

## PROJECT OUTLINE

### Survey Team I: APPROPRIATE AGRICULTURAL DEVELOPMENT IN RELATION TO THE TERRESTRIAL ENVIRONMENT

Shigeto TOMINAGA

The purpose of investigation of this survey team was to understand the general situation in the transformation from traditional to modern farming on Pohnpei Island of the Federated States of Micronesia. The specific subjects investigated were terrestrial environment of rural areas, agricultural and horticultural practices and distribution of genetic resources of useful plants, and the recovery process of vegetation on old fields in relation to various external factors.

To fulfill these objectives, the following activities were carried out: field surveys on subsistence and commercial agricultural and horticultural systems, development of agroforestry system (HAYASHI, NAKANO, TOMINAGA and ONJO); comparative observations (in relation to climatic conditions, soil and human disturbance factors) of vegetation in old field sites at various stages of recovery after abandonment (ONJO and NAKANO); quantitative analyses of the vegetation in old field sites through ordination methods (HAYASHI, NAKANO, TOMINAGA and ONJO); and a survey on the geological environment of the island (HAYASHI and ONJO).

### Survey Team II: DEVELOPMENT OF MARINE BIOLOGICAL RESOURCES AND CONSERVATION OF THE MARINE ENVIRONMENT

Tadahide NORO

The natural endowments of Pohnpei Island are very rich as far as marine resources are concerned. Far from the pollution caused by industries and human activities, this geographically isolated coral island enjoys a diversity of marine organisms: many kinds of fish, mud crabs, sea cucumbers, button shells and some kinds of seaweed. To support a sustainable yield and the conservation of marine resources, a biological contribution is fundamental.

For this purpose, this team II studied the present condition of living marine resources of Pohnpei Island. During their short stay in Pohnpei, INOUE and EDWARD studied the abundance and distribution of toxic dinoflagellates adherent to brown algae *Turbinaria*. Marine flora in Pohnpei and Ant Atoll were checked by NORO, ETHO and EDWARD. The biochemist, SHIMOHIGASHI and his colleagues purified some peptides isolated from marine organisms and terrestrial plants. To this end, they have reported on preliminary study of peptides isolated from the sea cucumber *Holothuria atra*. With respect to the applied side of marine resources, MATSUOKA, who stayed several nights in a fishing village, reported some problems of the fishery management of Pohnpei.

### Survey Team III: COMMUNITY HEALTH OF THE ISLANDERS

Seiji MIKAMI

In most civilized countries, the principal health concern is cardio-cerebrovascular disease and cancer. It is well known that hypertension effects vascular disease, and excessive salt intake may cause hypertension. So it is said that civilization is salinization.

To investigate the relation of dietary changes (especially sodium and potassium intake) and blood pressure levels, blood pressure was measured and urine samples were collected on

Pohnpei Island in the same way and at same place as 9 years ago.

To compare mineral intake and blood pressure between a civilized area (Kolonía) and a rural area (Kíti) on Pohnpei Island, blood pressure was measured by our developed system. Daily sodium and potassium intake were estimated after urine samples by filter paper method were collected. And 10 samples of traditional food at Wone District were examined.

#### Survey Team IV: DEVELOPMENT OF THE SYSTEM OF ADMINISTRATION AND ITS RELATIONSHIP TO CULTURAL AUTONOMY

Mitsuyoshi TSUCHIDA

The members of Survey Team IV tried to understand the structure and planning of the rural houses in the FSM. My major objective was to clarify the community space which consisted of an open unfloored area in the half open floor, and materials of the rural houses in the island.

In order to achieve this goal, the architectural survey of the rural houses and interviews with knowledgeable informants in Kolonía, Palikir and village areas were conducted.

#### Survey Team V: SOME BIOLOGICAL ASPECTS OF OCEANOGRAPHY

Toshihiro ICHIKAWA

Oceanographic observations were performed in October and November, 1994, from 34° to 11° N at 139° to 156° E, on board the *Keiten-Maru* of Kagoshima University. The observed area includes the Kuroshio, Kuroshio Counter Current, and the North Equatorial Current. The temperature and salinity were measured at 10 stations by a CTD system down to a depth of 1000 m, and the temperature data was also obtained by XBT. Oceanographic structure was described by HIGASHI, SHIMADA, MASUMITSU and YUWAKI.

Sea water samples down to 300 m depth were collected at 10 stations with a series of 10 liter Niskin water samplers. For the deeper layer below 500 m, the waters were sampled from Niskin bottles mounted at the CTD system. The dissolved oxygen was immediately measured after sampling. Particulate materials were collected on glass fiber filters. The unfiltered sea water were kept frozen for analysis of nutrients. All of the analyses were done by ICHIKAWA and KAWAMURA.