

# INFORMATION INFORMATORISCHE AUFZEICHNUNG INFORMATION MEMO

# NOTE D'INFORMATION NOTA D'INFORMAZIONE TER DOCUMENTIE

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### COMMISSION PROPOSES COOPERATION IN THE FIELD OF ENERGY WITH DEVELOPING COUNTRIES (1)

The Commission has agreed to a proposal put forward jointly by Commissioners Claude Cheysson and Guido Brunner suggesting Community cooperation with non oil producing developing countries identifying and developing their own sources of energy.

In a communication to the Council, the Commission suggests a sum of 10 MUCE would be sufficient to get the scheme started and to begin with an inventory of needs and potentials as well as certain pilot projects considered desirable. An opportunity for discussing the scheme with states with which the Community has a special association will be provided by the opening of the negotiations for the renewal of the Lome Convention.

The Community could pursue the idea in the North-South Dialogue and other United Nations fora, and in the context of the Euro-Arab Dialogue.

The scheme is a logical extension of the efforts by the Community itself and the industrialised nations as evidenced by the agreements at the Bremen and Bonn summits to limit dependence on outside resources of energy and to reduce as far as possible the use of oil. The Commission hopes a successful application of the idea would help developing countries avoid the mistakes made by the industrialised world before the oil crisis of 1973 of becoming over dependent on outside supplies of oil.

Although estimates for future supplies of oil on the world scale are often contradictory in the short term, all forecasts agree that in the long term the world has to face up to a time of increasing shortage of supplies of oil which will lead to price rises and possibly a scramble for such supplies as there are.

The Community's aim is to help developing countries attain as great a degree of self sufficiency in meeting energy requirements as possible with emphasis on the development and exploitation of renewable sources.

The 4000 million inhabitants of the world today consume about 6300 million tonnes of oil equivalent (toe). By the beginning of the next century world energy consumption will rise probably to 17 000 million toe for a population of the order of 6 500 million. Of these about 4 000 million will live in developing countries, and more than 3 000 million of them in developing countries which have no oil of their own.

Community or Japanese citizen ten times as much (3.5 and 3.2 toe).

At the present time people living in LDCs each consume annually 0.30 toe. The average American consumes twentyseven times that amount (8.2toe) and the average

Given a reasonable expectation of growth those living in developing countries could by the year 2000 be consuming per capita 0.5 to 0.7 toe. Satisfaction of this demand in an increasing population would require between 1 400 and 2000 million tonnes of oil equivalent or 3 to 4 times present consumption.

A major impediment to mobilising a systematic programme of energy utilization is the lack of adequate knowledge of developing countries requirements and of their present and potential energy sources. A priority task therefore is for the Community in partnership with the developing countries concerned to set up arrangements to draw up inventories.

There is the need to collate and bring up to date existing information and to intensify geological surveys, prospecting and identification of potential for fossile fuels, uranium, natural gas, wind, and solar energy, geothermal sources, hydro-electric possibilities and idle land suitable for afforestation and biomass cultivation.

## Industrialised Countries' Contribution

The potential contribution of the industrialised countries in attempting to satisfy the energy requirements of the developing country partners can include:

- the development of conventional energy sources (oil, natural gas, coal, hydroelectric power);
- the encouragement of more rational use of energy in the industrial, commercial and technical fields;
- the application of classical technologies with the adaptations necessary to enable them to be assimilated;
- a particular research effort concentrated on means of transporting energy (e.g. hydrogen) given the prospects that may stem from linking up the industrialisation requirements of countries of low energy potential and the existence in certain sparsely populated areas of the world of heavy concentrations of energy which cannot be transported over long distances;
- the application of nuclear energy in the most advanced developing countries whose energy requirements should correspond to the construction of fairly large plants and which possess the infrastructures required;

- the application of new or renewable energy sources. If the latter's contribution to the Community's energy requirements is unlikely to exceed 5% in the year 2000, it has been estimated that the share will be - and already is - much higher in the developing countries.

# Personnel Training

Scientific and technical training in general in developing countries is far from satisfactory. Considerable attention must be devoted to this aspect in an energy cooperation programme in that lack of qualified personnel at all levels of skill does and will prove a major barrier to the exploitation by developing countries of whatever energy opportunities can be created, particularly with regard to the judicious introduction and use of equipment.

In particular the intensification of energy provision will require sufficient numbers of suitable qualified mechanics and electricians, particularly in the rural areas. This implies improvement in the equipment of schools and technical training centres in the developing countries themselves with particular attention to training of instructors to carry out the task of training in a manner adapted to the milieu where the skills are to be used and who are fully conversant with energy technology.

#### Financial Instruments

The development of conventional energy sources for commercial purpose is essentially a matter for private or public investors, either foreign or local. It is therefore important for the Community to foster the growth of foreign investment of Community origin in the partner countries by concluding with them agreements for specific protection to cover projects of mutual interest and in encouraging the development of such projects by the means of financial promotion available to the Community.

The implementation of a Community programme for energy cooperation has, however, financial implications going beyond investment support.

If the Community is to mobilise additional resources for LDCs and to gear part of this additional resource transfer to energy development while preserving a large degree of autonomy in determining the use of such money, then the Community must equip itself with a specific provision in the Community budget for the purpose. This facility will clearly be used in close coordination with the other financial instruments of the Community(e.g. EDF, EIB) and with financial instruments engaged in international institutions (e.g. IBRD).

An energy cooperation programme which could begin in 1979 would include two aspects:

#### First:

- establishment of energy balance sheets;
- establishment of an inventory of resources;
- establishment of an analysis of the various constraints against the mobilisation of these renewable energy resources;
- identification of various projects drawn up in national or international contexts.

#### Second:

While containing ongoing activities outlined above (e.g. research and development, improvement of supply and demand evaluation, completion and updating of inventories) this second aspect is centered on the drawing up of programmes for energy cooperation for a first five years period including financial provision. These programmes would consist essentially of:

- execution of priority projects;
- establishment of research and development programmes;
- provisions for industrial cooperation;
- resource prospection programmes;
- technical and manpower training adapted to energy development needs.

# Possible Joint Research Centre Contribution

The JRC can contribute to an energy cooperation effort in two ways:

- actions relating to specific subject areas based both on current programmes
   and existing competences;
- general actions of a cross subject nature such as training, provision of expertise, and consultant services;

the type and nature of these actions varying according to the category of developing country concerned.