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Expert Group Meeting on the Industry Files System
and other Data Bank Techniques for
Industrial Programming

Vienna, Austria, 16 - 20 November 1970

AIDE MEMOIRE ^{1/}

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I. Background

1. Though few would argue the contention that development can be most effectively fostered through planning, much of what has in the past gone under the name of planning seems to have proved itself either inadequate or irrelevant to the task at hand. In most developing countries, the response to this realization has been not so much to reject planning as an instrument for development decisions as to turn to a new generation of planning approaches and techniques which appear to offer better promise of being able to deal with the issues at stake.
2. In earlier days, the typical planning methodology began with a passive acceptance of the data supply systems as given, concentrated largely on the economic calculus reconciling the desirable with the possible, and ended with the publication of a Plan which was forwarded to the policy-making and executing authorities who were to take full responsibility for its implementation.
3. One positive step towards a more practical approach has been to strengthen the "forward" linkage of plan formulation with plan implementation. This, often referred to as "rolling plans", has extended the concept of planning to include the surveillance and follow-up of individual development projects being implemented, as well as the identification and evaluation of new investment opportunities.
4. The next step, equally important, is to further expand the planning process to encompass the very information systems on which it depends. The focus of the planners' attention should thus be extended to activate the basic data supply itself, which was traditionally dealt with by a different group of specialists who were institutionally separated from the planning process. This move towards an increased "backward" linkage, so to speak, corresponds to the move from a laboratory exercise to the real planning which is by nature "data-intensive", always calling for more and better data inputs at all stages from diagnosis of the existing conditions to determination and implementation of priority development projects.

5. The notion of "data bank", specifically geared to planning tasks, is introduced at this point, as a means of institutionalizing such backward linkage possibilities in the planning process. Many developing countries now seek solutions in this direction that are modest enough in terms of resource requirements and quick enough in yielding practical results. UNIDO has thus made an attempt at drawing up the basic guidelines for developing countries who wish to initiate any serious projects involving a data bank element. This attempt is yet only a modest one. Bearing in mind the particular field of specialization assigned to UNIDO, it has focused on the industrial sector of the economy in terms of the sources of primary data to be first tackled. As a guidance at the initiation phase, the formulation of a proposal in general terms centered around the issue of where to obtain and how to organize the information relating to the existing industries and potential projects.

6. The proposal is referred to as "the Industry Files System". A fairly complete description of this proposal, though still in a draft form, is given in connexion with the report of the East African Working Party on Industrial Programming Data, which met in Nairobi, 24 - 29 November 1969. An abbreviated version of the same document is available in ID/WG.52/5 (THE INDUSTRY FILES SYSTEM: A progress report on a project for industrial programming data bank).

7. The principles expressed in these documents seem to have been well received by most experts and officials concerned with industrial development in developing countries. These principles alone, no matter how reasonable and promising, could hardly serve as a sufficient lever for actual implementation, however, a general guideline, not amply buttressed by its corollaries and prototypes in actual application, could still be misleading. Especially in (many) countries where the idea of "data bank" has only been talked about as a remote novelty, the threshold for making the first positive decision along its line will be so high that the slightest fear of failure can easily obscure the alleged merits of the proposal as well as the real need for field action.

8. It is thus felt that the existing version of the INDUSTRY FILES SYSTEM ought to undergo further substantiation and amplification before it is presented as a practical guide for the interested authorities in developing countries.

II. Objectives of the meeting and tentative agenda

9. One of the salient points needing an amplified treatment in the present draft IFS relates to the "use" aspect of data bank of the proposed scope. It is indeed imperative that the precise identification of specific planning jobs and corresponding data requirements should precede the system design for data bank operations. This principle, obvious as it sounds, ought to be substantiated by means of a number of illustrative examples drawn from actual experience. Rather than jobs and data categorized in general terms, a well-sorted collection of various specific examples, each serving as a prototype demonstration, should be included in the presentation of the proposal. In this connexion, there are two basic issues at hand.

10. One of the key issues onto which the IFS proposal attempts to address itself, and which has long been along the main theme of the UNIDO "industrial programming data" programme (of which the IFS proposal constitutes a part) is that of "micro-data" - the importance of better quality micro-data inputs and flexible utilization of them in the practical planning process, if not to speak of basic and applied economic research. This "programming data" theme is intended particularly to cope with the very state of industrialization in many developing countries in which "industrial planning" often turns to be synonymous with a hodgepodge of micro-level considerations.

"In this connexion, attention may be drawn ... to the problems of co-ordination between the designing and executing of individual industrial projects and the appraisal of industrial plans in terms of sectoral aggregates. In most developing economies, where relatively few enterprises of strategically significant size constitute the main body of each "industry" (defined, say at the 3-digit classification level), it is extremely important not to lose sight of the details of individual productive units in the

compilation and evaluation of industry statistics. Projections and plans prepared without taking such details into account may be self-defeating." ^{1/}

What is opposed here is not "aggregation" per se but the "pre-aggregationist" tradition of statistical bureaus, which leads to gross under-utilization of the available data. Scope for better utilization of the existing types of micro-data (especially relating to industrial establishments and enterprises as well as investment prospects), and also possibilities for generating new kinds of micro-data from the existing sources, need to be demonstrated in concrete forms, in order to facilitate action along the IFS lines.

11. Another important use-aspect of the IFS proposal related to those computer-using, data-intensive techniques of programme analysis which will be made possible with a data-bank set-up. Manipulation of collapsible input-output models, project evaluation models based on impact studies, linear programming models for priority-setting, network analysis for time scheduling of programme allocations, short-term business forecasting, long-term projections and policy simulations, etc. - the rapidly growing stock of experience with various computer-using study techniques ought to be subjected to continual synopses with a view to sorting out those which find practical applications in actual planning work and pinpointing the particular issues and problems which ought to be examined by means of systematic calculus. Concrete action on the IFS proposal or any allied data bank concepts would be greatly facilitated with explicit reference to a kind of compendium, if only in a preliminary and incomplete form, of prototype programming models of unambiguously practical use for which computers are indispensable.

12. With regard to the supply side, too, there is certainly a harrassing issue in the way of the micro-data school. The IFS proposal hinges itself upon the strategy of "record linkage": i.e. utilizing as much as possible the existing, but currently scattered and untapped data sources by linking them together through some pivotal device. The proposed pivot is the

1/ UNIDO, Profiles of Manufacturing Establishments, Vol. I. ID/SER.7/4, Sales No. 7.67.II.B.17, p. 2.

"register of businesses" (referred to as "Identifier File" in the draft IFS). This implies that all primary data originating from individual establishments and enterprises, if available from different institutional sources, are to be re-assembled on the level of these establishments and enterprises and not on the level of any pseudonymous pre-aggregations in which they have traditionally been made available.

13. Technically speaking, assuming that a given central register of businesses with its unique coding system be duly absorbed in the recording routines of various development institutions, then there will still be quite a few "bugs" to be removed before inter-record linkage generates meaningful data. Technical bugs may eventually be solved in one way or another. But does any of them demand special attention in any special respects? Are there any noteworthy prototype models for consistency checks that should be incorporated within the IFS proposal? From the standpoint of data supply, which kinds of administrative records have proved the most resilient to the linkage proposition and which are relatively more untenable? Candidate records are listed on page 10 of ID/WG.52/5, though only by way of partial illustration. We wish to learn from the experience gained in linking together any such different data sources in any country.

14. Most likely, overriding problems may be associated with institutional considerations. Important institutional bugs are to arise from at least two factors: a) confidentiality and b) administrative reform. The confidentiality problem is deep-rooted in the normal statistical office operations. It can easily drown the proponents of micro-data unless the latter come up with a tightly packed programme for the organization of users-suppliers relationships. Obviously, the traditional publication-gearred approach is the last thing to be associated with the IFS, as far as its operations on the micro-data level are concerned. A kind of subscription system involving both governmental and non-governmental institutions might be essential. As to the possible impact of the linkage proposal on the existing administrative routines, it is clear that the routine recording systems of individual institutions will need to be adjusted sooner or later to accommodate the requirements of the data bank in which they participate. In the initial phase, every effort should be made

to let external decoding devices do the job, so that the data bank will fit itself to the existing records as they are. How does this strategy work in actuality? Specific examples demonstrating the extent of feasibility in this regard should be most appreciated.

15. Thus, by way of drawing up the tentative agenda of the proposed meeting, the above several paragraphs may be recapitulated as follows:

A. General objective:

To improve the existing version of the Industry Files System into a form more readily presentable to the interested authorities in developing countries for promoting and/or guiding their action.

B. Specific objectives regarding the use aspect of a data bank of the suggested type:

To gather and sort out, in the form of a sensible minimum compendium, the relevant prototypes of industrial programming task for which a data-bank approach is essential. In this connexion, special attention will be given to versatile and flexible uses of micro-data.

C. Specific objectives regarding the supply aspect:

To gather, also as a concrete reference material, specific examples of inter-record linkage representing actually tested cases, with due attention to institutional problems and effective ways of solving them, as well as technical debugging problems.

III. Organization of the meeting

16. The meeting of an ad-hoc group of experts with the terms of reference as described above will be held at the UNIDO Headquarters in Vienna (room B-127) for the 5-day period from 16 (Mon.) to 20 (Fri.) November this year.^{1/}

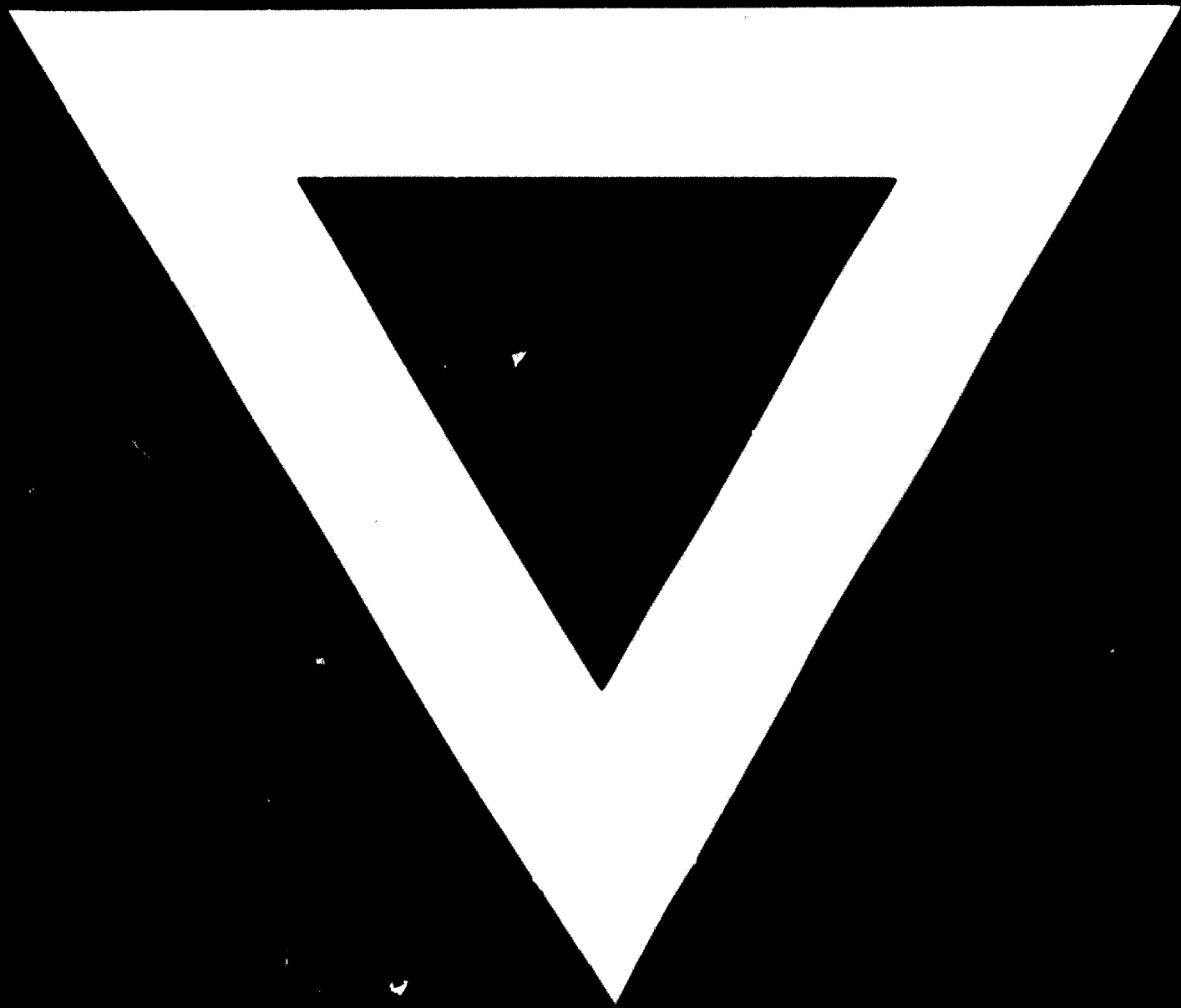
17. The group will be composed of ten to twelve experts altogether, some from developed countries and some from developing countries, who are so nominated by the UNIDO Executive Director. The members participating in the group act in their own professional capacities as experts, rather than as official representatives of the organizations with which they are affiliated. However, for the members drawn from governmental officials, it is suggested that their individual contributions to the meeting should fully take into account the experiences, problems and potentialities relevant for their organizations.

18. The meeting is expected to proceed mostly in an informal style, allowing free exchange of views among all the members on the daily agenda items to be established at the outset. Presentation of articles and reference materials by way of concrete illustration and demonstration in the course of discussion will be most welcome. It is likely that one or two days within the meeting period will be devoted for a synthesis of views on highly technical issues at a sub-group level, since the proposed agenda calls for at least two different types of professional background and experience: a) utilization of data bank facilities for planning and analytical tasks and b) organization and management of data bank programmes and facilities.

^{1/} The Headquarter building in which the meeting room is located is at the corner of Lerchenfelderstrasse and Museumstrasse, opposite to the Justiz Palace, Vienna 1.

19. The costs of travel and per diem allowances for invited participants will be defrayed by UNIDO at the UN standard rates, unless otherwise arranged. When a participant wishes to prepare a paper on any special subjects in line with the afore-mentioned agenda, he is requested to bring with him at least twelve copies for distribution within the group; an advance notice in this regard will be appreciated in order to facilitate further detailed programming of the meeting schedule, as well as to permit proper pre-arrangement of a service agreement under which such a contribution may be made.





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