CHAPTER 1

INTRODUCTION

1.1 Introduction

The main purpose of making projections of economic phenomina into the future is to obtain a long-term perspective of economic development so that guidelines for rational decision-making in the context of planning are available. Planning models can be divided into three basic categories according to the degree of structural complexity and the particular use to which the model is being put[1/]. The first and simplest type of planning model is the aggregate model which deals with the entire economy in terms of such aggregate components as consumption, investment, exports, imports and the like. The next type of planning model is the sectoral model[2/], comprises two fundamentally different approaches to development programming. The first approach, the so-called main sectoral model, attempts to divide the economy into two or more main sectors such as agriculture and non-agriculture, or the consumption-goods sector and the investment-goods sector. A second approach, the so-called the single sector project model[3/], has been to concentrate

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1/ Micheal P. Todaro, 'Development Planning: Models and Methods', Oxford University Press, 1971

2/ Chenery, H.B.,'Pattern of Industrial Growth Models' American Economic Review, 1960.

3/ The single sector project approach is most often undertaken in those economies where statistical data for complete main-sector model are lacking. The project approach to planning has been utilized primarily in African-type economies.

on levels of production and consumption, not of the entire national economy, but rather to investigate the possibility of growth in a single individual sector. The third and most sophisticated approach to planning is the interindustry approach[4/] in which the activities of all productive sectors of the economy are interrelated with one another in the context of a set of simultaneous linear equations expressing the specific production process of each industry. Direct and indirect repercussions of exogeneous changes in the demand for the products of any one sector on output, employment are traced throughout the entire economy in an intricate web of economic interdependences. Interindustry models range from simple input - output models, usually consisting of from ten to thirty sectors in the developing economies, to the more complicated linear programming activity analysis models.

Two developments in economics have stimulated the whole spectrum of this planning methodology of model building[5/]. The first of these developments is the Keynesian formulation of macro-economic models based on aggregates of the whole economy. The second development is made possible by the formulation of a multi-sector general equilibrium model of the simple linear type of Leontief, which enable a consistent elaboration of a whole range of

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4/ Leontief W., 'The Structure of the American Economy', 1951.

5/ Ghosh A., 'Development Planning in South East Asia', Rotterdam University Press, 1974.

interdependent economic activities simultaneously. The two approaches dovetail with each other rather neatly so that a Keynesian macro-model may be build up first in a comparatively few major variables to get the broad trend in the final output vector of the economy so called. In a subsequent step, the input-output method of Leontief is used to tie up these final products with relevant intermediate products and gross outputs which have to be generated to achieve the final products.[6/]

1.2 Manpower Planning in Thailand

The development of manpower represents one of the most important policy objectives of the Plan. This objective has a threefold approach: to generate employment opportunities at least equivalent to the increase in the labor force to promote rural employment with a view to relieving underemployment, and to improve the quality of manpower in order to meet requirements of the present and future programmes of economic and social development.[7/]

6/ United Nations, ' Sectoral Output and Employment Projections for the Second Development Decade' Bangkok, 1970

7/ National Economic Development Board, ' The Second National Economic and Social Development Plan', Office of the Prime Minister

The Second Economic and Development Plan (1967-1971) anticipating 2.3 million increase in labor force during the Plan period, aimed at generating employment opportunities for the increase in labor force of 2.2 million workers.[8/] Forth - eight per cent of that total number will be generated in the agriculture while the remaining 52 per cent in the non-agriculture.

The Third Economic and Development Plan (1962-1976) anticipated 2.6 million workers increase in labor force, from 17.0 million to 19.6 million. It is projected that by 1976 the Plan will have generated employment for 19.5 million persons.[9/] This means that just over 2.5 million more jobs will be created during the Plan period. This is equivalent to an additional 1.5 million persons expected to be employed in agriculture and 1 million jobs in non - agriculture.

The Fourth Economic and Development Plan (1977-1981) aimed at increasing the aggregate employment growth at an average rate of 2.3 per cent a year.[10/] This means that the number of persons employed will increase from 18.55 million people in 1977 to 20.39 million people in 1981. Subsequently, 2.2 million new jobs will have to be created during the Plan period. This plan can be achieved if

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8/ Ibid.

9/ National Economic and Social Development Board, ' The Third National Economic and Social Development Plan',Office of the Prime Minister.

10/ National Economic and Social Development Board,'The Fourth National Economic and Social Development Plan',Office of the Prime Minister.

the urban and rural employment are to grow at the average rate of 4.6 and 2 per cent a year respectively. This is equivalent to an increase of about 600,000 urban jobs and 1.6 million rural jobs.

1.3 Scope of the Study

Of the several means of projecting regional activity, four are common[11/]: 1. straight-line extrapolation, 2. shift-share projections, 3. aggregate econometric projections, and 4. input-output projections.

The method of the analysis of this study is within the framework of the input-output model and the shift-share model. This study is divided into two major parts. The first part attempts to project quantitatively the macro-economic and sectoral structured of the Thailand economy to the period 1980 and 1985 in terms of gross output and employment under different assumptions regarding gross domestic product by using the 1971 input-output table[12/]. In the second part, the shift and share technique is used to project future regional employment growth by using the external projection of national employment growth derived from the first part,

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11/ Schaffer W.A., 'On the Use of Input-Output Models for Regional Planning', Martinus Nijhoff Social Sciences Division, Leiden, 1976.

12/ National Economic and Social Development Board, 'Input-Output Transaction Table of Thailand, 1971', Office of the Prime Minister.

and some assumption regarding the stability of the regional share component over time derived from the internal projection of the model[13].

The input-output model is based on a division of the sector output into intermediate demand and final demand. The final demand is treated exogeneously for each sectors, and with assigned values of the final demand for each sector the total demand (and therefore intermediate demand) is determined through the matrix multiplier i.e. the inverse of the matrix of coefficients. This, in effect, means that the detailed sectoral national accounting statistics such as consumption, investment, exports and imports have to be determined for each sector independently of the model.[14]

Shift-share projections represent an improvement on the straight-line method. Shift-share analysis divides employment growth in a regional industry into two parts[15]: 1. the national employment growth rate, and 2. the regional share component, or the

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13/ Ashby L.D., ' Regional Projections in a National Setting', Regional Economics Division, US Department of Commerce, No. 66143

14/ United Nations, 'Sectoral Output and Employment Projections for the Second Development Decade.' Bangkok, 1970.

15/ Schaffer W.A., ' On the Use of Input-Output Models for Regional Planning', Martinus Nijhoff Social Sciences Division, Leiden 1976.

difference between the regional industry growth rate and the national industry growth rate. In analyzing growth in an economy's employment, these parts are used to divide employment growth for the region into three categories: 1. that associated with national growth, 2. that associated with industry mix in the region, and 3. that associated with characteristics peculiar to the region.