



OCCASION

This publication has been made available to the public on the occasion of the 50th anniversary of the United Nations Industrial Development Organisation.



DISCLAIMER

This document has been produced without formal United Nations editing. The designations employed and the presentation of the material in this document do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations Industrial Development Organization (UNIDO) concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries, or its economic system or degree of development. Designations such as "developed", "industrialized" and "developing" are intended for statistical convenience and do not necessarily express a judgment about the stage reached by a particular country or area in the development process. Mention of firm names or commercial products does not constitute an endorsement by UNIDO.

FAIR USE POLICY

Any part of this publication may be quoted and referenced for educational and research purposes without additional permission from UNIDO. However, those who make use of quoting and referencing this publication are requested to follow the Fair Use Policy of giving due credit to UNIDO.

CONTACT

Please contact <u>publications@unido.org</u> for further information concerning UNIDO publications.

For more information about UNIDO, please visit us at www.unido.org

14823

CO-RELATIONS IN INDUSTRIAL PLANNING AND NATIONAL ECONOMIC PLANNING

logdim Garsda

INTERREGIONAL TRAINING COURSE ON INDUSTRIAL PLANNING

BERLIN - GDR APRIL 1976



UNITED NATIONS

UNITED NATIONS UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

CO-RELATIONS IN INDUSTRIAL PLANNING AND NATIONAL ECONOMIC PLANNING

The mair sections of the plan for the development of industry at the national, branch and enterprise levels, with their interrelationships and their relations with the other chief components of the national economic plan

Prof. Dr. sc. Joachim Garscha

Texts for the INTERREGIONAL TRAINING COURSE ON INDUSTRIAL PLANNING

BERLIN - GDR APRIL 1976

- All rights reserved -

The main sections of the plan for the development of industry at the national, branch and enterprise levels, with their interrelationships and their relations with the other chief components of the national economic plan

I. The position of industry in the economy of the GDR, and its relations with other spheres

Industry is the biggest sector in the national economy of the GDR. Its share in production is over 60 per cent, and it accounts for 61 per cent of all production funds and about 47 per cent of the manpower employed in material production.

The position of industry in the development of GDR economy is largely determined by the fact that this is the sector which produces electric power, machinery, equipment, chemicals, fuels, metals and building materials that are needed for both the development of industry itself and for other sectors as well as for the needs of the people.

The top ranking position of industry in the national economy is mainly characterized by the following features:

- 1. Industry is a basic sphere of reproduction for the working class which, being the dominant social force, works out the shape of the fully developed socialist society, in alliance with the class of cooperative farmers and other strata of the population.
- 2. Industry is characterized by mechanized large-scale production and the employment of highly developed technical equipment.
- 3. Industry produces the biggest share of material output, thus providing essential conditions for satisfying better and better the material and cultural needs of the people.

- 4. Industry together with other spheres provides the material basis for intensifying the process of reproduction, for raising the productivity of labour and raising efficiency in all spheres of the national economy on the basis of scientific and technological progress.
- 5. Industry is largely responsible for the regional distribution (location) of the productive forces. It is a major factor in regional development.

The prosperity of the nation depends above all on industry. It is industry that produces the majority of consumer goods and foodstuffs.

Accordingly, when the national economic plan is being prepared, full account is taken, in both substance and method, of the close connections that link industry with the other sectors of the economy, such as agriculture, transport, capital construction, and with the branches of the non-productive sector. Interdependence is particularly close between the plans of industrial output and of agriculture. The volume and growth rate of agricultural production will always depend on how well agriculture is supplied with tractors, various kinds of machinery, fuels, mineral fertilizers, electricity and building materials. At the same time the planned volume of output in the light industry and the foodstuffs industry depends directly upon the supply of agricultural raw materials as scheduled in the plan. In transport, the volume and pattern of goods turnover is almost exclusively determined by the scale and rate of development of industrial production. About 70 per cent of all goods transported are industrial goods. The plan of industrial production, therefore, takes care of the requirements of public transport in the matter of rolling stock, rails, pipes, control equipment, etc. Conversely, the successful development of industrial production is in many ways dependent upon public transport. The future development of domestic and foreign trade, supply of materials, municipal utilities, and services for the people are also determined by the plan of industrial production.

All these interdependencies are taken into consideration when the plans are formulated for industry as part and parcel of centralized state planning of the national economy.

In recent years the GDR has made noticeable progress in mastering these complex interconnections with regard to both substance and method.

II. The substance and the foundations of industrial planning

Industrial planning is based upon the tasks to be achieved by the national economy. In the GDR industrial production is planned in such a way as to meet increasing requirements, to provide continuous supplies to the people, to provision all spheres of the economy with powerful and highly efficient means of production, and to contribute towards the establishment of stable and efficient economic relations with foreign countries.

These are the aims to be attained by further specialisation, concentration, co-operation and combination of production at both the national level and among member countries of the CMEA, by more economical utilisation of fixed assets, materials, and manpower along with a steady rise of the technological level and the profitability of production. In all this, more and more consideration is also given to the requirements of environmental conservation.

The subject matter of industrial planning is the industrial reproduction process with the links it has with all the sectors and branches of the economy both nationally and in the CMEA countries. In particular, the planning for industrial branches and enterprises includes

- the planning of output and services in accordance with demand of capacities, and of scientific and technological indicators
- the planning of total commodities available (supplies to domestic trade in consumer goods)
- planning the development of efficiency

- planning the tasks concerning socialist economic integration
- planning the tasks of foreign trade
- planning the tasks of science and technology
- planning the development of fixed assets and investments
- planning the economical use of materials, inclusive of the use of norms, standards, and aggregated coefficients of consumption of materials
- planning labour productivity, manpower and wages
- planning the development of working and living conditions of the working people, with the inclusion of works recreation facilities
- the planning of transport required
- planning the tasks in the fields of training and further education
- the planning of finance and prices
- planning the tasks connected with the protection of the environment.

III. The main parts of industrial planning, and how they are interlinked

1. Planning the output and performance of industry

In all enterprises, combines, economic executive bodies, central state authorities and local councils under whose respensibility industrial articles are manufactured, or industrial services are carried out, the planning of industrial production is directed towards

- (a) steady and continuous supplies, in adequate qualities and in accordance with demand, to the people, the economy and the state as well as the establishment of stable export lines:
- (b) the introduction into the production process of new and improved articles, techniques, and procedures as well as the elimination of obsolete products

- (c) the intensive and effective utilization of production funds, material resources inclusive of waste products and secondary raw materials and of the social labour potential, accompanied by a steady rise in the technological and economic level of production and performance and by improved protection of the environment
- (d) securing adequate proportions within and between the branches and sectors of the economy, and towards further improvements in specialisation, cooperation, combination of production as well as the further development of socialist economic integration between CMEA member countries.

With a view to securing that output and performance meet demand, the State Planning Commission, the ministries and other central state authorities, the local councils and the economic executive bodies of industries plan the development of efficient branch structures, production profiles and patterns of production; in this context they give the enterprises and combines orientation data, and set tasks and aims for them together with the respective indicators of the state plan.

The main part of the draft five year plan and drafts of annual national economic plans for the enterprises, combines and economic management organs in the field of industry are, above all, the development of output and performance and of capacities on the basis of technological and economic indicators.

Denand is an important factor on which plans are founded. The demand of the people, of the economy, and of the state - including the demand that results from international arrangements and long-term international economic agreements and specialisation agreements - is the most important foundation for the planning of output and performance with regard to volume, quality and timing. It is also the basis on which the necessary manpower, the utilisation of fixed assets, investments, and the consumption of materials are planned. The

ascertainment of demand is the responsibility of the respective authorities and enterprises, each according to its own particular tasks.

In formulating production programmes, the enterprises, combines, their senior authorities, the central state authorities, and the local councils take particular care to guarantee the undiminished or improved quality of products and performances; they do this by the planning of measures

- (a) to introduce new products with better quality (longer service life, improved operational safety, and improved utility);
- (b) to satisfy existing quality requirements and to improve the quality of products and performance;
- (c) to minimize the rejection rate and the costs arising from refinishing and from guarantee claims.

The tasks set with a view to improving the quality of industrial products are made binding by the establishment of state plan indicators and by scientific and technological tasks in the plan for science and technology, with technical and organizing measures included. The indicators relating to the development of production are subject to regular analysis for the major factors affecting them, as they form an important gauge by which to evaluate the performance of enterprises.

In the "vindication of plans", a procedure which is the basis for the confirmation of ambitious but nonetheless realistic plan targets, the purpose is, above all, to show

- (a) that demand will be covered, which includes the attainment of the standards prescribed for quality,
- (b) that obligations under international specialisation agreements have been included in their proper places,
- (c) the economic effects to be achieved by introducing the results of scientific and technological advance in the production process.

The planning of output and performance proceeds from the assumption that the production capacities available will be utilised in the most efficient way possible under the prevailing circumstances. Capacity planning at the level of enterprises and combines provides the technological and economic foundation for the five year plan and the annual national economic plans concerning output and performance and for the development of the necessary production capacities.

All in all, the principles that govern the planning of industrial production are these:

- 1. By the planning of production, the enterprises and combines ensure
 - (a) steady and continuous supplies in adequate qualities and in accordance with needs to the people, the economy and the state as well as the establishment of stable export lines;
 - (b) the introduction into the production process of new and improved articles, techniques and procedures as well as the elimination of obsolete products;
 - (c) the further development of specialisation, co-operation and combination in production and of socialist economic integration of CMEA member countries, besides the implementation of obligations resulting from that process
 - (d) the intensive and effective utilisation of production funds, material resources, and the social labour potential as well as secondary raw materials and waste products all these to be accompanied by a steady rise in the technological and economic level of production at a high rate of efficiency and profitability for the national economy.

The planning of output is based on the results of needs or demand analysis.

2. The capability of enterprises and combines to satisfy existing needs is substantiated by the planning of capacity utilisation. This is the basis on which the plans are made

to secure the capacities, materials, manpower, and organisation required to satisfy the needs justified by the requirements of the national economy in both range and quality of production and to give the respective enterprises an efficient production structure.

- 3. The sub-plan "Production" includes the following components:
 - (a) the production plan for industry in general
 - (b) the production plan for the building industry
 - (c) the production plan for industrial plan construction
 - (d) the plan of capacity utilisation.

2. Planning the efficiency of production

An important element in substantiating the drafts for both the five year plan and the annual national economic plans is the demonstration put forward by enterprises, combines, economic management organs and ministries, of the efficiency of social production which underlies their plan calculations. They show this by means of

- (a) a comprehensive statement showing the development of efficiency in their respective spheres of responsibility.
- (b) efficiency calculations for selected tasks and projects,
- (c) indicators of the technological and economic level of production, of chief products, technologies and procedures employed and of the economical use of materials.

Evaluation of the efficiency indicators in the draft plan relies much on the satisfaction of demand as provided for in the draft plan in close connection with physical balancing, and with due account being taken of socialist economic integration measures of the CMEA countries.

To make sure that uniform requirements are set and uniform criteria are used in evaluating the development of efficiency, the enterprises, coubines, economic executive bodies and ministries use the same principles and the same indicators in preparing their statements on the development of efficiency

for their respective fields of responsibility. Such statements form part of the substantiation of draft plans for the five year plan and the annual national economic plans; they are separately submitted to the senior authorities, and taken into account in the "vindication" of plans at all levels of management and planning. Their basic data are the indicators of comprehensive economic plan information. The most important indicators of efficiency are state plan indicators.

Some important indicators, in this connection, are among others

- the productivity of labour
- the output-per-fixed assets ratio
- the profitability of exports
- the rate of return on capital employed, etc.

In the preparation of the five year plan, the efficiency statements worked out according to spheres of competence is combined with efficiency calculations according to tasks and projects. This is done to show the contributions made towards putting scientific and technological advances to practical use or towards socialist rationalisation and socialist economic integration of CMEA countries.

3. The planning of science and technology

The planning of science and technology is intended to speed up the rate of scientific and technological development, thus making for the growth of the national economy in the long term. The basis for such planning are the needs that result from the systematically planned development of socialist society, with particular reference to such needs of the economy of the GDR as arise from the opportunities and requirements of socialist economic integration. To satisfy the needs of society or more particularly, to raise the material and cultural living standards of the people and ensure a steady development for performance and efficiency of the national economy in general and of its sectors and branches, the efforts

made in science and technology are focussed on such aims as

- (a) provide for increased productivity of labour and decreased costs by means of intensification through rationalisation, above all rationalisation in technological procedures; or which make major contributions to raising the technological and economic level of production by means of new or improved equipment, plant, technologies and materials. This goes hand in glove with measures designed to make for scientific organisation of work, improvements in the working and living conditions of working people more amenities on the job and better protection of the human environment;
- (b) ensure that the tasks of socialist economic integration are fulfilled;
- (c) help to satisfy the needs of the national economy for raw materials and energy by improving the utilisation of domestic raw materials resources, increasing the degree of processing in manufacture, decreasing the consumption of materials and power per unit, by complex use of raw materials and effective utilisation of secondary raw materials and by finding economically advantageous ways for the use of substitutes;
- (d) make an essential contribution to improving the effic: ncy of the national economy by better quality and regularity in manufacture, more operational safety, more reliability, longer service life, and better design of products and improved economic effects of standardisation and mensuration;
- (e) are intended to supply the people regularly with high quality consumer goods and food in the desired quality, to secure due progress for the housing programme, to improve medical services and to implement socialist environmental ecology with particular emphasis on measures to keep the air and water resources clean;
- (f) strengthen the GDR's export potential and help to realize the priority tasks of foreign trade policy;

(g) secure that science and technology achieve a long lead far ahead of social and economic needs particularly the needs of production.

The state plan for science and technology as well as the corresponding plans at the level of ministries, other central state authorities, district councils, economic management organs, combines, enterprises and institutions form part of the five year plan and the annual national economic plans. They comprise the sims and tasks for scientific and technological work, which include the tasks set for putting the results of science and technology into practice and using them for production, the tasks for standardisation, improvements in quality and techniques of measurement and in the development and efficient use of the scientific and technological potential.

The chief instrument of planning of science and technology is the five year plan. The annual national economic plans serve to ensure the fulfilment and over-fulfilment of the five year plan, particularly as regards putting into practice and using in production, within set time limits, scientific and technological achievements.

On the preparation of draft plans for science and technology

The economic aims that govern the formulation of scientific and technological tasks are determined by assessing the technological and economic levels of production, chief products, technologies and procedures prevailing at the beginning of a five year period as well as those to be attained by its end and also by the preparation and interpretation of forecasts, analyses and results of long-term planning.

In addition, research conceptions and programmes in the matural sciences and in technology, rationalisation programmes, product planning, etc., are also taken into account.

The draft plans for science and technology are prepared with a view to the attainment of economic ends as seen from the angle of the national economy.

Scientific and technological work required to pave the way for new tasks is planned in the plan for science and technology.

Long-term economic orientation data for general problems and for particular tasks are issued by the State Planning Commission to the Ministry of Science and Technology and to the Office of Standards, Measures and Quality Control to be used by them in formulating the state tasks to be included in the state plan for science and technology, which is a component part of the five year plan.

On state tasks and state plan targets for science and technology

In order to gear scientific and technological effort consistently to the requirements of the national economy, the State Planning Commission and the ministries of the various industries set the enterprises scientific and technological tasks with attendant economic targets to be achieved.

They are mainly directed towards improvements to be reached in the productivity of labour, economical use of materials, working conditions for the people, exportability of goods and profitability of exports, quality, characteristics in use (utility) and performance parameters of products, reduction of prime costs and power consumption and with ceilings on prices and costs.

In setting the tasks for science and technology with attendant economic targets, care is taken by the ministries and other central state authorities, district councils, economic management organs, combines, enterprises, and institutions to have the particular scientific and technological problems and approaches to be derived from those tasks consistently oriented from the very outset to the requirements of the national economy.

With regard to the specific complex or individual problems (subjects), the state plan targets set in the five year plan are, as a rule, considered at the same time as state tasks to be included in the formulation of the annual national economic plans. The formulation of state tasks and state plan targets to be included in the state plan for science and technology is the responsibility of the Ministry of Science and Technology in close co-operation with the State Planning Commission, the Ministry of Material Economy, and the Office of Standards, Measures, and Quality Control, the latter being in charge of the preparation of concerted state tasks and state plan targets in the field of standardisation, quality development and techniques of measurement.

4. The planning of fixed assets and investments

In planning the reproduction of fixed assets, the basis is needs, and the aims are the systematic and proportional development of the national economy, further rises in the material and cultural living standards of the people, an increasing rate of intensification and of scientific and technological advance and the evolution of an efficient production structure. The guidelines in these efforts are the requirements of socialist economic integration, the objectives to be attained in rationalisation of the national economy and further improvements to be made in the working and living conditions of the working people.

The reproduction of fixed assets in enterprises and industrial combines is subject to comprehensive management and planning. From this angle, the reproduction of fixed assets includes

- (a) planning the advantageous utilisation of fixed assets and the development of their structure and efficiency;
- (b) planning of maintenance,
- (c) planning of discardings,
- (d) planning of replacements and of the expansion of fixed assets (planning the preparation and execution of investments).

When drafts of the five year plan and the annual economic plans are prepared, the planning of fixed assets and investments is coordinated, in particular, with

- (a) the planning of science and technology
- (b) the planning of the development of production, capacities, and efficiency.
- (c) the planning of the social labour potential (i.e. manpower)
- (d) the planning of available buildings and available equipment and their uses
- (e) the planning of how working and living conditions are to develop.

The planning of fixed assets and investments is to make sure that,

- (a) the amount, structure, and capacity utilisation of fixed assets - with obsolete plant discarded - will be such as to guarantee output and performance in the planned quantities, qualities, product mix and time schedule at high efficiency;
- (b) the tasks resulting from socialist economic integration will be fulfilled;
- (c) the tasks resulting from rationalisation conceptions and from regional rationalisation measures will be implemented;
- (d) manpower will systematically be provided to improve the capacity utilisation of existing fixed assets and to fill newly created jobs;
- (e) scientific and technological achievements will be systematically introduced and utilised in production;
- (f) the investments necessary to economize on the consumption of materials will be made;
- (g) working and living conditions will be improved;
- (h) investments for the expansion of fixed assets will not be made unless the existing fixed assets are utilised to full capacity and all other ways of rationalisation to improve the coverage of demand have been exhausted;

- (i) investments projects in progress are finished quickly and the number of unfinished investments is reduced.
- 5. The planning of measures for socialist economic integration
 The 1976-1980 period will be the first time that the GDR formulates separate plans, at all levels of industrial management, of measures contributing to socialist economic integration.

The planning of socialist economic integration measures is part of the formulation of the five year plan and the annual national economic plans.

It serves to make sure that such integration measures as the GDR is pledged to fulfil will be implemented.

The manner in which socialist economic integration measures are incorporated in the five year plan and the annual national economic plans is as follows:

- (a) a separate plan is formulated for measures contributing to socialist economic integration,
- (b) the tasks and the funds for integration measures to be carried out are included in their appropriate places in the sections of the national economic plan and in the "physical balances" (i.e. balances accounting in physical terms for materials, equipment, and consumer goods).

Also included in the plan of socialist economic integration measures are obligations for the development of socialist economic integration that the GDR has undertaken to fulfil as a participant in international economic organisations.

Function and substance of the plan of socialist economic integration measures

The planning of socialist economic integration measures is to make sure that:

- (a) integration measures are specified according to projects in the plan of socialist economic integration measures,
- (b) specified obligations are included in the plans and balances:
- (c) measures going beyond the scope of any one field of competence are co-ordinated;
- (d) tasks are assigned specifically to the central state authorities, district coulcils, economic executive bodies, combines and institutions responsible for planning and implementing them.

Integration measures and any tasks necessary for them to be carried out are to be included in the plans of socialist economic integration measures in both the five year plan and the annual national economic plans. They have to be subdivided by years and have to include also projects in progress at the beginning, or unfinished at the end of the plan period.

6. The planning of labour productivity, social working potential (manpower) and earned incomes

Enterprises and combines in the various industries as well as the appropriate economic management organs and state authorities plan the development of labour productivity. In so doing they take into consideration the tasks set for intensification, particularly socialist rationalisation, and increases to be attained in efficiency of social reproduction and they also secure a direct connection between the planning of labour productivity, output, numbers, qualification (i.e. skills) and occupational structure of the labour force, the development of average wages, reproduction of fixed assets and investments.

In the planning of labour productivity, account is taken of the close relations with the plan for science and technology. The basis for all this are technological work standards and calculations concerning the main factors influencing the devalopment of productivity and the resultant increases in efficiency.

Substantiation of the planned development of labour productivity

Nationally-owned enterprises and combines under centralised management, economic management organs of industry in general and the building industry in particular, the industrial ministries and the Ministry of Building and Construction, substantiate the planned development of labour productivity under the following main factors:

- (a) raising the scientific and technological level of production,
- (b) improvements to be attained in the organisation of production and in management,
- (c) improvements in the scientific organisation of work,
- (d) changes in the volume of production and production patterns
 - relative economies of time by changes in the volume of production,
 - changes in the range of goods produced,
- (e) changes in nominal working hours and their utilisation for production,
- (f) factors specifically affecting individual industries including changes in natural conditions.

The planning of labour productivity proceeds by factors, so as to permit discriminating control to be exercised on the development of productivity.

The planning of the social working potential (manpower) combines quantity planning and quality planning. It includes the planning of

- (a) the labour force
- (b) qualification structure (i.e. education, training, skills)
- (c) enrolment of school-leavers for vocational training not combined with high school education

- (d) enrolment of school-leavers for vocational training combined with high school education
- (e) employment of university and college graduates.

The five year plan and the annual national economic plans are chiefly based on

- (a) long-term forecasts of demographic development, which serves as a foundation for working out the long-term development of society's labour potential resources, finding possible ways of how to improve the utilisation of resources and how to effect the possible and necessary improvement in the qualification structure;
- (b) evaluation of analytical and prognostic findings concerning the development of the qualitative structure and efficient utilisation of the labour potential of society;
- (c) the development of labour productivity on the basis of scientific and technological advance and rationalisation, the development of output and performance and the development of fixed assets with particular regard to the ratio of jobs to personnel;
- (d) the balance of school-leavers as distributed among the several types of education (youth balance-sheet) and computation of the number of graduates from universities and colleges.

The planning of earned incomes

Earned incomes are planned. Regulations for the planning of the wage fund arc laid down by central authority.

The planning of the wage fund safeguards the position of wages as the most important factor of personal material interest and helps to enforce the wage policy of the state.

The size of the wage fund to be planned has to be determined on the basis of performance development, the number of workers and clerical staff with account being taken of their qualification structure and on the basis of the factors resulting from labour code regulations and wage policies to be implemented. The planning of the wage fund takes place in all sectors of the national economy and at all levels of management and planning. It is based on the state plan index figures of the five-year plan and of the annual national economic plans.

Development of average wages and salaries is the state plan index figure employed for the elaboration of the five-year plan. The wage fund is to be computed on the basis of the planned development of the number of fully employed workers and office employees on the one hand and the plan index figure "average wages and salaries" on the other hand.

The state plan index figure "wage fund of workers and office employees" which is used for the elaboration of annual national economic plans, is given in absolute terms.

Differentiations in wage fund increases are made by the central state authorities and the economic management organs within the limits set by the state plan index figure "wage fund". In this connection, the following factors of influence on the development of wage fund increases have to be considered:

- (a) planned changes in the number of workers and office employees;
- (b) development of average wages and salaries of workers and office employees as a result of
 - changes in the structure of the labour force and due to rising levels of qualification;
 - changes in the number of working days and paid down-time in accordance with the balance-sheet of working time;
 - rewards for higher performances of workers, especially for the expected overfulfilment of work standards and other performance criteria during the plan period;
 - increases in the salaries of office employees within the limits of existing wage-rate margins:

- the introduction or wider application of new performancestimulating forms of remuneration in conjunction with a scientific organisation of the labour-process and the planned use of work standards;
- wage-increasing factors arising from existing regulations in the GDR labour code and in the collective agreements of enterprises;
- increases in the wage fund for the implementation of government wage policies;
- other specific branch factors influencing the development of wages and salaries.

In the fields of culture and the social services and analogous principles can be applied, paying, however, due regard to the specific peculiarities in these spheres of activity.

In the interests of implementing the so-called performance principle (i.e. the principle of remuneration according to work performance), the planned bonus fund is given in abolute figures and in connection with clearly stipulated performance indicators. The planned bonus fund of an enterprise is dependent on the development of enterprise perfommance, and in such a way that the initiative of the workers and their interest in accepting and fulfilling high plan targets are duly stimulated and that outstanding collective results of work teams can be given proper material reward.

7. Planning of the economical use of material

The planning of the economical use of materials and the balancing of all tasks in this field plays an important part in the formulation of the five year plan and the annual national economic plans. It is aimed at securing the planned output of commodities which is required to meet the demand of the population, the economy and the state, and at an economically effective utilization of raw and other materials, energy and fuel, intermediary products, means of rationalization, plant and equipment.

The planning of the economical use of material and the balancing of tasks in this field, in the process of elaboration of the so-called MAK-Balances (a system of physical accounts, covering materials, equipment and continuer goods) for the five-year plan offers possibilities of ensuring correct material and technical proportions and interrelationships in the national economy with regard to available resources and their economical uses.

Basing themselves on the system of balances of the five-year plan, the annual national economic plans provide for the materials supply of the economy in consonance with its product group structure and with regard to both available resources and their uses.

In order to secure the fulfilment of planned tasks and targets in the spheres of production, performances, supply, research and development and investment, public consumers and suppliers (and their senior authorities) provide each other with information in the form of planning and balancing data, co-ordinate their activities and conclude commercial contracts in order to ensure the available resources to correspond with the requirements of the MAK-Balances.

The planning of the economical use of material and the balancing of tasks involved comprise:

- (a) the planning of the economical use of material including the planning of demand for materials, equipment and consumer goods by public consumers and suppliers;
- (b) the elaboration of MAK-Balances by the responsible balancing authorities;
- (c) the planning of output (by suppliers and their senior authorities) according to quanity, assortment, quality and time with a view to covering the demand for materials, equipment and consumer goods;
- (d) the planning and balancing of energy by those concerned with its generation and use;

- (e) the planning of supply performances by the executive bodies of the capital goods trade within the framework of their trade programmes;
- (f) the planning of the use of resources in accordance with economically effective patterns of circulation.

The planning of tasks and measures towards a more economical use of materials proceeds from the main technological and economic lines of material economies. It is directed at a stable, continuous supply of materials and energy in consonance with actual requirements and at their effective utilization.

The tasks and measures towards a greater economy in the use of materials - and their results - are also integral parts of the plans for "Science and Technology" and "Fixed Assets and Investments" and of the so-called MAK-Balances and state plan indices in the field of materials supply.

The individual industrial ministries bear particular responsibility for economies in the use of materials in their respective spheres. They have to safeguard that the tasks concerning economy in the use of material, which are laid down in economic plans, are both ambitious and realistic and that regular and systematic use is made of standards of materials consumption, materials inventories, and other progressive, technologically and economically based indices which serve the economical use of materials.

The Ministry of Materials Supply is responsible for organising an economical use of material and for working out standards and indices of materials consumption and the holding of
material inventories in the national economy. It co-ordinates
all the measures necessary thereto, and - in close collaboration with the other central state authorities concerned puts forward suggestions with regard to the tasks and targets
to be incorporated in the five year plan and/or the annual
national economic plans.

The planning of the economical use of material comprises:

- (a) the planning and substantiation of materials requirements on the basis of state plan index figures of materials and energy consumption, with the index figures related to spheres of responsibility on the one hand and to types of products on the other;
- (b) the planning and balancing of inventories and reserves;
- (c) the planning of secondary raw materials and waste products.

In the interests of a highly economical use of materials, the planning and balancing of technological as well as economic measures concentrates on:

- (a) the development of products with a high use-value and minimal social expenditure of basic and auxiliary materials, of costs and time per unit of output;
- (b) economies in the use of bas'c and auxiliary materials by means of the use of "light-weight construction"; the use of up-to-date methods of design and calculation; the complete utilization of the specific properties of materials; the use of efficient material and energy saving techniques; the effective substitution of materials; the planned development of technological standards; an effective protection against corrosion; the reduction of material waste and rejects in the production process based on standards and indices;
- (c) the establishment of optimal material inventories and circulation relations, with a view to accelerating the rate of inventory turnover as well as forming and holding reserves in accordance with the requirements and possibilities of the rational economy;
- (d) the economically most expedient utilization of indigenous raw material sources and the planned procurement, processing and re-utilization of secondary raw materials.

The whole system of material incentives in industry is geared to these priority tasks.

8. Planning the development of working and living conditions of the working population

The development of the working and living conditions of the working people is an integral part of the comprehensive planning activities of economic management organs, enterprises, combines, institutions of all kinds and local councils. The managements of enterprises, combines and institutions formulate special plans for measures towards the further improvement of working and living conditions. These plans are based on:

- the relevant targets and priority tasks set by central state authorities and local authorities in conjunction with the drafting of the five year plan and the annual national economic plans;
- the development of social life in the area concerned;
- the experience of and suggestions made by the citizens of the area concerned;
- the results of analyses of working and living conditions;
- the requirements and possibilities arising from the reproduction process of enterprises, combines and institutions.

For the planning of material working conditions at the level of enterprises, combines and institutions in industry (including the building industry), the responsible senior authorities hand down information and planning data concerning

- the incidence of specific branch work accidents and the main factors causing them;
- plant and machinery whose labour safety has to be safeguarded by special safety technological means;
- cirteria on the basis of which measures towards the improvement of working and living conditions can be grouped into larger complexes.

In line with existing legal regulations, funds for the improvement of working and living conditions of the working people may be drawn from the following sources:

- (a) net profits remaining with the enterprise;
- (b) funds for investment (amortization amounts, net profits earmarked for investment, credits);
- (c) funds resulting from the participation of other enterprises or institutions or allotted by local ecuncils;
- (d) reserve funds of combines and VVBs (associations of enterprises of a particular branch of industry);
- (e) prime cost and repair funds;
- (f) funds for cultural purposes and social welfare;
- (g) a special "achievement fund" (formed from profit allocations in case of above-plan rises in labour productivity).

Industrial enterprises are obliged to make regular analyses of the working and living conditions of their employees in accordance with the priority tasks in this field. To be able to take all necessary steps towards eliminating or diminishing dangers and/or difficult conditions in the work process, enterprises have to analyse existing working conditions as well as results and conditions to be expected in connection with given technological and economic objectives. They have to consider carefully all analytical materials which permit conclusions relating to future measures in the field of health preservation, labour safety, fire protection etc.

Such materials are:

- (a) analyses of material working conditions on the basis of a scientific organisation of work;
- (b) analyses of the incidence of work accidents and sickness, and of statistics concerning the development of supplementary wage payments for heavy work, extra holidays and legal reductions of working time;

- (c) analyses of the number of work-places where the prescribed standards of industrial hygiene were found to have been infringed and of the causes of such infringements;
- (d) analyses of work-places which expose the worker to special physical and/or mental stress and examination of its causes;
- (e) analyses of labour fluctuation;
- (f) analyses of cultural facilities and social services of the enterprises.

These analyses are to be taken into consideration when plans are worked out. After its completions, the managers of enterprises, combines and institutions have to submit the draft plan for the development of working and living conditions for public discussion. Subsequent to the thorough discussion of this draft plan at public trade union meetings of the employees and possible modifications that take account of suggestions or recommendations made at these meetings, the plan for the development of working and living conditions - as part of the comprehensive enterprise plan - is to be submitted to the senior authorities. Works managers are obliged to render account to their employees of the fulfilment of the targets in the plan component "Development of working and living conditions".

All tasks intended to improve the working and living conditions have to be integrated into the personnel planning as well as the physical and financial planning of the entire reproduction process. In particular, this applies to the planning of financial funds, materials and equipment which are necessary to implement the measures planned for the improvement of working and living conditions. As any other part of the comprehensive enterprise plan, the plan for the development of working and living conditions has to conform to the principles of realistic, co-ordinated planning and all-round balancing.

The tasks laid down in the plan for "Science and Technology" have to include also measures towards the development of socialist working conditions. Scientific-technological projects, research themes, and performances which serve to improve working and living conditions, esp. in the fields of the formation of improved working conditions, of medical care, labour safety, fire protection and technical safety regulations, as well as the capacities required for their implementation (in terms of manpower, physical and financial requirements) constitute an integral part of the plan component for "Science and Technology" at all enterprises, combines and institutions. This refers not only to general tasks of the enterprises, but also to scientific-technological tasks of a product or process specific type (e.g. new developments or products improvements).

The plan for "Capital Investment" has to show the share of investment made to improve working and living conditions in the total amount of capital investments of enterprises, combines and institutions. This includes, e.g., investments which are necessary to reduce the number of work-places where workers are exposed to dangers or heavy physical stress; investments necessary to improve the employees supply systems of enterprises (catering and shopping facilities, etc.), especially for shift workers; investments required for increasing the number of places at factory creches and kindergartens, and for the further improvement of existing cultural facilities. Whenever new investment projects are submitted for approval to senior planning authorities, separate plan conceptions concerning the further development of socialist working and living conditions have to be enclosed, as part of the requisite documentation.

The plan component "Development of working and living conditions" and all other components of the plan are to be formulated in close connection with socialist rationalization.

Through socialist rationalization enterprises, combines and institutions have to accomplish important tasks in the formation and development of socialist working and living conditions; by means of modernization and steady improvement of

existing technology and plant, through mechanization and partial automation of production they have to provide for further improvements in the working and living conditions of the working population.

Proceeding from analyses of existing working conditions, enterprises have to plan measures which aim at facilitating work, raising labour safety, improving industrial hygiene and the labour environment and providing for better catering and shopping facilities, particularly for shift workers. For these purposes, enterprises have to co-operate closely with other enterprises of the area and with local councils.

9. Financial planning

Financial planning covers the planning of costs, prime cost and proceeds from domestic sales, and the planning of costs and proceeds from export business, the planned accumulation and use of the compound enterprise proceeds (i.e. proceeds from domestic sales plus export proceeds) and other financial resources, the planned formation and use of financial funds, the planning of finance and credit relations and the financing of stocks and claims.

The financial planning of central state authorities, local councils, enterprises, combines and institutions is geared to the development of output and performances in accordance with actual demand and required assortments and to the planned improvement of the working and living conditions of the people. Financial planning is directed towards increasing the effectiveness of social production, improving the quality of products and implementing the socialist principle of thrift. It is to be based on progressive cost standards and limits.

Pinancial planning exerts a strong influence on:

(a) the permanent and continuous reduction of production costs, increases in the effectiveness of social production and the implementation of the socialist principle of thrift;

- (b) the speedy utilization of new scientific and technological results in production;
- (c) a more economical use of material, effective stock holding, the effective use of working capital and the acceleration of its turnover;
- (d) the effective and economical use of the social labour potential;
- (e) the effective use of fixed assets and the planned discarding of obsolete fixed assets; the achievement of a high efficiency of investments and the accumulation of the necessary investment funds;
- (f) the conduct of the socialist competition movement (by the breaking down of planned costs in such a way that the work teams of enterprises are enabled to influence them) and by the use of cost standards and cost limits;
- (g) the inclusion of the economic effects of industrial prices in the planning of cost reduction.

Financial planning at enterprises, combines and economic management organs

In their financial planning for the five-year plan and for the annual national economic plans, enterprises, combines and economic management organs proceed from the targets set by central and other superior planning authorities. They utilize the results of inter-firm comparisons, cost and profit analyses and analyses of the economic effects of prices.

In the process of the preparation of annual economic plans, cost planning makes use of fixed standards for the consumption of raw and other materials, energy and time and for overhead costs - primarily for administrative costs. The planning of costs of material and energy is based on technological and economic standards. In cases where there are no such fixed standards, preliminary or empirically obtained standards (or indices) can be employed. The senior authorities have to de-

cide in such cases, when and under whose responsibility definite technological and economic standards will have to be elaborated.

An important aspect of planning at the level of enterprises and combines is the planning of cost reduction. The respective tasks set to enterprises and combines by senior executive authorities are integrated into the annual national economic plans in the form of cost reduction targets expressed in marks or as a percentage. In their plans, enterprises and combines have to show the effects of all major technological and economic factors on the level of prime costs and on economies in overhead costs.

For their annual economic plans enterprises and combines also have to plan the so-called "compound enterprise proceeds" (mainly proceeds from domestic sales plus export proceeds of the enterprise).

Planning of the use of net profits

The net profits of enterprises are used in a planned way for

- (a) net profit transfers to the state budget in accordance with existing state plan index figures and legal regulations;
- (b) the formation of the monetary funds of enterprises, combines and economic management organs;
- (c) the repayment of credits;
- (d) other forms of profit distribution according to legal regulations.

Net profits resulting from over-fulfilment of planned targets are used for

(a) the formation of additional enterprise funds (bonus fund, and the so-called "achievement fund" which is formed in case of above-plan rises in labour productivity and spent on measures towards improvements in working and living conditions) and for allocations to the profit fund of the

enterprise;

- (b) the formation of a profit fund at the ministerial level;
- (c) transfers to the state budget.

At present, the planning of the formation and use of financial funds is confined to annual economic plans. It is based on the relevant legal regulations, tasks and targets. In planning the formation of their financial funds, enterprises and combines have to take account of probable or available financial funds of the preceding year.

Priorities in the further improvement of the planning of industrial enterprises

The growing social demands made on enterprise planning necessitate an improvement of planning in the following directions:

On the establishment and further development of a scientific basis for planning

Any planning activity rests on information from which new insights, clues or exact data can be gained for the planning of the reproduction process of enterprises.

Although central orientations, plan tasks and targets constitute the most important information for enterprise planning, the enterprise or combine needs far more detailed and concrete data for the elaboration of plans, especially:

- analyses of the recent development of production, the volume and pattern of demand for products and performances, of existing productive resources and available or mobilizable reserves for increasing the performance of the enterprise;
- standards for the use or consumption of living and past (materialized) labour and for performances to be made; and
- forecasts concerning the development of demand, new products and processes, and of the division of labour and co-opera-

tion (both at home and with other CMEA member countries).

Since the quality of enterprise planning clearly depends, to a very large extent, on the quality of such planning data and on their being available in time, it is imperative that the procurement and processing of such information be continuously and consistently improved. In order to ensure such a well-founded planning basis, the following requirements will have to be met in the near future:

- (1) continuity in analytical work, in business forecasting and in the use of fixed standards:
- (2) securing up-to-date information and data;
- (3) use of scientific methods in analytical and forecasting activities and in the field of standards.

On the intensification of conceptual work for five-year and annual planning

Conceptual planning work means essentially long-term preparation of plans: both five-year plans and the annual economic plans of enterprises. It implies the creative processing of information and data into purposeful, effective solutions for the reproduction process of enterprises in accordance with the requirements of society.

Conceptual planning work, and the so-called "plan conception" (outline draft plan) as its immediate outcome, are important tools in the hands of the planner for determining, from the standpoint of the national economy as a whole, the most effective plan solutions, for preparing planning decisions and for organising the active and all-round participation of the working people in the process of planning.

On account of its immense importance, the managers of enterprises or combines should, therefore, create (1) all the necessary conditions for a continuous and precise conceptual planning and (2) steadily and systematically improve the conceptual activities as a permanent method of planning (e.g., elaboration and evaluation of plan variants; efficiency calculations; development of comprehensive planning conceptions).

On the further development of socialist democracy in the planning process

Socialist democracy in planning presupposes the ever more effective participation of the working people in the planning process, especially in the stages of plan preparation and plan implementation. The implementation of socialist democracy in planning helps set free and utilise the creative abilities of the workers in formulating plans of high quality, i.e. plans which provide for realistic increases in production through the optimal utilisation of resources.

The all-round participation of the workers in the formulation of the enterprise plan is an essential prerequisite for their conscious commitment to the fulfilment of plan targets, for their discipline and activity in the stage of plan implementation.

The greater participation of the working population in planning has to be accomplished mainly along the following lines:

- (1) the participation of workers already in the conceptual stage of plan preparation;
- (2) the better qualification of the working people for their active and expert participation in planning by special training measures on the one hand and by giving them sufficient information and orientation for the discussion of the draft plan;
- (3) a better connection between planning, socialist emulation programmes, the innovators' movement and the use of material incentives;
- (4) a further rise in the quality of annual planning.

On the increased application of economic-mathematical methods and electronic data processing

A sensible application of economic-mathematical methods in connection with electronic data processing contributes to a higher quality in the preparation of planning decisions and planning activities.

The use of economic-mathematical methods opens up possibilities of:

- the objectification of planning decisions;
- the study and mastery of interrelations and proportions in the national economy;
- the optimisation of plans and plan components (sub-plans);
- the formulation of variants of optimal solutions in planning.

Data processing and economic-mathematical methods are also an important means of rationalisation of planning work. The next steps towards an increased application of such methods to be taken in the German Democratic Republic are:

- (1) the supply of the necessary primary data (in the requisite quantity, quality and topicality) on the basis of reliable technical and technological documents, efficient enterprise organisation and exact cost accounting;
- (2) the employment of experts in the field of economicmathematical model building and their close collaboration with the planning and managerial staff of the enterprise;
- (3) the training of the planning staff in the use of economic-mathematical methods and models in order to enable planners to apply such methods to the solution of their planning problems and use them effectively in the planning process.

On the further qualification of planning personnel

The formulation and implementation of measures designed to raise the level of planning in the enterprises of the GDR is

directly dependent on the qualification and the personal commitment of the personnel responsible for making planning decisions or engaged in the preparation of planning decisions and the drafting of plans. The growing social demands made upon planning result in a steady increase in the share of the creative element in planning work. Which demands should, from our point of view, be made on a planner?

- (1) He should be able to recognise new aspects of planning arising from the further development of the socialist national economy. The theoretical foundations he should have for these purposes are the knowledge of the political economy of capitalism and socialism, of Marxist-Leninist philosophy in general and of the theory of cognition in particular.
 - He should be able to foresee new problems of planning and suggest measures and decisions accordingly.
- (2) He should understand the internal interrelations of the planning process and the specific characteristics of its elements (balancing of accounts, analysis, plan calculations).
- (3) He should be familiar with modern planning methods and techniques. This applies also to the use of operations research, electronic data processing and mathematical methods. He should have at least some basic knowledge of programming techniques and the use of algorithms and the problems connected with and the limits set to their application.
- (4) He should be able to understand and have a full view of the problems of the reproduction process and set new objectives for planning.
- (5) He should be well acquainted with the operation, organisation and functions of the planning department of the enterprise and be able to exercise influence on its further development.

- (6) He should actively include the work teams of the enterprise in the planning process and assign proper tasks to them.
- (7) He should see to it that new ideas and insights from forecasts and other studies find speedy access into the planning process and that adequate conclusions are drawn from them.
- (8) He should always encourage analytical studies of the effectiveness of planning and put forward suggestions for improving the mechanism and methods of planning and for eliminating all retarding factors in planning.
- (9) He should be well informed about the contents, forms and made of operation of planning in other socialist countries, especially in the Soviet Union.
- (10) He should know the teachings and views of the classics of Marxism-Leninism with regard to planning and should be able to apply them in a creative manner.
- (11) He should keep himself informed about the latest theoretical results and the main directions of research in the field of planning, and also about planning issues in the stage of scientific discussion.

These demonstrate very clearly that planners should be among the best qualified staff members of socialist enterprises. This high level of qualification is absolutely necessary considering that planning is the very core of managerial activities and that the command over all important relations of the reproduction process requires profound and diversified knowledge on the part of the planner.

Ag.-Wr. 614/149/76 (204)