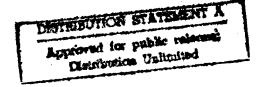
JPRS-EEI-84-076 3 July 1984



# East Europe Report

ECONOMIC AND INDUSTRIAL AFFAIRS



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# CSSR STANDING WITHIN CEMA EVALUATED

Prague HOSPODARSKE NOVINY in Czech 11 May 84 pp 10-11

 $\overline{/\text{Text}/}$  On the Threshold of New Expansion

The standing of the Czechoslovakia within CEMA is determined by a number of factors which have to be kept in mind not only when evaluating developments up to the present, but more importantly when considering future prospects. They become more pertinent as the need increases to formulate strategic projections for the Czechoslovak economy to the end of this century. In such deliberations, which must necessarily precede any strategic planning, the focus should be primarily on making the role of Czechoslovakia optimal, realistic and thoroughly effective, and ensuring a successful development of the economy. The determining factors which have to be considered are diverse—from natural to demographic to technological.

Within this context let us be mindful of certain realities which have to be acknowledged and to which we have to accommodate ourselves with action and foresight, as their impact will be considerable.

At the present time, Czechoslovakia's economic development no longer exceeds that of most other CEMA member countries to the extent that it did in the past, a natural consequence of the process of equalizing economic levels. This applies mainly to total industrial production and fundamental structural differences as, for example, in the case of the machine tool industry:

--differences in the technological level of manufactured products are gradually disappearing;

--a specialized production structure is being currently developing in individual CEMA member countries, which also affects the structure of external economic relations in both their import and export aspects.

Requirements of Intensification

As a consequence of changing internal economic conditions, which make it imperative to base further economic development solely on factors of the intensive type, the economic needs of the European members of CEMA in particular are also undergoing a fundamental change. The most urgent need is for high

quality, for products of world-standard technological parameters, together with high productivity, reliability, excellence of service, etc.

Czechoslovakia's external economic relations are oriented permanently, and to a decisive degree, toward CEMA member countries. These relations represent the main link of our incorporation into the international division of labor. We belong to that group of CEMA member countries which permanently commit the bulk of their foreign trade to CEMA and are even gradually strengthening that commitment (from 64 percent in 1960 to 70 percent in 1970 and 72 percent in 1983). Next to the Soviet Union and the German Democratic Republic, we show the third largest contribution (as much as 11 percent in 1982) to the total exchange of goods realized among CEMA member countries.

The roles which individual CEMA member countries play in Czechoslovak foreign trade differ considerably in their magnitude and are determined by a number of factors, e.g., the capacity of the national economic complexes, economic development, raw material and fuel resources, shipping distances, etc. This is borne out, for example, by the fact that the total share of the Soviet Union in Czechoslovak foreign trade amounted to 44 percent last year, the share of neighboring member countries (Hungarian People's Republic, German Democratic Republic and Polish People's Republic) to 21.4 percent, so that the combined shares of these countries constituted almost two-thirds of our foreign trade total.

At the present time, we are securing 77 percent of our imports of fuels and raw and processed materials from CEMA, of which fully 89 percent is in the form of fuels, minerals and metals; 74 percent of machinery and equipment imports and 63 percent of industrial consumer goods were supplied by CEMA member countries. In return, 80 percent of Czechoslovak export of machinery and equipment is oriented on a long-term basis toward CEMA member countries, and as far as industrial consumer goods are concerned, our exports to CEMA currently stand at 69 percent.

In comparison with world trends, CEMA has been noted not only for its highly expansionary dynamism but also for its comparatively intensive structural changes, especially in those CEMA member countries that are expanding their economies from a lower base.

These changes in the economic potential, which have greatly affected the structure of collective production and led to a weakening of the primary sphere and a strengthening of the role of both the secondary and tertiary spheres, are changing in a fundamental way even the economic needs of CEMA member countries. In the first place, the growth in economic potential is accompanied not only by progressively increasing needs for imports, but also by a tendency to increase the variety of their composition in a way desirable for a rational specialization of national economic complexes. No less important a feature is a growing demand for better technological standards, quality and greater operating efficiency of imported products, particularly of machinery and equipment.

Comparative Evaluation of Developments Up to the Present

A basic fact which has to be taken into account is the changing position of Czechoslovakia within CEMA from the standpoint of the manufacture and export of

machinery and equipment—products which are directly linked with progress in technological development. Without having to go too far back into the past, it will suffice to present and compare developments from the beginning of the 1970's in a simple table:

	/ ^ \	197	8 マンノ	1979	5		82
	(2)	v mld. Rb	v proc.	v mld. Rb	v proc.	v mld. Rb	A bude
BLR (5)		0,5	5	1,4	. 8	3,9	11
MLR (5)		0,7	· 8	1,5	8	2,9	(
) NDK ( D )		2,1	23	3,8	21	7.8	; 2
PLR (7)	••	1,2	13	3,0	17	5,5	1
3 RSR		0,4	4	1,0	5	2,6	
(\$55R(9)		2.5	27	4,5	25	8.1	- 3
) Essr	٠	1,7	19	2.8	16	0,4	1

# Key:

- 1. Total export of machinery and equipment in 1970-1982
- 2. Billions of rubles
- 3. Percentage
- 4. Bulgarian People's Republic
- 5. Hungarian People's Republic
- 6. German Democratic Republic
- 7. Polish People's Republic
- 8. Romanian Socialist Republic
- 9. Union of Soviet Socialist Republics
- 10. Czechoslovak Socialist Republic
- 11. European CEMA member countries total

When considering future prospects, it is necessary to recognize the fact that CEMA member countries will be increasing their efforts to export machine tools, particularly in the case of the Soviet Union. Prospects for Czechoslovak export of machine tools lie mainly in the level of their technical standards, quality and structure of bids, in the intensification of specialized and cooperative relationships amidst mutual high demands for export and import of manufactured goods and components.

One of the fundamental consequences of the great socioeconomic changes which took place within CEMA is the change in the role that products of the agriculture-food industry complex play in the foreign trade relations of Czechoslovakia with CEMA member countries. Overall economic development, especially industrial growth and changes in the social structure, exhausted the original export surplus of agricultural raw materials and food products at the same time that agricultural proudction of CEMA member countries underwent a series of unfavorable fluctuations in the past decade (1975, 1979, 1980 and 1981). That led to a decline in our share of imports of products of the agriculture and food industry

complexes from CEMA (from 13 percent in 1970 to 4 percent in 1983). Products of the agriculture and food industries have for a long time represented two percent of Czechoslovak exports.

However, the significance and task of Czechoslovakia's cooperation with CEMA member countries in this complex are disproportionately greater than the percentages given above would indicate. The focus, however, is shifting to other areas, particularly toward a scientific research base (including genetic engineering), the potential application of materials in production (cooperation is being intensified in the areas of automation and chemical engineering), and, last but not least, the exchange of goods that include a high proportion of industrial end products, especially those of the food industry.

The most complicated problem in developing structure and equilibrium in the foreign trade relations of Czechoslovakia with CEMA member countries—most particularly, however, with the USSR—brings into focus the energy raw material complex in its long-term aspect, especially from the mid-1970's. Given the greatly limited domestic resources of raw materials and the new pricing conditions, all the basic problems of our economy became clearly apparent, most of all the excessive demand for energy caused not only by the structure of industrial production but also by the inadequate utilization of technological developments.

# Balance of Trade Is Stressed

Within the energy-fuel complex, Czechoslovakia stands as a predominant importer from CEMA. For example, 97 percent of our imported fuels in 1982 came from CEMA (95 percent of that from the Soviet Union). Those imports amounted to roughly two-fifths of total Czechoslovak imports from CEMA.

The extraordinary role of the fuel-energy complex in the import aspect of our foreign trade relations with CEMA at the same time greatly influences the whole structure of both exports and imports. The growth of fuel imports (caused predominantly by price increases) is making it imperative to achieve a needed balance of trade. In terms of our economy that means increasing exports of manufactured goods, particularly those of the engineering industries and branches of light industry.

In view of the accepted cost-determining principles in the mutual trade within CEMA, the progression of increases in the cost of energy resources is not yet at an end. It is therefore necessary to keep in mind that the influence of the fuel-energy complex on the structure of our foreign grade with CEMA will continue.

The situation within the fuel-energy complex made it necessary to adapt the Czechoslovak economy to the new, changed conditions. This process, however. requires a complete system not only of short-term measures but, above all, long-term measures designed to accomplish the transition to a production structure more economical in the use of energy and raw materials, to the utilization of new technologies, the more effective use of domestic and particuarly imported fuels and raw and processed materials, the utilization of new energy resources (e.g., nuclear energy), and aimed also at a change in the structure of our external economic relations, including the present pattern of incorporation into the process of socialist economic integration.

Industrial consumer goods play an important role in Czechoslovak foreign trade with CEMA, albeit only in its export aspect. The share of these goods in the total exports to CEMA has remained only in the 16 percent category for the past number of years, whereas their share of imports is substantially lower and has even shown a tendency to decline still further (from 7 percent in 1975 to less than 5 percent in 1983). The exchange of our industrial consumer goods within the framework of CEMA is influenced by a number of factors. The focus is on its strong function of providing means of payment, a necessity brought about by the rapidly escalating costs of fuel-energy imports from the Soviet Union. To be sure, all other CEMA member countries find themselves in much the same situation. Moreover, industrial consumer goods in Czechoslovakia as well as other CEMA countries (not including the Soviet Union) perform an important function as means of payment particularly in relations with industrialized capitalist countries. Understandably, such a stiaution has an impact on the possibilities of further development of trade in industrial consumer goods within CEMA (not including the Soviet Union). However, the need to increase exports of industrial consumer goods increasingly clashes with the needs of the domestic market.

Further opportunities to increase Czechoslovak exports of industrial consumer goods will depend to a great degree primarily on the effective development of production of our industrial consumer goods, their quality, styling, working efficiency and, in no small measure, on imports of industrial consumer goods from third countries (especially other socialist countries, for example, Yugoslavia and China) as well as CEMA countries themselves.

Such imports would undoubtedly contribute to a greater variety in the range of products offered and thus to a more favorable climate in the domestic market, at the same time bringing about an increase in the quality prouction and greater efficiency of industrial goods. This means that it is necessary to strive for an acceleration in broadening the range of products in the industrial consumer goods trade between Czechoslovakia and CEMA, so that the payment function of that trade rightly recedes into the background.

Further growth of the Czechoslovak economy and its transition to an intensive type of economy is predicated also on making more use of the possibilities that lie in the international division of labor, especially within the framework of socialist economic integration. The attainment of a better technological level of products, higher indicators of productivity in collective labor, of efficiency, etc., requires broadly-based and all-inclusive international cooperation. This means that the Czechoslovak economy, and thus all of CEMA, stand on the threshold of new expansion, development, and a total resturcturing of mutual economic relations as well as a new, effective economic mechanism and the institution of mutual cooperation.

12605

CSO: 2400/331

PROS, CONS OF SPECIALIZATION, COOPERATION IN PRODUCTION

Zuerich NEUE ZUERCHER ZEITUNG in German 30 May 84 p 13

[Article by H. Machowski: "Production Specialization in CEMA; the GDR as an Example"]

[Text] The specialization and cooperation in production (PSK) concept subsumes two elements: assignment of the manufacture of finished products to one or several countries (international concentration), and production cooperation among enterprises from two or more countries (international coproduction). In theory, both elements are cost-advantageous.

Facts and Pros and Cons

However, PSK does not only have advantages, but also disadvantages: the manufacturer of specialized products becomes a monopolist; he has a strong position in price negotiations; he is under no competitive pressure to innovate. Because accelerated industrialization has been a priority interest of the CEMA economies since 1945, the disadvantages aren't taken very seriously at this point.

Comecon distinguishes between bilateral and multilateral PSK. The former are the responsibility of intergovernmental commissions, such as the Joint Government Commission for Economic and Scientific-Technical Cooperation Between the GDR and the USSR. Whether, and to what extent, Comecon organizations are also involved—e.g., through the provision of information—is not known, but it is likely. Both the Comecon organizations and the international organizations of the Comecon countries participate—within the framework of their responsibilities—in the preparation of multilateral PSK agreements.

	GDR Snare of PS	DK IId		
		1970 (i	1980 'in %)	1982
1) Intra-Comeco	on-Ausfuhr insges. on-Ausfuhr von	17,1	14,5	13,6
Maschinen 3) Intra-Comeco	und Ausrüstungen	25,5	21,1	22,1
	ter Erzeugnisse	2,5	28,6	25,2
4) Grad der PSI	K-Verflechtung	0,15	1,97	1,87

### Key:

- (1) Intra-Comecon exports, total
- (2) Intra-Comecon exports of Machinery and Equipment
- (3) Intra-Comecon exports of specialized products
- (4) Extent of PSK integration

The legal framework for PSK are either interstate agreements (government agreements, ministerial understandings) or international economic treaties (among the economic organizations of the CEMA countries). Both kinds of agreements lead eventually to interstate trade obligations, that is, PSK trade is subject to the same legal provisions as all CEMA intra-bloc trade. PSK treaties, regardless of why they were negotiated, are implemented exclusively on the basis of bilateral, five-year trade agreements and annual trade reviews; hence, the implementation is entirely under the control of the member country governments.

Status and Developments within the Bloc

According to the Comecon Secretariat, the total value of all reciprocal PSK shipments among the member countries, in 1982, was 13.5 billion transferable rubles (TR). This is 17.5 percent of all intra-bloc exports. Machine construction products (in the very broad definition used in CEMA statistics, and hence including vehicles, electrotechnical and electronic products, precision and optical instruments, etc.) were part of PSK exports which totaled TR 11 billion (or 82 percent). The major portion of the remaining TR 2.5 billion (10.5 percent) was for chemical products.

On the basis of the--not always very precise and consistent--publications of the Comecon Secretariat, some statements can be made (cum grano salis) about the regional distribution:

The GDR is CEMA's most important supplier of PSK; her share was close to 26 percent, followed by Czechoslovakia with 17 percent (they are the two industrial nations in CEMA).

With a 62 percent share, the USSR was CEMA's most important PSK buyer, leading all other member countries by a significant margin (it appears that the USSR uses the PSK agreements—in addition to her raw-material and energy shipments—as a tool for tying the other Comecon countries more firmly to herself).

It follows that PSK trade among the smaller Comecon countries is so negligible that it can be ignored.

In PSK trade, only the USSR showed an import surplus (almost TR 6 billion). All other member countries registered an export surplus; among them, the GDR's was largest, almost TR 2 billion.

Status and Developments in the GDR

By yearend 1980, the GDR had signed 379 bilateral and 102 multilateral PSK treaties with her Comecon partners. As a result of these agreements, the export of PSK products totaled more than 11 billion valuta marks (VM) in 1980; i.e., 30 percent of all GDR exports to the Comecon region (see table). Since then, the growth of her exports has continued at an above-average rate and has increased her share of Comecon exports to 31 percent (in 1981, nearly VM 13 billion) or 35 percent; (in 1982, VM 16 billion). In comparison, specialized products accounted for 17.5 percent in 1982 (in 1970,, 7 percent; in 1980, 14.5 percent) of all Comecon country exports.

The GDR is currently involved to a particularly large extent in this type of Comecon cooperation, as the table demonstrates. The Statistical Yearbooks (Statistische Jahresbuecher) provide no information on PSK imports by the GDR. However, for 1980, the volume can be estimated: According to the GDR magazine Die Wirtschaft (The Economy), that year, specialized products accounted for 22 percent of GDR foreign trade with Comecon countries. If this share agrees with the other known GDR foreign trade figures, this would mean that the value of specialized product sales was VM 16.55 billion; hence—minus the VM 11 billion in exports—imports totaled VM 5.35 billion. Therefore, in 1980, the GDR achieved an export surplus of VM 5.85 billion, while her total trade balance with CEMA countries showed a negative balance of VM 520 million.

In a regional sense, the Soviet market plays a particularly important role for GDR exports. In 1975, some 85 percent of all of the country's PSK exports went to the USSR. This percentage, after a temporary decline, resumed its growth in 1980 and most recently reached 82 percent (see table). In this

connection, specialized machine construction products are of special significance (75 percent of cutting machine tools; 60 percent of all forging and pressing equipment; almost 100 percent of all fishing vessels; 75 percent of all central electronic data processing units as part of the Standardized Electronic Computing Technology System (ESER); 75 percent of railroad passenger cars; and 50 percent of all cranes.

		1970	1975 (in )	1980 (u. VM²)	<i>1981</i> (31)	1982	
11	Ausfuhr insgesamt	13,44	24,32	37,33	41,47	45,69	
-	davon Ausfuhr in die UdSSR	7,32	12,45	20,40	24,08	28,08	
2)	Ausfuhr spezialisierter Erzeugnisse insgesamt	0,13	4,13	11,20	12,86	15,99 13,20	
	davon Ausfuhr spezialisierter Erzeugnisse in die UdSSR	0,07	3,49	7,75	10,11 (12)	13,20	
			•	shme in %)	11.1	10.2	
3)	Ausfuhr insgesamt	-	12,6 1	10.4	18.0	16.6	
	davon Ausfuhr in die UdSSR	-	100	22.1	14.8	24.3	
4)	Ausfuhr spezialisierter Erzeugnisse insgesamt	_	219 3	17.3	30.5	30.6	
	davon Ausfuhr spezialisierter Erzeugnisse in die UdSSR	(Struktur in %) (13)					
(5)	Anteit der spezialisierten Erzeugnisse an der Ausfuhr insgesamt	1	17	30	31	35	
		i	28	38	42	47	
(6) (7)	Anteil der spezialisierten Erzeugnisse an der Ausführ	•					
(,,	in die übrigen Comecon-Länder	ı	5	20	16	16	
(8)	Anteil der UdSSR an der Ausführ insgesamt	54,5	51	53.5	58	61,5	
	Anteil der UdSSR an der Ausfuhr spezialisierter Erzeugnisse						
٠,	insgesamt	54	84,5	69	78.5	82,5	
(13)	Spezialisierungsverflechtung mit der UdSSR*	0,99	1,65	1.27	1.35	1,34	
	Albania, Bulgaria, Czechoslovakia, Cuba, Mongol In current prices. Annual average. Share of specialized product exports in relation						

# Key:

- (1) Total exports
  of which exports to the USSR
- (2) Export of specialized products, total, of which exports of specialized products to the USSR
- (3) Total exports of which exports to the USSR
- (4) Exports of specialized products, total, of which exports of specialized products to the USSR
- (5) Share of specialized products of total exports(6) Share of specialized products of all exports to the USSR
- (7) Share of specialized products of exports to the other Comecon countries
- (8) USSR share of total exports
- (9) USSR share of specialized product exports, total,
- (10) Specialization integration with the USSR4
- (11) In billion VM
- (12) Increases in percents
- (13) Structure in percents

Very little information is available on the product structure of GDR PSK exports. For example, in 1980, more than 85 percent of all GDR specialized product exports consisted of machine tools and electrical-electronic products. Almost 70 percent of all GDR imports of PSK goods fall into these two categories. It seems reasonable to conclude that the already leading export sectors of the GDR economy are most strongly tied into the CEMA PSK system.

# Prospects until 1985

No exact information is available on the reciprocal exchange of PSK products that the Comecon countries agreed on for the 1981-1985 period. The following statistics show that the above-average growth of PSK trade can be expected to continue:

Share of PS	SK Products, in per	cent, of
	(1)	
	Intrablockexport von Maschinen, Ausrüstungen, Fahrzeugen (Gruppe I der RGW-Ware <del>n</del> nomenklatur)	(2) Introblockexport intgesamt
1970	17,5	7
1980	35	14,5
1982	38	17,5
1985 (Plan)	45	20,5

#### Key:

- Intra-bloc exports of machinery, equipment, vehicles (Group I of Comecon Product Nomenclature)
- (2) Intra-bloc exports, total

The socalled Coordinated Plan for Multilateral Integration Measures, which the Comecon countries adopted for the current five years, lists in its section on PSK the export obligations of the CEMA countries, as follows (in millions of transferable rubles):

(1)	Rechentechnik	15 000
(2)	Traktoren und Landmaschinen	5 000
(3)	Chemische Erzeugnisse	1 490
	darunter: energieintensive chemische Erzeugnisse	700
(4)	Wälzlager	1 200
	Spanabhebende Werkzeugmaschinen	900
	Bohrgeräte für Erdöl und Erdgas	850
(7)	Ausrüstungen für Kraftfahrzeugbau	760
	Ausrüstungen für Bergbau	410
	Ausrüstungen für Zuckerfabriken	320
(10)	Summe	25 930

#### Key:

- (1) Computer technology
- (2) Tractors and agricultural machinery
- (3) Chemical products including: energy-intensive chemical products
- (4) Roller bearings
- (5) Cutting machine tools
- (6) Drilling equipment for petroleum and natural gas
- (7) Motor vehicle construction equipment
- (8) Mining equipment
- (9) Sugar production equipment
- (10) Total

These multilateral PSK export obligations should account for 7-8 percent of all-roughly-estimated intrabloc exports for the 1981-1985 period. Only a few details were given on the GDR's industrial obligations. Of the agreed cutting machine tool exports, "over 85 percent of the production is concentrated in the GDR" (that is equal to at least VM 3.6 billion). In her agricultural machinery program, "the GDR specializes in high-efficiency combines, grain cleaners, machines for final cleaning, bulldozers, loaders, conveyors and potato sorting machines." The GDR, together with Poland and the USSR, supplies most of the sugar production equipment.

# Importance and Perspectives

A big problem in evaluating the PSK agreements is, on the one hand, the controversial methodology used, and the lack of complete and accurate data, on the other. As far as the methodology is concerned, it is still not clear today how the effects of international specialization can be quantified. As for the information base, it is not clear how Comecon collects its statistical data. For these reasons, only a few hypotheses can be established.

The almost explosive increase in the export of specialized products from the GDR to the USSR during the first half of the 1970s indicates that this was not due to new export capacity or opportunities. It is more likely that gradually traditional export goods have been included in the bilateral PSK agreements. Thus, the PSK treaties have not accelerated the GDR's trade with CEMA to any significant extent.

Basically, these arrangements can have a trade-creating effect. Purchase guarantees, combined with the requirement not to engage in production, and supply commitments that cause production to expand, could intensify cooperation among the contract partners or at least provide a more stable basis. In addition, PSK agreements increase the exporter's "political", rather than legal commitment to produce high-quality goods on time because the contract penalties in the case of PSK transactions—as in all other export transactions—normally cover only a fraction of the actual damage traused. The emphasis on the "political" obligation to observe the contractual obligations could also explain the particularly intensive involvement of the USSR in PSK trade.

The trade-stimulating contribution PSK can make has been, and continues to be, adversely affected by fear among the bureacrats in the GDR and the other CEMA countries that deliveries are not made on schedule, the products may be of poor quality and the supply of spareparts could be disrupted. These fears have increased because of the large number of instances in which Poland is currently unable to meet her PSK obligations.

With a few rare exceptions, the PSK agreements until now have not been the result of international planning. On the contrary, they have firmly established that the production structures that have historically evolved in the CEMA countries, are permanent and hence binding. There were hardly any production disruptions because of PSK agreements, except for some politically or economically motivated cases. The main reason why the CEMA countries have so far been reluctant to coordinate their industrial policies is the industrialization strategy which in all countries is affected by national interests.

In developing new products or production methods, the CEMA countries are very hesitant to make use of the benefits of specialization through conscious planning to avoid duplication and to apply mass production methods. For that reason, an international industrial policy of the CEMA countries is currently still in its infancy. A critical reexamination of the existing cooperative relations requires more than political will on the part of the CEMA country leaders. In addition, it would still be necessary to create the economic underpinning: dismantling the structural bilateralism of reciprocal trade; narrowing the differences among the national economic systems; making national currencies convertible, at least within the CEMA framework. It is too early to speculate whether the CEMA integration mechanism will go in that direction in the 1980s.

7821

CSO: 2300/521

DEVELOPMENT PLANS OF CSEPEL ENTERPRISES SUMMARIZED

Budapest IPARGAZDASAG in Hungarian Apr 84 pp 42-44

[Unsigned article: "Development Programs of Csepel Enterprises"]

[Text] In previous issues of IPARGAZDASAG, on the basis of the house organ of the Csepel Iron and Metal Works, we gave information about the long-range plans which the CSM Metal Works, the Special Machine Factory Material Testing and Machine Industry Quality Control Institute as well as the CSM Computer Technology Enterprise were making. In the following we set forth details from the same source about the economic development programs of the Iron and Steel Foundry, the Machine Tool Factory, the Transformer Factory as well as the CSM Educational Enterprise.

Central Foundry by 1987

In the Iron and Steel Foundry the goal is first and foremost better use by 1990 of the modern production capacities which came into being in the course of the developments of recent years. It is necessary to turn out products which require and, through their prices, pay back the higher expenses of new engineering and technology. The fact that, in the case of special technical demands, they may be the partners of the consumers increases the enterprise's market maneuverability.

[Question] Aside from better use of the existing technical basis, what kinds of developments is the enterprise planning?

[Answer] According to information from Jozsef Megyei, assistant technical manager of the Iron and Steel Foundry, the starting point taken at the time of elaboration of the long-range program of economic development was that the payment by installments of credits received in earlier years—over and beyond financing of the absolutely necessary standard maintenance—in its entirety tied down the development funds. Consequently, only developments which are quickly remunerative and supported nationwide can be planned.

[Question] What kinds of developments fall into this category?

through the further development of the technological system—with the manufacture of lighter castings with thinner walls. The enterprise considers the startup of production of the increased—output RABA [Railroad Car and Machine Works] diesel engine crankcase castings an important assignment. At the Iron and Steel Foundry they want the reduction of material and energy use to serve in the increase of competitiveness.

Introduction of Supplementary Product Mix in Machine Tool Factory.

It is not so long ago that there were hardly any Csepel machine tools for the domestic enterprises; today, however, the domestic market has risen to be the number one customer. Exports aimed at the CEMA countries received greater emphasis, too. The Machine Tool Factory has had service representation operating in the German Democratic Republic since January; the Romanian service representation began its activity in the second quarter.

Circumstances change and enterprisal business policy changes. Many kinds of changes are promised during the next few years at the CSM Machine Tool Factory.

Besides Machine Tool Product Mix, Manufacture of Other Products Is Also Planned

According to information from Istvan Erdei, director of the Machine Tool Factory, it may be a matter of various kinds of products. Among these he mentions the food industry machines, within these the packaging machines. At present the domestic enterprises obtain the packaging machines from capitalist imports; at the same time, for example, in the food industry the condition for growth of capitalist exports is more modern packaging. The Machine Tool Factory is preparing, first and foremost, for the manufacture of machines and tools which replace shortage goods and bring about imports. To a certain extent these new products can be counterbalanced by the disadvantage that the manufacture of machine tools was to an extraordinary degree at the mercy of the movement of boom and slump.

Therefore, the Primary Product Mix Remains Machine Tool Manufacture

The other products come into play only as supplements. At the enterprises they are really skilled at the manufacture of machine tools. At the Budapest International Fair in the spring, once again the enterprise comes forward with a completely new processing center, the MK 500 machine. In April of last year the enterprise business work partnership in the design department went to work on the planning of the small-scale processing center machine family, and in the spring of this year they were able to present a finished machine. The plan is for the manufacture of five such processing centers in the fourth quarter. According to information from the enterprise, the market demand is great for such small-scale processing centers.

In years past the moving platform version of one machine family (the M machine family) proved to be a successful machine. This machine type is also being developed further with an increase in output and with an increase in paths of motion. The electronically controlled tooth-grinding machine, developed

jointly with the University of Miskolc, is getting started, as well as mass production of the MU 51, CNC controlled cantilever milling machine, which can be turned out at a profit. Development of a new radial drilling machine family, completely different from the types up until now, is also beginning. They want to construct a machine that can be fabricated much more simply and with less work, so that manufacture of drilling machines also becomes profitable.

Search for New Markets Also Plays Role in Enterprise's Plans

In Canada they want to create a joint, independent production and commercial enterprise together with Technoimpex and the Machine Tool Factory Works. Among their ideas is to be found one for establishing a cooperative relationship with the Chinese partners. The cooperation would include the Hungarian or Chinese marketing of machine tools manufactured by each other. But the domestic market can also be considered almost a new market.

According to the hotly debated principle of previous years, the domestic enterprises purchased the machine tools. We sold the Csepel machines on the dollar-clearing market, and at the same time the Hungarian enterprises likewise bought on the dollar-clearing market modern Western machines of similar performance. Now the Machine Tool Factory pays better attention to domestic demands. This year, for instance, they are delivering three robot-operated manufacturing cells to domestic enterprises. Previously, such manufacturing cells were not sold to domestic enterprises. The example taken at random also makes clear that the Machine Tool Factory adapts to changing circumstances.

Expenditure-Centered Viewpoint Gets Greater and Greater Role

One of the most significant cost-saving sources is better use of the producing equipment available. The Machine Tool Factory undertakes wage work for the unutilized producing equipment. Long-range cooperation has already taken shape, for example, they are cutting metal for the MAV [Hungarian State Railwasy] and the Ganz Electrical Works. The enterprise business work partnerships receive the decisive role in the wage work. A subsidiary enterprise was brought into being with the Hungarian National Bank for the utilization of producing equipment. The enterprise, which operates with joint capital, concerns itself with leasing machine tools. Since most enterprises do not have development funds at their disposal, they can help each other by "lending" producing equipment. Likewise, because of a lack of developmental possibilities, today the demand is greater for the general overhaul of existing machine tools. The Machine Tool Factory undertakes such big improvements at home and abroad alike. This is extraordinarily lucrative work, and with a small material share it is possible to obtain a large profit.

Increase in Profitability at Transformer Factory

Like the other enterprises of the Csepel Works, the Transformer Factory also became an independent company on 1 July 1983. The development of product structure, suitability for export and profitability became the most important

questions at the Transformer Factory; these also constitute the main points in the long-term plan.

[Question] To what extent do the regulations of the State Planning Commission and the market force jointly require modification of the product structure at the Transformer Factory?

[Answer] The power-transmission oil transformers, the dry transformers and the choking coils will continue to remain determinative in the product structure arising from the technological endowments of the enterprise. The proportion of oil transformers will continue to surpass two-thirds of production, therefore, development is primarily aimed at the modernization of this product group and the preservation of its suitability for export. The goals of profitability take for granted, of course, the satisfaction of special, individual requirements within the chief product groups, the development of service products and an increase in their proportion.

[Question] What kind of conditions are there for the preservation of export suitability? Are there market worries?

[Answer] At the beginning of the year—for the second half-year—the order book was still not satisfactory. The enterprise exercises a wide range of activity for the protection of its order book. In the interest of profitability objectives, the enterprise was earlier compelled (for instance, in 1981 and in 1982) to exceed appreciably its sales revenue plan. To this end, its commercial activity was brought up to date, the processing time for proposals was reduced, it takes part more and more in competitive bidding, and it adapts itself more flexibly to the market demands.

The fundamental condition for the preservation of export suitability is reduction of the level of expenditures. In the interest of a three-percent reduction in the expenditure level of oil transformers, the installation of a series of plate-crimping machines is planned within the framework of the metal structure reconstruction of the oil transformers. The enterprise, incidentally, wishes to bring about during the next few years the planned production overrun with specific use of materials reduced 1 to 1.5 percent on the average in comparison with previous years, and an 8 to 10 percent cut in energy costs is also intended.

[Question] How did the Transformer Factory close the year 1983?

[Answer] The enterprise achieved dynamic growth in all of the more important indicators. The growth rate significantly surpassed the objectives formulated originally in the middle-range plan. The value of gross production increased 18.2 percent, while as a consequence of austerity measures the specific use of materials decreased 1.5 percent and energy consumption 10 percent. It did cause concern that the enterprise's liquidity fluctuated considerably on account of the gratuitously long processing time of export earnings. The result serving as the basis of the statement of accounts increased some 20 percent in conformity with what was planned. Neither credit payoffs nor progressive taxes burden the enterprise's interest foundations.

[Question] How will the enterprise's profits and profitability take shape in subsequent years according to the plans?

[Answer] In compliance with the stipulations of the State Planning Commission, the Transformer Factory must increase the result serving as the basis of the statement of accounts fourfold by 1985 and roughly sixfold by 1990. They want to assure the planned income growth by a nearly 74 percent increase of sales revenue, by a yearly increase of 1 to 2 percent in the price level, by a direct cost reduction of 1.5 to 2 percent annually, and by keeping the enterprise's general expenditures at the present level.

This means a very large overrun and a powerful increase in profitability. In 1983 the capital/wages ratio profits were 3.4 percent, which must rise to 4.8 percent in 1984, 10 percent in the following year and 15 percent by 1990. This certainly requires considerable efforts from the enterprise, and we must not disregard the fact that this year the regulators became more severe, and on the basis of experiences of recent years their softening is not probable in subsequent years. On the contrary! We cannot predict with certainty later changes in the market situation so many years in advance, and thus the possible losses arising from these and regulatory changes must be counterbalanced. To what extent this will succeed cannot likewise be planned with complete certainty. The purpose and the apsiration of the Transformer Factory are, in any case, to achieve the above-mentioned goals.

# Education in the Small-Enterprise Form

The CSM Educational Enterprise was established on 1 July 1983 from the departments of the Csepel Works Educational and Sociological Institute providing educational assignments. Since then it has operated in the smallenterprise form. The new organizational form also means new requirements, chiefly, that the enterprise be self-supporting in the future and, what is more, that it be a profit-making organization. Director Karoly Strifler gave information to the house organ about the changes and about how an educational enterprise can meet the new requirements.

# Cheapest Investment Is Increase in Expertise

Previously the trust regularly dealt with education; it determined the direction of development, more or less finding the essential points by means of touch. On the basis of these guiding principles the enterprises prepare their educational plans upon which, in the course of conciliation, the trust also exercises influence through the consultative route. Now the enterprises work out their plans without the trust's guidance; in spite of this, for the time being, nothing indicates that the enterprises' notions concerning education would change radically. The enterprises invariably consider educational work important, production continually requires the training of new experts and the refresher training of old ones. It is a platitude, but it is invariably the truth: the cheapest investment is an increase in expertise. If there is no money, then you have to do some thinking.

The resolution of the State Planning Commission stipulated self-support and long-range assurance of 10-12 percent sales revenue rate profit for the

small-scale enterprise. New methods and new initiatives are necessary for thr realization of these goals. Beyond the demands of the Csepel enterprises, the CSM Educational Enterprise must make use of the remaining free capacity. Today the CSM enterprises engage one-half of the Educational Enterprise's capacity, and they pay a sum equal to one-third of the expenses; the rest falls on outside customers.

The CSM Educational Enterprise is associated with Budapest and rural enterprises and is concerned with everything for which there is a demand. Through instruction in fire protection, leadership training, robotics, and boiler technician training to instruction in the statement of accounts of enterprise business work partnerships. Their sphere of activity is thus much wider than before. They organize some 120-130 courses as opposed to the previous 80.

They Broaden Their Clients' Sphere, Expand Their Educational Programs and Employ New, Up-to-Date Methods

They are also experimenting with a video program and voiceover slides. They want to appear on the market with customer-service ideas. According to the conception, various products are recorded on videotape, which would depict, for much less than the expenses of a display, the products to be sold on the different markets.

The interest in language courses is enormous, chiefly on the part of outside enterprises. More language courses are planned than ever before.

They are also making an effort to undertake foreign jobs. They have harmonized their ideas with TESCO [Office of Technical-Scientific Cooperation]. The CSM Educational Enterprise already appears in the TESCO programs sent abroad.

However, the enterprise will first and foremost continue to be at the disposal of the Csepel companies. Newer and newer educational programs are being planned for their benefit. Now, for example, in cooperation with two Csepel companies, the Thermal Power Station and Servicing Enterprise and the Material Testing and Machine Industry Quality Control Institute, they would like to start qualified welder training. Here, incidentally, the advantage of joint premises becomes evident, namely, there is a need not only for an educational basis, but also for serious instrumentation and a well-supplied laboratory, and this is all here in one spot. The CSM Educational Enterprise harmonizes its plans, above all, with the Csepel companies; at the Csepel companies they want to create a basis for themselves and sell exclusively free capacity elsewhere.

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HUNGARY

PRICE OFFICE OFFICIAL QUESTIONED ON PRICE POLICY

Budapest HETI VILAGGAZDASAG in Hungarian 5 May 84 pp 4-6

[Interview with Laszle Racz, department head of the National Material and Price Office by Györgyi Kocsis: "Conversation in the Price Office About Prices and Their Drawbacks"]

[Text] "What you can buy today do not postpone till tomorrow since it may become more expensive"—this could be the slogan of our domestic consumer in these times of rising prices. The recurring waves of hasty purchases often increase scarcity of goods and excessive demand may cause another price increase, above all in the area of free prices. Yet in our national economy the influence of prices that are more or less freely established by the enterprises is constantly increasing. Whether "more" or "less" this was the topic of our interview with Laszlo Racz, head of a department of the National Material and Price Office.

[Question] During recent months buyers have become increasingly disoriented. They hear everywhere: "it is preferable to have the goods even if they are more expensive," whereas in their experience the line of goods in scarce supply is hardly becoming more reduced and what is available is increasingly expensive. Aside from this the polemics continue: the industrial managers blame the price system for the slow pace of economic changes, while you who regulate the prices throw back the ball saying that it is impossible to start the creation of economic pressure at the prices and also to stop at them.

[Answer] Many people are inclined to blame the Price Office for the economic ills and the price increases. However the price system cannot be made responsible for all this in a national economy in which the value categories,—plainly speaking, money—do not yet have a regulatory role. In my opinion prices are growing influential economic factors only when there are consequences attacked to them. I do not mean administrative consequences and sanctions in the first place, but the fact that the existence of a businessman depends on whether or not he is able to offer his merchandise at competitive prices. Our present domestic price system tends to influence the mentality of the managers in this sense, yet its impact is feeble since the environment of the enterprises dictates in many ways other things, for example it makes them keen to avoid risks and outstanding achievements and to progress at a rather slow pace.

Inasmuch as the size of the price increases is concerned, our policy of forint depreciation that aims at exports has prevailed during the last couple of years. This contributed to the increase of the import prices and unfavorably affected the domestic consumer prices. Finally I think that, while developing our macroeconomic management system, we may find the means, methods and measures to reduce the price hikes—which were 9 percent a few years ago and are currently 7-8 percent—to 6-7 percent and even below that.

[Question] Already in 1968, when the bases of the present price system were worked out, we shared the opinion that its proper function requires competition and we thought that this will come about in the process. However since then we have only simulated the existence of competition with foreign markets and, insofar as domestic competition is concerned, it would be senseless to use euphemistic terms, only traces of it can be detected. A recent assessment shows that, although there is no organizational monopoly in the area of industrial consumer articles—in each group of products there are various manufacturers working—there is a production monopoly in the sense that several products are manufactured by one single manufacturer

[Answer] We often hear nowadays that competition alone is able to overcome inflation. However this is fundamentally wrong. We should only remember that there is enormous competition in developed industrial nations and they nevertheless had to wrestle with a great inflation during the last couple of years.

[Question] May I interject at this point that in those countries in some of their important industries, like electronics, competition resulted in spectacular price reductions.

[Answer] In the capitalist countries some of the leading industries often show such performances. For example in the 1950s and 1960s automobile manufacturing was a characteristically price-reducing industry. Later the same occurred in the production of synthetic materials, at one time even in energy production and recently in the electronics industry. The crux of the matter is that these countries abated inflation by the kinds of economic policies we cannot imitate, for example by widespread unemployment.

It is easy now to appreciate the 3-4 percent American or West German inflation rate, but the methods by which they accomplished it are not acceptable for us. We have to look for other means to overcome rising prices; for example we should improve domestic productivity and management of materials in order to curb our imports. Ultimately we may expect improvement only from the modernization of our economy. Of course macroeconomic management has a great responsibility in allowing and even enforcing modernization of production.

[Question] In Hungary consumers are used to official price hikes even if they do not acquiesce in them. But the increases in the free prices, which became numerous recently, seem to have prompted more emotional

reactions. Many people consider them incalculable and unexpected attacks on their wallets. People's skepticism has been enhanced by such paradox press statements as "the continuous price increases have become in recent years the means to increase profits in the enterprises" or "price increases became necessary because of rising costs."

[Answer] In my view just the contrary is true: without changes in prices the profits of the enterprises would be at present 4 percent bigger than they were in 1980 and the average gross earning of the industrial enterprises would be around 13 percent instead of the current 9 percent. According to our calculation production costs rose in Hungary between 1980 and 1984 3.5-4 percent more than prices. The working of the prices compelled the producers to reduce their costs by 1 percent yearly in order to keep their profits even. And this shows that there was approximately 25 percent of the increase in the costs that the manufacturers were unable to charge to the consumers and they had to produce this difference by their own means

[Question] The price-indications of the yearly plans deal separately with the development of official and free prices. How can free prices be planned? Aren't the managers going to interpret the publicized price-level announcements in the plans as a sort of command?

[Answer] The methods of planning free market prices are to the point: the official price-plans are available, the changes in the regulator system are known and we can estimate their impact on the prices. Moreover we eventually take into consideration the international price advance notices and all other pieces of information provided by our foreign trade enterprises and domestic and foreign economic research institutes. The figures thus obtained are generally of prognostic value and they usually become true with a very small margin of errors. However the advance notices concerning increases in the free prices are providing only general information for the enterprises, since they concern at best only the prices of product groups. Enterprise level planning is of recent origin. Thus the enterprises can hardly consider the figures of the plan as commitments to be met. Moreover no manager may consider himself exempt from the general rules of price-planning under this provision.

Insofar as the relations between the two categories of prices are concerned, the share of the official prices in public consumption is approximately 43 percent and that of the free prices 57 percent. From this year's planned 7.5 percent price increase the former are expected to be "responsible" for 3.9 percent and the latter for 3.6 percent. During the last couple of years we have followed a very cautious policy course above all in the area of official prices. Thus when the rule of value-oriented price-planning was introduced we found the greatest backlog precisely in that area and we had to reduce some inordinately big subsidies to acceptable proportions or had to suppress them altogether. Thus a major portion of the price hikes occurred just as a result of the increases in official prices.

There are many built-in safeguards in our price system against excessive increases in free prices. For an illustration of this point let me note that in the largest sector of the free prices, i.e. in the so-called competitive production sector which falls in line with the export-prices, the guide-lines for price-planning fill 50 typewritten pages.

In the non-competitive sectors two-thirds of business is done on the basis of official prices, and the calculation of free prices, which are used in this sector, is strictly controlled by us. The enterprises have to prepare calculations that are checked by the price authorities and if they include expenditures that the authorities do not find justified, or if certain enterprises under scrutiny are applying disproportionately high prices in comparison with their counterparts, the state organs may institute various sanctions against the culprits ranging from disciplinary procedures to criminal prosecution. I wish to cite only one example of the way the authorities curb the enterprises' attempts to increase prices: recently we granted only half or two-thirds of the price-hikes that the sweets, dairy and chemical industries had applied for.

[Question] The above mentioned free price increase package decreed on March 6 provided for many a test for studying the many contradictions of our domestic free price movements. Although the prices of the sweets industry are free, freedom in this case is that of the monopolistic manufacturer since these products are made by factories in monopolistic situations, that bars the consumer from patronizing another manufacturer whose product sells at the old price or even cheaper. On the other hand the manufacturer cannot increase the free price except with the permission of the National Price Office. This is all right from the point of view of the consumers' interests but it is at cross-purposes with the principle of enterpreneurial independence. And finally all this is made public in the media. The consumer was able to learn about the just mentioned price hikes from identical announcements in the daily press and these smacked of "official prices." However the announcements were published among the advertisements and these seemed to suggest that the Price Office turned its back to them saying: "this is not my business."

[Answer] In the referred concrete cases we had to undertake a reorganization of the production prices because of widespread increases in the prices of materials. In such instances we always review the impact of those prices upon the consumer prices. Insofar as the competition between free prices is concerned, we are working at present toward creating for them the environment and the system of conditions in which attempts at price increases are curbed in routine ways by cooperation among enterprises and contacts between consumers and vendors. For this we need strict purchasing power regulations in order to keep the balance between the money in circulation and the value of goods on the domestic market.

Another solution would be to increase competition that would then assure the balance between purchasing power and value of goods on a higher level. I am aware of the fact that import competition would be an indispensable element of a real and stimulating competition pattern. But in view of the

present financial situation of our country we can resort to this method only cautiously and gradully. However, domestic competition could certainly be more intensive. I am convinced that in the food and clothing industry market competition could be much more lively if a more pluralistic enterprise system and above all a more competent business apparatus existed. And this would obviously have a price-cutting impact.

In reply to your second question I would like to note that for about 25 percent of the free prices there is a notification duty, i.e. the enterprises have to notify the National Price Office about their intention to raise prices and the Office has the authority to suspend the price hike for 3 to 6 months. And may I add that it may become necessary to extend somewhat the range of prices the increase of which must be notified. During the term of suspension we examine the underlying causes of the price increase, for example whether the proposed price is not too high and whether it does not yield unfair profits. If our scrutiny finds the price increase unjustified, we notify the enterprise involved and if it nevertheless raises the price in question we institute criminal procedure against its management. It should be also mentioned that during the months of suspension we should point out, more strictly and intensely than before, what the provisions are by which the enterprise could reduce its expenditures and avoid a price increase.

By the way, there are two million different products made in Hungary and thus it is impossible to examine whether the price-hikes of such products which do not belong to the category of items under notification duty was justifiable or not, except a posteriori on the market and when the enterprise is audited. If it comes to light that an enterprise calculated unfair profits, that may have grave consequences for both the company and its managers. If personal responsibility can be established, criminal proceedings may be instituted, the enterprise penalized and if possible the customers must be indemnified.

Insofar as the information of the customers is concerned, I think we should improve it. We are therefore working right now on making our information system more efficient. Yet in my personal opinion it is not worthwhile to overwhelm the journalists with announcemnts concerning price increases, after all no one goes shopping with a newspaper at hand. You may argue that the defenselessness of the buyers could thereby be alleviated. Yet I think that their haplessness cannot be helped by announcing each price increase, even the smallest one, but by helping them realize whether the price that was increased is right or not. Therefore it is also important that we strengthen our price control.

[Question] This is certainly important but it is still an a posteriori solution and no substitute for market incentives and for price self-control as a way to obtain customers. The lines of questions concerning prices are interminable, yet there is one thing that we still have to discuss. Until now when speaking about enterprise we meant producing enterprises while commerce has a significant role in shaping prices. What is the role of commercial enterprises in the establishment of prices?

[Answer] I of course agree that the most practical way is to strengthen the buyer's position. Moreover the price policy of commerce is regulated by strict, administrative rules, the crux of which is the suggested price-gap. This contains a portion of profit over the production cost and the expenses of the shopkeepers. The latter may deviate from this by using the interplay of supply and demand, but only if they grant price concessions at the same time in another group of goods. However the commercial enterprise cannot augment its benefits this way. It can do so by shopping at discount prices from a producer on the countryside who is far from its headquarters. The gains thus achieved can be In fact the commercial enterprises can use this method only retained. under limited conditions, although in my view they hardly exploit the pertinent possibilities. But if commerce had entire freedom to act according to the rules of supply and demand, this would lead in the present market situation--in which competition is missing and demand is on the whole excessive--to an inevitable acceleration of inflation.

# Principles and Rules

Since the 1968 reform of macroeconomic management a two-level price mechanism has been operating in Hungary in which prices are established in part by the state authorities, but the market operators are making a larger part of them. Accordingly there are two categories of prices: the official and the enterpreneurial, the so-called free prices. Part of the official prices are fixed. The state applies such prices to areas in which it wishes to exert a direct influence upon the regulation of supply and demand (for example the prices of meat, fuels, electric energy, flour, sugar and public transportation). The majority of official prices have an upper limit, i.e. the sellers may ask lower prices than prescribed if this is in their interest (for example in order to avoid possible damages due to storage and ageing, they may offer their merchandise at lower prices). The third category of official prices have an upper and a lower limit. The lower limit serves in agriculture as a protective price. The state procuring organizations cannot pay lower prices for certain products to the farming enterprises than the protective prices. In case of an upper price limit the authorities fix a so-called central price for the product which cannot be exceeded, except on the basis of the buyer's and seller's previous agreement and for a maximum of 4 to 12 percent. (This price category is characteristic for certain non-basic food products in which the choice is wide, for example canned food and also for books). When fixing the prices the state authorities too have to take into consideration the market conditions, lest they would cause scarcity or overflow of goods.

The enterpreneurial free prices are to be calculated according to certain government rules. The enterprises have to prepare a cost calculation along the rules set forth by the state. The seller and the buyer may change the calculated price by common accord, but the deviation from it has certain, centrally prescribed, limits. For example in industry a selected group of enterprises must abide by the foreign trade price

shaping rules. Further in each economic sector only such prices may be established which do not run counter the rules concerning honorable profit making. The price authorities make the price increases of certain products specified by law dependent on proper notification. In such cases the authorities may veto the proposed price increase within 20 days. The validity of their veto cannot exceed 6 months. During this time the authorities have to see to it that the market balance be restored or they must take financial measures to moderate or make the price hike unnecessary.

The free market prices of agricultural products are not curbed by any state regulation. However, excessive intervention of middlemen is prohibited. In other words it is not permissible to create two wholesale trade or two small trade price-gaps on one single product.

The percentage of profits included in the price estimate is not limited, but as a rule the enterprises cannot sell their products at higher prices than those applied by others on identical or similar products. This is the rule of the disproportionatley high prices.

The right of the enterprises to fix their prices includes their right to change them, promoting thereby rational economic selection.

Price setting by small traders and enterprises which put out a large selection of goods is made easier by the system of suggested prices, suggested fees and suggested price-gaps. Those who offer their products at suggested prices are not supposed to make dishonest profits. Suggested prices are being used by several machine and clothing industry enterprises, suggested price-gaps are current in the sale of consumer goods and suggested fees in the construction industry and several services.

(Chart on following page)

The proportion of Official and Free Prices in the Percentages of Sales during 1983

	Official Price in the percentag	
Production Prices		
Industry (including food industry)	20	80
Construction Industry	75	25
Agriculture	63	37
Transportation	77	23
Others	15	85
Total of material production	30	70
Material production without industry	58	42
Consumer Prices		
Foodstuffs	69	31
Delicacies	68	32
Clothing	2	. 98
Hardware, technical and cultural items	22	78
from them: vehicles	90	10
Chemical products	68	32
from them: carburants	99	1
Wooden, paper and construction materials	30	70
Fuels	100	0
Services	45	55
Totals:		

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CSO: 2500/354

FOREIGN TRADE RESULTS FOR 1983-1984 DISCUSSED

Budapest KULGAZDASAG in Hungarian No 4, Apr 84 pp 3-13

[Article by Andras Patko: "Hungarian Foreign Trade in 1983 and 1984"]

[Text] The author provides detailed information and draws conclusions about the processes which took place in the Hungarian foreign trade in 1983. Among other things he concludes that they succeeded in achieving a significant surplus in convertibly accounted trade, under unfavorable external conditions and with great domestic efforts. In the meanwhile a very great burden was placed on the entire organization of foreign trade which is in the process of transformation during the course of conforming to the conditions. There is also tension in the 1984 goals. The first experiences show that first of all further efforts must be made in industry in the interest of reaching the goals. More dynamic growth after 1984 requires as fast and flexible reaction as possible to the changes in external conditions. Improving the interests of enterprises and individuals and more courageous application of new foreign trade formats and methods will be necessary for this.

How was 1983, and what will 1984 be like? These are not easy questions since it is very difficult to give an opinion about foreign trade "by itself." So many things influence its results: economic environment in the world, the international political and economic situation, the Hungarian economy's domestic growth, our domestic problems and achievements, and we could keep on listing these factors—"external" only from the viewpoint of foreign trade. But can we really say that in this country the results of foreign trade depend only on such "external" factors? Or behind the results and problems can we consider that the work of the narrowly interpreted professional apparatus also qualifies? Obviously only one or the other approach covers extreme opinions. Yet we can examine the reasons, the useful measures, the failures, the forcefulness of economic processes, or even the determined nature of our foreign markets which we can not modify.

In this labyrinth we are trying to evaluate last year and define the prospects and tasks for this year. The person preparing the balance is not only

studying the numbers and striving for completeness through strict accounting of the partial areas and interrelationships. Rather, the next few pages are more of a mosaic of thoughts—a product of reflecting on our own work.

It would be difficult to deny that realistic evaluation called for serious efforts in 1983 in order to reach the goals. But what really were our national economic goals in 1983? Our main economic policy goal was to continue to maintain the country's paying ability. In the interest of this we had to achieve a surplus in our foreign trade balance, an improved one in comparison with the previous year. We have also subordinated the domestic processes to these main goals: trying to decrease domestic consumption and maintain the population's supply. The economic organizing measures during the year also helped with this.

# Development of External Environment

The external medium of foreign trade results did not develop favorably for us last year. The significant upswing predicted for years and based on the U.S. economic recovery did not occur in the world economy in 1983. The very modest sized improvement of the business cycle was unable to counterbalance the consequences of the severe recession of previous years. The majority of capitalist countries last year also continued to battle against the many illnesses of economic recession and crisis: unemployment, provincial crises, inflation, rapid deterioration of the financial situation, and within this, solvency.

Actually the area of developed capitalist countries was not exempt from this either. Even though the business cycle did improve somewhat, production increased, and compared to the previous year national production also increased (between 2-3 percent), in reality the economic upswing did not gain serious momentum in 1983.

For the first time in several decades, international trade volume decreased in 1982 compared to the previous year. Even though the trend reversed again last year, and a very modest increase (1-2 percent) was seen, at the same time the market's growth at our traditional customers (primarily in Europe) was even more modest than this.

The critical situation, the crises which have been dragging on for years have also disheveled the rules of play in international trade. Protectionism continues to be present and has a strong effect on trade policy, bilateralism has gained strength, monetary relationships are becoming narrower and very often the economic policy decisions of some countries are hectic.

We must also mention the effect caused by the worsening of international relationships, sharpening of the international political situation and deterioration of the East-West relations. As a consequence of this the political viewpoint often enjoyed an advantage over the economic and commercial considerations—it negatively affected the relationships between socialist and capitalist countries.

The situation was no more favorable in the economies of the countries of the developing world either. Their position further deteriorated in 1983, which in part is the consequence of the unfavorable development of the world's economic situation (low prices, sharpening monetary crisis, constant payment problems, etc.) and in part resulted from the multiplying crisis effects of the world's political and local tensions. One of the characteristics of the economic difficulties of the developing world in 1983 was that the position of oil exporting countries also rapidly deteriorated. This also affected our selling opportunities on the market, since these are significant receiving markets for Hungarian products. And finally it is worth mentioning that the fight for sales on the markets of the developed capitalist countries, the competitive situation became sharper, and the diminishing export opportunities naturally also made the economic possibilities of this group of countries much more difficult.

Hungary's foreign trade worked in 1983 in the capitalist world in such a foreign market situation. We did very significant business in ruble accounted trade on the markets of the CEMA countries. The role that these countries play in our lasting relationships which stabilize our trade and economy continued to be implemented. At the same time a series of economic problems also occurred in 1983 in this area. On the one hand the socialist countries had to solve economic problems representing increased burdens resulting from the problems of their own internal growths. On the other hand they were also battling very serious problems similar to ours (though appearing with different intensities) in their international economic relationships. They were also hurt by the sharp competitive situation appearing in international trade and, though in a different way, serious pressures descended on their trade balances because of their capitalist payment situations as a consequence of tensions on the international monetary and credit markets.

# About Domestic Economic Growth

As far as the domestic growth of the Hungarian economy is concerned, we can characterize 1983 by the serious efforts we made in reaching the economic policy goals we had set. Adequately increasing production and within this the industrial production, certain cutbacks in the investment activity, decreasing the domestic consumption of the national product produced, and proper control over the purchasing power leaving the country played very important roles in 1983. This was coupled with the tasks of increasing efficiency, developing more economical production, and maximum assistance to the foreign trade goals. We were able to implement the majority of the defined tasks, but we did not succeed in achieving all of the goals set in the plan. Industrial production fell short of the plan, domestic consumption and the purchasing power leaving the country exceeded the designated levels, and in the final analysis this made it more difficult to reach the economy's export goals. The production losses and the volume of products "consumed" on the domestic market in excess of what was planned decreased the export merchandise base. In the interest of the main goal we had to commit a major portion of our resources to ensure the balance, and this conflicted with implementing the efficiency and structure modification goals. The 1983 modification of

the regulations—even though they provided incentives to export—was unable to fully ensure the planned proportions of national economic growth. In the interest of export numerous special measures and organizing activity were necessary.

Under such circumstances it is really favorable that in the final analysis we can qualify 1983 as basically successful from the foreign trade viewpoint. What are the results of this success that can be expressed in numbers? It is by all means positive that even with such foreign and domestic difficulties we succeeded in realizing a more than \$550 billion surplus in the convertibly accounted trade, calculated at border parity. Within the year's performance it is on the one hand favorable that export to the developed capitalist countries increased even under such circumstances, and on the other hand that a surplus was realized even in the individual months. This was a particularly important result from the viewpoint of continuous maintenance of our solvency.

The nonruble accounted import fluctuated near the 1982 level. It reflected that the opportunities in our import are still defined. It assured that the economy operated continuously and also that in accordance with our political goals the population's level of supply did not deteriorate. And finally—as there is also something good in every bad thing—it can be mentioned as a positive feature of the last year that the stricter economic operating conditions in the final analysis encouraged the enterprises for more frugal and more efficient work. This frugality could be seen in materials, energy consumption and certain import products.

Table 1. The Foreign Trade Volume (In billion forints, at current prices)

(1) Évek	(2) Export	$(3)^{\text{Előző év}}_{=100\%}$	(4) <sub>Import</sub>	$(3)^{\text{Előző év}}_{=100\%}$	(5) Osszes ( forgalom	3) Előző év = 100%
1980	281,0	•	299.9		580,9	# · * · · · · · · · · · · · · · · · · ·
1981	299,3	106,5	314.9	105,0	614.2	105,7
1982	324,5	108,4	324,8	103,2	649,4	105,7
1983	374,1	115,3	364,9	112,5	739.0	113,8

## Key:

- 1. Years
- 2. Export
- 3. Previous year = 100 percent
- 4. Import
- 5. Total trade volume

The ruble accounted trade with its important role also contributed to the implementation of the national economic and foreign trade tasks. Taking into consideration the expanding export and import in this area (measured in forints) the total Hungarian foreign trade volume—with faster export dynamics—increased in 1983 by almost 14 percent compared to the previous year.

Development of Foreign Trade in the Ruble Accounted Relationships

Even though the community of socialist countries had to overcome very serious economic difficulties in 1983, trade within their circle still insured the necessary foreign help for accomplishing their tasks. As far as Hungary's ruble accounted traffic is concerned, last year our trade balance with the CEMA countries deteriorated a little. If we look at it in terms of value, then the 5 percent greater than planned growth of import exceeded--considering its dynamics--the approximately 2.5 percent greater than planned growth rate of export. Behind the numbers naturally the faster growth of export's volume compared to the previous year is concealed (8 percent versus 2 percent, respectively). The net balance of our ruble accounted trade, at contractual prices, was somewhat over a deficit of 400 million rubles, which compared to the previous year means a decrease of deficit. In this respect we suffered exchange rate losses because the price level of exported goods has risen less than that of the imported goods, and thus a net price loss on the order of magnitude of 190 million rubles developed. Even though the process departing somewhat from the plan, the greater import represented a very significant external surplus, source in 1983 to fulfill the domestic needs, "working this off" will burden the following years.

We must mention separately the merchandise trade conducted with the Soviet Union, which at current prices increased by more than 15 percent compared to 1982 and approached 8 billion rubles. Considering its weight it is typical that this relationship, the Hungarian-Soviet merchandise trade makes up more than one-third of our entire foreign trade.

In earlier years two item groups represented more than 65 percent of our ruble accounted export: materials and semifinished products, and machinery and equipment (22 and 43 percent, respectively). Last year the export of both item groups increased faster than the average within the socialist sphere. While in the first item group most of the increment consisted of chemical industry raw materials and spare parts, among the machine industry products the export of complete facilities, highway vehicles and agricultural machinery increased. As a result of this the traditional characteristics of merchandise composition grew even stronger in the course of last year.

In the import merchandise composition the energy sources provide nearly one-third of the total trade, and the group of materials and spare parts has similar weight in our import. In 1983 the import of both large item groups increased rapidly, the former by 11, the latter by nearly 15 percent. In the latter, besides spare parts the chemical industry materials played an important role. Besides the known difficulties of import from the convertible markets it is very positive that the import of machinery and equipment also well exceeded the plan--increasing by over 10 percent. These few data above also indicate at the same time that the processes of recent years did not cause significant changes in the import structure either.

Trade Conducted in Convertible Foreign Currencies

We have already mentioned earlier the results of this trade relationship. The volume of convertible export, even though it fell somewhat short of the plan, has increased by almost 6 percent over the previous year. The import also exceeded the previous year's slightly. If we strictly evaluate the last year's performance, a few problems must by all means be mentioned. One is that the branches—with the exception of the chemical industry—fell short of the planned export volume, and it is especially unfavorable that a significant portion of this shortfall was in the machine industry. We can find domestic ones among the reasons, such as, for example, shortages in material supply and manpower, or problems in cooperation among the enterprises. There were also external problems. Such is, for example, the increasing difficulties to pay by the developing countries which are a significant market for our machinery export. Even though in terms of value the food export fell short of the plan, but primarily this is the consequence of the very unfavorable development of prices and of the already mentioned drought.

The development of our export and import prices significantly influenced the foreign trade processes. In 1983 our price level in terms of dollars decreased by almost 10 percent in our export, while in our import a 7.5 percent price decline could be put in terms of numbers. As a result of these two price changes our exchange rate deterioration varied around \$180 million, and this required additional export efforts in the course of last year. We can seek the reason for the deviating price tendency in the fact that large price decreases occurred in 1983 (compared to 1982) in the products we export, and this affected most severely our food industry products.

More than half of the export price loss realized as a consequence of price decreases developed in this product group, and this affected the slaughter livestock (cattle and poultry) as well as carved pork and beef. Price erosion was significantly less in the case of fresh vegetable and fruit products.

In evaluating the 1983 price processes the gain in the dollar's exchange rate against the other hard currencies must also be mentioned here. Since this particular currency has a significantly higher portion in our export than in our import, the strengthening of the dollar provided us with some exchange rate gains.

Mentioning a phenomenon which has been repeating itself for years is part of the completeness of the sketchy picture given about the development of exportimport. The year-end peak in trade has by all means brought and brings into existence an unhealthy ratio shift in 1983 also in the distribution of trade during the year. In December of last year about 18 percent, that is, almost one-fifth of the total export took place. As far as the structural composition of our convertible trade is concerned, similarly to the ruble accounted trade, no meaningful changes occurred last year. The weight of machinery decreased slightly in our export, and the weight of materials and spare parts increased somewhat. A similar process took place in import. A slight decrease in the weight of the food industry in export is also noteworthy.

Table 2. Merchandise Structure of the Convertibly Accounted Foreign Trade (On foreign currency basis, total = 100)

	Ext	port	Import	
	1982	1983	1982	1983
1) Energiahordozók, villamosenergia 2) Anyagok, félkész termékek,	1,9	3,8	0,5	0,9
alkatrészek 3) Gépek, szállítóeszközök,	31,5	34,4	63,4	64,0
egyéb beruházási javak	16,7	15,0	15,8	13,7
4) Fogyasztási iparcikkek 5) Élelmiszer-anyagok, élőállatok,	14,1	14,5	8,6	9,3
élelmiszerek	<b>35,</b> 8	32,3	11,4	12,!

### Key:

- 1. Energy sources, electrical energy
- 2. Materials, semifinished products, spare parts
- 3. Machinery, transportation equipment, miscellaneous investment goods
- 4. Consumer industrial goods
- 5. Food materials, livestock, foods

No significant changes occurred in the export merchandise structure in the developed capitalist relationship. At the same time, in import along with the decrease in weight in other product groups, the import of food industry products (mainly fodder) increased significantly. Only one change worth mentioning occurred in the merchandise structure of trade conducted with the developing countries: the machine industry's high share (over 40 percent) was approximately by the group of materials and semifinished products with the ratio of more than one-third.

An interesting "relationship" change took place last year in the convertibly accounted trade. The phenomenon had prevailed as a tendency since 1980, that in export the weight of the developing countries increased every year, at the expense of the developed capitalist countries. Last year this tendency reversed and while trade with the former group decreased by almost 8 percent, our export to the developed capitalist regions increased by more than 4 percent. It is generally known that we also do very significant trade with the socialist countries in convertible currencies. All in all this trade in 1983 was very important in developing the balance of the convertibly accounted trade, but compared to the previous year it played a slightly decreasing role.

As far as the composition of import relationships is concerned, a similar ratio shift could be observed here in previous years, though a more modest one with respect to its extent: the weight of the developing countries increased also in import. In 1983 the weight of import from developing and developed capitalist countries decreased, and the role of the so-called free currency socialist trade increased somewhat.

Some Changes in Foreign Trade Organization

The foreign trade processes described above, and the increasingly difficult external conditions of the activity in 1983 also required very intensive

work from the professionals dealing with and working in foreign trade. The economic organizing measures, maintaining intensive contacts with the producing enterprises, and the task coordination and negotiation system served well the implementation of economic policy tasks related to export. There was also a great burden on the entire organization, the professional apparatus of foreign trade.

For this very reason great emphasis was placed in 1983 on one of the significant tools of improving the efficiency of our participation in the international sharing of labor, developing the organization of foreign trade to conform to the changing requirements of world economy and foreign markets.

As a result of the transformation of foreign trade organizations which took place last year the number of enterprises conducting independent foreign trade activity increased by 29 and thus there are over 210 state and cooperative enterprises or economic operating units today authorized to conduct foreign trade activity. In addition to this the "traditional" relationships, cooperation between the specialized foreign trade enterprises and their domestic employers further improved. Besides this strong efforts were seen in setting up foreign trade enterprises on the basis of joint interests, to serve the implementation of accepting risks and responsibility. The number of this type of organizations increased rapidly last year also with activity primarily in export.

Parallel with the change and diversification of organization the requirements made on foreign market work also rapidly increased. This required more intensive work not only from the workers of the trade offices working abroad, but the enterprises themselves also took a more active part in building the foreign market organization (for example, the number of enterprise representatives and joint enterprises increased). They also made it a goal to further develop a flexible sales and purchasing system which can adjust quickly and identify and exploit the market's opportunities. But this can be established only if the concrete implementation always takes the domestic background into consideration as well as the actual capabilities of the Hungarian enterprises.

And finally it must be mentioned that the increase in foreign trade tasks, the weight and significance of the foreign trade issues, the increasingly difficult foreign market work, and the more and more complex and complicated domestic activity required an even more high quality performance in 1983 than before from the management of foreign trade. It required and also requires today that the central management of foreign trade be modernized, that the changing conditions be conformed to, but also that management do everything in the interest of maximum implementation of the foreign trade goals of the branches according to the possibilities.

Tasks for 1984

Our basic economic goals are not changing this year either. Our main task is to preserve our international solvency and solidify the foreign trade

balance. All this at the same time also means that we must also achieve a significant export increment this year, one that even exceeds last year's, in our convertibly accounted trade.

What are the starting points in defining the tasks? The first one is that the external circumstances will not significantly improve for us in 1984 either. We are not expecting a significant improvement in strength to energize the entire world's economy, and we also judge that the market and sales opportunities will remain unchanged. We are also not expecting our position to change in the international monetary and credit system. On the contrary, we must also expect that certain partial phenomena which began in 1983 and point in the direction of deterioration will continue to exist. Such is, for example, the fact that, due to payment problems of the developing countries, on these markets our selling opportunities may further shrink. These problems appearing in certain areas are also making our general situation worse. And finally it also makes our situation more difficult that—just like us—our socialist partners must also face very serious tasks this year in the area of improving their foreign and domestic balances.

It is a precondition for solidifying the foreign trade balance and creating a foreign trade surplus that the processes in the domestic economy which lay down the foundations for this—as in previous years—be implemented. The foundations for these goals must be laid down by increasing production, specifically more efficient and more economical production, by modifying the structure according to the possibilities, and by keeping the domestically consumed national product within strict limits, in the interest of insuring by this an increased export by the national economy. Thus in addition to this year's growth of the economy it is important that a modest decrease in domestic consumption and a cutback of investments create the capacity and merchandise base for increased export. Our economic policy goals also defined that the population's consumption must take the shape of the previous year's level.

As far as the 1984 changes in the regulatory system are concerned, hopefully these will increase the interest in exporting. At the same time the economic organizing work aimed at improving the foreign trade balance will continue to have an important role. In the interest of this the economic organizing activity for 1984 has already begun in September 1983. This will continue to be aimed mainly at uncovering additional export merchandise bases, preventing factors which hinder production, and at saving material and energy.

In the convertibly accounted trade the basic goal is to realize a significant increase in export. At the same time the tension is already now beginning to appear, whereby the more unfavorable development of price situations than had been prognosticated—without any change, characteristic price increases can not be expected in our main export merchandise groups—requires us to achieve an even greater volume increase in 1984 than had been planned—thereby counteracting the price income we lose. The price tensions continue to be largest in the area of food industry export and during the course of the year this will foreseeably become permanent as a general phenomenon.

The fundamental requirement for 1984 is that industry should accept a definitive role in the increase of export, even greater than before. Fulfilling the convertibly accounted export tasks calls for significant efforts also in the trade policy of the various relations since the markets being lost or narrowing down will by all means have to be replaced in other sales regions. This at the same time is coupled with that expectation related to structure modification that we try to counteract the relationship tensions with better quality products at higher levels of processing. And finally, in connection with 1984 it must by all means be viewed as an important viewpoint that with well scheduled production and export fulfillment we should avoid the disproportions in the distribution of trade during the year and the harmful effects of the year-end rush.

The level of 1984 import will be determined in addition to our all time solvency position basically by the expansion of export. This means that additional export over what is planned will also make additional import possible. Naturally it will also prevail that (besides certain improving tendencies) the expectations of economical utilization of our import will remain unchanged. We are not expecting processes different from 1983 in the development of import or in structural tendencies.

In the ruble accounted trade an important goal in the interest of counterbalancing the rapidly increasing import already mentioned in connection with the previous year is that our export should grow faster than our import. This can insure that an equalized balance of payments develop in the ruble accounted trade in general (but this is also the expectation of some of our socialist partners). The yearly merchandise trade agreements concluded and signed on time provide the proper basis for implementing this goal. The efforts must now be directed at the complete fulfillment of the projections, in such a way that the maximum fulfillment of export obligations, on time deliveries, and observation of the contractual obligations ensure the import the national economy needs. Our import is actually also developing in 1984 according to the budgets and opportunities provided by the export, or to put it more simply, it is true also in this sales direction that inasmuch as the further growth of our export will be successful this may expand the entire merchandise trade with our socialist partners. Similarly to the situation which has developed in the convertibly accounted trade, here also the implementation means a task for the export of the processing industry and the machine industry.

## Past Experience

The experiences of the first 2 months of 1984 indicate that the goals continue to be tight. On the one hand a decline was seen in the first month of the year after the trade peak at the end of last year which we mentioned before. Based on the first data experienced, the measures taken in the interest of fulfilling the export show that further efforts must be made primarily in industry in the interest of realizing the goals. Even though the backlog of orders shows a somewhat improving market situation in certain partial areas, for example in some branches of light industry, basically the market

prognoses continue to judge the development of the external environment pessimistically. The experience of the first 2 months also proves that besides the problems in the relationships we must concentrate our future resources on counteracting the price tensions. There has been no perceptible improvement from the international crisis situation in the few large branches which play a significant role in our export, and the market work has to be conducted under conditions similar to last year's. In summary the implementation of tasks and goals in 1984 will have to be accomplished under circumstances similar to last year's, or in some cases under even more difficult ones.

# Our Foreign Trade After 1984

The recent years, but also our concrete economic present place into contrast the daily economic, foreign economic and thus, of course, also the foreign trade tasks with the steps which have to be taken in the interest of the medium and long range goals. This conflict, of course, in many cases gets resolved in such a way that amelioration of the actual situation, solving the daily problems receive priority over the longer range issues. One good example for this is the process taking place in the ratio of consumption and accumulation. Here in the interest of solving the yearly tasks the ratio of consumption is increasing at the expense of accumulation, projecting ahead the production and thus consumption level of a later era. A few thoughts must by all means be mentioned in this circle of topics.

In the first place I would mention the question of "tempo." The tempo of the world—the rate and speed of growth and changes—have changed, accelerated in the recent time period. By this expression I am referring not to the rate of economic growth but to the internal economic processes, transformation of structure, or in a simplified way to the increasingly faster and more flexible reaction to the changes in the external environment. It would be important for us to try to adopt this tempo, this rhythm as well as possible and to endeavor on this wavelength to implement our goals. In concrete terms this means conforming to the competitive situation, rapid reaction to the market's demands, integrating the international economy into a more dynamically growing sector, and more efficiently adapting our own opportunities to the international situations.

In connection with the first thought it is important to insure within the economy that system of interests which at the enterprise or individual level mobilizes in the direction of reinforcing the foreign economy positions. This on the one hand may result in performance improvements at the economic operating units and on the other hand may also make the individuals directly interested in carrying out the concrete tasks. This also means increasing the direct interests of those working in foreign trade. Making it general practice to have an interest in the developed practices, in increasing the direct export and in achieving better prices are also elements of this system. Naturally this can be realized only together with the regulation of a series of other economic policy goals, this system of interests can and must be ensured only in harmony with these.

The third element which fits into the above mentioned circle of ideas is the more courageous application of new formats and methods. The changing circumstances bring with themselves and require changing methods and naturally changing formats. The small enterprise, for example, can be not only a competitor but also a tool in the hands of the large enterprises in the interest of reaching their production and export goals. Similarly the transformation of the foreign trade organization may bring along increased performances (increased role of commercial capital, houses of trade, joint enterprises, etc.) In each case the concrete economic considerations, the capabilities of the given enterprise will determine which format or method is the most desirable. It is obvious that the automatic, rigid utilization of certain changes or methods generally in every area can not produce the same good results everywhere.

In foreign trade work efforts must be made with even greater responsibility and reliability than before to organize the organic, live and two-directional connection of the flow of information between the domestic and foreign economy spheres. This naturally is primarily the task of regulation. But the foreign trade plays a serious role in its practical implementation. It can be seen, since even the 1983 results show it, that the foreign trade performance depends basically and decisively on the performance of the entire econ-This latter determines whether or not we succeed in standing our ground in the international trade relationships, and if the country's foreign trade performance is a positive one, this decisively qualifies the efforts of the entire economy. Thus defining the foreign trade goals means defining the joint tasks, and requires significant efforts from the economy as a whole in the interest of implementing the economic policy goals. This is the way it is in 1984 and it is expected that this is the way it will also be in the coming years.

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STATE OF AGRICULTURAL SMALL PRODUCERS SURVEYED

Budapest HETI VILAGGAZDASAG in Hungarian 19 May 84 pp 50-52

[Article by Florian Mezes: "Small Garden Hungary"]

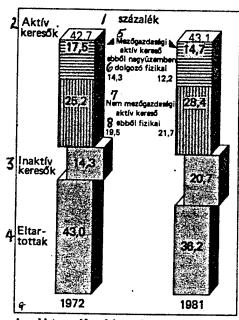
[Text] In this country the household plots, auxiliary and personal farms, or by their summary name the small producer operations produce about one-third of Hungary's agricultural production and one-fourth of the dollar-accounted agricultural export. This is a lot, in spite of the fact that the technical equipment of small scale agricultural production is extremely lacking.

The home-built motorized transportation equipment used in the household plot, auxiliary and personal farming operations in Hungary, is called sputterer [chihego] or sputty [chihi] for short, or clanker [chettego] by its other name. The sputty is built by structuring a plateau made of boards and lath on the frame of a junky motorcycle or car, and their owners—the thus modernized descendants of the old-time wagon farmers—transport manure, seed and hand tools on them to the fields and remote plots, and the produce from there starts out on these towards the markets and wholesale buying-up centers.

Only starts out, because this technical mule can be used only on the dirt roads and byways, it is banned from public roads. The half-and-half character of this police measure well illustrates the feeling in this country about small-scale production. That is, small production has been clearly declared as necessary for now in Hungary, but can play a role only as complementary to the large-scale agricultural operation.

Small-scale production is necessary because as was published in last year's last issue of the STATISZTICAL SZEMLE, the household plots, small gardens, and the fewer and fewer personal farms provide about one-third of the agricultural production and one-fourth of the merchandise sold. Some agricultural products and livestock are produced and raised practically exclusively in the small operations, and according to the data of the Ministry of Agriculture and Food Industry (MEM) about one-fourth of the dollar-accounted annual agricultural export comes from the small producers, who according to the MEM's calculations on this provided the country last year with an income of approximately \$150 million.

But the technical equipment of small-scale production appears practically catastrophic in the reflection of the production data. The number of small producer operations in Hungary is estimated at 1.5 million, and in 1982 they sold and did not themselves consume 62 percent of the products they produced. At the same time the number of machinery they have which can be called modern, reaches the level of ten-thousand only in spraying equipment and motorized hoes: there are more than 20,000 of each of these two machines in this country's small farming operations. Of course, motorized working of the land is not needed in every small operation—in the majority of hobby gardening, for example, their absence is hardly a matter of importance—but even so the number of merchandise—producing small farms is several hundred thousand. The one or two thousand equipment park of small capacity soil working and transportation equipment—tractors, plows—which can be called modern is hardly comparable to this.



A kistermelő háztartásokhoz tartozók megoszlása főbb foglalkozási csoportok szerint, százalékban. Forrás: Statisztikai Szemle 1983/12.

Distribution of persons in the small producer households, by main occupational groups, in percentages.

Source: STATISZTICAI SZEMLE No 12, 1983.

#### Key:

- 1. Percent
- Active wage earners
- 3. Inactive earners
- Supported persons

[Key continued on following page]

- 5. Agricultural active wage earners
- 6. Of this, manual laborers in large scale operations
- 7. Nonagricultural active earners
- 8. Of this, manual

The reasons for machinery shortage are very manifold and in part reach back into the past. Not even too far back: only with the inverted optics of wishing to forget can the 1950s and 1960s be considered times of long ago. That was when the country's stock of draft horses "became extinct"--or, covering the reality more correctly, was slaughtered -- so that nowadays a horse that can be hitched before a wagon or plow is only a showpiece. (At the end of the 1950s, whoever kept one horse with the permission of the general membership assembly, had to pay 750 forints per month to the TSZ's [producer cooperative] account.) But not only horses, there are also hardly any wagons left. According to an estimate prepared by the University of Economic Sciences, production equipment in agriculture in the value of 24 billion forints became ruined in Hungary during the 1950s. /Livestock pens, stables and sheds, barns and granaries perished, either because they were intentionally destroyed or because--having lost their sense of existence as the produce and livestock were commandeered [sic] from them, abandoned--they simply went to ruin./ It illustrates the size of destruction that, according to the MEM's data, today at current prices the small producers own equipment in the value of 42 billion forints.

The temporary policies of the 1960s to delay the household plots resulted in the development of practically a vacuum of capital in small scale agricultural production. For the most part the old production equipment became ruined, and there was no money for new equipment. In the 1970s when the development of household plots began it was not the only issue that the small producers did not have money for small capacity machines or to build modern buildings—not concrete palaces—to house livestock, but also that even though this type of machinery was not being produced in this country, nobody thought of importing them.

Thus the small producers themselves were forced to rig up production and transportation equipment more efficient than the spade, hoe and bicycle, for example, the sputties. Of course, capital was needed for this, too--for example, a junky motor or car which was too costly to operate any longer--and thus it is only natural that these technical wondermachines appeared and became popular especially in regions always considered big in small scale production. This then is why--even though to the best of our knowledge no poll of their numbers has ever been taken--most sputties are found in the Kiskun county area. But since the shortage of small machines has been constant to this day, one after another they are beginning to appear elsewhere also where the small-scale production of goods has not yet provided enough profit for the operators to buy transportation and production equipment which can be called modern--which however are extremely expensive and only occasionally available. Yet it has provided enough to make transforming a junk car worth the effort.

The sputties are actually a transition between horse and the small tractor. Correspondingly they are also imperfect, and can be used for fewer tasks than either the horse or the small tractor. In plain language, in spite of the fact that according to many their existence in itself is the very proof of the Hungarian peasant's desire to produce and innovate, and be resourceful, as long as they have made practically no progress in the techniques of production. And not only the sputties but the average domestic small scale production also is in a mediocre condition between what is modern and what in many respects only appears modern.

That is, the productivity of small scale production is far from those of the state farms and producer cooperatives. It is clear from the latest report of the Central Statistical Office (KSH) that in 1982 the small producers produced a value of 30 forints with one hour of work. That is, if we divide the forint value of their total goods produced by the estimated number of hours spent on small scale production, the result is 30 forints. However, the actual production value per hour is significantly higher if we also include the forint value of those products of the small producers which their producers do not sell but consume themselves. But even if the actual ratios are different, the essence is unchanged: during the same one hour seven times the 30 forint value was produced in the state farms and combines, and five times in the agricultural producer cooperatives. If we subtract the value of dead work expenditures from this -- that is, material and machine utilization -- then the net production value of the small producers is 14 forints per hour, or about one-third of that of the large scale operations. Which again is an indication of the technical obsolescence of small scale production.

## Household Plot Ranking of Counties

About one-half of the small producer operations in Hungary are household plots: the Central Statistical Office (KSH) had a record of almost 760,000 in early 1982. Looking at the number of household plots, the county with "most household plots" is Pest county. In early 1982 they counted up 91,321 such operations here. The next one in rank is Szabolcs-Szatmar county (with 70,281), then Bacs-Kiskun (61,425). If we take as foundation the acreage of land in household plot operation, then Szabolcs-Szatmar has the lead, as the household plot acreage here was almost 53,000 hectares in early 1982. Szabolcs-Szatmar is followed by the other megyes with sandy soils--Bacs-Kiskun and Somogy--and those megyes, like Borsod-Abauj-Zemplen, where there is a tradition of intensive crop growing and vegetable and fruit production.

Data of the nation's livestock inventory and of the five leading counties with the most livestock in household plot operations as of 1 January 1982



### Key:

- 1. Thousand heads
- 2. Cattle
- 3. Hogs
- 4. Sheep
- 5. Country's total
- 6. Of this, in household plots
- 7. Names of counties
- 8. Total of the household plots of all counties
- 9. Source

Gross income of the country's small scale farming operations per hour of work (forints per hour)

	1977	1978	1979	1980	1981	1982
Kukorica	43	58	57	61	71	86
2 Burgonya	71	64	78	88	92	87
3 Szabadföldi paradicsom	26	32	34	36	36	36
4 Haitatott paradicsom	34	45	50	51	51	45
Szabadföldi zöldpaprika	30	27	33	39	44	48
6 Hajtatott zöldpaprika	23	31	47	61	42	47
7 Szabadföldi uborka	24	26	27	28	31	35
Najtatott uborka	27	41	39	38	36	51
4 Alma	31	31	38	43	41	41
<i>Ö</i> Szilva	22	31	24	29	25	28
/ Kajszi	33	43	51	50	30	49
2 Öszibarack	31	49	57	64	73	66
3 Borszőlő	31	38	30	28	42	52
A Tehéntej*	24	30	36	38	39	43
5 Vágómarha	15	15	16	16	17	19
6 Vágásertés	18	21	25	25	31	34
7 Tyúktojás	26	20	18	13	21	22
# Húscsirke	24	20	25	51	48	30
19 Malac	••	17	21 '	19	27	34
20 Húsnyúl	••	18	22	22	21	21

21 ° a tehéntartasra error áriami költségvetési kiegészítéssel együtt 22 ° nincs adat 23 Forrás: MEM Status es Gazdaságahar a Mengant

#### Key:

- 1. Corn
- 2. Potatoes
- Open field tomatoes
- Sprout replant tomatoes
- 5. Open field green peppers
- 6. Sprout replant green peppers
- 7. Open field cucumbers
- 8. Sprout replant cucumbers
- 9. Apples
- 10. Plums
- 11. Apricots
- 12. Peaches

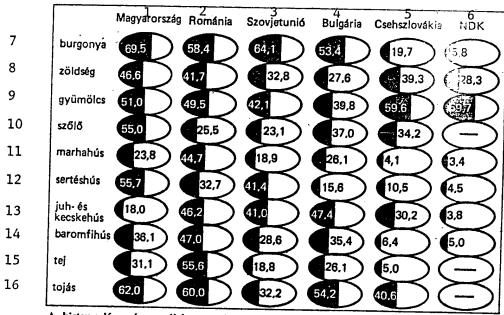
- 13. Wine Grapes
- 14. Cow's milk [see 21]
- 15. Slaughter cattle
- 16. Slaughter hogs
- 17. Hen's eggs
- 18. Slaughter chickens
- 19. Piglets
- 20. Rabbit meat
- 21. Including the supplement for raising cattle given by the national budget
- 22. No data
- 23. Source: MEM Statistical and Economic Analysis Center

The domestic population, it seems, has for the most part a uniform judgment of the country's small scale production. According to the evaluation made in 1983 in the Agricultural Operations Research Institute the workers of Budapest--employees of three major industrial plants--generally feel that it is necessary and must be supported. The definition is the same in newspaper articles and official statements, but -- as we see from the portion of the study which summarizes the domestic publications dealing with small scale production--the phrase "for the time being" was a practically indispensable ingredient earlier, while more recently the expressions "lastingly" and "over the long range" seem to be replacing it. For example, this April the MEM worded it this way in its material submitted to the National Assembly's

agricultural committee: "Our national economy will even over the long range have a great need for the products supplied by the small producers."

Ratio of small scale production in some socialist countries, in 1980 as percentage of total production.

Source: STATISZTIKAI SZEMLE No 12, 1983.



A kistermelés aránya néhány szocialista országban, 1980-ban az összes termelés százalékában. Forrás: Statisztikai Szemle 1983/12.

#### Key:

- 1. Hungary
- 2. Romania
- 3. Soviet Union
- 4. Bulgaria
- 5. Czechoslovakia
- 6. GDR
- 7. Potatoes
- 8. Vegetables

- 9. Fruit
- 10. Grapes
- 11. Beef
- 12. Pork
- 13. Mutton and goat meat
- 14. Poultry meat
- 15. Milk
- 16. Eggs

The opinions "it must be supported", "it must be assisted" reflect that general opinion which sentences the small producer to the role of little brother instead of letting it consider itself an integral part of the Hungarian agriculture—indeed, if we look at the machine and equipment supply, of the entire national economy—on the same rank with the others. Even though there are today some associations of small producers—for example, the clubs of gardening fans—these are in no way interest—protecting organizations, and at best they unite the isolated small—scale producers for social gatherings. Those who are thus not protected by anyone when they sell their products—and from the often indecent competition of some well developed small producers with

a wealthy circle of clients—and who thus in essence are at the mercy of the wholesale buyers. The TSZs have quite enough problems with providing production assistance, and on the other hand as wholesale buyers, when the contracts are negotiated, they—to put it mildly—exercise their more favorable positions. The situation is not much better either when, for example, the small producers went to buy fodder or chemical fertilizers. While it is true that according to the study of the MEM Statistical and Economic Analysis Center the small producers specializing in merchandise production purchase one—third to half of the fodder and chemical fertilizer needs from a TSZ, but the other half or two—thirds they can often obtain only at a premium price, or perhaps not at all.

As a consequence of all these things small scale production in Hungary today is a very time-consuming and thus energy sapping activity. According to the latest data of the KSH, in 1982 those men who also worked in small scale production worked an average of 3.9 hours per day at their regular place of employment—if we divide their total number of hours worked by the total number of days of the year—and the women 2.1 hours. They spent somewhat less than this on working in their small operations: the men 3.1 hours per day, the women 2 hours. Of course doing this latter work fell in part on the weekends, but it is obvious from the data that the 4.5 million people involved in the country's 1.5 million small farming operations work at least another hour or two in addition to their daily eight hours.

8584 CSO: 2500/367

#### MASSIVE GRAIN WASTE SITUATION

Budapest MAGYAR HIRLAP in Hungarian 1 Jun 84 p 3

[Article by Ivan Gador: "Grain Wasters"]

[Text] A person would not believe that nowadays so many people are concerned about grain. I was talking recently with one of the MAV's [Hungarian State Railroads] heads, who was looking from his window as the rain shower was getting heavy outside and sighed in a satisfied way: "Well, according to the signs this year we will be able to transport 300,000 more tons of goods than last year." The railroad boss I mentioned is a technical man but it could be felt from his voice that he was far from just being glad about the increased freight income. He simply knows it clearly that a good grain harvest this year is particularly a matter of survival—which, by the way, more and more people know now.

The largest livestock inventory of all time will have to be fed from this crop and this is extremely important because meat is perhaps the only product of this country which can really be exported in large volume. And another drought—let's admit it candidly—would have endangered this export. Well, not this year yet because due to the lack of adequate quantities of feed this year the meat export would have even increased. But later, in order to thin out the stock, many more animals would have had to be slaughtered than would be permissible under normal circumstances. But let's leave this subject, why play with the thoughts of possibilities which will hopefully no longer occur.

According to the indications the raisers of livestock--let's not speak too soon--can expect to have fodder and that they will be freed slowly of their pressing worries. And what will happen if this won't work out that way, if we will have to ration every speck of grain with worrisome accuracy? It really would not hurt if some of them would foster this worry within themselves just a little longer, at least until they put their own houses in order. Because while visiting some of the livestock raising lots one can really get upset. Last year at the time of the height of the drought when it was already known that the winter will be severe and the spring even more severe because we were guaranteed to have a shortage of feed, at the hog feed lot excessive amounts of feed was pouring out of the self feeder which had holes in it, and the animals were wading knee deep in meal. I am not going to write down the name of the farm here--even though they would deserve it--but there were dozens of similar examples and a fair listing would fill these columns.

I did not understand it then and I still do not understand it now. In the same TSZ [producer cooperative] where this despicable waste was happening, they were sweating blood trying to force the drought-cracked earth to yield a crop, and in the machine shop they were modifying the combines with resourceful innovations to decrease the grain loss of the harvest by a few kilograms. The head of livestock raising shrugged his shoulders. "Do you have any idea how much it would cost to reconstruct this lot?"—he asked and, to completely shatter my illusions, he added: "85 to 90 percent of the country's hog raising spaces are obsolete and are awaiting modernization, rejuvenation."

I checked up on this, and the statement is true. During the course of the hog program of the 1970s a huge number of lots were built in a short time and now these are all aging out at the same time. In addition to this it became clear about the technologies believed to be modern and successful at the time: they are not economical, disproportionately more feed is needed even with the most disciplined work to fatten the animals than is needed in the truly modern lots built since then. Even more so when the fundamentally faulty technology is coupled with sloppy, careless work and failure to perform the most elementary maintenance.

The attitude of questioning the sense of any type of activity is very unnerving but is becoming widespread in the thinking of managers as well as employees: "Why should I wear myself out when there is no money anyway to change the conditions and everybody knows that results can not be achieved even at the cost of efforts under poor conditions."

Is there some truth to it? To remain at livestock raising, are there examples of fruitless efforts? Often yes. Because it is fully useless for the manager and worker at the chicken raising lot to work hard in order to decrease feed consumption per kilogram of body weight gained, if elsewhere the unwisely frugal hands are decreasing to minimum the amount of concentrated protein in poultry feed. Because it is a proven fact that a certain amount of protein is a biological necessity for broiler chickens. And if the ground soya, meat- or fish flour is missing from its feed, it will be gaining weight only more slowly. That is, this kind of saving cannot be counteracted even by the most self-sacrificing work. Only by corn. Corn which can be exported for hard dollars. And, unfortunately, by much more than what the import of protein feed costs.

Well, this does not reassure one either. By the way, I was reminded of this whole matter of grain waste when over the weekend I threw into the garbage--I was not too lazy and weighed it--15 dekagrams of fat from 90 forints' worth of pork shoulder. Of course I was raging mad, and when I gave the matter further thought and came to realize that the pig grows one kilogram of fat on itself by gobbling up the same amount of feed as it takes for one kilogram of meat, I became much angrier yet. Because it also came to my mind that I am the only one they can sell this much fat to for meat prices. The importer will pay a dollar and twenty cents only for carved pure meat. If he buys the fat, at the most he will pay 35-36 cents for a kilogram of it. And the hog eats 50-54 cents' worth of corn for a kilogram of weight gain even in a good case. More in a poor case.

Not a very good deal. And the overweight hog which only grows fat on itself, the type of hog which inherently tends to gain fat, and the hog raised to grow fat by poor technology are far from objective necessities deriving from the essence of agriculture. Rather, in the present case they are the consequence of the domestic wholesale buy-up prices which are independent of the world market prices which truly express the actual value ratios. And they are the consequences of giving no consideration to the interests of the Hungarian consumer, that no force required the truly value-constructive utilization of the feed.

At the beginning I wrote: a person would not believe that so many people are concerned about grain. That is, whether it grows or does not grow, and how much grows. I would not mind at all if the users of four-fifths of the grain, the raisers of livestock and those who guide them and regulate them, would concern themselves even a little more. Perhaps this would also increase our grain (which can be sold for dollars).

8584 CSO: 2500/377

#### POSSIBILITIES FOR INCREASED FOOD PRODUCTION PROBED

Warsaw CHEMIK in Polish No 3, Mar 84 pp 65-68

[Article by Dr Jerzy Gdynia: "The Possibilities for Increased Food Production in Poland"]

[Text] In the June issue of CHEMIK (6/1983) I published an article on the subject of food production and the possibilities of feeding the ever growing population. In this article I will consider the possibilities for food production in Poland today and in the near future.

The data concerning the area, sowing, and harvest of the most important crops and the use of artificial materials in the years 1950 to 1982 are compiled in Table 1.

During the years 1950 to 1982 the amount of arable land used for four grain crops shrank from 9 to 7 million hectares. The area designated for sowing wheat did not change, the area for barley increased somewhat, and the areas for rye and oats decreased considerably. In the case of root vegetables the area devoted to potatoes decreased by nearly 0.5 million hectares while that devoted to sugar beets increased by 0.2 million hectares. The harvest of the four grains nearly doubled (from 11.6 to 21.2 million tons), sugar beets increased 2.5 times, while potatoes harvested decreased by 10 percent (from 36 to 32 million tons). The yield per hectare in this period improved as follows:

wheat--by 2.5 times rye--by 2.0 times barley--by 2.2 times oats--by nearly 2.0 times

One of the chief reasons for the increase in the size of the harvest was the use of mineral fertilizers. Usage increased from 19 kilograms of NPK [Nitrogen-Phosphorus-Potassium] per hectare in 1950 to 178.4 kg/ha in 1982 (in 1980 the use of fertilizers was highest at 193 kg/ha). Similar results (Table 2) were attained in the raising of cattle and hogs (with a near doubling of production), and also in meat production and the production of milk and eggs. In this period the Polish population increased by 46 percent.

Table 3 shows the distribution of harvest yield over 4 years for the four grains, potatoes, and sugar beets displayed beside the national average,

along with the best two and the worst two provinces. We are talking about the time span 1950-1982. This shows the real interdependence between the harvest yield and the amount of fertilizer applied. Data from 1970 to 1982 shed an interesting light on the problem--especially the segment 1974-1982 (Table 4).

During the last 9 years our research shows no relation between fertilizer application and the harvest. Those were disastrous years for the four grain crops (1979 and 1980), potatoes (1977, 1980, 1982) and sugar beets (1980). This leads us to the point that we are trying to prove in this article, that artificial fertilizers are one, but not the only, factor which decides the size of the harvest. We are also showing the use of chemical agents for protecting the crop. The numbers presented on a per hectare basis are compromising, showing Poland in the last place in Europe. There exists a close relationship between the use of fertilizers and the assortment of cropprotecting agents. The lack of or insufficient use of pesticides will decrease the harvest of specific plants by approximately 10-20 to several dozen percent. This is the result of research done by the Plant Protection Institute, as presented at a scientific symposium in 1983. It was calculated that weeds, disease, and pests destroy about 30 percent of the nation's harvest. These losses run into billions of zlotys.

It is worthwhile to compare the uses of fertilizers and the harvest of the four grain crops in Poland and in some European countries. Table 5 presents this data.

It must be mentioned first that the high yield of the four grain crops does not necessarily correspond to the amounts of NPK fertilizers used per hecatare of farmland. Each country conducts its own policies as to the intensity of fertilizer use for various crops. Unfortunately, in the statistical annuals there is no such differentiation. Little attention is also given to the low use of fertilizer in Great Britain, Yugoslavia and even in Romania, where crop yield is higher than in Poland.

We would also like to show that of the three types of fertilizer the largest contribution is made by the nitrogen fertilizers, while over the years the use of nitrogen has gone up significantly. The exception was Poland, where for over 30 years the N:P:K ration has held to 1:0.8:1.2.

To exhaust this information it is worthwhile to mention that the countries with the highest yields use the following fertilizer rations:

Holland--1:0.2:0.2 Belgium--1:0.4:0.7 Denmark--1:0.3:0.4

This problem should be given in-depth study in Poland.

Up to this point we have spoken about food production from the reference point of the soil. In reality this is only the beginning of a process whose final destination is consumption. Along this line of production-consumption there are many places for waste. Losses of food were and are staggeringly huge.

They can be segregated into two groups; losses "in statu nascendi" which happen during production (in the process of growth or fattening) and the losses of already processed food which happen in the course of distribution.

The losses of the first type are commensurate with the level of knowledge and the state of agriculture in a given region. Among these we must count an impractical crop structure, the use of nonapproval seed grain and seedlings, weeds in the field, destruction by insects, fungus, etc. Losses of this type in countries with a high agricultural level run from 15 to 20 percent of the crop, but in underdeveloped countries can reach up to 80 percent.

Losses of the second type include goods that have been collected and processed. These goods may be wasted through improper storage facilities, during transport, in the processing plant, etc. These losses can reach 10 percent of the harvest and processed product.

According to the data given by GUS [Main Statistical Office] [1] shrinkage and losses for the four grain crops during 1970-1981 amounted to from 3.5 to 4.4 percent of all income, while losses of potatoes in the same period were at 11.6 to 15 percent.

To conclude this part of the article I would like to mention a problem, probably a bit embarrassing, but one which is not properly presented in Poland. This refers to the number of horses. For several years now GUS has not given the world horse population. From the available sources [2] it appears that in 1975 the number of horses in the world was 65 million, 2.2 million in Poland, or 3.4 percent of the total. According to the same source a drop of 1 million in the horse population would free 1 million hectares of land for food production. The tractor would substitute for equine locomotive power. This problem definitely needs more attention.

Available locomotive power in Poland with the appropriate per-100 hectare indicators is presented in Table 6. With the appropriate mobilization the number of horses in Poland could be decreased by 1 million head. This way the amount of arable land designated for human food production would be increased.

#### Directions for Development

The preceeding discussion of problems associated with food production allows us to point out the directions for Polish food production policies over the period 1984-1985 and beyond, and the participation of the chemical industry in achieving these goals.

In Table 7 we present a material balance for the four grain crops and potatoes for the period 1970-1982. From the data in Table 7 it can be concluded that the demand for the four grains has oscillated at around 24 million tons, of which 6 million tons (25 percent) were used for human consumption, and 14-15 million tons (approximately 60 percent) were used as animal feed. Shrinkage and losses were just above 4 percent. Annual potato consumption

was almost 6 million tons, 20 million tons were used as animal feed (the exception is the disastrous harvest of 1980-81). Shrinkage and losses were staggeringly high, almost 15 percent of the harvest. It can be concluded that during the next few years there will be relatively slow growth in the demand for the four grains and potatoes.

Production of the four grains amounted to 18.5 million tons in 1982 (the optimistic prognosis for 1983 is estimated at over 20 million tons). For a change, drought has caused a harvest of 32 million tons of potatoes in 1982 (while in 1981 it was 42 million tons). The differences between individual years are great.

We must also remember that in Poland farming is done by three sectors; the government, the cooperatives, and privately. The differences between the socialized and the private sectors in farming and harvests of 1980 and 1982 are shown in Table 8. Production in the private sector is basically higher than in the socialized sector, even though according to all logical laws it should be the reverse.

In Table 9 we show the use of fertilizer and the harvests of crops in the strongest and weakest provinces.

Great variation in the amounts of fertilizer dispensed has visibly affected the harvest of the four grains. However, a strange occurence is observed: the production of potatoes and sugar beets is higher in the provinces which are listed as having a low fertilizer usage. It appears from this that besides fertilizers there are other factors in play, the recognition of which could have a great influence in maximizing the harvest. The conclusions mentioned here should allow for working out the proper methods for increasing Polish farm production.

In the first place we must mention the mineral fertilizers. We recall that in 1981-82 Polish farming received a total of 3,346,000 tons of NPK fertilizer counting the pure ingredients, of which 1,213,000 tons were nitrogen fertilizer, 817,000 were phosphorus fertilizer, and 1,316,000 were potassium fertilizer. This resulted in an average dose of 178.4 kilograms of NPK per hectare of farmland.

In the near future (up to 1990) the production capacity for fertilizer in Poland will expand only by the Police II plant. This plant is to produce 225,000 tons of nitrogen and 140,000 tons of phosphorus annually. The production assortment is forseen to be composed of urea and complex fertilizers, mainly in the ratio 1:1:1 of N:P:K. A major investment will be required to maintain and renovate existing facilities so that the level of production can be kept constant. The funds for this must be found.

It must be assumed that after Police II is brought on line domestic production of fertilizer will not be less than 1,450,000 tons of pure nitrogen and 950,000 to 1,000,000 tons of  $P_2O_5$ . If we assume that the ratio of N:P:K

should be 1:0.6:0.8 (anologous to that of the GDR and FRG), and assuming nitrogen production to be in the order of 1.5 million tons, we have the following pool of fertilizers:

Nitrogen--1,500,000 tons N Phosphorus--900,000 tons  $P_2O_5$  Potassium--1,200,000 tons  $K_2O$ ,

or a total of 3,600,000 tons. This will permit the application of 190 kilograms per hectare on farmland. This is the 1970 level with an adjustment to increase the nitrogen content and decrease the potassium.

It seems that the result will be a fertilizer deficit in Poland. If there can be no talk of new plant construction then we must find resources to purchase ammonia from the Soviet Union and reprocess it into urea, which is cheap to exploit and very valuable.

In turn we must boldly seek new means of increasing harvests. As we have said before, Poland has the highest horse population (9 per 100 hectares of farmland) among the developed nations. The substitution of tractors for horses and the reduction of the horse population by I million head would free a million hectares of farmland (the majority of it arable land) for other crops.

The next important source of production growth is the optimization of production in (socialized and private) sectors and regions. At the present moment the private sector is definitely producing better. This must be utilized by providing it with the proper supplies (fertilizer, pesticides, tractors). From Table 9 it is evident that the old Poland B region has achieved significant improvements in the production of potatoes and sugar beets even though the allowance of mineral fertilizers has been low (50 percent of that of the more privileged provinces). This is a field in which the agricultural services and scientific institutes concerned with the problem can perform.

Finally the last chemical trump--pesticides. Without a scientifically researched corelation between the amount of artificial fertilizers and the assortment of pesticides, the battle for a larger harvest is doomed to failure. In this case we cannot count on quickly increasing domestic production; instead we must find the funds for importing, and in quantities which are proportioned for the optimal relation between pesticides and artificial fertilizers.

After fulfilling the above-mentioned postulates we can count on an increase in the harvest of the four grains from 26 quintals to 30 quintals per hectare. If we can decrease the horse population by 1 million head then the harvest from 1 million hectares, or 3 million tons of grain the four grains, can be designated for a different end use, or imports can be decreased by this amount. All that was stated before leads to the conclusion that bringing order to farming, which entails, among other things, giving preference to the best performing sectors, limiting the number of horses, improving the

regulatory structure, intensifying agricultural technical work, eliminating waste (losses and shrinkage) in all of its manifestiations, and increasing the input of pesticide, could, with the present intensification of fertilizer use and the improvement of the relationship in the N:P:K ratio, satisfy the national food needs for the near future (1984-1987). Further increases in production can be achieved by building up production potential in artificial fertilizer, pesticides, feed additives, pre-mixes, food preservatives and the like. If these postulates are not fulfilled there can be no talk about normal development for the nation. Since the start-up of new chemical production facilities must take place in a few years, it is essential that investments be made (successively) in new construction.

#### Synopsis

This article has presented statistical data relating to food production in Poland (planting, crops, harvest) and against this background showed unfavorable manifestations and directions for necessary activities for the increase of farm production. The problems were presented in detail—the ratio of NPK in the fertilizer used, the mismatching of pesticides, the horse population, and food losses.

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Table 1

Area, sowing, harvest and the use of mineral fertilizers in Poland during the years 1950-1982

<u>Item</u>	<u>1950</u>	<u>1970</u>	1980	1982
Surface area of farmland, millions of hectares	20.42	19.54	18.95	18.89
Area for planting, millions of hectaresfour grainspotatoessugar beets	9.10 2.62 0.29	2.73	2.34	2.18
Harvest, millions of tonsfour grainspotatoessugar beets	11.6 36.1 6.4	50.3	26.4	32.0
Harvest, quintals per hectarefour grainspotatoessugar beets	12.7 138 222	19.6 184 312		
Use of artificial fertilizer NPK, thousands of tons Use of NPK per hectare of farmland, kilograms	386	2416 123.6	3499 192.9	3346 178.4
Meat production, thousands of tons	1138	2081	3032	2580

Table 2

National animal population, meat, milk and egg production

<u>Item</u>	<u>1950</u>	1960	1970	1980	1982	1982 1950
Animal population, million head						
cattle hogs	9.4	8.7 12.8	13.4	21.3	19.5	2.07
horses Number of head per	2.8	2.8	2.6	1.8	1.7	0.61
100 hectares of farmlandcattle	35.2	42.8	55.5	66.8	63.1	1.79
hogs horses		61.8 14.0			103.0 9.2	2.25 0.66
Meat Production (with fats and byproducts) thousands of tons		885 2	081 3	3032	2580	2.27
Cow's milk production, billions of liters	7.8	12.1	14.5	16.0	15.3	1.96
Hen's eggs, billions	3.4	5.6	6.9	8.9	6.7	1.97
Human population, millions	24.8	29.6	32.5	35.6	36.2	1.46

 $\overline{\text{Table 3}}$  Distribution of harvest yield from 7 hectare in quintals for 1982

Item	National average	Best provinces	Worst provinces
wheat	30.7	Poznan 38.1 Leszno 37.8	Krosno 21.1 Nowy Sacz 22.8
rye	23.8	Walbrzych 32.9 Szczecin 31.3	Nowy Sacz 21.1 Bialystok 21.5
barley	29.5	Leszno 30.6 Walbrzych 35.0	Krosno 20.7 Nowy Sacz 21.1
oats	24.0	Opole 31.5 Walbrzych 30.7	Nowy Sacz 13.8 Krosno 19.0
four grains	26.3	Walbrzych 35.2 Wroclaw 33.7	Nowy Sacz 19.0 Krosno 20.7
potatoes	147	Przemysl 170 Kalisz 166	Poznan 116
sugar beets	306	Opole 389 Katowice 386	Gorzow 123 Slupsk 173 Jelenia Gora 178

Table 4

National yield per hectare and use of artificial fertilizers in kilograms per hectare by farm users during 1970-1982 [1]

Year	Yield, quinta four grains	als per hect <u>potatoes</u>	sugar beets	NPK fertilizer use	activ	le delivered ve mass kg/hectare
1970	19.6	184	312	123.6	7,691	0.40
1971	23.7	149	299	131.8		_
1972	24.2	183	327	149.1	<u> </u>	-
1973	26.5	194	307	157.6	_	
1974	28.3	181	295	173.6	_	_
1975	24.8	180	317	181.9	11,201	0.58
1976	26.8	203	272	193.3	-	-
1977	24.0	169	294	189.0	-	
1978	27.5	198	300	190.3	9,748	0.51
1979	21.9	203	311	188.9	-	-
1980	23.5	113	221	192.9	9,332	0.49
1981	25.0	189	338	186.2	12,450	0.66
1982	26.3	147	306	178.4	16,273	0.86

 $\begin{array}{c} \underline{\text{Table 5}} \\ \\ \text{Fertilizer use and harvest of four grains in 1982 [1]} \end{array}$ 

Country	Harvest of four grains, quintals/hectare		rtilizers Nitroger	
Poland	26.1	178	65	1:0.7:1.1
CSSR	40.0	254	91	1:0.8:1.0
France	47.8	177	70	1:0.75:0.8
Spain	18.3	44	26	1:0.4:0.3
Yugoslavia	38.4	71	33	1:0.6:0.6
GDR	39.8	275	120	1:0.5:0.8
FRG	48.3	256	108	1:0.6:0.8
Romania	32.2	108	59	1:0.6:0.2
Great Brit	ain 50.0	125	75	1:0.3:0.3
Hungary	51.0	225	85	1:0.7:0.9
Italy	36.0	115	56	1:0.7:0.4

Table 6
Available locomotive power in Polish farming

<u>Item</u>	<u>1950</u>	1960	1970	1980	1982
Horses, millions	2.8	2.8	2.6	1.8	1.7
Tractors based on 15 horsepower, thousands	25.5	77.2	279	858	935
Per 100 hectares of farmlandhorsestractors	13.7 0.12	14.0 0.35		9.5 4.5	9.0 5.0

Table 7

Income and disbursement of four grains and potatoes during 1970-1982

Crop	1970/71	1976/76	1980/81	1981/82
four grains,				
million tons				
income	19.1	23.2	24.0	24.2
harvest	16.2	19.4	18.2	19.5
import	2.5	3.2	5.5	4.1
disbursement	19.1	23.2	24.0	24.2
seeding	1.6	1.5	1.6	1.7
animal feed	9.6	14.4	14.0	14.9
human food	6.2	6.0	6.4	6.2
losses	0.7	0.8	1.0	1.1
potatoes,				
million tons				
income	50.3	46.6	26.6	42.6
harvest	50.3	46.4	26.4	42.6
disbursement	50.3	46.6	26.6	42.6
seedlings	6.0	5.7	5.3	5.4
animal feed	28.4	27.0	11.7	23.3
human food	6.2	5.9	5.7	5.7
industry	2.4	2.1	0.6	2.4
losses	6.5	5.4	3.4	6.7

Table 8

Comparison of socialized and private farming

	. ·	_			private	oation of e farming,
	In ge	neral	Non-social	ized farming	percent	<u> </u>
<u> Item</u>	1980	1982	1980	1982	1980	1982
Crop area, million of hectares	s 14.51	14.44	11.0	11.10	75.8	76.8
<pre>including:four grainspotatoessugar beets</pre>	6.97 2.34 0.46	7.05 2.18 0.49	5.51 2.13 0.34	5.56 2.00 0.39	79.0 91.0 73.9	78.8 91.7 79.6
Harvest, millions of tonsfour grainspotatoes	16.41 26.39	18.52 31.95	12.72 24.13	14.01 29.39	77.5 91.4	75.6 92.0
sugar beets	10.14	15.09	7.82	12.47	77.1	82.6
Harvest, quintals/hectarefour grainspotatoessugar beets	23.5 113 221	26.3 147 306	23.1 113 228	25.2 147 319	98.3 100.0 1.03	95.8 100.0 104.2
Farm animals, million headcattlehogshorses	12.65 21.33 1.78	11.91 19.47 1.73	9.21 15.28 1.74	9.21 14.63 1.70	72.8 71.6 97.8	77.3 75.0 98.3
Per 100 hectares o farmland cattle hogs horses	f 66.8 113 9.4	63.1 103 9.2	65.2 108 12.3	64.3 102 11.9	97.6 95.6 131.0	101.9 99.0 129.0
Milk production, billions of liter	s 16.0	14.8	13.57	12.72	84.8	85.9
Egg production, billions	8.90	7.63	8.20	6.84	92.1	89.6
Investment in farm facilities, millio of zlotys		145.0	33.4	101.0	44.0	69.6
Tractors, thousands	619	710	378	500	61.1	70.4
NPK fertilizer use millions of tons	3.63	3.34	-	2.17	-	64.9

Table 9
Use of fertilizers in kilograms per hectare on farmland and more important harvest in quintals per hectare in 1982

на	rv	re	s	t

Province	Average fertilizer use	Four grains	Potatoes	Sugar Beets
Entire nation	178.4	26.3	147	306
Biala Podlaska	121.2	22.6	155	356
Chelm	127.8	25.0	135	261
Lomza	121.0	23.5	142	306
Ostroleka	103.9	20.7	128	320
Siedlce	114.8	21.9	150	314
Bydgoszcz	205.6	29.2	126	258
Elblag	216.4	29.6	148	268
Gorzow	226.5	26.9	123	263
Leszno	261.7	32.9	134	310
Opole	274.2	34.5	154	389
Poznan	270.0	31.9	116	258
Szczecin	247.0	32.5	144	278

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CSO: 2600/938

# ROLE OF AGRICULTURE IN ECONOMIC DEVELOPMENT

Bucharest ERA SOCIALISTA in Romanian No 9, 10 May 84 pp 10-14

/Article by Prof Dr Ion Ceausescu: "Agricultural Production and Development of the National Economy"

/Text/ In the four decades of construction of the new order, Romania has passed through several developmental stages characterized by radical revolutionary changes and noteworthy successes in all activities. In a relatively short period Romania has become an industrial-agrarian country with a technical-material base adequate for its further dynamic and effective economic growth.

Placing the interdependence between harmonious development of industry and that of agriculture on a strictly scientific basis was a decisive contribution to balanced economic growth. It is to the credit of the party leadership that they perceived in time the harmful error of some old ideas and practices that were emphasizing priority growth of industry and underrating the importance of agriculture in the development of the Romanian economy. In defining agriculture's role in socioeconomic development back in 1970 the party secretary general pointed out that "In Romania agriculture is a basic sector of the socialist economy. It is clear that without an intensive, modern and highly productive agriculture based on the latest scientific advances neither the fully developed socialist society nor communism can be constructed in Romania."

Accordingly intensive agricultural development was entered in the RCP Program for Construction of the Fully Developed Socialist Society and for Romania's Advance Toward Communism as one of the main strategic objectives of the agrarian policy and a vital component of the uniform development of the national economy as a whole.

Furthermore the intensive way of increasing agricultural production has been chosen by most of the countries of the world as an alternative form of development because agriculture meets the public's consumer needs, stimulates a number of economic branches before and after agriculture, and provides major sources of foreign exchange to meet other requirements of the national economy.

The choice of intensified agricultural production is based on economic reasons such as the extent and effectiveness of the outlays to enlarge the cultivated

area, to say nothing of those to create new infrastructures. According to the FAO's estimates, only 10-15 percent of the world's arable land unused in 1980 may be cultivated in the year 2000.

Expansion of irrigation, especially in the countries of Asia, North Africa and the Middle East, has made the greatest contribution to growth of the world's agricultural output, estimated at about 50-60 percent.

Intensified agricultural production, growth of labor productivity and improvement of agricultural product quality have been greatly aided by industry, by supplying tractors, agricultural machines, chemical fertilizers and pesticides which, along with the increased agricultural output, led to radical changes in farming technologies, improved personnel qualifications, and changes in structures and relations. At the end of 1982 the world's agriculture had 22.4 million agricultural tractors, decreasing the workload per tractor to 65 hectares from 94 hectares in 1970.

Use of chemical fertilizers and pesticides has been greatly expanded throughout the world. In the last 12 years the total amount and that per hectare have nearly doubled. This veritable chemical revolution has had notable results in enhancing the quantity and quality of crop products as well as the stability of agricultural production and in reducing the losses caused by pests and weeds.

Alongside the mechanical and chemical revolutions, scientific research is a vital factor for worldwide agricultural progress. It has stimulated the steady progress of agricultural production by improving technologies and creating highly productive plant varieties and livestock breeds better adapted to the environmental conditions.

Growth of agricultural production has also been aided by the knowlege and experience in organizing production acquired by the agricultural producers from the expanded educational networks and the various systems for disseminating agricultural disciplines and improving methods for efficient exploitation of the yields.

But on the world level intensified agriculture is encountering difficulties in some countries due to lack of investment funds for modernization, inadequate occupational training, and the social structures and relations, not to mention the bad effects of natural phenomena (drought, floods, storms, hail and frosts) or of social or armed conflicts interrupting the normal cycle of production in various parts of the world.

As we know, new restrictions have been imposed in the last decade by the energy crisis, lowering the efficiency of agricultural production and the farmers' incomes and making agricultural progress based on heavy consumption of fossile energy uncertain.

Nevertheless world agricultural production has doubled or even tripled in the last 30 years through intensification especially, showing an almost constant annual gain of about 2.2 percent. The fact is cogent that 2.5 times more bread grains and over 3 times more livestock products are produced in the world today than in the period right after the war. Considerable gains have also been made in the other basic agricultural food and nonfood products.

It may be said that for purposes of eliminating malnutrition and securing general economic growth intensified agriculture is now the only road to development for all countries of the world.

Perhaps more than in other countries, the position and role of agriculture in Romania is of profound significance for general economic development. The natural conditions, the proportion of agricultural lands (over 63 percent of the nation's area), the quality of the soils, the favorable climate and the age-old tradition make agriculture one of the main production sectors of the Romanian economy.

Thanks to the RCP policy, rational use of the land and maintenence and improvement of its fertility have become concerns of the state and the entire people. In the course of 33 years the nation's agricultural area has been increased by about 1.2 million hectares, 550,000 of which are arable. Meanwhile the structure of the use categories has also been changed by increasing the areas planted in vineyards and orchards from 396,000 hectares in 1950 to 651,000 hectares in 1983.

Moreover expanded mechanization, chemization, irrigation and projects for drainage, control of soil erosion and introduction of modern technologies, while developing and promoting highly productive plant varieties and livestock breeds better adapted to the environmental conditions, have been combined with actions to increase fertility and reclaim new lands for agricultural use.

Over 400 billion lei were invested in agriculture in 1950-1983 in order to create a strong material base, not counting the previous investments to maintain continued mechanization and chemization of agriculture. The investments were also allocated to make qualitative changes typical of a modern agriculture, reflected in the increased proportion of livestock products in the gross agricultural output. Accordingly most of the investments were made in zootechnical development, expansion of water management projects, overall mechanization of agriculture, and construction of new processing capacities for the food industry.

As for zootechnology, the numbers of cattle were increased by 1.4 times from 1950 to 1983, those of sheep and goats by 1.5 times, those of hogs by over 3.8 times, and those of poultry by over 4.6 times, while the total output of meat was increased by 3.5 times, that of milk by 2.2 times and that of eggs by over 7.2 times.

By the end of 1983 2,657,000 hectares of agricultural land had been prepared for irrigation compared with 40,000 hectares in in 1950, 2,698,000 hectares had been improved by drainage projects, and 1,855,000 hectares had been improved by projects to control soil erosion. At the same time 3.5 million hectares of natural pastures were processed by combined or improvement operations.

Agricultural mechanization developed steadily over the years, being supplemented and improved annually with new types of tractors and diversified and differentiated machines, depending on the particular soil, climate and crop. The number of tractors was increased from about 4,000 in 1938 to 44,200 in 1960 and 168,000 in 1983, while the park of grain combines numbered 53,800 in 1983. Moreover there are now 63 hectares of arable land, vineyards and orchards per tractor

compared with 234 hectares in 1960, and the capacity of the tractor engines per 100 hectares of arable land, vineyards and orchards came to 105 horsepower in 1983 compared with 17 horsepower in 1960.

In order to intensify chemization, agriculture received 1,413,000 tons of chemical fertilizers in active form in 1983, averaging 120 kg per hectare of arable land, vineyards and orchards, and 41,000 tons of pesticides etc.

The land-improvement operations performed increased the productive capacity of the arable lands by more than 25 percent over the original natural capacity according to the appraisal ratings.

The state's material and financial investments were reflected in higher average and total yields (See the table below).

Evolution of Average and Total Yields of Bread Grains in 1951-1955, 1976-1980, and 1981-1983

	Average Yields in kg per ha			Total Yields in 1000's of Tons		
Specification	Annual Average 1951- 1955	Annual Average 1976- 1980	Annual Average 1981- 1983	Annual Average 1951- 1955	Annual Average 1976- 1980	Annual Average 1981- 1983
Total bread grains -Wheat -Corn -Sunflowers -Sugar beets	1,129 1,287 750 11,670	2,679 3,368 1,604 24,836	2,590 4,263 1,560 20,935	8,231 3,338 3,934 265 1,293	19,383 6,153 11,096 825 1,293	20,630 5,700 12,185 801 5,635

In the 1950-1983 period the output of bread grains increased by 2.3 times, that of sunflowers by 3.1 times, and that of sugar beets by about 4 times. The increased total outputs brought about a substantial gain in the gross output, which was 4.1 times greater in 1983 than in 1950.

The faster growth of agricultural production than that of the population is primarily noteworthy in the development of socialist Romania's agriculture, as well as the achievement of the production increase solely through higher labor productivity as the population employed in agriculture continues to decrease. Nevertheless the results obtained in growth of agricultural production are not in keeping with the conditions and technical-material base that have been created. The yields are still low compared with some adjacent or neighboring countries in both the crop and livestock sectors. The production growth rate could be higher, to be sure, and the planned average yields were quite feasible when we consider the results obtained by some state and cooperative units in 1982 and even in 1983, when the climatic conditions were less favorable to agricultural production. For instance in 1982 some 155 IAS's /State Agricultural Enterprises/ (42 percent) obtained more than 3,500 kg of wheat per hectare, and 83 of them exceeded 4,000 kg. Some 95 IAS's produced average yields above 5,000 kg of corn per hectare, and 26 of them exceeded 6,500 kg.

A comparable situation was recorded in the cooperative sector, where 775 units produced over 3,500 kg of wheat per hectare and 225 of them obtained over 4,000 kg per hectare, while 665 CAP's Agricultural Production Cooperatives obtained over 5,000 kg of corn per hectare, including 346 that obtained over 6,000 kg per hectare.

There are many cases where the production units produced quite remarkable results, such as the Grabat IAS (6,030 kg of wheat per hectare on 1,550 hectares), the Nadlac IAS (5,246 kg per hectare on 900 hectares), the Seuca - Mures IAS (5,454 kg per hectare on 441 hectares), the Varias IAS (5,303 kg per hectare on 1,500 hectares), the Topolovatul Mare - Timis CAP (6,805 kg per hectare on 800 hectares), and the Pecica - Arad CAP (7,785 kg per hectare on 650 hectares).

Average yields of over 8,000-10,000 kg of corn per hectare were obtained by the Urieasca - Braila IAS, the Recas - Timis IAS, the Scornicesti - Olt CAP, the Topolovatul Mare - Timis CAP, the Dor Marunt CAP, the Salonta CAP et al.

Moreover high yields of soybeans, sunflowers, sugar beets etc. were also obtained.

The units of the Academy of Agricultural and Forestry Sciences obtained 4,000 kg of wheat per hectare, 4,965 kg of barley per hectare, and 5,900 kg of corn per hectare on the entire cultivated area.

Some of these units have less favorable climatic and soil conditions, demonstrating once again the importance of organizing the production process and making efficient use of the technical-material base.

Critical and realistic analysis of the results that cannot be considered satisfactory indicate that it is a matter of partial and insufficiently economic use the technical-material base, disregard of technological discipline, and inadequate use of the labor force.

In some cases the land reserve was not completely used because the arable area under cultivation was sometimes smaller than that planned, due in particular to deterioration processes (erosion, landslides) and delayed recovery of lands withdrawn from agricultural use. The Perieni Station's good results were not taken into consideration until very late, at the direction of the party administration. Meanwhile the assignment to expand and especially to make good use of the areas prepared for irrigation was not implemented everywhere, although the facilities were provided as specified in the plan provisions.

Analysis of the present situation also reveals the fact that the applications of chemical fertilizers, soil improvers, pesticides and herbicides were not as effective as possible both because they were not provided in the required quantities and periods and because of their repeated handling and improper storage.

Furthermore, despite the progress recorded in equipping agriculture with machinery, because of its incomplete use more manpower is still expended per ton of output and the degree of mechanization is still lower than in the developed countries, especially in the case of truck gardens and pastures.

In zootechnology, not all the agricultural units produced fodder supplies to meet their requirements, primarily because of shortfalls in their yields per hectare on both arable lands and natural pastures, an unsuitable fodder crop structure (below 40 percent legumes), and incomplete use of fodder resources. This resulted in some discrepancies between the consumption requirement and the volume and structure of the fodders obtained due to the faster growth of the numbers of livestock compared with the fodder supply. Meanwhile the livestock were not properly maintained, causing a low average birth rate, a higher death rate, and failure to gain weight, resulting in low outputs of meat and milk.

The processes of industrialization, urbanization and redistribution of the labor force between industry and agriculture were accompanied by a heavy flow of migration from village to city. This had a particularly bad effect on the structure of the population remaining in agriculture, which became increasingly aged and feminized as time passed. For that reason the labor force could not always cope with the workload in the peak periods especially, and particularly in the periods of harvesting the crops including the truck gardens, which yield highly perishable produce that has to be harvested in a short time. But it must be said that a good many of the cooperative members fit for work did not even perform the volume of work assigned by the general assemblies.

As basic aims of Romania's agricultural development, intensification and modernization are objective necessities with many implications for development of the national economy and the only ways to increase the average yields.\* Use of existing resources and improvement of the agricultural production structure, alongside modernization of the technical-material base, can increase production at the rates and in the proportions required by the overall economic growth.

The major aims of agricultural modernization and intensification are to enhance the productive capacity of the agricultural land, especially by land improvement projects, to apply the results of scientific research, especially in genetics and nutrition, to expand and diversify mechanization and chemization, and to improve the qualifications of the labor force as well as the system for organizing and applying the economic-financial mechanism.

In view of the present capacity of the agricultural lands, we must give very serious consideration to the necessity of eliminating all defects in the use and management of the land reserve by taking all measures to eliminate or reduce the effects of such restrictive factors as erosion, shortage of organic matter, acidity, lack of nutritive elements, salinity, compacting etc. that are still impairing the fertility of the soils. Failure to take all the necessary measures is preventing the soil from supporting agricultural activity, while the average results are limited and even show declining trends in some areas.

In view of these facts, the National Program to Secure Stable and Certain Agricultural Outputs By Increasing the Productive Potential of the Land, Better Organization and Uniform Use of Agricultural Lands and the Whole National Territory, Irrigation of 55-60 Percent of the Arable Area, and Drainage and Antierosion projects can considerably enhance agriculture's role in the national economy by its unprecedented scope in Romanian history. Accomplishment of the planned objectives will help to place Romania in first place in Europe in the proportion of irrigated areas in the total arable lands.

\*Per hectare and per animal.

The projects in this program include both those with immediate results in increased production (irrigation, drainage, soil improvement, crushing etc.) and those with a good long-range effect over several years of application, such as crop rotations, increasing the humus content, improving saline, sandy and heavy soils, etc. It is estimated that the volume of operations specified in the program alone can raise the productive capacity of the soil by about 50 percent on arable lands, 25 percent in vineyards, and 20 percent in orchards.

Maintaining and improving soil fertility and increasing its productive capacity are quite feasible objectives according to the research findings of the Institute of Pedology and Agricultural Chemistry. They require definite measures to improve about 2.1 million hectares of heavily and moderately acidic soils and to supplement the water shortages in the soil that often occur in the vegetation period, during which about 8.3 million hectares of agricultural land have to be watered and excess moisture has to be removed from about 2.4 million hectares.

It is also intended to control soil erosion over the entire area affected (a particularly serious problem because erosion is reducing harvests by about 30 percent over about 1.7 million hectares), to scarify and break up in depth the 6 million and more hectares of compacted arable land, and to increase the humus content of the soil over an area of about 7.52 million hectares of agricultural land by making maximum use of the organic biomass resources not being used otherwise in order to convert and prevent deterioration of the soil structure. It is also important to better supply the soil with mobile phosphorus, which is lacking over about 4.7 million hectares of agricultural land with harvests reduced by an average of about 15 percent, and to meet the requirement for mobile potassium over about 500,000 hectares of agricultural land, 310,000 hectares of which are arable.

The vast land improvement program, which calls for irrigation of the whole possible area economically and in keeping with the rapid growth rate of the national economy, raises the question of meeting the water requirements. It is estimated that under the circumstances 55 percent of the national economy's water requirements will be used for irrigation in a year of average climatic conditions. Accordingly the problem of water management and use will take on different proportions and significance in the future when we consider the fact that water can no longer be procured solely from surface sources in the natural system and some regularized sources will have to be created and used.

Furthermore, some large supply systems will have to be constructed in order to extend the irrigable lands. Under those circumstances, in order to counteract the bad effects of the rising cost of water and the consumption of energy in pumping and repumping the water, more economical sprinkling methods must be found that consume less water per hectare, use more ground water and unconventional energy, cut the losses in the canal network and thus increase the productivity of every system.

Another important way to increase productivity in agriculture without material outlays is to make use of the climatic resources, since Romania has favorable conditions for high yields of all the crops characteristic of the temperate zones. Basing the geographic distribution of the crops on the index of solar energy can be considered a very promising way of raising the yield of biomass

per cultivated hectare. Developing agricultural systems and allocating crops on the basis of climatic studies over many years are certain means to maximum conversion of solar energy. As a future measure, zoning on the basis of calculations of the solar energy index may provide us with some new possibilities of opting for more intensive conversion in increasing agricultural production.

Increased crop production and a constantly higher yield will make it possible to begin reconsidering the proportions of the use categories and the crop structure in order to introduce and generalize the crop rotations. We think that only the rotations that include the ameliorating plants (the perennial legumes and grain legumes) can provide a stable rotation of the crops meeting the biological requirements of each crop. In this way the soil will benefit by a major contribution to the improvement of its physical properties and by large quantities of nitrogen synthesized by the action of the leguminous plants, without consumption of conventional energy while largely meeting the requirement for digestible protein, which is still deficient today, especially in livestock feed.

These crop rotations will make it very possible to expand the methods of integrated pest control by reducing the requirement for pesticides as well as their polluting effect on the soil, water and feed by limiting the hardly biodegradable residues.

The human factor is another factor affecting the rate and extent of intensification and modernization of agriculture. As distinguished from the other economic sectors, in agriculture an optimal relationship between development and the human factor is of particular importance. It must be understood that we are referring both to the population actually working in agriculture and their level of labor productivity and to the social factors that determine recruitment and use of the labor force. Analysis in comparison with other socialist countries shows that the proportion of the population employed in agriculture is still high in Romania.

Considerable growth of agricultural labor productivity also depends heavily upon the quickest possible training of highly qualified and specialized farmers with many skills who can learn and apply the complex agricultural technologies and handle the continually perfected machines and equipment. This will make it possible to equate agricultural workers' incomes with those earned in other sectors of the national economy.

Concentration and specialization of production are essential preparations for intensified agriculture. The scope and content of those concepts must be considered in the light not only of the quantitative aspects but also of the qualitative ones, in connection with rationalized proportioning and interaction of the production sectors as well as better processing and exploitation of the products in direct contact with the consumers. This is actually the concept of horizontal and vertical integration of the agricultural units, which will enhance economic effectiveness, encourage the agricultural workers, and permit organized improvement and management of the units, making it possible to consistently apply the economic mechanism in its two essential aspects of self-management and self-administration. It is particularly important to establish more direct relations between the agricultural units and the units performing agricultural services, for purposes of more effective working relationships and greater

responsibility in better use of the material base and in management of the raw materials and materials. Reorganization of the present system of agricultural services by transferring some activities directly to the producers is to be considered in this light, since it will permit eliminating some intermediaries to good effect upon reduction of costs, greater profitability and better control of the production factors.

Mechanization of all agricultural operations, as an important factor for introduction of technical progress and increased production and labor productivity, is an important aspect of agricultural modernization and intensification. In the next period, under the newly developed system, agricultural mechanization will permit operations in the best periods, when they can be performed with good quality and limited energy inputs.

The new system of machines is based on such criteria as use of mechanization technologies that will provide the planned agricultural outputs with the lowest inputs of fuels per job and per product; use of combines performing several operations at once, rational use of tractor power, and reduced depression of the soil; less basic standard sizes and their provision with standardized and modulated equipment; and improvement of the technical-economic parameters of the tractors and agricultural machines to make them competitive on the world markets.

The possibility has also been considered of mechanizing a wider range of operations, especially harvesting potatoes, fodders, beets, vegetables etc.

The effort will be made regionally to proportion the tractor park according to each area's distinctive features and to improve the park structure by introducing higher-capacity tractors. The 65-horsepower tractor will still be the main one, with the highest proportion in the park. A new type of 240-horsepower tractor will be introduced, economically justified by greater labor productivity in the main soil operations and lower consumption of motor fuels. It is also planned to expand the technology of total harvesting of corn with high-capacity combines, in husked cobs with cutting and chopping of the stalks.

The quantitative and qualitative changes and the equipment of the agricultural energy base will be reflected in growth of the tractor and combine park and in a considerably reduced workload per tractor in 1990 compared with 1984.

At the same time automation of the mechanized means will be expanded and generalized for purposes of regular control of the operational processes, improvement of operations, greater labor productivity and greater reliability of the equipment.

Alongside mechanization, chemization of agriculture will remain one of the critical factors for increased agricultural production, especially in the areas where the water system will be considerably improved by irrigation and drainage projects. According to some estimates fertilizing may increase production as much as 50 percent. By 1990 Romanian industry can supply agriculture with all the chemical fertilizers it needs, since the doses are to be determined and applied to meet the technical minimum and the economic optimum.

In pest control, the chemical industry will conform to the planned programs for making pesticides that are highly toxic but of short duration and with a very

limited presence in the environment. The whole series of bad effects in the way of contaminating the agricultural ecosystems and food products are being eliminated, and the possibility of selection and formation of lines of pesticideresistant pests is also being curtailed.

Use of "feromons" will be extensive, along with use of natural predators, cultivation and spread of parasites that destroy pests, dissemination of viruses and bacteria in the environment that are pathogenic to pests, sowing of trap-crops, and selection of varieties and hybrids resistant to pests, incorporated in crop rotations and rotations according to the biologic requirements.

Agricultural modernization and intensification is a continuous process inconceivable without scientific research, whose task it is, according to the guidelines in the party documents, to develop new and increasingly productive plant varieties and livestock breeds that will meet the demands of reduced energy consumption and make the best possible use of Romania's environmental conditions.

It is entirely possible to develop varieties with a high biologic potential that will yield as much as 10,000 kg of wheat per hectare, 18,000-20,000 kg of corn per hectare, and 5,000-6,000 kg of sunflowers and soybeans per hectare, with shorter vegetation periods, resistance to diseases, and a high content of useful substances.

Genetic engineering studies begun in Romania with good results give us hope that in the future new nonleguminous plant varieties (wheat, barley, corn and sunflowers) can be developed that will also have the property of biologic fixation of nitrogen, with excellent economic effects in agricultural activity, thanks to the revolutionized technology for procurement and use of nitogenous chemical fertilizers. In livestock production, in addition to the studies on increasing the protein content of fodder plants (both in cultivated concentrations and in the volume fodders) and use of nonprotein nitrogen, the effort will be made to develop some livestock breeds with a high capacity for converting the nutritive elements in feed. Fodder consumption per unit of output will be reduced by improving the livestock and enhancing the capacity to metabolize the nutritive elements in fodders by adding various ingredients that stimulate the digestive processes.

Differentiated and much more effective measures are also needed to exploit by overall improvement all the categories of pastures that are unsuited to cultivation of perennial legumes in order to best resolve the problem of volume fodders in a relatively short time.

The studies on truck gardening are designed to develop varieties and hybrids adapted to the farming conditions (according to the intended exploitation) and resistant to diseases and less favorable environmental conditions. It is also planned to develop new ideotypes of potatoes, better than the present types, while perfecting and generalizing the method of multiplying potatoes by means of the seed.

The chief task in orchard and vineyard cultivation is to develop varieties permitting maximum exploitation of the sloping lands and technical equipment of the area.

The studies on agricultural mechanization will be concentrated on modernization of design in tractor and agricultural machine construction in order to reduce the specific consumption of metal and fuel and to universalize the tractors and machines while intensifying the effort to standardize and to limit the number of standard sizes.

It is only by integrating research with production and education that the efforts in these three fields can be coordinated in order to attain the goals set in the special programs. The integration is accomplished not only by coordinating the plans for research and education but also by the researchers' participation in the programs for technological development and technical progress, by preparation of investment documentation, by training specialists, producing seed, improving machines and equipment, etc. This is graphically illustrated by the results of the Greenhouse Enterprises Trust and the Orchard Cultivation Trust, who formed integrated collectives of specialists in research, production and education who cooperate in determining the particular technical measures to accomplish the planned tasks.

Of course the method of agricultural organization and management is vital to the intensive development of agriculture. All agricultural activity will be based on special programs and subprograms for crops, groups of crops, livestock species and activities from the national level down to every production unit. They are to concentrate and correlate the material and human efforts to attain the goals set in the plan for development of agriculture and the food industry.

The best specialists in production, research and education as well as the central organs have been recruited to plan and carry out the special programs, and the entire technical-scientific and economic potential of agriculture is being used. Organization of the activity for the programs requires improvement of the present forms of organization and management by increasing responsibility on all levels down to the production place while increasing the incentive of every agricultural worker.

As an objective economic process, intensification and modernization of agriculture will permit fulfillment of the tasks set agriculture in the next period, thus accentuating agriculture's function as a basic sector of the national economy.

The series of measures necessary to expedite intensification of agricultural production uniformly includes the necessary material, manpower and organizational conditions, while some units' results show that the proposed objectives are realistic and entirely feasible.

Increased average yields and those per animal will ensure not only an abundance of agricultural food products but also a profitable agricultural activity, greater agricultural labor productivity, and higher incomes for the workers in this important sector. The diversity and quality of Romanian agricultural products produced in large lots will permit a stable supply for export and thereby increase agriculture's share in the balance of foreign trade and its contribution to the general economic development.

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cso: 2700/206

# CAUSES FOR LAGGING ECONOMY IN SERBIA ANALYZED

Belgrade NEDELJNE INFORMATIVNE NOVINE in Serbo-Croatian No 1741, 13 May 84 pp 9-11

[Article by Velizar Zecevic: "Serbia Out of Step"]

[Text] Until some 15 years ago Serbia's principal economic feature was that it was average, and this is a feature which it had even in prewar Yugoslavia. Average income, average employment, average industry, average agriculture—all on the same plane except the most important thing: it did not have average development. Others were faster.

This unusual topic will probably be debated at the end of May even in the SFRY Assembly. A debate about Serbia. The assembly resolution for 1984 states among other things that the "Federal Executive Council will by the end of May submit to the SFRY Assembly an analysis of the results, tendencies and problems and, if necessary, propose appropriate measures and activities."

The neutral signs of this bureaucratically smooth formulation are not sufficient, to be sure, for the conclusion that behind those "results, tendencies and problems" there is a readiness to place on the agenda of the main delegate institution of Yugoslavia the question of the real causes of Serbia's economic lag.

The economic specialists and political officials of Serbia with whom we have talked the past several days feel, however, that every objective analysis, regardless of where it is prepared, leads to the clear conclusion that the pace of Serbia's economic life, that is, of that portion of it which is referred to in the more recent dictionaries of political terms as "Serbia proper"—has been slowing down dangerously.

"Serbia's economic lag is visible from whatever point it is examined: on the one hand it is obvious that regions which traditionally were economically stronger have been moving ahead at an ever faster rate, while on the other hand the three previously underdeveloped republics—Bosnia-Hercegovina, Montenegro and Macedonia—are quickly approaching Serbia's position in development, which in every respect is the average. Only Kosovo is outside those developments," said Slavoljub Raskovic, chairman of the Serbian Social Council for Economic Development, at the beginning of a brief interview for NIN.

#### The Downward Line

We find an interesting measurement of the average values of almost all indicators of Serbia's economic position in Yugoslavia even in the initial year of the country's postwar construction: in that year, 1947, the per capita social product in Serbia was almost identical to that of Yugoslavia—100.5 points, while Slovenia was at the top even then with 162, and behind it was Croatia with 106.7. The average per capita social product was smaller in Montenegro (93.7 points), Bosnia—Hercegovina (85.8), and so on. Far in the rear was Kosovo, with only 49.3 points by comparison with the Yugoslav average.

In the decades which have followed the ranking of the republics and provinces with respect to level of economic development has not undergone essential change. They have all kept their previous positions, but there have, of course been relative shifts: Slovenia has moved still more in front, Kosovo has lagged still more, while Serbia has retained its central place, but is already considerably below the overall Yugoslav average.

"The per capita social product in Serbia in 1947 was at the level of the national average," states an analysis of the Serbian Republic Bureau for Social Planning, "but in 1970 it dropped in relative terms to 96.7, and in 1982 it went down to 94.4 points."

Zivana Olbina, director of the republic bureau for social planning, adds to these figures the fact that over the same period Serbia's share in Yugoslavia's total population fell off, which makes the conclusion about its lag still more convincing.

How did that happen? Among the many explanations one probably would find a place for various economic, sociological, psychological, political and other causes, all the way to that cause which finds its point of support in the mentality: more mistakes were made in Serbia than in other regions. Kosta Mihajlovic, professor at the School of Economics and scientific associate of the Economics Institute in Belgrade, however, finds the principal explanation in the unfortunate combination of historical factors and errors.

"Today it is quite obvious that the prevailing opinion which established itself immediately after the war was inaccurate," Kosta Mihajlovic said, "and it found its way even into certain official documents, indeed even in the first 5-year plan, which was that Serbia, thanks to the political hegemony of velopment. Our studies refuted that notion back in 1953, but they were unable to shatter that historical illusion, although the statistical documentation that Serbia's development was actually slower existed back in prewar Yugoslavia in the works of Stevan Kukoleca."

We know, then, that in prewar Yugoslavia Slovenia developed at the fastest pace, and then Croatia, and then Serbia, Mihajlovic concluded.

Neither a republic nor a province, neither economically backward, nor economically advanced, neither industrial nor agricultural, Serbia proper ranged in its postwar development close to the average value of Yugoslavia's economic development. There was a period, to be sure, when the rate of development made record breakthroughs, as in the sixties, but there were also periods which the economists refer to as "catastrophic lags," for example, from the end of the war to 1957.

But the economic analysts still have a duty to give the real answer to a simple question—Why did all this occur the way it did?

#### Uncertain Debate

According to the criteria which have been in effect up to now for classifying republics and provinces into those which are advanced and those which are underdeveloped, SR [Socialist Republic] Serbia, it was said, would have the place of a middle and neutral value. One of its provinces comes immediately after Slovenia and perhaps also Croatia in its economic strength; while the other is at the very bottom of the ladder of the underdeveloped. The figures on the level of economic development of Serbia proper have placed it now above and now below the line of the Yugoslav average. As time has passed, it was more and more below.

At the same time, the "territory of the Socialist Republic of Serbia outside the territory of the provinces," that is, Serbia proper, was never spoken of as an underdeveloped region. With respect to certain values (per capita income or the rate of employment) Serbia is today closer to underdeveloped Bosnia-Hercegovina than to advanced Croatia. With respect to obligations it belongs with the advanced, but that is not its natural place, since with respect to available economic potential, it is below the Yugoslav average. Nor is it among the underdeveloped, since not a single dinar has ever reached its territory from the classic Fund for the Underdeveloped.

At present we do not know what will be said and what will be concluded about all of this in the assembly debate which has been announced. In the last days of April, less than a month before the debate was scheduled, all of our efforts to learn how much progress had been made in preparing the "analysis" were without results. In the Federal Bureau for Planning "something was being done," but by all appearances this had to do with the meeting of two federal social councils announced for 11 May. That meeting will start a new round of talks on the delicate topic that stands behind the indelicate title: "The Policy of Faster Development of the Underdeveloped Republics and SAP [Socialist Autonomous Province] Kosovo in the Coming Period." As we know, there is no place there for Serbia at present.

In Belgrade, however, there was a meeting on 19 April of the Serbian Republic Social Council for Economic Development in which there was only one topic covered by the sole item on the agenda: Serbia's economic lag. A paper appended by the "Working Group of the Executive Council of the Assembly of SR Serbia," with a long and awkward title "Main Causes of the Lag of the Territory of SR Serbia Outside the Territories of the Socialist Autonomous

Provinces in Economic Development," and with the customary designation "For Internal Use Only," served as the foundation and stimulus for discussion at that meeting.

"It is not a case of Serbia's backwardness, but of its lag," we were told by the council's chairman Slavoljub Raskovic. "There is no reason to hide the facts about this, since we would have to talk about this even if the general economic troubles in the country were smaller, but we must especially do so today, when the consequences of the common crisis have not been uniformly distributed, and that to Serbia's detriment."

# "Catastrophic Lag"

Before saying something about the content of the analysis which was offered and about the debate conducted in the meeting of the council, it is worth calling attention to another specific detail. The first sentence of the "Introductory Remarks" states that this is a "continuation of the work in 1982 to examine SR Serbia's position in Yugoslavia with respect to development."

Even earlier, before 1982, there were hints of Serbia's "lag" in certain newspapers, indeed even in NIN, but in political circles close to the top of the republic leadership there was a reluctance to look at those "vague assertions and exaggerations in the newspapers." "The meeting of the council was public this time," we were told by Slavoljub Raskovic, "but the newsmen did not come, I do not know why."

Milovan Markovic, head of Serbia's delegation in the SFRY Assembly, confirmed that the principal figures and main indicators used in the analysis of the working group were previously known by the members of the council and that all of this was quite sufficiently known about everywhere, but spoken about insufficiently and timidly.

"The stories about Serbia's mineral wealth are inaccurate," Milovan Markovic warns, "since what do we actually have: of Bor it could rather be said today that it is a source of inflation rather than of valuable metal—the rich ore deposits have been exhausted, which has also been the end of the revenues collected on that basis—there is less and less lead and zinc, we have practically no forests, and the coal reserves will last up to the year 2015. The advantages of agriculture are more imagined than real—what sort of advantages could we have when in Serbia we do not produce enough food even to feed its population?!"

Serbia's industrial potential before the war, however, was not altogether insignificant. In Belgrade there were six or seven modern enterprises, they even produced good airplanes, although the engines were imported. In Kragujevac there was a very highly developed armament industry, in Krusevac a military chemical industry, and Cacak was an electronics center. All of that was partially destroyed during the war, while the remnants of industry after the war were carried off into other regions.

The "catastrophic lag" in the first postwar years has continued, according to Milovan Markovic, up to this very day. At the beginning this was the consequence of the political philosophy of Yugoslavia's development, of the preconviction of Serbia's accumulated advantages from the prewar period, and later there followed unreasonable lapses which resulted in plundering of natural resources and agriculture in Serbia. That this process is still going on is also demonstrated by differences in the level of prices to Serbia's disadvantage. "Serbia accounts for 39 percent of the total production of electric power in the country," Milovan Markovic concluded, "and while the prices of petroleum and gas have been put on a par with import prices, electricity is sold much more cheaply."

[Box, p 10]

Underdeveloped Developed Region

Between 1957 and 1980 the economy of Serbia proper paid into the Fund for Faster Development of the Underdeveloped Republics (Bosnia-Hercegovina, Montenegro and Macedonia) and Kosovo more than 77 billion new dinars. In the current 5-year period (up to the end of 1985) another approximately 98 billion dinars will be paid for the underdeveloped regions from the territory of Serbia proper.

In addition, about 2 billion dinars have been paid in grants in aid to Kosovo.

About 25 billion is being furnished in the period from 1981 to 1985 for the underdeveloped opstinas within Serbia proper itself. Almost the same amount is being set aside in those underdeveloped opstinas of Serbia proper (21 billion dinars) for the underdeveloped republics and Kosovo.

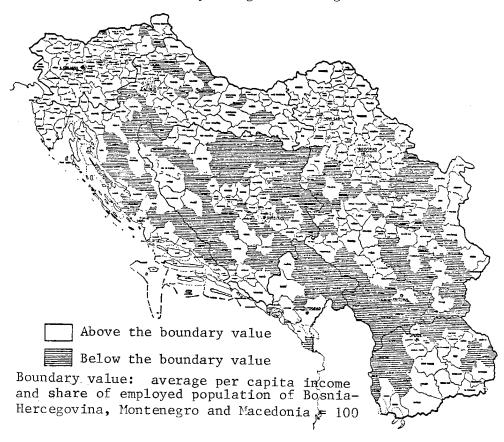
Mileta Jesic, chairman of the Community of the Serbian Electric Power Industry, also spoke about electricity.

"More than a fifth of the investments in Serbia," Jesic said, "are set aside for the electric power industry. But when we sell electricity for various reasons, we do not manage to get back the value of those investments."

Tina Stojanovic expressed an interesting viewpoint. Analyzing the first postwar period, the so-called catastrophic period in Serbia's development, Stojanovic also mentioned the impression that at that time "political people from Serbia identified themselves with Yugoslavia, and they equated Serbia's development with the development of Yugoslavia."

"Some of that still exists even today," Stojanovic went on. "It is a fact that our representatives do not devote enough energy to win the fight for the position which is clearly set forth in the economic stabilization program, giving in to others who are fighting for their own interests. I would say that the prevailing philosophy with us is this: no matter, let it go, but whoever practices that philosophy will fare badly.

#### Underdeveloped Regions of Yugoslavia



[Box, p 11]

Poor Opstinas

The word poverty is rarely used in economic analyses. In a scientific study of the Economics Institute in Belgrade the term "poor opstina" is used as a "synonym for pronounced and indisputable underdevelopment." On the list of the poor opstinas, according to the findings of the Belgrade Economics Institute, are those opstinas (from all the republics and Kosovo) in which the average per capita social product is less than half of the Yugoslav average. Here is that list. [No list is given in the original]

Radmila Stojanovic also spoke about errors and resistance, but from another angle. In her opinion the main cause of the present difficulties lies in the fact that Serbia's economy is almost entirely broken up and disintegrated. "In Slovenia," said Radmila Stojanovic, "they did not take pains to break up their entire transportation and other things, but they left all the large systems in place, and they are now ready for new technological development." In her words, in Serbia by contrast every post office became a basic organization of associated labor, there are countless transportation enterprises, the fuel and power industry, construction, and the agroindustrial complex have been broken up.

"As though the same economic relations do not apply to everyone, as though we do not live in the same political climate, and as though we are not interpreting the same Law on Associated Labor," Radmila Stojanovic remarked.

## An Antiproduction Policy

Radmila Stojanovic calls attention to the fact that Serbia's troubles in development derive in large part from the fact that a "antiproduction inertia" persisted for a long time, indeed up to the present, among political officials and business executives.

If we do not move faster with integration, to consolidate large technical and economic systems, and if we are not quicker to formulate our own new conception of development, especially its technological development, we will not get anywhere, says Radmila Stojanovic. And she goes on:

Nor did Serbia realize, neither earlier nor now, that agriculture, that is, the agroindustrial complex, is a modern and integral system. The advanced world has so changed the opinion about the importance of agriculture because of the strong food value in the world that in recent publications of the World Bank and certain other large international institutions the agroindustrial complex is being put first or second as a development priority. This is that segment of production which is very reliable, very stable, in which technological development does not alter products, but only the processing technology.

Accordingly, nothing stood in the way of large landholdings. Serbia is still messing around with small landholdings which are not economically profitable, and the land is still being divided up, and antiproduction policy is being conducted even in agriculture.

We still have not set apart even those broad regions in which we dare not any longer divide up the farmland, nor use it as anyone wishes and for whatever anyone wants, which is what they have already done in other places. Try, for example, to turn farmland in Slovenia as well as in many European countries into a development of weekend cottages. You will not be able to do it, or they will make you pay a tax which will be used to increase agricultural production on the farms that exist. In Serbia we use taxes to encourage consumption, not production. If you have "too many" head of livestock, in the opinion of our avaricious "tax authorities," I will tax you for the entire "surplus," but on the other hand you can build a house, even with three stories if you like, instead of being billed for that high tax. Also, instead of giving a first-year tax exemption to those who employ our manpower, we tax them fiercely, we even prosecute them.

We conduct, then, a typical antiproduction policy. This is most characteristic of Serbia proper. We are very generous toward the accumulation of consumer goods, but anyone who has an extra two machines suffers.

Unless we change these views, if we continue with our entire economic system, both the tax system and otherwise, to stimulate consumption rather than

production, and, more important than that, if we do not create organized technical and economic systems, let us have no illusion that we can overcome the causes of the lag. If Serbia proper does not seriously put on the agenda the stimulation of integration of particularly large systems, all of its priorities in development will fail.

7045 CSO: 2800/347 DATA ON SURPLUS WORKERS IN CROATIA

Zagreb DANAS in Serbo-Croatian 15 May 84 pp 16-19

[Article by Mila Stula: "Even the Employed Are Unemployed"]

[Text] The fact that according to certain estimates the Yugoslav work force of 6.5 million includes 2.5 million people who represent technological redundancy—for whom there is no work—shows that the question whether the employed are unemployed or are only the unemployed unemployed is not just empty rhetoric. The picture becomes more complete if we add the approximately 1 million registered unemployed in Yugoslavia and the 650,000 of our workers employed abroad temporarily, and then we add the approximately 300,000 members of their families. And then of that number of "foreigners" there are 70,000 unemployed, and that 40,600 in West Germany, 8,800 in Austria, and the rest in the other European countries. The number of "temporarily employed" for good, those who in most cases have settled in overseas countries, is not recorded, since it is assumed that a majority of them at least have no intention of returning to the homeland.

It seems that a situation has come about where we should begin to discuss whether the problem of unemployment or underemployment is the more difficult one. "In my opinion, underemployment is one of the most difficult problems we have, since it is obvious that a situation has come about where in our future socioeconomic development we must come face to face with this problem, but we are still talking about it rather timidly," says Zivko Maravic, acting secretary of the Assembly of the League of Self-Managing Communities of Interest for Employment Security of SR [Socialist Republic] Croatia.

The fact that in a survey of organizations of associated labor employing 82 percent of the republic's work force a minimum of workers were indicated as redundant shows that he is right about timidity in presentation of the figures. For example, in 8,048 OOUR's [basic organization of associated labor] they say that there is a redundancy of only 6,466 workers in a labor force of 1,204,272. Organizations in the economy indicated a redundancy of 6,180 workers, and noneconomic organizations declared that they could do without 286 workers. The highest surplus was in education and culture--193.

All of this confirms that there are no reliable figures on technological underemployment. Yet there are estimates to the effect that between 10 and 30

percent of the total labor force is underemployed, but according to the results of the survey, that redundancy is only 0.5 percent. Why is that the case? "It is difficult to give the right answer. But we assume that most work organizations have not made such an analysis even for their own purposes. And if figures of that kind are lacking, it is difficult for anyone in associated labor to enter into an oppressionistic assessment of technological redundancy, precisely because of the political, social and ideological sensitivity of this problem," Maravic said.

#### The Case for Growth

Certainly the solution to the problem does not lie in maintaining silence about. Its adverse consequences are important and numerous, and if its extent is not examined, there is no way to work out measures and social actions to solve the problem.

"This is easily dealt with under capitalism. The surplus is simply discharged. We suppose that more than 20 percent of the employed labor force in Croatia represents technological redundancy," says Djordje Ivancevic, economist and member of the Presidium of the Federation of Croatian Trade Unions.

Instead of setting our course and realizing that the surplus is something objective, something we must take into account in planning development and in reducing unemployment, we are taking pains to conceal the truth. In Osijek, for example, which has a labor force of 60,000, there is a redundancy of 1,257, and in Rijeka, with a labor force of 91,000, only 637.

In the opinion of Dr Jova Brekic, professor and director of the Center for Personnel Research of the Economics Institute in Zagreb, if technological redundancy exceeds 10 percent, then it is already a question of "disintegration of the system." In his opinion, redundancy is 40 percent of the employed labor force from the standpoint of income (since in his opinion it is realized through prices), and 10 percent from the standpoint of production. However, were we to examine the possible and necessary size of our output, then there would be a 5-percent shortage of workers.

Why is that surplus so large? In the opinion of Professor Josip Obradovic of the School of Philosophy at Zagreb University, this is a consequence of the policy of industrializing the country since 1945. Naturally it was not possible to create a productive job for the entire river of people who flowed from rural areas to the city. The question is how to win the battle for productivity, since productivity and a redundant labor force do not go together. Last year employment in Croatia rose 0.9 percent, the volume of industrial output fell 1.7 percent, and productivity fell more than 4 percent. In Ivancevic's opinion, in the present situation it is more essential to increase (in absolute terms) the volume of output than labor productivity. In his opinion, it is also essential to move the office force into production, which, to be sure, does mean a drop in individual productivity, but social productivity will rise, which is much more important for us.

In that kind of situation it seems illusory to speak about hiring new personnel. In all the documents concerning hiring, including the economic stabilization program, it is stated that every future new job must be productive. But how are we to achieve this in the restricted material situation we find ourselves in? Productive employment is most highly correlated with development, with the achievement of new production and new business. "Unfortunately today we not only cannot plan investments on the basis of borrowing, but out of the entire newly created value we must set aside 8 percent to repay debts," Ivancevic says. In his opinion, however, it is not true that we lack the material capabilities for development. Last year, for example, in spite of all the well-known difficulties, 18 percent of income went for accumulation, and when it is realized that the entire fund for personal incomes takes 30 percent, then it is evident that the resources in the republic are not small. People in the trade unions also feel that it is necessary to remove as speedily as possible the large discrepancies between heavy industry and the ancillary industry. Why is it that in our country, for example, only 10 percent of the labor force is employed in small business, while in other countries the figures is as high as 40 percent? There are initial results, for example, the linkage between Koncar and "Vodnjanka" of Pula and others, where all of this has gone very slowly. Many still prefer to rely on imports. As though they are forgetting how necessary it is to employ domestic capacities!

## Technological Redundancy by Sectors

Sector	Number of Workers	<u>%</u>
SR Croatia	6,466	100.0
Economy as a whole	6,180	95.6
Noneconomic activities	286	4.4
Industry and mining	4,317	66.8
Agriculture and fishing	333	5.2
Timber and forestry	29	0.4
Water management	0	0.0
Construction	514	7.9
Transportation and communications	390	6.0
Trade	356	5.5
Hostelry and tourism	50	0.8
Crafts and trades	81	1.3
Housing, utilities and municipal services	53	0.8
Financial and other services	57	0.9
Education and culture	193	3.0
Health and social welfare	38	0.6
Sociopolitical communities, sociopolitical		0.0
organizations and self-managing communities	•	
of interest	55	0.8

Technological Redundancy by Communities of Opstinas, as of 30 September 1983

Community of Opstinas	Number	<u>%</u>
Bjelovar	108	1.7
Gospic	42	0.6
Karlovac	182	2.8
Osijek	1,257	19.4
Rijeka	637	9.9
Sisak	913	14.1
Split	1,065	16.5
Varazdin	167	2.6
Zagreb Urban Community of Opstinas	2,004	31.0
Zagreb Community of Opstinas	91	1.4
SR Croatia total	6,466	100.0

#### Disenfranchisement

It solves nothing to say that employment is an immense problem. An unemployed person has no rights whatsoever, his inalienable constitutional right has even been taken away from him--the right to self-management. It appears that they are second-class citizens. Their welfare seems to concern those in positions of responsibility very little. Elsewhere, for example, there is even a trade union of the unemployed. "The creation of new jobs cannot take place at the normal pace and with normal developments because the basic factors have not been furnished for production: energy and raw materials, nor have problems concerning the system been resolved appropriately," Dr Brekic says. In his opinion the question of the income theory is also a reason why unemployment is what it is. If income is the goal, and it can be augmented through prices, then, of course, there is no need to make a great effort or to create new jobs and hire new people. "Humanism and economic materialism are at odds," Dr Brekic asserts. Therefore, in his opinion, the income realized in this way is not important, but what is needed is commodity production on principles of economic efficiency and productivity, which are directed toward satisfying needs. Not mass production, then, but production for the masses.

It might be said that what happened after 1965 when the economic reform was introduced is happening once again. At that time about 50,000 people were unemployed, and we solved the problem in that they found employment abroad. However, today we can no longer work it out in that fashion. As though we are forgetting that a society which does not sufficiently utilize the capacity represented by the young generation, and that means the age group between 23 and 30, is condemned to stagnate and to lose ground. It is also disturbing that the composition of the unemployed with respect to skills and qualifications is far better than that of the employed labor force. It is still more serious that three-fourths of them are young people and trained people. To be sure, the generation of the unemployed is very quiet and peaceful. According to Dr Brekic, there is no danger that young people will become more vocal or rebel because of the situation they find themselves in. It appears that their fathers might do that first. Professor Obradovic has similar

ideas. A majority of young people seem to have no interest in work. To be sure, this may only be the way it appears.

(as of 31 December 1983)

Unemployed	Total	Women	<u>%</u>
SFRY Bosnia-Hercegovina Montenegro Croatia Macedonia Slovenia Serbia, total Serbia proper Kosovo Vojvodina	916,327	519,673	56.7
	205,445	116,396	56.7
	33,114	19,692	59.5
	112,961	70,229	62.2
	127,893	71,187	55.7
	16,858	9,206	54.6
	420,056	232,973	55.5
	237,803	150,780	63.4
	91,348	22,493	24.6
	90,905	59,694	65.7

As far as the policy of creating new jobs is concerned, it should be said that it must be conducted uniformly over the entire area of Yugoslavia. For the reason, of course, that nothing stands in the way of the mobility of the unemployed. What good does it do, for example, for the rate of unemployment to be only about 1 percent in Slovenia, when it is higher than 20 percent in Bosnia-Hercegovina. It is obvious that the creation of new jobs will continue to result in large part from pressure based on considerations of social welfare.

To be sure, over the long run, according to various plans and estimates, we need not be excessively concerned because of the unemployed. For example, the problem will be resolved by the year 2000. Even by 1995 we will have an unemployment rate of only 3.5 percent. The only problem is actually how to explain to the young, trained, intelligent and ambitious generation of the unemployed that they are to wait until that time. We must add something else to the assertion that "the world is left to the young." It is left to them, but only after they have gotten old! But actually not all of them will have For example, were we to do away with 1,800 workers who by force of law in Croatia should long ago have retired, but are still employed, it is obvious that the number of unemployed would be reduced somewhat. Something would also be gained from shortening the workweek, and a great deal from regulating overtime work. Last year in Croatia alone 43 million hours of overtime work were recorded. On that basis alone, in Ivancevic's opinion, it would be possible to hire 22,000 new workers. Does this need any comment? It is also surprising that 12 percent of all the overtime work occurred outside the economy. The Zagreb and Rijeka Communities of Opstinas are the leaders.

Supplemental work is also a problem. The people in the trade unions hope that the new law will resolve this problem, but in SR Croatia there are still 5,400 workers employed on a supplemental basis, 1,200 of them working full-time. Many of these supplemental workers are retired people. In Brekic's opinion, many pensioners work in order to offset the idleness of their

children. However, in his opinion, there is no justification for paid employment of pensioners when we know that 78 percent of all the unemployed are young people.

The right to work, according to Dr Brekic, is a slogan only in the sense of civil liberties. Why is it necessary to grant someone the right to something which he cannot exercise?

It is the constitutional obligation of the employed labor force to create conditions for employment of others who are unemployed, and work and the right to work are among the basic preconditions for building self-management socialism. So, how is this to be done?

The Alpha and Omega

All those with whom we spoke agree that the economic policy needs to be changed. It dare not be mostly administrative any longer. In the opinion of Dr Brekic, a self-management economic policy is the alpha and omega of our entire way of life. "After all, there is no way for a system to be stable if its unemployment is rising," Dr Brekic says. The accumulation of arms and the rise of unemployment are humanity's two greatest open wounds. That is why we need to guarantee the minimum of the prerequisites for the development of normal production, prepare structural analyses by industrial branches, make it possible for small business to develop, the conception for which has not yet been worked out, to introduce work on more than one shift, to shorten the workweek and altogether change export policy. There is a need to repeal the law on overtime work and reexamine health care policy, at least as far as sick leave is concerned. According to certain analyses, it turns out that we are a people who spend more time on sick leave than on vacation, since 9 percent of the time goes for sick leave, and 7.5 percent for vacation.

In the trade union they believe that development is the place to begin in creating new jobs. "Our greatest mistake in development is not that we spent the entire inflow of foreign exchange for 1 year in advance, while we have such a level of indebtedness that we have to set aside 50 percent of that entire inflow to repay it, but the problem is that we have invested in autarkic Should we continue on this road, before long there would be an airport not just in each region, but indeed in every opstina. Forget about the fact that many of the projects which have been built, whose value runs to hundreds of billions of dinars, are employing only a few people, but rather the problem is providing personal income for those few--for example, our bridges, tunnels, airports, the oil pipeline, and so on, Ivancevic says. those mistakes have been lessons for us, and if we take them as such, that is fine. But if the road to hell, as they say, is paved with good intentions, we must also be cautious toward the intentions which lead toward the way of a solution. And since it is not possible overnight to find economic stabilizers which would correct the economic system's disequilibrium, which incidentally did not itself occur overnight, and since restructuring of production also requires a necessary level of utilization of existing capacity, adequate time (at least 5 years) and adequate resources will be required, so that the problem of unemployment will be with us for a long time yet, and it

will be difficult to solve. Professor Obradovic feels that there are two solutions for solving the problem: either an extensive economy which reduces unemployment, or an authentic international division of labor, which signifies higher productivity, and then not only a growth of technological redundancy, but also a drastic growth of unemployment. That would mean that we find ourselves in a dilemma as to whether we put social welfare considerations first or leave the situation the way it is. Neither of these is acceptable; that is, a combination is necessary. Zivko Maravic feels that equality in poverty cannot pull us out of this situation. In his opinion, the saying "If there is enough for three, there is enough for four" is baneful and leads to extensive creation of jobs. However, Professor Obradovic feels that in no case can we insist on high productivity that would have a drastic impact on the creation of new jobs. We must be exceedingly mindful of the social welfare aspect of creating new jobs. According to Dr Brekic, to make it easier to create new jobs, the young generation needs to be freed of two great evils: "reliance on connections and bribes." That is, it seems that only in those two ways, through connections or by buying a job, can one obtain employment today, although we hope that this is not excessively manifested.

"It is absolutely unacceptable to tolerate the present situation, to vacillate or be indecisive, to say that we are helpless and see no way out of this situation. There is room for creation of more jobs," Ivancevic says. The trade union, then, is alert and knows that the solutions exist. Now is the time to carry them out.

7045 CSO: 2800/349 STATUS, OUTLOOK FOR COAL PRODUCTION

Zagreb DANAS in Serbo-Croatian 8 May 84 pp 13-15

[Article by Milos Petkovic: "Coal Cannot Be Avoided"]

[Text] The country's energy balance for this year states that the mines will produce 64 million tons of lignite, brown coal, and bituminous or better coal. By comparison with 1983, when the plan called for 60.7 million tons, and 59.3 were delivered to consumers, this is a considerable increase. However, the target was not achieved last year, mainly because of the lack of investment capital and the shortage of railroad cars. As for investments in this industry, losses first have to be covered which, according to year-end statements for 1983, amount to about 3.5 billion dinars, more than threefold what they were in 1982.

The best proof that things in this area have not gone smoothly is that today there are still 1982 losses which have not been covered. The miners are worried that their costs rose 41.4 index points, while gross income and income increased only 36 and 33 index points, respectively. What is more, the largest trading partner of the mines—the associated electric power industry—is quite far behind in paying for the coal.

It is estimated that the ever greater demand for coal could be satisfied if production were increased every year by about 5 million tons. This orientation is long-range in nature and ought to remain in place up to the end of this century. It is also superfluous to mention that the desires can be realized only if there is more money. As a rule, looking at the averages, it has rarely been possible to furnish more than 50 percent of the capital necessary in any particular year. Usually it has been possible to furnish between a third and 40 percent. In 1983 nearly 10.5 billion dinars were invested, and calculations have shown that only twice as much could have meant anything. The mines were exceptionally successful in providing 32.4 percent of their own money, which cannot be repeated this year and the years to come, since as soon as the price of coal rises, all those who deliver production supplies or anything else to the mines immediately see to raising their prices.

This year the larger investments must be forthcoming. Without 58 billion dinars it is not possible to make any sort of turnaround, the programmed output

could be in jeopardy. A certain portion of the amount of money which has been mentioned—approximately \$190 million—has to be in convertible currency. Imported machinery not manufactured in our country will require \$125 million, and the purchase of spare parts abroad \$57 million. Another \$8 million have to be furnished in order to import safety equipment which is urgently needed by the underground mines. It is already the end of April, and they do not even have token amounts of convertible money in their hands.

It has been stated on several occasions at various gatherings that a large number of mining machines are out of commission. One is disassembled in order to equip several others, but this practice cannot be continued. amount of money that will be needed this year for investment to open new mines and for reconstruction and modernization of existing coal mines will depend in large part on how inflation goes. Unless a barrier is set up against it, it is quite certain that the balances envisaged will have to be reshaped. The faltering steps with investment has the result that for all practical purposes the coal is being distributed even now. It is difficult to speak of normal sales when the amount of fuel each is entitled to is decided in advance. At present we know that in 1984 the lion's share will be "taken" by the associated electric power industry--48.1 million tons, industry 7.6 million, and general consumers 7.4 million tons. Railroad transportation organizations count on a rather token amount, less than 200,000 tons. It is believed that exports of coal fines will not reach even 500,000 tons, although the same amount will be shipped in from abroad in the effort to meet the need for heating fuel.

It is obvious that under the present circumstance we cannot anticipate a speedy replacement of liquid fuels by solid fuels. It is of interest to say a few more words about heating fuel.

It is not sufficient only to have adopted an energy policy 10 years ago which gives preference to the use of domestic sources. Its shortcomings are also manifested in the fact that heating fuel and heating in general have not been given a very enviable place, although it is well known that considerable quantities of coal, petroleum products and electricity are used for this purpose. Since there is not an abundance of any type of fuel or energy, even the smallest households are forced to have several kinds of stoves. Which one will be "lighted" depends on the supply of heating fuel and energy in general. The family budgets are subject to superfluous expenditures, and certain branches of industry have opted for production over the short term.

In any case, when the new medium-term plan on development of the energy sectors from 1986 to 1990 and the projection up to the year 2000 is adopted, the problems related to heating fuel and heating will have to be worked out in detail and placed on a foundation of the objective physical capabilities. That is, the visions are too rosy. A turn has to be taken toward realism, and implementation of the Long-Range Economic Stabilization Program has to be borne in mind. Years are coming in which economy and optimum consumption will be most important.

If the country's energy policy is based on domestic sources, then coal cannot be avoided. The relative abundance of this type of energy is indisputable. Total geological reserves have been estimated at more than 21 billion tons. According to some people, it is several billion tons larger, and it is mentioned at the same time that the entire area of Yugoslavia has not yet been explored. It is believed, then, that it is possible to discover new deposits of quite considerable size. Nor does anyone dispute that the makeup of the coal is not the most favorable. Lignite has the leading place with 77 percent. Brown coal has a share of 22 percent, and bituminous or better has a share of only 1 percent; it is often emphasized that at least 60 percent of the established reserves are economically profitable. Surface exploitation would be dominant here. People are aware that there are 75 localities all over the country with smaller or larger amounts of coal and that their suitability for use is beyond all doubt.

## Excessively Slow Pooling

Coal is produced in our country at 44 small, medium-sized or large mines. Between 1966 and the middle of the last decade about 30 coal mines were closed, those that were small or more or less medium-sized, on the basis that they could not withstand the competition of petroleum, which at that time was inexpensive. Warnings were issued in vane that precisely such mines were suitable for meeting local energy needs. By contrast with developments in the USSR, the United States, China and certain other countries, coal was written off too early, so that the way to inroads of imported energy was cleared to an excessive degree. The fact that our own resources are the most reliable support and that they should not be altogether neglected was over-In Croatia, for example, 2,686,057 tons of lignite, brown coal and bituminous or better coal were produced in 1956. Before World War II production reached 770,000 tons (not including Rasa). It is true that these were mainly small coal mines, but also that those quantities of fuel were not exactly negligible for that time. It is of interest that certain mines in Croatia were closed even after the first visible signs of the energy crisis broke out. Rasa now produces nearly 300,000 tons, although it is aiming at an amount twice that large. In general opportunities are being investigated for large coal production not only in that basin, but in certain other basins as well.

There are now 60,800 people employed throughout the country at pit mines and underground coal mines, including the office force. Most of the miners are working in underground mines, whose annual output is 16 million tons, or 27 percent of total coal production. If there were applicants, the mines could immediately hire about 5,000 workers, above all underground. It seems that even the appreciably increased earnings, which in 1983 amounted to 20,929 dinars, are not a sufficient attraction. Incidentally, earnings of this kind were "posted" for the first time last year, but that amount also included the earnings from nighttime work and work on Saturdays, Sundays and holidays. Yet we should have no doubt that young people are not quick to opt for a job that is risky, rather heavy work and still is not the best paid.

One gets the impression that a renaissance of coal is talked about quite a bit, but is slow to come about. One of the reasons is again the lack of capital for development. It is significant that according to the data of the Social Accounting Service of Yugoslavia "own" capital set aside for capital investment projects in the economy does not exceed 26 percent. Loans obtained from our own or foreign banks have been the basis of all investments to date. It is worth mentioning that the investor's share in the priority sectors and branches averages 17.4 percent. Those priorities include the fuel and power industry, which also means the coal mines. The pooling of capital in general over republic and provincial boundaries is showing no sign of invigoration. The capital pooled in such investment projects in 1982 amounted to 0.38 percent, and last year 0.33 percent, with a tendency toward a further decline. The pooling of labor and capital is mainly taking place within the republics and provinces.

Our natural resources, regardless of what kind we are talking about, are not equally distributed among the republics and provinces. That is also true of coal. More than half of the total reserves are located in Kosovo. And then in Bosnia-Hercegovina, Serbia proper, and so on. Although no region of our country lacks coal altogether, it is certain that some of the republics and provinces are "richer" in this respect. The conclusion of accords and compacts on joint exploitation have gone slowly, and sometimes they came to nothing more than lengthy dialogues. The country's energy policy ought not to consist only of the sum total of the projections of the republics and provinces; nor, which is the case, should points of contact ever fail to be found.

When the plan for the period 1981-1985 was prepared, it was estimated that coal production in the middle of this decade could be 82 million tons. Since the money was lacking for large undertakings, the plan was revised, and it was believed that coal production in 1985 would reach 73 million tons. Today it is almost certain that up to the end of the year we can count on more than 68-70 million tons, provided the investment projects are not disappointing.

In the last 2-3 weeks at least a dozen large meetings have been held to discuss the fuel and power industry.

Everywhere the accumulated troubles were enumerated, but little evidence was offered of a way being found out of the crisis. While the miners say that there have been no mistaken investment projects recorded in the recent or distant past and that production capacity in coal mines is being utilized at a level of 95 percent, that is not the case in the petroleum and gas industry, nor indeed in the electric power industry, which lacks mazut for normal operation of thermal electric power plants fired with liquid fuels. They have a 9-percent share in the total installed capacity of the associated electric power industry. In Kosovo there is not enough coal, and there are also occasional difficulties in the Tuzla Basin. There is no doubt that the country's energy policy, and accordingly that of the republics and provinces, ought to be put on the agenda once again. In view of the sizable investments that lie ahead, it must not be allowed to happen that the money is spent, but the anticipated energy is not forthcoming. Another reason for reorganization and

for conducting a more unified energy policy is the limited source of foreign exchange for a lengthy period of time.

More Than Enough Work To Do

Here and there we detect a fear that the situation in the fuel and power industry can be brought into adjustment only toward the end of this decade, provided the necessary social compacts and self-management accords are reached virtually immediately. Most specialists are convinced that coal will remain the pillar of support for our energy policy until quite far into the 21st century. Work is being done elsewhere in the world to find new sources, but about 3.5 billion tons of coal are produced every year, predominantly bituminous or better. In our situation the desirable timetable has been clearly established without which it is not possible to accomplish a turnaround in the production and processing of coal. Back in 1969 there was mention of the possibility of gasification of lignite, the production of semicoke, smokeless fuel for general consumption, and so on.

Little has been done in the meantime to modernize the distribution network for sales of heating fuel. Probably the greatest achievement here is that the coal is no longer delivered by horse and wagon, but by truck. Even in the republic and provincial capitals the storage yards are uncovered and are temporary in nature, since not so long ago it was assumed that these distribution organizations had no future. Even today they are selling not only coal and firewood, but also building materials—tiles, cement, bricks and the like. Whereas in the middle of the decade before last industry and households turned their back on coal, concern was no longer paid in the mines to grading. The procedure was simplified, and some of the separation facilities were simply disassembled. Now all of that has to be put back and modernized. The slow establishment of price parities in the fuel and power industry favor now one type and now another type of fuel. That is why consumers do not make a firm commitment to one type of fuel or energy.

It is wrong to assume that one branch of the fuel and power industry should develop at the expense of the others. We head the European ranking with respect to energy consumption. At the same time consumption is excessively high per unit output by comparison with the industrially advanced countries. How are we to reduce the squandering and bad management of energy and the available resources? Several conferences have been organized at which conservation and optimum energy consumption were discussed. There are new meetings on this topic coming up. That does not complete the job. If coal production reached 145-150 million tons in the year 2000, with trends toward a further growth, several other important problems would arise. Emphasis would be put on environmental protection against air pollution with smoke and ash. And then there would be recultivation of the land.

Soon a year will have passed since the signing of the social compact on modernization and construction of new coal mines, rapid exploitation of the hydropower potential and the opening up of oil and gas fields. Very little progress has been made in all this from the outset. The dinar from the sale of petroleum products which is earmarked for the coal mines is not coming in

as anticipated. Largely because sales of liquid fuels are off, and the decisions on the assignment of those funds were not made fast enough in the republics and provinces.

We have gotten into a situation where we need to make greater use of our own energy resources, but at the same time it is not possible to give up large quantities of imported energy. There is not as much money as is needed for both things, and that is why we are marking time.



Map of Yugoslavia's Coal Basins

- Key: a. Austria
  - b. Hungary
  - c. Romania
  - d. Bulgaria
  - e. Greece
  - f. Albania

- g. Basins
- h. Bituminous or better coals
- i. Hard brown coals
- j. Brown-lignitic coals
- k. Soft brown coals (lignite)

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