



Republic of the Philippines  
*Ministry of Natural Resources*  
OFFICE OF THE MINISTER

April 20, 1982

Special Order No. 220  
Series of 1982

SUBJECT: Creation of an Evaluation Sub-Committee  
to Review Proposals on Alternative Fuel/  
Energy Sources under the Biyayang Dagat  
Credit Program

In view of the increasing number of proposals received by MNR and its fishery agencies for the promotion of engines and auxilliary devices using non-conventional fuel under the Biyayang Dagat Credit Program, an Evaluation Sub-committee is hereby created to review and evaluate such proposals. The sub-committee shall be composed of the following:

CHAIRMAN: Engr. David Enriquez  
B F A R

MEMBERS: Miguel Y. Puzon  
F I D C

Leticia B. Pichay  
F I D C

Perla Felix  
M N R

Paulino Cancuela  
B F A R

Project Proponent

The criteria and mechanics for evaluation, functions of the sub-committee and roles of participating agencies are outlined in the attached guidelines. (Annex A)

All expenses to be incurred by the Evaluation Sub-committee in the conduct of this activity, including travelling expenses, incentives and honoraria for members, shall be chargeable against the appropriation of their respective agencies, subject to the usual accounting and auditing requirements. However, the project proponent shall provide the engines and auxilliary devices which will be needed in the conduct of the evaluation and the corresponding operating costs.

This order takes effect immediately.

  
TEODORO Q. PENA

DILIMAN, QUEZON CITY, METRO MANILA  
Minister

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GUIDELINES FOR EVALUATION OF ALTERNATIVE  
FUEL/ENERGY SOURCES FOR MUNICIPAL FISHING CRAFTS

I. RATIONALE

The escalation of fuel prices in the 70's prompted the government to direct developmental strategies towards the promotion of alternative fuel sources and energy saving devices for fishing operations. In conformity with such policies, the Biyayang Dagat Inter-Agency Technical Committee saw the need to evaluate proposals for municipal fishing paraphernalia using non-conventional fuel,<sup>1/</sup> prior to the inclusion of these projects under the Biyayang Dagat Credit Program. At present, five proposals have been received involving two types of approaches:

- a) the introduction of a new engine (i.e., diesel, kerosene and alcogas); and
- b) the installation of auxilliary devices (i.e. LPG conversion kit and gasifier).

More offers coming from the private sector as well as semi-government corporations are expected considering the fast pace of technological development today. Therefore, a standard guideline for evaluation is necessary for the identification of the most appropriate gadgets for adoption and infusion into municipal fisheries.

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<sup>1/</sup> Meaning not normally utilized.

## II. GENERAL GUIDELINES

These guidelines shall cover proposals involving all types and forms of technology for the utilization of alternative fuel/energy sources.

### 1. Criteria for Evaluation

#### 1.1 Technical Considerations

Performance levels of new engines and those retrofitted with auxilliary devices in terms of power, speed and fuel economy must be comparable if not superior to existing conventional engine types. Mechanical as well as engineering designs must be at par with existing models.

#### 1.2 Cost Considerations

Initial costs must be recoverable within a reasonable period of time giving due importance to vessel/device depreciation and lifespan, operating cost per hour, maintenance cost per hour, etc.

#### 1.3 Cost-Benefit Analysis

Actual demonstration results must have close correlation with theoretical assumptions with regards to catch and effort performances.

#### 1.4 Other Considerations

Proposed designs must be practical to use and applicable to the needs of the fishermen. The technology to be introduced must be acceptable and easily understood by the target recipients.

In case of the utilization of a non-conventional fuel, availability of continuous supply must be insured.

Maintenance services and spare parts must easily be obtainable.

## 2. Mechanics of Evaluation

### 2.1 Evaluation Sub-committee

2.1.1 Composition. The BD-IATC shall organize a sub-committee for the evaluation of alternative energy/fuel-related proposals. The sub-committee shall be chaired by the BRAR Technology Division chief and composed of the representatives of the following agencies:

MNR Planning Service  
BFAR  
FIDC  
Proponent

2.1.2 Functions. The sub-committee shall perform the following functions:

- a) review and evaluate all proposals involving the alternative use of fuel/energy sources for fishermen-beneficiaries of Biyayang Dagat;
- b) formulate additional guidelines/amendments relevant to the needs of the evaluation process;
- c) provide the BD-IATC a report on their findings/recommendations; and

- d) indorse to the Biyayang Dagat Program Management Committee the results of their evaluation for the PMC's action/decision.

### 2.1.3. Agency Participation

- a) BFAR Technology Division shall:
  - assume over-all responsibility for the evaluation;
  - be responsible for the technical/engineering analysis portion of the evaluation;
  - provide manpower and facilities required in field testing/demonstration of alternative engine types;
  - identify the fishermen-participants for the evaluation.
- b) FIDC shall:
  - be responsible for the economic/cost-benefit analysis portion of the evaluation.
- c) MNR Planning Service shall:
  - act as an inter-agency communication channel for all matters related to this concern.
- d) The proponent shall:
  - provide the engines/auxilliary devices for demonstration and field testing at no cost to the participating fishermen. However, the fishermen may buy or return the engines depending on the outcome of the field test.
  - shoulder all operating costs needed for the field test, i.e., fuel.

## 2.2 Activities to be Undertaken

2.2.1 Field Testing. The duration, venue and methodology to be used on actual test demonstration shall be decided by the Evaluation Subcommittee.

2.2.2 Preparation of Evaluation Report. The evaluation report shall be prepared by the Evaluation Subcommittee after a comprehensive assessment of all evaluation inputs:

2.2.3 Presentation/Recommendation to PMC. The report shall be submitted by the head of the Evaluation Subcommittee to the PMC for their action/decision.