

**FIRST ANNUAL REPORT OF THE  
AQUACULTURE DEPARTMENT OF THE  
SOUTHEAST ASIAN FISHERIES  
DEVELOPMENT CENTER (SEAFDEC)  
For the Fiscal Year Ending December 31, 1973**

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His Excellency, President Ferdinand E. Marcos, Republic of the Philippines, confers with officials of the Mindanao State University which served as implementing agency re the establishment of the SEAFDEC Aquaculture Department until its formal establishment early July 1973.

## BACKGROUND INFORMATION

### 1.1 FORMAL ESTABLISHMENT OF THE AQUACULTURE DEPARTMENT

#### 1.1.1 APPOINTMENT OF DEAN DOMICIANO K. VILLALUZ AS CHIEF OF THE DEPARTMENT

The Aquaculture Department of the Southeast Asian Fisheries Development Center (SEAFDEC) was formally established with the appointment of Dean Domiciano K. Villaluz upon nomination by the Republic of the Philippines, as Chief of the Department during the Sixth SEAFDEC Council Meeting held at Kuala Lumpur on July 3-7, 1973.

The establishment of the Department was based on a proposal submitted by the Philippine Government and approved at the Fourth Meeting of the SEAFDEC Council held in Manila on January 18-22, 1971.



The Aquaculture Department is now one of three SEAFDEC departments organized under the six-nation SEAFDEC Agreement, to which the Republic of the Philippines is a signatory, along with Japan, Thailand, Malaysia, Singapore and South Vietnam. The two others are the Training Department in Marine Engineering at Bangkok and the Research Department in Marine Biology at Singapore.

#### 1.1.2 APPROVAL OF THE DEPARTMENT'S BUDGET

During the Kuala Lumpur Meeting, the Council also approved the budget of the Department in the amount of US \$1,288,100 for the second half of Fiscal Year 1973 (July 1, 1973 to December 31, 1973) and US \$771,520 for Fiscal Year 1974 (January 1, 1974 to December 31, 1974). The Department's Plan of Operation and Program of Work for the period July 1, 1973 to December 31, 1974, on which the foregoing budget was based, was also approved during the meeting.

The Philippine delegation to the Sixth Council Meeting consisted of Director Felix Gonzales of the Bureau of Fisheries as Chairman and President Mauyag Tamano and Dean Domiciano K. Villaluz, President and Dean of the College of Fisheries of the Mindanao State University, respectively, as Members.

Right, Dean Domiciano Villaluz, Chief of the Aquaculture Department; Left, Dr. Q. F. Miravite, Director for General Affairs.



### 1.1.3 PHILIPPINE RECOGNITION OF THE DEPARTMENT AS AN INTERNATIONAL ORGANIZATION

President Ferdinand E. Marcos of the Philippines formally recognized the international status of the Department when he issued Presidential Decree No. 292 on September 13, 1973 providing the Department with, among others, tax exemption and immigration privileges and other immunities generally granted to international and treaty organizations based in the country.

### 1.1.4 INITIAL IMPLEMENTATION

Initial implementation of this aquaculture project in the Philippines was entrusted with the Mindanao State University following a conference on September 5, 1972 among officials of the Philippine Government headed by Secretary Arturo Tanco, Jr. of the Department of Agriculture and Natural Resources, Mindanao State University, the then Philippine Fisheries Commission, and National Science Development Board, on the one hand, and Japanese Government officials led by His Excellency, Ambassador Toshio Urabe, on the other.

Gov. Conrado Norada of the Province of Iloilo (right) offers a toast in honor of His Excellency, Ambassador Toshio Urabe of Japan (middle), with Dean Villaluz (left), on the occasion of the cornerstone laying at the Department's Project site in Tigbauan, Iloilo.







Dr. Q. F. Miravite, Director of the General Affairs Division, SEAFDEC Aquaculture Department, presents to President Ferdinand E. Marcos of the Republic of the Philippines the first copy of the Progress Report of the Department. Looking on are, from left, Philippine Ambassador to Japan Roberto Benedicto, Ambassador Toshio Urabe and Secretary Arturo R. Tanco of the Department of Agriculture and Natural Resources.

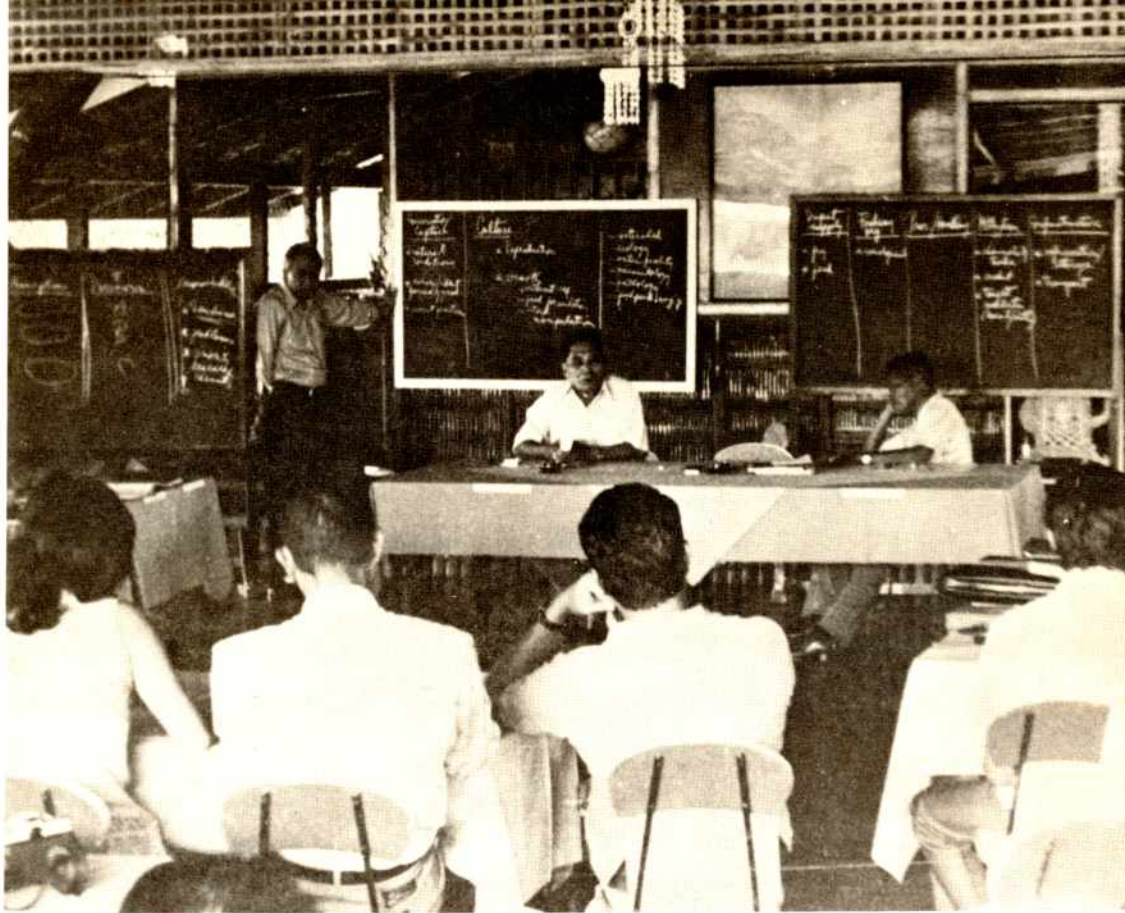
A team of Japanese fisheries experts headed by Dr. Katsuzo Kuronuma was subsequently sent to the Philippines twice, in 1971 and 1972, to undertake feasibility studies on the project sites, and eventually recommended that the Department be located in the province of Iloilo, in central Philippines.

## PLAN OF OPERATION

### 2.1 FUNCTIONS OF THE DEPARTMENT

Under its Plan of Operation and Program of Work, as approved by the SEAFDEC Council, the Aquaculture Department shall have the following functions:

- a. To promote, undertake and coordinate research which is necessary for the development of the aquaculture industry in the region.



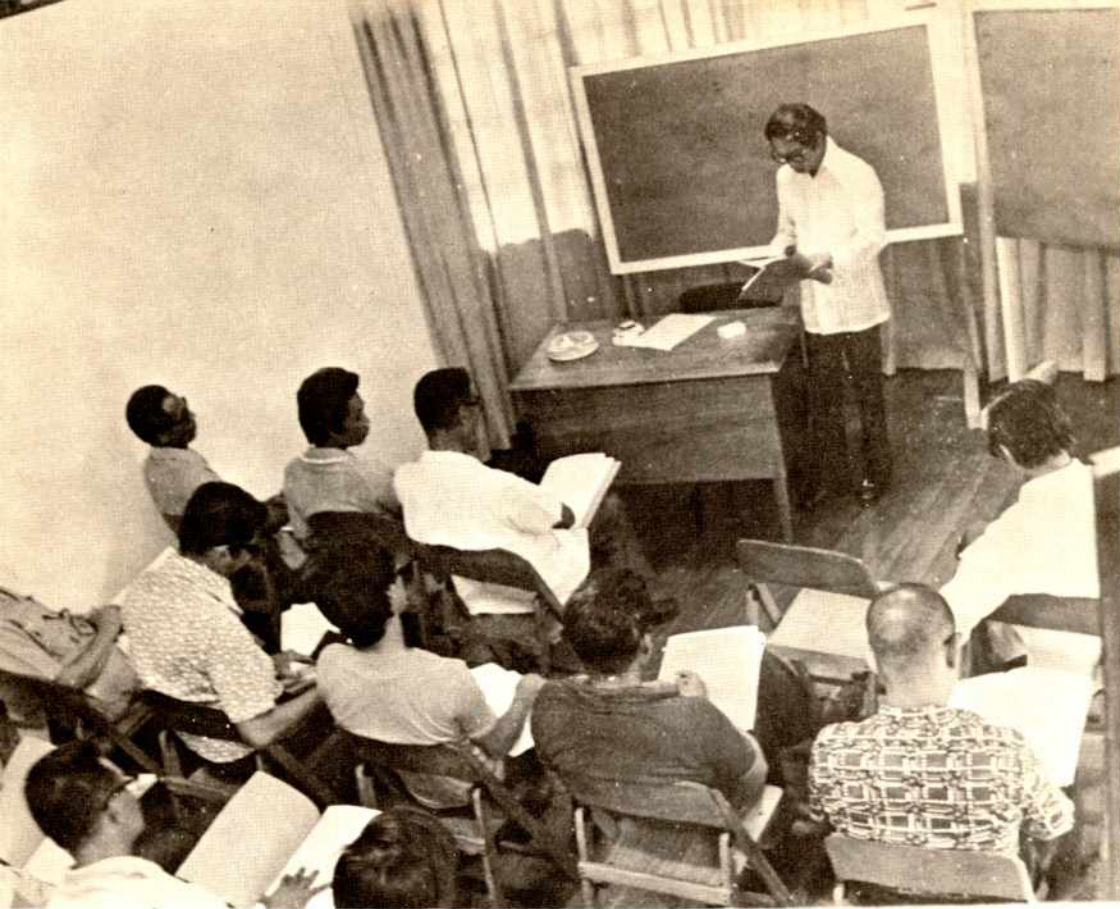
Dean Villaluz presides over a conference of some 20 of the country's leading scientists on problem areas in prawn spawning and culture.

- b. To train experts in aquaculture at various levels, from the researcher down to the technician level.
- c. To arrange for the exchange and dissemination of knowledge and information in the field of aquaculture and related activities to meet the needs of member-countries.

## 2.2 ACTIVITIES OF THE DEPARTMENT

As conceived under the Plan, the research activities of the Department shall include the production of quality seedlings; the increase of production through improved pond construction, pond management and maintenance; improvement of natural fish food, artificial food and feed-





Prof. Jose Agbayani, who directs the Department's Training and Extension Program, briefs local fishpond operators during the first training program sponsored by the Department.

ing; and biological manipulation of stocks and control of diseases and predators, and pollution.

The Department is also to undertake the training of technical and skilled manpower for the aquaculture industry as well as extension activities, including the exchange of information and the holding of symposia and seminars.

Although shrimp culture is given priority under the Plan, the Department is to undertake, whenever feasible, the culture of other coastal and brackish water fish and shellfish and, in a subsequent stage, freshwater fish.

## PROJECT SITE DEVELOPMENT

### 3.1 SITE OF THE PROJECT

In accordance with the recommendations of the Survey Team, the Department was based in the Province of Iloilo, where it will operate two stations: one at the Municipality of Leganes where the experimental ponds for prawn culture are now completed, and the other at the Municipality of Tigbauan as its main station, where the laboratories, hatcheries, training facilities, administration building and auxiliary service units are now being constructed.

#### 3.1.1 LEGANES STATION

The experimental ponds at the Leganes site, about 15 kilometers north of Iloilo City, embraces a total area of some ten hectares leased to the Department by the Municipal Government of Leganes.

Construction of the ponds, including dikes and ten reinforced concrete gates, was completed June 30, 1973, one year ahead of schedule.

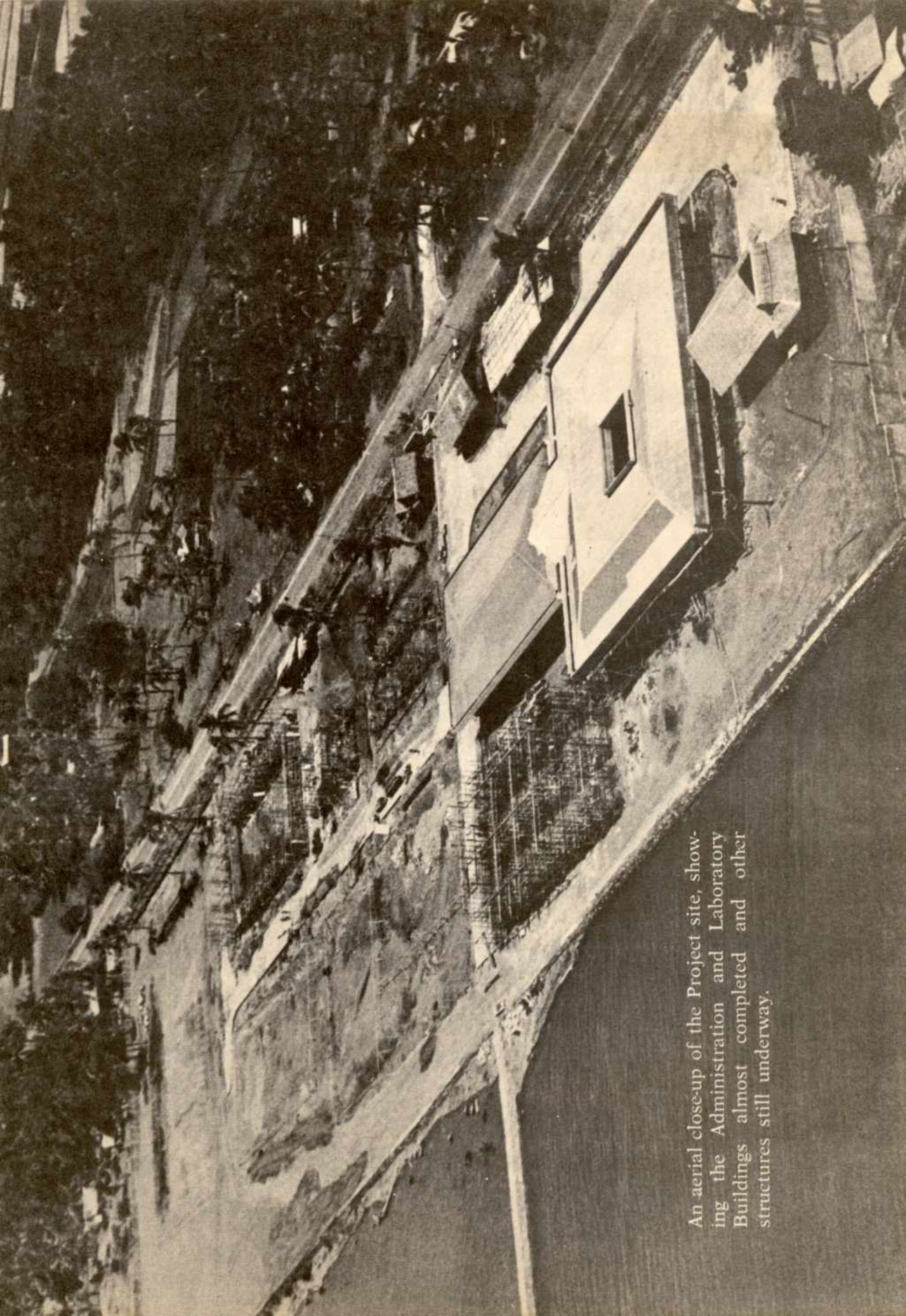
#### 3.1.2 TIGBAUAN STATION

Although some five hectares have been secured by the Department from land owners at the Tigbauan station, about 25 kilometers south of Iloilo City, negotiations for the acquisition of 35 more hectares adjacent to the present site, are underway.

A presidential proclamation reserving the aggregate 40-hectare site at Tigbauan for use of the SEAFDEC Aquaculture Department has been favorably endorsed by the Director of Lands and the Secretary of Agriculture and Natural Resources and is now pending signature at the Office of the President, Malacañang.

With the proclamation, total area of the SEAFDEC project sites at Tigbauan and Leganes will be some 50 hectares.





An aerial close-up of the Project site, showing the Administration and Laboratory Buildings almost completed and other structures still underway.



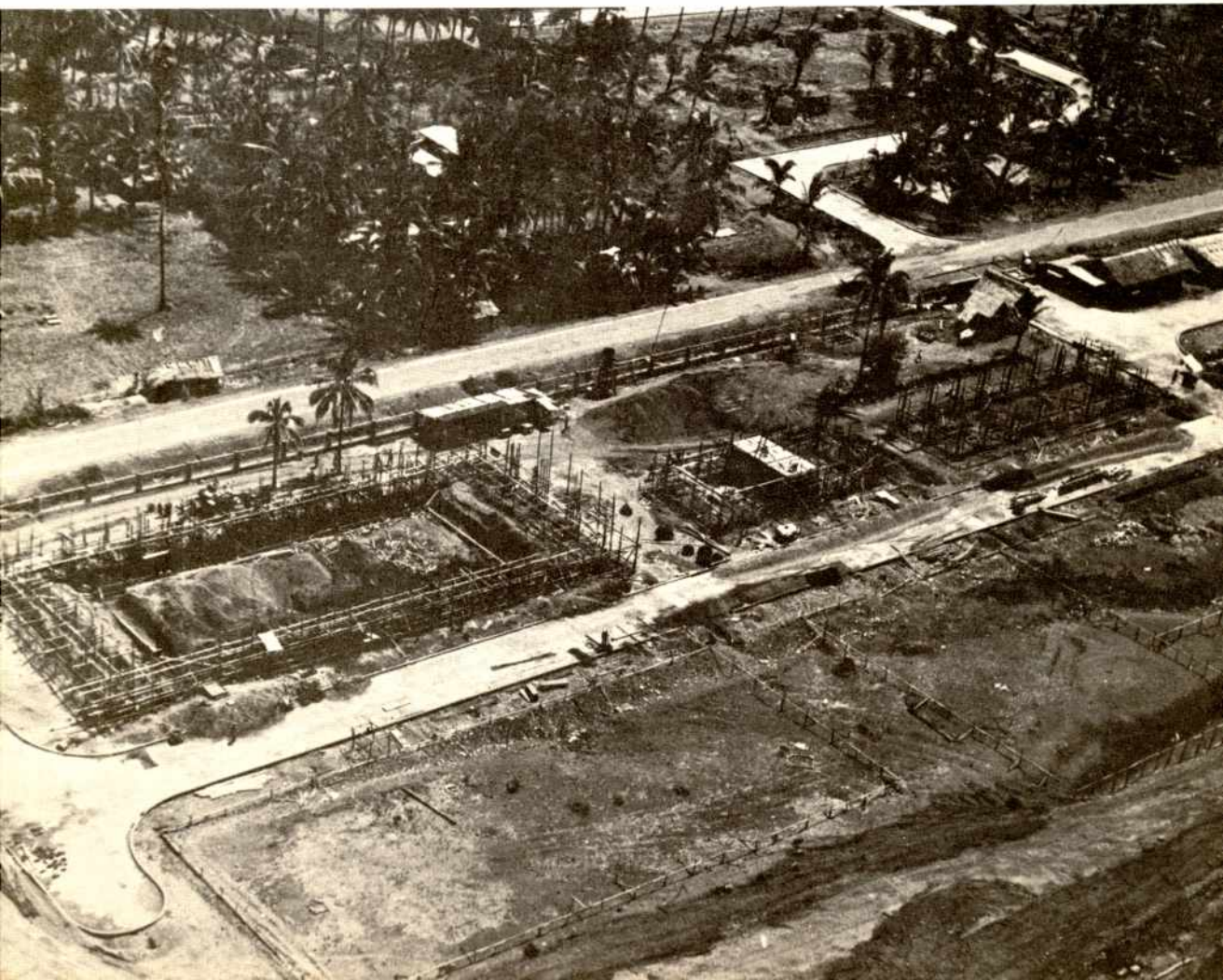
### 3.1.3 CONSTRUCTION OF BUILDINGS

As envisioned, the Tigbauan station will house the administrative-laboratory buildings, hatcheries, training and library halls, and housing and other auxiliary service units administrative staff and trainees, in addition to physical plant facilities.

Construction of the administrative-laboratory building and dormitory-dining hall commenced mid-September 1973.

The plans and designs for the hatcheries and other

Photo shows the 50-120-ton hatchery under construction. Adjacent to it is the proposed 200-ton hatchery.



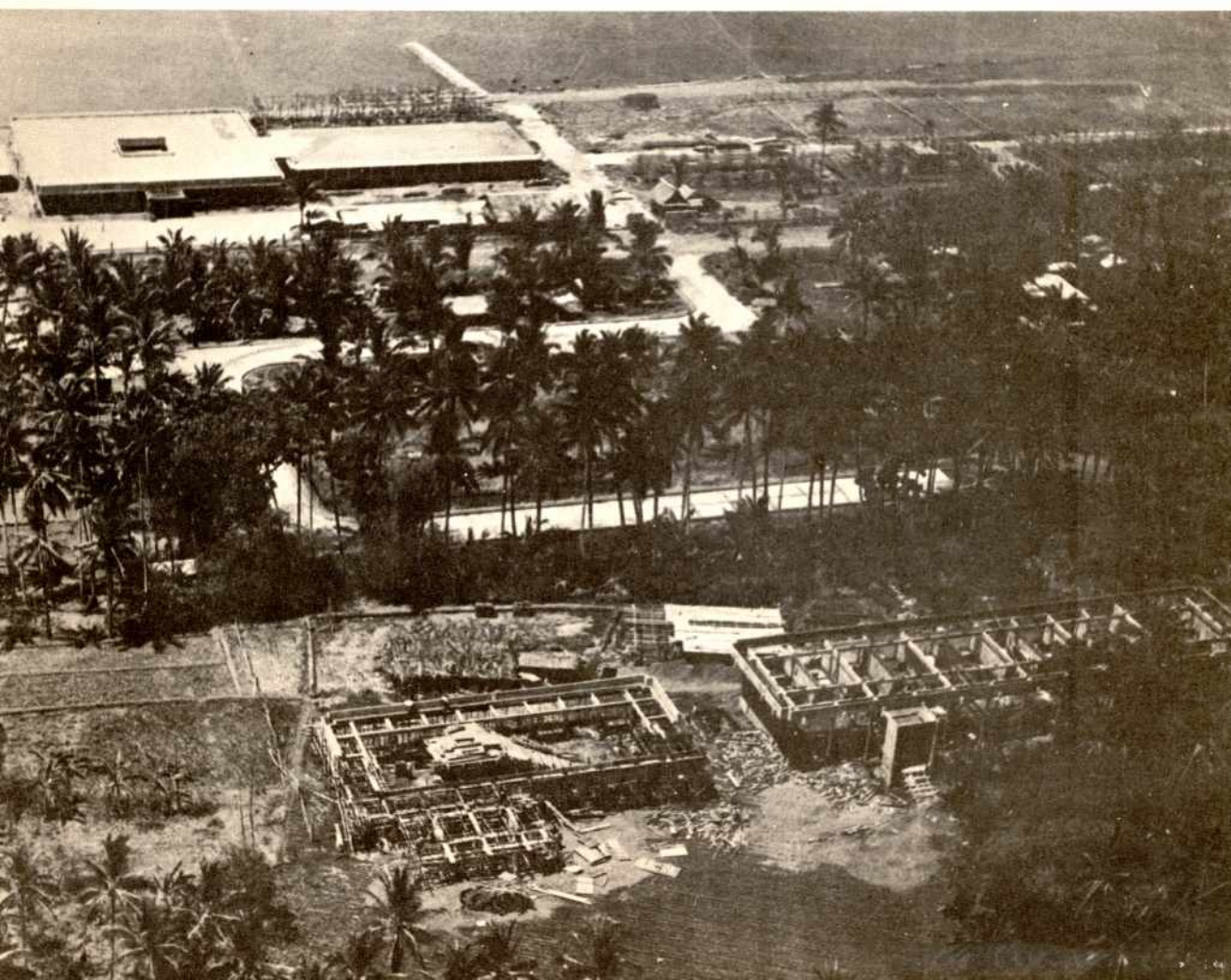


supporting research facilities have already been completed and construction is scheduled to begin on January 1974.

Completion of the construction of adequate physical facilities at the Tigbauan Station is targeted not later than November 1974.

On the assumption that the research and physical plant equipment committed by the Government of Japan are delivered to the Department on time, the Department is expected to become operational not later than November 1974.

A view of the Dormitory and Dining Halls under construction with the Administration and Laboratory Buildings in left foreground.





SEAFDEC Secretary-General Arporn Sribhibhadh (third from right) confers with Aquaculture Department officials on its research physical facilities at Project site in Tigbauan, Iloilo. Others in photo, from left, are Dean Villaluz, Architect Salvador Arcenas, Dr. Miravite, Mr. Pedro Acosta of the Bureau of Fisheries and Engr. Orlando Yu, Project engineer.

#### 3.1.4 INFRASTRUCTURE DEVELOPMENT

The services of the 552nd Engineering Battalion have been secured and the unit, with its bulldozers, graders, payloaders and dump trucks, has been working on the infrastructures within the Tigbauan project site for the past two months now. The internal road system, drainage and other infrastructure facilities are also expected to be completed by October 1974.

The Bureau of Public Highways is also undertaking the drilling of a deepwell in the project site to sustain the fresh water requirements of the Department.

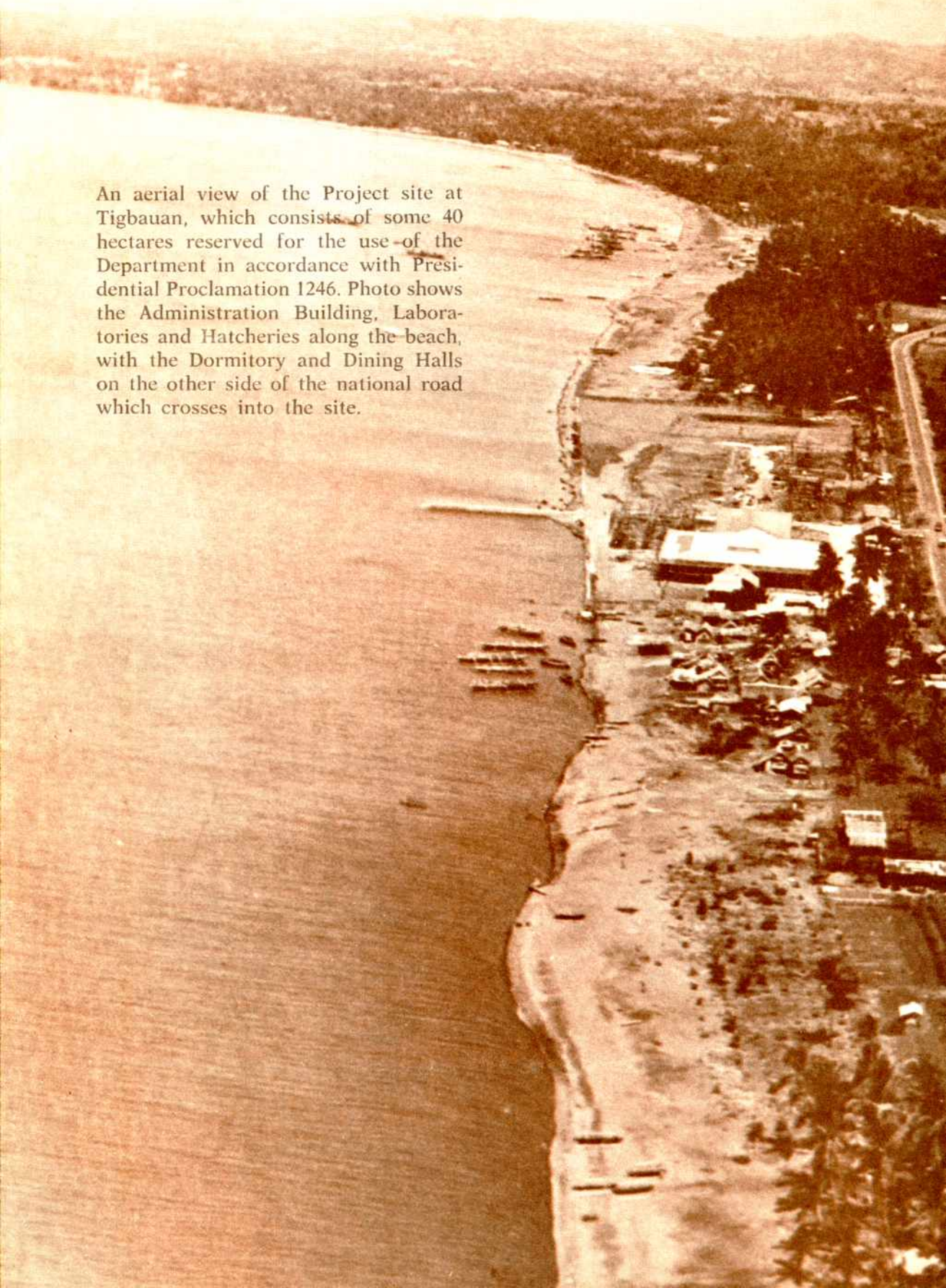


Drilling operations are underway to tap fresh water from a deepwell.





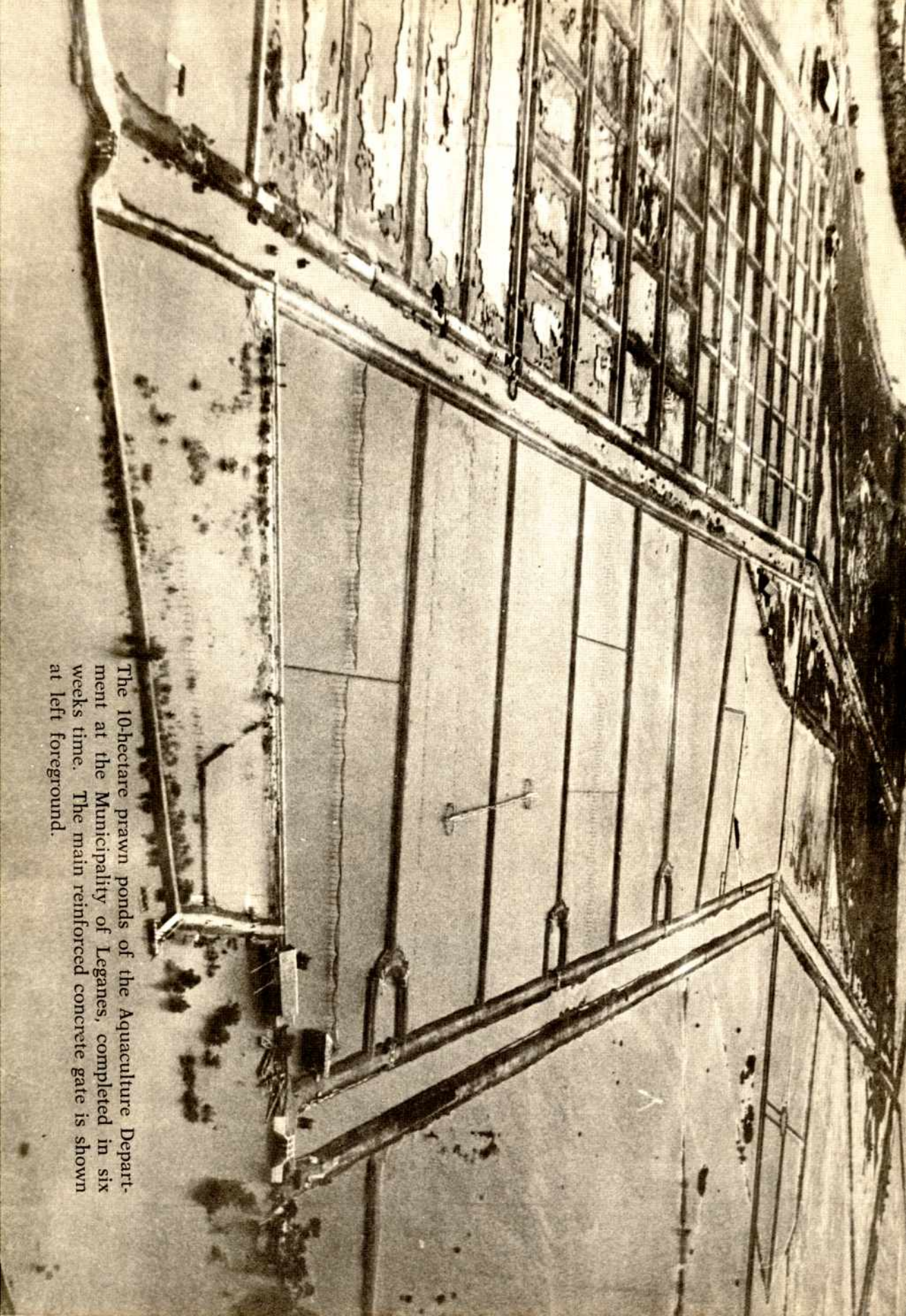
An aerial view of the Project site at Tigbauan, which consists of some 40 hectares reserved for the use of the Department in accordance with Presidential Proclamation 1246. Photo shows the Administration Building, Laboratories and Hatcheries along the beach, with the Dormitory and Dining Halls on the other side of the national road which crosses into the site.





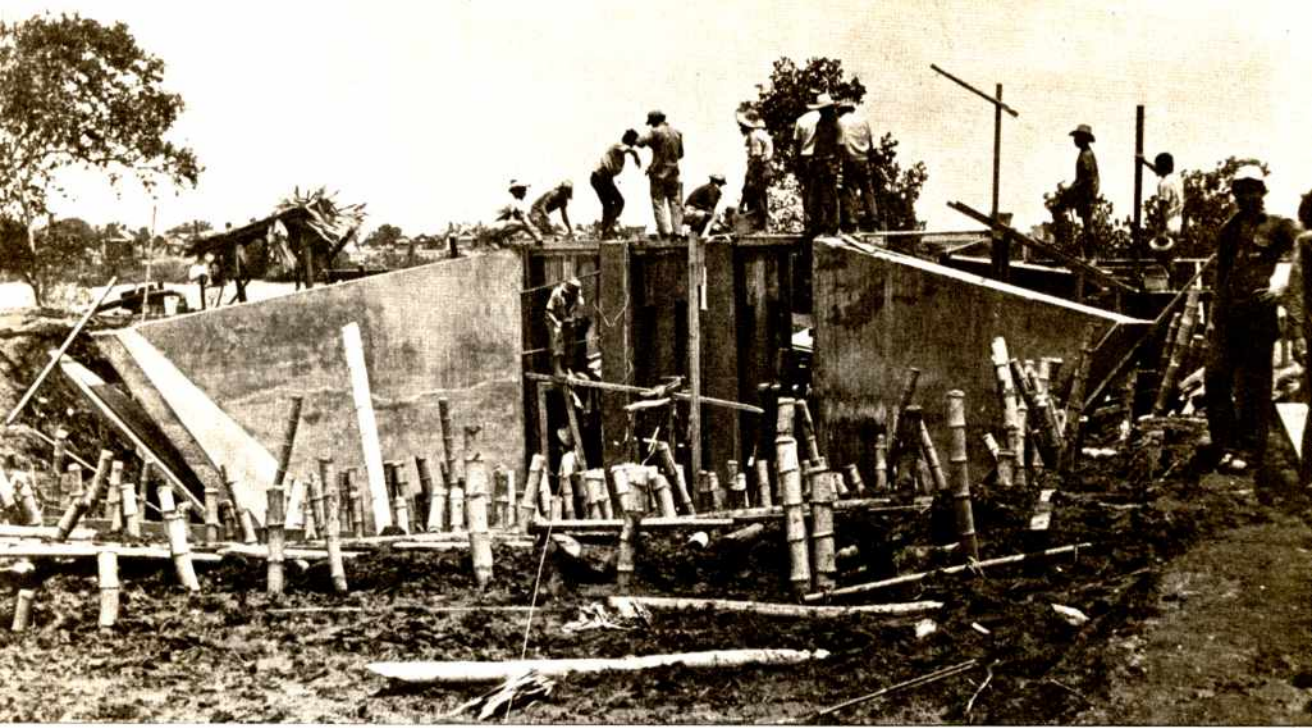






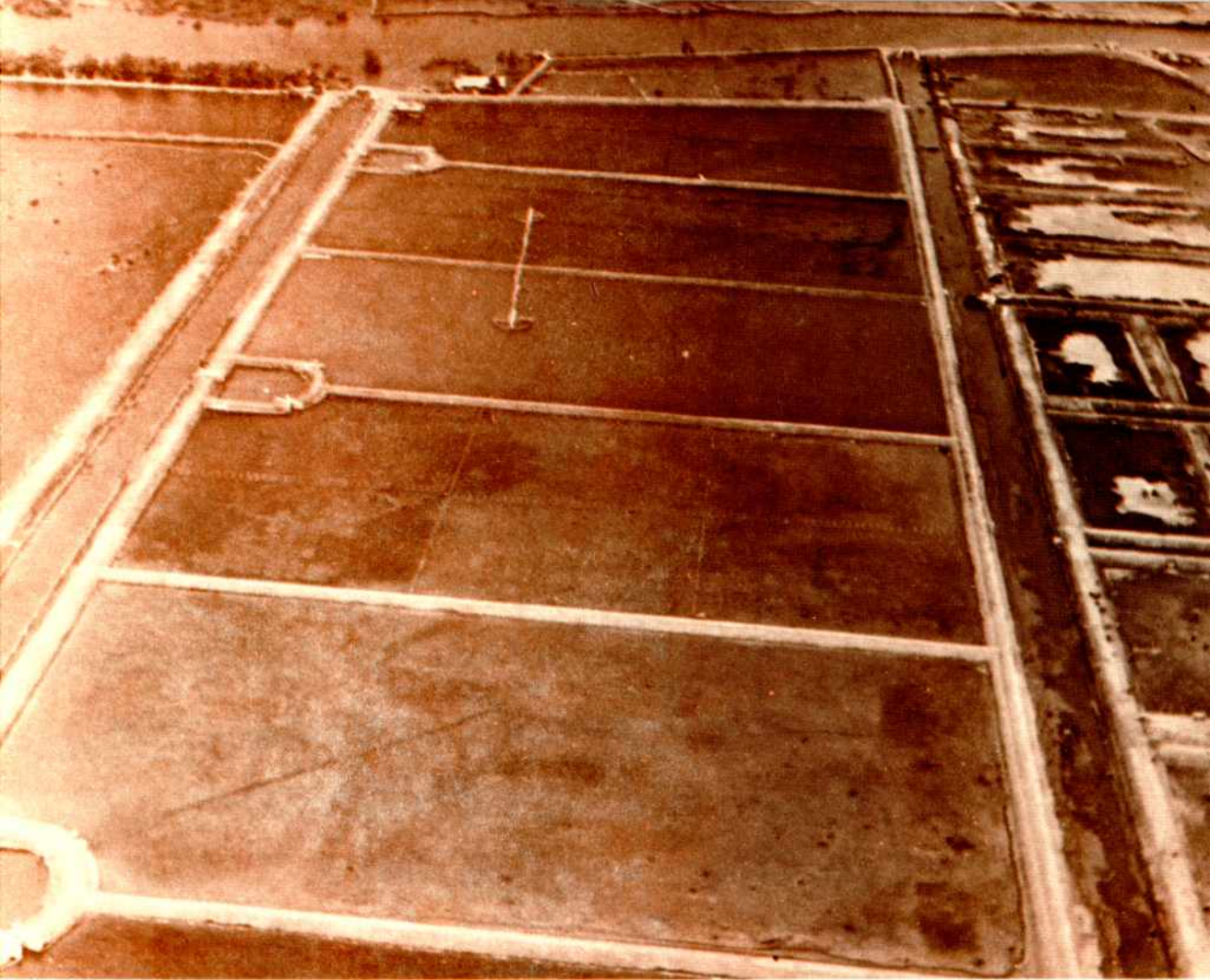
The 10-hectare prawn ponds of the Aquaculture Department at the Municipality of Leganes, completed in six weeks time. The main reinforced concrete gate is shown at left foreground.





Top, A close-up of the main gate under construction;  
Below, One of three secondary gates with the correspond-  
ing tertiary gates leading to each of the ponds.





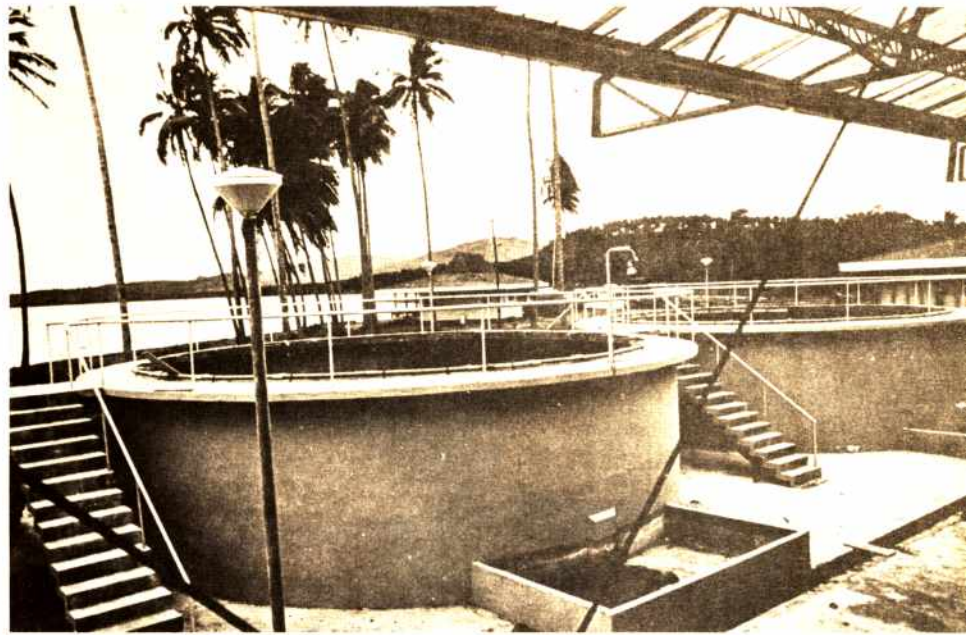
A close-up view of the Leganes ponds, which are now stocked with prawn fry. Two harvests have already been made since the first stocking in August 1973.

## RESEARCH

### 4.1 PRAWN FRY STOCKING

The ten-hectare rearing ponds at Leganes have already been prepared for stocking of prawn fry. A one-hectare pond was stocked early September 1973 with prawn fry from the MSU hatcheries at Naawan, Misamis Oriental, and the fry have grown to 40-50 grams as of December 1973. Although extensive methods of culture were utilized, the fry at Leganes appeared to have grown three times faster than those at the MSU rearing ponds at Naawan.





Top, Prawn hatcheries of the Mindanao State University at Naawan, Misamis Oriental, from which the fry are spawned and brought to the Leganes ponds pending completion of the Department's hatcheries at Tigbauan; Below, Prawn fry boxes being unloaded from a SEAFDEC vehicle.





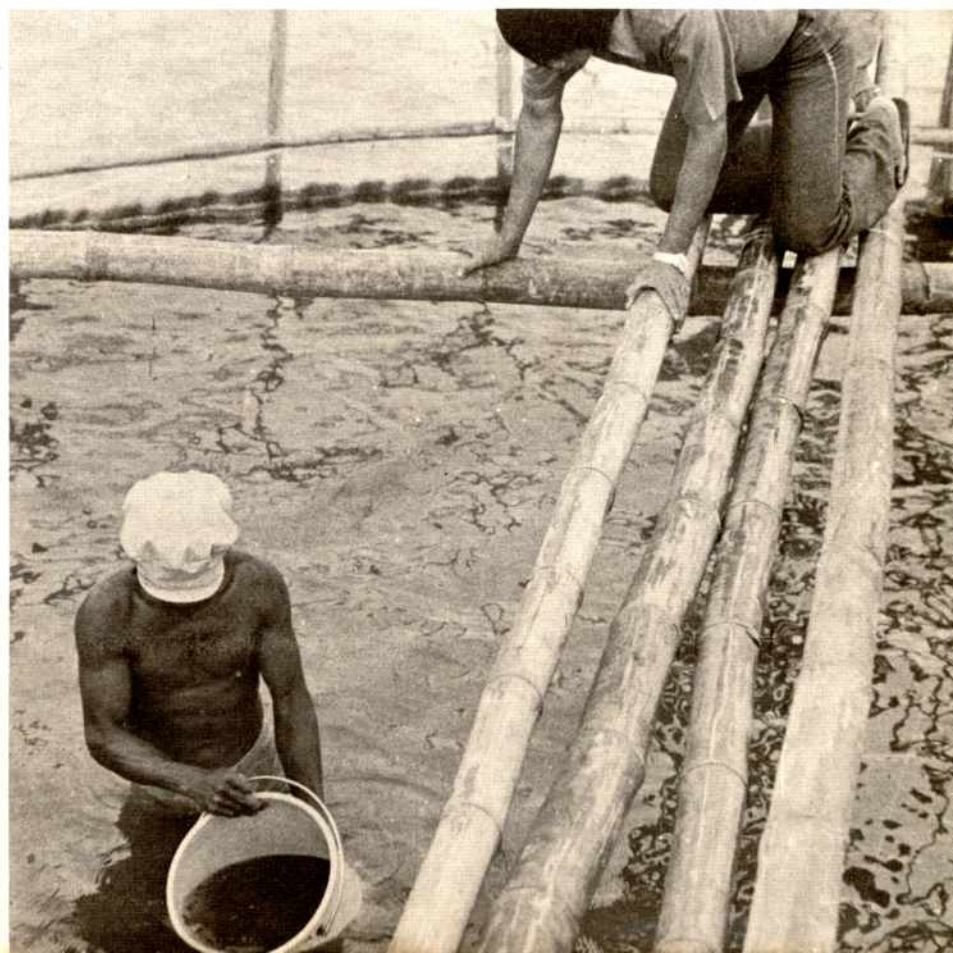
Top, Box containing fry being opened upon arrival at Leganes; Below, Prawn fry being counted preparatory to stocking in the ponds.







Top and lower photos show various stages in the stocking of the fry.



The first prawn fry stocking was made in August 1973. Two other stockings are scheduled in January and May 1974.





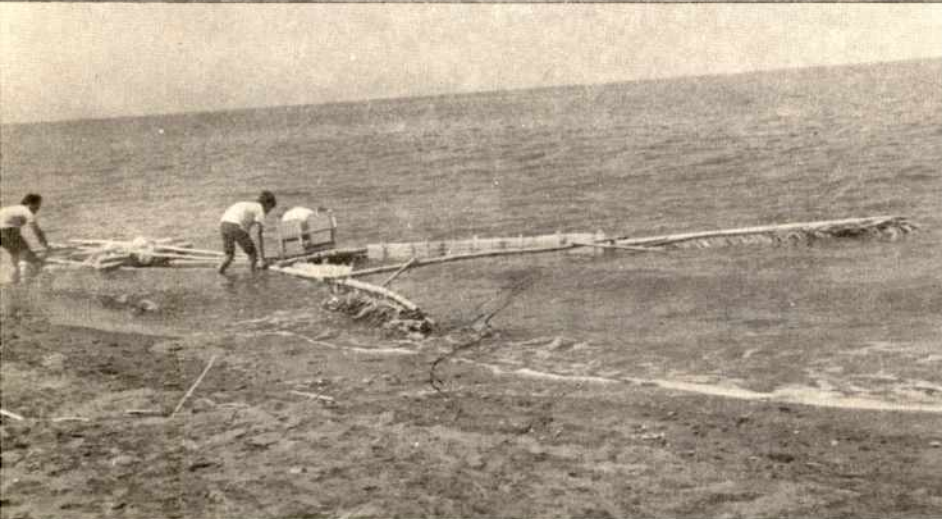


Various experiments on stock manipulation as they affect growth rates are now being undertaken in the Leganes ponds. Other variables used are fertilizers and feeds.

The Department will transport some 18,000 prawn fry from the Naawan hatcheries to the Leganes ponds in January 1974. The new stocking will provide a series of experiments to determine conditions which will yield the highest survival rates during the shipment of fry from the hatcheries to the ponds.

#### **4.2 COLLECTION OF PRAWN SPAWNERS**

Three sub-stations have been organized in the Island of Panay — at Hamtik (Antique), New Washington (Aklan) and Pontevedra (Capiz), which serve as collection grounds for prawn spawners. Two other sub-stations are being established for the same purpose — at Himamaylan and Ilog, both in Negros Occidental.



Photos show crude methods in the collection of prawn fry which abound at the coast of Iloilo.



### **4.3 RESEARCH STAFFING**

Two faculty members of the Mindanao State University, who have been transferred to the Aquaculture Department, returned to the Philippines mid-October 1973 after completing nine months of training in aquaculture in Japan under study grants allocated by the Government of Japan to the Department.

Pending the completion of its laboratory facilities, the Department is at present recruiting local senior scientists to fully staff its research divisions by July 1974.

A five-year staff development program, consisting of 50 man-years of training grants, is at present being finalized, for implementation beginning September 1974. The program is planned to upgrade, at the end of the five-year period, ten researchers with doctorate degrees and 50 with masteral degrees in the various areas of fisheries research.

### **4.4 RESEARCH TIE-UP WITH MINDANAO STATE UNIVERSITY**

As indicated earlier, the Department has already commenced its research studies on the location and population of prawn fry and gravid prawns along the coast of Panay.

A group of 25 biologists from the Mindanao State University are at present undertaking advanced training in prawn and shrimp culture at the MSU hatcheries at Naawan, Misamis Oriental. It is from this core of biologists that the future research staff of the Aquaculture Department are to be tapped.

The Department's research program, which utilizes in the meantime MSU research facilities at its Naawan hatcheries, has been advanced prior to the completion of the buildings, to gain time in its research studies on vital aspects of prawn spawning and culture.

### **4.5 JAPANESE FISHERIES EXPERTS**

The following fisheries experts from Japan are expected to arrive in the Philippines early 1974 for assignment to the Department:

- a. Mr. Utao Kobayashi, formerly with Seto Inland Sea Farming Fisheries Association, who is a graduate of the Tokyo University of Fisheries at Shimonoseki;



The following Japanese experts are scheduled to arrive in the Philippines for assignment in the SEAFDEC Aquaculture Department early 1974: Top, from left, Noboru Hoshino, Utao Kobayashi, Hiroshi Motoh; Below, from left, Shigemi Kambara, Shigeru Kumagai, Yushitetsu Nukiyama.

- b. Mr. Shigeru Kumagai, an instructor-researcher at the Yashima Aquarium, Kagawa Prefecture, who received his B.S. Zoology degree from Hiroshima University, Hiroshima;
- c. Mr. Noboru Hoshino, director of the Fisheries Division at the Okayama Prefecture Development Corporation, who finished his B.S. Fisheries from Hokkaido University, Hokkaido;



- d. Mr. Hiroshi Motoh, senior researcher at the Marine Culture Station at Ishikawa Prefecture, who holds a B.S. Zoology from Kanazawa University;
- e. Mr. Shigemi Kambara, senior researcher at the Kaga-wa Fisheries experimental Station, who holds the degree of B.S. in Fish Propagation from Nagasaki University; and

The Japanese experts are expected to undertake studies on the biology of the Philippine tiger prawn (***Penaeus monodon* Fabricius**), including optimal fishpond conditions for prawn culture.







The Japanese experts are also scheduled to undertake a survey of prawn spawning grounds along the coast of the Island of Panay.





- f. Mr. Yushitetsu Nukiyama, a fisheries expert at the Overseas Fisheries Cooperation Foundation, who has a B.S. in Fish Propagation from the Tokyo University of Fisheries.

## EQUIPMENT

### 5.1 PREPARATION OF THE LIST OF JAPANESE-DONATED EQUIPMENT

A list of research and other equipment, prepared in consultation with a Japanese SEAFDEC team which arrived in the Philippines late February 1973 and amounting to some US \$600,000 has been favorably considered by the Japanese Government.

The initial work of the Japanese experts will consist primarily of preliminary survey of prawn spawning grounds near the Project site.



The equipment items, now being procured in Japan, are expected to arrive in the Philippines between April and November 1974.

## ORGANIZATION OF THE DEPARTMENT

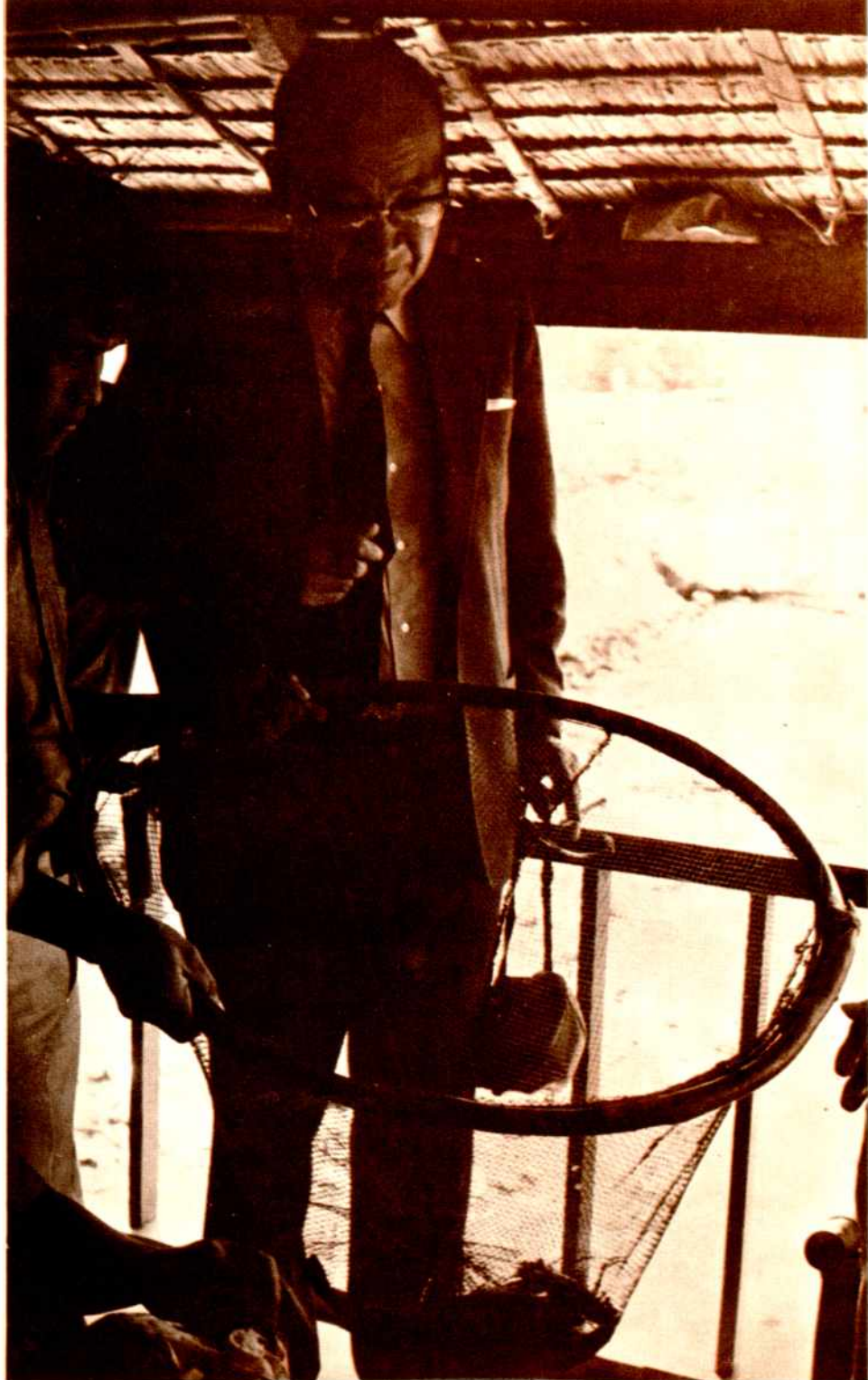
### 6.1 TEMPORARY MAIN OFFICES OF THE DEPARTMENT

The Department, with its main offices temporarily located in Iloilo City (Fourth Floor, Carlos Young Building, Solis St., Telephone 7-76-29; Cable Address: SEAFDEC Iloilo), is now operational, with the core of the administrative staff having been appointed by Dean Villaluz in his capacity as Chief of the Department.

Optimal ranges in pond conditions suitable for prawn culture are now being undertaken at the Project site in Leganes.







Japanese Ambassador Toshio Urabe examines prawns grown from the Leganes ponds.

## 6.2 LIAISON OFFICES IN METROPOLITAN MANILA

The Department has also organized its liaison offices at the Metropolitan Manila Area (Suite 401, Kalayaan Bldg., De la Rosa corner Salcedo Sts., Makati, Rizal; Telephones 89-95-56 and 89-78-69; Cable Address: SEAFDEC Manila), which coordinates various national agencies, foreign governments and international organizations involved in the establishment and development of the Department.

## 6.3 ORGANIZATIONAL STRUCTURE

As provided under its approved Plan of Operation and Program of Work, the Department will eventually have five divisions: General Affairs, Seed Production, Pond Culture, Food and Water Quality, and Engineering.

# FUNDING

## 7.1 SOURCES OF FUNDING SUPPORT

In accordance with the Department's Plan of Operation and Program of Work, as approved during the Sixth

Dean Villaluz (5th from left) receives check from Secretary Arturo Tanco (6th from left) of the Department of Agriculture representing proceeds from the sale of Japanese-donated rice. Others in photo are: Gen. Florencio Medina, Chairman of the National Science Development Board; Dr. Miravite; Director Felix Gonzales of the Bureau of Fisheries and Aquatic Resources; Assistant Secretary Rolando Estrella of the Department of Agriculture; Ambassador Urabe; Administrator Jesus Tanchanco of the National Grains Authority; Gov. Jose Tenco of the Development Bank of the Philippines; Assistant Executive Secretary Roberto Reyes of the Office of the President, Malacañang.







Ambassador Urabe at pond site.

SEAFDEC Council Meeting, the Republic of the Philippines, as host government, shall provide adequate sites in the Province of Iloilo, including the required physical facilities for laboratories, hatcheries, training and administration, office equipment and furnitures.

The host government is also required to provide the services of a Chief of the Department, professional and service staffs, and funds for operational costs.

The Government of Japan shall provide the Department with research and training instruments and equipment, the services of the Deputy Chief of the Department and an appropriate number of professional staff, as well as fellowship grants for trainees from member-countries.

## **7.2 CONTRIBUTIONS RECEIVED BY THE DEPARTMENT**

As of December 31, 1973, part of the funds to construct the buildings and to underwrite the operational cost of the Department has been secured from the Philippine Government, as well as from proceeds of the sales of Japanese-donated rice to the Philippines under the Kennedy Round.

# **AGREEMENT ESTABLISHING THE SOUTHEAST ASIAN FISHERIES DEVELOPMENT CENTER**

**The Contracting Governments,**

Recognizing the vital importance of promoting the fisheries development in Southeast Asia in the light of the urgent need of increasing the food supply and of improving the nutritional standard, especially of increasing the supply of animal protein, in this region;

Realizing that, in order to promote the fisheries development in this region, further efforts should be made in the fields of training of fisheries technicians, research on fisheries techniques and investigation of fisheries resources and in other relevant fields; and

Convinced that regional co-operation is highly effective in such fields;

Have agreed to establish hereby the Southeast Asian Fisheries Development Center, hereinafter called the "Center", which shall operate in accordance with the following provisions:

## **CHAPTER I PURPOSE AND FUNCTIONS**

### **ARTICLE 1 PURPOSE**

The purpose of the Center is to contribute to the promotion of the fisheries development in Southeast Asia by mutual co-operation among the member governments of the Center hereinafter called the "Members", and through collaboration with international organizations and governments external to the Center.



## ARTICLE 2 FUNCTIONS

To fulfil its purpose, the Center shall have the following functions:

- (1) to train fisheries technicians of the Southeast Asian countries;
- (2) to study such fisheries techniques as are suited to the fisheries in Southeast Asia;
- (3) to develop fishing grounds and to conduct investigation of fisheries resources and research in fisheries oceanography in Southeast Asia;
- (4) to collect and analyze information related to the fisheries in Southeast Asia;
- (5) to provide the Members with the results of studies and researches by the Center and other information; and
- (6) to handle the other matters related to the functions referred to in (1) to (5) of this Article.

## CHAPTER II MEMBERSHIP

### ARTICLE 3 MEMBERSHIP

1. Membership in the Center shall be open to the governments of the Southeast Asian countries and Japan. For the purpose of this Agreement, the term "Southeast Asian countries" shall refer to the Union of Burma, the Kingdom of Cambodia, the Republic of Indonesia, the Kingdom of Laos, Malaysia, the Republic of the Philippines, the Republic of Singapore, the Kingdom of Thailand and the Republic of Viet-Nam.

2. Governments eligible for membership under paragraph 1 of this Article which do not sign within the period specified in Article 14 of this Agreement may be admitted to membership in the Center by a two-thirds majority vote of the total number of Directors of the Council.

**CHAPTER III  
ORGANIZATION**

**ARTICLE 4  
ORGANS OF CENTER**

The Center shall have a Council, a Secretariat and such Departments as may be decided upon by the Council.

**ARTICLE 5  
COMPOSITION OF COUNCIL**

1. Each Member shall be represented on the Council by one Director. Directors shall hold office until their successors shall be appointed.

2. Each Member may appoint an Alternate Director who shall exercise all the powers of its Director in his absence.

3. Each Member shall pay due regard to the desirability of appointing as its Director a high level official who has sufficient knowledge and experience in the field of fisheries development.

4. At its annual meeting, the Council shall designate one of the Directors as Chairman, who shall hold office until the election of the next Chairman at the next annual meeting of the Council.

**ARTICLE 6  
POWERS OF COUNCIL**

1. The Council shall be the supreme organ of the Center and all the powers of the Center shall be vested in the Council.

2. The Council may delegate to the Secretary-General any or all of its powers, except the powers:

- (1) to decide on the Plan of Operation and the Working Programme concerning the establishment and the operation of the Departments of the Center;
- (2) to adopt the annual programme and the annual budget of revenues and expenditures of the Center;
- (3) to approve the annual report on the operation of the Center;



- (4) to admit new Members;
- (5) to appoint the Secretary-General and the Deputy Secretary-General;
- (6) to appoint the Department-Chiefs and the Deputy Department-Chiefs;
- (7) to approve agreements or arrangements referred to in Article 12 of this Agreement;
- (8) to adopt amendments of this Agreement in accordance with the provisions of Article 18; and
- (9) to decide on the manner in which the property and assets of the Center shall be disposed of in case of the abolition of any department.

## ARTICLE 7 PROCEDURE OF COUNCIL

1. The Council shall hold an annual meeting and such other meetings as may be decided by the Council or called by the Secretary-General. A meeting of the Council shall be called by the Secretary-General whenever requested by a majority of the Members. The inaugural meeting of the Council shall be called by the Government of Thailand.

2. Each Director shall have one vote and, except as otherwise provided in this Agreement, all matters before the Council shall be decided by a majority of the Members present and voting.

3. Notwithstanding paragraph 2 of this Article, the Plan of Operation and the Working Programme referred to in Article 6 paragraph 2 (1) and the manner of disposal referred to in Article 6 paragraph 2 (9) of this Agreement shall be decided by an unanimous vote of the total number of the Directors of the Council.

4. A quorum for any meeting of the Council shall be a majority of the Directors.

5. The Council may, by regulations, establish a procedure whereby the Chairman of the Council may, when the latter deems such action advisable, obtain a vote of the Directors on a specific question without calling a meeting of the Council.

**ARTICLE 8**  
**COMPOSITION OF SECRETARIAT**

1. The Secretariat shall consist of a Secretary-General, a Deputy Secretary-General and Secretariat Staff.

2. The term of office of the Secretary-General and the Deputy Secretary-General shall be two years and they may be reappointed.

3. The Secretary-General and the Deputy Secretary-General shall be concurrently the Chief and the Deputy Chief of one of the Departments.

4. The Secretariat staff shall be appointed by the Secretary-General.

5. During the Secretary-General's absence or inability to act or during any vacancy of office of the Secretary-General, the Deputy Secretary-General shall act as Secretary-General.

**ARTICLE 9**  
**SECRETARY-GENERAL**

1. The Secretary-General shall assist the Council, to which he shall be responsible, and, for this purpose, shall be in addition to the powers assigned to him expressly by this Agreement, exercise all the powers delegated to him by the Council.

2. The Secretary-General shall represent the Center.

**ARTICLE 10**  
**DEPARTMENT**

1. Each Department shall consist of a Department-Chief, a Deputy Department-Chief and Department staff.

2. The Department-Chief shall be appointed by the Council upon the recommendation of the government of the member-country in whose territory the Department is located and the Deputy Department-Chief shall be appointed by the Council upon the recommendation of the government of Japan.

3. The term of office of the Department-Chief and the Deputy Department-Chief shall be two years and they may be re-appointed.



4. The Department staff shall be appointed by the Department-Chief.

5. The Department-Chief shall conduct the business of the Department in close consultation with the Deputy Department-Chief. During the Department-Chief's absence or inability to act or during any vacancy of the office of the Department-Chief, the Deputy Department-Chief shall act as Department-Chief.

## **CHAPTER IV**

### **FINANCE**

#### **ARTICLE 11**

##### **FINANCE**

The Members shall provide the Center, in accordance with their respective national laws and regulations and within the limits of their respective annual budgetary appropriations, with an agreed amount of money, movable and immovable property and services necessary for the establishment and the operation of the Center.

## **CHAPTER V**

### **RELATIONS WITH OTHER ORGANIZATIONS**

#### **ARTICLE 12**

##### **CO-OPERATION WITH OTHER ORGANIZATIONS**

In order to fulfill its purpose, the Center may co-operate with governments and organizations external to the Center as well as other international organizations and, for this purpose, may conclude agreements or arrangements with those organizations.

#### **ARTICLE 13**

##### **ASSISTANCE FROM OTHER ORGANIZATIONS**

The Center may, by a two-thirds majority vote of the total number of the Directors of the Council, receive assistance from governments and organizations external to the Center as well as other international organizations, provided that no condition contrary to the purpose of the Center is attached to such assistance.

**CHAPTER VI**  
**FINAL PROVISIONS**

**ARTICLE 14**  
**SIGNATURE**

1. This Agreement shall remain open for signature by the Governments of the countries referred to in Article 3, paragraph 1 of this Agreement on or before 31st December, 1967.

**ARTICLE 15**  
**ENTRY INTO FORCE**

1. This Agreement shall enter into force on the date on which at least three governments have signed this Agreement.

2. For governments signing this Agreement subsequent to the entry into force of this Agreement, it shall enter into force on the date of the deposit of their instruments of accession.

3. For governments which have been admitted to membership in the Center in accordance with the provisions of Article 3, paragraph 2 of this Agreement, it shall enter into force on the date of the deposit of their instruments of accession with the Depository government of this Agreement.

4. The Depository Government shall inform the governments of the countries referred to in Article 3, paragraph 1 of this Agreement of the entering into force of this Agreement according to the preceding paragraphs of this Article.

**ARTICLE 16**  
**WITHDRAWAL**

1. Any Member may withdraw from this Agreement at any time by written notification given to the Secretary-General, who shall immediately inform the other members of such notification.

2. Withdrawal by a Member shall become effective on the date specified in its notification but in no event less than three months after the date on which the notification has been received by the Secretary-General.



**ARTICLE 17**  
**TERM OF VALIDITY**

This Agreement shall remain in force for ten years and thereafter until all the Members agree to terminate it.

**ARTICLE 18**  
**AMENDMENT**

Amendment to this Agreement may be proposed to the Council by any Member and shall only be adopted by a unanimous vote of the total number of the Directors of the Council. Each amendment so adopted shall come into force for all the Members on the date on which it is accepted by all the Members.

**ARTICLE 19**  
**DEPOSIT**

The Original of this Agreement shall be deposited with the Government of Thailand, who shall send certified copies thereof to the governments of the countries referred to in Article 3, paragraph 1 of this Agreement.

IN WITNESS WHEREOF the undersigned representatives being duly authorized thereto by their respective governments, have signed the present Agreement.

DONE AT BANGKOK, in a single copy in the English language, this twenty-eighth day of December, one thousand nine hundred and sixty-seven.

FOR THE GOVERNMENT OF THE UNION OF BURMA:

FOR THE GOVERNMENT OF THE KINGDOM OF  
CAMBODIA:

FOR THE GOVERNMENT OF THE REPUBLIC OF  
INDONESIA:

FOR THE GOVERNMENT OF JAPAN:  
M. SEKI

FOR THE GOVERNMENT OF THE KINGDOM OF LAOS:

FOR THE GOVERNMENT OF MALAYSIA:

SRI AKAR

January 26, 1968

FOR THE GOVERNMENT OF THE REPUBLIC OF THE  
PHILIPPINES:

F. E. MARCOS

January 26, 1968

FOR THE GOVERNMENT OF THE REPUBLIC OF  
SINGAPORE:

R. H. HO

FOR THE GOVERNMENT OF THE KINGDOM OF  
THAILAND:

P. SARASIN

FOR THE GOVERNMENT OF THE REPUBLIC OF  
VIET-NAM:

D. CHINH

January 26, 1968



## PROTOCOL

### AMENDING THE AGREEMENT ESTABLISHING THE SOUTHEAST ASIAN FISHERIES DEVELOPMENT CENTER SIGNED AT BANGKOK ON 28 DECEMBER 1967

The Government of Japan, the Government of the Republic of Singapore and the Government of the Kingdom of Thailand,

Having noted that countries in Southeast Asia are desirous of becoming parties to the Agreement and,

Having considered that at present the proper Organ under the Agreement has not yet been set up to deal with the matter, nevertheless the urgent desire of these countries should be complied with,

Have agreed as follows:

Article 14 of the Agreement Establishing the Southeast Asian Fisheries Development Center signed at Bangkok on 28 December 1967 shall be replaced by the following:

“This Agreement shall remain open for signature by the Governments of the countries referred to in Article 3, paragraph 1 of this Agreement until the inaugural meeting of the Council.”

This Protocol shall enter into force on its date of signature.

IN WITNESS WHEREOF, the undersigned representatives being duly authorized thereto by their respective governments, have signed the present Protocol.

DONE AT BANGKOK, in a single copy in the English language, this thirteenth day of January, one thousand nine hundred and sixty-eight.

FOR THE GOVERNMENT OF JAPAN:

M. SEKI

FOR THE GOVERNMENT OF THE REPUBLIC OF  
SINGAPORE:

R. H. HO

FOR THE GOVERNMENT OF THE KINGDOM OF  
THAILAND:

P. SARASIN

# PLAN OF OPERATION AND PROGRAM OF WORK

## AQUACULTURE DEPARTMENT SOUTHEAST ASIAN FISHERIES DEVELOPMENT CENTER (SEAFDEC) Iloilo, Philippines

As approved at the  
Sixth SEAFDEC Council Meeting  
held at Kuala Lumpur, Malaysia  
July 3-7, 1973

The Council of the Southeast Asian Fisheries Development Center,

Having regard to the provision of 2. (1) of Article 6 of the Agreement establishing the Center;

Recalling that the Council, at its Fourth Meeting, agreed in principle that an Aquaculture Department be established in the Philippines, based on the recognition that all the Member governments have a common interest in improving present fish culture techniques in the region and that to attain this objective, it is desirable to carry out research, training and extension activities in the field of fish culture through mutual cooperation among the Member governments;

Hereby decides that there shall be established an Aquaculture Department of the Center (hereinafter called "the Department"), of which the plan of operation shall be as follows:

### 1. LOCATION

The Department shall be established in the Province of Iloilo, Philippines.

### 2. FUNCTIONS

The Department shall have the following functions:

- a. To promote, undertake and coordinate research which is necessary for the development of the aquaculture industry in the region.



- b. To train experts in aquaculture at various levels, from the researcher level down to the technician level.
- c. To arrange for the exchange and dissemination of knowledge and information in the field of aquaculture and related activities to meet the needs of member-countries.

### **3. RESEARCH ACTIVITIES**

The research activities of the Department shall cover the following areas:

- a. The production and securing of quality seedlings of desired species from natural resources and by induced breeding.
- b. The increase of production by means of:
  - (1) improved design and construction of ponds, impoundments, etc.;
  - (2) improved management and maintenance of ponds and water conditions as required by species concerned;
  - (3) improvement of natural fish food;
  - (4) artificial food and feeding;
  - (5) biological manipulation of stocks; and
  - (6) control and reduction of diseases, parasites, predators.
- c. Prevention and control of pollution affecting aquaculture operations.

### **4. TRAINING ACTIVITIES**

The Department shall receive trainees from member-countries and train them for leadership in the aquacultural industry of their respective countries. The maximum duration of training and the maximum number trainees shall be one year and 20 persons, respectively.

### **5. EXTENSION ACTIVITIES**

The extension activities of the Department shall include the following:

- a. Provision to member-countries with information on the results of research activities of the Department or of any other organizations within or outside the region;
- b. Exchange of information related to fish culture with various organizations concerned; and
- c. Holding of symposia and seminars.

## **6. PRIORITY OF THE DEPARTMENT'S ACTIVITY IN TERMS OF SPECIES OF CULTURED ORGANISMS**

As was agreed in the Council at its Fourth Meeting, the Aquaculture Department shall undertake research, training and extension primarily on the shrimp culture. Due consideration should be given, insofar as feasible, to culture of other coastal and brackish water fish and shellfish, such as milkfish and mullet. The Department should also explore the desirability of undertaking fresh water fish culture in a subsequent stage of development.

## **7. ORGANIZATION**

The Department shall have a Chief and a Deputy Chief and the following five divisions:

General Affairs Division

Seed Production Division

Pond Culture Division

Food and Water Quality Division

Engineering Division

## **8. CONTRIBUTION OF THE HOST GOVERNMENT**

The government of the Republic of the Philippines shall provide the Department with the following, in accordance with the provisions of Article 11 of the Agreement establishing the Center:

- a. Adequate sites located in the Province of Iloilo as well as buildings for administrative offices, laboratories, classrooms, dormitories, furnitures, and office equipment; experimental and demonstration ponds, an adequate water system for research, production and drinking; necessary architectural services in the preparation of the plans and designs of the buildings.
- b. Services of the following local staff:
  - (1) A Department Chief
  - (2) A sufficient number of professional staff
  - (3) A sufficient number of service staff
- c. An agreed amount of money as a contribution for the operation of the Department.



## **9. CONTRIBUTION OF THE GOVERNMENT OF JAPAN**

The Government of Japan shall provide the Department with the following, in accordance with the provisions of Article 11 of the Agreement establishing the Center:

- a. Research and training instruments and equipment, or the necessary amount in yen for the purchase thereof from Japan.
- b. Services of the following Japanese staff:
  - (1) A Deputy Department Chief
  - (2) An appropriate number of professional staff members, to be sent to assume positions in the Department as specifically requested by the Secretary General of the Center
- c. An appropriate number of fellowships for trainees from member-countries.

**MALACAÑANG**

**Manila**

**BY THE PRESIDENT OF THE PHILIPPINES**

**PRESIDENTIAL DECREE NO. 292**

**DEFINING THE STATUS OF, AND AUTHORIZING THE GRANT OF TAX EXEMPTION AND OTHER PRIVILEGES TO, THE AQUACULTURE DEPARTMENT OF THE SOUTHEAST ASIAN FISHERIES DEVELOPMENT CENTER IN THE PHILIPPINES.**

WHEREAS, the Republic of the Philippines, on January 16, 1968, became a signatory to the Agreement establishing the Southeast Asian Fisheries Development Center (SEAFDEC);

WHEREAS, the SEAFDEC Council, at its Sixth Meeting held at Kuala Lumpur (Malaysia) on July 3-7, 1973, approved the formal establishment of its Aquaculture Department in the province of Iloilo, Philippines;

WHEREAS, the SEAFDEC Aquaculture Department is designed to promote research in aquaculture, especially in the production of prawns and shrimps, undertake the corresponding training programs for fisheries experts and technicians, and disseminate information on fisheries research and development for SEAFDEC member-countries in Southeast Asia;

WHEREAS, the establishment of the SEAFDEC Aquaculture Department in the Philippines will directly and immediately stimulate the development of the fisheries industry in the country, as well as in neighboring nations in Southeast Asia.

NOW, THEREFORE, I, FERDINAND E. MARCOS, President of the Philippines, by virtue of the powers vested in me by the Constitution as Commander-in-Chief of all the Armed Forces of the Philippines and pursuant to Proclamation No. 1081 dated September 21, 1972, and General Order No. 1 dated September 22, 1972, do hereby decree, order and make as part of the law of the land the following measure:



**SECTION 1.** The provisions of existing laws, decrees or ordinances to the contrary notwithstanding the Aquaculture Department of the Southeast Asian Fisheries Development Center shall be exempt from the payment of gift, franchise, specific, percentage, real property and all other taxes, duties and fees provided under existing laws, decrees or ordinances. This exemption shall extend to goods imported and owned by the said Aquaculture Department and to goods brought in or imported for the personal use of foreign personnel whose services are paid by the said Aquaculture Department: Provided, however, that this exemption is without prejudice to the collection of customs duties and taxes on goods or articles brought or imported into the Philippines for the use of such foreign personnel should such goods or articles subsequently be sold, transferred or exchanged in the Philippines to persons or entities not entitled to exemption from said customs duties and taxes pursuant to existing laws and regulations governing the matter.

**SEC. 2.** All gifts, bequests, donations and contributions which may be received by the said Aquaculture Department from any source whatsoever shall be exempt from the payment of taxes imposed under the National Internal Revenue Code and all such gifts, bequests, donations and contributions shall be considered as allowable deductions for purposes of determining the income tax payable by the donor. All funds received by the Department shall be receipted and disbursed in accordance with the Agreement establishing the Southeast Asian Fisheries Development Center and pertinent resolutions duly approved by the SEAFDEC Council.

**SEC. 3.** Non-Filipino citizens serving on the technical and scientific staff of the SEAFDEC Aquaculture Department shall be exempted from the payment of income tax on salaries and stipends received solely and by reason of service rendered to the Department.

**SEC. 4.** Aliens who enter the Philippines to perform their work for the SEAFDEC Aquaculture Department shall be exempt from restrictions imposed on immigration and other pertinent laws with respect to quota of immigrants and duration of stay in the Philippines, as may be necessary for the ope-

ration of the SEAFDEC Aquaculture Department, so long as they fall under the following status:

- (1) officials;
- (2) instructors and researchers;
- (3) trainees;
- (4) spouses, children or relatives who are dependent on and forming part of the household of those in (1) and (2).

**SEC. 5. Effectivity.** This Decree shall TAKE EFFECT IMMEDIATELY.

Done in the City of Manila, this 13th day of September, in the year of Our Lord, nineteen hundred and seventy-three.

**(Sgd.) FERDINAND E. MARCOS**  
**President**  
**Republic of the Philippines**

**By the President:**

**(Sgd.) ROBERTO V. REYES**  
**Actg. Executive Secretary**



**MALACAÑANG PALACE  
MANILA**

**BY THE PRESIDENT OF THE PHILIPPINES**

**PROCLAMATION NO. 1246**

**RESERVING FOR THE USE OF THE AQUACULTURE DEPARTMENT OF THE SOUTHEAST ASIAN FISHERIES DEVELOPMENT CENTER OR SEAFDEC, FOR SHORT, CERTAIN PARCELS OF LAND OF THE PUBLIC DOMAIN SITUATED IN THE MUNICIPALITY OF TIGBAUAN, PROVINCE OF ILOILO, ISLAND OF PANAY.**

WHEREAS, the countries in Southeast Asia, recognizing the vital importance of promoting fisheries development in the light of the urgent need of increasing the supply of animal protein in the region, have established the Southeast Asian Fisheries Development Center or SEAFDEC, for short;

WHEREAS, the SEAFDEC has established in the Philippines an Aquaculture Department which will initially undertake research studies on the spawning and culture of shrimps, prawns and other crustaceans, such as crabs and mollusks, and other fish species which could be cultured in captivity and also undertake training programs on aquaculture for local and foreign trainees from the Southeast Asian region, while disseminating at the same time informative and research materials on the aquaculture resources of Southeast Asia to SEAFDEC member-nations and other interested parties;

WHEREAS, to effectively carry out these objectives it is imperative that lands be made available for the use of the Aquaculture Department in the construction of experimental ponds for prawn culture, hatcheries, laboratories, training facilities, dormitories and administrative offices at its main station at the municipality of Tigbauan, province of Iloilo, island of Panay; and

WHEREAS, under Article II, Chapter IV of the Agreement establishing the Southeast Asian Fisheries Development Center

which was concluded in Bangkok, Thailand on December 28, 1967, and signed by the Republic of the Philippines on January 16, 1968, the member-nations are obliged to "provide x x x in accordance with their respective national laws and regulations x x x movable and immovable property and services necessary for the establishment and operation of the Center;"

NOW, THEREFORE, upon recommendation of the Secretary of Agriculture and Natural Resources and by virtue of the powers vested upon me by law, I FERDINAND E. MARCOS, President of the Philippines, do hereby withdraw from sale or settlement and reserve for the use of the Aquaculture Department of the Southeast Asian Fisheries Development Center for the purposes herein above mentioned, subject to private rights, if any there be, and to future survey, verification and approval, certain parcels of land of the public domain situated in the municipality of Tigbauan, province of Iloilo, island of Panay, which are more particularly described as follows:

#### Lot 1 of Attached Plan

A parcel of land (Lot 1 of Attached plan) situated in the barrio of Buyu-an, municipality of Tigbauan, province of Iloilo, island of Panay, bounded on the N. from points 1 to 34 by Psc-49, Tigbauan Cadastre; on the NE. and E. from points 34 to 57 by a public trail; on the S. from points 57 to 73 by the National Highway; on the SW. from points 73 to 76 by the Bogtong Creek and on the NW. from points 76 to 88 and from 88 to 1 by Psc-49, Tigbauan Cadastre; Beginning at a point marked "1" on the attached plan, being S. 35 deg. 30' W., 5,631.14 meters from B.L.L.M.1 of Psc-49, Tigbauan Cadastre;

thence S. 64 deg. 47' E., 30.94 m. to point 2;  
thence S. 89 deg. 06' E., 11.54 m. to point 3;  
thence S. 37 deg. 08' E., 23.98 m. to point 4;  
thence S. 55 deg. 59' E., 37.57 m. to point 5;  
thence N. 36 deg. 10' E., 38.44 m. to point 6;  
thence N. 31 deg. 35' E., 11.36 m. to point 7;  
thence N. 37 deg. 37' E., 25.21 m. to point 8;  
thence N. 41 deg. 26' E., 50.15 m. to point 9;  
thence N. 40 deg. 17' E., 17.28 m. to point 10;  
thence S. 40 deg. 58' E., 11.07 m. to point 11;  
thence S. 63 deg. 31' E., 3.05 m. to point 12;  
thence S. 33 deg. 32' E., 10.77 m. to point 13;

thence S. 4 deg. 32' W., 4.43 m. to point 14;  
thence S. 41 deg. 12' W., 45.97 m. to point 15;  
thence S. 48 deg. 39' E., 35.83 m. to point 16;  
thence S. 56 deg. 18' E., 23.14 m. to point 17  
thence S. 44 deg. 47' E., 9.65 m. to point 18;  
thence N. 86 deg. 07' E., 7.24 m. to point 19;  
thence S. 50 deg. 46' E., 54.38 m. to point 20;  
thence S. 51 deg. 42' E., 33.57 m. to point 21;  
thence N. 44 deg. 31' E., 28.82 m. to point 22;  
thence N. 46 deg. 05' E., 9.30 m. to point 23;  
thence S. 71 deg. 50' E., 9.88 m. to point 24;  
thence N. 71 deg. 26' E., 18.69 m. to point 25;  
thence N. 80 deg. 29' E., 21.22 m. to point 26;  
thence S. 16 deg. 21' W., 5.93 m. to point 27;  
thence S. 51 deg. 47' E., 67.29 m. to point 28;  
thence N. 36 deg. 18' E., 26.70 m. to point 29  
thence N. 38 deg. 44' E., 19.74 m. to point 30;  
thence S. 46 deg. 15' E., 4.22 m. to point 31;  
thence S. 47 deg. 25' E., 30.95 m. to point 32;  
thence N. 31 deg. 07' E., 62.06 m. to point 33;  
thence S. 84 deg. 21' E., 69.99 m. to point 34;  
thence S. 25 deg. 05' E., 38.51 m. to point 35;  
thence S. 49 deg. 39' E., 15.34 m. to point 36;  
thence S. 58 deg. 35' E., 42.49 m. to point 37;  
thence S. 41 deg. 46' E., 12.68 m. to point 38;  
thence S. 20 deg. 26' E., 26.94 m. to point 39;  
thence S. 55 deg. 14' E., 29.14 m. to point 40;  
thence S. 3 deg. 31' E., 28.87 m. to point 41;  
thence S. 10 deg. 45' E., 39.41 m. to point 42;  
thence S. 59 deg. 21' E., 8.98 m. to point 43;  
thence S. 75 deg. 55' E., 21.04 m. to point 44;  
thence S. 19 deg. 09' E., 3.84 m. to point 45;  
thence S. 11 deg. 05' E., 37.91 m. to point 46;  
thence S. 34 deg. 39' E., 29.19 m. to point 47;  
thence S. 55 deg. 53' E., 16.97 m. to point 48;  
thence S. 70 deg. 41' E., 35.51 m. to point 49;  
thence S. 65 deg. 05' E., 36.71 m. to point 50;  
thence S. 74 deg. 35' E., 19.83 m. to point 51;  
thence S. 89 deg. 01' E., 23.29 m. to point 52;  
thence S. 4 deg. 46' W., 19.49 m. to point 53;  
thence S. 84 deg. 55' W., 23.89 m. to point 54;  
thence S. 65 deg. 02' W., 41.72 m. to point 55;



thence S. 7 deg. 42' W., 46.72 m. to point 56;  
 thence S. 9 deg. 42' W., 28.23 m. to point 57;  
 thence S. 84 deg. 47' W., 35.47 m. to point 58;  
 thence S. 87 deg. 19' W., 12.17 m. to point 59;  
 thence S. 89 deg. 24' W., 22.04 m. to point 60;  
 thence N. 89 deg. 16' W., 10.05 m. to point 61;  
 thence N. 84 deg. 59' W., 97.82 m. to point 62;  
 thence N. 84 deg. 31' W., 86.55 m. to point 63;  
 thence N. 84 deg. 31' W., 273.33 m. to point 64;  
 thence N. 84 deg. 54' W., 11.37 m. to point 65;  
 thence N. 84 deg. 32' W., 89.14 m. to point 66;  
 thence N. 80 deg. 27' W., 42.73 m. to point 67;  
 thence N. 73 deg. 30' W., 33.14 m. to point 68;  
 thence N. 68 deg. 21' W., 18.00 m. to point 69;  
 thence N. 67 deg. 40' W., 35.09 m. to point 70;  
 thence N. 68 deg. 10' W., 76.39 m. to point 71;  
 thence N. 68 deg. 48' W., 86.51 m. to point 72  
 thence N. 78 deg. 07' W., 27.92 m. to point 73;  
 thence N. 44 deg. 39' W., 41.51 m. to point 74;  
 thence N. 26 deg. 41' W., 12.40 m. to point 75;  
 thence N. 42 deg. 22' W., 8.93 m. to point 76;  
 thence N. 15 deg. 08' E., 16.63 m. to point 77;  
 thence N. 50 deg. 42' E., 77.52 m. to point 78;  
 thence N. 00 deg. 07' E., 9.16 m. to point 79;  
 thence N. 17 deg. 22' E., 13.57 m. to point 80;  
 thence N. 38 deg. 52' W., 2.92 m. to point 81;  
 thence N. 47 deg. 33' E., 25.47 m. to point 82;  
 thence N. 81 deg. 01' E., 19.07 m. to point 83;  
 thence N. 18 deg. 29' E., 34.77 m. to point 84;  
 thence N. 3 deg. 28' W., 27.11 m. to point 85;  
 thence N. 43 deg. 00' E., 5.00 m. to point 86;  
 thence N. 73 deg. 00' E., 20.00 m. to point 87;  
 thence N. 19 deg. 56' W., 41.58 m. to point 88;  
 thence N. 45 deg. 48' E., 84.00 m. to point of  
 beginning, containing an area of **THREE HUNDRED  
 EIGHTEEN THOUSAND SIX HUNDRED SIXTY THREE  
 (318,663) SQUARE METERS**, more or less.

#### Lot 2 of Attached Plan

A parcel of land (Lot 2, of attached plan) situated in  
 the barrio of Buyu-an, municipality of Tigbauan, province  
 of Iloilo, island of Panay, bounded on the N. from points 26

to 33, and 33 to 1 and 1 to 7 by the National Highway; on the E. along points 7 to 9 by Lot 3775, Psc-49; on the S. from points 9 to 23 by the Panay Gulf; and on the W. from points 23 to 26 by the Bogtong Creek; Beginning at a point marked "1" on the attached plan, being S. 30 deg. 18' W., 5,839.00 meters from B.L.L.M. No. 1 of Psc-49; Tigbauan Cadastre;

thence S. 84 deg. 23' E., 49.95 m. to point 2;  
thence S. 84 deg. 42' E., 355.07 m. to point 3;  
thence N. 89 deg. 30' E., 41.80 m. to point 4;  
thence N. 84 deg. 30' E., 41.21 m. to point 5;  
thence N. 85 deg. 03' E., 15.64 m. to point 6;  
thence N. 82 deg. 59' E., 103.20 m. to point 7;  
thence S. 1 deg. 39' E., 23.38 m. to point 8;  
thence S. 1 deg. 19' W. 34.67 m. to point 9;  
thence S. 85 deg. 49' W., 118.67 m. to point 10;  
thence N. 87 deg. 46' W. 42.89 m. to point 11;  
thence N. 87 deg. 15' W., 381.10 m. to point 12;  
thence N. 78 deg. 04' W., 48.78 m. to point 13;  
thence S. 89 deg. 53' W., 52.04 m. to point 14;  
thence N. 77 deg. 19' W., 52.86 m. to point 15;  
thence S. 89 deg. 22' W., 61.55 m. to point 16;  
thence N. 85 deg. 23' W., 47.43 m. to point 17;  
thence S. 9 deg. 39' W., 8.05 m. to point 18;  
thence N. 83 deg. 18' W., 40.67 m. to point 19;  
thence N. 88 deg. 30' W., 32.99 m. to point 20;  
thence N. 74 deg. 52' W., 33.30 m. to point 21;  
thence N. 77 deg. 51' W., 35.30 m. to point 22;  
thence N. 72 deg. 31' W., 108.19 m. to point 23;  
thence N. 3 deg. 51' W., 55.18 m. to point 24;  
thence N. 20 deg. 59' W., 8.63 m. to point 25;  
thence N. 2 deg. 59' E., 47.79 m. to point 26;  
thence S. 78 deg. 15' E., 25.09 m. to point 27;  
thence S. 69 deg. 35' E., 45.62 m. to point 28;  
thence S. 68 deg. 04' E., 167.66 m. to point 29;  
thence S. 72 deg. 45' E., 34.12 m. to point 30;  
thence S. 80 deg. 41' E., 47.25 m. to point 31;  
thence S. 84 deg. 22' E., 63.71 m. to point 32;

thence S. 84 deg. 29' E., 59.61 m. to point 33;  
thence S. 84 deg. 28' E., 42.73 m. to point of  
beginning, containing an area of SIXTY EIGHT THOUSAND  
ONE HUNDRED AND SEVEN (68,107) SQUARE ME-  
TERS, more or less.

#### Lot 3 of Attached Plan

A parcel of land (Lot 3 of attached plan) situated in the  
barrio of Buyu-an, municipality of Tigbauan, province of  
of Iloilo, island of Panay, bounded on the N. from point 14  
to 16 by a public trail and from points 16 to 18, 18 to 1 and  
1 to 5 by Psc-49, Tigbauan Cadastre; on the E. from point  
5 to 7 by Lot 3616, Psc-49 and line 7-8 by Lot 3612, Psc-49;  
on the S., from point 8 to 11 by the National Highway; and  
on the W., from points 11 to 14 by a public trail; Beginning  
at a point marked "1" on the attached plan, being S. 25 deg.  
33' W., 5508.25 meters from B.L.L.M. 1 of Psc-49; Tigbauan  
Cadastre;

thence S. 78 deg. 01' E., 36.50 m. to point 2;  
thence S. 84 deg. 49' E., 31.75 m. to point 3;  
thence N. 85 deg. 52' E., 9.58 m. to point 4;  
thence S. 82 deg. 38' E., 63.57 m. to point 5;  
thence S. 5 deg. 59' W., 22.07 m. to point 6;  
thence S. 79 deg. 35' E., 14.93 m. to point 7;  
thence S. 1 deg. 01' E., 21.25 m. to point 8;  
thence N. 87 deg. 49' W., 32.17 m. to point 9;  
thence S. 85 deg. 45' W., 105.65 m. to point 10;  
thence S. 83 deg. 37' W., 120.12 m. to point 11;  
thence N. 9. deg. 32' E., 26.21 m. to point 12;  
thence N. 8 deg. 35' E., 47.17 m. to point 13;  
thence N. 65 deg. 07' E., 39.92 m. to point 14;  
thence N. 87 deg. 17' E., 23.99 m. to point 15;  
thence S. 62 deg. 55' E., 3.47 m. to point 16;  
thence S. 83 deg. 27' E., 23.03 m. to point 17;  
thence S. 69 deg. 53' E., 7.12 m. to point of  
beginning, containing an area of FIFTEEN THOUSAND  
EIGHT HUNDRED AND NINETY SIX (15,896) SQUARE  
METERS, more or less.



Note: These data are subject to final survey verification and approval.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the seal of the Republic of the Philippines to be affixed.

Done in the City of Manila, this 21st day of March, in the year of Our Lord, nineteen hundred and seventy-four.

**(Sgd.) FERDINAND E. MARCOS**  
**President**  
**Republic of the Philippines**

**By the President:**

**(Sgd.) ALEJANDRO MELCHOR**  
**Executive Secretary**