



ESMAP

Energy Sector Management Assistance Programme

*ESMAP in the Nineteen-Nineties
The Findings of the Commission
to Review ESMAP*

THE COMMISSIONERS

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- Dr. Nyle Brady (Deputy Chairman), former Senior Assistant Administrator for Science and Technology, United States Agency for International Development;
- Mr. Timothy Lankester, Permanent Secretary, Overseas Development Administration (ODA), United Kingdom;
Mr. Terrence Pike, Chief Engineer (ODA), assisted Mr. Lankester;
- Mr. Farooq Ahmad Khan Leghari, Former Federal Minister for Water and Power, Pakistan; Mr. Daud Beg, Additional Secretary of the Ministry, assisted Mr. Leghari;
- Mr. Quincey Lumsden,¹ Director, International Energy Agency;
- Mr. Wilfried Thalwitz (Chairman), Senior Vice President, Policy, Research and External Affairs, The World Bank; and
- Mr. Carl Tham, Director General, The Swedish International Development Authority (SIDA).

Secretariat to the Commission

- Mr. Ian Johnson, Principal Economist, Office of the Senior Vice President, Policy, Research and External Affairs, World Bank, served as Advisor to the Commission; and
- Mr. Zia Kalim, ESMAP's Donor Relations Manager, served as Secretary to the Commission.

¹ Mrs. Helga Steeg, Executive Director of the IEA, agreed to serve as a Commissioner. However, other pressing commitments prevented her from attending any of its meetings. She nominated Mr. Lumsden to serve as a Commissioner.

ESMAP IN THE NINETEEN-NINETIES

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THE REPORT OF THE COMMISSION
TO REVIEW ESMAP IN THE NINETEEN-NINETIES

INTRODUCTION

Background

1. The joint UNDP/World Bank Energy Assessment Programme (EAP) was established in 1980 following the second oil shock of 1979 to assist many of the developing countries that were facing the compound burden of higher energy costs and increased debt service requirements. Measures were needed to: economize on energy use, expand and improve the efficiency in domestic energy supplies, and mobilize financial resources for an increased level of energy investments. The Energy Assessments were designed to offer energy policymakers a cohesive view of the sector, a sharp focus on the key policy and investment decisions required, and a systematic and well argued ranking of priorities for action. The intention was not to duplicate resource inventory work already being carried out by other agencies or to offer master plan solutions. Instead, the Assessments were designed to be policy-oriented studies, with an emphasis on energy supply and demand options, pricing, investment priorities and institutional efficiency, out of which would flow a recommended list of specific actions. As the Program evolved, more attention was given to rural energy issues and the development and utilization of new and renewable energy sources. In the area of energy conservation, it was found that work was needed on strengthening energy institutions, formulating national policies and programs, reducing electric power losses, and generating energy savings in the transport and industrial sectors. EAP conducted Assessments in 70 countries which were completed by 1987.

2. By the end of 1982, when several of the Assessments had been completed, a number of lessons were drawn. First, the usefulness and relevance of the Programme had been demonstrated by the response of the recipient countries, which were already beginning to act on many of the Assessments' recommendations and were circulating the reports at aid coordination meetings. Second, the depth of analysis of some issues needed to be increased, for example, in the areas of household energy and energy efficiency

improvement. Accordingly, subsequent Assessments gave greater emphasis to these areas. Third, while it was clear that recipient countries and donors were ready to act on recommendations of the Assessments, additional assistance was required to accelerate the follow-up. This was particularly true for pre-investment work in areas such as energy efficiency improvements and power sector rehabilitation. In response to requests from governments for this type of follow-up assistance to Assessments, the UNDP and the World Bank launched the second of their joint efforts in the sector -- the Energy Sector Management Assistance Programme (ESMAP) -- in 1983 which, since 1987, has subsumed the work of EAP.

3. The concept underlying ESMAP was to assist governments to implement the key recommendations of the Assessment reports. The most urgent were in the area of pre-investment and associated forms of technical assistance in order to ensure that the proposed investments represented the best use of scarce internal and external resources. ESMAP also identified a need for improved management of those institutions concerned with the energy sector, implying a need for technical assistance. The bulk of ESMAP's work program has continued to focus on the completion of a limited number of Assessments, household energy and pre-investment studies, especially concerned with energy efficiency.

4. The decision, taken in 1983, to follow up the EAP with a more focused work program of pre-investment activities was designed to move the EAP from studies to actions. Donors were particularly keen that the broad investment recommendations contained in the Assessment reports were followed up through more detailed pre-investment studies leading eventually to investment opportunities which the donor community could support. Conceptually this change in emphasis moved the EAP from a country focused program, where the country was the organizing principle, to a functionally focused set of activities, organized by technical specialty. EAP (which had consisted of two regional units) was reborn as ESMAP with two and later three functional units dealing with household energy, energy efficiency and strategy, and natural gas respectively.

5. At present about 150 ESMAP activities in about 70 countries are under implementation. ESMAP had, since its inception in 1983, spent approximately \$ 80 million, excluding \$34 million of studies which are underway at the time of this report, and plans currently in hand for work estimated to cost a further \$ 22 million (Table 1).

**Table 1: ESMAP Expenditures by Focus (ongoing and prospective)
(US \$ million)**

Focus	Ongoing	Prospective	Total
General	6.6 25%	2.1 10%	8.7 17%
Hydrocarbons	2.7 8%	2.4 11%	5.1
Electricity	4.7 14%	2.7 12%	7.4 14%
Household 1/	11.7 34%	10.7 49%	22.4 41%
Industry	5.8 17%	3.1 14%	8.9 16%
Research	0.8 3%	0.8 4%	1.7 3%
Total	34.4 100%	21.8 100%	54.2 100%

Source: ESMAP Status and Annual report.

1/ Including rural energy.

Note: Total expenditures since 1983 are estimated at between \$70 and \$90 million.

6. While the data is preliminary, it is estimated that almost half of the total resources have been devoted to the household and rural energy sector. The situation changed in late 1989 with the introduction of the Natural Gas Development Unit which now accounts for about 22 per cent of funds committed to ongoing projects. On a geographic basis, the bulk of resources were used for work in Africa, which accounts for almost 50 percent of total completed and ongoing activities (see Table 2).

Table 2: ESMAP Activities by Region

	Completed		Ongoing	Planned	Total	
Africa	107	57%	32	22	161	49%
Asia	39	21%	11	15	6	20%
EMENA	13	7%	10	9	32	10%
Latin America	28	15%	20	10	58	18%
Global	1		10	3	14	4%
Total	188	100%	83	59	330	100%

EMENA = Europe, Middle East and North Africa.

Source: ESMAP Annual and Status reports.

Note: An ESMAP activity is a task which leads to the issuance of a report.

7. The World Bank has remained a significant partner in both the EAP and ESMAP, contributing about 20 percent (exclusively in kind since 1987) of annual program expenditures. The UNDP also contributes about 20 percent (its Division for Global and Inter-Regional Programmes (DGIP) provides about 10 percent and UNDP country funds are tapped and yield funds fluctuating between 5 and 10 per cent), and the balance is provided by contributions from individual countries and the EC^{1/}.

8. The EAP and ESMAP are managed jointly by the World Bank and the UNDP, although day to day management is the responsibility of the World Bank. ESMAP, located in the World Bank, has a fulltime staff of 107, of which 73 are higher level staff, including four divisional managers and a donor relations manager. The average size of each ESMAP activity is currently about \$370,000, with a range of \$123,000 to \$973,000.

1/ Belgium, Canada, Denmark, France, Italy, Japan, Netherlands, Norway, Sweden, Switzerland and the United Kingdom

Background to the Commission

9. At the November 1989 ESMAP Annual Meeting it was felt opportune to examine its recent record, present capabilities, and the magnitude of the task it should be expected to assume in order to determine how it could best position itself to perform to the highest standards during the nineteen-nineties. The appointment of a Commission of development and energy experts to assess the efficacy and future focus of ESMAP was approved.

10. While there is a perception that ESMAP has performed adequately over the past ten years, both the changing nature of the issues in the sector and the rapid growth in the size of its expenditures, which have more than doubled over the past three years, warranted such a review. All the donors have fully supported such a review which follows an evaluation of ESMAP commissioned in 1988 by Canada and the Netherlands on their behalf.¹

11. The Commission was established in January, 1990. Its terms of reference are summarized below:

- * review the extent to which the energy sector continues to merit special attention through a program such as ESMAP;
- * assess the relevant energy sector priorities and the extent to which these are reflected in ESMAP's mandate and work program;
- * recommend measures to ensure and/or improve the direction and focus of ESMAP; and
- * indicate steps aimed at improving the management of ESMAP.

12. The Commission, under the chairmanship of Mr. Wilfried Thalwitz, Senior Vice-President, Policy, Research and External Affairs, World Bank, met in Washington (April 1990), Stockholm (May, 1990) and London (September 1990). Several papers relating to various aspects of ESMAP's work were prepared under the guidance of the Commission and one Commissioner (Dr. Ayensu) visited a number of recipient countries^{2/} to examine the value of ESMAP

1/ See "Evaluation of ESMAP" a study prepared on behalf of the Government of Canada (Canadian International Development Agency) and the Government of the Netherlands. (Ministry of Foreign Affairs, Directorate General for International Cooperation). Dated August, 1988.

2/ Congo, Ghana, Cote d'Ivoire, Burkina Faso, Jamaica.

activities as perceived by its clients. In addition, the secretariat to the Commission had consultations with a number of donors^{1/} to ascertain their views on the Programme.

13. The Commission's findings are discussed in four parts. Part One deals with its view of the energy issues likely to emerge this decade; Part Two covers ESMAP's role and mandate and reviews governance issues required to ensure that it meets its mandate; Part Three reviews the means by which its work can be made more relevant in light of these issues by ensuring that ESMAP's work reflects the priorities of the countries it serves; and Part Four reflects upon the institutional and management questions that need to be addressed.

1/ Belgium, Canada, the EEC, France, Netherlands, Sweden, Switzerland, UNDP and World Bank.

PART ONE**ENERGY ISSUES IN THE 1990s**

14. The Commission assessed the justification for continuing the Programme. While the softening of international oil prices during much of the 1980s led to a belief in some quarters that the energy crisis had diminished in seriousness, the Commission supports a continued and better focused effort to improve the management of this critical sector.

15. Despite the decline of world energy prices between 1983 and 1990 they were still high enough to be the costliest imported commodity for a number of developing countries. Further, given the considerable uncertainty surrounding world energy price movements, especially in light of their recent upsurge, the Commission considers it premature to assume an end to the energy crisis¹. The recent shifts in international oil prices (no matter how temporary) have underlined and re-emphasized the importance of the energy sector as a key determinant of economic growth and welfare for a large number of countries. It is the Commission's view that, as a result of these price increases, many developing countries will continue to be pre-occupied with the cost, security and financing of energy, in particular petroleum products.

16. The energy sector continues to be one of the largest development expenditure items for many developing countries. Current estimates indicate that overall investment requirements for the sector in Less Developed Countries (LDCs), excluding petroleum exploration and development, are around \$85 billion per year. Recent estimates place investment requirements for electric power in LDCs alone at over \$70 billion (1989 prices)²/. If the needs of the petroleum exploration sub-sector are taken into account, total annual investment would rise to around \$150 billion. Further, a large proportion of capital and recurrent expenditure items are in foreign exchange and therefore the energy sector is an important element in national debt reduction strategy and macro-economic management. During the previous oil price hikes, policy makers were able to borrow heavily to meet the increased cost of oil imports. The tightening of finance and the high levels of indebtedness in many countries now effectively precludes this

1/ see "ESMAP review - The Impact of the Gulf situation upon Developing Countries". Ref: IEA/OMD(90)72, Dated 4 September 1990. Paper prepared by the International Energy Agency under Mr. Quincey Lumsden's guidance and submitted for consideration to the ESMAP Commission.

2/ See "Capital Expenditures for Electric Power in the Developing Countries in the 1990s". World Bank Energy Series Paper No. 21.

strategy, reduces the number of policy options, and requires careful planning of key sectors such as energy.

17. Because of its size and foreign exchange intensity the energy sector continues to hold a pivotal position in the economic reform process of many countries, and the provision of energy (increasingly in the form of electricity and other commercial forms) is also regarded as a necessary pre-requisite for sustained growth.

18. The investment and recurrent cost requirements will be difficult to meet for many countries, especially those which rely exclusively upon public sector resources to fund the development of the sector. Many countries will need to place greater emphasis on increasing the efficiency with which energy is utilized, and on finding new and innovative means to finance expansion of energy facilities. With respect to energy efficiency, there are many cases where outlays on improved efficiency will yield higher economic and financial returns than investment in expanded output. For example, the electric power sector is characterized by high system losses in generation and distribution (losses of 30 per cent are common), low availability and low thermal efficiency of generation, sub-optimal capacity, and chronic institutional weaknesses. Nevertheless, the increase in demand for commercial energy cannot be met solely from efficiency gains but will also necessitate new investment on the basis of least cost supply strategies.

19. The energy sector offers potential for attracting private finance from both local and foreign sources. Increasing private sector finance and ownership may be significant in a number of countries. However, even if it is only at the margin, it can improve the sector's efficiency in addition to providing incremental financial resources.

20. Finally, the energy sector is critical in addressing environmental concerns, both in reducing the levels of pollutants as well as in the conservation of natural resources.

Recommendation 1

The Commission believes that the energy sector continues to deserve high priority and a large measure of support from the donor community.

21. The options to be considered and the policy choices have grown more complex on account of the environmental factor and the financing constraints attributable to the external debt situation of a large number of countries. The large energy sector investments required to sustain and accelerate growth will need to be scrutinized carefully. New approaches have also to be adopted

in order to promote the involvement of private sources of finance in the development of the energy sector. The importance of energy in the development process and the growing urgency of giving attention to the containment of pollution in both the production and use of energy, imply that the demand from many countries for impartial technical assistance and policy advice of the highest quality has grown appreciably over the past few years and will continue to grow.

22. In the nineteen-nineties most countries are likely to be preoccupied with three specific areas of energy policy, namely: energy efficiency through demand management policies; the preparation and implementation of least cost energy supplies; and institutional effectiveness. These are discussed in greater detail below.

- (a) **Energy Efficiency Gains:** One aspect of the present ESMAP strategy which the Commission fully endorses relates to its efforts in addressing energy efficiency and energy conservation. The arguments for greater attention to this area are persuasive, since: increased energy efficiency yields significant foreign exchange savings for many developing countries; it would reduce by appreciable amounts long-term investment requirements; and such improvements result in major environmental benefits. Indeed, the Commission believes that the economic benefits of improved energy efficiency are so large that they should be accorded much greater weight within ESMAP's overall strategic program. In particular, large industries and other key consumers of energy such as electric power plants are areas where sizeable and often immediate savings can be effected. It is the Commission's view that it is preferable for ESMAP to concentrate upon a smaller number of large energy consumers, where clear financial and economic gains are identifiable, relying upon the demonstration effect of such work to create a climate of public awareness and opinion which will lead smaller consumers to follow suit;
- (b) **Least-Cost Planning and Energy Substitution:** In light of the capital intensity of the sector, its high operating costs, and the considerable uncertainty in international energy prices, the search for least-cost investment strategies which minimize the risk to the country of volatile changes in international prices is of critical importance. The emphasis that ESMAP places on least-cost planning and optimal fuel substitution strategies is therefore welcome. The Commission supports ESMAP's strategy of identifying opportunities to reduce investment and operating costs and to substitute cleaner and more efficient fuels, including natural gas where considerable opportunities have emerged; and

- (c) **Institutional Efficiency:** Many countries face institutional weaknesses in their ability to manage the energy sector. These arise not only from lack of training and knowledge but also from deep-rooted structural problems within the energy institutions themselves. New approaches may need to be considered in such areas as changing ownership patterns, greater transparency and accountability to governments and consumers, new compacts developed between governments and the energy agencies, and new regulatory mechanisms may need to be devised to exert appropriate levels of influence and control over the sector. Present traditional ways of financing its development may well have to be supplemented by new less conventional means, especially in raising funds through private capital markets. These areas of work are likely to become very important in a number of countries.

23. However, while the energy sector clearly deserves attention and many facets of its development will continue to require technical assistance, the Commission addressed the question as to what extent a centrally managed program such as ESMAP is necessary: Does ESMAP result in any "value added" for the countries concerned? In terms of resource flows, the answer is probably no. Funds currently passed through ESMAP would almost certainly be used elsewhere (for energy or other priority sectors) as part of donor-supported programs. On the other hand, the extent that ESMAP resources are used to assist countries in shaping energy policies and reformulating investment strategies or influence donors to design assistance strategies in ways that might otherwise be less than optimal, ESMAP can have an important impact in a critical sector.

24. It is the Commission's view that ESMAP has a set of inherent qualities which, if they are fully exploited, will strengthen its capacity to deliver high quality output in response to the current and emerging needs of the recipient governments, bilateral aid agencies, the multi-lateral financing institutions, and the private sector. Furthermore, its impact can be increased through cooperation with other specialized sources of technical assistance such as the International Energy Agency (IEA), the International Atomic Energy Agency (IAEA), and the World Energy Council. ESMAP should therefore continue to help link together, and lend support to, the efforts of these entities in improving the management of the energy sectors of the developing countries. The most apparent components of its comparative advantage in fulfilling such a role are:

- (a) the flexibility of its approach in addressing a range of sectoral issues;
- (b) the proximity to, and interaction with, the World Bank's complement of energy specialists which enables ESMAP to

draw upon the macroeconomic and sectoral work of the institution's operational complex and benefit from the latter's project appraisal experience, quality control process and country-level contacts;

- (c) the access to the facilities and assistance provided by the large network of field offices maintained by UNDP and the World Bank as well as the commercial/economic representatives of the diplomatic missions of its donors;
- (d) the availability of grant funds which facilitate its ability to act quickly;
- (e) the ability to facilitate the funding of attractive energy sector investments by bringing them to the attention of the bilateral and multilateral financiers;
- (f) the development of common approaches and standards between a large number of donors and international organizations as the basis for improved coordination and country assistance; and
- (g) the widespread distribution of ESMAP reports to the international energy community which helps to sensitize it to important energy issues - many of a technical nature.

Recommendation 2

ESMAP should continue to evolve as a unique, international cooperative effort which helps its recipient countries to better plan and manage their energy sectors.

25. ESMAP, if it is to continue to play a meaningful role in the evolution and implementation of an effective strategy for the provision of technical assistance to developing countries will need to focus upon issues of investment and financing, ownership patterns, efficiency concerns, and environmental linkages. The latter concern of addressing the implications of the energy-environment link has emerged as a dominant issue in the nineteen-nineties together with the need to identify both public and private finance to implement least-cost energy investment programs. Strategies for improving the environment will involve both improved efficiency as well as switching to cleaner fuels. Strategies for securing adequate levels of finance will involve addressing a number of institutional, regulatory, pricing and ownership issues within the individual energy subsectors.

26. The above has implications for changing the balance of priorities for many countries in their endeavour to plan and manage

their energy sectors. These shifts in emphasis will also need to be fully recognized within ESMAP work programs and these are discussed in greater detail in Parts Two and Three.

Recommendation 3

ESMAP's structure and work program should be responsive to the shifting priorities in the sector, especially the vastly increased importance attached to producing energy in an environmentally benign manner.

PART TWO

THE GOVERNANCE OF ESMAP: FULFILLING ESMAP'S ROLE AND MANDATE IN THE 1990s

INTRODUCTION

27. The need to analyze and formulate solutions for the major energy problems confronting the developing countries has been pointed out by recipient countries and donors alike. Part One of this report has reaffirmed the central importance of the energy sector to economic progress and environmental improvement, and has highlighted the considerable complexities and options likely to face many countries as they plan the development of this sector during the 1990s. Further, assistance in conducting well-conceived pre-feasibility work is frequently an imperative consistently urged upon ESMAP by both its supporters and beneficiaries. Advice on technical and policy matters will continue to underpin investment decisions in the sector.

28. In this section we examine the role that ESMAP should perform in support of the countries it serves; we review the mandate required for ESMAP to work effectively in the 1990s; and then indicate means by which this mandate can be influenced to ensure that appropriate degrees of strategic guidance and technical oversight are provided in a timely manner from those ESMAP serves.

ESMAP'S MANDATE AND ROLE

29. The question of ESMAP's mandate has been discussed at its last three Annual Meetings and in the context of the Canadian-Dutch Evaluation of the Programme which was conducted in 1988. Two views of its objectives have been voiced. The first conceives of ESMAP being a service oriented instrument whose products were largely technical in nature reflecting its functional organization. The second centered around a wish to see it formulating and working within a strategic framework with individual countries which determined the nature and content of its work program. In practice, it is the first of these concepts to which the Programme has adhered, resulting in it being active in over sixty countries by providing specialized technical studies and engaging in performing sector-wide work in relatively few instances. Over the recent past, donors and recipients have expressed the desire to see the Programme's mandate broadened to include the strategic, sector analysis which was done in the course of the EAP and early days of ESMAP. The coherence and focus which using specific countries as the organizing principle could bring to ESMAP's work has been urged strongly. This, it is suggested, should be the focal point in determining the nature and scope of ESMAP's work program.

Accordingly, the Commission has given considerable attention to the advisability of developing a new mandate for ESMAP to respond to the needs of the nineties by building upon its current strengths and shifting towards meeting its changing responsibilities.

30. In the Commission's view, ESMAP's primary role continues to be to provide high quality technical assistance to individual countries to enable them to better plan, manage and regulate the energy sector and to set the stage for action and intervention by the governments concerned, bilaterals, the multilateral financing institutions, and the private sector. The Commission believes that ESMAP's role will center around strengthening energy sector institutions through well planned and effectively implemented programs over a number of years. As a consequence, ESMAP should focus on those energy issues which are of pressing concern to the individual countries in which it works. In the Commission's view, ESMAP should not be involved in research, technology generation nor in areas tangential to the energy sector. Agencies other than ESMAP have clear advantages in these fields. It should remain largely "upstream" in identifying policy and investment options and providing the essential links in order that high quality advice can be translated into actions by the countries concerned.

Recommendation 4

The Commission recommends that ESMAP's mandate reflects a move towards the provision of broad-based technical assistance and strategic guidance to individual countries.

31. To ensure that ESMAP receives clear strategic and technical guidance on the role expected of it, the Commission proposes a series of measures aimed at clarifying the governance of ESMAP. In summary, these include the establishment of a consultative group of donors and recipients to provide strategic guidance and oversight; a Technical Advisory Group (TAG) to provide technical guidance and review; and a secretariat to provide essential support to the Group and the TAG. Implementation and management of ESMAP activities would continue to be the responsibility of the World Bank. Chart 1 provides an overview of these proposals which are discussed in greater detail below.

THE GOVERNANCE OF ESMAP

The Provision of Strategic Guidance-The Consultative Group

32. The Commission is convinced that ESMAP has a valuable role to play in assisting developing countries to manage their

energy sectors better through: (a) participating in the definition of the relevant issues and options; (b) helping in the formulation of pragmatic policy and investment responses to address these; and (c) acting as a catalyst in enlisting the support of the donor community in the application of appropriate measures aimed at ameliorating the energy problems of the recipients. ESMAP's objective is to facilitate the working of the relationship between its recipient countries, the multilateral institutions and bilateral donors. All three of these parties have a clear interest in improving these linkages; the existence of the Programme implies a recognition that they expect it to function as their agent within the framework of its mandate. An international cooperative effort such as ESMAP requires that its functioning be governed by the influence of its financiers and recipients. The Commission believes that institutional arrangements and operating procedures which provide clear strategic guidance to the program and are conducive to the harmonization of the interests and preferences of the various entities associated with it should be developed and installed to help fulfill the important obligations it has to meet in the 1990s.

Recommendation 5

The Commission believes that ESMAP would benefit if it were to operate on the basis of advice and guidance furnished to it by an international "Consultative Group on Energy Sector Management" (CGESM).

33. The group would be drawn from ESMAP's donors and the recipients of its assistance. Its membership could consist of:

- (a) the original founders of ESMAP, UNDP and the World Bank, who would serve as the group's co-sponsors;
- (b) representatives of ESMAP's donors including the EC and the regional development banks who contribute to its resources, e.g. the Inter-American Development Bank; and
- (c) a group of about five individuals selected by UNDP in consultation with the World Bank and other donors to represent the views of recipient countries.

34. In addition, the periodic deliberations of CGESM should be attended by nominees of international organizations (e.g. the International Energy Agency (IEA), IAEA, FAO, UNIDO and SADCC) and other bodies (e.g. the Stockholm Environmental Institute, the Oxford Institute for Energy Studies) who could bring specialized expertise to bear on ESMAP's concerns. Institutions which have entered into collaborative agreements with ESMAP should also be represented (e.g. GTZ).

Recommendation 6

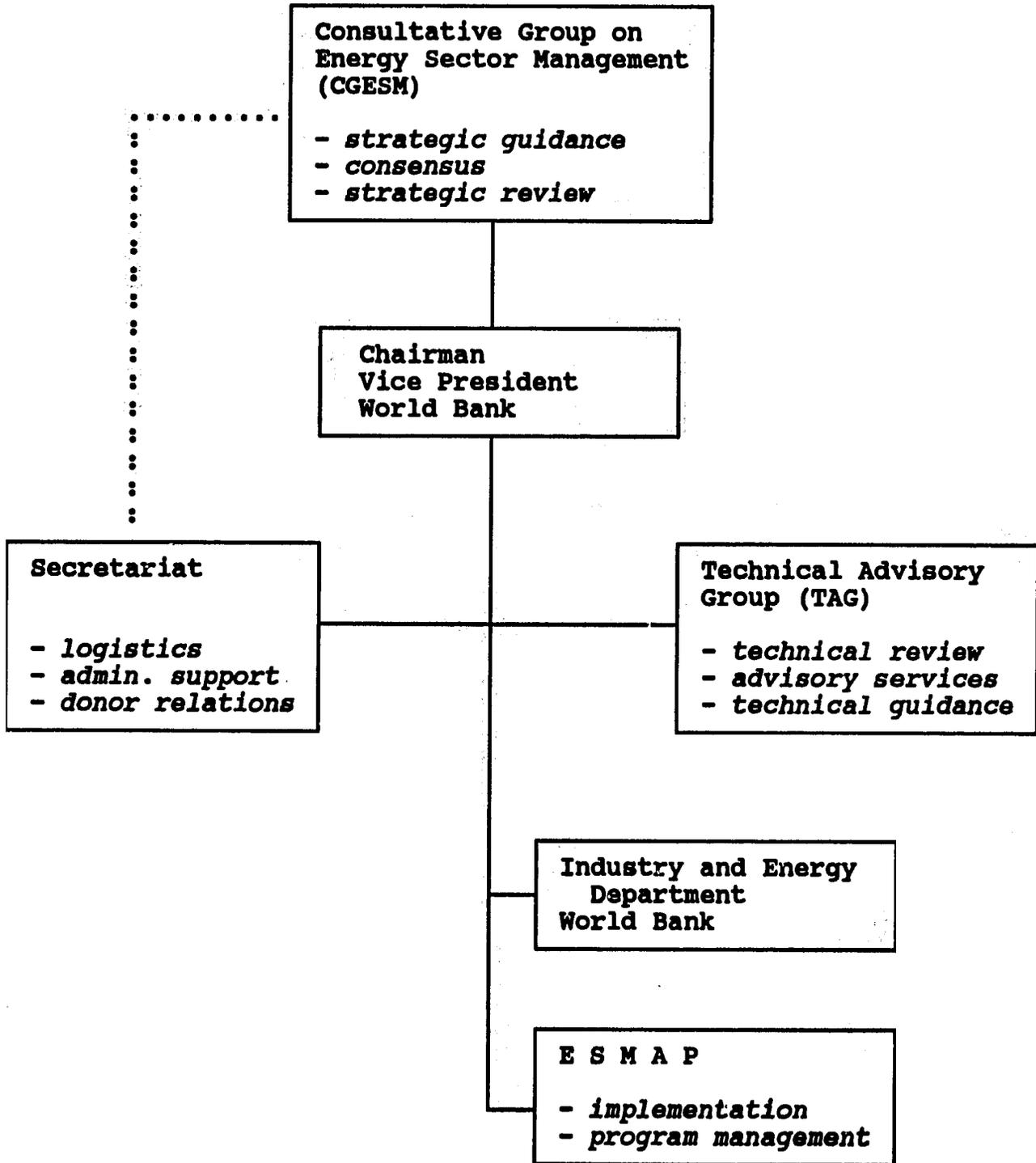
The Commission recommends that the Annual Meeting of the CGESM should be used to focus on ESMAP's strategy, as well as to scrutinize the elements which constitute its anticipated work program.

35. The Commission envisages that CGESM will function largely through the forum provided by an Annual Meeting. In addition to the usual review of the past year's achievements, it will consider and exchange views on ESMAP's strategic agenda, the composition and thrust of its work program, its funding requirements, the mounting of special initiatives and any other topics related to its operational efficiency. The Commission is of the opinion that the definition of a broad consensus on these matters on the part of the CGESM is essential for ESMAP to meet its mandate. The identification and definition of a spectrum of common interests of the Group should be possible to obtain considering the cooperative and constructive spirit which has characterized previous ESMAP meetings. It is anticipated that no voting would take place nor would there be adherence to any set constitutional procedures. CGESM's principal purpose would be to set goals which ESMAP's management then pursues. The latter acts as an agent for the CGESM and should not be burdened with the invidious task of articulating its own agenda on the basis of vague guidelines and running the risk of being taken to task for misinterpreting them. The management of the Programme is accountable to those who finance it and must give equal weight to the views of those whom it serves. CGESM represents the donors and the recipients and it is their joint expectations which ESMAP has to strive to fulfil. The Programme's management must therefore receive clear guidance. Accordingly, the Commission proposes that CGESM finalize and issue an "Aide Memoire" describing its conclusions and recommendations at the close of the Annual meeting. This would serve as a "Terms of Reference" for ESMAP's management and be used as a yardstick to measure its performance during the ensuing year.

36. The Commission considered the question of the Chairmanship of CGESM. It recommends that this responsibility, considering the multilateral nature of the Programme, should be entrusted to the World Bank which acts as its "Executing Agency" on behalf of the members of CGESM. Given the size of the resources placed at ESMAP's disposal as well as experience gained in administering other similar international collaborative efforts, the Commission considers it appropriate that an officer of the World Bank bearing the rank of at least a Vice President of that institution serve as Chairman of CGESM, such appointment to be made in consultation with UNDP with the concurrence of the CGESM.

37. As noted CGESM meetings would be attended by organizations such as IAEA, IEA, EC, regional development banks where activities impinge on the kind of work undertaken by ESMAP,

Chart 1:
THE PROPOSED STRUCTURE OF ESMAP



and relevant research institutions. The Commission believes that the participation of these groups as observers of CGESM gatherings would yield positive benefits by improving the likelihood of inter-agency cooperation; facilitating information exchange, and helping to avoid the duplication of effort.

The Provision of Technical Guidance - The TAG

38. The Commission is of the opinion that the establishment of a Technical Advisory Group (TAG) would help the CGESM as well as ESMAP's management to improve its operations and maintain and enhance the technical integrity of its work. This mechanism has worked well in the case of several other internationally funded programs, most notably the Consultative Group on International Agricultural Research (CGIAR). The TAG would be composed of about five internationally recognized energy experts selected, after due consultation with the donors, by the co-sponsors for a term of two to three years (renewable). We envisage that the TAG would devote about four to six weeks a year in examining ESMAP's operations in the context of its mandate spelt out in the annual "Aide-Memoire" referred to above. Its draft terms of reference would need to be reviewed and finalized at the November 1990 ESMAP Annual Meeting and should include: an assessment of ESMAP's strategic agenda; the provision of technical advice as and when required by the CGESM; an examination of the technical quality of the work program including a review, on a sample basis, of a number of ESMAP products; and a judgement of the impact that ESMAP has had in shaping the recipient's energy policies and investment programs. In addition, the TAG would also draft an annual brief for the Chairman giving its views on the proposed strategic priorities, work program, financing requirements, and administrative and managerial issues which are pertinent for the participants to address.

Recommendation 7

The Commission recommends that an independent Technical Advisory Group (TAG) be established to advise ESMAP management and the CGESM.

The Secretariat

39. In view of the connection between the responsibilities of the CGESM, the TAG and the views of ESMAP's financiers, it is proposed that logistical and administrative support to the TAG be provided by a small secretariat which would subsume, inter alia, the donor relations function. The Secretariat would be charged with: providing administrative support to the CGESM and TAG,

organizing the Annual Meeting of the CGESM; maintaining donor relations and other external relations; providing advice to ESMAP management on financing matters and arranging appropriate periodic financial reviews; and acting as a conduit for other information flows between CGESM, TAG, ESMAP and the Chairman. The Secretariat would be responsible for all contacts with ESMAP's donors as regards to securing financial resources. In this, as in other facets of its work, the Secretariat would function in the closest collaboration with ESMAP's management which would handle the Programme's expenditures and report on them to CGESM through its Chairman. ESMAP's monetary needs would be a function of the scope and nature of the mandate given to it yearly by CGESM on the advice of the TAG. The arrangements proposed reflect a recognition that the provision of funds to the Programme is the obligation of the donors acting in concert through CGESM, that the Programme's implementing arm should not be burdened with the task of fund raising and should be left free to concentrate on the delivery of high quality technical assistance to the recipient countries. It is the duty of the Secretariat to serve as a focal point for contacts between the CGESM, the TAG and ESMAP's management. The Commission believes that the establishment of the Secretariat will improve communications between these parties and facilitate the smoother functioning of the Programme through placing the funding mechanism closer to the financiers through its links with CGESM.

40. Further, several donors (U.S.A.I.D., the EC, UNDP, etc.) have expressed the view that, in certain circumstances, specific tasks could be best performed either by other energy units of the Bank, or by ESMAP in collaboration with the latter. In such cases, which are expected to grow in number, an arbitrage role has to be played which the Commission believes should be entrusted to the Secretariat.

41. TAG, the members of CGESM and ESMAP's wider constituency will all require that they are properly informed of the Program's activities. There are two aspects of ESMAP's responsibility in this area. The first is to ensure that the strict accountability desired by donors is provided in the form of timely, accurate and comprehensible reports. The second is to ensure that the positive impact of ESMAP operations is made known to a wider audience with the objective of underpinning the financier's decisions to support the program, and recipient decisions to accept ESMAP's assistance. With respect to the first aspect, the Commission believes that periodic reporting should be strictly objective, simply presented, and devoid of any flavor of self-appraisal or public relations appeals. The facts, presented in a business-like format, with an objective descriptive text and clear tables, would be adequate. This format would permit a more timely delivery to governments of pertinent and up-to-date information. It is envisaged that the proposed TAG would review and advise upon information and related reporting requirements. With regard to the second aspect, ESMAP's constituency would best be served by the production of an Annual Report which, in addition to providing the essential information

of the year's activities including more comprehensive and clearer financial statements would also seek to reflect the participating governments' views on the Programme's achievements. There again, TAG may be asked to study ESMAP's external relations efforts and advise upon their appropriate level.

Implementation and Management

42. At present, it is envisaged that ESMAP would continue to be managed by the World Bank's Industry and Energy Department, the Director of which reports directly to the Bank's Vice President for Sector Policy and Research, who will serve as the Consultative Group Chairman. Close linkages would be maintained between ESMAP and the Bank's Operational Complex. Parts Three and Four review implementation in greater detail.

A NEW ROLE FOR THE CO-SPONSORS, THE DONORS, AND THE RECIPIENTS

43. This section of the report reviews, in general terms, the role that the co-sponsors (World Bank, UNDP), the donors, and recipient countries might play within the framework of the restructured ESMAP as proposed by the Commission and outlined in Chart One.

44. The Co-Sponsors (UNDP and the World Bank): UNDP was instrumental in establishing both the Energy Assessment Programme and ESMAP. The continuation and growth of ESMAP are attributable, in sizeable measure to the support UNDP has extended in providing guidance and operational support partly, though not exclusively, through its Field Offices. ESMAP's success has hinged on the substantial financial resources provided by UNDP's Division for Global and Interregional Programmes and the help it has given in the mobilization of funding through country IPF's and from various other donors. The Commission notes that this partnership between the UNDP and the Bank has been fruitful and regards its continuation as a vital ingredient in the process of consensus-building which is essential for ESMAP to perform effectively in the nineties. ESMAP's ability to interact productively with its constituency (i.e. the users of its services and the purveyors of its resources) depends to a considerable extent on demonstrating that the achievement of the goals of the Programme are accorded high priority by these two major international institutions acting in tandem. UNDP, within the U.N. system, is responsible for the provision of technical assistance to the developing countries with the objective of increasing their capacity to improve economic performance. The World Bank also extends technical assistance but by far the most preponderant part of its mission to proffer advice on economic management and finance for development projects and

programs. ESMAP's role, although representing a very small part of the overall work of the two organizations, lies at this interface. In establishment of EAP and ESMAP the international community recognized that UNDP and the Bank had complementary roles to play in the custodianship of these Programmes. The future of this relationship is best described as co-sponsorship in that the two organizations bear responsibility for the efficient functioning of the Programmes on behalf of CGESM. The Commission commends the collaborative characteristic of the relationship which constitutes the bedrock of ESMAP's future success. In this context, the joint responsibility on the part of UNDP and the World Bank for the effective operation of the Programme guided the Commission in proposing that they should both be accountable to the CGESM as elaborated upon further below.

45. The Commission noted that one common feature which UNDP and the World Bank shared in their relation to ESMAP, although different in degree, was that they were both "sponsors" as well as donors. The World Bank Group was a major source of concessional finance for investments geared towards energy sector development; UNDP's formal responsibility ended at the "technical assistance phase" concerned with preparing the blueprint for actual expenditures and the enunciation of the policy interface underlying their justification. The Commission noted that about 20% of the World Bank's lending was devoted for projects in the energy sector -- this represented some \$3.8 billion in FY90. Given the World Bank's cofinancing schemes, its capacity to "induce" bilateral funding on the part of the industrialized countries, and the provision of equity and credit from the private sector, ESMAP could provide tangible help in the realization of an appreciable amount of finance through its influence in shaping the Bank's energy programs.

46. The Commission recognizes that ESMAP operates in the early phases of the "project cycle." This is a somewhat unfamiliar area for many potential energy financiers. Even so, if care is taken to ensure that ESMAP's policy, project identification and pre-feasibility work is rooted in "practicability," it would perform an extremely valuable role in easing the path for translating promising ideas into credible schemes which would attract the attention of the financiers. Giving greater attention to the prospects of obtaining finance for energy sector investments identified by ESMAP could help in this regard.

47. UNDP has informed the Commission that the new CGESM mechanism if it is put in place, will obviate the necessity for it to participate in ESMAP's day-to-day management which should be left to ESMAP functioning administratively through the World Bank in its capacity as the Executing Agency. UNDP's role would be played through:

- (a) acting as a "co-sponsor" of CGESM and participating in organizing its Annual or other meetings;

- (b) selecting, in consultation with the Chairman of CGESM, the members of TAG and the head of the secretariat;
- (c) nominating and selecting the representatives of the recipient countries to the CGESM;
- (d) attending the periodic meetings of the TAG;
- (e) seeking to ensure complementarity between UNDP's country programmes and those of ESMAP; and
- (f) providing the services of its field offices when warranted.

48. The Commission concluded that, ESMAP should ensure that its activities are adequately synchronized with those of its counterparts in the World Bank's lending arm since operating in close conjunction with the latter will yield important advantages to the Programme not least a wider perception that the preparatory work it engages in could lead to sizeable lending. This is not to say that the World Bank's Operations Complex should dictate ESMAP's agenda. Rather, a symbiotic manner of operation should prevail and be a model for relationships with other potential financiers.

49. The Commission urges that steps be taken to ensure that the Bank enters into the Programme on an institutional basis rather than managing it on behalf of only one part of the organization. The room for maneuver is immense and must be utilized. There is sufficient common ground between the purposes of ESMAP and the World Bank's operational energy units for the institution to interface with the Programme over a much broader front than at present.

50. The Commission suggests that the mechanisms and procedures to ensure that the Programme's objectives are in consonance with those of the World Bank should be put in place as soon as practicable. They could be publicized, perhaps in the form of a statement to the November 1990 Annual Meeting.

51. The Donors: ESMAP's donors (other than the World Bank and UNDP's DGIP) provide about 70% of its financing. In addition, they proffer invaluable advice and direction as regards the evaluation of its strategic agenda, geographic focus and feedback on its technical performance. By and large, their divergence on these issues was found by the Commission to be stimulative of debate rather than disruptively divisive. Their stance, as revealed by their past and proposed support of ESMAP, is indicative of a strong commitment to operate within the joint framework developed by UNDP and the World Bank. The continuing and increasing support of the Joint UNDP/World Bank Energy Programmes over the last ten years (even while oil prices softened during the the mid and late 1980s) bears testimony to their clear vision that

the mid and late 1980s) bears testimony to their clear vision that the "energy crisis" was not a transient phenomenon but a long-term, enduring problem which profoundly affects the growth prospects of the global economy. The Commission noted that many of the initiatives developed by ESMAP and supported by its donors - (e.g. the development of indigenous resources like natural gas, the improvement of energy planning capacities, the examination of the possibilities for interfuel substitution and the women in energy initiative) have led to the Programme's most noteworthy achievements. The Commission therefore believes that it is imperative that the donors must be given a greater, clearer voice in directing the activities of the Programme which can only survive and grow with their support.

52. The Recipients: ESMAP's ultimate success is determined by the extent to which it helps countries to perceptively improve the management of their energy sectors. Here again, the guiding principle is one of partnership rather than client/paymaster. The Commission is cognizant of the fact that the acid test of ESMAP's involvement in a given country is whether, over time, it can by utilizing local organizations and consultants progressively, dispense with the assistance which the Programme supplies in performing energy planning, developing projects, engaging in energy sector investment reviews - in short in managing the sector. The most pertinent factor in determining the success in achieving this overall aim, in fact the effectiveness of any single activity in which the Program engages, is the country's commitment to, and identification with, the implementation of the task in hand. The Commission has the impression, confirmed in significant part by the findings of one of its members, that ESMAP's operations could be significantly improved by systematically taking greater account of recipient country concerns and perceptions in the choice, design and conduct of the Programme's activities. In view of this, the Commission proposes that a representative panel of about five knowledgeable energy specialists/leaders from recipient countries be included in the CGESM to participate with the co-sponsors and donors in determining ESMAP's priorities, evaluating its performance and giving its management advice and guidance.

PART THREE**THE IMPLEMENTATION OF ESMAP'S MANDATE:
ENHANCING QUALITY AND EFFECTIVENESS****INTRODUCTION**

53. While the CGESM can provide broad direction and strategic priorities, these must be translated into effective work programs. In this section we focus on fundamental questions of implementation and process required to ensure that work program priorities are set and means are established to ensure that ESMAP works within well established operating norms of accountability and financial transparency.

ESTABLISHING PRIORITIES

54. ESMAP resources are limited^{1/}; therefore, a program which has strategic objectives with well defined priorities which makes maximum use of those resources is essential. While ESMAP's broad objectives should, needless to say, be in conformity with the key energy issues as reviewed in Part One of this report we turn in this section to how priorities within ESMAP's work program should be considered. Attention is given to four areas:

- (a) the degree of country commitment to ESMAP;
- (b) the extent to which ESMAP activities will result in discernible follow-up whether in policy changes, investment decisions or institutional strengthening;
- (c) the extent to which work tasks are in conformity with ESMAP's mandate and comparative advantage; and
- (d) the extent to which donor preferences can be accommodated.

^{1/} For example, ESMAP's annual expenditures of around \$20 million on energy studies worldwide compare with annual commitments for technical assistance to the energy sector within World Bank energy projects of about \$100 million each year including about \$80 million for electric power alone.

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Country Commitment - The Key to Effectiveness

55. For ESMAP to make a significant contribution in the field of energy policy advice it must do so by providing such advice over a sustained period within individual countries. This implies a long term commitment to the institutional strengthening of a country's capacity to effectively manage its energy sector and also means that sectoral priorities set by the country need to become the guiding principle for ESMAP. ESMAP's mandate to provide sustained assistance also implies that the country concerned must demonstrate its own commitment and desire to work in partnership with ESMAP. In the Commission's view, the country-based assistance approach will yield substantial gains in fostering an appropriate climate of technical cooperation between the individual country and ESMAP. This approach has a number of advantages:

- (a) it would facilitate a greater degree of country-level programming than hitherto, which would also provide expanded opportunities to undertake truly integrated energy planning tasks and place investment opportunities and policy advice in a broader and more relevant context than at present;
- (b) it would allow for a greater integration of functional tasks, such that technical assistance, policy advice, training, and pre-investment studies could form part of an overall ESMAP assistance strategy to the country concerned;
- (c) it would place the country/ESMAP relationships on a more sustained basis and, as noted, would encourage a greater degree of country commitment;
- (d) it would encourage a closer degree of collaboration and joint programming with the World Bank and other financier's operational activities, by providing the opportunity to influence the design of those projects and also help in reflecting donor priorities; and
- (e) enable a closer relationship with UNDP's country programmes.

Recommendation 8

A country-based assistance strategy should become the guiding principle of ESMAP's operations.

56. As noted earlier, ESMAP has 150 activities under implementation in 70 countries. It is difficult to envisage how

so many ESMAP activities can be programmed effectively to form part of a coherent technical assistance package within individual countries. Furthermore, ESMAP does not have, and is not likely to acquire, either the staff capacity or the financial resources to operate effectively on a global scale. The Commission, together with several other commentators on ESMAP agree that it has spread itself too thinly over too many countries^{1/}. The Commission agrees with the view expressed by several donors that a focused and coherent set of strategic priorities underpinning detailed country-level multi-year work programs is highly desirable.

57. The Commission believes, therefore, that ESMAP must provide a more focused effort preferably on a reduced number of countries. In the Commission's view, a country-based approach which requires clear support and commitment from the individual country will inevitably result in some reduction in the number of countries in which ESMAP works. The Commission understands the inherent difficulties in reducing the number of countries within which the Programme operates. Nevertheless, the benefits of such a strategy far outweigh the costs and will almost certainly lead to significant economies to ESMAP expenditures.

Recommendation 9

ESMAP should focus its efforts so that the formulation of a well-defined multi-year program is facilitated thus enabling resources to be used to maximum effect.

58. As noted, ESMAP activities should only proceed on the basis of commitment and receptivity on the part of the recipient. Considering that ESMAP operates on a grant basis, the mere acceptance of an ESMAP activity may be a necessary, but should not be a sufficient, condition for embarking upon a study. The Commission strongly believes that an explicit and demonstrable commitment by the recipient country is required to ensure that ESMAP tasks have the desired impact. This might take the form of an explicit allocation of local resources, cofinancing through local (IPF) UNDP funds, allocation of counterpart staff, or explicit agreements to link the ESMAP work program to other ongoing activities in the sector such as forthcoming bilateral or multilateral financed projects. The Commission offers no specific recommendations on this issue other than to emphasize its critical importance to the overall developmental objectives of ESMAP. Furthermore, as noted earlier, a collaborative effort which required explicit country commitment to ESMAP would also serve to reduce the number of participating countries to those firmly committed to the Programme.

^{1/} See for example the ESMAP evaluation op cit.

59. The Commission is of the firm opinion that the highest priority must be given to the views of recipients regarding the Programme's activities and to the value that they place on the work programs and specific tasks. Accordingly, one of the Commissioners, Dr. Ayensu, visited several countries to obtain their views on the Programme, its staff and the quality of their work. His findings give rise to genuine concerns on the impact that ESMAP is having in many countries. Their views may be summarized as follows: (a) most countries believed that the Assessment Reports with their broad intra-sectoral analysis, assessment of investment and policy tradeoffs, and synthesis of priority actions, was of considerable assistance in formulating national energy policies; (b) conversely, most countries found that the more focused ESMAP activities were less helpful in part because they tended not to be set against the broader concerns of the sector, but also because they were not set within an operational context or linked to funding possibilities for follow up; (c) several countries were concerned that the institution building mandate, embodied in ESMAP's management assistance philosophy, was too often overlooked in favor of delivering technical studies. In particular, they felt that increased emphasis should be given to programs which assist countries to better manage their energy sectors through training, information dissemination and more joint sponsorship and joint ownership of ESMAP country programs. In addition, they want to see emphasis placed upon greater continuity between ESMAP and country teams through multi-year (and multi-topic/sub-sector) programs to ensure a more sustained legacy of assistance. In the view of some recipients this would significantly enhance the impact of ESMAP over the longer term; and (d) some countries felt that they should have a greater voice in influencing the overall direction of ESMAP, not only within the context of their individual energy sectors but also on a worldwide basis.

Recommendation 10

The Commission recommends that ESMAP management ensure that the views and interests of the recipient countries be taken into account in the formulation of work programs. This should be achieved through allowing recipient countries to articulate their views within forums such as the CGESM, the development of multi-year task programming within a given country, explicit agreements on country commitments to ESMAP, and the design of ESMAP programs which place a greater degree of emphasis than hitherto on capacity building at the national level.

The Probability of Follow-up

60. While country priorities are paramount, ESMAP must also be convinced of the importance and relevance of the work it agrees to undertake and should clearly only fund activities where there is a reasonable likelihood that the recommendations made as a result of the study it undertakes will be followed up and implemented by the country concerned. While the approach described above to fully incorporate the views and commitment of the country concerned is critical, ESMAP and its donors must also believe that the work it undertakes will be linked to realizable strategies, policies, investments, and financing plans. Much of ESMAP's work as amplified in the most recent Information and Status Report has been in the field of pre-investment. The Commission recognizes that ESMAP's work has indeed covered broader policy aspects and that in some cases its advice on investment policy may result in countries not proceeding with specific investments. Nevertheless, the Commission believes that an analysis of ESMAP's pre-investment work can provide insights into its effectiveness in following up studies. The Commission, therefore, concentrated on analyzing ESMAP's role with regard to the follow-up of its pre-investment work. A review of the data-to-date on pre-investment suggests that this may not have occupied the priority it deserves. Table 3 reveals that 9 percent of the high priority economic investments identified over the past seven years have now been funded (almost all by the World Bank as part of its regular lending programs). This, even allowing for lags in securing finance, appears to the Commission, to be a low ratio given the financial outlay and staff time expended.

**Table 3: The Financing of Recommended Investments
(Million of US Dollars)**

	<u>Identified Follow up</u>	<u>Funded</u>	<u>Funding under arrangement</u>	<u>Unfunded</u>
Africa	4,055	458	126	3,470
Asia & P	882	220	612	50
EMENA	2,317	37	1,295	985
LAC	1,691	86	675	930
TOTAL	8,945	801	2,709	5,435

Source: ESMAP Information and Status Report (EMENA = Europe, Middle East and North Africa, LAC = Latin America and the Caribbean).

61. By far the most disappointing results appear to be in Africa, where almost \$3.5 billion of investments identified as high priority (65 percent of the total unfunded) have remained unfunded. However, even the ESMAP's average worldwide figure of less than 9 percent of the required funds being secured is of concern for a program, a principal element of the "raison d'être" for which is pre-investment. The Commission notes that ESMAP's management is correctly concerned with the need to ensure that the developing countries prepare and implement least cost energy investment programs, especially in light of the very high levels of investment in the energy sector required to sustain adequate rates of economic growth in LDCs. ESMAP has over the past seven years identified about \$9 billion of high priority investments, in both the commercial and non-commercial sectors. The Commission, therefore, turn to reviewing the question of follow up to ESMAP activities, especially those involving investment opportunities. This is an issue which is of overriding concern to the ESMAP donors. The following paragraphs review those areas in which ESMAP has concentrated: Energy Efficiency and Electric Power, Household Energy, and Natural Gas.

62. Energy Efficiency and Electric Power. ESMAP's activities have resulted in the identification of high priority projects estimated to cost \$9.2 billion. To date, \$670 million (7.3 per cent of the total) have been secured; of this figure, about \$350 million has come from World Bank lending. This performance, in the commercial energy sector, raises questions about the program's effectiveness in one of the most crucial areas in which it

operates. A large proportion of ESMAP's staff and financial resources have been deployed to fulfill this part of ESMAP's mandate and have yielded marginal returns in terms of identifying "bankable" projects. ESMAP has done an exemplary job in identifying those investments, especially in the field of low-cost efficiency improvements, but now needs to turn its skills and experience towards the more difficult task of translating its studies into actions at the country level. In the 1990s, ESMAP will need to give the highest priority to implementation of its work rather than to the more narrowly defined efforts of pre-identification. The Commission believes that this has three implications:

- (a) that the countries in which the program has concentrated its pre-investment work may not always have been those in which strong prospects for securing finance for worthwhile investments obtained. Therefore, it is imperative that ESMAP select activities in countries where the pre-conditions for attracting finance for promising energy sector investments are favorable;
- (b) that the kinds of investments proposed may not be those on which the country concerned and external sources of finance place high priority. This might be overcome by ensuring that the findings of any particular ESMAP study are placed in the framework of a country's overall energy strategy such that the benefits of that study can be compared within the context of the least-cost plan for the sector. This would be strengthened even further by ensuring that ESMAP's work is closely interlocked, and perhaps provide an input to, the macro and sectoral-strategy being pursued in the context of World Bank operations in the country concerned; and
- (c) that the quality and nature of the analysis on which the investment proposals are based are not amenable to attracting the interest of potential financiers. In other words, is the pre-investment work sufficiently rigorous and does it take adequate account of the prevailing economic and financial realities? One Commissioner has pointed out the need for ESMAP reports to include a section on a "financial blueprint" for the investments proposed. The Commission believes that the conclusions and recommendations sections of ESMAP reports would benefit from such an innovation through insuring that real financial constraints are taken into consideration and remedies for energy problems in a particular country are formulated after taking into account the various financial options. It is not contemplated that ESMAP will take any part in syndication or co-financing; rather its role should be confined to laying out the financial options which the recipient country could consider and pursue, in collaboration with

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private financiers, bilateral or multilateral sources of finance.

63. Household and Rural Energy. As noted, the Commission is aware that the scale of investment in this sub-sector may not be the most pertinent factor in gauging the economic benefits realized as a result of interfuel substitution, the introduction of more efficient technologies (say in stoves) and the deceleration of deforestation. Nevertheless, the magnitude of ESMAP's effort in this facet of its activities must be measured against the impact it has made in terms of the advantages gained on a national scale. ESMAP's comparative advantage in engaging in this type of work also needs to be carefully assessed bearing in mind that the single most important determinant of success is the effectiveness of the local authorities whose efforts may be hampered, not helped, by the involvement of transient expatriates. ESMAP has undoubtedly done a great deal of useful work in household and rural energy development. It has been instrumental in helping governments to focus on an important set of issues through its household energy surveys. These have added a significant dimension to the Assessment work done by the Programme. Even so, ESMAP can only have a relatively small role to play in the implementation of household energy programs given the preponderant part which is the clear prerogative of local authorities and non-governmental organizations, both local and foreign. Outside involvement in the operational phase, invariably brings about counterproductive tensions. The Commission believes that there is considerable merit in the devolution of the implementation of household strategies to local governmental and non-governmental authorities. The opportunity costs of an international effort such as ESMAP engaging in extension and promotional work in this area are extremely high. The prospects of making a significant difference are not particularly promising on account of some of the factors mentioned in paragraph 61 above. Furthermore, in terms of policy impact, especially the importance that such work plays in addressing poverty reduction, the Commission believes that a broader-based approach is more likely to produce results. For example, fuelwood production and consumption needs to be addressed within the context of rural development, forestry management, population policy, and other poverty-reducing programmes.

64. Nearly 50 per cent of ESMAP's resources have been used to fund household energy activities. These efforts have resulted in the identification of \$198 million of economically justifiable investments, virtually all in sub-Saharan Africa, of which about \$127 million have been funded (largely by the World Bank). These magnitudes are small, (2 per cent of total identified for the sector), considering the overall financing requirements of the energy sector computed by ESMAP itself.

65. The Commission is of the opinion that the difficulties in identifying a larger potential investment in this sub-sector arise from:

- (a) the design of the studies are not sufficiently oriented towards pragmatic investment opportunities;
- (b) the inherent difficulties of 'operationalizing' investments in the sub-sector;
- (c) the lack of receptivity by recipient countries which would enable these studies to be integrated into their respective public expenditure programs;
- (d) the possibility that the findings of such studies are more easily implemented by non-government actors rather than government agencies (ESMAP's main interlocutors); and
- (e) the reluctance of financiers to fund the results of such studies, on the grounds that the returns are unattractive on economic grounds.

66. In view of the above considerations, the Commission believes that continuing the household energy work in its present form should be seriously reconsidered except where country priorities affirm this approach. Efforts should be refocused: away from new studies towards greater consolidation on the basis of the considerable knowledge that has been built up by ESMAP, and follow up to those studies already completed in a number of countries. ESMAP has accumulated almost ten years of experience in this field and is in a position to advise on the implementation of the large number of generic issues which, the Commission believes, pervades work in this area. Emphasis needs to be placed upon both policy reform and investment at the country level.

67. From the above it should not be inferred that the Commission believes that the rural and households sector is unimportant, but rather that considerably greater attention to the implementation phase is warranted. Furthermore, its priority relative to other aspects of the energy sector will be established through well defined country assistance work programs as discussed earlier. Nevertheless, in the context of ESMAP assistance strategies within individual countries, it is likely that the share of resources devoted to this sub-sector would decline. The organizational implications of this finding are discussed in Part Four of this report.

68. Natural Gas. ESMAP has only recently embarked upon work in the natural gas sector and so it is premature to comment on the extent to which its studies will be implemented and followed up by countries. The Commission fully supports work in this area but believes that some caution may be needed in the areas in which it undertakes its work. In order for countries to be fully convinced of the efficacy of substitution of natural gas, studies will need to be set in the overall context of the energy sector and within

broad strategies of efficient and economic energy substitution. In addition, it is the Commission's view that the primary target for fuel substitution will be the electric power sector. It is, therefore, critical that proposals to substitute natural gas in the electric power sub-sector be set in the context of national least-cost electric power plans in which a wide array of options are analyzed.

ESMAP's Comparative Advantage

69. ESMAP should obviously only embark upon studies and work programs where it has a clear comparative advantage and where it can clearly have an impact upon the design and implementation of a country's energy strategy. As noted earlier, this should not include large-scale research efforts or areas of technology generation. In addition, as noted in paragraph 62, we believe ESMAP should reassess elements of its comparative advantage in the rural energy subsector,

Accommodating Donor Preferences

70. While ESMAP must be driven by and fully responsive to country interests and priorities it also has a responsibility to the donor community that extends beyond that of fiduciary control. While ESMAP donor interests do vary it is the Commission's view that they all have a strong desire to support an effective technical assistance program firmly rooted within individual countries. ESMAP has stewardship of donor funds and it is quite correctly expected to deliver an assistance program of the highest quality. The growth of the Programme is, in fact, testimony to the faith that donors have indeed placed in ESMAP, and it is the Commission's view that if the recommendations contained in this report are implemented that faith will continue.

71. In Part Four a process is explored which would make it possible for country priorities, follow up and donor preferences to be effectively harmonized to enable ESMAP to provide high quality and effective assistance.

ENHANCING COST EFFECTIVENESS

72. The Commission was requested to review both the quality of ESMAP products, their relevance to overall energy strategy at the country level, and their cost effectiveness.

Cost Effectiveness

73. The extent to which ESMAP provides "value for money" to donors and recipients alike depends upon two fundamental factors. The first is the extent to which ESMAP recommendations for investment and policy change are reflected in country programs, including the completion rate for identified high priority investments. This, in turn, depends upon the quality and timeliness of the individual tasks, the extent to which those tasks are perceived by the country to be of central importance to their energy strategies and the extent to which suitable means (such as financial resources, mechanisms for policy dialogue etc.) have been identified to translate the findings of the particular ESMAP activity into a program of action.

74. The second relates to the extent to which the resources used in the planning and execution of ESMAP tasks are within reasonable norms for the level and quality of the completed product. The present reporting requirements do not allow any insights into the overall cost structure for specific ESMAP products. The Information and Status Reports contain data on direct project costs but this does not capture either project management costs nor overhead costs. These items presumably include the full implied cost of the World Bank contribution (overhead and staffing costs) together with some proportion of other untied funds used to fund overhead costs and specific non-project staff positions. In the absence of a detailed task by task analysis it is extremely difficult to assess whether the direct costs of the tasks were managed in an acceptably cost effective manner. Nevertheless it should be noted that several commentators, both from the donor and recipient communities, have expressed views that suggest that many tasks, often relatively straight-forward in nature, do appear to be costly.

75. The Commission believes that in order to enhance the cost effectiveness of the ESMAP work program there is a need to ensure that all costs are recorded transparently and in a manner that would allow greater insights into the cost structure of the ESMAP work program. This is needed both to provide management guidance on areas where costs might be reduced but also to ensure that the World Bank discharges its fiduciary responsibility with respect to ESMAP in an open and efficient manner.

Recommendation 11

The Commission is of the opinion that the management of the resources placed at ESMAP's disposal would be facilitated if an annual financial review (possibly in connection with an audit) were carried out and its result incorporated in the Annual Report. This would be welcomed by many of the donors and would help them in satisfying the requirements of their own auditors. These arrangements could commence in 1991.

76. A decision would be needed on whether an external financial review is the preferred solution or whether internal review mechanisms (i.e., within the World Bank) were adequate. As a first step, it would be worth commissioning the World Bank's Internal Audit Department to review present accounting and reporting systems and to assist in drafting terms of reference for future financial review and audit work. At the time of the CGESM Annual Meeting a standard reporting system, covering all of ESMAP's activities, should be agreed upon. It would also be necessary to agree upon an appropriate fiscal year for ESMAP, and also ensure that subsequent annual meetings were synchronized with the fiscal year.

77. The Commission has also noted the rapid rise in ESMAP staff, which has doubled over the past three years. While the justification for this increase is not questioned it is sufficiently large relative to the growth in total expenditures to suggest that this might be an area which the proposed financial review would cover. The Commission believes that the size and composition of ESMAP's staff should be synchronized with its strategic agenda and detailed work program. An indication of anticipated personnel needs should be given in the Annual Report with a view to eliciting their comments on the matter at the Annual Meeting. As part of its review function, TAG could also review the cost-effectiveness of present and projected staff levels.

Recommendation 12

The Commission recommends that greater emphasis be given to the present and planned growth in ESMAP staff positions. This should be undertaken in light of the strategic direction and focus of future ESMAP activities.

PART FOUR

THE STRUCTURE OF ESMAP FOR THE NINETIES

INTRODUCTION

78. This section reviews whether ESMAP is adequately organized to meet the evolving challenges it will face in the 1990s in order to fulfill its new mandate. To do so, the growth in direction of ESMAP over the past ten years is described and then the extent to which the Commission's present findings on ESMAP justify the consideration of any significant shifts in organization is assessed.

79. As noted earlier in this report, ESMAP, as an outgrowth of the Energy Assessment Programme, was established to provide assistance in implementing the findings of the energy assessments. Over time, however, the organic link between sector strategy and sectoral implementation appears to have weakened as ESMAP has evolved from essentially the provision of energy sector studies to the provision of a broad range of more specialized studies and surveys on energy efficiency, energy substitution and rural household energy use, together with a limited number of energy sector and sub-sector studies. The move to a functional or technical "modus operandi" and the priority accorded to pre-investment studies and specialized surveys has given rise to a program based progressively upon more narrowly defined technical expertise. This approach suffers from the fact that there is no efficiently functioning integrating framework under which the activities within a given country can be assessed on a strictly comparable basis. The Commission believes that this has resulted in a perception that ESMAP's work program is diffuse and fragmented to a degree which gives rise to misgivings on the part of several donors, especially UNDP.

80. In the Commission's view there are four sets of issues which will have a direct influence on ESMAP's organization and modus operandi. They are:

- (a) **The central importance of assisting individual countries on a sustained basis:** ESMAP must enter into a sustained relationship with recipient countries as a form of 'partnership', requiring commitment on the side of both ESMAP and its donors as well as the country counterparts;
- (b) **The changing nature of the energy sector:** The energy issues themselves are changing, with a greater emphasis upon environmental linkages, the increased importance of efficiency gains through energy conservation in large scale users, and the need for implementing strategies of

energy substitution including switching to cleaner and cheaper fuels;

- (c) **The importance of implementation:** It is critically important that the limited ESMAP funds be used to identify investment opportunities and policy reform measures which have a high chance of being implemented. This can only be achieved when the tasks themselves are firmly rooted in the recipient's own policy agenda, when country commitment is high, and when resources (external and internal) can be mobilized to realize the recommended investment potential; and
- (d) **the importance of a programmatic framework:** ESMAP needs to be organized in a manner which allows it to more effectively analyze and articulate intra-sectoral tradeoffs and priorities at the country level. It needs a mechanism to guide the determination of priorities and strategic choices within countries and allocation of resources.

81. The Commission cannot set out a detailed blueprint for ESMAP's structure in the 1990s. Nevertheless, the management of ESMAP must be largely guided by the sectoral priorities identified by the countries themselves (with ESMAP support where warranted). While the Commission would not wish to second-guess those priorities, key areas worthy of attention include:

- (a) an increased emphasis on environment and, in this connection, continued support will be needed to move towards cleaner and lower-cost fuels and the introduction of policies and investments to promote energy efficiency;
- (b) the recent upsurge in energy prices has highlighted the vulnerability of many countries and they are likely to place even greater emphasis on large scale users, the commercial energy sector, and the electric power sector;
- (c) in view of the above it is likely that countries will require less assistance from ESMAP on rural and household energy issues but ESMAP should help operationalize the vast amount of work that has been undertaken thus far, especially in Africa where the resolution of these issues appears to warrant urgent action;
- (d) assistance in the development of energy strategy and policy options will again come to the forefront for many countries as they grapple with the rising aggregate costs of energy supply. This will put greater emphasis upon analyzing all investment and policy options in a coherent and comparable framework, and assisting countries in the preparation of integrated energy strategies which, to the extent possible, minimize risk and overall cost. It will

also require a reassessment of the current staffing mix of ESMAP; and

- (e) the approach described in this paper of ESMAP entering into a partnership with countries and requiring substantive commitments from the countries themselves will inevitably lead to ESMAP concentrating on fewer countries.

Recommendation 13

The Commission believes that consideration needs to be given to examining the present organizational structure of ESMAP to better reflect its new mandate, the objectives of greater focus, country-level programming, direction and increased effectiveness.

82. There are several organizational options which need to be explored to 'recast' ESMAP to ensure that it can meet the challenges of the nineteen-nineties. As noted above, the Commission cannot provide a detailed blueprint for such changes but can recommend some actions for consideration. These include:

- (a) establish a clear modus operandi on the basis of country programming while maintaining ESMAP's traditional functional strengths, possibly through some form of matrix management where country strategy assistance would be complemented by technical expertise;
- (b) recognize the paramount importance of country programming and long-term commitments to providing assistance to developing countries. This could be achieved by introducing multi-year programming exercises as well as ensuring that country-focus becomes a guiding principle of ESMAP's organization;
- (c) establish clear organizational linkages between ESMAP's pre-identification and policy work and the implementation of their findings, both through the development of sustained multi-year programs within countries and through significantly closer links with potential financiers, including the World Bank which is likely to remain the largest single source of external finance for energy investments among ESMAP's clients;
- (d) retain within ESMAP a 'watching brief and coordination' role for those issues which are not central to its mandate such as research, renewable technologies and the like; and

- (e) **strengthen and supplement ESMAP management capabilities for strategic policy and direction through the creation of the Technical Advisory Group and a more structured approach to the chairmanship and conduct of the ESMAP annual meetings.**

CONCLUSION

83. The Commission has carefully reviewed a number of issues on the strategic focus and effectiveness of ESMAP and made a number of recommendations which it believes will result in non-marginal changes to ESMAP's mandate and cost effectiveness. The goal is to create a better organized, more operationally relevant program, which while not compromising donor interests, will provide high quality assistance to recipient countries to enable them to plan and implement their respective energy sectors more effectively.

84. If this report is to serve the donor and recipient communities well its findings should be deliberated upon at the next ESMAP annual meeting in November, 1990. In preparation for the ESMAP annual meeting, the World Bank should prepare draft terms of reference and preliminary budgets for the proposed Technical Advisory Group, and prepare broad guidelines for implementing the key findings of this report. The implementation of the proposals contained in this report will require considerable attention and thought. They will require the introduction of new reporting, management and financial structures and a careful reassessment of staffing needs.

Recommendation 14

The World Bank, as manager of ESMAP, should prepare, in consultation with UNDP, for review by the TAG and eventual endorsement by the CGESM, operational guidelines specifying procedures required to guide ESMAP management, donors, and recipients in their conduct with respect to ESMAP's modus operandi.

85. These guidelines would ensure that all of ESMAP's interlocutors, as well as its management and staff, could perform their functions in a consistent and effective manner. There are a number of obvious areas where such guidelines would be needed. These include, inter alia:

- (1) The process by which country assistance strategies would be prepared and the means by which country priorities would be translated into an ESMAP country program;
- (2) the duties, responsibilities, and modus operandi of the CGESM, TAG and the Secretariat;
- (3) financial reporting systems and requirements;
- (4) Staffing and budgeting guidelines; and

- (5) working relations between ESMAP and the World Bank, especially its operations complex.

86. For the successful implementation of the recommendations contained in this report, the donor community should be prepared to provide financial and logistical support to ESMAP on the basis of the consensus reached at the Annual Meeting as regards program size, direction and strategic objectives. It is important that donors understand that ESMAP can only provide high quality technical assistance to the developing countries in a vital sector if the notion of program unity is adhered to in the pursuit of its common objectives. The TAG will play a pivotal role in the formulation and review of these objectives. It is critical that its members be of the highest professional calibre and independence to warrant the complete confidence of ESMAP's supporters and beneficiaries. If the findings of this report are endorsed at ESMAP's 1990 Annual Meeting, a detailed implementation plan and schedule will need to be drawn up. The pace of implementation should be as rapid as possible while not compromising the Programme's capacity to deliver existing work commitments.