

4 (6) The provisions of this Section and of Section 8 shall
5 be interpreted consistently with the provisions of any law concerning
6 administrative procedure which is or may hereafter become Trust
7 Territory law. In the event of conflict between the two, the
8 provisions of the latter shall supersede and be controlling.

9 Section 8. Review by High Court. Any person who may be
10 adversely affected by the enforcement of any standard policy,
11 regulation, permit or order of the Board and who alleges its
12 invalidity, may file a petition for a declaratory judgment thereon
13 addressed to the Trial Division of the High Court in the district
14 where the petitioner is a resident. The Court shall declare the
15 standard, policy, regulation, permit or order invalid if it finds
16 that it exceeds the statutory authority of the Board, or is arbitrary
17 and capricious. An appeal may be had from the decision of the Court
18 to the Appellate Division of the High Court as provided by law.

19 Section 9. Fines and Penalties.

20 (1) Any person who intentionally or negligently violates
21 any cease and desist order hereafter issued, reissued, or amended
22 by the Board shall be liable civilly in a sum not to exceed one thousand
23 dollars (\$1,000) for each day during which such violation occurs. Such
24 sums shall be paid to the Treasurer of the Trust Territory for credit to
25 the General Fund of the Congress of Micronesia.

1 (2) The Attorney General or his designated representative,
2 upon request of the Board, shall petition the Trial Division of the
3 High Court for a judgment assessing damages. In determining such
4 damages, the court shall take into consideration all relevant cir-
5 cumstances, including but not limited to, the extent of harm caused
6 by the violation, the nature and persistence of the violation, the
7 length of time over which the violation occurs and corrective action,
8 if any, taken by the discharger.

9 (3) Any person who intentionally or negligently violates
10 any cease and desist order hereafter issued, reissued, or amended by
11 the Board shall be guilty of a misdemeanor, and upon conviction thereof
12 shall be punished by a fine not exceeding one thousand dollars
13 (\$1,000) or imprisonment not exceeding three (3) months, or both.
14 For the purposes of this Subsection, each day during which such
15 violation occurs shall be deemed to be a separate offense.

16 Section 10. Severability and Savings Clause. If any provision
17 of this act or any regulation or order promulgated hereunder, or
18 the application of any such provision, regulation or order to any
19 person or circumstances shall be held invalid, the remainder of
20 this act, or any regulations or orders promulgated pursuant thereto,
21 or the application of such provisions, regulations, or orders to
22 persons or circumstances other than those to which it is held
23 invalid shall not be affected thereby, and to this extent the
24 provisions of this act are severable.

1 Section 11. Effective Date. This act shall take effect upon
2 its approval by the High Commissioner, or upon its becoming law
3 without such approval.

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

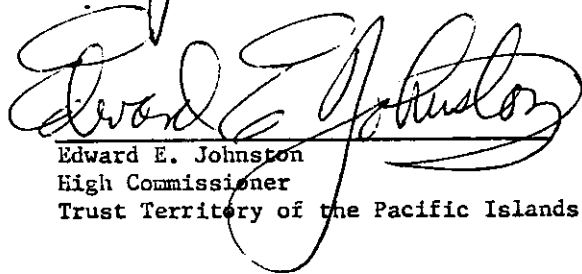
22

23

24

25

April 14, 1972


Edward E. Johnston
High Commissioner
Trust Territory of the Pacific Islands

AGREEMENT BETWEEN THE
TRUST TERRITORY OF THE PACIFIC ISLANDS (TTPI)
AND
REGION IX OF THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (EPA)

I. PURPOSE

The purpose of this Agreement is to set forth, in general terms, the priorities, goals, responsibilities and commitments of the TTPI and EPA for the implementation of environmental protection programs in the TTPI during Fiscal Year 1980 (October 1, 1979 through September 30, 1980). Through this Agreement, the High Commissioner of TTPI and Regional Administrator of EPA have reached a mutual understanding of the general environmental problems in the TTPI and the overall direction of the FY 1980 program activities necessary to address those problems. This Agreement will serve as a guiding document for development of the TTPI's FY 1980 Consolidated Environmental Program Plan and will guide the continued implementation of the construction grants program for sewerage facilities. As used in this Agreement, "State and Federal" refers to governmental entities within TTPI and "U.S. Federal" refers to the United States of America.

In addition to providing guidance for the FY 1980 environmental protection programs, this Agreement outlines the respective roles of the Trust Territory Environmental Protection Board (TTEPB) and EPA in their working relationships with the Federated States of Micronesia, Palau and the Marshall Islands. This definition of roles is necessary because governmental relationships within the TTPI are changing, but EPA's requirement to have a single, responsible environmental management agency remains. This definition does not presume, in any way, to challenge the sovereignty of State and Federal governments now being established in the TTPI. It does define, however, overall TTPI responsibilities for managing EPA program grant funds.

II. PROBLEMS AND MAJOR ACTIVITIES

For the purposes of this Agreement problems and activities are discussed in major categories. In reality they are interrelated and will be treated in an integrated fashion in the actual implementation of the FY 1980 programs.

A. Sewerage Facilities

The construction and proper operation and maintenance of sewerage facilities is necessary to protect and improve public health and water quality. At the present time sewerage facilities in the TTPI are inadequate or non-existent and where they exist they are not being adequately used, operated or maintained. This problem has been long recognized and will receive the highest priority and attention in FY 1980. In view of the uncertainty of the status of EPA programs after 1981, sewerage projects must be well under construction by the time

2.

of trusteeship termination if their ultimate completion is to be possible. As a timing target, efforts will be devoted largely to those projects that can reasonably be expected to be under construction by December, 1980. The following major activities shall be done during FY 1980:

1. The program to construct sewer house connections shall be aggressively implemented. The TTEPB and the Bureau of Public Works (TTBPW) shall provide staff and resources to manage and supervise EPA grant projects for these house connections. A coordinated effort shall be made by State and Federal governments to assist in their construction.
2. The TTEPB, TTBPW, its agent, OICC (U.S. Navy), and EPA shall implement a comprehensive strategy to move priority sewerage projects to construction before December, 1980. All parties shall make extra efforts to expedite all aspects of project planning, design and construction.
3. EPA shall provide funds and technical assistance to implement a program for the training of wastewater treatment plant operators.
4. The TTPI shall develop programs and funding procedures to ensure that sewerage facilities are properly used, operated and maintained.
5. The TTPI shall continue to implement programs to encourage citizens to obtain basic household sanitary facilities, and shall aggressively publicize basic environmental and public health information by all practical means.

B. Safe Drinking Water

Public water supplies throughout the TTPI are frequently unsafe. Generally, drinking water does not meet the quality criteria of Trust Territory Drinking Water Standards or EPA Drinking Water Standards. Some of the more important reasons are: (1) inadequate and faulty water systems, (2) poor operation and maintenance of systems, (3) insufficiently developed supplies of fresh water, (4) wasteful water use practices, and (5) inadequate management and protection of drinking water sources. The relative importance of these factors varies from system to system. It is unrealistic to believe that all these problems can be solved in FY 1980, but progress will be made through the following activities:

1. As a result of the waiver of matching fund requirements for sewerage grants, CIP sewerage matching funds shall be mostly reallocated to water supply improvements. Efforts will be made to expedite construction of these improvements by TTEPB, TTBPW and its agent, OICC.

2. Training programs for persons responsible for operation and maintenance of water systems shall be implemented.
3. Public education on water conservation shall be undertaken. Part of this effort will include prompt public notification of violations of TTPI and EPA drinking water standards, and public education on the relationship between adequate supplies of good water and public health.
4. Protection and management of drinking water supplies shall continue and shall be enhanced through the implementation of the TTEPB regulatory program.
5. The TTEPB shall continue to implement primary enforcement responsibility (primacy) as defined in the Safe Drinking Water Act, EPA and TTPI regulations. An increased emphasis shall be placed upon routine monitoring of water supplies, public notification of violations, record keeping and reporting.

C. Decentralization of Program Implementation Responsibility

In recognition of the increasing sovereignty of State and Federal governments in the TTPI, decentralization of program responsibilities has been an ongoing goal. It shall continue as a high priority in FY 1980, since effective program continuation after 1981 may depend upon the foundation built during the next two years. Decision making at the local level through bodies that are responsive to local priorities and goals is essential in order to establish creditability and a sense of identification with the TTPI's environmental programs and their purposes. But delegation of responsibility must be accompanied by a corresponding enhancement of capability. Therefore, the decentralization effort seeks the improvement of capabilities within the State and Federal governments, and a delegation of authority and responsibility commensurate with the improved level of capability. Activities to continue decentralization in FY 1980 shall include:

1. Continuation of training of staff members of the State and Federal governments. EPA will provide financial support for this effort.
2. Regular evaluations of program accomplishments by TTEPB staff. The results of the evaluations, along with recommendations shall be provided to officials of the State and Federal governments.
3. A plan leading to complete delegation of TTEPB activities to the State and Federal governments shall be developed during FY 1980. The plan shall describe an orderly process of delegation to be completed upon termination of the trusteeship, and shall be tailored to each government and represent an agreement between that government, the TTEPB and the High Commissioner.

4.

D. Regulatory Program

The TTPI and EPA agree that continued implementation of the environmental regulatory process in the TTPI is of utmost importance. The TTPI is expected to experience substantial development in the years ahead. Proper management of this development, from an environmental standpoint, is necessary to protect and preserve the natural resources of the TTPI.

Efforts described under item E below shall help to provide stability and continuity to the implementation of the regulatory program. In addition, increased emphasis shall be placed upon pre-construction permitting, surveillance and enforcement. Compliance by TTPI government entities with the environmental regulatory program shall be stressed using the most effective means available.

E. Public Participation and Education

The people of the TTPI have a traditional interest in the management of the TTPI's environment. Management of environmental resources is a complex process which often must balance conflicting interests and desires. Therefore, it must be an open process so that all viewpoints can be expressed and considered. The TTPI and EPA jointly subscribe to a policy of open decision making in environmental matters. During FY 1980, programs and activities shall be increased to improve public awareness of the TTPI environmental programs and to encourage participation in their development and implementation.

III. GENERAL RESPONSIBILITIES AND COMMITMENTS

The TTEPB and its staff (collectively referred to as the TTEPB) shall continue to serve as the primary TTPI agent for managing environmental protection programs. In this capacity the TTEPB shall be the principal EPA contact for all aspects of EPA program implementation in the TTPI. The following principles shall govern this relationship:

- A. The TTEPB shall continue to serve as the representative body for making environmental decisions concerning rules, regulations and policies adopted by the TTEPB as authorized by effective legislation of the Congress of Micronesia. The TTEPB shall continue to delegate authority to the operating State and Federal governments in a manner consistent with TTEPB policies and TTPI law.
- B. The TTEPB shall give full consideration to the desires of the State and Federal governments in managing EPA funded programs. EPA will not attempt to arbitrate disputes or otherwise enter into negotiations between the TTEPB and the State and Federal governments, except in matters involving EPA administered statutes, regulations or policies.

- C. Each operating State and Federal government shall be eligible to receive some portion of EPA's annual consolidated program grant to the TTEPB for the operation of environmental protection programs. Support shall be based upon an annual program plan prepared by the State or Federal government using guidance provided by the TTEPB and EPA.
- D. The TTEPB and EPA shall jointly review and evaluate fulfillment of the annual program plans. Non-performance of objectives in the program plan may result in reduced funding. The TTEPB shall be responsible for day-to-day oversight and management of State and Federal programs funded through the EPA grant.
- E. EPA shall inform the TTEPB of all communications, including on-site visits by EPA personnel, with the State and Federal governments. In general, communications from the TTPI to EPA will be made through the TTEPB, but may be made directly at the discretion of the High Commissioner.

The TTPI shall maintain sufficient staff levels of the TTEPB to manage EPA funded programs. In conjunction with this the TTPI shall not substantially reduce the level of commitment, financial or otherwise, devoted to the development and implementation of environmental protection programs below the level of Fiscal Year 1977. However, reductions as a result of an overall reduction in the TTPI operational budget may be made, provided the reduction is not unfairly borne by environmental protection programs or does not unduly jeopardize environmental programs. The TTPI shall promptly notify EPA of any such proposed reduction below the level of Fiscal Year 1977.

The Trust Territory Bureau of Public Works (TTBPW) shall continue to be the grantee for construction grants. As such, sufficient staff levels shall be maintained in the TTBPW to properly manage grant projects and coordinate the program with the OICC. It is recognized that OICC serves as agent for the TTPI in many construction grant projects, but OICC does not replace TTBPW as EPA's grantee.

The EPA shall provide financial support to the TTEPB to the extent permitted by U.S. Federal law and national appropriations, and based upon EPA's review and approval of the annual plan of operation submitted by the TTEPB. The EPA shall also provide technical assistance and logistical support to the TTPI as requested and as EPA resources permit.

The EPA shall give maximum consideration to the unique circumstances in the TTPI in the application of U.S. requirements to the TTPI.

The EPA shall conduct at least one formal evaluation of the TTPI's environmental protection program during each fiscal year. Results of this evaluation shall be presented to appropriate local officials and to the public.

TTEPB - TRUST TERRITORY ENVIRONMENTAL PROTECTION BOARD.

TTPI - TRUST TERRITORY OF THE PACIFIC ISLANDS.