

Republika ng Pilipinas  
(Republic of the Philippines)  
MINISTRI NG EDUKASYON AT KULTURA  
(MINISTRY OF EDUCATION AND CULTURE)  
Maynila

January 23, 1980

MEMORANDUM  
No. 21, s. 1980

SEMINAR-WORKSHOP ON SCIENCE PRINCIPLES  
IN FISH PROCESSING

To: Bureau Directors  
Regional Directors  
Chiefs of Services and Heads of Units  
Presidents, State Colleges and Universities  
Schools Superintendents

1. In line with the thrust to improve fishery education in our country by upgrading the teaching competencies of our fishery teachers and instructors, a seminar-workshop on "Science Principles in Fish Processing" will be conducted at the Apolinario R. Apacible School of Fisheries, Nasugbu, Batangas on February 18-22, 1980.

2. This project will be undertaken by the Ministry of Education and Culture through the Bureau of Secondary Education. The fishery teachers and instructors to be convened for this week-long activity will be given the opportunity to avail themselves of the expertise of a Science Education expert from Japan who is currently based in the above-named school under the Colombo Plan-JICA (Japanese International Cooperation Agency) Assistance Program.

3. The participants to this seminar-workshop shall come from the schools of fisheries which are listed in the inclosure to this Memorandum. From each school in the attached list, one Chemistry teacher and one teacher or instructor in Fish Processing shall be sent to attend this in-service training program. Administrators of the participating schools are enjoined to send their participants to this seminar-workshop and derive such benefits accruing thereto.

4. To enable the participant to make his maximum contribution in the realization of the seminar objectives, it is highly desired that he take along with him copies of teaching guides in Chemistry and Fish Processing I-IV for ready references.

5. Each participant is entitled to transportation expenses, per diems and allowances during the period of the training, chargeable against local school funds, subject to the usual accounting and auditing regulations. A registration fee of ₱200 will be charged each participant to cover cost of materials for handouts, chemicals, raw materials for demonstration purposes, snacks, and other supplies.

6. It is requested that the contents of this Memorandum be disseminated immediately to those concerned.

(SGD.) ONOFRE D. CORPUZ  
Minister of Education and Culture

Incl.:

as stated

Reference:

MEC Memorandum: No. 41, s. 1979

Allotment: 1-3-4--(D.O. 1-76)

To be indicated in the Perpetual Index  
under the following subjects:

BLUE REVOLUTION  
OFFICIALS  
PROJECT  
SEMINAR  
TEACHERS  
WORKSHOP

SEMINAR-WORKSHOP ON SCIENCE PRINCIPLES IN FISH PROCESSING

I. Objectives:

1. To identify and discuss the appropriate areas in secondary chemistry where the teaching of fish processing can be interrelated.
2. To demonstrate some methods of fish processing.
3. To be able to construct improvised equipment used for fish processing.
4. To demonstrate the use of some equipment in fish canning, protein and fat analysis, etc.
5. To develop instructional materials interrelating science principles with fish processing.

II. Schedule of Activities:

Date	A. M.	F. M.
Feb. 18	1. Opening Program (Separate copy) 2. Orientation 3. Lecture: Discussion 1 Topic: Food Chemistry in Fish Processing	1. Demonstration 1 - Improved Khidahl Apparatus for Protein Analysis, Fat Determination 2. Workshop 1 - Improvisation of Khidahl Apparatus
Feb. 19	1. Lecture: Discussion 2 Topic: Application of Science Principles in Fish Processing 2. Demonstration 2 - Preparation of Fish Sticks	1. Continuation of Demonstration a) Fish Sticks Preparation 2. Demonstration 3 a) Use of some equipment for canning, etc.
Feb. 20	1. Lecture: Discussion 3 Topic: Preparation of Teaching Units 2. Workshop 2 - Identification of Science Principles in Fish Processing	Continuation of Workshop 2
Feb. 21	Workshop 3 - Development of Teaching Units	Continuation of Workshop 3
Feb. 22	Tryout of Selected Teaching Units Being Developed	1. Evaluation of Teaching Units 2. Seminar Evaluation 3. Closing Program

III. List of Participating Schools of Fisheries

Region I

1. Bolinao School of Fisheries - Bolinao, Pangasinan
2. Bangui School of Fisheries - Bangui, Ilocos Norte
3. Narvacan School of Fisheries - Narvacan, Ilocos Sur

Region II

1. Abulog School of Fisheries - Abulog, Cagayan
2. Sabtang School of Fisheries - Sabtang, Batanes
3. Solana Fresh Water Fishery School - Iraga, Solana, Cagayan
4. Isabela School of Fisheries - Palanan, Isabela

Region IV

1. Tanauan School of Fisheries - Tanauan, Batangas
2. Cavite College of Fisheries - Naic, Cavite
3. Coron School of Fisheries - Coron, Palawan
4. Tagkawayan School of Fisheries - Tagkawayan, Quezon

Region VI

- Concepcion School of Fisheries - Concepcion, Iloilo

Region VII

- Clarín School of Fisheries - Clarín, Bohol

Region VIII

1. Bobon School of Fisheries - Bobon, Northern Samar
2. Carigara School of Fisheries - Carigara, Leyte

Region IX

1. Lepak School of Fisheries - Lepak, Sulu
2. Siasi School of Fisheries - Siasi, Sulu
3. Sulu Pilot Opportunity School of Fisheries - Bongao, Tawi-Tawi

Region X

- Dinagat School of Fisheries - Dinagat, Surigao del Sur

Region XI

- Malalay School of Fisheries - Malalay, Davao del Sur