

UNITED ARAB REPUBLIC

THE INSTITUTE OF NATIONAL PLANNING



Memo. No. 488

THE FOURTH LONG-TERM TRAINING
PROGRAM

CONTENTS OF COURSES

August 1964.

Regular Course
1964 / 1965

I. Lectures.

1-	General Planning	72	hours
2-	National Accounting.	36	"
3-	Economic Development	18	"
4-	Economics of Socialism	18	"
5-	a) General Economic Theory or b) Advanced Economic Theory	72	"
6-	a) Statistics or b) Econometrics	36	"
7-	One of the following subjects: a) Advanced Economic Planning b) Industrial Planning c) Agrarian Planning d) Manpower & Social Planning e) Mathematical techniques of planning	72	"

TOTAL 324 Hours

II. Seminar

One session of 3 hrs. per week in the special subject.

III. Statistical Laboratory

One session of 1½ hrs. per week.

IV. Research & Tutorialship

Each trainee is required to undertake a research under the supervision of one of the members of the staff.

V. Selected Problems of Economic Planning. *

- a) National Accounting
- b) Input-output Tables
- c) Physical Balances.

* An advanced seminar open to members of the staff and advanced students.

Chronological Arrangements
of the Courses

		<u>No. of lectures per week</u>	
		<u>1st term</u>	<u>2nd term</u>
1-	General Planning	2	2
2-	National Accounting	2	-
3-	Economic Development	1	-
4-	Economics of Socialism	-	1
5-	a) General Economic Theory) or b) Advanced Economic Theory)	2	2
6-	a) Statistics) or b) Econometric)	-	2
7-	One of the following subjects:	2	2
	a) Advanced Economic Planning.		
	b) Industrial Planning.		
	c) Agrarian Planning.		
	d) Manpower & Social Planning.		
	e) Mathematical techniques of Planning		
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		9	9
	Seminar	2	2
	Statistical Laboratory	1	1
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TOTAL		12	12

1- General Planning

Part I : The Process of Planning.

The approach to national planning:

- The alternative systems of the adaptation of national resources to social needs.
- The concept of national planning.
- Patterns of national planning.

The planning function:

- Evaluation of the economic system.
- Target setting.
- Integration of Instruments.

Alternative techniques of planning.

- Successive approximation technique.
- Planning-in-stages technique.
- Programming techniques.

The organisation of the process of planning:

Appraisal of the planning process:

Case Studies:

- Planning in United Arab Republic.
- Planning in developing countries; India.
- Planning in socialist countries; U.S.S.R. and Yugoslavia.

Part II : Development Planning.

Objectives and instruments, of development planning:

- Planning the rate of growth.

- Planning of different sectors.
- Choice of projects.

Project appraisal:

- Basic and derived criteria for evaluation.
- Measurement of direct and indirect effects.
- The use of accounting prices.
- Data needed for project appraisal.
- Case studies.

Regional Planning.

- Location decisions in regional planning.
- Regional appraisal of project.
- Data needed for regional planning.
- Integration of regional and sectorial planning.

Financial planning.

Manpower planning.

2 - National Accounting

Economic Flows:

- The circular flows in the economic system.
- Statistical description of economic flows.
- The development of national accounting .

National income accounts:

- The basic concepts.
- Sectorial classification.
- Transactions classification.
- The statistical set-up of national income systems.
- Statistical problems of measuring economic aggregates.
- The system of national income accounts adopted in U.A.R.
- Statistical methods of measuring national income in U.A.R.
- Recent development in national accounting.
- National budgeting.

Input-output accounts:

- The statistical set-up of input-output accounts.
- The statistical problems of the construction of the accounts.
- The measurement of technological coefficients.
- The experience of building an input-output account for
U. A. R.

Flow-of-funds accounts.

- The statistical set-up of flow-of-funds accounts.

- Integration of flow-of-funds accounts and income accounts.
- The experience of building a flow-of-funds account for U.A.R.

Public Budgeting:

- Techniques of estimating public revenue and expenditure.
- Budget classification.
- The development of public budgeting in U.A.R.

3 - Economic Development.

The phenomenon of underdevelopment:

- The concept and measurement of underdevelopment.
- The characteristics of underdeveloped economies.
- International comparisons.

The process of growth:

- The determinants of development.
- The characteristics of the successive stages.
- The dynamic forces of transition.

Development policy:

- Balanced growth vs. unbalanced growth.
- Choice of the leading sector.
- Criteria for investment allocation.
- Stabilisation policy.

Financing development:

- National savings.
- Foreign aid.

Country case studies:

- the development of U.S.A.
- The development of Sudan and Ghana as examples of African Countries.
- Yugoslavia as an example of the development of a socialist economy.
- India as an example of a mixed economy.
- Japan as an example of a capitalist economy.

4 - Economics of Socialism

The framework of the socialist economy:

- The systems of ownership under socialism.
- The system of planning.
- Alternative patterns of socialist institutions.

Socialist price formation:

- The determination of prices of producers' goods.
- The determination of prices of consumers' goods.
- The function of prices in the socialist economy.

The Income distribution :

- Wage determination.
- Land rent.
- Capital changes, interest and amortization.
- The socialist attitude towards "profits".

Allocation of resources:

- Efficiency criteria in socialist planning.
- The applicability of the principle of consumers' sovereignty.
- The transmission of consumers' preferences to planners and the problem of allocating resources within the consumers' goods sector.
- Allocation of resources within the capital goods sector.

Public finance and credit:

- The socialist tax structure.
- The function of the turnover tax.
- The function of credit.

Instruments of control:

- Centralization of decision making.
- Authoritative vs. competitive socialist models.
- The plan and the system of directives.
- Control through the banking system.

The system of incentives:

- Wage differentiation.
- Maximization of bonuses vs. maximisation of profits.
- The success indicators.

5-a General Economic Theory

1) The Structure of the Economic System:

- The economic problem as the problem of choice.
- Economic functions: Production-Exchange-consumption investment.
- Specialization and the exchange economy.
- The use of money .

2) Theory of Production:

- The production process .
- The production function and the laws of returns .
- The optimum size of the firm .

3) Pricing of Products:

- The demand function .
- The utility function .
- The supply function .
- The cost function .
- Market price determination .
- The equilibrium of the firm .

4) Pricing of Factors of Production:

- The supply of factors of production .
- The marginal productivity theory .

5) Allocation of Resources:

- The principle of equal advantage .
- Social welfare function .
- Conditions of optimum output .

6) The Theory of Income Determination:

- Economic flows .
- Factors underlying national expenditure: The autonomous and induced variables.
- The multiplier process .
- Economic fluctuations .
- Economic Growth: The Harrod-Domar model .

7) Monetary Economics:

- The effect of money supply on the price level .
- The effect of money supply on the level of output .

8) International Economics:

- The theory of comparative advantage .
- The theory of the balance of payments .

5-b Advanced Economic Theory

General Equilibrium Theory:

- Walras' Equation System .
- Hicks's Equation System .
- The Criticism of the Neo-Classical System .
- Patinkin's System .
- Investment, Saving and The Price Level .
- Liquidity- Preference Theory vs. loanable-funds theory .
- Keynes and the Neo-Classics .
- Leontief's Input-Output Model .
- Statics and Dynamics - The Correspondence Principle .
- A Quasi-Equilibrium Model .
- Extensions and Recent Developments .

Short-term fluctuations:

- Fluctuations in a single market .
- The investment function .
- The consumption function .
- Samuelson's multiplier-accelerator model .
- Kalecki's model .
- Kaldor's model .
- Goodwin's non-linear accelerator .
- Some applications .

Growth models:

- Harrod-Domar model .
- Kaldor's model .

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- Solow's model .
- Rajis model .
- Von Neumann's model .

Theory of Economic Policy :

- Policy with absolute targets .
- Policy with relative targets .
- Economic efficiency .
- Welfare and perfect competition .
- Competitive socialist solution .
- Efficiency in growth .

6-a Statistics

Part I: Numerical Analysis

Interpolation .

Solution of simultaneous equations.

Marginal analysis .

Part II: Statistical Methods

Statistical Data:

- Methods of collection .
- Statistical sources .
- Methods of presentation .

The frequency distribution :

- The frequency distribution .
- Graphic presentation .
- Cumulative frequency distributions .

Measures of central tendency:

- The arithmetic mean .
- The median .
- The mode .
- Minor means .

Measures of dispersion and skewness:

- The range .
- The average deviation .
- The standard deviation.
- Measures of relative dispersion .
- Skewness .

Elements of sampling theory:

- Techniques of sampling .
- Reliability of sample means .
- Reliability of measures of dispersion .
- The (t) distribution .
- Simple analysis of variance .
- Criterion of likelihood.

Simple correlation:

- Scatter diagrams.
- Regression lines.
- The correlation coefficient.
- Reliability of correlation coefficient .
- Correlation of ranked data .
- Correlation of qualitative distributions.

Index Numbers:

- The concept of index numbers...
- Construction of index numbers. .
- Price of quantity index numbers.
- Laspeyre & Passche formulae .
- Some index number in practice .

6.b- Econometrics

Econometric formulation of economic relationships:

- Projection models .
- Policy models .

Econometric methods:

- Identification .
- Least square method.
- Maximum likelihood estimates.
- Limited information estimates.

Statistical testing:

- Significance tests.
- Confidence intervals .

Applications for projection and prediction:

- Time series analysis.
- Principles of prediction.
- The consumption function .
- The production function .
- Market analysis : supply and demand functions .
- Market forecasts: special cycles .
- General business cycles.

Application for economic policy:

- The design of decisional models .
- Applications to price policy and wage policy .
- Systems of multipliers and their uses for policy making .

Optimum programming:

- Elements of linear programming.
- Chenery model and its application .
- Frisch model and its application .

7-a Advanced Economic Planning

Part 1. Theory of Planning

Economic calculation by the price mechanism:

- The feasibility test of the price mechanism.
- The discrepancy between social and private returns.
- The discrepancy between social and private costs.
- The expectational character of economic calculation.
- Economic calculation by the consumer and its impact on the allocation of resources.

What variables to plan?

- The variables controlled by the stabilization plan.
- The variables controlled by the development plan.
- The variables controlled by the socialist plan.
- Price planning as physical planning in the socialist economy.
- Criteria for optimality of the planning system: the choice of the appropriate variables to be planned.

How to plan?

- ⇒ The system of interdependence of economic relationships and the condition of internal consistency.
- The decision function and its application.
- Cost-benefit calculation.
- Other formulae for economic calculation.

- The use of accounting prices in economic calculation.
- Evaluation of the alternative techniques of planning and the criteria of choice of the optimum technique.

Part II Physical Planning

Input-output system:

- The system of industrial interdependence and the condition of internal consistency of the input-output system.
- Statistical compilation of the input-output account.
- The computation of technological coefficients.
- The use of the input-output account in planning and its limitations.
- Dynamic input-output system and its use for the choice of investment channels.
- Introduction of new technology.
- The input-output system with variable coefficients.

Material balances:

- The balance equation and the condition of internal consistency of the material balances.
- Statistical compilation of material balances.
- Planning at the commodity level: production, final consumption, intermediate consumption, investment, change in inventories exports and imports.
- Adjustment of the material balances.
- The use of material balances for price planning.

Part III Financial Planning

National budgeting:

- The system of interdependence of aggregate variables.
- The construction of the national budget: planned variable and the projected variables.
- The internal consistency of the national budget.
- Intergration of the national budget with the physical plan.
- The use of the national budget for measuring the inflationary gap.
- The adjustment of the national budget.
- National budgeting in U. A. R.

Public budgeting:

- The internal consistency of the public budget.
- Integration of the public budget with the national budget and the physical plan.
- The choice of fiscal instruments for adjustment.
- Public budgeting in U. A. R.
- Public budgeting in capitalist economies.
- Public budgeting in socialist economies.

Credit Planning

- The internal consistency of the credit plan.
- The integration of the credit plan with the national budget and the public budget.

- The choice of monetary instruments for adjustment.
- Credit planning in socialist economies with particular reference to U.S.S.R.
- The approach to credit planning in U. A. R.

Foreign exchange budgeting:

- The internal consistency of the foreign-exchange budget.
- Integration of the foreign-exchange budget with the physical plan.
- The adjustment of the foreign-exchange budget.
- Foreign-exchange budgeting in U.A.R.

N.B. : Part I is obligatory to trainees taking course 7-a. Parts II & III are optional.

7-b INDUSTRIAL PLANNING

A. Theoretical Framework

- I . Introduction to Industrial Planning.
 - The role of industrialization in economic development.
 - Organization for industrial planning .
 - Categories of industrial plans .
- II . Economic Aspects of Industrial Planning.
 - Factors affecting the size and location of industrial units.
 - Capital formation in industry .
 - Measurement of industrial production .
- III . The Structure of Industry.
 - Basic classifications of industries: economic and technological.
 - Interdependence of industries.
 - Construction and use of input-output tables for industrial planning.
- IV . Production Planning .
 - Concepts of capacity .
 - Co-ordination between production and supply .
 - Mathematical techniques in production planning .
- V . Productivity Analysis and Planning.
 - Information for productivity measurement and evaluation.
 - Productivity and manpower planning.

VI . Planning Concepts of Cost.

- Predetermined costs: estimated and standard costs.
- Budgeting of capital and production costs.
- Break-even analysis .

VII . Industrial Investment planning.

- The concept of investment .
- Planning of investment funds.
- Depreciation, replacement and renewal reserves .
- Long-term loans .
- Governmental appropriations .

VIII. Socialist Framework of Industrial Planning.

B. Applied

I . Industrial Planning in the United Arab Republic.

- Organization of industry .
- Key-features of main industries in the U.A.R. :
A techne-economic analysis covering the location, size, stage of growth, potential, capital investment, products, technical processes, and aspects of international trade.
- Construction of input-output tables for U.A.R. industries.
- Regional aspects of industrial planning .
- The public-sector budget.

II . The Industrial Plan: Project.

A practical application of the foregoing studies to the preparation of an industrial project. The study comprises both the evaluation and follow-up of the project through all levels of industrial planning organization.

AGRARIAN PLANNING

Part 1: General

- a- Economics of agricultural production and resource use.
- b- Agricultural prices & stabilization problems.
- c- Problems of agricultural marketing.

Part 2: Special

- a- Agriculture & economic development.
- b- Planning agricultural development.
- c- General methodology of planning.
- d- The pattern of investment in agriculture.
- e- Demand analysis and target setting in agriculture.
- f- Organizational and related requirements for agricultural planning.
- g- Measures of the implementation of agricultural plans.

Part 3: Special

- a- Analytical study of the U.A.R. plan for agriculture.
- b- Examples of agricultural plans & projects in some foreign countries.

Part 4: Special

- a- Rural social planning

MANPOWER AND SOCIAL PLANNING

Introduction

- Presentation of the course.
- Social change and growth.
- Objectives of a development programme.
- Decision-making, forecasting and planning.

Educational Planning

- Role of education in developing countries.
- Educational objectives in development planning.
- Educational Statistics.
- The relationship between education and occupation.
- Demands and priorities for education.
- Educational possibilities and objectives.
- Cost aspects of education.
- Determination of unit costs in education.
- Resource allocation and target setting for education and manpower.
- Analysis of manpower and educational aspects of the perspective plan.
- Setting of manpower formation and other educational targets for the perspective plan.
- Educational programme to be incorporated in the next medium-term plan.
- Needs and problems of education in U.A.R.
- Criteria for assessment of educational systems.
- Details of allocation of resources within the education system.
- Accounting for use of resources and funds.
- Measures of achievement for purposes of adjustment and control.
- Vocational guidance and employment counselling.
- Organization and administration of the planning.

Manpower Planning

- Investment in human resources.
- Manpower objectives in development planning.
- Demographic data - techniques of projection.
- Interdependence of manpower, education and other elements in development.
- Integrating manpower and educational planning in general planning.
- Practical steps in manpower and educational planning for ensuring the integration.
- Manpower statistics.
- Future labour force, and employment targets.
- Manpower requirements in relation to output targets.
- Crash programmes to ensure manpower availabilities for the first medium term plan.
- Manpower programmes to be incorporated in the next medium term plan.
- Management and the utilisation of manpower.
- Employment, market organisation, employment service.
- Migration and expatriate manpower.

Health Planning

- Principal health organisations in the world.
- Insurance .Nationalization .Private Practice .Free Public
 .Health Service.
- National planning for health services.
 .Needs .Points to be considered .Steps to be taken.
- Distribution of health services in the U.A.R.
 .Urban .Rural
- Medical statistics.
- Training of manpower for medical services.

Services Planning

- Morale and Morality
norms and values - trends and attitudes
- Effect of services on manpower.
- National guidance - public opinion and social order.
- Social Welfare:
recreational services and cultural activities.
- Special groups.
- Communications.
- Social services and statistics.
- Plan of social cultural services:
radio - television - cinemas - theatres - institutes

Housing Planning

- The position of housing in family structure.
- The effect of housing on manpower.
- Housing and the increase of inhabitants:
rural and urban.
- Features of housing and the rate of rent.
- Suitability of housing to the culture and economic situation.
- Housing statistics.
- Housing plan:
needs - finance - projection on other services.

7-e Mathematical Techniques of Planning

- Introduction & History
 - Linear Programming
 - Transportation Model
 - Inventory Model
 - Replacement Model
 - Decisional Model
 - Investment's Allocation
 - Digital computer.
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