FOREWORD

Government planning for social and economic development has been attempted from two different angles: from above and from below. Planning from the top has resulted in a number of national plans and some timid attempts at the supra-national level. Planning from the bottom, as far as it is a government activity, has taken the form of "town and country planning". The former type of planning has often been guided by economists, although, as a matter of course, many other groups of experts, especially engineers, were involved as well. Regional and local planning has been much more an activity of physical planners, assisted by social geographers, architects and similar experts.

Recent trends are to bridge the gap that often still exists between (i) national plans and regional or even city plans and (ii) the methods used in both approaches. Regional science has developed rapidly in the last two decades and the amount of literature on it is considerable. However, an integration of spatial elements in the theory of development planning has been largely neglected so far. These spatial elements play a central role in any geographical subdivision of plans or the linking together of plans for different countries to a plan for a larger area.

This study tries to make some contributions to this neglected part of economics. It does not intend to cover either of the two types of planning mentioned at the outset of this Foreword, but entirely concentrates on some simple methods which may help to build the bridge between these two approaches. Purposely, the methods selected here are simple enough to be of use to planning units of developing countries. Simplicity was preferred for three main reasons: the availability of experts, the availability of computing facilities and the importance attached to the possibility of communication between planners and authorities. Also for this reason careful attention has been given to make the main text, which is self-contained, understandable for readers without any special mathematical training, and to indicate precisely the (non-essential) supplementary parts which use

some mathematics, although still of a relatively simple type yet beyond high-school level.

During the preparation of this text it became increasingly clearer how complicated the subject is and that, as a consequence, the study presented here can only be a modest contribution to the goal, and has to be followed by many more contributions.

The study has been the joint effort of a number of economists and one mathematician of the Division of Balanced International Growth of the Netherlands Economic Institute. Chiefly responsible for the main text are:

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