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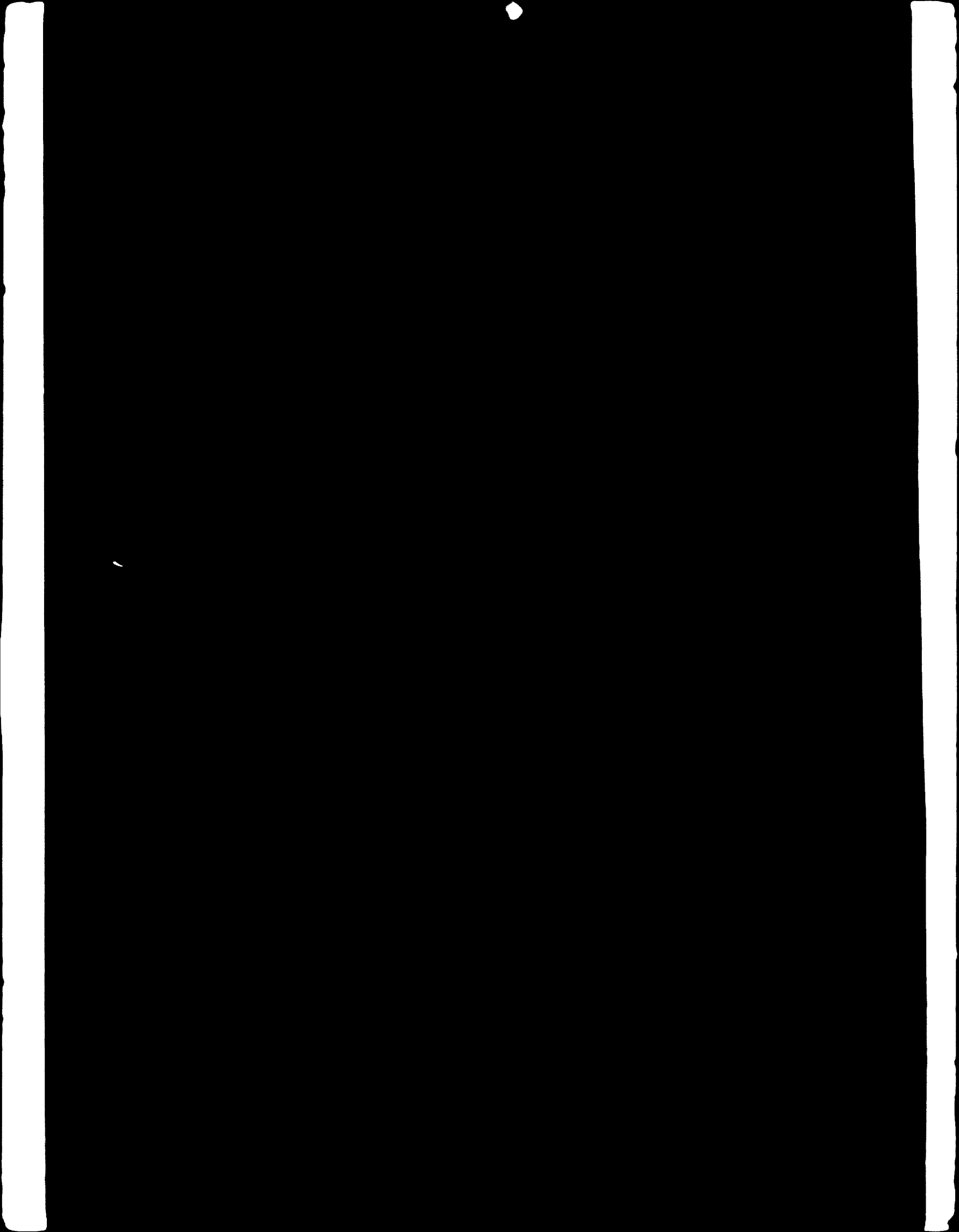
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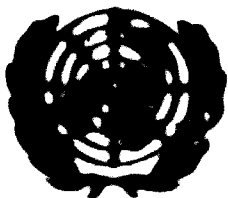
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Expert Group Meeting on Technical Assistance
in Pre-investment Studies

Vienna, 11-17 December 1976

**A STUDY ON THE FRAGILITY OF INSTITUTIONALIZED A KIND
TECHNICAL SERVICE IN PRE-INVESTMENT STUDIES**

by
Christoph Wagner*

* Chairman, C.T.N. Project-Management GmbH., Wetzlar, F.R.G. and C.T.N. International Limited, Dublin, Republic of Ireland

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United Nations Industrial Development Organization

Expert Group Meeting on Technical Assistance
in Pre-Investment Studies

Vienna, 14-17 December 1976

**A STUDY ON THE FEASIBILITY OF INSTITUTIONALISED A WORK
TECHNICAL SERVICE IN PRE-INVESTMENT STUDIES ✓**

by
Christoph Inger*

Approved by the Secretariat of UNIDO

I. REVIEW OF THE ISSUES OF FEASIBILITY STUDIES

1. Industrial project studies which do not provide at least the requisite data and information on markets, products, finances and implementation schedules cannot be considered "bankable". And no project can be considered bankable unless it is actively sponsored by a potential investor. The causes for the apparent accumulation of unimplemented feasibility studies in developing countries are the lack of an effective system of project evaluation and screening, and the lack of local capacity to facilitate timely decision-making on project studies. On the other hand, the tendency to duplicate feasibility studies, and thus waste resources, would seem to be the result of several factors: overlapping or competing institutions conducting project studies; divergent technical opinions of consultants; and conflicting criteria of potential investors, who typically include Governments, private investors and institutional lenders.

2. Investment follow-up is generally hampered by the large number of institutions that have to be consulted in the investment process, even when the individual organi-

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systems are efficient. Small projects and small entrepreneurs in particular would benefit from efforts to streamline investment systems and simplify procedures. The establishment of technology centers could stimulate participation by domestic investors. Foreign investors must be given reliable information to enable them to assess profitability and risk sufficiently. Investment promotion machinery might also need to give more attention than hitherto to "investor identification" and thus successful "project marketing".

3. Feasibility studies could sometimes be made more elaborate, sometimes less. It would seem reasonable to vary the inputs of time, money and effort according to the scope and size of the project and the criteria of potential investors in it. One aspect of feasibility studies which could become increasingly important in the future is regional co-operation, which would enable developing countries to overcome present market constraints on industrialization. Where there is regional co-operation, feasibility studies would need to reconcile varied objectives, strategies and practices. Regional consultation organizations could therefore play an important role in industrial co-operation arrangements, although their contributions would necessarily be limited to the technical aspects of project formulation and evaluation and would not extend to political decision-making.

4. The lack of information on feasibility studies already carried out is an obstacle to investment follow-up action. There is a definite need to collect, update, analyze and disseminate such studies. UNIDO is uniquely placed to provide this service to potential investors by maintaining a live portfolio of industrial projects.

17. RECOMMENDATIONS

5. In the light of present and future needs the following recommendations may merit further attention:

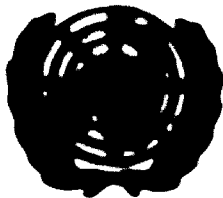
- (i) The role of pre-investment studies should be redefined in terms of the investment decision process;
- (ii) Implementation plans should be included in feasibility studies;
- (iii) Potential investors should be identified in good time and involved in all stages of the project development;
- (iv) The development of local skills in project studies and management should be speeded-up, and new methods of co-operation with consultants should be fostered;

- (v) The capacity of government agencies and banks should be strengthened in the appraisal of feasibility studies;
- (vi) There should be greater cost and time awareness when pre-investment studies are made;
- (vii) National and regional agencies should play a more important role in pre-investment studies, and their work should be better co-ordinated.

III. THE ROLE OF UNIDO

6. At the request of Governments, UNIDO renders assistance in project identification, formulation, evaluation and implementation. Because resources are limited compared with perceived needs, the Organization's efforts appear to be spread thinly and their effect is not easily discernible. New approaches based on such criteria as selectivity, multiplier effect and continuity in the national effort should be explored. UNIDO's assistance in manpower development and institution building should be intensified; its ability to respond quickly to reactive problems and eliminate bottlenecks during the various stages of project development and implementation should be improved. Of no less importance are the contributions UNIDO can continue to make in developing simplified methodologies and manuals, in making widely known successful endeavours, and in clarifying conceptual and terminological issues.

7. The objectives set out above could be achieved by increasing UNIDO's capacity to provide comprehensive services to Governments and potential investors at various stages of pre-investment studies and investment follow-up. These services, if consolidated and institutionalized within UNIDO, could be instrumental in starting action on feasibility studies already carried out and, in the longer term, in maintaining a constant flow of bankable industrial projects - objectives which are obviously of interest to all the parties to an investment: Governments, domestic and foreign investors, and institutional lenders.



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Panel de Expertos sobre Asistencia Técnica
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**ESTUDIO SOBRE LA VIABILIDAD EN INSTITUCIONALIZACIÓN DE SERVICIOS
TÉCNICOS EN LA UNIÓN PARA ESTUDIOS DE FACTIBILIDAD¹**

por
Christoph Wagner²

Documento preparado por la Secretaría de la UNIDO

**I. ENFOQUE EN LAS CUESTIONES RELACIONADAS CON LOS
SERVICIOS DE VIABILIDAD**

1. Los estudios sobre proyectos industriales que no faciliten la información y los datos necesarios sobre mercados, productos, financiación y calendarios de ejecución no pueden considerarse como "aceptables en base". Además, ningún proyecto puede tener posibilidades de financiación si no es activamente patrocinado por un inversionista solvente. La falta de un sistema eficaz de evaluación y selección de proyectos, y la falta de capacidad local para la adopción oportuna de decisiones respecto de los estudios de proyectos son las causas de la acumulación aparente de estudios de viabilidad no ejecutados en los países en desarrollo. Por otra parte, la tendencia a duplicar estudios de viabilidad, y desperdiciar así recursos, parece ser el resultado de diversos factores: la existencia de instituciones que realizan estudios de proyectos compitiendo entre sí o cuyas actividades se superponen; las opiniones técnicas divergentes de los consultores; y los criterios conflictivos de los posibles inversionistas, entre los que suelen figurar gobiernos, inversionistas privados e instituciones de préstamos.

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¹ Las opiniones que el autor expresa en este documento no reflejan necesariamente las de la Secretaría de la UNIDO.

2. Las inversiones que deben seguir a los estudios en un por lo general caracterizadas por el gran número de instituciones que han de ser consultadas en el proceso de inversión, con independencia de que estas organizaciones sean o no eficientes. Los esfuerzos por modernizar el marco institucional y simplificar los procedimientos beneficiarían sobre todo a los pequeños proyectos y a los pequeños empresarios. El establecimiento de centros de tecnología podría fomentar la participación de inversionistas nacionales. A los inversionistas extranjeros se les debe dar información fidedigna para que puedan evaluar adecuadamente la rentabilidad y los riesgos. Las instituciones de fomento de las inversiones quizá deberían prestar un abastecido mayor atención a la "identificación de inversionistas", contribuyendo así a la "comercialización de los proyectos".

3. Los estudios de viabilidad pueden ser más o menos detallados, según convenga en cada caso. Sería conveniente modificar los insumos de tiempo, dinero y esfuerzos según cual fuera el alcance y la magnitud del proyecto y los criterios de los posibles inversionistas. Un aspecto de los estudios de viabilidad que pudiera ser cada vez más importante es el de la cooperación regional, que permitiría a los países en desarrollo superar las restricciones de mercado que actualmente pesan sobre su industrialización. Cuando hubiera cooperación regional, los estudios de viabilidad tendrían que conciliar diversos objetivos, estrategias y prácticas. Por consiguiente, las organizaciones regionales de consulta podrían desempeñar una función importante en la preparación de acuerdos de cooperación industrial, aunque su contribución debería limitarse necesariamente a los aspectos técnicos de la formulación y evaluación de proyectos, sin entrar en la función propiamente política de la adopción de decisiones.

4. La falta de información sobre los estudios de viabilidad ya efectuados constituye un obstáculo para las actividades de inversión complementarias. Existe una clara necesidad de recoger, actualizar, analizar y difundir dichos estudios. La CIUFI se encuentra en posición excepcional para prestar este servicio a posibles inversionistas mediante el mantenimiento de una cartera actualizada de proyectos industriales.

II. RECOMENDACIONES

5. A la luz de las necesidades actuales y futuras convendría quizá prestar más atención a las siguientes recomendaciones:

- 1) Debe definirse de nuevo la función de los estudios de preinversión para facilitar las decisiones que entran en todo proceso de inversión;

- ii) Los estudios de viabilidad deben incluir planes para la ejecución del proyecto;
- iii) Las posibles inversiones deben ser identificadas lo más pronto posible y participar en todas las fases del desarrollo del proyecto;
- iv) Debe promoverse el desarrollo de aptitudes locales en estudios y gestión de proyectos, y debe alentarse el desarrollo de nuevas técnicas de cooperación con los consultores.
- v) Debe reforzarse la capacidad de los bancos y de las agencias gubernamentales en orden a la evaluación de los estudios de viabilidad;
- vi) Al efectuar estudios de preinversión conviene tener más presentes los factores tiempo y dinero;
- vii) Las agencias nacionales y regionales deben desempeñar una función más importante en los estudios de preinversión, y su labor debe estar mejor coordinada.

III. FUNCIÓN DE LA OMS

6. A solicitud de los gobiernos, la OMS presta asistencia para la identificación, formulación, evaluación y ejecución de proyectos. Debido a la escasez de recursos en comparación con las necesidades existentes, los esfuerzos de la Organización parecen limitarse a menudo y no se dirigen claramente en reposición. Conviene explorar nuevas enfoques basados en criterios como la selectividad, el efecto multiplicador y la continuidad de la asistencia prestada. Debe intensificarse la asistencia de la OMS en orden al desarrollo del capital humano y del marco institucional; debe perfeccionarse su capacidad para resolver problemas con rapidez y eliminar puntos de estrangulamiento en las diversas fases del desarrollo y la ejecución de proyectos. Es menos importantes con las contribuciones que la OMS puede continuar aportando para la elaboración de metodologías y manuales simplificados, la divulgación de realizaciones satisfactorias, y la aclaración de cuestiones conceptuales y terminológicas.

7. El cumplimiento de los objetivos anteriormente enunciados requiere un aumento de la capacidad de la OMSI para facilitar servicios completos a los gobiernos y a los posibles inversionistas en las diversas fases de los estudios de preinversión y de las inversiones que los siguen. Una vez consolidadas o institucionalizadas en la OMSI, estas servicios podrán desempeñar una función decisiva en la intensidad de acciones respecto de estudios de viabilidad ya efectuados y, a largo plazo, en el mantenimiento de una corriente ininterrompida de proyectos industriales con posibilidades de financiación, todo lo cual redundaría en provecho de todas las partes interesadas en las inversiones: gobiernos, inversionistas nacionales y extranjeros, e instituciones de préstamos.



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ANNEX

**A STUDY ON THE POSSIBILITY OF INSTITUTIONALIZING A UNITED
TECHNICAL SERVICE IN PRE-INVESTMENT STUDIES**

**~~Final Proposal for the Setting up of a UNCTAD
Pre-Investment Advisory Service~~**

by

Christopher Dunne^o

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Id. 76-6975

I. **GENERAL PRINCIPLES**

In the long term, it may be necessary to develop a new and practical approach to pre-treatment decision-making in developing countries, and UNEP should develop and implement this approach for the benefit of accelerated industrialization. This UNEP approach will be applied to new projects that are not yet being identified. For the benefit of project ideas, pre-feasibility and feasibility studies already existing, quick short-term assistance is necessary. UNEP could offer this aid by setting up an advisory service for pre-treatment studies. This service could be, later on, the carrier of the new UNEP approach to decision-making. It could help in developing it by supplying practical cases and suggestions for methodological improvement. The name of this UNEP service could be UNEP Pre-treatment Advisory Service, UPAS in abbreviated form.

II. **GENERAL OBJECTIVES**

Very generally speaking, it will be the goal of UPAS to speed up and improve the quality of investment decision-making procedures in developing countries, by discovering and removing the bottlenecks of these procedures. UPAS' success or failure will be measured in terms of projects (by number, volume, quality and speed) brought into the final investment decision phase. Some of the specific functions could be

- to survey, collect and retrieve existing project ideas, pre-feasibility studies etc.)
- to screen them for national governments, development banks, private investors, or on UNEP's own initiative;
- to evaluate them internally in an efficient, time-saving manner in order to select the most promising proposals;
- to specify the reasons why these promising project proposals have not been followed up (bureaucratic reasons, fiscal handicaps, lack of marketing/engineering/financial/budgetary or implementation plans, lack of professionalization, lack of banking etc.)

- to give their services by completing, upgrading or updating the study and reporting it through the right channels
- to promote worthy projects in order to attract the consent of promoters, bankers, investors etc.
- to facilitate evaluation by banks and governmental bodies by anticipating their standards and requirements for (pre-)investment studies
- to help developing and improving the methods of investment decision-making
- to help in analyzing, organizing and publicizing through national development networks.

These particular functions are to be executed with as little duplication and competition as possible with professionalization equalling the standards of regional consultants and bankers and supporting governmental bureaucracies; and with a high degree of time and cost consciousness and control.

III. ORGANIZATION OF EPAS

The working methods of EPAS will have to be interdisciplinary; since marketing, engineering, banking, political planning and implementation management issues will be dealt with. On the other hand, EPAS will have to steer clear from over involving just another bureaucratic and/or research organization - it will have to be constituted as a task force - problem solving being its main task. Therefore, the basic unit of work organization will be the interdisciplinary team. Each EPAS team will consist of three to five members, each member with special knowledge and approach, none being a super-specialist. The particular specializations will include

- marketing research and planning
(for the marketing aspects of feasibility studies)
- engineering and technology transfer
(for preparing the basic decisions on methods of production etc.)

- financial planning including financing methods (for producing bankable feasibility studies);
- national planning (for examining and producing compatibility with governmental plans);
- implementation planning, i.e. project management for designing the course of action to be taken in terms of positive decisions.

Every team member should be a specialist in one of these five fields. The team leader's responsibility will be:

- to co-ordinate all team members, to invest and control their time input, and to cancel work as soon as it becomes clear that the project under review will not be realized.

He will have to contact the different agencies, banks and government departments. He should therefore, as a rule, be a financial specialist with diplomatic talents.

Since the UPIAS team organization shall remain as flexible as possible and not expand into a self-sufficient organization, it will have to co-operate as much as possible and to compete as little as possible with existing organizations. Basically, UPIAS' services shall complement the services of others, in a very active way, however.

As to the consulting firms (engineers as well as accounting, managerial or marketing consultants), UPIAS shall not build up competitive opposition but rather use their capacities by subcontracting their services. In order to do this in a most productive way, UPIAS' team leaders will have to know - or be trained in the methods of selecting suitable consulting firms and the best ways of co-operating with them. They will also have to know about their typical fee structures - and apply them within their own UPIAS framework, also.

UPIAS should co-operate with all development agencies, banks, etc. UPIAS may help them to identify, formulate, retrieve, speed up and complete their projects. UPIAS may request their active co-operation free of charge on the basis of reciprocity. UPIAS will not compete for

projects "on the market", but will accept jobs whenever the "client" thinks UPIAS can do a better job than other agencies.

IV. NEED FOR EXTENSIVE PROMOTION SERVICES

Just as UNIDO in its entirety does need promotion and marketing efforts in order to gain and maintain acceptance, UPIAS will have to publicize and market its own potential. This does not imply widespread and costly promotional efforts. It rather means that all agents in the development field should be informed about UPIAS services offered. Up to the time as when successful model cases have been established - hopefully in 1977 - publicity has to be very modest. After some success has been achieved, however, such promotion can become more aggressive.

Promotion is necessary if and when UNIDO expects considerable refinancing of its UPIAS efforts by fees from clients and other institutions.

V. GENERAL AND REGIONAL ORGANIZATION OF UPIAS

Worldwide, regional and national development organizations are existing everywhere, so technically speaking, there is a complete network of pre-investment assistance. However, worldwide institutions (like the World Bank) are concentrating on big projects, regional organizations do represent too many countries of too different stages of development.

Thus, organizations for the whole world and for the big regions are not flexible enough for the tasks ahead of UPIAS. The national level being too limited in scope (except for large countries like India), the subregional level recommends itself as the specific level of UPIAS activities. Subregions are sometimes difficult to define. However, there are well defined subregions like the ASEAN countries, the Arab League etc. Some of these, like the Arab League, already have established institutions aiming at speeding up development (and integration) in their specific areas. Others - like the ASEAN group - have not yet founded similar organizations. UPIAS can contribute in both situations.

In the beginning of the UPIAS programme, UNIDO should strive for establishing successful model cases in selected subregions rather than

for complete coverage of all subregions. Once a subregion has been defined and selected for the establishment of an UPIAS service, the selection of the location becomes important. Some of the more important criteria are:

- infrastructure including communications;
- presence of other subregional institutions;
- presence of consulting firms.

The central office should be Vienna. UNIDO's Feasibility Studies Section should be the "central team" to organize the establishment; and, later on, the co-ordination of subregional UPIAS centres. Moreover, UNIDO Vienna, could be entrusted with the responsibility of organizing the exchange of information and experience and developing the new approach to investment decision-making in developing countries.

VI. FINANCING AND REFINANCING OF UPIAS

UNIDO would need to have to finance for setting up an UPIAS service in the development subregions, at least up to the take-off point where success cases are available and do attract paying clients. The costs will consist of manpower costs for an average of four experts per subregion plus office costs and travel expenses etc. These costs can be distributed over the years, if only two to three service centres are established within one budget year. Office and internal service costs can be lowered by using existing UNDP facilities.

Since UPIAS will be a task force, it will depend on supplementary services performed by public agencies and private consulting firms. As to public agencies, their services will be to some degree available free of charge:

- if there is mutuality of interest;
- if these institutions do not account commercially for their own maintenance (as some of them are just starting to do). Some will be obliged to charge normal fees.

As to private consulting firms, they will charge competitive fees which, in turn, can be either included in UPIAS bills or billed directly to UPIAS clients.

Generally, the fees for professional, bankable feasibility studies performed by UPIAS (whether they be pre-feasibility or full-fledged) should be commercially calculated on man-hours spent and accordingly be charged to the client. If there is multiplicity of promoters, the paying client has to be defined very early in the game by the team leader of UPIAS, and a budget has to be agreed with him, limiting the man-hours to be spent by UPIAS.

After UPIAS efforts have led to positive decisions on a project, the costs of foregoing feasibility studies can easily be included in the total investment budget. In this case, there is a very good chance of recovering all UPIAS costs relevant to that project. UPIAS can increase the percentage of recovered total costs by concentrating on project proposals with a high probability of positive bank decisions.

After having established a success image, UPIAS can charge sufficient overheads and/or "profit margin" to compensate for its initial investments (of setting up the service), for the costs of non-implemented projects and for clients unwilling or unable to pay cost-covering fees.

Experience shows, however, that services institutionalized by public institutions like UNIDO, can hardly ever become completely self-financing. If it is one of the goals of UPIAS to get as much refinancing as possible, some incentives for the managers of that service should be offered.

VII. ROUGH TIMETABLE FOR IMPLEMENTING UPIAS

Phase 1

Discussion of analysis and proposal in Vienna (14 - 17 December 1976); formulation of recommendations and establishment of a steering committee.

Phase 2

(January and February of 1977)

Selection of subregions to be serviced, formulation of job

descriptions for UPIAS Team Leaders and members, calculation of budgets for 1977 and 1978 with variants for different degrees of refinements. Rough draft on new UNCTAD investment decision-making approach.

Phase 1

(March and April 1977)

Search for candidates for the jobs defined in Phase 2, interviews with them. Drafting of publications describing the UPIAS range of services.

Phase 2

(May and June 1977)

Actual publication and distribution of UPIAS public relations material. Conference to be held in Vienna with the first experts selected for UPIAS in order to develop and define the basic approach and methodology.

Phase 3

(July and August 1977)

Establishment of the first one or two UPIAS centre(s) in one (or two) subregions.

Phase 4

(September and October 1977)

Beginning contact work by subregional UPIAS experts. Beginning of selection of project proposals.

Phase 5

(November / December 1977)

First contracts from clients; first project proposals completed; detailed planning for 1978.

Phase 6

(January - February 1978)

Forenoon projects brought to decision. Publication of first results in order to attract paying clients. Establishment of second, third

and fourth WPIAS subregional centres.

For short term activities, planning should follow the fourth period.
For the establishment of subregional centres, planning should be initiated
by Vienna according to the 5 phases outlined above.

0. Introduction

Between 29 September and 14 November 1976 the following countries were visited by the author:

Egypt, Sudan, Kuwait, Malaysia (*), Thailand, Philippines, Australia (*) and India (*) for approximately one full week each. (The countries marked with an (*) at author's own expense). In all cases, the attitudes, practices, rules and regulations, methods and procedures connected with pre-investment studies of any kind were studied by interviewing the experts of regional, subregional and - time permitting - national institutions and organizations.

The ten questions contained in the document dated 30 July 1976 became the guidelines of the interviews conducted. However, as the discussions went on, new problems were registered. In the end, the necessity of re-thinking the whole problem became evident. The intentions of the field mission and of the expert group meeting are probably best met by an outspoken formulation of these necessities. If some of the theses seem provocative, it may be reminded that the purpose of this report is not to present anything final, but to deliver input for the experts convening in Vienna and to facilitate their decisions.

The analytical part follows the ten questions of the briefing, and some of these questions have been subdivided. The recommendations part is structured according to a somewhat simplified reporting scheme: Trends in the market are formulated, UNIDO's role is being investigated and a plan for action - namely the establishment of an ITC feasibility service - is being commented. Those who might object to the kind of functional analysis of UNIDO as attempted in this report have to be reminded that a mere continuation of the status quo of UNIDO services is not being recommended by anyone inside or outside of UNIDO.

Terminologically this report does indeed reflect the insecurity generally prevailing. Thus, pre-investment studies and feasibility studies are used simultaneously, but project ideas are meant to be project definitions without and before the application of research instruments. Project evaluation is used according to the well-known UNIDO guidelines. Those readers with greater terminological interest are referred to the attempts of Kreditanstalt fuer Wiederaufbau (Staff Papers No. 5/1970).

Acknowledgements have to be made to all personalities interviewed - many more than could be mentioned under Chapter 3) - and their readiness to discuss our questions, even if a certain saturation with feasibility study problems on the one hand and a rather low level of expectations as to UNIDO's potential contribution can hardly be overlooked. The 110 minutes average duration of the discussions was almost always considered as too long for a courtesy call and too short for a professional discussion. This very kind of schedule was considered "typically UNIDO".

In the future, UNIDO may regain the respect of some professionals by entering into a more profound discussion with them.

1. Analysis: Ten Questions Answered

1.1 IS THERE A SERIOUS SHORTAGE OF BANKABLE PROJECTS AND, IF YES, WHY?

First, it has to be defined what is to be understood by the now fashionable term "bankability". Bankable are those projects (or feasibility studies) that banks consider as sufficient for the allocation of loan capital. Such projects are passing the credit examination or project evaluation departments of banks with little or no difficulty. They do not cause the bank's staff to repeat any investigation which investors and promoters or their consultants are supposed to have done already. Lately, the term "bankable" has also been

applied to those consultants who have established a reputation of producing such studies. To quote the extreme statements, "One out of 200 proposals is bankable" and "if a project is bankable, a symbolic equity of 3% is sufficient and remaining capital will be offered on a silver plate".

Secondly, the minimum requirements of such a bankable feasibility study have to be mentioned:

- (1) The marketing potential has to be quantified or at least estimated in professional manner, free from purposeful optimism in order to arrive at capacity planning figures.
- (2) The product and its cost and capacities have to be presented as well as the technology involved in its production.
- (3) The financial demand, the proposed financial scheme and the commercial profitability as well as the repayment plan have to be presented in a form to which bankers are accustomed.
- (4) The compatibility of the project with national framework planning and its contribution to social and economic goals should be enumerated and, if possible, quantified.
- (5) The plan of implementation should be added, including management assessment or procurement.

No proposal or study without an answer to these five basic questions can be considered bankable. On the other hand, no purely academic study avoiding any form of judgement will be accepted.

For this very reason, many pre-investment studies made by consulting engineers alone are nowadays being rejected, if the marketing or financial planning is missing or inferior to the technological expertise. All research and promotion activities in the pre-investment field are becoming more and more interdisciplinary, and some agencies in this field are paying tribute to this development: Banks (like the German K.F.W.) are hiring engineers, engineering consultants are cooperating with financial

planning specialists etc. It has been repeatedly expressed to us that the times in which engineers were the best feasibility specialists are definitely over.

In addition, over-optimism, lack of alternative, absence of risk calculations or sensitivity analyses make bankers insecure even with basically interesting projects. In this connexion one has to be reminded that bankers are not as close to entrepreneurial attitudes as they themselves and most entrepreneurs think. Psychologically bankers are to be located somewhere between the entrepreneurial and the administrative world.

No project is bankable, either unless an investor or sponsor has been identified and is in turn identifying himself with that project. His stubborn support is needed. If it is absent or withdrawn, or if the background of the investor (as a person or as a group of investors) does not satisfy the bank, then even the most perfect feasibility study becomes automatically obsolete. For the same reason, feasibility studies "built on speculation" (like suburban homes or skyscrapers without tenants) are considered a waste of time and effort by practitioners in the field. They argue that the bankable initiatives of non-investors never should go further than the formulation of project ideas clear enough to evoke a go or no-go decision from the potential investor to be identified later.

1.2 IS THERE AN ACCUMULATION OF UNIMPLEMENTED STUDIES AND, IF YES, WHY?

It is only natural that there should be a number of feasibility studies which did not lead to implemented projects, since one of the purposes of a feasibility study is to prepare investors for a yes or no decision. However, the number of unimplemented projects is far greater than necessary.

Some of the reasons have already been mentioned (lack of bankability, lack of an identified investor).

Other reasons:

- Delay (sometimes several years, caused by institutional overlapping, bureaucratic procedures, scientific zeal or a combination of these) may render even valuable projects obsolete, for instance when prices have tripled in the meantime.
- A depressing tendency to take personal responsibility, leading to checking, cross-checking and multiple evaluations of projects.
- Sometimes feasibility studies are being conducted for the sole purpose of delaying or finding reasons for declining certain projects.
- Some elaborate projects would have been rejected already in the stage of project ideas if they had been presented at that stage to the potential bankers.
- Some feasibility studies are rejected because of apparent or suspected bias.
- Some simply get lost in the maze of development bureaucracy and cannot be retrieved in time.

Summing up, there certainly is a waste of time and efforts which could be avoided if feasibility studies were conducted only .

- for investors already identified,
- by professionals willing to take the responsibility of judgement,
- after project proposals have been positively cleared.

1.3.1 DO THE AVAILABLE FEASIBILITY STUDIES FACILITATE THE INVESTMENT DECISION MAKING PROCESS?

If feasibility studies are being conducted by predominantly research-minded or administration-oriented people, then the chances are that they will contribute little to facilitate the decision making process. While feasibility studies have become more and more sophisticated, requirements more and more exacting and Government departments more and more specialised, the very function of such studies in the decision making process appears to have almost disappeared. Bankers and entrepreneurs alike are becoming weary and even contemptuous of intellectual feasibility products that raise more questions than they answer and shy away from an even cautious form of recommendation, assessment or value judgements.

The trend towards standardisation of all sorts of working materials in the investment process - from country profiles, project proposals, application forms to manuals - may have increased substantially the number of people capable of handling investment procedures. On the other hand it seems to have accelerated the phasing out of judgement since questionnaires, for instance, relieve the specialist from the obligation of finding out for himself about the bottlenecks and critical points of a project. The gap between researchers and specialists on the one hand and the decision makers (politicians, bankers and entrepreneurs) on the other seems to be widening, much to the detriment of otherwise desirable projects.

The solution would clearly lie in a revival of the age-old idea that investing is a decision making process, that pre-investment studies are "loops" in this procedure in order to reduce uncertainties to a certain acceptable tolerance,

and that such studies themselves do constitute the first investment in the project. Only if all specialists connected with feasibility studies are trained in decision-orientation and also trained to apply it in practice, further waste could be avoided. The studies then would become more valuable to clients and users.

1.3.3. ARE FEASIBILITY STUDIES DUPLICATED IN A COSTLY WAY?

Let us consider as normal the meticulous cross-checking of feasibility studies by banks or even the complete repetition of studies after the identity of the investor has changed or if somebody becomes suspicious of a conflict of interest. Let us demand the complete updating of pre-investment studies if a time-span of, say, 6 more than a year has elapsed.

A repetition of studies because of conflicting interests, changes in strategy, lapses of time cannot be and should not be avoided.

If, however, feasibility studies have to be repeated because of omissions, true or alleged methodical mistakes (even worldwide famous consultancies have been accused of gross failures) then there is more reason for concern.

Sheer waste is produced when overlapping or competing institutions are producing studies on the same subject matter. Although it is difficult to assess the quantity of this waste, it appears that the competition (or lack of coordination) between supranational, regional, subregional and national levels does contribute more to it than horizontal competition. Some regional or sectoral studies, for instance, are quoted as being so very appreciated that they come to be useful to a specific nation.

Generally speaking, the reasons for duplication or repetition have to be assessed separately in any given case. But the overlapping of institutions and professional inefficiencies can certainly be reduced.

1.3.3. HOW DOES BIAS INFLUENCE INVESTMENT STUDIES AND DECISIONS?

The bias on which critics have focussed their attention so far is consultant's bias. Consultants may become victims of conflicting interests (engineers with supplier's functions or connections for example).

Or victims of their specialized methods. They may stand or fall with the personal qualities of their project leader. However, the bias question is a universal one, not by any means limited to consultants. More often perhaps than not, government projects are realized not only when in tune with official planning criteria, but also when they are "pet projects" of some powerful personality, powerful enough to achieve a reinterpretation of those goals. As in any form of decision making, basic political values - and show power play - are involved.

Any project is being dealt within a magic quadrangle consisting of the investor, entrepreneur or sponsor, the bank or financier, the government or planner and the consultant or staff. Every agent has his own legitimate interests, his bias, his influence and his power, however limited. All this is legitimate and should be openly discussed as part of any decision making procedure. As one leading practitioner said: "Without a positive bias no project containing any risk would ever have been implemented in the developing world."

1.4 HOW EFFICIENT ARE THE DIFFERENT EXISTING AGENCIES ETC.
1.4.1 COORDINATING PRE-INVESTMENT STUDIES?

Every region and every country has a network of its own concerned with the task of accelerating industrialization and channeling investments. Investment studies are only one of the many instruments employed in this overall effort.

These networks consist of specialized agencies which may be run as government departments, semi-government bodies, public foundations or private enterprises. They may have come into existence according to a plan, answering gradually evolving needs or following presidential decrees. They may have been founded to complement, to supervise or even to bypass other older institutions, which have become inefficient.

However, in none of the countries visited there was available a plan, a scheme or a brochure describing this vital "development network" to the uninitiated. Very few people working within this system for years have been able to describe the basic functions, the division of labour and the goals and procedures of the system as a whole. It is therefore not in the least astonishing to find overlapping and duplication of work due to lack of coordination. It would be highly beneficial for all concerned, not only for the potential investor (including the domestic one), to create transparency by assessing and publishing the system.

The seemingly irreversible trend towards more specialization, institutionalization and sophistication theoretically calls for more coordinating agencies, however, the institutionalization of coordinators creates more problems. The multiplicity of institutions which have to be consulted in the investment process does create problems even if the organizations are very efficient individually.

It may be one of the major chances for UNCTAD to assist developing nations in this new field of structural "development organization".

1.5.1 WHAT EFFORTS ARE NEEDED TO ORGANIZE SMALL PROJECTS?

One of the problems of small projects is that the effort for their implementation may be out of proportion. It is a well known fact that the application procedures etc. for the establishment of a small enterprise are as extensive as for the biggest corporations. The costs for feasibility studies for small projects may vary between 7 % and 10 % of the original investment, whereas they may amount to less than 1 % for the big ones. The small investor is at a competitive disadvantage. The same problem exists for development banks. The costs of examining and administering small credit accounts may equal or even exceed those of a big account, therefore there is a division of spheres of interest between banks of different sizes. But the problem of equity and justice remains to be solved. On the other hand, small industry may be especially desirable to developing countries for compatibility and balance of power reasons.

Whereas some developing countries have very seriously started new programmes for the development of small entrepreneurship (as observed in India, Malaysia and the Philippines) no remedy seems to have been found to lessen the burden of the small to medium domestic or foreign investor.

Future attention should be paid, therefore, to developing and authenticating simplified procedures for small projects and their investors. Simplicity and transparency of procedures would in many cases be equally important as incentive schemes and investment climates. Here, too, would be ample space for UNIDO to participate and assist.

1.5.2 WOULD THE SETTING UP OF TECHNOLOGY CENTRES BE AN EFFECTIVE MEANS OF SPEEDING UP INVESTMENTS?

Technology centres in the context of the questionnaire are meant to be advisory units for investors (predominantly domestic) in order to acquaint them with the stockpile of projects on hand (mostly small ones) and to procure technical know-how for them.

Technical know-how may have two meanings:

- The know-how of setting up business, getting credits, of following the whole complicated procedure of getting started, or
- the technological know-how which has to be procured from inside or outside the country in order to start an innovative or "pioneer" business.

These two functions should be kept apart. As there is a need for simplified procedures for small business - and for advisory services as long as procedures are complicated, there is a completely different, yet equally apparent need for assistance in procuring foreign know-how. The two different kinds of experts would be required. The second problem is closely connected with the topic of so-called "Transfer of technology" - an almost magic formula that yet has to be operationally defined. It is, however, outside the scope of this report.

As always, when it comes to the setting up of new services to developing countries: The principal consideration should be the demand for and the structuring of the services themselves, whereas an early institutionalization may render these services inflexible before they have started to become efficient. A testing period should precede their institutionalization.

1.5.3 WHAT SPECIFIC MEASURES AND INSTITUTIONAL ARRANGEMENTS COULD STIMULATE DOMESTIC INVESTORS?

The interesting question why domestic investors may be reluctant to invest in their own country does indeed merit an investigation of its own. It would hardly be professional to treat this problem as a by-product of a report on pre-investment studies. However, a few indications can be given to analyse the problem a little further:

- In many countries, there is a lack of entrepreneurs as a consequence of colonialism, lack of basic education, socialization or for other reasons whatsoever. Some of these countries try to create entrepreneurs artificially, a task many times more demanding than management development, for instance.
- In many developing countries the traders and dealers have become entrepreneurs - for lack of candidates from other segments of society. They have a particularly short time-horizon. Profits and pay-back-periods for industrial projects require at least medium-term time-horizons. Therefore, trade-oriented nouveau-entrepreneurs hesitate to enter into true industrialization projects.
- Soft currency countries pose their own problems: Necessary parts or foreign know-how may be difficult to import, etc.

These are but a few "educated guesses" from experience; it follows that the reason for insufficient investments (or lack of re-investments) of domestic capital by nationals of developing countries is not primarily the lack of institutions or measures, but deficiencies within the socio-economic framework; conditions which are difficult, but not impossible, to change.

Agreeing that this question points to a bottleneck in development strategies, it should be investigated in depth.

1.6.1 HOW IMPORTANT IS THE INVESTMENT CLIMATE FOR THE FOREIGN INVESTORS?

This is another question meriting an empirical investigation of its own and not to be answered fully within the report.

It would be a truism to state that investment climate is all-important to a foreign investor. Since he has - in almost any given decision-making situation - a series of countries to choose from, investment climate may be labelled the competitive edge of countries. In the interest of investors, attempts have been made to classify countries according to their investment climate, for instance by the BEPI index.

The term "Investment Climate" may well comprise more than legislation (including incentive systems) and guarantees against expropriation and for transferability of profits, more even than availability of labour and infrastructure. In our opinion, it includes such intangibles as smoothness of administration, absence of traffic congestions, communication facilities from hotels to telephone services and so on, since any of these factors may become bottlenecks in business operations.

On the other hand, it can be proven - by analysing investment decisions- that incentive systems and material rewards are never sufficient in themselves to engineer favourable investment decisions. Maybe some Government planners and decision-makers do need and would welcome empirical information on what really constitutes an investment climate and on how investment decisions are arrived at in real practice.

Foreign investors will be naturally interested in all relevant information on industrial legislation etc. Incentive systems usually are published widely. However, some legislative texts are too diffuse or too technical to be understood by "normal persons". Some agencies are, therefore, trying to produce simplified versions or synopses of that particular body of legislation. Another most important question is the actual application of these legislative precepts. The bank and/or consultant chosen by a foreign investor will usually be asked to prepare detailed information about application practice. Such general information about a country should not be made an obligatory part of all feasibility studies. Expected income from subsidies must, on the other hand, find entry into the financial planning part of pre-investment studies. Some Governments would be well advised to re-think their whole network of incentives, legislation and application with the aim of making it free from contradiction, uncertainties and misunderstandings. Perhaps some UNIDO advice on this problem would be welcome.

1.6.2 WHY DOES THE PROMOTION MACHINERY NOT GENERALLY PAY DIVIDENDS?

Just as it is the goal of feasibility studies to facilitate go or no-go decisions in the process of investment decision making, it may be defined as the goal of investment promotion to engineer the consent necessary for continuing to investigate or implement a project. If this is acceptable as a working definition, then criteria for measuring the efficiency of project promotion for countries, sectors or projects can be derived from it.

Some reasons for the failure of promotional measures - and institutions - are quite obvious:

- Some countries are institutionalizing investment bureaus abroad, and some of these are more or less passively waiting for enquiries instead of actively marketing their country, i.e. defining target groups and potential investors on their own and approaching them.
- Some projects are beginning to be promoted at too late a stage, i.e. when costly feasibility studies have already been made. The true entrepreneur-investor, however, needs only a project-idea (which should be very well-formulated nevertheless) to decide whether he is "interested in principle". He will be a little suspicious of finished products. Therefore, the recurring idea of building up a stockpile projects before investors have been identified should be re-examined.
- The division of labour between research phases (and specialists) on the one hand and promotional activities (with different specialists) on the other seems to have been generally accepted and institutionalized, since hardly ever does one hear doubts about this departmentalization. No wonder that the coordination between the "reduction of uncertainties to a tolerable degree" (by research) and the "engineering of consent to projects (by promoters) is lacking.
- While many efforts are directed towards project identification promotion little thought and work is spent on the equally important task of "investor identification". Bearing in mind that every project needs an investor (who may, of course, be a group or a sponsoring government) for becoming reality, and that investors are even more scarce than viable projects, this discrepancy should be resolved.

Methods and techniques for investor's identification will have to be developed, and some techniques could be transferred from marketing. With some creativity applied, quick results can be expected.

1.7 SHOULD DIFFERENT METHODS BE APPLIED TO FEASIBILITY STUDIES FOR SHORT TERM PRIVATE INVESTORS AND LONG TERM PUBLIC PROJECTS?

It goes without saying that private investors generally will not engage in a project showing negative commercial profits and that such projects, of social or nationwide economic benefits are positive - will have to be realized by public sector. Projects with a definite private profit potential used to be very welcome to developing countries. Since methods of calculating social benefits have been developed and transferred (among others, by UNIDO), a corresponding critical consciousness has developed. Privately profitable projects now tend to be tolerated if they have little social benefit potential, and to be discouraged if there are indications that social benefits may be negative. Times have changed so quickly that practically no project can avoid the social benefit evaluation. The question is not one of applying different methods but of applying the existing methodical instruments in a judicious, cost-and time-conscious manner proportionate to the project at stake.

If pre-investment studies are considered a tool in the process of decision making, they may be more or less elaborate, and the information on which they are based may be more or less extensive. It then follows that it is necessary to vary the input of time, money and effort with the scope and size of the project.

1.8.1 HOW DO FEASIBILITY STUDIES COPE WITH THE MARKETING PROBLEM IN SMALL AND FRAGMENTED DOMESTIC MARKETS?

First of all, feasibility studies are not considered bankable if part number one, the marketing forecast, is omitted or treated in a dilettant way.

Secondly, it is a fact that domestic markets are (in terms of buying power more often than in terms of needs) too small for the new capacities projected. Buying power, on the other hand, cannot be increased with the same speed as industrial capacities can be built up. Therefore, three opinions are possible:

- To export into the region, which requires the consent of the neighboring developing countries.
- To export into the developed countries, which requires a quality-competitiveness-policy.
- Or to cut down the project to the size desirable necessary for penetration of the domestic market. This in turn may lead to an economic sub-optimum.

The second option was the preferred one for a long time, since it promised to create hard currency income. However, the encounter with extreme forms of competition has discouraged some followers of the option. The third option is gaining adherents, since small enterprises for the domestic market working with unsophisticated (to avoid the term labour-intensive) technologies have proven to be a good solution to a bundle of development problems.

The first option looks like the most logical one. There is, however, little progress. Assuming that there are good feasibility studies for regional projects, the engineering of consent becomes the main problem. Feasibility studies for such projects will have to comment on the compatibility with general national plans and the added implementation problems.

1.8.2 HOW EFFECTIVE ARE REGIONAL ORGANIZATIONS IN FOLLOWING UP FEASIBILITY STUDIES?

Regional organizations are specializing in sectoral and regional studies. Logically, they are supposed to generate project proposals. Usually, projects are defined which eventually lead to the establishment of one big investment project in only one country, to which the others have to give their consent, for which they in turn acquire the right to get another investment. The procedure although being completely legitimate and not totally ineffective, may be labelled "collective bargaining". Unfortunately, it reinforces competitive attitudes instead of creating chances for cooperative ventures.

So far, the influence and efficiency of regional institutions cannot be greater than coherence and common interest of the totality of all regional partner countries. In this context, but outside the scope of this report, the question put by some regional experts may be repeated: Whether or not some of the regional bodies are not too big to allow for any operational common interest that can be materialized in common projects. Smaller regional associations (such as the emerging ASEAN group) are more fortunate - and may become more effective.

What does seem necessary is a new strategic concept to build up cooperative projects in order to create interdependency. According to the family principle projects can make neighbouring countries interdependent by assigning to each one of them a special role, according to that country's individual strengths, allocating the processing, procurement, production and finishing stages to different countries. In short: Due to the power and influence vacuum in which regional institutions have to work, it is not sufficient to improve the methods of following up investment studies.

Instead, the basic approach to regional industrialisation may have to be revised.

This set of regional problems cannot be solved by the building up of regional consulting or promotion services. Consulting engineers could contribute only their engineering know-how to feasibility studies. Feasibility studies should not be executed by regional institutions, on the other hand with the exemption of big regional surveys for which there is no consulting capacity in sight.

1.9.1 HOW DIVERGENT ARE PROJECT RECOMMENDATIONS GIVEN BY DIFFERENT AGENCIES OR LEVELS WITHIN THE SAME COUNTRY?

Time did not permit to concentrate on the question of diverging opinions, interests or value systems within a given country. This question becomes very relevant when the interplay between feasibility studies (proposals by proponents) on the one hand and project evaluation by governments, banks, etc. on the other is being studied. Since every agency not only has a specialized function to fulfill but also a certain value system to obey, there may be different opinions on one and the same project. Most conflicts arise when private commercial profitability criteria on the one hand and social-economic benefit criteria on the other differ widely. This conflict is familiar to everyone in the business and, since there are no standardized rules on how to decide in such a situation, the outcome cannot be precisely predicted. Interesting to note perhaps, that some countries allow for three options in such a situation of insufficient social benefits or of nonconformity with governmental planning:

- To revise the proposal.
- To revise some of the criteria of the planners.
- To drop the proposal.

Such a flexible method does allow for a learning process on both sides, for private investors and national planners.

1.10.1 NOW CAN THE PROBLEM OF PROTECTING BASIC DATA FOR FEASIBILITY STUDIES BE SOLVED?

Feasibility Studies as well as project evaluations do depend on the availability of data - and on the quality of informations. Both may be difficult to obtain in some countries, and a true researcher will never be content with the data material that has been made available to him. But that is exactly the border line between research and decision making. In a decision making process, a decision has to be reached anyway, and it is the function of research to reduce uncertainty. The insufficiency of data can therefore, in principle, never serve as an alibi for delays or failure to present feasibility studies. Instead, substitute techniques like estimates, educated guesses etc. have to be applied.

- On the other hand, a definite need is felt by the experts
- for a sort of general and comprehensive information on major feasibility studies conducted (such as previously published by UNIDO),
- for a magic "data bank" at UNIDO or elsewhere containing the sum total of economic information,

Let counting the innumerable difficulties in creating, servicing, updating and utilizing such a fashionable data system, it seems that by subscribing to the decision making approach some of the appetite for complete data will disappear.

Just as the demand might be satisfied at a fraction of the cost of an information system by pragmatic, centralized documentation as follows:

- All U.N. agencies are requested to send one copy (or more) of their feasibility studies to Vienna,
- All experts conducting or evaluating new studies in a given sector or region may ask for a list of sources and may order the studies they want to read,
- As the only return favour demanded they are requested to comment on and supplement that feasibility study which they received.

2. Recommendations

It is the permanent task of UNIDO to accelerate the industrialization of the developing world. The generic term for the variety of services offered by UNIDO to governments requesting UNIDO services is "Technical Assistance". Following the LIMA Conference, a number of new sections have been created following an expression of demand, among others the Feasibility Studies Section which is the "client" of this report and the Organizer of the Expert Group Meeting on Pre-investment Studies.

Following the basic marketing approach adopted earlier, UNIDO would have to evaluate its own services according to the same stringent criteria suggested by UNIDO for project evaluation, and to employ feasibility studies for its own future contributions to the pre-investment scene, just the same way bankable feasibility studies should be prepared according to our findings.

In this context, secondary, rather than primary, data generated by UNIDO should meet actual demands of the market and serving specific target groups and their needs. They should be structured following the wellknown methods of product description, market and development as well as value analysis.

2.1 Change in Investment Decision Making

It is hoped that this study evaluation will be launched in the not too distant future. Some recommendations for changes in orientation and approach, however, can be formulated today:

(1) Research orientation should be changed by better Orientation

It is easy to reach the conclusion that there is a surplus of research, but a deficit of research materials (bankable projects). Research activities tend to become independent from the total investment program; they become bureaucratic, sophisticated, and they increase the sense of time. Only by redefining the role of research in the terms of investment decision making, can a water gap of the gap be prevented.

(2) Trends in research should be at least synchronized with research materials

If it is the function of research to prepare decisions alternatives, it is the function of project or to engineer consent and to bring about positive decisions. Both activities which may or not be continued in specialized form are loops in the overall process of investment decision making.

(3) Implementation should become more connected with Feasibility Studies and Project Evaluation.

Feasibility studies will have to contain a realistic plan for implementation. Consultants will be requested to participate in project management during the implementation period in order to overcome difficulties. The gap between the research phase and the implementation phase will diminish.

(4) The identification of potential investors will become as important as the identification of projects.

Private investors, but also government officials taking the full responsibility for a project, are "same animals". Because of restrictions, however will not

enlarge the present number of entrepreneurs already engaged in development investments. Active target group marketing will be necessary.

- (3) In principle, the investor (or sponsor) should be the client of a feasibility study, since such a study is in a way a compatibility test between an investor and a project idea. Therefore, the idea of creating or maintaining a stockpile of finished feasibility studies ready to induce a positive investment decision should be discarded. Instead, it will be sufficient to maintain a certain portfolio of well-defined project ideas proven to fit into the national planning scheme.
- (4) The exclusiveness with which the treatments of pre-investment guidance are at present being applied to new projects should be reconsidered. In many cases it may be more advantageous to save existing operations from decay, closing or failing than to build up new ventures. Since enterprises (or public corporations) which happen to be in trouble cannot be saved by applying conservative methods, a transfer of methods from new enterprise foundation is justified. Such cases are under way (in the Sudan).
- (5) In principle, feasibility studies should be conducted by consultants because of their greater flexibility, specialization and dependence on client satisfaction. Rules for the selection of consultants being widely known, accent should now be placed on the best methods of cooperation with them, beginning with briefing and ending with reporting or implementation. Interesting methods of cooperation are presently being tested, by which consultants take over the quality guarantee, the methodological and reporting responsibility, whereas the field force of the client organization is being utilized simultaneously (by IFDS, Cairo).

- (8) In principle, project evaluation should be made by banks and government agencies and be restricted to cross checking project proposals and feasibility studies rather than duplicating insufficient feasibility studies. The better the quality of proposals and feasibility studies, the easier banks and governments can concentrate on their original task of evaluating projects in order to select the best ones for realization.
- (9) Cost consciousness will have to pervade the whole field of pre-investment studies. As of today, the costs of pre-investment studies are known only to those institutions that are employing consultants, and even there the costs do not include client participation costs. If studies or evaluations are made within a bank or government organization, no cost estimates are available as a rule. First attempts are just being made in a few of these organizations to account for internal time (man-hours) spent on a specific project, by adopting the man-hour recording and accounting system of the consulting profession.

No reliable informations exist as yet

- on total expenditures for pre-investment studies per country, sector, region or project,
- on proportional expenditures for such studies in comparison to total investment volume or in relation to unimplemented proposals,

Since the same deplorable state of information exists with regard to promotion costs, it may safely be said that neither the order nor the proportionate costs of pre-investment activities can be quantified. For this reason, no judgement on waste or efficiency can be ventured, either. Since the costs may be anywhere in the region between 1 % and 10 % of the investment volume it seems absolutely necessary to implement unsophisticated methods of accounting for time and monies spent in the pre-investment phase.

- (10) Even more important than cost consciousness is time consciousness, though even less presently practiced. Time is of essence, especially in investment preparation. If a feasibility study or project evaluation takes a year to complete, prices, markets and government regulations may have changed so much that the finished product has become a museum piece. If the project is of vital interest to a government, a population or a private corporation, the negative opportunity costs (the loss) may be quite considerable. Unfortunately no model calculations of such economic losses have come to our attention. A delay in vital projects may even endanger the very governments that have promoted the original idea.

For these reasons, some Arabic development banks are presently concentrating on time-saving procedures for the identification, selection, feasibility, evaluation and implementation phases of a project. Consequently there may be a need for some sort of network planning for the pre-investment phase in analogy to the network techniques applied in project management. There may be - and perhaps there should be - an application of basic project management techniques already in the pre-investment phase.

- (11) The roles of all development agencies (government planning boards, consulting firms and banks) within the network of industrialization - should be defined not only individually (as has been done in some beautiful brochures) but in relation (cooperation or competition) to one another.
- (12) The terminology confusion in the pre-investment field should be terminated, since it has become a serious handicap to practitioners in the field and to their communication with professionals. Since terminology, however, reflects a system

of thinking and an approach to problems, terminological clarification presupposes the construction and formulation of a new, more timely, approach to the acceleration of industrialization.

- (13) The role of banks might have to be expanded. Development banks are already being confronted with the task of feasibility studies, project evaluation, management assessment or even management leasing and supplying equity substitutes for equity in addition to the loan capital. The banking systems are among the best established and most professional organisms in the developing world.

Some development agencies are coming into existence that actually combine banking, consulting and planning functions. This trend should be observed and evaluated, so that recommendations can be made by UNIDO.

2.2 UNIDO's Role in Pre-investment Decision Making

Supranational Institutions like OECD and the World Bank have presented their own approach to the problems arising in the pre-investment stage. Their approaches consist, to a different degree, in a system of thinking, a methodology to be followed more or less rigidly, and a terminology consistent in itself, but not necessarily generally applied. The relative virtues of these approaches have been assessed and compared.

The UNIDO approach is more fragmentary. UNIDO's image is mainly associated with scientific efforts to upgrade the techniques of project evaluation. Only the more scientific minded specialists in the field, however, do know this approach and occasionally refer to it. Very few find it practicable.

Yet there are good "market chances" for an entirely new approach to problem solving in the pre-investment phase, and there are good chances for the implementation of such a new approach by UNIDO if UNIDO decided to develop and to actively "market" it. The new approach should satisfy the following requirements:

- Greater simplicity,
- Applicability to small projects and small investors,
- Some of the 13 basic recommendations mentioned above under 2.1. These suggestions should not, however, be misunderstood to imply any lowering of logical, scientific, or professional standards. What is really meant is the need to produce simple and handy tools instead of sophisticated instruments. Thus, some additional efforts are required to "transfer feasibility technology" to the developing countries and their own specialists.
- In short, we recommend to UNIDO to elaborate the investment decision-making approach in all its aspects. The role of UNIDO as a catalyst, a pioneer and a coordinator would virtually remain unchanged or be revived.

Following the strategy of indirectly servicing the investors by reinforcing the investment agencies, UNIDO might concentrate on 6 points:

- Simplified methodology, neither in the sense of competing with university professors nor in the sense of a "terrible simplificateur", but of a transfer agency. For instance, the computerization of financial plans as contained in feasibility studies may be rejected by field specialists, while being demanded by the big development banks, UNIDO would in such a case determine in what cases and under what circumstances computer-aided techniques should be applied and which persons or institutions could supply the most practicable know-how.
- Model cases development. UNIDO is in a unique position to initiate model cases (like the first application of a certain computer-aided model in Nepal), and UNIDO is in a better position than any other organization to collect and compare the finished products of development agencies.
- Thus, for instance, the most practical way of the feasibility studies, the most effective program, the most attractive investment promotion available at a given point in time would be presented (of course, without too obvious a judgement) to UNIDO's clients in the field.

- Development of standardized working aids and materials like feasibility study manuals. This would be in continuity with what UNIDO has done for years.
- Clear terminology. Present terminology (in the pre-investment studies field) has been derived from scientific and banking sources and not actually from investor's or field specialists experience. If the approach is changed to decision making and processual thinking, then a new terminology could be more simple and practice-oriented than the present one.
- Organizational solutions to development agencies. Structural, procedural and information problems present themselves in many of the development agencies. UNIDO assistance in this hitherto neglected field could prove beneficial. It would be relatively easy for UNIDO to gain access to the organizational models, charts and ideas prevailing in the field. Almost everywhere new ideas, models and concepts are being discussed, tested or implemented. UNIDO could help channelling these discussions.
- Quick identification bottlenecks that prevent a flow of bankable projects through the development network.

3. Summary

- (1) The reasons for a surplus of unimplemented pre-investment studies on the one hand and a lack of bankable projects on the other are manifold. They are not limited to methodological insufficiencies. They include the intransparent maze of development agencies with their overlapping and duplication, the widely divergent attitudes and interests of planners, bankers, investors and administrators. Even professional feasibility studies on viable projects are becoming obsolete if too much time elapses after their completion.
- (2) There is little cost consciousness nor time-efficiency thinking in the pre-investment field.
- (3) The field's expectations concerning UNIDO future activities in the feasibility field are rather modest. On the other hand the chances for a new approach to the solution of pre-investments problems, to be developed and implemented by UNIDO, are great.
- (4) A new approach would have to be derived from the decision-making concept according to which research would have the function of reducing uncertainties to a tolerable degree, while promotional activities would have to produce consent to the different maturing stages of a project. Accordingly, terminology could be clarified and simplified. Furthermore, some "bottleneck-thinking" could be applied successfully.
- (5) UNIDO's best contribution to its direct clients (the agencies) and their clients (the investors) could well be a new strategy for speeding up the process of pre-investment activities. An institutionalized service centre to be created by UNIDO would then be an instrument to realise this strategy and to solve the UNIDO's client's problem whatever they are in a very flexible, interdisciplinary way. Therefore, this UNIDO task force should not be

institutionalized before the new approach has been defined as well as endorsed and before precise requirements have been formulated concerning the man-power of that task force. It is vital that the new UNIDO strategy vis-a-vis the pre-investment problems should be developed first, and that this strategy be based on a truly empirical observation of the problems and bottlenecks of UNIDO's clients. This does not necessarily cause great costs in terms of time and money. To the contrary, a period of 5 to 6 months should be sufficient - plus the time needed to secure the necessary consent by the executives of UNIDO.

- (6) The "task force" to implement the new approach and to assist UNIDO's clients in solving their problems and bottlenecks should be built up according to the requirements of the new strategy. Flexibility, inter-disciplinary methods, time- and cost-consciousness will certainly be among the requirements for members of that task force and for the group as a whole. In order to meet these requirements, the group will have to consist not only of UNIDO officials but also of consultants - and of even more specialized experts from time to time. Project management would be practiced, and "institutionalization" be avoided.

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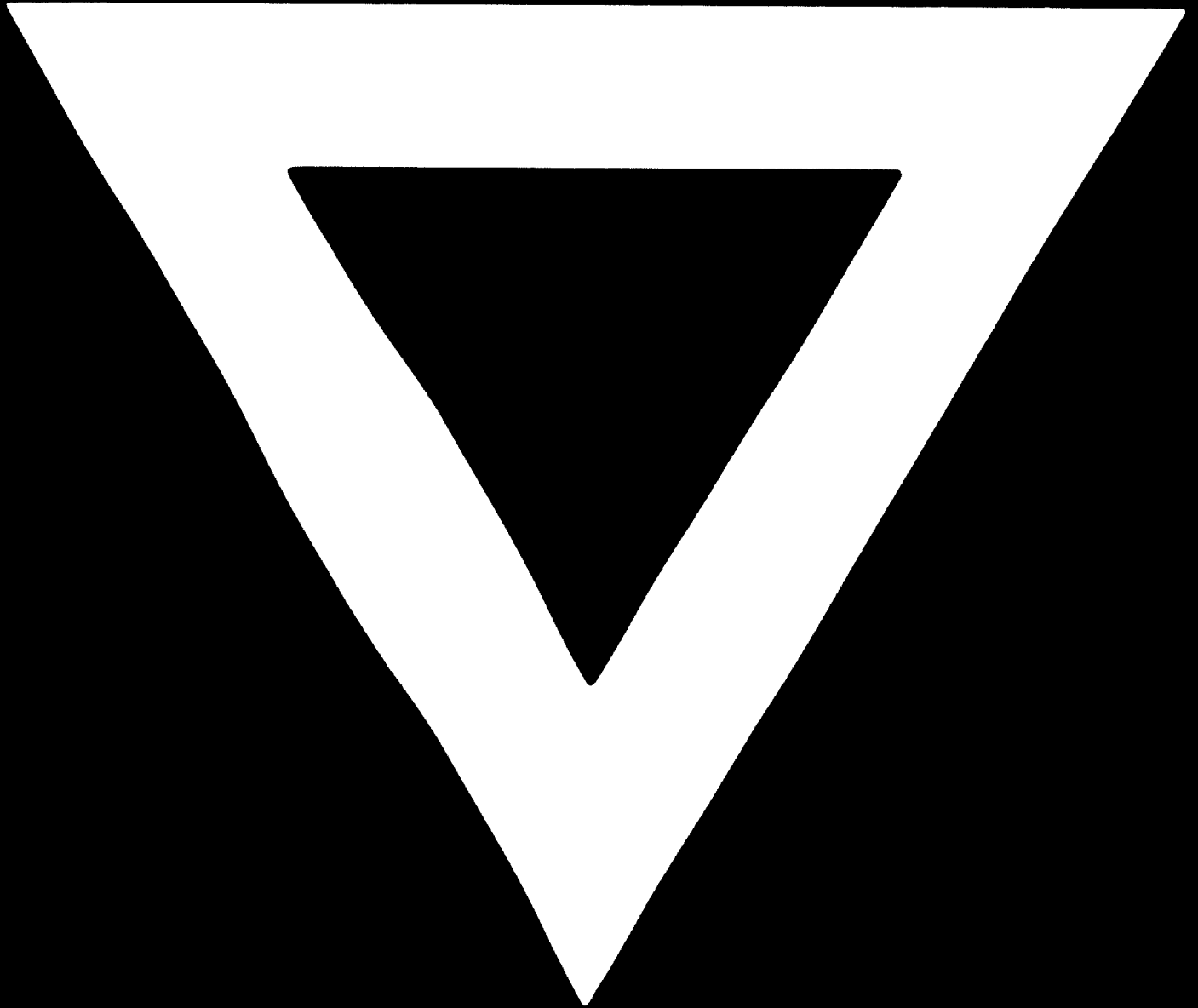
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