REVIEWS

Project Formulation in Developing Countries. P. K. Mattoo. Delhi, Macmillan, 1978. Rs. 30.00

In the context of a National plan, the process of project selection, involves a very wide spectrum of specialized tasks : from technical assessments on the one side to socio-political judgements on the other, thereby requiring trained personnel drawn from very different streams. It would be extremely simple minded to expect any one individual to produce a text book that would prove sufficient for all the differentiated needs connected with a comprehensive appraisal of investment projects. Such, clearly is not the need either; it is only necessary that the literature as a whole should be able to fulfil these diverse needs. Beyond this, in order that individuals entrusted with particular aspects be able to relate their own functions to the process of planning as a whole, a basic education involving the core methodology and some minimal familiarity with neighbouring functions is necessary. There would seem to be two alternative ways to design books for this purpose. Either, one can provide a perspective account, isolating only the skeleton of project planning and bringing out the key issues relating to each component, or one can focus on a subset of activities and view the complex in relative terms. In the existing literature there are two prominent examples which fall into this latter category. Manual of Industrial Project Analysis by Little and Mirrless for the OECD and Guidelines for Project Evaluation by Dasgupta, Sen and Marghin for the UNIDO. Both these manuals approach the problem of project planning from the point of view of Social Cost Benefit Analysis on the assumption that the relevant technical and market-related information is available. By contrast, the literature is fairly wanting in respect of the first category, to which the book under review belongs. On this account, it should be welcome.

The book is divided into nine chapters. The first reviews the problem of National Planning in fairly general terms, and provides the context in which to view micro-level project-planning. The second chapter sets out the different components of project planning, presumably with a view to classifying the gamut of interrelated activities. The remaining chapters deal with the details of each distinguished activity separately. The classification of activities is as follows : Feasibility Analysis, Techno-Economic Analysis, Project Design and Network Analysis, Input Analysis, Financial Analysis, Social Cost Benefit Analysis and Project Appraisal. The logic of this ordering reflects the author's view of the process of arriving at the final appraisal as a culmination of a sequence of stages. If one were to generalize a bit roughly, the broad steps are :

(1) ascertaining investment-prospects and determining the area in which to invest ;

(2) discriminating between alternative

project-specifications and selecting those which are technically efficient ;

(3) determining the financial implications associated with the project ; and

(4) determining the impact of the project on social welfare.

There is nothing wrong with this ordering. However since performance at each step is to be evaluated against the same objective—that which determines the basis of appraisal—it is essential that at the outset there be a thorough discussion of alternative objectives, giving them precise forms so that the relevant one can be applied at each successive stage of project planning. In the context of Planned Development, the objective for a private investment ought to be maximum profits over time (or its translation into a specific target for the rate of return) subject to the relevant constraints including achieving a positive impact on social welfare. On the other hand the objective of a government project should simply be maximum social benefit under relevant constraints. In either case therefore the concept and index of social welfare needs precise specification. Nowhere in the book is this attempted, not to say at the beginning. The chapter on Feasibility Analysis does say that a specification of objectives is necessary (pp. 52-3) but not what these ought to be nor what they usually are. There is also a brief summary in the chapter on Techno-Economic Analysis of alternative 'measures of performance' but these are not related to any ultimate objective. As a result of this deficiency, the exercise of project planning as set out in the book seems to lack direction, the component stages remaining isolated beads without a connecting thread.

In regard to the details of each stage, the exposition appears to be a little diffused. It may be an aid to recapitulation for readers with prior acquaintance of the methodology of project formulation, but to beginners it must be quite baffling. At times the discussion is a mere record of the views of different authors who seem to be saying the same thing, (e.g. the chapter on Social Cost Benefit Analysis) and often the exposition is truncated at the point of a list of technical terminology (e.g. the list of alternative market structures, in the chapter on Techno-Economic Analysis). Throughout the book, concepts are introduced without demonstration of their usability or relevance, in which case one may well ask why they were brought in at all. To take just one example, on p. 26 the concept of Systems Analysis is given in paragraph which says little more than that it is "a new methodology of problem-solving heavily dependent on the use of mathematics and the computer" which OR technique does *not* have this feature?

The chapter on Social Cost Benefit Analysis is again filled-up with numerous quotations which do not seem to add up. This is rather disappointing because if the end-product of the pre-investment exercise is appraisal, then for purposes of planned development, Social Cost Benefit Analysis is precisely the selection procedure. However, the author does not provide us with even a skeleton of the analytical methodology, though he does devote paragraphs to selected concepts such as "shadow prices". There is a reference, a largely incidental reference, to the OECD Manual and the UNIDO Guidelines. However, neither the common methodology nor the distinguishing features of these two doubtlessly-most-important contributions in the area, are provided.

The methodology of Social Cost Benefit

Analysis in both these works is derived from the objective of maximum Social Welfare. Social Welfare is conceived of as a weighted-sum of benefits derived by individuals. If all markets are perfectly competitive, then National Income is a good index of Social Welfare, provided that the underlying distribution of consumption is equitable. The distribution could fail to be equitable both in its treatment of contemporaries as well as its treatment of different generations. The latter problem will show up essentially as a sub-optimality of the existing level of savings. Thus, for purposes of Social Cost Benefit Analysis, the value of outputs less the value of inputs may be treated as the maxim and, *provided* proper adjustments have been made in regard to (a) market imperfections (b) sub-optimality of savings and (c) inequitable income-distribution. Detailed procedures for arriving at the appropriate adjustments form the content of Cost Benefit Analysis. One may feel that the question of adjustments is better left to the final stage of appraisal, and the preceding steps could be worked out on the basis of the market value of output minus cost of production. The procedure set out in the book on hand does indeed suggest precisely, this. However, this is wrong. One cannot have one kind of ranking of alternatives when one is selecting the "optimal" technical design, and quite another-kind at the stage of final appraisal. If the unadjusted present market value of net output is used one may possibly get a ranking of alternatives quite different from the one obtained through Cost Benefit Analysis. Moreover the computation of the value of net output for Social Cost Benefit Analysis is a much more demanding task than a similar calculation from the point of view of commercial profitability. This is because for the former the definition of net output is the difference in availability created by the project on *all* goods and services in the economy. Thus if a project produces tractors, one cannot say that the project output is tractors or even that the "primary" purpose of the project is to make available a large number of tractors. Because the project output could be used simply for import-substitution in which case the relevant output is foreign exchange.

The main distinguishing feature of the OECD Manual, in comparison with the UNIDO Guidelines, is that the latter concerns itself with calculating the impact of an individual project on Social Welfare, treating the existing policies of the Government as given constraints, whereas the former looks at project selection also as the major step in an iterative process aimed at removing irrational policy-imposed constraints. From this may be derived the well-known OECD rule of evaluating all tradeable (as against actually traded) goods at international prices. However this entire question is surprisingly left out.

To sum up, the book is helpful as a listing of many issues which should be relevant to an exercise of project choice, and may serve as a reminder to readers who have already been exposed to the subject, but is likely to prove less useful as a starting point for prospective project personnel.

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Labour Relations and Law. S. L. Agarwal. Delhi, Macmillan. 659 p. Rs. 37.50.

Many books have been written and