



TOGETHER
for a sustainable future

OCCASION

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



TOGETHER
for a sustainable future

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 publications@unido.org for further information concerning UNIDO publications.

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



D02550



United Nations Industrial Development Organization

Distribution
LIMITED

ID/WG.9/ B.9*
20 June 1968

ENGLISH
ORIGINAL: RUSSIAN

Interregional Seminar on Industrial Location
and Regional Development
Minsk, August 1968

14 A026

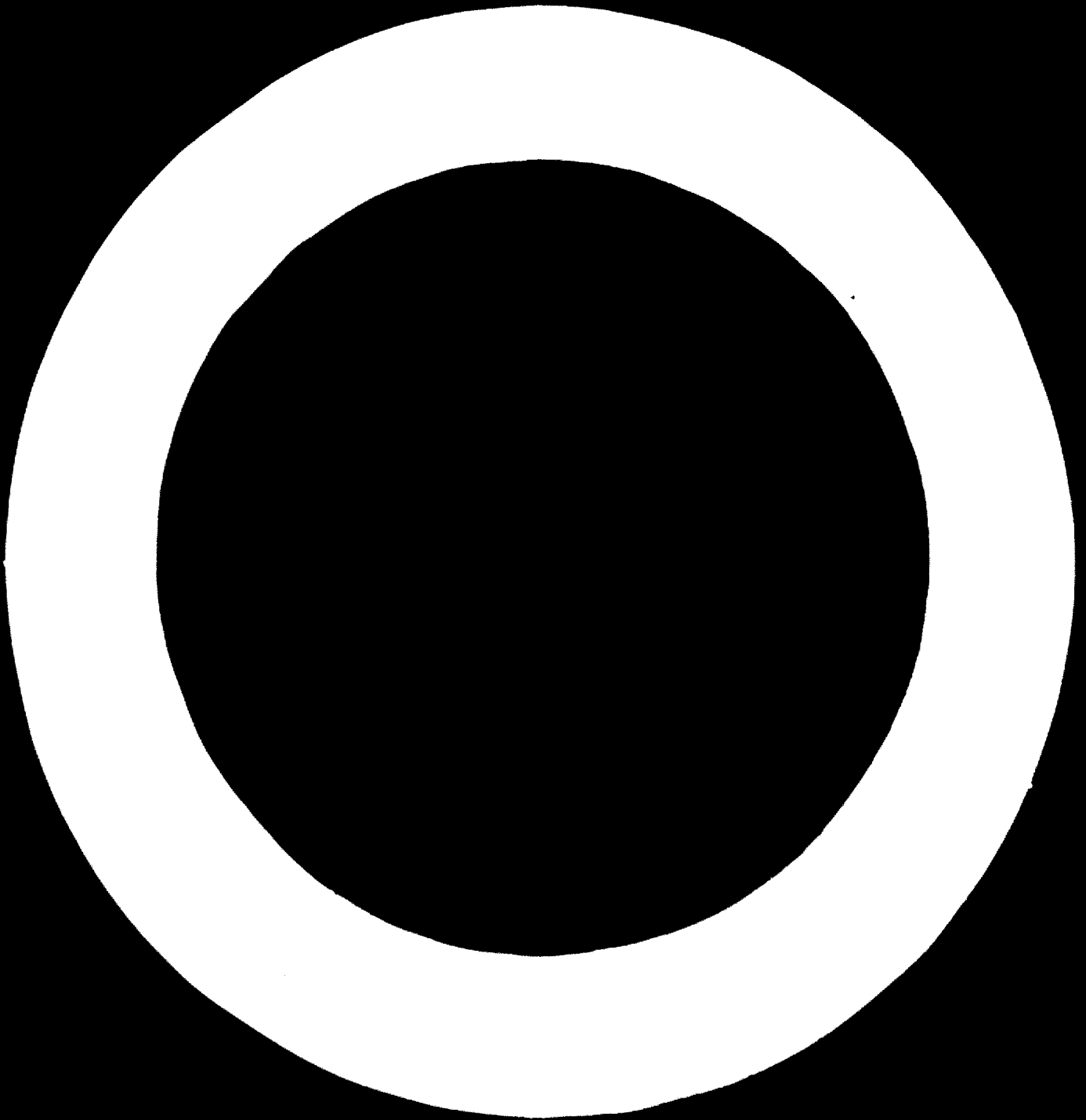
Characteristic features of development and
territorial distribution of industry in
the Georgian SSR

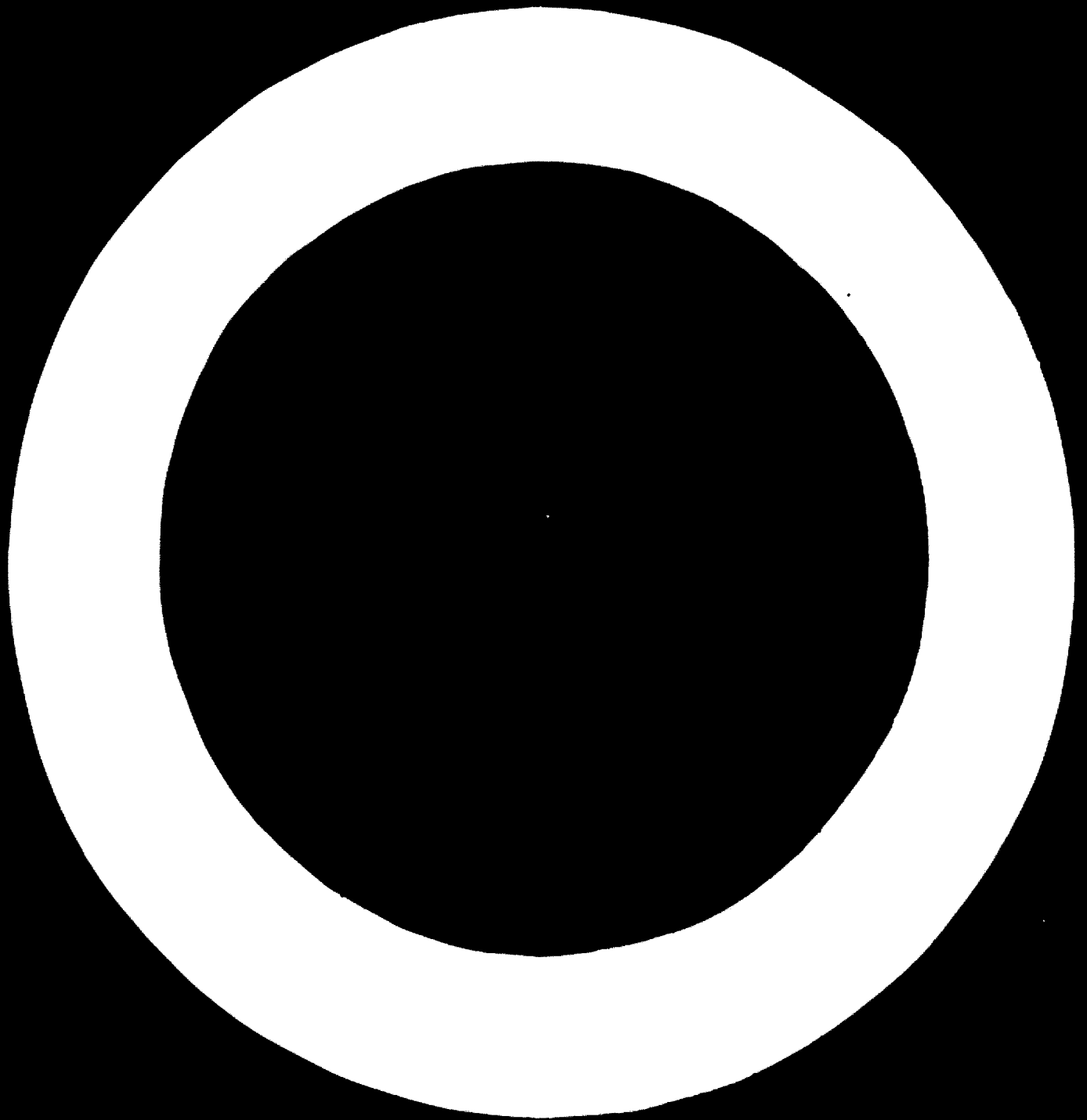
G.G.GVELESIANI

Head of the Department of
the Institute of Geography
of Academy of Sciences of
the Georgian SSR.

* This paper was reproduced in Minsk, BSSR.

1/ The views and opinions expressed in this paper are those of the author and do not necessarily reflect the views of the secretariat of UNIDO. The document is presented as submitted by the author, without re-editing.





The Georgian SSR as well as all other Soviet republics represents both in economical and political respects an indissoluble part of the USSR and it is influenced by objective rules of development and territorial distribution of productive forces, common for the whole country.

Territorial distribution of production being one of the aspects of development of production in its spatial expression can't be separated from the whole complex of available social-economical conditions; development of production in time and space presents a single interconnected process the character of which is defined by the existing social system.

Therefore, distribution of production on the territory of the Soviet Union has some peculiar features resulting from the rules common for the socialist society, and correct solving of the problem of distribution of industrial enterprises on the territory requires first of all due regard for the demands of these objective rules.

The most important general requirement of socialist territorial distribution is known to be a rational territorial distribution of production in the USSR, in its republics and economical regions. The main criterion of rationality of territorial distribution should be such distribution of branches or separate units in the country which enables at each given stage of development maximum volume of production at minimum expenditure of social labour.

The main regulator of territorial organisation of socialist production in the USSR, including industrial production as well is the rule of systematic, proportional development of national economy, which is expressed in the principles of territorial distribution of productive forces, realized by the governing and planning organs of the Soviet Union.

The system and proportionality of development of national economy of the USSR representing objective need of the process of socialist reproduction on a large scale is the basis of territorial distribution of industry because the development of industrial production is not realized isolated from the territory, but by means of expedient distribution of industrial units on the concrete territories of the republics, economical regions, by means of utilisation of those natural and economical preconditions which justify their territorial localization.

What are these common principles of territorial distribution of industry, resulting from the course of socialist construction in the USSR and in more or less degree functioning in all the Soviet Republics.

(1) First of all, systematic dispersion of production in the centers and districts of the country; (2) Levelling of economical and cultural development of the peoples of the USSR by means of accelerated industrialisation of formerly backward districts; (3) Territorial closeness of production to the sources of raw materials, fuel and areas of consumption; (4) Comparative economy and getting of production on the territory with respectively less cost of production; (5) Productive specialisation of

republics and districts on the basis of expedient division of labour in the USSR, and (6) Complex development of regions, i.e. creation of economically united, internally integral territorial-productive complexes.

These principles of socialist distribution of production as well as of industry function on the whole territory of the Soviet Union and they are to raise the social productivity of labour, to raise the efficiency of territorial organization of industrial production in the USSR.

Nevertheless the unity of social-economical system and community of regularities of spatial organization of productive forces in the USSR shouldn't be understood so as if economical development of Soviet Republics in all its display is identical and the processes of distribution of industry and generally of productive forces are quite equal in their courses. General regularities of geographical distribution of industry according to the features of historical, natural and economical conditions of development of each republic, have peculiar forms of expression which does not change their essence defined by the governing socialist industrial relations. Therefore, when explaining these or those concrete aspects of territorial distribution of industry it is necessary to count those natural and economical peculiarities which differ one country from another and influence forming of geography of productive forces.

In this respect Georgia nowadays by its natural-geographical conditions is essentially distinguished among the republics of the Soviet Union; distribution of its productive forces

is greatly influenced by the relief of the country, the set and industrial significance of power and mining-mineral resources, specific soil-climatic conditions, transport-geographical position, habits of work of the people, etc.

As it is known, Georgia is a typically mountain country, which is connected with the peculiarities of geographical position, defining the forms of relief. The republic is situated in the zone of two great mountain systems: mountains of the Great Caucasus from the North, with deeply set in spurs, and mountains of the Minor Caucasus creating general rising of the territory and especially complex relief. High hypsometric position of the hilly part of the republic, the unfavourable relief limits the possibilities of living, realization of economic activity it is not quite good for development of industry and is as if excluded from the active economic life of the country.

Between the mentioned mountain systems there is the lowered part of Georgia occupying almost one third part of its territory is the area of economic-cultural life of the republic. Almost all the industry is located here as well as main branches of agriculture, transport communications, cities and the most part of the population. In other words, natural conditions of Georgia (i.e. the relief) ensure its irregular economic development and distribution of productive forces on the territory. The most general indices of this irregularity is the fact that more than 98% of the whole gross industrial output and about 95% of the republic's national income are produced on the 1/3 part of the area of the republic, and only 2% of industrial pro-

duction and 5% of national income are on the rest of the territory, occupying 2/3 of it.

These indices characterize clearly the significance of peculiar natural-geographical factors in the character of distribution of the productive forces in the Georgian SSR. Lack of industry in the mountain regions does not create possibility of usage of the available labour resources, which results in the process of systematic migration of population descending from the mountains to the lowlands. During the past 30 years (1926 - 1966) population in various mountain regions has reduced by 30 - 40%. This natural phenomenon of depopulation of mountains takes place not only in Georgia but in many other mountain regions, as in the Alps, the Pyrenees, etc.

Thus, the first characteristic feature of location of Georgian industry is its concentration on the small part of lowlands, giving more favourable preconditions for development of industry (transport communications, labour resources, power base, etc.).

The positive side of such spatial concentration of productive forces is the coincidence of location areas of population and production with location of basic power, mining-mineral, agricultural and other industrial resources. Therefore, it is not necessary to bring the population close to resources or vice versa, which occurs in a number of countries.

But let us discuss how the principles of socialist territorial distribution of industry are realized under the conditions of economic construction of the Georgian SSR. We shall

begin with the principle of pulling up of formerly economical-ly backward districts and levelling of economical and cultural development of the peoples of the USSR, realized by the Soviet State.

It is known that accomplishment of Lenin's national policy was expressed not only in creation of nations' state system of the Soviet peoples and in confirmation of the nations' sovereignty, but also in their all-round economic development first of all by means of successive realization of industrialization policy.

Policy of national state construction organization of national economy of the republics was supported by the multilateral mutual aid of the Soviet peoples, which became one of the most significant preconditions of economic development of the USSR.

The Georgian SSR is a fine example of realization of the principle of levelling the economy and industrialization of formerly backward districts.

The great economic changes occurred under the conditions of socialist system in a relatively short period of time made Georgia one of the advanced Soviet republics with well developed industry and mixed agriculture, while in tsarist Russia it was a backward colonial outlying district.

To show clearer the great progress in all the branches of economy and especially in the development of industry it would be enough to give some data characterizing the prerevolutionary economy of Georgia.

Being a small peasant country, even more peasant than Russia, Georgia of that time had not got any developed industry and especially the large-scale industry. Even in the conditions of industrial backwardness of the tsarist Russia, Georgia produced more than four times less industrial products per head than the whole Russia did.

The deeply agricultural type of economy of Georgia of that time can be seen in the structure of economy: in the total production of industry and agriculture only 10% fell to the share of industry but 90% to the share of agriculture. Technical-economical backwardness of the country expresses well the condition of fuel-power base of that time. In 1913 only 70 tons of coal were mined in Georgia and only 20 million kwth were generated by small electric-power station. The gigantic step made by our republic in the soviet period can be judged by the fact that now in Georgia electric-power stations generate every day as much electric power as it was totally generated in 1913.

The economical backwardness of pre-revolutionary Georgia resulting from the colonial policy of tsarist Russia is especially well seen in such totalling index as national income. In 1913 national income in Georgia was two times less per head than it was in the average in tsarist empire.

The October Socialist Revolution having brought national and social liberty to the peoples of former tsarist Russia, created conditions for steadfast development of productive forces of the Georgian SSR. The Republic took firmly the road of

industrialization providing creation of varied developed industry.

It should be noted that the whole course of socialist construction during the past period of soviet power in Georgia passed under the badge of greater development of favourable natural conditions and local industrial resources. In this period of time organization of industry was realised on the basis of wide utilization of manganese deposits, new coal deposits, rich hydro-power resources, various kinds of ore and non metallic raw materials. Economic utilization of specific soil and climate resources was of special significance for they provided creation of a number of agricultural branches which served as a basis for organization of some important industrial branches of all-union significance.

The branches created on the basis of local resources defined its industrial specialization and participation in territorial division of labour in the USSR. As a result of such direction of development now industry of Georgia has become quite stable, which can be seen from the fact that more than 60% of gross production of industry is produced on the basis of local fuel-power resources, mining and mineral and agricultural resources.

As a result of systematic industrialization of the republic some qualified branches of industry were created producing wide nomenclature of both consumer and industrial goods.

Building of electric power station was placed on a broad footing and first of all it was building of hydroelectric

power stations, enabled by the pressure of great hydroresources in Georgia, total reserves of which are above 15.5 million kwt. Dozens of hydroelectric power stations have been built on the mountain rivers of the republic, e.g. Zemo Avchala Hydroelectric power station, Rioni, Khrami, Gumati, Ladjanuri and other hydroelectric power stations. Besides the hydroelectric power stations some big thermoelectric power stations are built in Tbilisi, Rustavi, Tkvarcheli, etc. Electric power stations in Georgia in 1966 generated 6.5 milliard kwth, which is 3.5 times more than it was generated in the whole pre-revolutionary Russia.

For further strengthening of power base of new hydro- and thermal electric power stations are being built now, from which the Inguri hydroelectric power station (1.6 million kwth) is the greatest, the unique arch dam of it will be of 270 m height.

Mining industry is also developed in Georgia. The fully reconstructed enterprises of Chiatura manganese well known all over the world because of its extra quality have the greatest significance. During the soviet period some new mines, great concentrating mills were built, output and transportation of ore was realized. From a number of other mining enterprises we should single out deposits of polymetallic ores (South-Ossetian Autonomous region), barytes (in several districts), bentonite clays, diatomite, talk, arsenik, etc. The mining-mineral raw materials from these enterprises are supplied to a number of industrial branches, to many districts of

the USSR and are also exported abroad.

Using the richest deposits of extra quality manganese and reserves of cheap electric power, the republic created powerful electrometallurgical production, Zestaphoni Ferroalloy Plant, producing various manganese alloys and pure electrolytic manganese.

Development of engineering industry was of special significance for industrialization of Georgia. Dozens of engineering works have been built producing complicated machines: electric locomotives, aircraft, cars, tractors, metal-cutting lathes, tea-picking machines, food-industry equipment, building mechanisms, various electrotechnical machines, instruments, etc. The engineering works in Georgia are mainly located in big towns, Tbilisi, Kutaisi, Batumi, Poti and Sukhumi.

Realization of the wide programme of capital construction required creation of corresponding enterprises producing building materials. Cement production is the most important branch developed by the Kaspi and Rustavi cement producing plants. In connection with industrialization of building some plants producing large concrete blocks, prefabricated reinforced concrete products and wall panels, were constructed.

New step of development of heavy industry in Georgia began after World War II when such branches as ferrous metal industry and chemistry were created.

Not far from Tbilisi a large metallurgical plant was built in the place of an ancient Georgian town Ruastavi. The Rustavi metallurgical works has a full metallurgical cycle, i.e.

it produces coke, cast iron, steel, steel pipes and rolled metal. Georgia occupies the third place in the USSR by the amount of the metallurgical production. The Rustavi enterprises use modern machinery and technique; many processes here are fully automatized. And a new comfortable town Rustavi has grown near the plant with population about 100,000.

The Rustavi metallurgical works has served as a foundation for development of chemistry in Georgia. In cooperation with metallurgy the Rustavi nitrogen mineral fertiliser works started to operate supplying the whole Transcaucasus with ammonias saltpetre. This unit in its turn served as a basis for construction of large kaprolactam works and consequently, synthetic fibre works.

Thus Rustavi has become an important centre of Georgian heavy industry with well developed black metallurgy, chemistry and other branches (engineering, building material production, etc.), which has a great significance in the economy of our republic.

Georgia has also developed branches of industry producing mass consumer goods of light and especially food industry. Light industry includes silk industry (silk-winding and silk-weaving mills); Wool industry (worsted cloth and cloth mills); cotton (the largest cotton mill in Gori), knitted-goods, tanning-shoe, sewing, haberdashery and other branches of industry.

Food industry is especially important in Georgia, producing 45% of the whole gross industry of the republic. This

is characteristic for the structure of Georgian industry expressing close ties of industry with intensive agriculture; share of food industry is the greatest among the Soviet Republics. Its main branches are based on the local specific agricultural raw materials and they are specialized branches of all-union significance.

Essential need of population and industry of the USSR for products which are not produced or are not enough in other republics required organization of their production in Georgia because of its favourable conditions. Therefore our country didn't need any more to import these products, saving more foreign currency. With such industrial specialization of Georgia economical interests of the USSR coincides with economical interests of the republic because organization of valuable branches of agriculture and branches of food industry based on them lead to more rational utilization of labour resources and rising of living standard of the people.

Production of tea is the most important. 76 tea producing factories built during the Soviet period process the green tea leaves picked in the subtropical regions of Georgia on the Black Sea coast (over 220,000 tons) and produce mainly black and green extra quality tea popular both in the USSR and abroad.

Wine production having a great historical tradition in Georgia is also of great importance here. It is presented by many factories producing wines, brandy and champagne. Georgian dry wines are of high quality and win the highest prizes at international wine testings.

On the basis of fruit and vegetable raw materials the republic has developed canning industry with more than twenty factories.

Tobaccoes of high quality growing in the region of Abkhazia and other places enabled development of tobacco industry. Essential oil and tung-oil producing factories are based on the specific raw materials. Bottling of mineral water used in medicine is also a peculiar branch of industry in Georgia. "Borjomi" is the most popular mineral water (over 100 million bottles).

Here we shall not give data on the rest developed branches of industry as wood, wood-working, paper, printing and publishing glass-porcelain industry, etc.

During the soviet period of industrialization more than 1000 enterprises of heavy industry including all the basic branches have been built in the Georgian SSR.

A general growth of industrial production in Georgia can be judged from the fact that in 1966 production of gross industry was 62 times more than in 1913 (in the comparable prices).

Rising of productive forces of the republic, providing elimination of former backwardness and levelling of its economy, was achieved by means of systematic growth of industrial basic funds, which requires great annual capital investments. In a whole in the course of 47 years of soviet power in Georgia (1926 - 1966) about 7.5 milliard roubles were invested in its national economy including over 3 milliard roubles (i.e. 40% of total investment) used in the industrial construction.

Therefore Georgia has modern industry with up-to-date machinery, having great importance in the national economy of the USSR by a number of products. It should be enough to say that holding 1.95% in the population of the USSR, Georgia gives 41% of the all-union manganese production, about 28% of electric locomotives, and 95% of tea production, to say nothing of metal-cutting lathes, silk cloth, knitted fabrics, shoes, wines, tins, tobacco, mineral waters, etc., where the share of Georgia is also high.

One of the most essential results of industrialization of the Georgian SSR is the appearance of local Georgian specialists, qualified workers representing the basic productive force of the republic. If in 1921 when soviet power was just established in Georgia its national economy had only 90000 workers and employees, in 1966 they became 1250000, including the number of industrial workers, grown from 25000 to 350000, i.e. 14 times more. During this period a greater rise is seen in the gross production of industry, which means rapid growth of labour productivity. Only in 1940 - 1966 period productivity of one worker became 2.5 times more. Main factors of growth of productivity of labour are growth of funds and energy providing workers, growth of personnel qualification, improvement of labour organization. While in 1932 only 890 kwth were used per 1 worker in 1966 it became 14000 kwth. In other words utilization of electricity in labour has become about 16 times greater what speaks for great technical changes in industry.

The well-known Georgian writer Ilia Chavchavadze, a leader

of national liberation movement, dreamt of the time when Georgia would have at least 30 engineers and agronomists who would be of great use in the native land. The changes since that time can be very well seen in the fact that now (1966) Georgian national economy has 37000 engineers, 15000 agronomists, and in a whole, 264000 specialists with higher and special secondary education.

Now let us discuss some common features of territorial distribution of industry in the republic. It should be noted that it was influenced by two kinds of forces: on one hand it was influenced by all-union factors of territorial labour distribution, and on the other hand by the factors in the republic itself. Mutual effects of these two kinds of forces created the economical geography of the Georgian SSR, formed general plan of territorial distribution of industry.

We have already mentioned that the main territory of industrial distribution is the narrow lowland between mountain ranges spread from the West to the East and occupying about 1/3 of the whole area of the republic. Tbilisi in the East and Kutaisi in the West are the most significant industrial centres. Almost all the largest industrial enterprises are concentrated in these two towns.

In Tbilisi engineering and metallurgy, light and food industry are dominant. Here the largest engineering plants are situated, e.g. electric locomotive building, aircraft building, machine-tool building, agricultural and food engineering, electrotechnical, instrument making industries, etc. Enterprises of

silk, wool, knitted fabric, sewing, tanning-shoe industry are the most significant in the light industry. Food industry is presented by wine-making (including brandy and champagne, butter, milk, meat, bread baking, confectionery, beer-non-alkoholic and other branches.

Tbilisi with population about 900 000 needs a great number of mass consumer goods most part of which is provided by local production.

In Kutaisi engineering is also the leading branch; a large automobile plant producing trucks and electrotechnical plant are situated here; chemistry is also an important branch of industry here (production of blue copperas, paints, etc.).

We have already mentioned Rustavi, a big industrial centre where large units of heavy industry are situated, metallurgical group of enterprises, nitrogen mineral fertilizer plant, kaprolactam plant, synthetic fibre plant and a number of other units.

To the west of Tbilisi there are several growing industrial towns: these are Kaspi with cement, slate and electro-technical plants; Gori with cotton factory, cannery, instrument making works and others; Agara with sugar-refinery, Khashuri with a glass plant and haberdashery and plastic factory being in the process of construction. Not far from Kutaisi there are large mines of Chiatura manganese, coal mines of Tkibuli, large plant of ferroalloys in Zestafoni, etc.

A number of towns with differently developed industries are located on the Black Sea coast, e.g. Batumi (oil-re-

fining industry and engineering), Poti (flour-mill and electro-technical works), Ochamchiri, Sukhumi, Gudauta, Gagra.

Quite a peculiar zone of distribution of industry is presented on the part of the Black Sea coast between the Adjarian and Abkhazian autonomous republics. This is the zone of a great number of food units, utilizing subtropical agricultural raw materials (tea-factories, essential-oil factories, tobacco factories, tung-oil factory, citrus-processing factories, etc.).

Another peculiar zone of distribution of industry is on the East of the republic is so-called Kakhetia. Here we should point out some small industrial centres with a developed wine-making industry.

Therefore Georgia can be divided into three areas by the degree of development and territorial distribution of industry: (I) Central industrial zone with Rustavi, Tbilisi, Kaspi, Gori, Khashuri as industrial centres. It is the zone of the most concentration of industry. 67% of black metallurgy production, 62% of engineering production, 71% of chemical production, 70% of building materials production are realized in this zone.

The central industrial zone presents a territory with the most favourable conditions for distribution of large-scale industry.

(2) Kolkhidian triangle: its base is presented by the towns of Batumi, Poti, Sukhumi and its top by Zestafoni and Chiatura. In the western part of the triangle food industry prevails based on the specific agricultural products, while the eastern part has developed hydroenergetics, coal-mining, engineering, electrometallurgy, mining, silk-and wine making industry.

(3) Eastern industrial group is mainly presented by food industry (wine making), the share of which in the total industrial production of this group is equal to 87%. Also not very big oil fields are found here (Tsitelitskaro district).

Considering the geography of Georgian industry we should notice two basic forms of distribution: (a) concentrated, and (b) dispersed, which is connected with historical conditions, peculiarities of technology and structure of production and other reasons.

Three main industrial centres have been formed in Georgia: (1) Tbilisi - Rustavi (black metallurgy, chemistry, engineering, building materials, light, food industries);

(2) Zestafoni - Chiatura (mining, electrometallurgical, electrotechnical, wine making industries);

(3) Kutaisi - Tkibuli (coal-mining, engineering, light and food industries).

In these three industrial centres main branches of industry are concentrated, that is why they give over 55% of gross production of the whole Georgian industry.

Together with the concentrated form of distribution Georgia has also developed another dispersed form: this is connected with a great number of units of food industry, which should be located close to the raw material sources (tea, wine-making, tobacco, essential oil units, creameries), and with the development of mining industry and building material plants located near the sources of raw materials, Georgia has more than 300 points (centres of regions, small towns and some villages)

with industrial units, and this provides the dispersed form of territorial distribution of industry.

It has already been mentioned that one of the socialist principles of distribution is systematic dispersion of production on the territory and bringing it close to the sources of raw materials and areas of consumption. In what way is the given principle realized in the concrete conditions of the Georgian SSR?

First of all we should mention that even distribution of industry can't be understood in such a sense, as if all the territory of the country should be equally covered with industrial enterprises; dispersion of industry is mainly carried out on the basis of distribution of industrial enterprises in the most number of urban centres and other population areas; but this doesn't mean that industry should be geometrically distributed over the whole territory of the country. Concentration of industry in towns, creation of industrial centres is a quite natural process in the conditions of socialist economy as well. Nevertheless the problem arises of avoiding hypertrophical growth of some towns, some regions and of development of industry in the most areas with corresponding natural and economic conditions.

It's a common knowledge that spatial concentration of industrial enterprises creates a number of technical-economic advantages in capital construction as well as in exploitation expenses.

(3) Eastern industrial group is mainly presented by food industry (wine making), the share of which in the total industrial production of this group is equal to 87%. Also not very big oil fields are found here (Tsitelitskaro district).

Considering the geography of Georgian industry we should notice two basic forms of distribution: (a) concentrated, and (b) dispersed, which is connected with historical conditions, peculiarities of technology and structure of production and other reasons.

Three main industrial centres have been formed in Georgia: (1) Tbilisi - Rustavi (black metallurgy, chemistry, engineering, building materials, light, food industries);

(2) Zestafoni - Chiatura (mining, electrometallurgical, electrotechnical, wine making industries);

(3) Kutaisi - Tkibuli (coal-mining, engineering, light and food industries).

In these three industrial centres main branches of industry are concentrated, that is why they give over 55% of gross production of the whole Georgian industry.

Together with the concentrated form of distribution Georgia has also developed another dispersed form: this is connected with a great number of units of food industry, which should be located close to the raw material sources (tea, wine-making, tobacco, essential oil units, creameries), and with the development of mining industry and building material plants located near the sources of raw materials, Georgia has more than 300 points (centres of regions, small towns and some villages)

with industrial units, and this provides the dispersed form of territorial distribution of industry.

It has already been mentioned that one of the socialist principles of distribution is systematic dispersion of production on the territory and bringing it close to the sources of raw materials and areas of consumption. In what way is the given principle realized in the concrete conditions of the Georgian SSR?

First of all we should mention that even distribution of industry can't be understood in such a sense, as if all the territory of the country should be equally covered with industrial enterprises; dispersion of industry is mainly carried out on the basis of distribution of industrial enterprises in the most number of urban centres and other population areas; but this doesn't mean that industry should be geometrically distributed over the whole territory of the country. Concentration of industry in towns, creation of industrial centres is a quite natural process in the conditions of socialist economy as well. Nevertheless the problem arises of avoiding hypertrophical growth of some towns, some regions and of development of industry in the most areas with corresponding natural and economic conditions.

It's a common knowledge that spatial concentration of industrial enterprises creates a number of technical-economic advantages in capital construction as well as in exploitation expenses.

F. Engels pointed out that "... centralizing tendency of industry remains ... in its full force and each new factory built in a village bears the embryo of a factory town".^{x/}

In the Georgian SSR evenness of distribution of industry is limited by the mountain relief which makes 2/3 parts of territory unfavourable for development of large-scale industry.

As far as the lowland zone is concerned, systematic realization of the principles of dispersed distribution of industry in Georgia was expressed in the development of industry not only in old towns but in its organization of new towns and points. Together with Tbilisi industrial construction is well developed in other places, as Kutaisi, Batumi, Tskhinvali, Poti, Samtredia, Tkibuli, Zugdidi, Zestafoni, Sukhumi, etc. to say nothing of quite new industrial centres as Rustavi, Tkvarcheli, Vale.

If some time ago industry was mainly concentrated in the eastern regions of Georgia, now it is also in the western part. Thus, before the revolution (1913) the eastern regions had 77% of the total gross production of industry but the western regions had only 23%, but now (1966) percentage of the eastern regions reduces to 58%, and in the western to 42%.

The process of dispersion of industry is well seen in Tbilisi: before establishment of the soviet power in Georgia it gave 67% of total industrial production, while now about 37%. Nevertheless it should be noted that the degree of dispersion

x/ K. Marx, F. Engels, Works, vol. 2, p. 262.

of industry is not yet enough and there is much to be done in this respect.

We can say that of all the 102 towns of Georgia only five of them Tbilisi, Rustavi, Kutaisi, Batumi and Sukhumi give 60% of total gross industrial production of the republic; 19 towns give 19% of industrial production, but the remaining 77 give only 21%.

These data show that industry is still concentrated in some big centres and rational utilization of labour resources requires further dispersion of industry in smaller towns of the republic.

The problem of industrial development of smaller towns is one of the most perspective in the economical construction of the Georgian SSR.

Many small towns of Georgia have favourable preconditions for distribution of industry there, among them there are such towns which can have big industrial enterprises, others can have enterprises of average size, independent or cooperating with enterprises of other towns. Dispersion of industry in such small towns will certainly require a number of arrangements in the development of these towns, housing and communal building there in order to create favourable conditions of life.

New industrial construction is now carried out already in a number of such towns as Kaspi, Khashuri, Samtredia, Zugdidi, Tskhakaya, Tsulukidze, Sagaredjo, Tenori, Gurdjaani, Telavi, etc., which is one of the rational ways of territorial

distribution of industry in the Georgian SSR.

As for the principle of bringing industry close to the sources of raw materials, fuel and areas of consumption of production, it should be noted that this problem in Georgia is not so acute because of small sizes of territory and small radii of transportation. In fact, of the whole territory of the republic 70000 km² only 17000 km² are good for large-scale industry. With such area of distribution of large units maximum distance of transportation is 400 - 500 km, while the Russian Federation has 5000 - 10000 km.

Besides this a number of industrial branches as mining, food, building materials, by the character of technological process requires creation of enterprises near the raw materials sources, and no deviations can be admitted here.

For the enterprises of engineering and light industries transportations within the republic are not so important and distribution of enterprises is defined by other conditions (railways, water-supply, electroenergy, manpower, etc.)

As far as metallurgy is concerned it is on the junction of iron ore flow (from the Azerbaidjan SSR) with coal (from Tkibuli and Tkvarcheli) and the metallurgical works itself is in the centre of Transcaucasus, i.e. in the most favourable place to the areas of consumption.

All the above mentioned does not mean that everything is all right and there is no possibility to minimize the amount of transportation in the republic. Regardless of less significance of the distance factor, maximum contraction of

irrational transportations and taking into account of this moment while distributing new industrial enterprises may have a definite effect in the Georgian SSR too.

One of the most important principles of socialist territorial distribution of industry is specialization and complex development of republic and economic regions. This principle is one of the most significant in the USSR.

In the directives of the 23rd Congress of CPSU on the 1966-1970 five-year plan we read that "...problems of rising of the efficiency of social production require further improvement of distribution of productive forces, complex development and specialization of the republics and economical regions economy ..."

It should be noted that speaking of specialization of the republics and regions we mean not the specialization of individual enterprises (which is a bit different idea) but territorial specialization, i.e. industrial direction of economical development of territorial units (republics, economic regions), creation in them of some basical links of economy, in other words, of key branches by means of which they participate in the territorial division of labour in the USSR. Specialization of individual enterprise presents a definite form of organization of production on this enterprise (limitation of nomenclature of the production output, mass character and line production, etc.), but specialization of territorial unit suggests creation of a branch or individual kind of production giving commodity output exceeding requirements

of the given territorial units. Interregional marketability is the most important index of territorial specialization.

Territorial specialization based on the utilization of some favourable natural and economical preconditions, favours the raising of social labour productivity and generally the raising of production economy.

There are different methods of definition of specialization level of republics and regions but we shall not dwell on this question.

Discussing question on the direction of territorial specialization of the Georgian SSR first of all one notices general high level of the republic's specialization. According to the existing data about 70% of the industrial commodity output is exported from the republic to other regions of the USSR. This circumstance speaks for a great interregional marketability of Georgian industry and the depth of its territorial specialization.

For comparison we should give some data of 1923-24, when Georgia exported not more than 4.2% of the manufactured industrial production.

Proceeding from the functions of Georgia in the all-union economy and trying to define main trends of its industrial specialization one can conclude that the Georgian SSR is distinguished as a region of mining (manganese) and ferroalloy industry, some branches of developing engineering (electric locomotive building, machine-tool building, some kinds of electrotechnical engineering) and food industry, based on

the specific agricultural raw materials (tea, tobacco, wine-making, essential-oil, tung-oil, and mineral water bottling production).

These branches define main lines of territorial specialization of the republic but there are also such branches which occupy intermediate position and though by their indices they have not achieved necessary level of specialization, they are close to it, for instance black metallurgy (production of pipes), some branches of light industry, etc.

While specialization in Georgia is on a high level, it can't be said about the degree of complex development.

By the complex development we mean creation of definite proportionality, internal economic integrity, interconnection of the republic's economy branches. In this respect we have some gaps. Georgia is not quite well provided by local fuel base (production of coal, oil, gas) and it has to import millions of tons of fuel from other republics. The republic has not well enough developed a number of branches of chemistry and engineering, necessary for the national economy, production of some kinds of building materials (especially wall and roofing materials) is not enough to meet the needs of capital construction; timber industry is also poorly developed because in Georgia forests accomplish protective functions mainly.

Territorial specialization of Georgia is accomplished by intensification of industrial-economic ties with other repub-

lics and economic regions of the Soviet Union created on the basis of the interregional barter.

Georgia has industrial-economic ties almost with all the republics of the USSR, but the closest ties it has established with the RSFSR (45% of export and over 65% of import) and with the Ukrainian SSR (about 20% of export and 12-13% of import).

Interregional ties of Georgia are characterized by one peculiarity - weight balance of export and import is not favorable for Georgia; it imports by 11-12 million tons more than it exports to other regions, but the cost of export exceeds essentially the cost of import, so the balance is positive. Such ratio is connected with the fact that the republic imports goods with heavy weight (coal, oil, ore, wood, ferrous metals, etc.) while it exports light but highly valuable goods (tea, tobacco, wine, essential oils, etc.).

As a result of economical development the Georgian SSR at present takes part in the world commodity circulation. Its economic ties cover a great number of foreign countries. Georgia exports its goods to more than 65 foreign countries: manganese, ferroalloys, pipes, oil products, various equipment, food products, medicines, etc.

Finally, one of the most important principles of socialist territorial distribution is the achievement of comparative economic advantage.

The essence of this principle is the choice of such regions and places of distribution of production where in comparison with other possible places of distribution a compara-

tively higher economic advantage is achieved.

Soviet economists have different points of view on the creation of definition of comparative economic advantage of the distributed enterprises. Some of them think that there should be confronted the levels of prime costs of the compared variants plus transport expenses for the products supply to the area of consumption; others consider profitableness level to be the index of economic efficiency of distributed units and there is a third point of view, which we also share, consisting in the following: economic advantage of distribution of production under the conditions of socialist economy should be solved not only proceeding from the indices of isolated industrial units but also on the basis of evaluation of combined economic advantage resulting from this or that combination of productive forces on the territory.

In socialist economy free from private-ownership interests an application of principle of comparative economic advantage in the distribution of industrial branches should have a flexible character; evaluation of indices of production cost and profit at various units should be combined with a complex estimation of general economic results received in the region of distribution. The correctness of this approach is seen if we consider the Rustavi metallurgical enterprise built in Georgia.

As a result of some reasons the prime cost of cast iron and steel at the Rustavi metallurgical plant is higher than at a number of other metallurgical plants in other regions of the

of the USSR. If we discuss this question from the point of view of comparison of individual cost of production, we should consider the Rustavi metallurgical works to be not economic, its construction being unjustified. But taking into account the role of the plant in the economic complex of the Georgian SSR and in the whole of the Transcaucasus, and the combined economic effect connected with the organization of the Rustavi works, the estimation of correctness of this enterprise's location acquires another meaning and its national economic advantage becomes unquestionable.

The Rustavi plant served as a basis for organization of a whole complex of enterprises: nitrogen mineral fertilizers, kaprolactam, synthetic fibre, machine-building plants, cement works, plants producing reinforced concrete constructions and other building materials. Now a number of new plants will be built, as carbamide, potassium permanganate, manganese dioxide, etc.

Only owing to the construction of nitrogen mineral fertilizers and cement works, every year there is a great saving of transport expenses required for the import of 1.3 million ton of mineral fertilizers and cement which would be brought to Georgia and the Transcaucasus from distant regions of the USSR.

Thus the principle of equal or less expenditure of labour for the production of output at the located unit compared with other possible places of distribution should be considered as a basis of definition comparative economic advantage. However, expenditure of social labour should be measured not by mere comparison of individual production cost but by taking into account

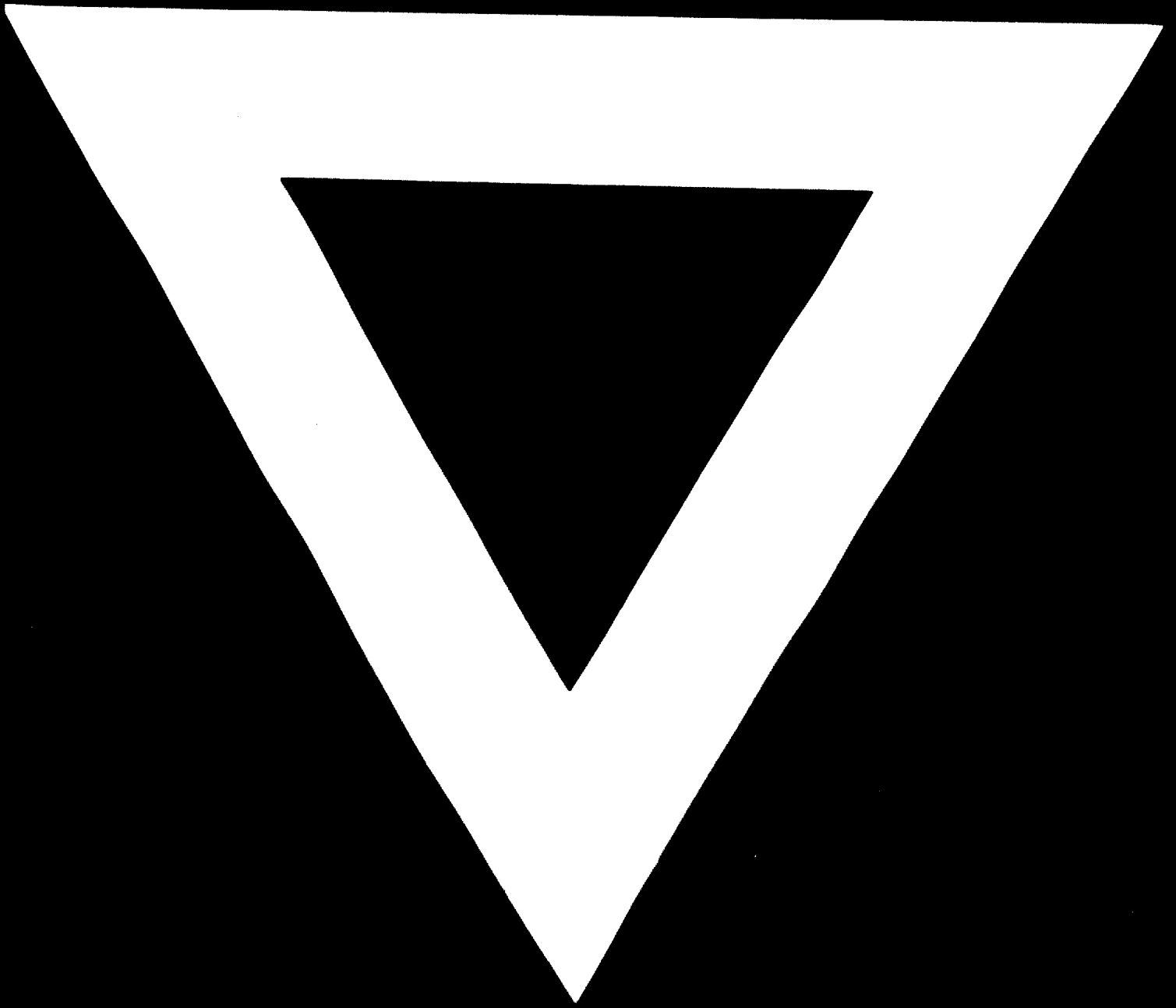
all the factors increasing or reducing expenditure of social labour on the whole in national economy.

These are some main problems of development and territorial distribution of industry in the Georgian SSR.

Now the Republic carries out a great work on accomplishment of 1966-1970 five-year plan of development of national economy.

In this new programme of productive forces raising in Georgia an important place is certainly given to arrangements which can provide progressive changes in the industrial production and further improvement of territorial organization forms of socialist industry.





22. 6. 72