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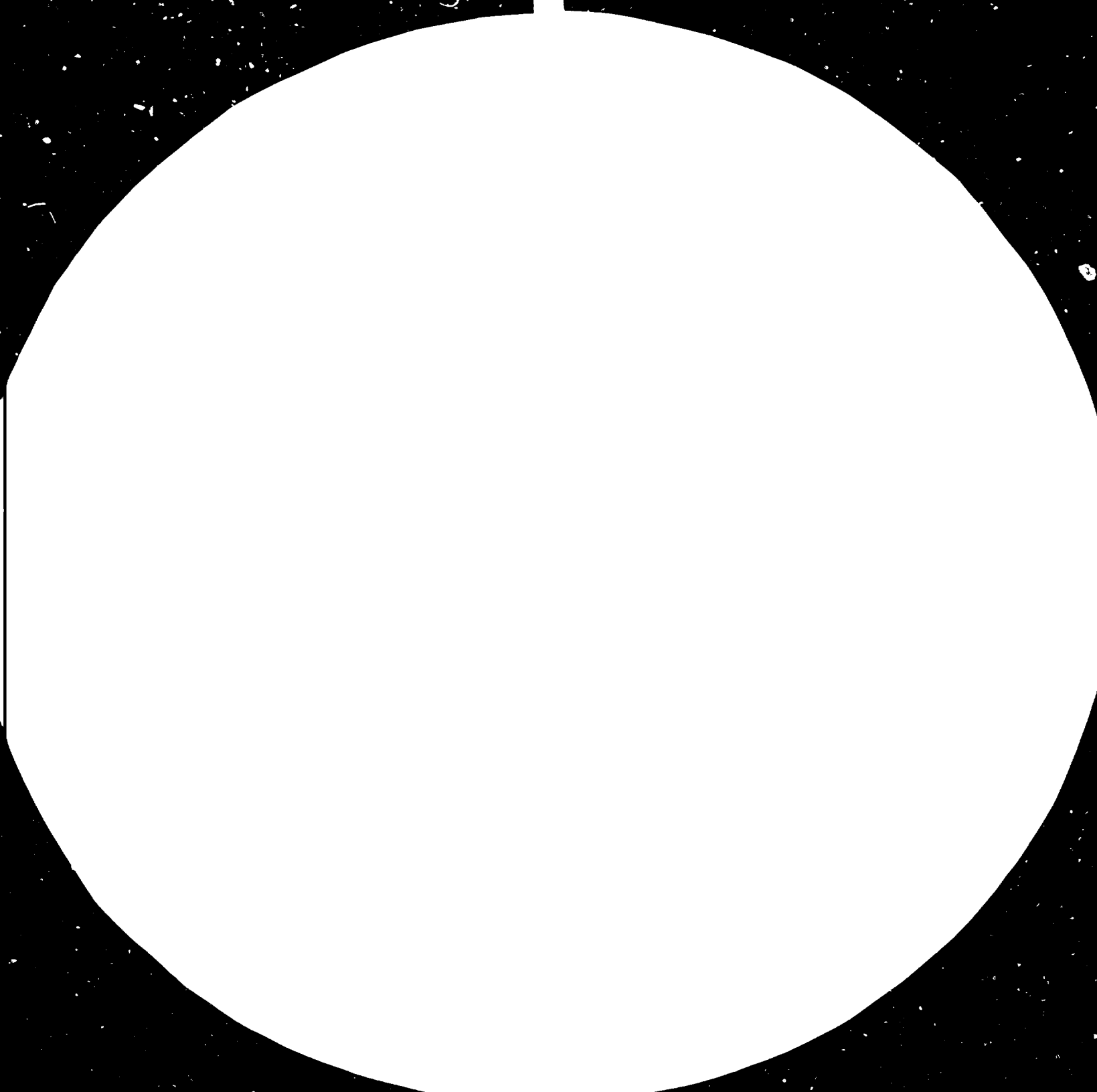
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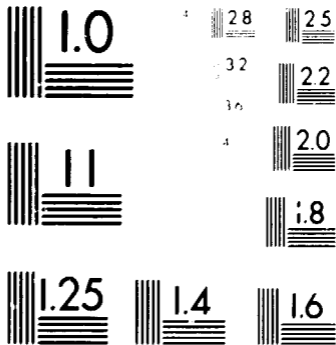
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October 1983

EXPERT GROUP
MEETING ON EXCHANGE OF EXPERIENCES
ON ENERGY CONSERVATION
IN SMALL AND MEDIUM INDUSTRIES
FOR ASEAN COUNTRIES

13393

Kuala Lumpur, Malaysia, 5-7 December 1983

AIDE-MEMOIRE (Meeting on energy conservation, ASEAN).

A. Background Information

In reviewing the energy situation in developing countries within the context of their overall industrialization efforts, the subject of energy conservation has become increasingly highlighted.

The energy needed for capital and consumer goods delivered by industry to the other sectors of economy amounts to 50% of the total energy consumption. The energy demands for the operation of the industrial sector as such represents a sizeable share of the total energy demands, i.e. about another 35%. In other words, industrial activity is directly or indirectly responsible for the use of some 85% of the total energy consumed in the world. Therefore, promotion of detailed audits for energy conservation and development of local capabilities to undertake energy audits and conservation programmes in developing countries are essential.

Industrialization depends on various factors with two elements most outstanding: technology and energy. The development of energy conservation techniques, and more energy efficient technologies for process and product engineering becomes one of the most important concerns of all countries.

In Japan, where energy resources are almost fully dependent on imports, extensive research and development including the application of energy conservation technologies has been successfully practised in a number of

manufacturing sectors. It was considered, therefore, to be of great interest to the developing countries if these technologies and processes, including the practical experiences could be transferred to the developing countries.

Recognizing the importance of this subject, the Government of Japan agreed to support the concept and in co-operation with UNIDO to promote the flow of information on Japanese experiences in energy conservation technologies and processes, in those industrial sectors that are most relevant to the developing countries, particularly of the ASEAN group. Accordingly, with a Japanese contribution, UNIDO organized a promotional programme on "Assessment of Energy Conservation in Selected Sectors of ASEAN Countries and the Transfer of Experiences from Japan."

The preparatory meeting held from 16-18 March 1983 at Kuala Lumpur, Malaysia was attended by three Japanese experts on energy conservation, three experts from the National Energy Board, as well as the Ministry of Energy, Telecommunications and Posts. One representative each from the Ministry of International Trade and Industry of Japan, and the Ministry of Energy, Telecommunications and Posts of Malaysia as well as two representatives from UNIDO also participated in the meeting.

After exchange of views and discussions to identify the best modality of project implementation, the meeting agreed upon a plan of action which followed the steps described below:

- (1) Three industrial sectors were selected for this operation; namely, rubber industry, building materials industry and textile industry.
- (2) Ten factories were selected to be surveyed by direct shop-level visits.
- (3) A team composed of three Japanese experts and four Malaysian experts undertook, during a period of one month, these shop-level visits, to implement, in the manner identical to activities carried out in Japan, to undertake the energy auditing and assessment as well as to make recommendations for improvement.
- (4) Four Malaysian experts then visited the Japanese Energy Conservation Centre in Tokyo from 12-23 June 1983 to co-operate and contribute to the preparation of the survey report.
- (5) A National Workshop will be held for three days in November/December 1983, to report on the results of the field activities of the team, and also to describe, exchange views and deliberate on the techniques as applied in Japan and its application to the given circumstances, needs and priorities in Malaysia.

(6) Apart from this national level meeting, it was agreed that a Senior Expert Meeting at the ASEAN Group level would be organized for three working days in November/December 1983 immediately following the National Workshop, in order to discuss about the Japanese methodology of energy auditing and also to review and approve a draft guideline for energy conservation auditing, prepared by the Japanese/Malaysian combined team.

B. Objectives

- (1) To exchange experiences and information on energy conservation concepts and methodologies for small and medium industries as practiced in the ASEAN Group countries.
- (2) To promote a system of energy audits and conservation programme, starting with key energy-intensive, small and medium industries, based on various ASEAN experiences, including the UNIDO/Japan/Malaysia project experiences.
- (3) Identify ways and means to develop local capabilities and capacities to implement energy audits and conservation programmes for small and medium industries through appropriate infrastructure and mechanism.
- (4) To review the "Guidelines on How to Measure Energy Loss at Factory Level".

C. Participation

Three participants from each ASEAN country will be selected by UNIDO.

The participants will have the following general background:

- (1) One senior official at the decision making level of Government/ Ministry responsible for the national energy conservation programmes and projects.
- (2) One senior official possibly at high management level of the national agencies/organizations responsible for the implementation of energy conservation programmes and projects, and
- (3) One official from industrial manufacturers/management associations/ organizations, mainly representing the small and medium industries in which, who would be the beneficiary of the energy conservation programmes and projects.

Each country team is requested to prepare and submit a technical paper of maximum 25 pages, which will be used as background information at the meeting. The paper should be a consolidation of the respective aspects of the three participants based on their specific experiences and covering the following points:

- (1) National energy conservation policy for the small and medium industries (SMI)

- (2) Energy conservation programmes and projects for SMI, with successful examples, indicating the following stages:
- the first stage: improvement on operational control at factory level with existing facilities
 - the second stage: improvement on operational control with introduction on additional facilities such as facilities for better energy transfer efficiency or facilities on waste heat recovery, etc.
 - the third stage: improvement on operational control, replacing old facilities with new one which gives better production process, product mix, etc.
- (3) Methodology for the energy audits in key energy-intensive in SMI.
- (4) Major problems facing implementation of the energy conservation programmes and projects.
- (5) How to strengthen ASEAN co-operation on energy conservation for SMI through possible organizational structure for promoting joint energy conservation projects and programmes, including energy audits.

It might be noted that the meeting could be instrumental in identifying problems and areas for technical assistance needs that could be provided on multilateral, for instance by UNIDO, or on bilateral basis, however, subject to further negotiations.

UNIDO reserves the right to make the final selection of the candidates, taking into consideration the qualification as well as the available financial resources. You should submit potential participants list to us through the Resident Representative (RR), and the Senior Industrial Development Field Adviser (SIDFA) of the local United Nations Development Programme (UNDP) Field Office.

D. Language

The Seminar-Workshop will be carried out in the English language only. Since there will be no translation facilities available, it is recommended that all participants have a good command of the English language, in speaking, understanding, writing and reading. Documentation will also be in English only.

E. Liabilities

The participants will be required to bear the following costs:

- All expenses in their home country incidental to travel abroad including expenditures for passport, visa, inoculations and other miscellaneous items, as well as internal travel to and from the airport of departure in the participant's home country.

UNIDO will not assume responsibility for any of the following which may be incurred by the participants while attending the meeting:

- Compensation for salary or related allowances for the participants during the period of the meeting;
- Any costs incurred with respect to insurance, medical bills and hospitalization fees;
- Compensation in the event of death, disability or illness;
- Loss or damage to personal property of participants while attending the meeting.

F. For further information please refer to:

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