

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

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MEC M E M O R A N D U M  
No. 36, s. 1980

INTEGRATION OF NONCONVENTIONAL ENERGY TECHNOLOGIES  
IN THE CURRICULUM FOR SECONDARY SCHOOLS

To: Bureau Directors  
Regional Directors  
Schools Superintendents  
Vocational School Superintendents/Administrators  
Heads of Private Schools, Colleges and Universities

1. In response to the President's call for self-reliance in meeting the energy requirements of the country within the shortest time, it is hereby announced that a project to integrate nonconventional energy technologies in the secondary education curriculum is being jointly undertaken by the Ministry of Education and Culture and the Ministry of Energy. The project is in conformity with a Memorandum of Agreement dated December 27, 1979 between the Director, Bureau of Secondary Education for the Ministry of Education and Culture and the Assistant Secretary for Nonconventional Energy Development for the Ministry of Energy.

2. In order to accomplish the objectives of the project, a series of activities covered under five stages and programmed for a period of two years is organized. These activities will seek to accomplish the following:

- a. Train twenty four (24) regional core trainers and a number of MEC curriculum planner-writers on nonconventional energy technologies, in a 3-day national training seminar to be held at the Baybay National College of Agriculture and Technology, Siniloan, Laguna;
- b. Prepare curriculum materials in a 10-day workshop by the planner-writers to integrate nonconventional energy technologies in the school curriculum;
- c. Construct a number of demonstration units of biogas digesters, solar dryers, and copra dryers; and

- d. Conduct twelve (12) regional echo training seminars and demonstration teaching in order to train teachers who will implement the project extensively and effectively.
3. A description of the different stages of this project is inclosed. Also inclosed are a list of the seminar venues, participants, needed constructions and tentative dates of the seminars, and a list of the resource persons, planner-writers and staff, as well as the coordinators of the project.
  4. Immediate dissemination of this Memorandum to all concerned for their information and guidance as desired.

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

Incls.:  
As stated

Reference:  
None

Allotment: 1-2-4--(D.O. 1-76)

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

BUREAUS & OFFICES	SCHOOLS
Course of Study, SECONDARY	SEMINAR
CURRICULUM	WORKSHOPS
PROJECT	

STAGES IN THE INTEGRATION OF NONCONVENTIONAL ENERGY  
TECHNOLOGIES IN THE CURRICULUM OF SECONDARY SCHOOLS

Stage I - Consists of Preliminaries in which one (1) ME and one (1) MEC representatives shall visit all the seminar sites to evaluate them as seminar and demonstration centers.

After the evaluation and changes have been made, if necessary, the 13 MEC regional directors shall be called to a Manila conference where their commitment to the project and to the Government Energy Program as a whole shall be obtained.

Stage II - Twenty-four trainers, consisting of 12 regional vocational education supervisors preferably in secondary agriculture and 12 regional general education or private schools supervisors who are science majors, from 12 MEC regions, shall then be called to a 3-day training seminar at the Baybay National College of Agriculture and Technology, Siniloan, Laguna on March 4-6, 1980. During this seminar the participants shall be taken on a guided tour of the Maya Farms in Angono, Rizal, to observe an integrated biogas complex. The participants shall also witness the actual construction of a biogas digester, a solar dryer, and a copra dryer, at the seminar site.

With the 24 regular participants from 12 MEC regions\*, shall be four (4) curriculum planners and writers who will later on prepare the curriculum materials needed for the proper and effective implementation of this project.

There will also be 7 other MEC and ME participants and resource persons, aside from a secretariat.

Traveling expenses of the participants and school officials incident to their attendance to this seminar shall be advanced by their respective offices but shall be billed later against the funds of this project upon submission of necessary supporting papers to the Project Director, Director Andres R. Asistin of the Bureau of Secondary Education, in accordance with the usual accounting and auditing regulations. Board and lodging for a maximum of five days at the Baybay National College of Agriculture and Technology shall be provided by the Project.

Stage III - Immediately after Stage II, the four (4) curriculum planners and writers, one (1) artist and two (2) typists shall attend a 10-day workshop at the Teachers' Camp, Baguio City, to prepare the curriculum materials-teaching units and teachers' guides.

\*Region IV (NCR) will not be represented in the seminar since it has no public agricultural school, and it was arranged that initial implementation will be in the agricultural schools.

These curriculum materials shall be tried out, evaluated and revised, before final printing.

Stage IV - It is only after the curriculum materials have been finalized that echo seminars and demonstration teachings shall be conducted in the 12 selected regional venues.

All participants to these seminars shall be given the new curriculum materials. Expenses of participants shall be borne by their respective schools.

Stage V - The teacher-participants in Stage IV, as soon as they return to their respective schools, shall implement the full integration in the secondary curriculum of nonconventional energy technologies.

As more curriculum materials shall be printed and more echo seminars and demonstration teachings shall be conducted, it is hoped that the entire secondary school system shall ultimately be implementing this worthy project.

## REGIONAL SEMINAR VENUES, PARTICIPANTS, CONSTRUCTIONS, SEMINAR DATES

<u>REGION</u>	<u>VENUE</u>	<u>SCHOOL PAR- TICIPANTS</u>	<u>MEC REGIONAL PARTICIPANTS</u>	<u>NEEDED CON- STRUCTIONS</u>	<u>TENTATIVE DATE OF SEMINAR</u>
I	Ilocos Sur Agr'l College Sta. Maria, Ilocos Sur	27	6	E, S	July 19-21, 1980
II	Jones Pural School Jones, Isabela	63	9	P, S	Aug. 12-14, 1980
III	Phil. Nat'l Agr'l School Sta. Maria, Bulacan	18	6	B, C	July 29-31, 1980
IV-A	Baybay Nat'l Col of Agr. and Technology	27	6	E, S, C	Aug. 12-14, 1980
V	Siniloan, Laguna Camarines Sur Agr'l College	21	6	C, S	Sept. 9-11, 1980
VI	Pili, Camarines Sur Mambusao Agr'l and Technical College	d 39	6	E, S	Sept. 23-25, 1980
VII	Mambusao, Capiz Sudlon Agr'l College	33(A/F) <sup>e</sup>	6	B, S	Oct. 7-9, 1980
VIII	Cebu City Biliran Nat'l Agr'l College	75	9	S, C	Oct. 7-9, 1980
IX	Biliran, Leyte Katipunan Nat'l Agr'l School	24	6	S, C	Oct. 21-23, 1980
X	Katipunan, Zamboanga del Norte Northern Mindanao Nat'l Agr'l College	30	6	E, C	Nov. 4-6, 1980
XI	Ampayon, Butuan City Lianga Nat'l School of Fisheries, Lianga, Surigao del Sur	30(A/F) <sup>e</sup>	6	S, C	Nov. 18-20, 1980
XII	Upi Agr'l School Upi, Maguindanao	12	4	S, C	Nov. 18-20, 1980
TOTAL		399	76	7 B 10 S 6 C	