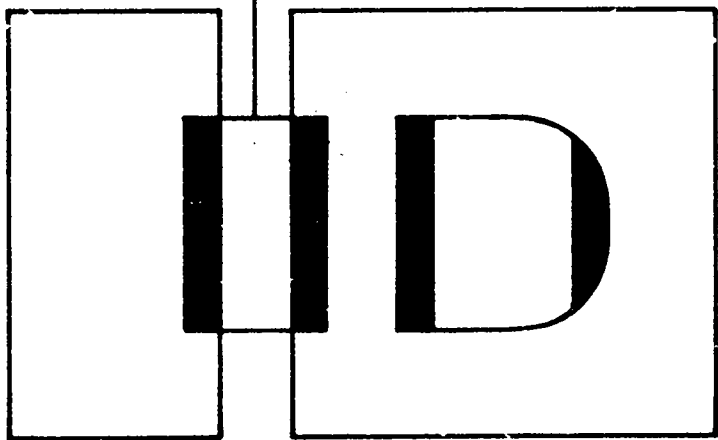
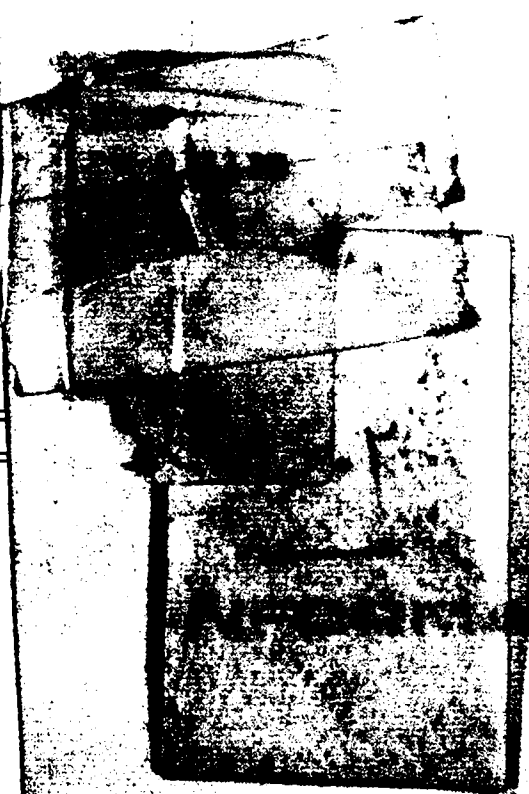




**IMPERIAL GOVERNMENT OF IRAN
PLAN AND BUDGET ORGANIZATION
INFORMATICS DIVISION**



**PLANNING METHODOLOGY:
THE SIXTH
DEVELOPMENT PLAN**



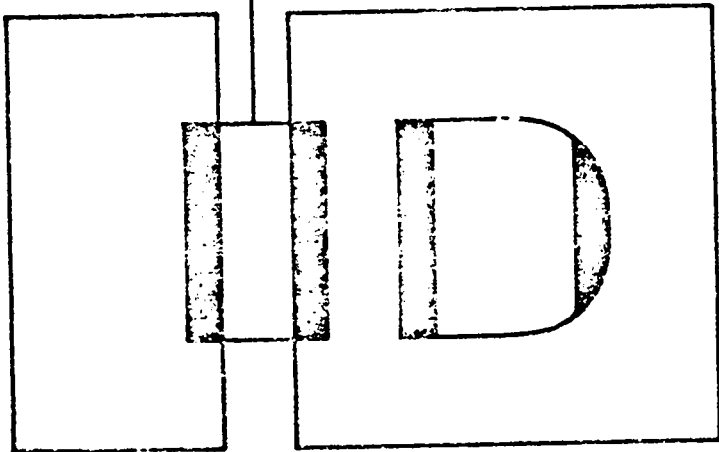
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سلامان برنامه و بودجه
کتابخانه مرکزی

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وزارت برنامه و بودجه
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**Planning Methodology:
The Sixth Development Plan**

**Informatics Division
Plan and Budget Organization**

**Azar 2535
November 1976**

Planning Methodology:
The Sixth Development Plan

1.0 Introduction

The purpose of this report is to:

- 1.1 Specify the basic weaknesses of the present planning process in Iran.
- 1.2 Present a broad conceptual framework of planning to guide the preparation of the Sixth Plan.
- 1.3 Specify the use of macro models in the formulation of the Sixth Plan within the institutional set-up.
- 1.4 Define the iterative process which eventually harmonizes the "top-down" and "bottom-up" planning activities.
- 1.5 Present the preliminary macro-economic projections for a feasible growth scenario.
- 1.6 Design the standard forms required to implement the iterative planning procedures.

2.0 Planning Problems

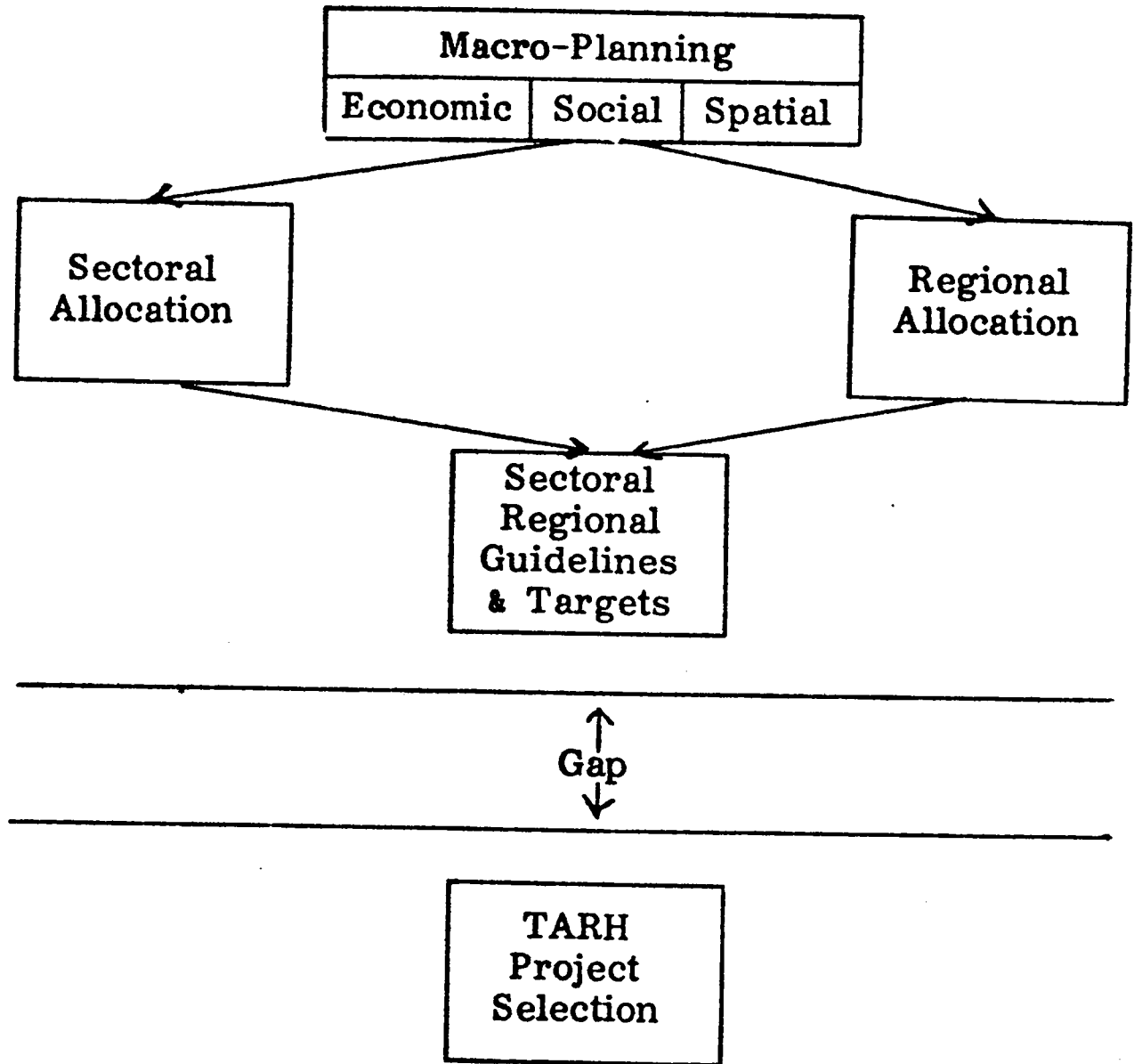


Chart 1 - The Planning Gap

- 2.1 The Iranian planning process is subject to a "planning gap", that is, a lack of communication between the selection of projects and the implementation of planning targets and objectives.
- 2.2 There exists a problem of consistency between sectors in that the plans for one sector do not usually take into account the required complementary plans of other sectors.
- 2.3 The planning process is not continuous or systematic in that it is not practically feasible to revise the plan according to changing circumstances. The lack of systematic procedures and systems thinking inhibit the process.
- 2.4 The planning process suffers from inefficiencies associated with implementation supervision of construction, evaluation of results and feedback to the planning process.

3.0 A Conceptual Framework for the Sixth Plan

3.1 Planning is a continuous process as shown in Chart 2.

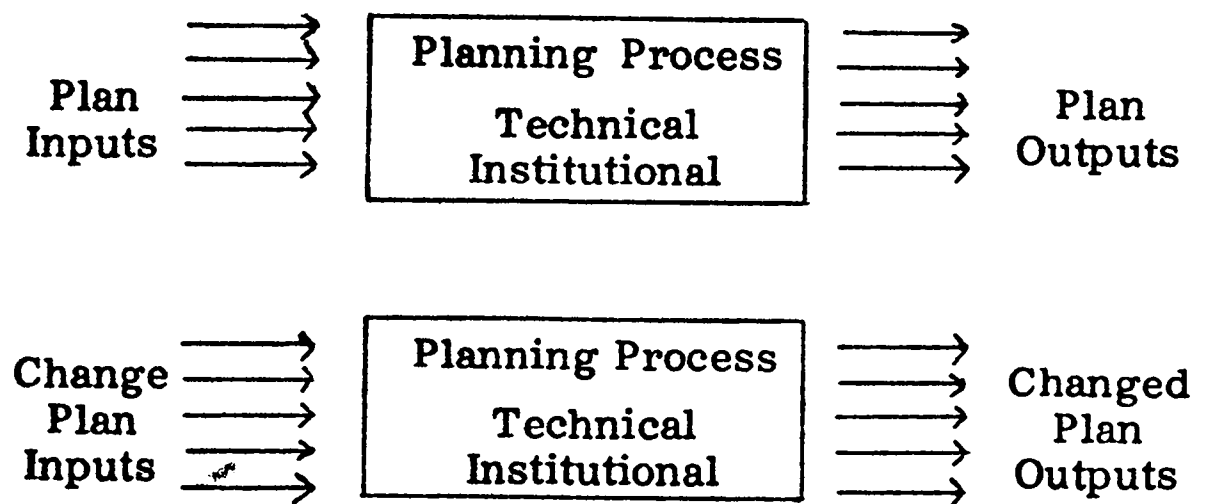


Chart 2 - Planning as a Process

When the process is systematic it is practically feasible to change and modify the plan according to changing circumstances, changing priorities or changing policies.

3.2 The planning process must consist of a "top-down" and "bottom-up" planning activity as shown in Chart 3.

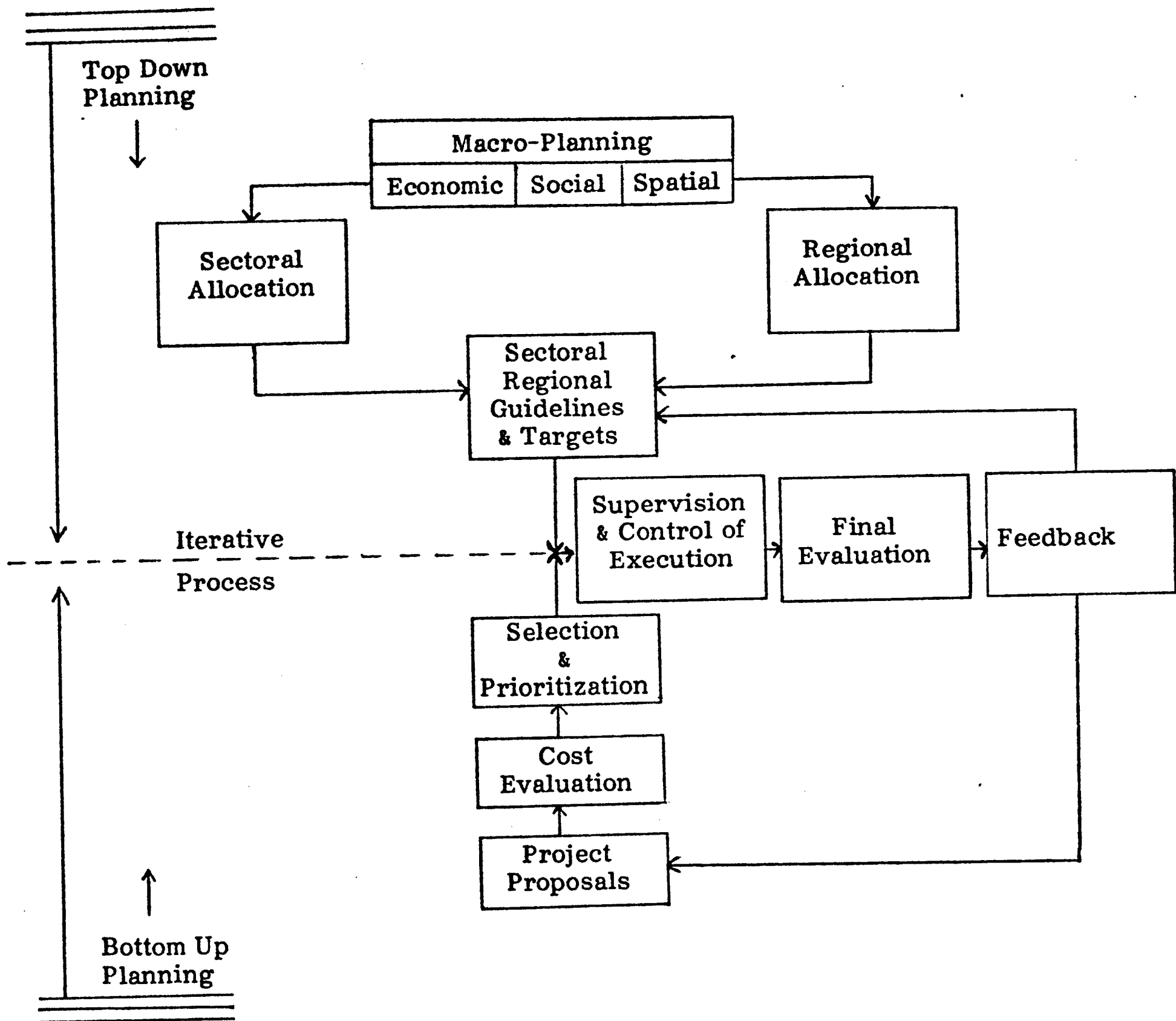


Chart 3- Planning System and its Subsystems

3.3 The iterative mechanism harmonizes the "top-down" and "bottom-up" activities of the planning process. These activities are performed by different agents of the planning process.

4.0 The Planning Agents for the Sixth Plan

4.1 The basic planning agents for the Sixth Development Plan are:

4.11 The Plan and Budget Organization

Markazi
Regional Bureaus

4.12 The Executive Agencies

Markazi
Regional Offices

4.13 The Private Sector

4.14 The Public Enterprises (NIOC, NPC, etc.)

4.15 The Rastakhiz Party

4.16 The Joint Planning Committees

4.2 The Joint Planning Committees are intended to bridge the "Planning Gap" which currently exists between the "top-down" and the "bottom-up" planning activity.

4.3 The Joint Planning Committees are composed of members from the PBO, the Executive Agencies, the Private Sector, Public Enterprises and the Rastakhiz Party.

4.4 The Joint Planning Committees can be classified as "target setters" or as "guideline setters". A target setting committee is one which comes up with a proposed "investment" figure for its sector. A guideline setting committee is much more qualitative in nature and the committee's final product consists of policy recommendations. A tentative classification is given below:

| <u>Target Setter</u> | <u>Guideline Setter</u> |
|--|--------------------------------------|
| 1. Agriculture | 1. Natural Resources |
| 2. Water & Irrigation | 2. Urban Community |
| 3. Mining | 3. Rural Community |
| 4. Manufacturing | 4. Research & Development |
| 5. Power | 5. Coordination of Welfare Planning |
| 6. Transportation | 6. Cooperatives & Participation |
| 7. Post & Communication | 7. Development & Social Welfare |
| 8. Construction | 8. Quality of Life |
| 9. Housing | 9. Spatial Planning |
| 10. Population Control | 10. Social Services Procedures |
| 11. Population, Labor Force & Employment | 11. Participation in Welfare Affairs |
| 12. Education | 12. Social Development of Regions |
| 13. Health | 13. Organization |
| 14. Arts & Culture | 14. Legal Affairs |
| 15. Physical Education | 15. International Relations |
| 16. Internal & Foreign Commerce | 16. Environment |
| 17. Tourism | |
| 18. Statistics & Informatics | |
| 19. Public & Defense Affairs | |
| 20. Information & Mass Communication | |

5.0 The Iterative Process in the Sixth Plan

5.1 The macro-planning activity begins the process of finding a feasible solution to the allocation process.

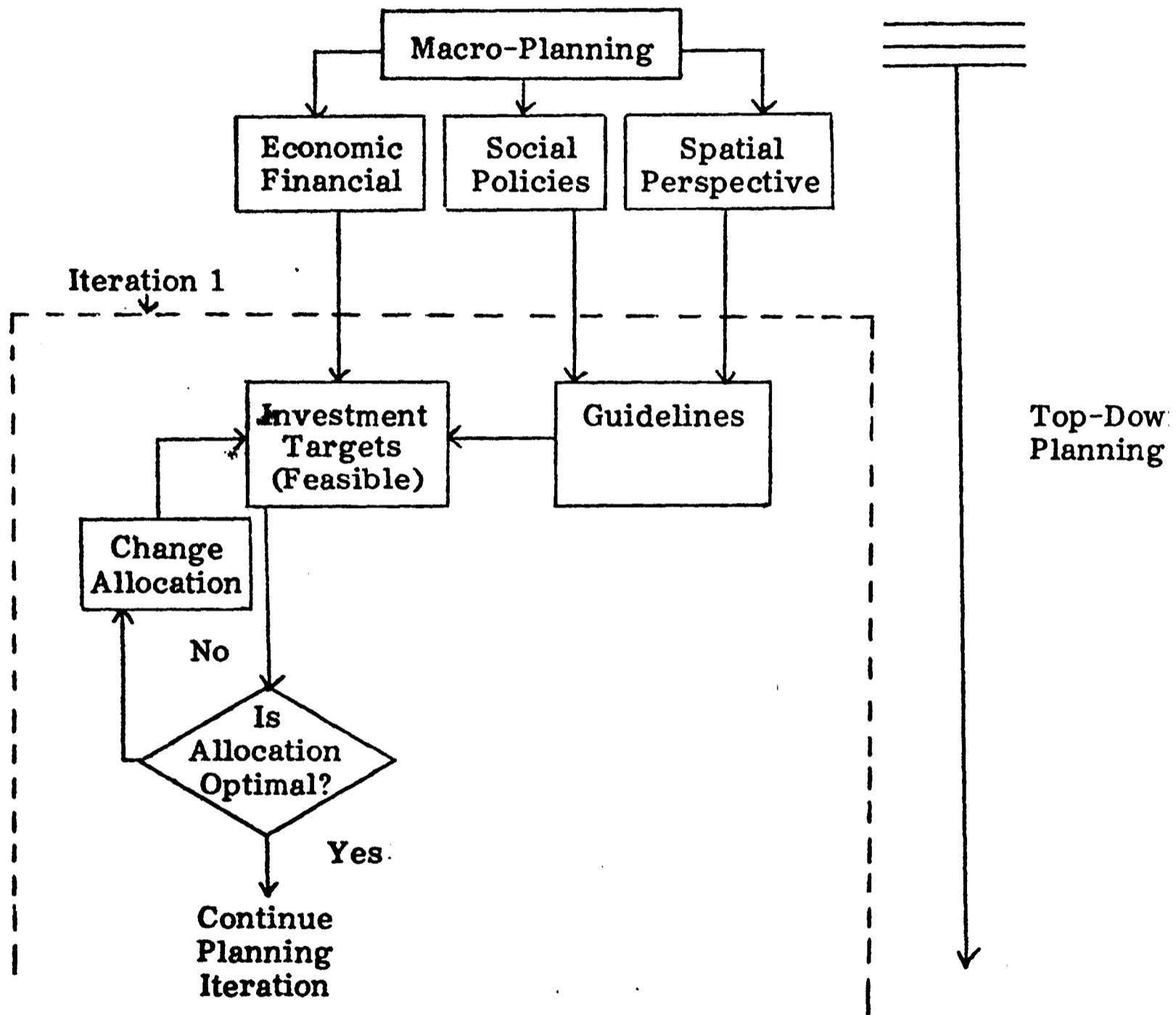


Chart 4 - The Macro-Planning Iteration

- 5.11 The macro-model output, that is, the output of the economic-financial macro-planning activity, consists of a set of sectoral investment targets within the overall resource constraints of the economy.
- 5.12 The initial runs - that is, the initial iteration within the macro-model structure - results in a feasible solution within the resource constraints (i.e., financial, foreign exchange, labor, etc.). The number of feasible solutions is a function of the possible permutations in the exogenous variables.
- 5.13 For the feasible solution to become an optimal (i.e., the chosen solution) solution it must be checked with respect to the desired social criteria and with respect to the desired spatial perspective.
- 5.14 This process completes Iteration 1.
- 5.2 The Macro-Economic Model for Iran enables decision-makers to compare the resources and requirements of alternative growth scenarios. The overall workings of the model are shown in the flowchart (Chart 5).

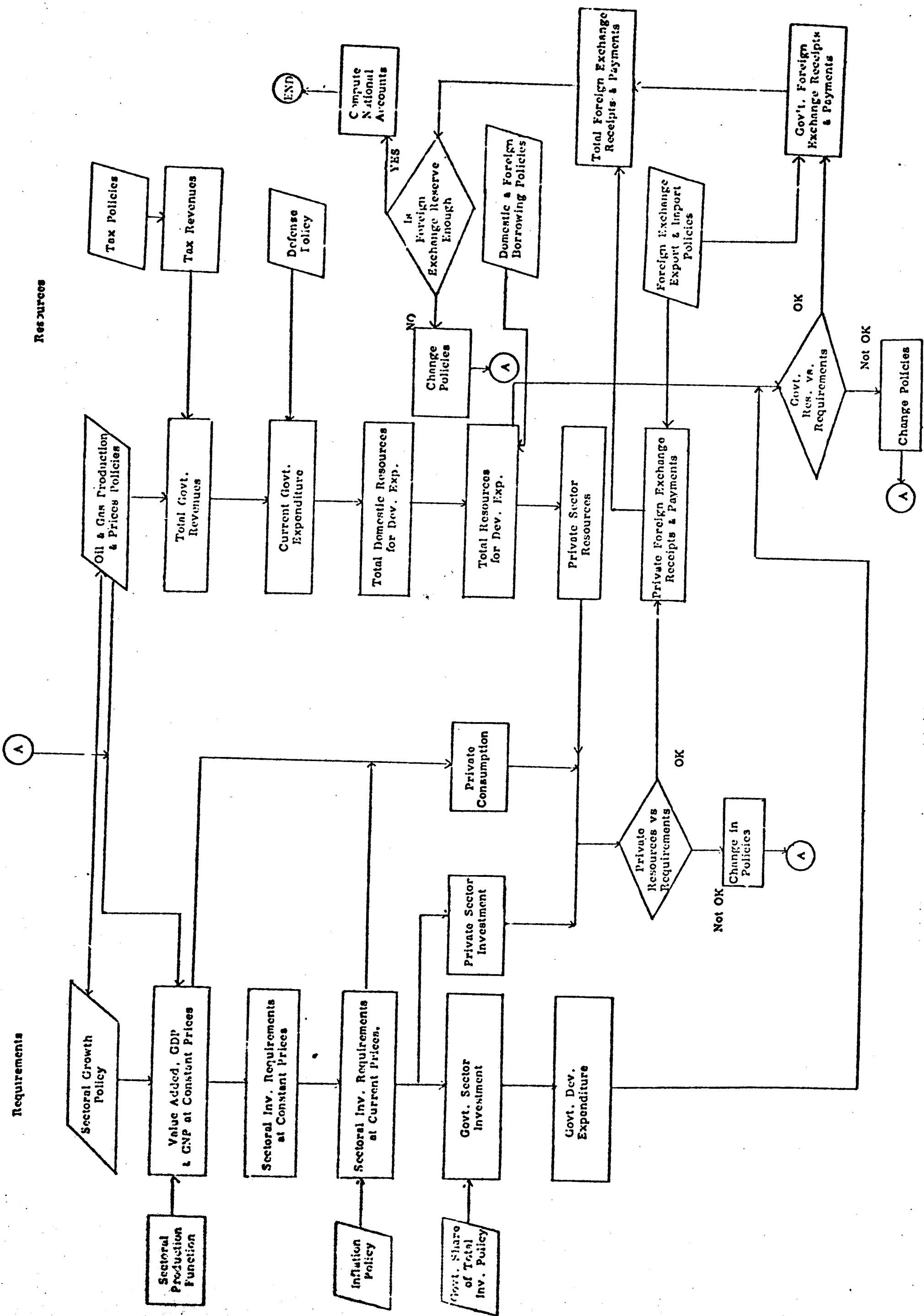


Chart 5 - The Macro-Economic Model for the Sixth Development Plan

5.21 The Sixth Plan problem consists in determining the socio-economic rate of development consistent with the following broad constraints:

- 5.211 Social
- 5.212 Financial
- 5.213 Foreign Exchange
- 5.214 Physical
- 5.215 Spatial
- 5.216 Skilled Manpower
- 5.217 Regional Balance
- 5.218 Administrative

5.22 The model basically concentrates on financial and foreign exchange constraints, although indirect implications can be obtained for each of the other constraints.

| | |
|--------------------------|------------------------------|
| Constraints 5.212, 5.213 | Direct model solution |
| Constraints 5.211, 5.215 | Iteration 1 |
| Constraints 5.214, 5.216 | Sub-models |
| Constraint 5.217 | Regional investment decision |
| Constraint 5.218 | Enters all iterations |

5.23 The model problem variables are:

5.231 The amount of government resources in Rials (current prices) available to meet the needs of the development budget.

5.232 The amount of foreign exchange resources in dollars (current prices) available to meet the needs of the private and public sectors.

- 5.24 A feasible solution (or growth scenario) consists of an equilibrium between resources and requirements as defined in 5.23. To be optimal the scenario requires feasibility checks against all other constraints not specified explicitly in the model and several iterations within the "top-down" planning activity.
- 5.25 The methodology, within the model context, used to arrive at an equilibrium solution is as follows:
 - 5.251 Specify growth scenario and exogenous assumptions.
 - 5.252 Run model on a trend basis.
 - 5.253 Determine resource deficits (or surpluses) in the problem variables.
 - 5.254 Change sectoral allocations towards a more balanced growth path.
 - 5.255 Choose policy variables which will have to be modified.
 - 5.256 Specify level of policy variables (within the realm of reasonableness) for restoring equilibrium.
 - 5.257 Rerun model with the new policy.
 - 5.258 Continue process until equilibrium is reached.
- 5.3 The output of Iteration 1 as shown in Chart 4 and of model runs as shown in Chart 5 results in a series of investment requirements. These requirements are as noted in Chart 6.

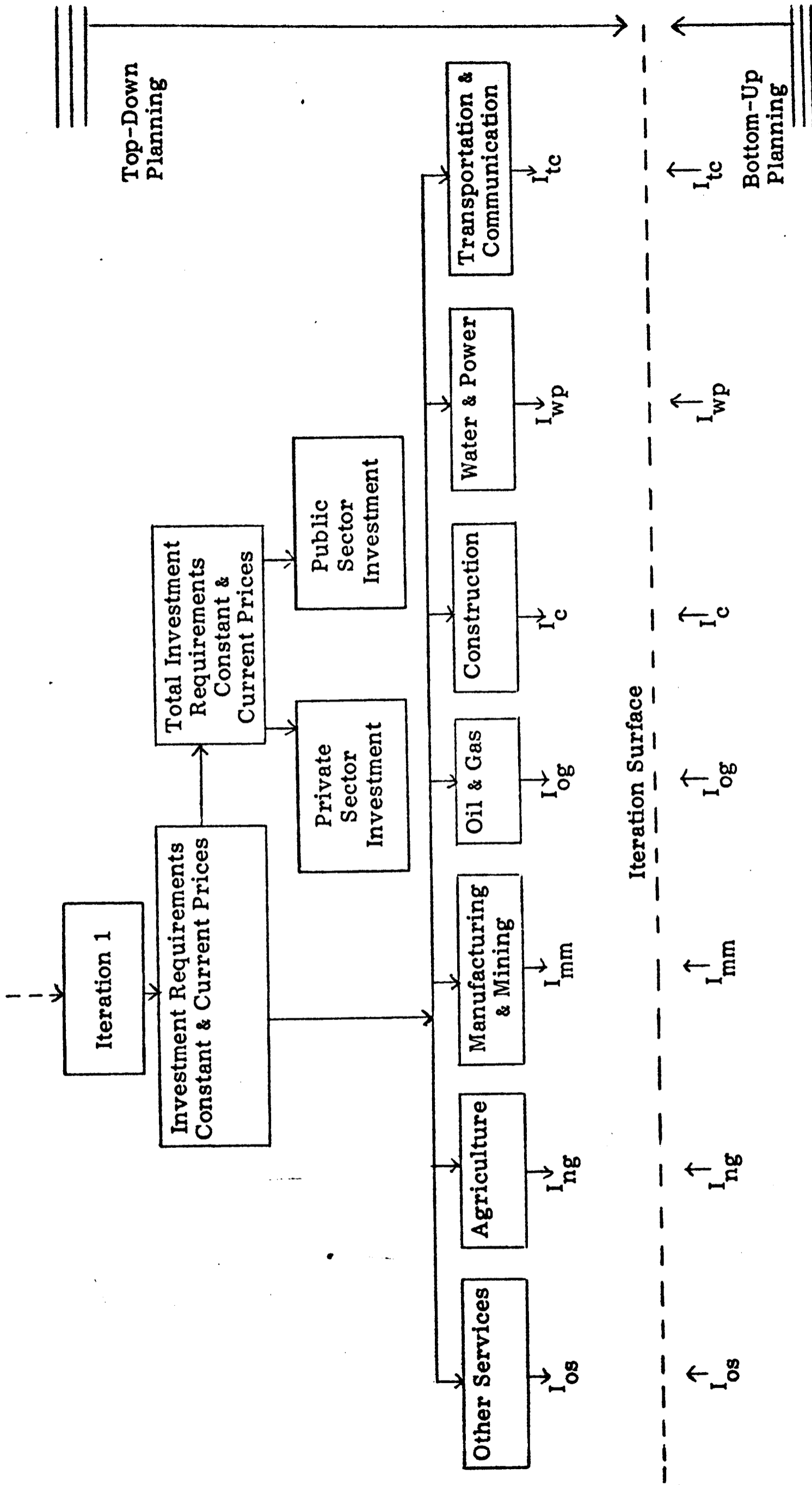


Chart 6 - Specific Output of Iteration 1

- 5.31 Within the present structure of the macro-model the results of Iteration 1 are summarized in the seven sectors shown in Chart 6. These are, of course, aggregated.
- 5.32 For the purpose of the "bottom-up" planning activity there are more than seven sectors under consideration, and therefore an aggregation is required in order to perform Iteration 2, that is, the basic iteration between the "top-down" and "bottom-up" planning activity.
- 5.4 The sectoral planning activity, concurrent with the macro-planning activity begins the process of "bottom-up" planning. This is shown for sector j in Chart 7.

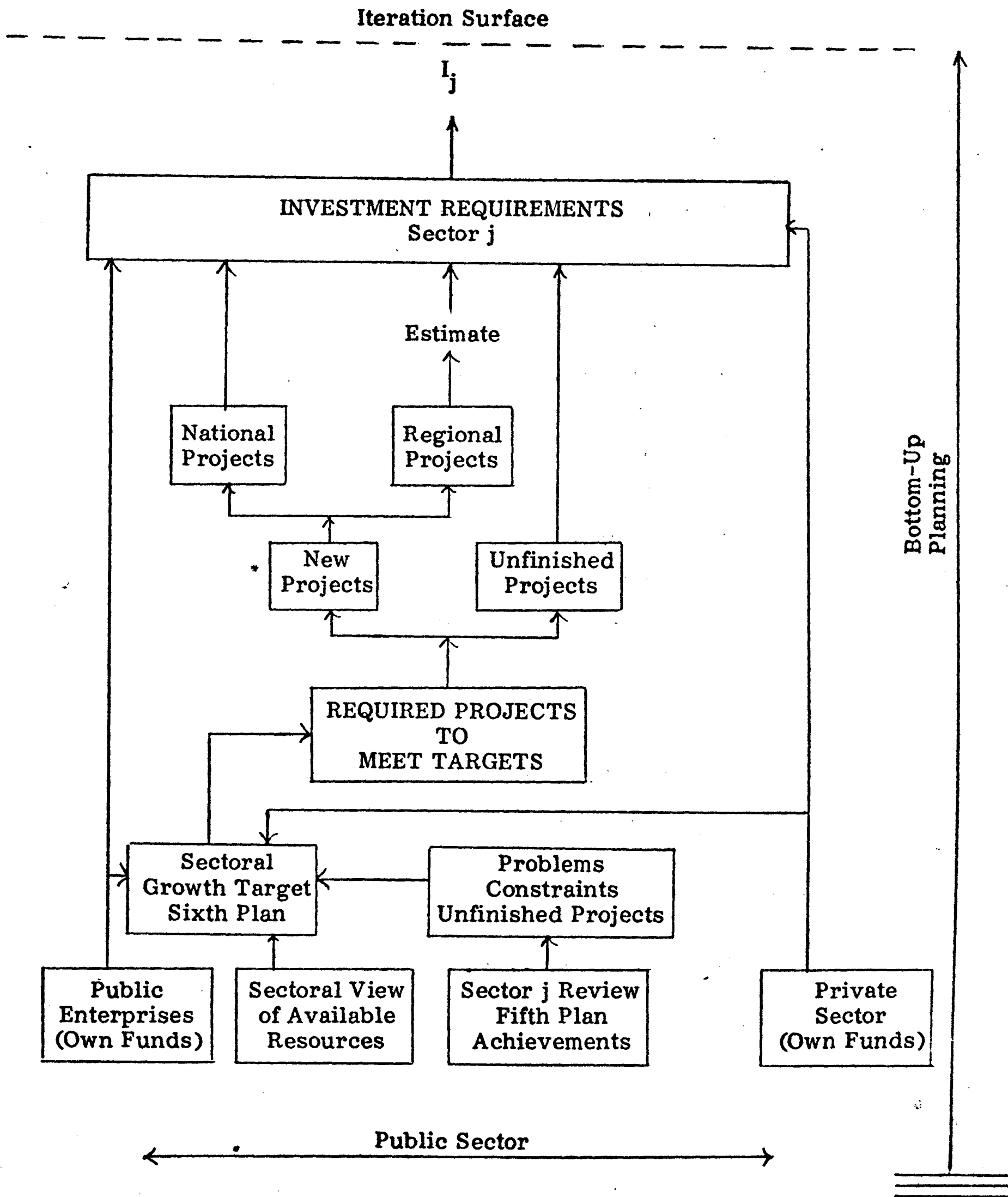


Chart 7 - Sectoral Investment Requirements

- 5.41 The basic output of the sectoral "bottom-up" planning activity consists of a required investment figure in constant and current prices for the sectors in question.
 - 5.42 This is to be done initially on the basis of the sector's own view and preferences and bearing in mind to the extent possible a list of specific projects for which cost estimates exist or can be made.
 - 5.43 Priority within the sector must be given to the list of unfinished projects in the Fifth Development Plan.
 - 5.44 To the extent feasible a distinction must be made between projects which are national in scope, and those which are regional. Regional projects cannot be identified easily at this time and therefore investment requirement estimates in line with the achievement of the specified sectoral targets will suffice.
- 5.5 When all the sectors specify their investment requirements then the process of iterations - that is, Iteration 2 - can be performed as shown in Chart 8.

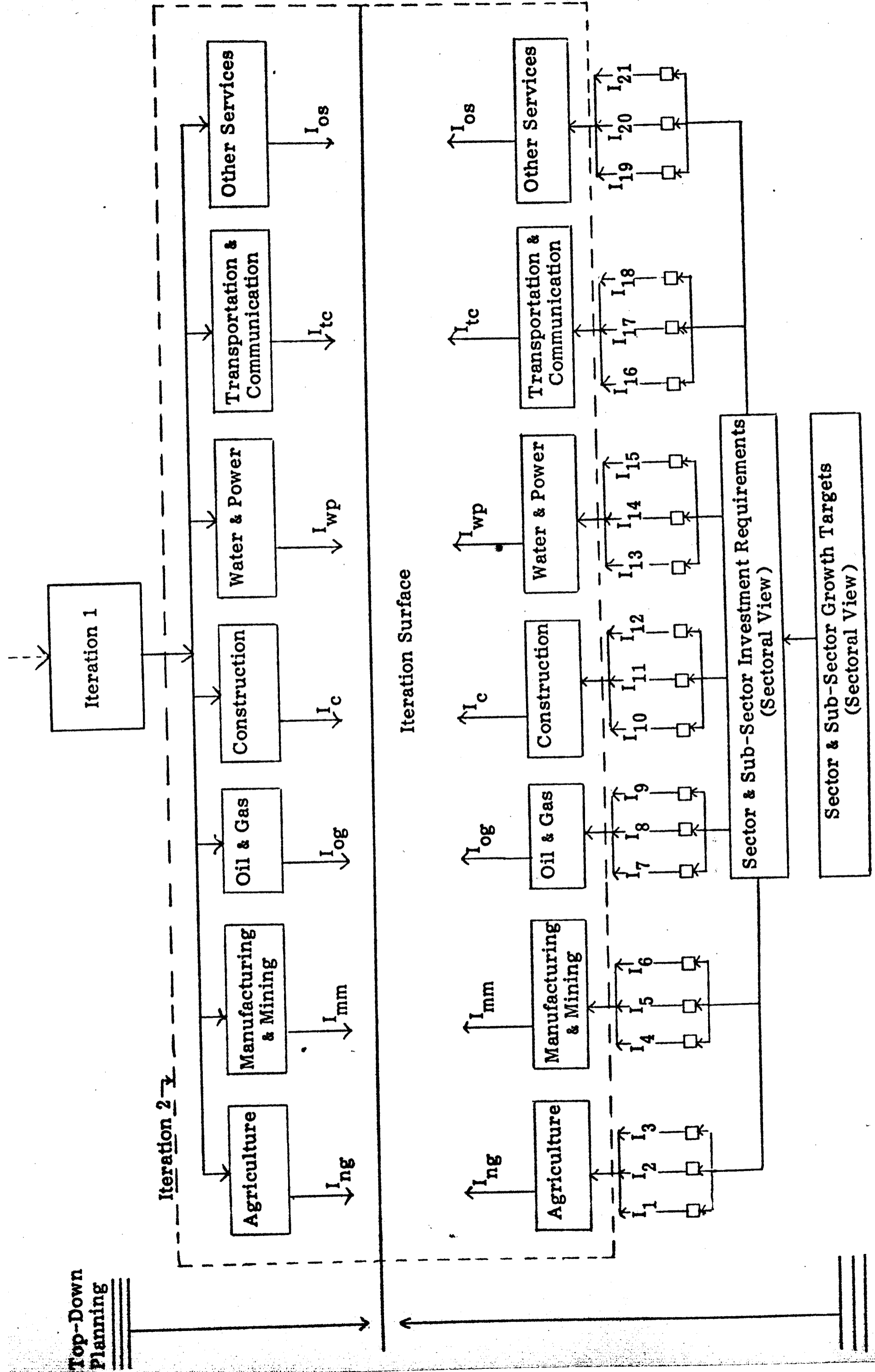


Chart 8 - The Macro-Sectoral Iteration

Bottom-Up Planning

- 5.51 The output of Iteration 2 is a harmonized allocation of investment funds between the various sectors and sub-sectors. This macro-sectoral iteration ensures the necessary give and take between the "top-down" (the overall aspects of the economy) and the "bottom-up" (the purely sectoral-view aggregated over all sectors) planning activities.
- 5.52 Because the macro-model is only disaggregated to the seven sectors shown in Chart 8, it is clear that each sector will consist of several sub-sectors which must be aggregated so as to perform Iteration 2. The general procedure for each sub-sector should be identical to the concepts and inter-relationships shown in Chart 7.
- 5.53 Iteration 2 not only harmonizes sectoral investment requirements within the overall constraints of the economy, but in its reallocation process it also changes sectoral growth targets.
- 5.6 The next iteration in the Sixth Plan planning process concerns the division of sectoral investment requirements according to "national projects" and "regional projects". To the extent possible it is necessary to think in terms of projects, although at this stage the division of the sectoral investment figures resulting from Iteration 2, into "national" and "regional" allocations must be made on policy grounds, bearing in mind the possible projects. One cannot expect, at this stage, that the list of projects will exhaust the allocations at the national level, and certainly not at the regional level.

- 5.61 The output of Iteration 2 - that is, a harmonized allocation of investment between the various sectors - is split according to a national-regional division.
- 5.62 The national allocation is according to a list of major projects by sector. Chart 9 indicates the process for one sector - Manufacturing and Mining - although the same procedure needs to be repeated for all sectors. These projects need to be checked against the spatial and social guidelines with respect to feasibility and desirability.
- 5.63 The regional allocation per sector is then split according to the various ostans (23 in all). Thus two decisions are made:
- 5.631 A decision in each sector with respect to the national-regional split.
- 5.632 A decision on the regional (or ostan) allocation of each sector's investment. This in effect begins the regional top-down planning activity.

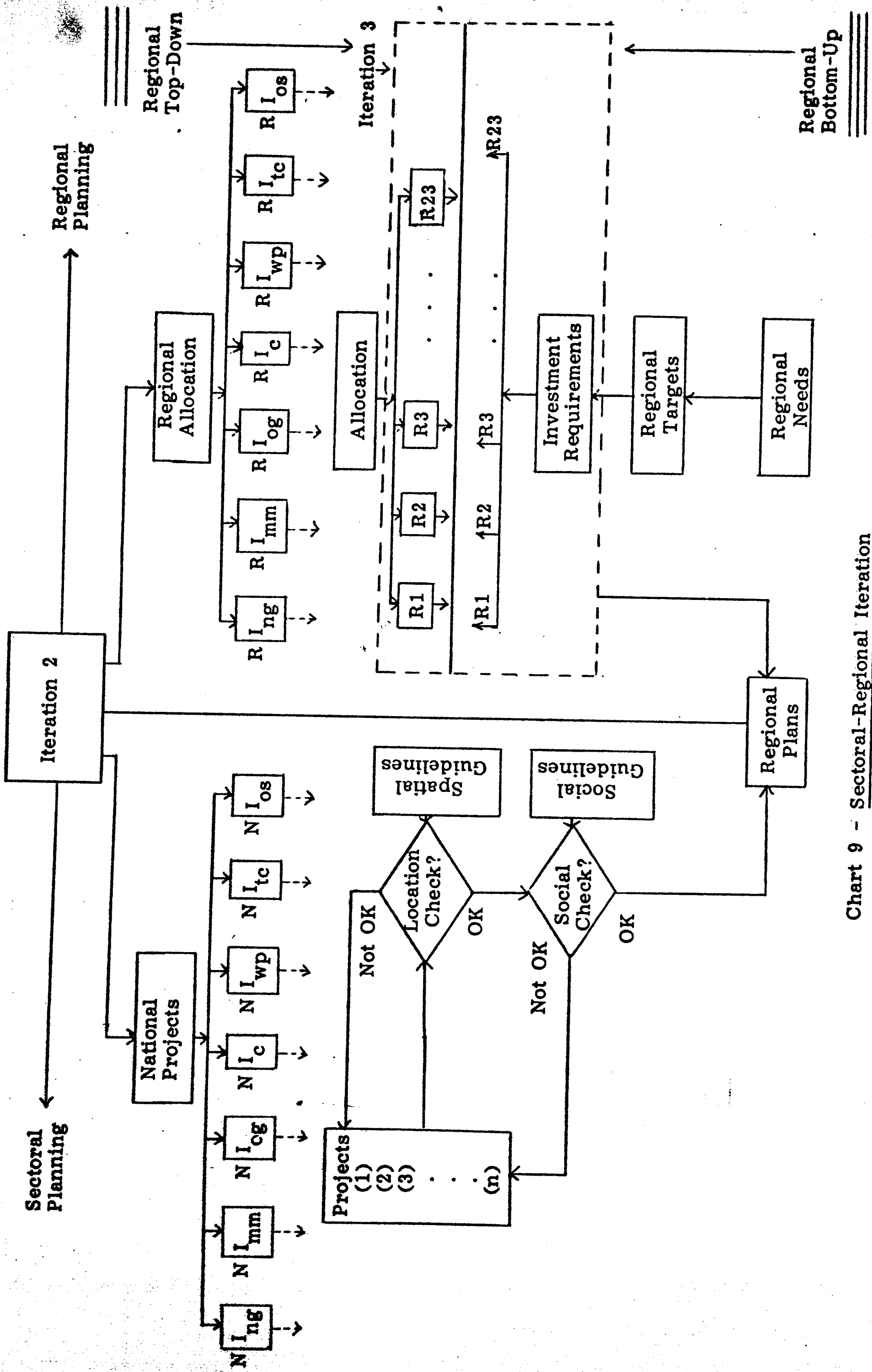


Chart 9 - Sectoral-Regional Iteration

- 5.64 As with the Macro-Sectoral iteration a Sectoral-Regional iteration - Iteration 3 - is necessary to harmonize the regional top-down and bottom-up planning activity .
- 5.65 Thus regions are required on the basis of their own needs and preferences to submit for each sector their analysis resulting in a particular investment requirement. Iteration 3 ensures that regional-sectoral plans remain within the available resources. In Chart 9 Iteration 3 is shown for one sector although it applies to all.
- 5.66 The output of Iteration 3 is then subject to a feasibility and desirability check with respect to social and spatial guidelines .
- 5.7 It goes without saying that the 3 major iterations suggested in the planning methodology for the Sixth Plan , as well as many of the sub-iterations , are all interrelated. Changes in allocations resulting from any of the iterative and check processes may or may not affect the other iterations. In a sense the fragmented iterative process noted in Charts 4-9 is itself a large iteration.

6.0 The Role of the Planning Agents

6.1 The Plan and Budget Organization (Markazi) is responsible for the Macro-Planning iterations shown in Chart 4.

Of the 36 Joint Planning Committees, the "guideline setters" must contribute to the optimization of the feasible solution. This is the core of Iteration 1.

6.2 The Executive Agencies are responsible for determining the sectoral investment requirements as shown in Chart 7. This must be done in certain sectors with the cooperation of the private sector and the public enterprises.

This cooperation may be informally devised or can be more formally requested through the "target setter" Joint Planning Committees.

6.3 The Plan and Budget Organization, the Executive Agencies, the "target setter" and "guideline setter" Joint Planning Committees are responsible for the process outlined in Chart 8 - that is, Iteration 2.

This process should consist of many exchanges of view - give and take - so as to achieve the necessary Macro-Sectoral harmonization within the overall resource umbrella.

- 6.4 The breakdown of the output of Iteration 2 into a national-regional allocation is the function of the Plan and Budget Organization, the Executive Agencies and all the Joint Planning Committees.

National Projects must then be checked according to spatial and social desirability. This is done by submitting the plans to the relevant Joint Planning Committees.

- 6.5 The regional allocation for each sector must then be broken down by 23 ostans. This is done in a "top-down" fashion by the Plan and Budget Organization (Markazi) according to a variety of criteria to be provided by some of the "guideline setter" committees.

- 6.6 In turn, "regional needs" and "regional preferences" are formulated by the Plan and Budget Organization's regional bureaus, the regional offices of the Executive Agencies and regional representatives of the private sector, of the public enterprises and of the Rastakhiz Party. This in essence constitutes the regional bottom-up activity which must be iterated (Iteration 3) with top-down results.

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