

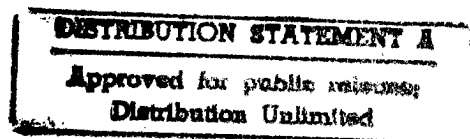
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4 May 1984

East Europe Report

ECONOMIC AND INDUSTRIAL AFFAIRS



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4 May 1984

EAST EUROPE REPORT

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POLISH OFFICIALS DISCUSS COOPERATION WITH USSR IN FOOD PRODUCTION

Warsaw CHLOPSKA DROGA in Polish 25 Mar 84 p 11

[Excerpts from an interview and statements of representatives of the food management complex: "We and the USSR: Food Production"]

[Text] In the form of an interview and statements of representatives of the food management complex, the National Workers Agency presented the problems of cooperation between Poland and the USSR in the area of food production. Following are the most cogent parts of these statements, presented so that the reader might form his own view of the seriousness of this problem.

Interview with Vice Premier Roman Malinowski, Chairman, ZSL Chief Committee

[Question] What were the most important determinations concerning Polish-USSR cooperation in agriculture and the food industry made during last year's visit to our country of Vice Premier Zuya Nuriev and the USSR delegation?

[Answer] During discussions in Warsaw we made a joint evaluation of Moscow determinations and discussed the program of cooperation to 1990. This was the subject of our evaluation in the administration. The result from this is that by the end of the decade a threefold increase in goods exchange in the agricultural-food complex will be possible, and participation in mutual exchanges will increase by 5 to 11 percent. At the same time emphasis was placed on increasing specialization and cooperation in specific areas of the agricultural-industrial complex.

[Question] Would you illustrate this with examples?

[Answer] The USSR and Poland are the greatest producers of potatoes. Our partners, developing their own processing base, are interested in obtaining suitable equipment, or complete plants, from Poland. Receiving steel and rust-proof and acid-resistant metal within the framework of cooperation, we are ready to fill these orders. Multiserial Soviet orders create a great opportunity for this branch of our industry, especially with respect to its specialization.

Another example: the USSR is a major producer of machinery and equipment for soil improvement work. For us in turn, the supply of such machinery is indispensable for carrying out the program of improvement in exploiting agriculture and providing farmers with water. It is obvious that this will be easier to do in cooperation with the USSR.

Specific determinations pertain to this same agricultural production. Great possibilities lie, for example, in exchange of seed and breeding material. We made an agreement with the USSR specifically for a larger supply of high-glutin wheat that controls the quality of bread. This will satisfy, at least to some degree, the justifiable complaints of the consumers about quality. In turn, the supply of sunflower, maize, and alfalfa seed will help us solve fodder problems.

In technology and chemistry great prospects for specialization and cooperation in production are developing.

Even now 12,000 tractors arrive on Polish fields annually from the USSR; this constitutes 1/4 of the national deliveries. We will increase imports of apatites, urea, and natural gas, and we will maintain the level of potassium fertilizer purchases; the USSR fills 80 percent of this import requirement.

In the food industry, our Soviet partners will help us equip three dairy plants and will provide technical equipment for some state farms in eastern provinces where there is much land, but a weak technical infrastructure.

In turn, we will export to the Soviet market a larger number of cooling plants and equipment for processing fruits and vegetables. Exchange of agricultural and food articles will increase.

[Question] Mr Premier, after several years of extensive Soviet economic aid, finally we can notice a gradual return to normal, that is, partnership relations with the USSR. Does the program of cooperation you propose in agriculture and the food industry indicate that the same is true in that area?

[Answer] Decidedly; the prospects of strengthening partnership relations with the Soviet Union were brought closer by the results of the Moscow and Warsaw discussions. The program of cooperation agreed on in the course of these discussions will be the basis for the coordination of socio-economic plans of both countries.

We specifically established the desirability of isolating the agricultural-food complex within the framework of the coordinating activities. Due to this, a number of real problems will not escape our attention. Within the framework of the International Commission on Economic Cooperation a special unit will be created that will deal with the problems of agriculture and food management.

The model of cooperation that we have developed in contacts with the USSR is of great interest in other socialist countries.

Statement of Sanislav Zieba, Minister of Agriculture and Food Management

Polish-Soviet contacts in the area of agriculture and the food complex have a tradition of many years' standing. In the current five-year period, the cooperation of both countries is concentrated on breeding and seed potato

production, cultivation of rye, rapeseed and sunflower, lupine, sugar beet, flax, hemp, and ornamentals, as well as considering such problems as devising new techniques for improving orchard plants, mechanization of production of fodder, and problems of animal breeding.

In the area of work on improvement, we are cooperating in attempts to solve the following problems:

- improving methods of hydrogeological research and research on soil improvement for planning land improvement;
- developing solutions to engineering problems and recommendations for methods regarding flood control and undercutting of soils in planning and installing water reservoirs;
- preparing techniques for exploiting effluents of the food industry and manure for irrigating fields and saving water.

In the area of technology, this cooperation includes:

- improving existing techniques and methods and developing new ones for providing technical service and maintenance of tractors and agricultural machinery that are part of the trade between Poland and the USSR;
- developing a technology for cultivation and making technical tools available to specialized repair shops;
- developing industrial construction of greenhouses and work on the technology and equipment for their installation and technical servicing;
- working out the technology and technical means for installing production plants for breeding farm animals and poultry;
- developing systems for organizing technology and means for technical servicing of equipment for fodder production plants.

Within the framework of the subjects mentioned above, the countries are exchanging documentation and information, conducting consultations and making joint studies of machinery and equipment prototypes.

New possibilities in Polish-Soviet scientific-technical and economic cooperation in the area of agriculture and the food industry were opened by the visit to our country last year of a government delegation from the USSR with Vice Premier Zuya Nuriev.

A series of new proposals for cooperation were discussed; these will promote further progress in agriculture and a more rapid and less expensive introduction of modern technology.

Statement of Eugeniusz Szatkowski, Vice Minister of Metallurgy and the Machine Building Industry

The scope of Polish-Soviet cooperation in the sphere of providing agriculture and the food industry with machinery, equipment, transportation facilities and replacement parts, batteries and tires is very broad.

First of all, because of cooperation, including specialization and cooperation in production, the USSR is sending us farm tractors and other equipment needed for our agriculture, such as: harrows, plows, plowshares, machinery for cultivating and harvesting flax, clippers for shearing sheep, and various

machines and equipment for the food industry. The value of these supplies in 1983 was approximately 185 million rubles.

Special emphasis should be placed on import from the USSR of small and average-sized farm tractors, 25 and 80 metric hp, used especially on private farms. During the last decade and the beginning of the 1980's, we imported more than 100,000 of these tractors from the USSR.

Poland is supplying the USSR with manufactured goods such as: driers for grain capable of processing 20 and 40 tons per day, tractor-powered potato diggers, mowers-cutters, clover hullers, self-dumping trailers, and a wide assortment of equipment for the food industry, food marketing and restaurants, including: yeast factories, oil mills, and starch plants. The total value of these exports in 1983 was approximately 160 million rubles.

Statement of Jan Sidorowicz, Vice Minister of Chemical and Light Industry

There is a more than 20-year tradition of Soviet supplies to Poland of potassium salts, one of the three basic fertilizers used in cultivation of arable land. Imports from the USSR are responsible for 80 percent of the import of this mineral; the remaining 20 percent is purchased from East Germany.

Another important position among chemical raw materials for the fertilizer industry is held by apatites from the Kola Peninsula. We import approximately 250,000 tons annually, computed for the pure component, which meets approximately 25 percent of the demand of our agriculture for phosphorus fertilizers.

From the Soviet market, we also purchase approximately 120,000 tons of ammonia annually. This is enough to meet the demands of the Polish chemical industry, and therefore, we are arranging to continue to buy it. In recent years we started to import so-called yellow phosphorus from the Soviet Union; from this we get thermal phosphoric acid for production of fodder additives (fodder phosphate). On the basis of a long-term trade agreement, we buy 12,000 tons of this annually.

We, on the other hand, are a substantial provider of sulfur, one of the two raw materials used in the production of phosphorus fertilizers. At present we supply the Soviet fertilizer industry with 800,000 tons annually.

Since relatively recently, we have been importing certain plant protection agents from the Soviet Union. Among the five kinds of chemicals in this group, most important is simazine, an agent used in growing corn. A new agreement on supplying these plant protection agents during 1986-1990 is in the preparatory stage. It establishes a broadening of the assortment of purchases, up to 10 varieties, and an increase in amounts to a level that would fully cover the requirements of Polish agriculture.

Veterinary medicines and fodder additives are most important in our export of chemical products for USSR agriculture. In the last 2 years we substantially increased the amounts of these offered for export. During the last year, income from export exceeded 55 million rubles, and in the current year we propose to supply these at a level higher than 85 million rubles.

Agriculture-Food Industry Trade

In the Polish-Soviet trade exchange, the proportion of agricultural-food industry articles is small. In recent years it has been within the limits of 4 percent of the total trade. It might seem that this is a small matter, that it is not worth thinking about in general. But it is worth thinking about because actually it is not so small nor equally obvious to all.

First let us consider what we export to the USSR and what we import from that market in the group of agricultural-food industry goods. The key to understanding its importance lies in the structure of the mutual exchange.

Fruits and vegetables, both fresh and frozen, occupy the main positions among our exports to the Soviet market. Important also are canned vegetables and fruit pulp, and certain amounts of soup concentrates and pickles, as well as fruit products and pasteurized beer. Before 1980 we also exported significant quantities of eggs in the shell (260 million eggs). From the Soviet Union, we buy mainly tea, hard cheeses, canned fish, and cognac.

Regardless of mutual purchases resulting from obligations stipulated in trade agreements for specific years, during 1980-83, the Soviet Union supplied Poland with additional quantities of agricultural-food industry articles worth a total of 245.3 million rubles. These supplies were partly in the form of aid, were made on a credit basis and were paid for, relatively, by Poland's supplying certain articles, for example, coal, medicines, and frozen fruits. All of the supplies from the USSR came to our country in a most difficult crisis period and served to enrich the offerings of our internal market.

2950

CSO: 2600/853

BULGARIA

PROBLEM OF PRODUCT QUALITY EXAMINED

Sofia OTECHESTVO in Bulgarian No 3, 14 Feb 84 p 6

[Article by Serafim Severnyak: "Bulgarian Workmanship, or Once Again on Socialist Civilization"]

[Text] Have the jokes about Bulgarian workmanship ended or at least become less frequent? We truly have lifted mountains, created lakes, cast metal, and we have blown glass, woven cloth and wired semiconductors. These are facts, we know it and are proud of it. We also know that part of the fruits of our work travel by land, earth [as published] and air to developed, developing and other countries of the world. Otherwise we would not be eating oranges and dates, watching color television or driving cars. We would not be traveling by plane and using video equipment. Along with the watermelon and the tomato, the cucumber and the melon, the jam and the wine, we sell, and sell successfully, electronic computers and electric vehicles, refrigerators and lathes, turbines and a wide range of pumps. Now, drawing the balance after 40 years, we can say that our national miracle on the road to socialism is called machinebuilding; who will deny us this?

However, we have come to a point where we must bring ourselves to accept that Bulgarian means high quality, that a socialist nation, a technically oriented nation and domestic production meeting international standards are not mere words or slogans but firmly established facts. In the mass media you will very rarely find reports by our many foreign correspondents on how the developed, developing and other countries of the world accept Bulgarian products; [we do not know] whether they throw their caps in the air with joy and swear to buy only from us or whether, immediately upon delivery of the goods, they set out to eliminate shortcomings, to tighten loose parts and, without having truly enjoyed them, reach for the advertising material of other countries and peoples. We need this feedback to make sure that what we stamp with "K" and "One" are not products judged by our homespun standards but genuine achievements over which we can stand tall and proud in front of the whole world.

During the New Year shopping spree you bought your children the Resprom DG 311 record player, made by the Veliko Turnovo plant, which will take over from you the telling of fairy tales and the singing of songs. However, several days later the little listeners hear out of the cherished box: "Then Little

Red Riding Hood, then Little Red, then...." A beautiful record player with a transparent dust cover and flawless design--to use a word which, for who knows what reason, stands for exterior. But it refuses to function. The button which turns the record player on and off is made so that together with it the entire shakily mounted interior of the box moves around--the very components which reproduce and transmit the words and melodies of "Puss in Boots" and "Little Muck." Willy-nilly you go to the store because you are still within the guarantee period. There you draw condescending smiles because of your technical incompetence. Somebody pushes a little something, and the record player is working fine again. You return home ashamed of yourself, but wearing an important mien in front of your children. You turn on the machine, and the stuttering begins again from under the transparent dust cover: "Then Little Red Riding Hood, then Little Red, then...." You are forced once again to sneak away from your job and go and ask for repair as long as you are covered by the guarantee.... Somebody will say: What an insignificant example; one could do without it. But add to it the surprises accompanying the starting of your car after it has just come out of the repair shop. Or the hygroscopic capacity of the Plovdiv boots produced under a Japanese license. Or the locks of the diplomatic attache case which open when they want. Or the blank 24-page sections in the interesting book you just bought. Or the new transistor batteries which give out in a matter of days and weeks. Or the pink balloon which bursts only a few meters from the stand, so that you may go back without loss of time and buy another two. Or....

The question remains: Are "K" and "One" international quality labels or just our own? Whom do we mislead, ourselves, the others, or everyone? We know that even in fairy tales the moment comes when the children step forward on the stage and cry out the embarrassing truth: The king is naked! Economics is an area in which the metric system and the comparative method are necessary and obligatory: no other language has yet been invented to deal with it. It is also known that the stormy development of the production forces under socialism outstripped the growth and improvement of production relations. As political economists say, man himself and his ever increasing and expanding material and spiritual needs becomes the target of production under socialism. In this situation, cost and quality not only remain indicators of rational management, in other words, economic problems, but there also emerge the requirements for the specific usefulness of the finished product, a fact which transforms the problems into political ones. The improvement of human consciousness under socialism, the voluntary increase of responsibility, self-control and control over others--all this leads us to the ideological territory where all short-sightedness and miscalculations have dire consequences. In this connection it seems appropriate once again to recall the passage in the speech of Yuriy Andropov to the veterans of the CPSU in which he says: "We are right when we talk of the ideological insuring of economic activity, but the economic--or in an even broader sense--the social insuring of ideological activity is of no less and perhaps even greater importance. After all, any disorder, poor management, violation of laws, profiteering and bribery devalue the work of thousands of agitators and propagandists." This is clear and categorical. But if deviations from the norms, from legality and straightforwardness in the social relations hamper our work in the field of ideology, how could this work be helped by violations

of technical and labor discipline, criminally closing one's eyes to the situation and the indiscriminate use of false quality labels?

If we transfer our justifiably high demands to the unstable ground of trade and services, we shall see how organic, how fateful the relation and interdependence between words and action may turn out to be. The harmonious and happy man, who is the ultimate goal of our society, cannot and will not resign himself to rudeness and carelessness, to the runaround and nerve-racking hassle. With time he will become ever more demanding and religiously correct in all his standards: The revolutionary fury caused by the class discrepancies and struggles will transform itself into determined steadfastness aimed at personal refinement and improvement. Otherwise we would find ourselves in the unenviable position of alchemists pouring from empty into bottomless jars or, even worse, at the public square of empty speechmaking: words, words, words.... Is this not the reason why at the 12th Party Congress the call came from the highest rostrum for: action, action, action. What happens--and let us transfer the argument to our own battleground--resembles a discussion about the problems of language. Several columns are devoted to a furious war against the impurity of the linguistic fund and for the renaissance of the century-old riches and tonal diversity of the language and, in the adjacent columns of the same page, we find alien expressions like measures and sales, accents and fragmentation, magistral and supermarketry. In this manner, without noticing it but quite inevitably and unavoidably, we come to the following question: Where do you stand, and where do the rest of you stand? This is not a very pleasant question but, to some people's regret, a necessary one, and it is precisely the mercilessly honest and correct answer to this question which will very quickly assign us our place in the social picture.

Many of the remedies have been found and pointed out--elimination of formalistic management, a radical reduction of the bureaucratic personnel, implementation of the requirements of the new economic mechanism: high productivity, faultless quality, and clarification of the equation which shows the state as owner and the production collective as manager. These are only the starting points for an inevitable upward development. Since truth always has names, and these names are concrete, it is imperative that the discussions be conducted on the principle of merciless objectivity. These discussions are based on equal rights and are democratic: Have you noticed the positive results that readers' letters in our press, radio and television have developed? Let us not delude ourselves. This is not a campaign but a mounting necessity. This is the way to come closer to the fulfillment of one more condition for progress--the force of public opinion--and this is excellent. All that remains to be done is, with each calendar year, to put more distance between ourselves and the epithet: "typical Bulgarian job." Let us hope so.

[Signed] Serafim Severnyak

12653

CSO: 2200/86

CZECHOSLOVAKIA

DEVELOPMENT, WEAR OF CAPITAL ASSETS IN NORTHERN BOHEMIA

Prague STATISTIKA in Czech No 1, 1984 pp 30-38

/Article by Jaroslav Psutka and Jaroslav Zahalka: "Characteristics of Development and Use of Capital Assets in North Bohemian Industry"/

/Text/ The North Bohemian kraj is an important industrial agglomeration with a specific production structure that has resulted from historical development and the planned utilization of natural and economic conditions to assure the developmental requirements of society. The industry of the North Bohemian Kraj is characterized by the production of a large portion of the national production of fuels, energy, chemical-rubber products, paper and cellulose, glass and textiles, all of which, with the exception of the above-mentioned light industrial sectors, are very capital-asset- and energy-intensive products. This shows up in a high concentration of capital assets, while the strictly industrial character of the kraj is clear from a comparison of its output, population and basic industrial indicators.

Table 1. Basic Characteristics of North Bohemian Kraj

	Unity of <u>measurement</u>	<u>Actual</u> <u>1981</u>	<u>Percentage of total</u>	
			<u>CSSR</u>	<u>CSR</u>
Area of Kraj	km	7,810	6.1	9.9
Population	thousands	1,169	7.6	11.3
Industry: gross output	million Kcs	70,969	11.0	15.3
Number of workers	thousands of individuals	256	10.1	13.7
Capital assets	million Kcs	108,655	13.7	19.2

The concentration in this kraj of a large amount of capital-intensive production also generates great demand for capital asset replacement which, in view of the situation in the supply of labor, should also create the essential preconditions for an improvement in the time utilization of the extensive production base.

Condition and Structure of Capital Assets

The value of capital assets, at acquisition cost, that were installed in industrial enterprises in the North Bohemian Kraj amounted to Kcs 109 billion at the end of 1981. From among the Czech krajs, a greater value of capital assets was concentrated only in the North Moravian Kraj, where the population, however, is two-thirds greater.

A distinguishing feature of the production base of the industry of the North Bohemian Kraj is the high concentration of capital assets related to the fuel and energy complex. More than 53 percent of the total capital assets of the fuel and power generation industries are located here, and these two sectors account for not quite one-third of the total industrial production of the kraj.

Table 2. Capital Asset Structure of North Bohemian Kraj Industrial Enterprises as of 21 December 1981

	<u>Value in Million Kcs</u>	<u>Percentage of total</u>	<u>Percentage of total in CSSR</u>	<u>CSR</u>
Total capital assets	108,655	100.0	13.7	19.2
of which:				
Fuel industry	36,036	33.2	33.5	41.7
Power generation	22,017	20.3	20.4	28.1
Ferrous metallurgy	5,067	4.7	5.7	8.0
Chemical-rubber industry	5,846	5.4	9.0	15.3
Machine building	8,768	8.1	6.5	8.1
Paper and Cellulose industry	4,736	4.4	20.5	41.0
Glass, ceramics, porcelain	6,157	5.7	44.5	53.7
Textile industry	8,106	7.5	19.1	24.7

The percentage of the total capital assets for the pertinent sectors that is located in the North Bohemian Kraj attests to the position of this kraj as the fuel and energy base for the republic, a position which was strengthened during the 1970's. These figures likewise indicate that a large percentage of the production capacities of Czechoslovak glass, textile, paper and cellulose industries are also located in Northern Bohemia. This is offset by the relatively low presence there of certain other sectors, primarily machine building.

Another characteristic of the production base of the North Bohemian Kraj is that machinery and equipment predominate in the composition of the capital assets, while in the industries of the CSR and CSSR as a whole machinery assets account for only about one-half of the total. The North Bohemian Kraj also has a higher percentage of the most utilized component of capital assets, namely working machinery and equipment.

Table 3. Material Structure of Capital Assets in North Bohemian Kraj Industrial Enterprises as of 31 December 1981

	<u>Value in Million Kcs</u>	<u>Percentage of total</u>	<u>Percentage of total in CSSR</u>	<u>CSR</u>
Total Capital assets	108,655	100.0	13.7	19.2
including:				
Buildings and facilities	47,841	44.0	12.1	16.7
Machinery and equipment	60,814	56.0	15.3	21.6
of which:				
Working machinery and equipment	32,519	29.9	14.4	20.2

Likewise, the age structure of capital assets, which we can judge according to the level of wear and tear on them, is more favorable in this kraj than in CSR industry as a whole, and the age of machinery assets is more favorable than for CSSR industry as a whole as well.

The more favorable age structure in the industry of the North Bohemian Kraj in comparison with the industry of the CSR is a result of "younger" capital assets above all in the fuel and energy generation industries as well as in ferrous metallurgy, the construction materials industry, and in printing, all of which are directly related to the high concentration of capital investment in this kraj for almost the entire post-war period. The intensity and social priority of this investment has increased still more in the past decade, i.e., in the Fifth and Sixth 5-year plans.

Table 4. Wear and Tear on Industrial Capital Assets as of 31 December 1981 (percentage)

	<u>CSSR</u>	<u>CSR</u>	<u>North Bohemian Kraj</u>
Total capital assets	45.3	47.7	45.4
including:			
Buildings and facilities	36.0	39.0	38.5
Machinery and equipment	54.1	56.5	50.9
of which:			
Working machinery and equipment	56.6	58.5	54.6

Capital Asset Development in the 1971-1980 Period

The overall value of capital assets in North Bohemian industrial enterprises increased by a factor of almost two during the 1970's. The production base here developed at a slightly faster pace than for CSR industry as a whole, above all because of faster growth in the volume of machinery and equipment. The growth rate of capital assets in the industry of the North

Bohemian Kraj accelerated in the Sixth 5-Year Plan, while the growth rates for the CSR in the Fifth and Sixth 5-year plans were nearly identical, these divergent trends were caused above all by the more rapid development of the production base for the fuel industry in North Bohemia in the Sixth 5-Year Plan.

Table 5. Capital Asset Development

	CSR Industry			North Bohemian Industry		
	<u>1975/70</u>	<u>1980/75</u>	<u>1980/70</u>	<u>1975/70</u>	<u>1980/75</u>	<u>1980/70</u>
Total capital assets	135.7	136.2	184.8	138.5	144.1	199.6
including:						
Buildings and facilities	130.1	130.8	170.2	129.5	134.0	173.5
Machinery and equipment	142.7	142.3	202.9	147.7	153.2	226.2

The value of capital assets in the industrial enterprises of the kraj in 1980 was Kcs 49.7 billion greater than in 1970. The fuel industry accounted for about one-third of this increase and the power generation industry for about one-fifth. The value of machinery and equipment over the same period increased by Kcs 31 billion.

Between 1971 and 1980 this kraj accounted for fully one-fifth of the total increase in capital assets for the industrial enterprises of the CSR. The increases achieved over this period document the increasing importance of the North Bohemian Kraj for the development of the production base, particularly in the fuel, paper, and cellulose industries.

The high growth in the value of capital assets through capital investment was also evident in a gradual reduction in wear and tear on capital assets. The level of wear and tear over this 10-year period declined by 2.4 points, and only 1.0 points for CSR industry as a whole.

The Character of Capital Asset Replacement

Capital asset replacement depends primarily on two factors: on the intensity of investment activity and on the intensity with which obsolete machinery is phased out of the production process. Mention has already been made of the influence of the first factor. The phasing out of obsolete and fully depreciated machinery assets which was characteristic of preceeding periods was not successfully improved upon even in the Sixth 5-Year Plan. The value of capital assets gained through capital investment was several times greater than the value of capital assets that was liquidated, which is reflected in an investment coefficient that is several times higher than the liquidation coefficient.

Table 6. Increases in Capital Assets in North Bohemian Kraj
Industrial Enterprises

	Capital asset increases in millions of Kcs			Percentage of increase for entire CSR		
	1975/70	1980/75	1980/70	1975/70	1980/75	1980/70
North Bohemian industry	19,216	30,515	49,731	18.9	21.7	20.5
of which:						
Fuel industry	4,861	12,872	17,733	40.4	57.7	51.8
Power generation	3,941	5,534	9,475	31.2	25.6	27.6
Ferrous metallurgy	365	1,868	2,233	5.7	15.1	11.9
Chemical-rubber industry	1,113	871	1,984	10.8	11.3	11.0
Machine building	1,755	2,328	4,083	8.8	7.8	8.2
Paper and cellulose industry	2,172	951	3,123	64.7	40.4	54.7
Glass, ceramics, porcelain	1,238	1,508	2,746	52.9	53.9	53.5
Textile industry	1,521	1,554	3,075	23.8	23.5	23.7

Table 7. Capital Asset Replacement in Industrial Enterprises of North Bohemian Kraj Characterized by Investment Coefficient and Liquidation Coefficient

	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>
Investment coefficient ¹						
Total capital assets	0.084	0.054	0.054	0.075	0.085	0.060
of which: Machinery and equipment	0.100	0.060	0.067	0.086	0.111	0.070
of which: Working machinery and equipment	0.129	0.070	0.086	0.097	0.144	0.077
Liquidation coefficient ²						
Total capital assets	0.012	0.012	0.010	0.009	0.010	0.010
of which: Machinery and equipment	0.015	0.016	0.013	0.013	0.013	0.014
of which: Working machinery and equipment	0.017	0.019	0.017	0.016	0.015	0.015
1) value of capital assets acquired through capital investment, divided by value of capital assets at end of year						
2) value of capital assets phased out by liquidation, divided by value of capital assets at start of year						

The investment coefficient, which describes the intensity of investment, indicates that on an annual basis 5-8 percent of the total value of capital assets was acquired through capital investment. The percentage is higher for machinery and equipment and higher still for working machinery and equipment.

[page 34 of original text missing]

The overall level of the shift-work coefficient, however, hides significant differences in shift work utilization depending on the nature of the process involved (whether it is a continuous or non-continuous process) and on the nature of the work stations (machine or manual stations). In those enterprises and sectors where technology necessarily requires a continuous process, the incidence of shift work is substantially higher than in those operations where the technology employed makes possible the basically discretionary use of capital assets. The general rule is that shift work is far more prevalent at machine work stations than at manual ones. In the industry of this kraj shift work in 1980 was 31.7 points higher at machine stations than at manual stations, which indicates that utilization of the active components of the capital stock fluctuates, after all, at a significantly higher level than shown by the aggregate data on shift work.

Sectors with predominantly non-continuous production processes employed 122,100 workers, meaning that two-thirds of the industrial workers of the kraj worked at such processes. The distribution of work by specific shifts in these enterprises is indicated in Table 10.

Table 9. Shift Work in 1980 by Nature of Production Process and of Work Station

	Worker Participation in <u>shift work--total</u>	Participation in terms of station	
		<u>Machine</u>	<u>Manual</u>
North Bohemian Kraj			
industry	1,295	1,488	1,171
including sectors with			
mainly:			
continuous operation 1	1,489	1,785	1,288
non-continuous			
operation 2	1,214	1,358	1,123
of which:			
Machine building	1,159	1,340	1,093
Electronic and			
metalworking	1,233	1,390	1,126
Glass industry	1,243	1,402	1,137
Textile industry	1,292	1,437	1,160

1) includes the following industries: fuel, power, ferrous and nonferrous metallurgy, chemical-rubber, and paper and cellulose

2) includes the remaining industrial sectors

Table 10. Number of Workers by Specific Shifts in Industries with Predominantly Non-continuous Production Processes

	Average Number of workers, <u>in 1,000's</u>	<u>1st shift</u>	Working on <u>2nd shift</u>	<u>3rd shift</u>
Total number of workers	122.1	100.6	17.3	4.2
Those at machine stations	53.0	39.0	11.5	2.5

Table 10 also allows one to derive the number of unfilled positions. If we consider two-shift operation to be optimal, then the number of workers that is lacking will be equal to the difference between the number of workers on the first shift and those on the later shifts. Two-shift operation could be assured, then, at machine work stations in non-continuous operations by the recruitment of an additional 25,000 workers, in other words, by increasing their numbers by almost one-half. This would retain some reserve capacity, because workplaces with machine work stations are for the most part not fully staffed even on the first shift. Based on research on work stations in industrial enterprises, the total number of unstaffed machine work stations on the first shift fluctuates around the 10-percent level. In the event that machine work stations are not fully staffed on the first shift and that a similar situation exists on the second shift as well, then the above-mentioned increase in workers would be substantial and for all practical purposes, not feasible. When a large number of workers are lacking for full two-shift operations, it is clearly sensible to quantify at least roughly how many would be needed to achieve various levels of the shift-work coefficient. This quantification, along with analyses of other factors may serve as an orientational basis for the establishment of corresponding measures to assure the gradual improvement in utilization trends for machinery assets.

For each increase of 10 percent in the shift-work coefficient at machine work stations in sectors with a predominantly non-continuous production process it would be necessary, everything else being equal, to bring an additional 3,900 individuals into the work force, i.e., to increase the number of workers by 7.4 percent in comparison with the current situation.

A low level of utilization of shift work and the resultant inadequate time use of capital assets is at once a manifestation and a direct consequence of a lack of correspondence between capital asset replacement and the work force. The number of employees is determined by demographic developments for a relatively long time into the future. Taking into account both this factor and the overall needs of the national economy for labor force allocation, the increased time use of capital assets cannot be assured, rapidly through increased employment. The preconditions for greater utilization of the production base, may, however, be created in the sphere of capital asset replacement. This is

facilitated as well by certain central measures, such as the regular control of the progress of liquidation, and measures in capital investment, under which new construction projects will not be permitted in cases where the shift-work coefficient does not reach the minimum level of 1.5, given a minimum work site staffing figure of 90 percent.

Specific Structure of Production Base and Its Consequences

The specific structure of the capital stock in the industry of this kraj is characterized by a high representation of capital assets particularly in the fuel and power industries, but also in the chemical-rubber industry and the paper and cellulose industry, and on the other hand by relatively low share on the part of the machine building sector. These peculiarities contribute to a high level of capital and energy intensiveness in the products of the kraj.

Table 11. Selected Economic Characteristics (data from 1980)

	Industry of North Bohemian Kraj	Industry of CSR	North Bohemian Kraj as percentage of CSR
Capital assets per worker (in thousands of korunas)	387.1	282.6	136.9
Capital asset effectiveness (gross production in korunas per Kcs 1,000 in capital assets)	738	906	81.5
Electricity consumption per worker (in kilowatt hours)	28,210	19,352	145.8
Labor productivity per worker (in thousands of korunas)	270.2	245.8	109.9

The capital intensiveness of industrial production in the kraj is 20 percent higher than in the CSR as a whole. This high capital intensiveness of production is simultaneously reflected in a high worker-capital asset ratio, higher labor productivity and lower capital asset efficiency. An accompanying phenomenon is the high energy-intensiveness of the production process.

The North Bohemian Kraj occupies a top position in its worker-capital stock ratio. The capital stock of the industry of the North Bohemian Kraj is more than one-fifth greater than that of the second-place kraj, the North Moravian, and fully 50 percent higher than that of half of all krajs. The capital stock in most sectors is higher than that for the CSR. The higher worker-capital asset ratio in the kraj is influenced by both the very structure of the industrial production base and by the worker-capital stock ratio in individual sectors.

The wide scope of production and the high number of energy-intensive production sectors is also reflected in high electric power consumption. In 1980 North Bohemian Kraj industrial enterprises consumed 5.4 billion kilowatt hours of electric power, with higher consumption recorded only by the industry of the North Moravian Kraj. In all other krajs in Bohemia industrial enterprise consumption was much lower. In the South Moravian Kraj, for instance, the volume of production was somewhat higher than in North Bohemia, but electric power consumption was somewhat less than half that of the North Bohemian Kraj.

The most demanding sector from the viewpoint of electric power consumption is the fuel industry, which in 1980 consumed 2.63 billion kilowatt hours, or 48.4 percent of the total industrial consumption of the kraj. It was followed at some distance by the paper and cellulose industry and the

Table 12. Electric Power Intensiveness of Production in North Bohemian Kraj

	<u>Actual 1980</u>	<u>North Bohemian Kraj industry as percentage of CSR industry</u>
Electric power consumption in million kilowatt hours	5,431	20.8
Electric power consumption per worker in kilowatt hours	28,210	145.8
Electric power consumption in kilowatt hours per Kcs 1,000 in gross output	78.27	121.7

glass industry (these sectors each accounted for 9.7 percent of total kraj electric power consumption), and the chemical-rubber industry (8.7 percent). These four sectors, which accounted for 40 percent of the production, consumed more than 75 percent of the electric power.

Table 13. Electric Power Intensiveness of Production in Selected Sectors

	<u>Electric energy consumption in kilowatt hours per Kcs 1,000 of output</u>	<u>Electric energy consumption in kilowatt hours per Kcs 1,000 per worker</u>	<u>Electric power consumption per worker as percentage of figure for CSR industry</u>
North Bohemian Kraj Industry	78.27	28,210	145.8
of which:			
Fuel industry	172.87	76,036	149.7
Chemical-rubber industry	88.40	58,035	116.6
Paper and cellulose industry	225.06	115,303	211.4
Glass, ceramic and porcelain industry	108.83	16,099	107.2

The above sectors are characterized by high energy intensiveness in terms of electric power consumed per unit of output, with the exception of the glass industry where electric power consumption per worker is the applicable figure. The substantially higher consumption of electric power per worker in the industry of the kraj as compared with the industry of the CSR is primarily due to the greater worker-capital asset ratio and to the sectoral structure of production.

Electric power consumption in the North Bohemian Kraj throughout the Sixth 5-Year Plan showed a moderately rising trend. In comparison with production, however, its consumption rose at about half this rate, meaning that electric power consumption per Kcs 1,000 of output declined due to various efficiency measures.

Table 14. Development of Electric Power Consumption Intensiveness of Production in Industry of North Bohemian Kraj

	<u>Actual 1980</u>	<u>Index 1980/75</u>
Value of gross production in million Kcs	69,380	121.0
Electric power consumption in millions of kilowatt hours	5,431	112.2
Electric power consumption in kilowatt hours per 1,000 korunas of gross output	78.27	92.7

The rapid increase in the value of capital assets in the industry of the North Bohemian Kraj continued in 1981-82, leading to a further increase in the worker-capital asset ratio. Simultaneously, however, in comparison with the Sixth 5-Year Plan the growth of production declined, meaning that the efficiency of the capital assets was reduced further. Electric power consumption in 1981 increased roughly as fast as output. This was influenced primarily by the substantial increase in the production of the fuel industry (by 6.6 percent), because this is a highly energy-intensive sector. Most of the remaining sectors at the same time realized relative savings in electric power consumption.

In Conclusion

The objective of this article has been to illustrate, using the North Bohemian Kraj as an example, the regional differentiation of the industrial base of our country, by way of demonstrating the need for area-based analytical techniques not only in analytical but also in predictive activities.

The specifics of the production base of North Bohemian Kraj industry and their consequences for the volume of investment, capital and energy intensiveness are so clear and well supported by objective evidence that their existence will undoubtedly be felt over the long term as well. The

replacement of this base, in the meantime, will continue to demand the priority attention of the highest state organs and the necessary priority in the financial, material and facility assurance of the production process through capital investment, gradual structural changes, and the accelerated phasing out of obsolete capital assets from the production process.

9276

CSO: 2400/284

SLOVAK COMMISSION MEMBER ON R&D IN CAPITAL INVESTMENT

Prague HOSPODARSKE NOVINY in Slovak 9 Mar 84 pp 1, 6

[Article by Eng Pavol Frolkovic, deputy chairman of the Slovak R&D Commission:
"How Can We Put an End to Inconsistency?"]

[Text] The analyses and evaluations of capital investment completed so far reveal that persistent problems such as extensions of construction deadlines, increases in the original investment outlays, delays in putting capacities into operation and especially the failure to attain the specified production parameters are some of the main reasons for and direct consequence of delayed and inconsistent application of R&D in practice.

This assertion is also borne out by the fact that in the set of 105 centralized construction projects in the SSR completed during the 1976-1981 period according to their evaluation as many as 62 projects did not attain the project parameters by 1982. This represents an annual loss of Kcs 13.6 billion in planned gross production, Kcs 11.7 billion in the output volume, Kcs 1.6 billion in profit and Kcs 2.9 billion in exports to the nonsocialist countries. Due to the shortcomings not only in the capital investment process but also in management and merchandising-technical policy, the production facilities of the set of projects surveyed operate at only 75 percent capacity. The shortfall in planned production is being made up for either by production on the existing mostly obsolete facilities or by imports with the disproportions eventually arising in the supplier-buyer relations.

It is thus becoming clear that one of the main resources which are available to us and which we can use for the further development of our economy is capital investment.

Radical Change in Structure

Research and development is to a significant degree implemented through capital investment. Naturally, this does not involve new projects alone. An accompanying sign of the contemporary transition from extensive to intensive development must be a radical change in the structure of investments with a marked increase in the percentage of modernization and reconstruction investment projects with a higher technical standard, and more production assets and the resulting higher production intensity. This calls for a change

in the approach to investment planning, and especially in the investors' attitude toward the evaluation of the utilization of existing production assets. The planning and quality preparation of construction projects on time must be based on this evaluation.

The checks on the investors' and design preparation of projects have revealed that despite adequate design capacities the preparatory documentation of construction projects is lagging behind. Thus, for example, regarding the mandatory tasks of the state plan and centralized construction projects planned to be started in 1985, 27 of 37 construction projects (that is, 73 percent) were not prepared as of September 1983. Only with regard to 12 construction projects (32.4 percent) did the prospect of making up for the delay and having the project approved by 29 February 1984 appear favorable. These expectations materialized only with regard to 6 (that is, half) construction projects, while not a single one of the remaining 15 projects' preparation was sped up to the extent that they would be ready for a start in 1985. The present state indicates that of 33 projects approved by SSR Government Resolution No 326 for start in 1985, only 15 (45 percent) will be prepared on time (the initial project approved by July 1984). Moreover, the unprepared projects particularly include those in state goal-oriented program 02--fuels and energy conservation (reconstruction of boiler plants, manufacture of insulation mineral fibers, and so on). The rather vague construction concepts, the instability of investment plans, and the fact that territorial and technical relations have not yet been settled are the main cause of this unpreparedness.

Making Use of All Possibilities

The long-term nature of the investment process requires the knowledge of long-term goals and intentions of individual sectors, branches and enterprises. The ongoing work on estimates which should eventually produce the comprehensive forecast of scientific-technological, economic and social development of the CSSR during the next 20-year period and the draft of basic directions of CSSR economic and social development up to 1995 provides the scientific basis for drawing up long-term plans and comprehensive programs, including the linkage to CSSR participation in the international division of labor.

The quality, efficiency and progressiveness of a future capital asset are essentially determined already during the preparation of the investment project by investors and design engineers. Here comes to the forefront the investor's responsibility to the entire society for the directions of investment and the responsibility of the project manager for the high efficiency, progressive and modern nature of the project. The application of research and development results through capital investment is often erroneously and unilaterally interpreted as new capital investment exclusively. Such an approach actually works as a brake on progress since the preparation and implementation of a new investment project takes about 10 years, during which period even the most progressive research results become obsolete. By the term "R&D application" we must understand, in addition to the solution of R&D tasks and the implementation of their outputs, also all other intensive factors in development, such as achievements of other countries acquired through licenses and know-how, the conservation measures in the broadest meaning of this term,

use of patents, inventions and improvement proposals as well as all other technical, organizational and other measures which promote intensive production increases with the minimum demands on resources.

The essential point is that also in the so-called capacity projects, whose purpose is not the introduction of new production but the elimination of capacity problems in some type of production and services, the most modern, up-to-date progressive equipment must be used so that what we need rests on a modern, top-quality basis. We must regard as the modern standard the level achieved at the time when the investment project is put into operation and turned over to use. Moreover, we must compare it as specified in the project parameters with what will be the most modern and most progressive not only in our country but also abroad.

The final evaluation of 16 centralized production projects by the SSR central organs in 1983 revealed that only 6 of them (37.5 percent) applied the research results (Leopoldov and Boleraz enzyme programs, manufacture of polypropylene fabric and cable at CHJZD [Juraj Dimitrov Chemical Plants] Bratislava). Other projects are said to have reached a high (world) standard in technology, to have employed modern construction technologies, and so on. This means that when the decision was being made on these construction starts, it was not the application of R&D but the satisfaction of society's needs by extensive development which was of decisive importance.

The investment process is complex primarily because of the complex nature of the links among its many participants, the most important among them unquestionably being the investor, project manager and suppliers. The links and mutually coordinated cooperation among these three principal participants in the investment process are of key importance during the preparation of the investment project.

The investor occupies the key position in the entire investment process. His principal interest is to finish the planned project within the shortest possible time with the optimal investment outlays and to attain the anticipated effect upon the project completion. From this standpoint, it is the investor in the first place who is responsible for the decision to apply in practice the known achievements of research and development through capital investment, purposefully to coordinate his own ideas with the suppliers' possibilities and to reflect them in the project design.

It is the duty of the investor consistently to specify the parameters of the future project, its anticipated effects, possible investment and operating cost, the deadlines for the preparation, implementation of the project and for attaining the planned parameters. In order to apply the latest scientific and technological achievements, the participation of the investor and project manager in this work is imperative during the period of research and development. It is apparent that information exchange between the research and development centers, and between the project planners and executors on the investor's demands and the society's requirements regarding the planned investment project, on the suppliers' practical possibilities, on the achievement of even partial research and development results is an indispensable precondition for the practical application of R&D results.

Cooperation and exchange of information on science, research and development and production practice is of special importance particularly for shortening the delays in the application of scientific, research and development results in practice. The mutual linkage between research, development, design of new facilities and systems on the one hand and the implementation sphere on the other (by which in this instance we mean also the drawing of detailed plans) must be carried out in all available forms, including the direct organizational linkage between research and design, mutual cooperation and participation of the design engineer in research and development and vice versa, the participation of the research worker in the design, implementation and putting of the project into operation.

This cooperation may assume many different forms, such as joint (permanent or temporary) research teams, discussion of opposing views, comprehensive rationalization brigades and also a direct organizational interlinking of research and design centers, as is the case, for example, in both design organizations of the Slovak Commission for R&D and Investment Development--The State Research Institute for Design and Standardization and URBION--which, in addition to design, are engaged also in basic research and apply its results directly in design, manufacture of standardized tools, methodology for territorial planning and so on.

Increasing Role of Project Manager

Despite the investor's key position in the preparation of the investment project (in accordance with the legislation now in effect and existing economic tools), the participation of the project manager in processing the preparatory documentation for construction projects is becoming increasingly important. This stems from objective reality, which makes it clear that with his own personnel the investor cannot handle the complex technical problems of demanding investment projects, while there exists a wealth of know-how and experience in the existing design sphere, the utilization of which for the predesign preparation is also made possible by the fact that some capacities are not used at the present time due to the reduction of the investment growth rate and particularly because of the radical reduction of construction starts.

Despite this positive trend promoted by the state plan of design work, where the noninvestment projects account for 37-38 percent (as compared with only 20 percent at the beginning of the Sixth 5-Year Plan), the design engineer's participation particularly in the documentation pertaining to the development of individual sectors, branches and enterprises has remained rather small. Little use is made of processing the proposals in the form of competition by making a selection from several variants. The design capacities particularly in the design departments are used for various types of nondesign work which should be taken care of by other departments of the organization.

A typical example of this are the design departments in the construction sector, which should be primarily concerned with processing and working out the final projects for the actual deliveries by the suppliers-contractors. Yet they devote less than 10 percent of their capacity to this activity and therefore cannot directly affect the application of their own R&D results, of

the technologies developed by them and of their own supply possibilities for the project.

By the project proposals, the project manager must play the key role in the practical application of R&D. He is in the first place responsible to our society for the effective spending of investment funds, for their stability during the process of preparation and implementation of construction projects, for the attainment of planned parameters, for the operating reliability of completed investment projects. The decree of the former FMTIR [Ministry of Technological and Investment Development] No 105/1981 of the ZBIERKA on documentation for the construction projects presumes in the fulfillment of their principal purpose--to create conditions for the indispensable rationalization not only of the preparation, but also the implementation of construction projects--to apply, in accordance with the needs of the society's development, the R&D results. In performing his social function and responsibility, the project manager must defend societal and macroeconomic interests during the preparation and implementation of capital investment projects and see to it that the R&D results are applied to the maximum possible degree in the preliminary documentation (its processing and attitudes toward it).

In discharging his task, however, the project manager must not remain a passive recipient of submitted documents and their simple coordinator, but must actively on his own initiative defend and press for the known, feasible and progressive proposals, technologies, automation and so on. This requires the closest possible linkage of basic research and development with the design practice, to which Comrade Milos Jakes referred at the Eighth Plenum of the CPCZ Central Committee in the following words: "The introduction of research results in production must represent a continuous process in every VHJ [economic production unit]. To achieve this purpose, there must be a close linkage and overlapping of research, development and design activities with the actual technological preparation of production and investments in order to carry out individual innovations within the brief intervals. The solution of these problems lies also in the broader application of new forms of not only organizations but also economic linkage of research with production."

A successful application of research and development through capital investment depends upon the effective cooperation of all participants in the project, including the suppliers. In the practical application of research and development results through capital investment it is necessary to emphasize the importance of suppliers of mechanical equipment and technology which should be the principal vehicle of technical progress. Although the proponent of progressive technologies of the production process is the investor, their feasibility depends upon the already achieved level of mechanical and technological aggregates, operations subassemblies, units which are proposed by the suppliers of technologies.

They must make the final decision on the technical design of mechanical-technological facilities and on the technological systems, they must be their manufacturers and finalizers. They must bear full responsibility for the delivery, assembly and proof of the technical-economic parameters agreed

upon. The principal task of the project manager is to make the most expedient and best use of machinery, aggregates and of the entire production assembly lines, to incorporate them in the production process and thus to create a comprehensive production system which will meet the required parameters.

10501

CS0: 2400/290

POLLUTION, BAD MANAGEMENT EXACERBATE WATER SHORTAGE

Prague HOSPODARSKE NOVINY in Czech and Slovak 10 Feb 84 pp 8-9

/Interview conducted by Jaroslav Pesta: "Drought Alone Is No Argument--Rational Water Economy Is a Concern of First-Rank Importance and of the Whole Society"/

/Text/ We often wonder whether there is too much or not enough water. So long as we look at the whole planet, then water--in terms of its amount--is in an ample supply that does not change; however, if we speak of water for the needs of civilization--it is a factor that cannot cover, in terms of time and place, the needs of all users, especially the population. Moreover, the process of civilization despoils many sources of water and thus diminishes even more the supplies mostly of good water. If the caprice of nature happens to surprise us, then the way in which the population uses water may change and also the process of operations in certain branches of national economy may be affected. The CSSR also has found itself at present in such a situation.

At a meeting with expert hydroeconomists we therefore attempted not only to review the past, present and future in order to recap the current unfavorable situation, but also to find some solution...

Repeated Whims of the Weather

/Question/ The years 1982 and 1983 were among the driest ones in our country and thus, also the most troublesome. Can they be compared with the previous years?

/Vilibald Rakos, Czech Hydrometeorological Institute/ The precipitation deficit on the territory of the CSR amounted from 210 to 152 mm in 1982 and to 58 mm in 1983 (see the graph). These values put it in the fourth and fifth places, respectively, in the continuous observations since 1876, which means that /drought/ occurs on the average once every

25 years. This deficit, however, cannot express by far the complex interrelations of the hydrometeorological effects, for instance, the chronological and spatial distribution of precipitation, the snow cover, the air temperature, wind speed, evaporation and several other factors, such as the changes of the vegetation cover, the hydrogeological specifics of individual locations, and so on.

On the basis of long-term observations in the station in Prague-Clementinum it was established that the highest positive deviations in temperature recorded during the vegetative period in both those years culminated in the almost tropical July of 1983, which had been unprecedented in this century. Understandably, that enormously increased evaporation, which even more aggravated the effects of the precipitation deficit. We must therefore regard every numerical expression of the probability of its repetition as only very rough values for orientation purposes.

Moravia, particularly its southern areas, is now experiencing undoubtedly as even worse drought than Bohemia. The two-year deficit in the South Moravia kraj amounted to 314 mm, which is 24 percent of the normal value of 1,298 mm that should fall on the average in 2 years (see the cartogram).

The Central Slovakia kraj had an even greater deficit--362 mm. Because its terrain is very mountainous, it has the highest rate of precipitation among all the kraj in the CSSR and thus, this deficit corresponds to only 21 percent of the long-term normal value. The third highest deficit--296 mm in the West Slovakia kraj--also characterizes the crucial situation for water economy in the SSR.

/Eng Josef Hladny--Czech Hydrometeorological Institute/ We must add that as concerns runoffs, we have experience years far below the average in every decade. Dry years come mostly in succession or there may be a brief interval between them. For that reason as soon as the first dry year begins, we should use water with the greatest circumspection.

/Question/ Can drought in our lands be predicted?

/Hladny/ In view of the changeable weather in central Europe drought comes slowly because over an extended period there is less precipitation than the long-term norm. It is only exceptionally that no rain falls on the CSSR territory over a period of several weeks. This distinguishes our area from the zones of southern climate where drought occurs more or less regularly during a certain season or where it lasts even a whole year. The effects of drought are felt first in the agriculture, while in water economy they appear as a rule only after several months or even years. Predictions of drought depend on purely meteorological projections, mainly of the precipitation.

Unfortunately, progress in this field has not reached a stage where we might be able to make predictions with sufficient probability in general well ahead or for a period of several months.

Effect on Agriculture

/Question/ To what extent have those dry years affected the situation in our agriculture?

/Eng Jaroslav Culik--Czech Hydrometeorological Institute/ In our institute we are dealing also with the question of agricultural meteorology; among other things, we continuously observe the balance of precipitation in surface layers of the soil in the CSR. Over the past 2 years this balance was negative, i.e., evaporation was higher than the rainfall and snowfall. While the initial symptoms of shortage of moisture appeared already in the middle of May in 1982, last year that situation was evident in early July. Thus, there was greater supply of moisture during the vegetative stages of the development of grain crops during May and June than in 1982.

/Eng Zdenek Bambasek--Ministry of Agriculture and Food of the CSR/ Our agricultural production is affected on the one hand by the amount of precipitation and on the other, by its distribution during the vegetative season, when the grain is formed; sugar beets need it in August, but then it can harm the grain crops. Multiannual fodder crops need precipitation all through the year.

As for the effect of the rainfall, the production in 1982 was not markedly affected and the production last year only in the second half of the year. In fact, in the CSR we had a record harvest with 4.33 tons per hectare of grain crops. The first yield of fodder crops was also high, while the harvest of row crops, vegetables and maize remained below the plan. For instance, it amounted to only 75 percent of the plan for sugar beets and vegetables, 82 percent for potatoes, and less than 80 percent for maize.

Consequences of the Deficit in Precipitation

/Question/ Where and how has the unfavorable hydrometeorologic situation in the past 2 years aggravated most of all the difficulties in the supply of drinking water?

/Eng Hynek Trnka, official of the CPCZ Central Committee/ Particularly in localities where large-capacity water resources and furthermore, water treatment plants, reservoirs, supply inlet and distribution networks and purification stations for waste waters had not been built and adequately interconnected. The supply to the population from the housing and public wells was also unfavorably affected. Because of the low level of rivers and brooks and to an insufficient access to underground sources the quality of water also deteriorated. Many villages and towns have a

passive balance of drinking water and in a number of communities its delivery for the needs of the population, industry and agriculture had to be controlled; supplementary deliveries in tank trucks began. Slowed-down flow-through, particularly due to lack of dredging, led to the deterioration of the quality of untreated water, with which in a number of instances the facilities built for the water treatment station were unable to cope. Control measures forbade the population in practically every okres of the CSSR to draw water for gardens and to wash automobiles, and cut down the supply to selected users in the industry and agriculture. The restriction of the water supply affected roughly 2 million citizens in 1982 and last year as many as 2.5 million citizens on the CSSR territory.

/Question/ In the CSR the deficit of precipitation in 1982-1983 and especially last year was the worst in the South Monravia kraj. What are its consequences?

/Eng Veroslav Zak, director of the South Monravian Water Mains and Sewer Systems Enterprise/ The capacity of subterranean waters dropped down about 60 percent and water levels of sources on the surface, particularly reservoirs and other types of water storage, fell. For example, at present we have only few months' supply for the production of drinking water in Kirycany. In other locations the quality of our water is deteriorating. The kraj national committee changed the regulations for the operation of water reservoirs and dams so that not a drop of water has been released from reservoirs in certain places, for instance, in Hubenov in the Jihlava area.

/Question/ Speaking of the deteriorating quality and purity of water, what are their consequences for our water economy?

/Eng Kazimir Sarnik, Ministry of Forest and Water Economy of the SSR/ If we fail to come to grips with the problem of water purity, the underground sources which we are already using will seriously deteriorate. For example, in the SSR it is about 11 cubic meters/sec. If the waters flowing on the surface becomes polluted, we would need about Kcs 15 billion in the current situation to build supplementary sources and furthermore--where can we look for such resources? We cannot go on forever building reservoirs for water and flooding our agricultural lands. Thus, in terms of the long-range outlook, protection of water purity has the same priority as the supply of drinking water for our population.

/Question/ Agriculture has been described as the worse polluter of sources of water, be they underground or on the surface.

/Bambasek/ We share about 10 percent of the points in pollution, while the principal "culprit," about 6 times greater than our agriculture, are residential settlements, because their waste waters are not properly purified, not to speak about the removal of waste in communities without public sewer systems. However, the situation of the areal agricultural pollution is worse.

/Josef Ruzicka, Ministry of Agriculture and Food of the CSR/ The Ministry of Agriculture and Food certainly failed to put all those matters in a proper order, but we are aware of our errors and shortcomings and are trying to eradicate them.

/Question/ And what about hygienic protection of our underground and surface waters?

/Bambasek/ At present more than one-fifth of our arable lands are included in zones of this sanitary protection. We are trying to follow regulations that are very rigorous and that have a negative effect on the attempt to increase our agricultural production. Therefore, we shall seek ways how to deal with this problem, so that we may use as many nutrients for the crops as necessary for adequate supply, without polluting at the same time the underground and surface waters.

Water Delivered to 250 Communities

/Question/ Most of Slovakia's population depends completely on the sources of subterranean water. To what extent has the long-lasting drought affected their decline?

/Sarnik/ Very distinctly! The situation deteriorated rapidly above all in Central and East Slovakia and for that reason, in late 1982 the SSR Government adopted an operational set of measures and activated all available forces, and thus, finally the supply of drinking water to our population somewhat improved in the beginning of 1983. Last fall the situation became again so critical that in addition to the controlled supply of drinking water the deliveries of water for the industry were curtailed and supplementary sources were sought.

The situation today is not much better. The level of underground waters remains so low that drinking water must be delivered to many areas, above all those that are without public water main systems. The condition of reservoirs is almost dismal. For example, the Hrinova reservoir has water for only three and a half months, although it is the center of a large joint water main system that links Hrinova with Lucenec and Filakovo; The Bukovec water reservoir supplying Kosice, with several years of economy, has water to last 7 months.

/Question/ The causes and deficiencies in the supply of drinking water have been analyzed on many occasions and remedies were adopted. Do they help improve the situation of our water economy?

/Trnka/ It only mitigates the critical situation of our water economy but does not resolve it fundamentally if the growth of water consumption is curtailed by various rationalization programs affecting industrial plants and housing construction, if water-saving technology introduced and if the focus is on better exploitation of the subterranean and in particular, lesser local sources. In the future

we may turn a corner for good and eliminate water shortages once and for all only by intensification and gradual construction of new water resources and their interconnection in water main systems, organization of purification facilities, goal-oriented water economy and systematic improvement of the management of water systems as well as organizations of water economy.

/Question/ The South Moravia Kraj required great many supplementary deliveries of drinking water. What steps were taken there?

/Zak/ Several measures were adopted already in May 1983, among them, for instance, interrupted--i.e., every other day--supply of drinking water in the Breclav okres. Supplementary delivery, especially distribution by tank trucks and water cars, was made in 193 affected communities. The situation became most critical in Hodonin, in the okres of Brno-Suburbs and in Uherske Hradiste. There was hardly an okres where at least local control regulations would not be announced.

/Question/ The supply of drinking water was therefore complicated. To what extent was it an emergency measure, i.e., delivery within the entire CSSR?

/Eng Eugen Rehor, Ministry of Forest and Water Economy of the CSR/ Control /of water consumption/ was announced in July and August in 830 communities and deliveries were provided for 230 locations; at the end of the year control was in effect in about 500 communities but deliveries were made already to 250 communities. At first this meant that watering of gardens was prohibited; the second stage of control curtailed the consumption of water of cooperative organizations, and the third stage affected also the population. The consumption of hot water was restricted; in some joint water main systems, for example, in the Pribram area, hot water was supplied only 2 days in a week.

/Question/ What is the situation in South Moravia kraj at this moment?

/Zak/ It looks better because of the lower consumption and drawing of water. Nevertheless, we are still delivering drinking water in tank trucks to 53 communities, so that roughly 60,000 citizens are supplied in this special manner. We prepared a plan for emergency delivery, so that everybody receives the essential amount of water, because in several places many wells, even public ones, are completely dry. I am not a pessimist, but we shall not extricate ourselves easily from the current predicament. Even with sufficient rainfall it will take a while for the water to seep down to the subterranean sources. From experience we know that it takes from 2 weeks to 6 months, so the instruction on rational use of water applies equally to our population, industry and agriculture.

The condition of the quality of water is also serious; it has deteriorated, for instance, because of agricultural spraying by airplanes which

inadvertently strikes also reservoirs, because of excessive fertilization and even because of ammonia seeping from manure heaps. We must therefore continue to focus attention on this sphere so that water may serve all those who need it and so that the conditions do not deteriorate any further.

This Is Not a Question of Investments Alone

/Question/ Drought cannot be regarded as an argument for a change in the basic program for the development of water economy. What decisions stem from the Set of Measures issued in consequence of /the situation in/ 1982-1983?

/Rehor/ First of all, one of /the decisions/ concerns programs of an operative type, which are being implemented. The medium-range solutions include acceleration of the hydrogeological survey of underground waters, programs for the reconstruction and regeneration of water resources, adequate supply of chemicals for water treatment due to higher needs of disinfection, and facilities for transport of water, particularly tank trailers which have not been manufactured in the CSSR for a long time. And last but not least, there is rationalization of water economy, particularly by industrial consumers where opportunities exist for major conservation. This also applies to the population whose wastefulness means particularly losses of water in the plumbing. The fundamental solution for the development of our water economy is, of course, capital investment and further investments in the resources.

/Sarnik/ The dry weather is not the only cause of these conditions. Let us keep in mind that the comprehensive housing construction has never been restricted, while the construction for water economy was limited and thus, housing projects were built at a faster rate than water resources. We would need additional 1.8 cubic meters/second or so of water in the SSR. Of course, it is not a simple task to build resources with such a capacity, therefore, it will be mainly a question of measures of noninvestment character, where the center of gravity is mainly in the operations of water economy organizations as well as in the planning agencies. First of all, we shall systematically demand that the Water and Sewer Systems enterprises limit the supply of drinking water for the industry and show more concern about maintenance and repairs of the water main systems, because far too much water gets lost in the networks. Naturally, we must take care also of the housing fund where we have ascertained that about 30 percent of water is wasted and lost. This was determined by a specific survey, for example, in Presov where the situation had already been critical. In the end it was confirmed that the water main system needed repairs and then the situation would immediately improve.

/Question/ The 16th as well as the preceding congresses of the CPCZ stipulated as one of their main tasks upgrading of the supply of drinking water, mainly its sources, by protecting them from pollution and by construction of facilities required for the distribution and

and storage of water. Nevertheless, was not the development of water economy underestimated and kept lagging behind the industry, power engineering, agriculture and housing construction?

/Trnka/ Although the share of the population in the CSSR receiving its water supply from public water mains is growing and its rate of growth corresponds with the objectives of the Seventh 5-Year-Plan, disproportions in covering the needs of drinking water have occurred in certain areas. The small amount of funds invested in new programs, remodeling and maintenance, the low priority and nonfulfillment of plans for capital investment in water economy and its reconstruction, the rising technical and economic standards of construction projects, the increasing total consumption of water, the losses of water in pipeline networks and in the plumbing systems in housing projects and the wasteful use of water contribute to its increasing shortage. Particularly undesirable is the growth of specific water consumption in households which in some places considerably the norm of 280 litres per person per day in housing units of the first category and 230 litres in housing units of the second category. Water consumption in some towns in the CSSR is as much as three times higher than in comparable towns in industrially advanced countries.

Incomplete Economic Regulations

/Question/ Do the current economic regulations and indicators of the plan correspond with today's needs in terms of rational water economy?

/Zak/ They do not. The extensive method of assessing the Water Mains and Sewer Systems enterprises, i.e., according to the amount of water sold, still continues. The great disproportion in the price of water--Kcs 0.60 per cubic meter for the population and Kcs 3.70 for the socialist sector--literally invites actions contrary to society's interests. This calls for an independent solution of those economic regulations of management, because this is a branch of production of nonindustrial character.

/Eng Jan Kosa--State Planning Commission/ The stipulation of plans for the Water Mains and Sewer Systems is an area with which the kraj national committees deals exclusively and thus, for instance, the evaluation of their outputs is an operational issue which may soon be clarified. All this calls for is to prepare a proposal of a method according to which we intend to manage the Water Mains and Sewer Systems organizations and to interest in the solution agencies that can say something on that topic. If the system of planning is based on the maximum water consumption, we must change it and make sure that industrial enterprises be interested in the lowest consumption possible.

/Rehor/ In the total procurement value of capital assets of Water Mains and Sewer Systems organizations in the CSSR the share of repairs

is relatively very low--about 0.8 percent, or Kcs 600 million--which is inadequate for facilities corresponding to the current type both of water mains and sewer systems. For example, in comparison with the branch of rivers and brooks it is only half of that share. It is therefore necessary to study and to improve the situation in terms of the internal equipment as well as of suppliers. This is also connected with an important measure pertaining to cutting the losses of water in pipeline networks.

/Question/ However, if you expect such actions from the Water Mains and Sewer Systems, should not the planning agencies create appropriate preconditions for those organizations?

/Sarnik/ Certainly! When analyzing the plans of the Water Mains and Sewer Systems of the SSR for 1984, we found that those plans failed to provide systematic preconditions for rational economy with drinking water. We propose that already during the process of specification or adaptation of the state plan the kraj national committees, in cooperation with the Slovak Planning Commission, make such interventions that already the plan may create opportunities for the fulfillment of all measures approved by the SSR government in 1982. And another thing, many of our places of consumption are supplied "from the source to the place of consumption" either with no, or very limited, space for storage. We are unable to "cover" even the slightest defects appearing in the networks of our water main systems. Thus, it is a series of technical, organizational and mainly economic problems.

The Result of Unfulfilled Tasks

/Question/ It has been envisaged that about Kcs 38 billion will be invested in the Seventh 5-Year-Plan for the needs of water economy in the CSSR. That is not an insignificant amount...

/Kosa/ It is not, but as one can see, even such investments are not sufficient. The situation could be slightly better, but in the Fifth 5-Year-Plan we failed to build projects for water economy in the value of about Kcs 2.5 billion and in the Sixth 5-Year Plan already a bit over Kcs 3 billion. The first unresolved problem is the change in the structure of works to the advantage of the construction of water economy facilities, whether sources or stations for treatment and purification of waste waters. Another basic problem concerns the deliveries of technological equipment. Our machine engineering and electrical engineering industries have failed thus far to meet the needs of water economy.

/Question/ We must always anticipate that nature might surprise us occasionally with some complicated hydrological situation. But how can we prepare for that?

/Zak/ I see the solution in more investments in water economy. Yet that would not be all. This calls also for rational management of water in general. We must be glad that we do not have to import water like Kuwait or other states. Let us appreciate it!

And one more note. Thus far we have not said to any branch that we would not provide its water, although it is needed everywhere in the manufacture. And how do other branches treat us? The engineering industry so far has failed to deliver comprehensive technological units, tank trucks, pressure sanitation trucks and even fixtures, with which we would be able to reduce substantially the loss of water in households. The construction industry refuses to do repairs for us; the chemical industry is behind with the required amount of polyelectrolytes, flocculants and coagulants. And so I could go on and on. It would be therefore great if all branches would demonstrate the same attitude to water economy as the employees of that branch are trying to resolve other branches' problems.

/Question/ What will be the role of water economy in the long-range Czechoslovak economic outlook?

/Kosa/ It will be among the priorities! The long-range concept in the area of investment will stipulate specific tasks, which will include an objective program for the construction of purification stations for municipal and industrial waste waters, both for the investors and for the supplier ministries. This, however, is not a matter of investments alone but a conglomeration of problems concerning the production, outputs, the plan for employment and wages, material security, the financial plan and planning, and control of economic mechanisms. We must also deal with the organizational aspect in the management of water economy. The process of integration of water mains and sewer systems was in the past, and is now, an objective necessity which we must consider in the plans as well as in our projections for the long-range development of water economy.

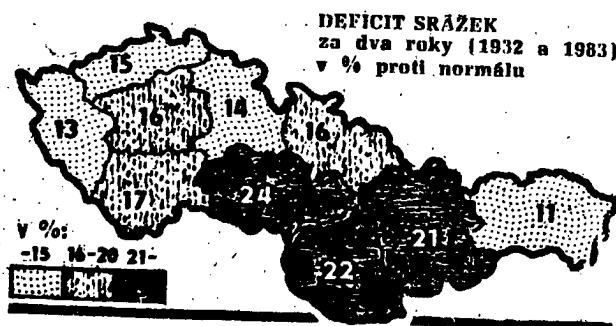
/Question/ On the basis of analyses and decisions adopted by the congresses, however, the tasks in the construction of water economy in the sector of water supply and purification of waste waters were assigned also to other branches.

/Trnka/ Indeed; nevertheless, some ministries, territorial agencies of the state administration and economic organizations are not properly fulfilling the adopted decisions and policies of technical and organizational character. Consequently, there are serious shortcomings in the construction of sources of drinking water and distribution networks, in the maintenance and repairs of the facilities of water economy and in rationalization of water consumption. Such circumstances lead to difficulties in many areas. The solution demands a more responsible and coordinated procedure on the part of the economic, state and political agencies on all levels of management, and an immediate projection of all facts into basic conceptual documentation of the State Planning Commission, the Ministries of Forest and Water Economy and other branches, especially in the draft of the plan for the Eighth 5-Year-Plan.

From the society's point of view comprehensive exploitation and protection of sources of water calls for more intensive cooperation with all principal users and consumers of water, i.e., the agriculture, industry, power engineering, transportation and others. It is imperative to achieve conditions where economy of water as an essential raw material and an irreplaceable factor of the environment be socially viewed at least as equal to analogical types of raw materials and energy. Only by such an approach it may be possible to make water available in the required place, amount and quality, so that it will not become a factor holding back the development of our whole society, as it is at present.

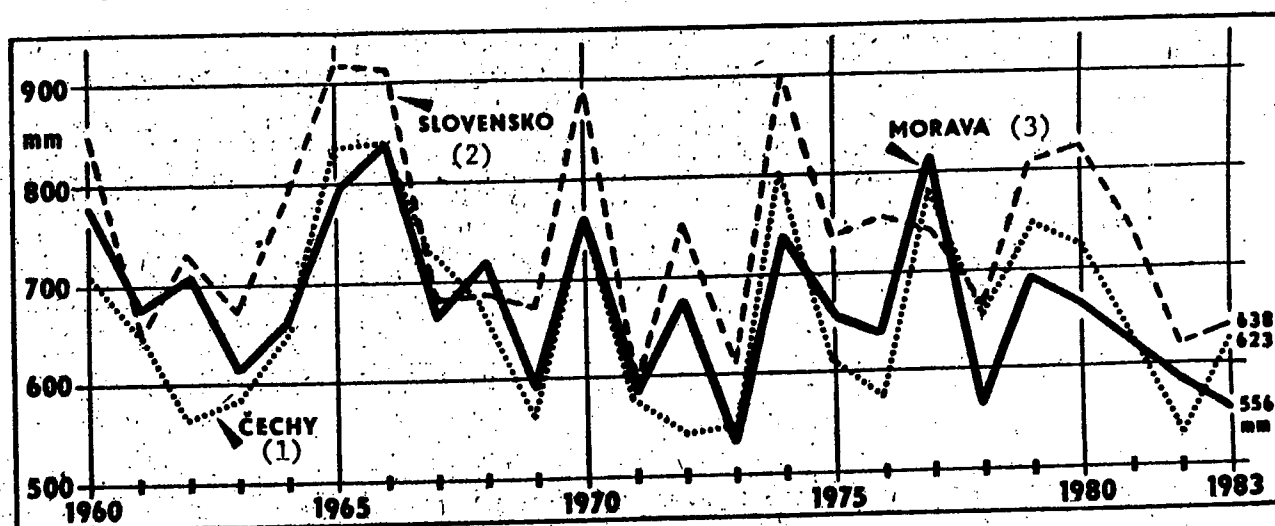
National committees have an important role in rationalization of the water management. Organizations of the National Front must help as well. Party organizations must intensify their control activity. In the forefront of their operational program each of them should also include questions concerning the use of water and its purity. We must continue to affect public opinion and to create an irreconcilable attitude toward enterprises, organizations and persons using water carelessly and without respect. This is a matter of first-rank importance and concern for our whole society.

Precipitation Deficit in 2 Years (1982-1983) in Percent as Compared With the Norm



In the past 2 years the precipitation in the South Moravia kraj was 314 mm, i.e., 24 percent, below the long-term average. The okreses of production in the south were affected even more, while the highlands in the Ceskomoravska Vysocina range suffered relatively less from the deficiency of moisture. Analogically, in the Central Slovakia kraj (with absolute deficit equal to 362 mm, i.e., 21 percent of the normal) considerable differences are evident between the mountainous north which is therefore richer in precipitation and the substantially drier south. Nevertheless, the data for all krajs in our cartogram indicate which parts of our state were affected the most in the past 2 years.

Average Annual Amounts of Precipitation in 1960-1983 in Milimeters



Key: 1. Bohemia
2. Slovakia
3. Moravia

The precipitation in Moravia last year amounted to 556 mm, which is 159 mm, i.e., 22.2 percent, below the 50-year average (1900-1950). The deficit of precipitation in Slovakia last year was 124 mm (i.e., -16.3 percent as compared with the average), while the shortfall in Bohemia last year was only 58 mm (i.e., -8.5 percent).

9004

CSO: 2400/273

APPRENTICE PLACEMENTS IN SCHOOL, INDUSTRY INDICATED

Prague STATISTIKA in Czech No 1, 1984 pp 27-29

[Article by Dana Cesakova: "Placement of Youth and Preparation for Blue-Collar Occupations"]

[Text] Devising an optimum structure of manpower qualifications which is one of the prerequisites for meeting the set economic goals depends in many respects on early placement of youth completing basic compulsory school attendance into selective technical schools and apprentice fields.

The ranks of 14- and 15-year-olds available for placement in 1982 amounted to 249,000, i.e., more by 4,000 than in 1980. In comparison with 1974 the available ranks of youth increased by 39,000.

Table 1. Ranks of Youth Available for Placement in 1975-1982
(in 1,000 persons)

Year	Youth Total	Of Which		Of the Total		
		boys	girls	15-year-olds	14-year-olds	older applicants
1975	210	108	102	201	8	3
1980	245	127	118	151	92	2
1981	248	127	121	118	127	3
1982	249	127	122	79	167	3

In keeping with the new concept of reorganization of the educational system there occurred fast increases in the placement of 14-year-olds. If its share of available youth in 1980 amounted to 37.5 percent, by 1981 it increased to 51.3 percent and in 1982 to 67 percent. From 1984 on only 14-year-olds should be subject to placement.

Among available youth during the monitored period there occurred a considerable decrease in the number of students completing their basic compulsory school attendance in the eighth, seventh and lower grades. In 1980 these students amounted to 12,000, while in 1982 their number decreased to 8,000.

Table 2. Trends in Youth Placement

Indicator	1980		1981		1982	
	in 1,000 persons	in percent	in 1,000 persons	in percent	in 1,000 persons	in percent
Available youth	245.2	100.0	248.2	100.0	249.4	100.0
Placed:	242.0	98.7	245.4	98.9	246.7	98.9
in selective schools	97.2	39.7	95.5	38.5	94.9	38.1
in classical high schools	38.7	15.8	37.9	15.3	37.5	15.1
in general high schools	57.6	23.5	57.6	23.2	57.4	23.0
in specialized schools	0.9	0.4	0.0	0.0	0.0	0.0
in vocational schools	138.0	56.2	145.8	58.7	148.5	59.5
of which had h/s grad	12.8	5.2	13.3	5.4	13.8	5.5
in apprenticeship	6.8	2.8	4.1	1.7	3.3	1.3
not placed	3.2	1.3	2.8	1.1	2.7	1.1

Due to greater emphasis on recruitment for vocational schools in the initial years of the Seventh 5-Year Plan the number of youth accepted at selective schools after completion of compulsory school attendance decreased. This decrease was also caused by persisting lower interest on the part of the students in attending classical high schools. The latter were entered in 1982 by 1,200 fewer students than in 1980.

The number of students accepted in 1982 at general high schools was 57,400, of whom 60.2 percent were girls. Almost 75 percent of the entrants were graduates of the eighth grade of basic schools. In both years of the Seventh 5-Year Plan higher numbers of students were accepted by high schools with agricultural and forestry orientation than called for by the plan. Lower interest was shown by students in attending some industrial and pedagogical schools.

Vocational schools accepted 148,500 boys and girls in 1982, i.e., 10,500 more than in 1980. This increment was caused (by approximately one-third) by a decrease in the number of students entering apprenticeship positions. Four-year vocational schools of high school level were entered by 13,800 students, 3,600 of them girls. The number of students accepted at high school level vocational schools showed a slight increase in comparison with previous years. Even though problems persisted in the enrollment of students for some vocational fields (e.g., lathe operators, milling-machine operators, miners, bricklayers and masons, roof layers, rubber technicians, etc), more than half of basic school graduates entered vocational fields.

In 1982, 421,000 apprentices were preparing for blue-collar occupations. Their number increased by 28,500 in comparison with 1980 (three-quarters of the increment being constituted by girls).

Most apprentices in 1982 were trained in 3-year training courses (358,300). Preparation in 4-year training courses was undergone by 52,700 apprentices, including 49,200 in high school level training courses. Training courses involving a preparation of 2 years or less were attended by 10,000 boys and girls.

Table 3. Apprentices According to Apprenticeship Groups
(in 1,000 persons)

(A) Skupina studijních a učebních oborů	1980			1982		
	(B) celkem	(C)ho dívky		(B) celkem	(C)ho dívky	
		abs.	%		abs.	%
1 Počet učňů celkem	392,5	136,6	34,8	421,0	158,3	37,6
2 v tom:						
3 seřizování, řízení a obsluha výrobních strojů a zařízení	30,3	2,5	8,2	28,6	2,5	8,7
4 hutnictví, strojírenství a ostatní kovodělná výroba	115,5	6,2	5,4	114,0	7,6	6,7
5 elektrotechnika, doprava, pošty a telekomunikace	53,1	9,7	18,3	56,9	11,3	19,9
6 technická chemie silikátů	3,5	2,6	72,9	4,3	3,3	77,3
7 tech. chemie ostatní, potravinářství a polygrafie	18,6	12,0	64,8	20,5	14,1	68,9
8 textil a oděvnictví	27,4	27,1	98,6	34,5	33,8	97,9
9 zprac. dřeva, výroba hudebních nástrojů, zprac. kůže a výroba obuvi	16,1	4,8	29,8	18,1	6,1	33,6
10 stavebnictví a zeměměřičství	38,1	0,0	0,0	39,8	0,2	0,5
11 zemědělství a lesní hospodářství	15,7	8,7	55,2	22,4	10,0	44,7
12 zdravotnictví	0,1	0,0	0,0	0,5	0,4	76,6
13 ekonomika a organizace, obchod a služby	73,4	62,7	85,4	80,5	68,5	85,1
14 umění, užité umění a rukodělná umělecko-řemeslná výroba	0,6	0,3	51,3	0,9	0,5	62,2

Key:

- A. Group of study and apprenticeship fields
 - B. Total
 - C. of which girls
1. Total apprentices
 2. of which:
 3. adjustment, control and operation of production machinery and equipment
 4. mining, machine building and other metalworking production
 5. electrotechnical eng., transportation, mail and telecommunications
 6. silicate chemistry
 7. other chemistry, food and printing industry
 8. textile and clothing industry
 9. woodworking, musical instrument production, leatherworking and shoemaking
 10. building and land survey
 11. agriculture and forestry
 12. health care
 13. economy and organization, trade and services
 14. art, applied arts and industrial art manufacture

Over the past 2 years there occurred a considerable increase in the number of apprentices in the groups of study and apprenticeship fields "textile and clothing industry" (7,100), "economy and organization, trade and services" (7,100), and "agriculture and forestry" (6,700). On the other hand, the number of apprentices decreased in the groups "adjustment, control and operation of production machinery and equipment" (by 1,700) and "metallurgy, machine building

and other metalworking production" (by 1,500). The share of apprentices undergoing training in the last two groups decreased from 37.2 percent in 1980 to 33.9 percent in 1982. A decrease in the share of apprentices occurred also in the group "building and land surveying" (by 0.2 point), even though the absolute number of apprentices in this group increased by 1,700.

The number of girls undergoing training in apprenticeship fields kept on growing. From the total number of apprentices, girls formed 37.6 percent, i.e., 2.8 points more than in 1980. In some groups of study and apprenticeship fields, e.g., "health care," "economy and organization, trade and services," "silicate chemistry," they represented more than three-quarters and in the group "textile and clothing industry" up to 97.9 percent.

Successful graduates of training courses in 1982 included 119,500 apprentices. Their number increased by 15,800 in comparison to 1980. Roughly half of all apprentices underwent training in the fields "metallurgy, machine building and other metalworking production" and "economy and organization, trade and services." An additional one-fourth of apprentices graduated from training courses in "electrotechnical engineering, transportation, mail and telecommunications" and "building and land surveying."

The increasing numbers of graduates of study and apprenticeship fields as well as of those entering them at the outset of the Seventh 5-Year Plan help to improve the level of qualifications of workers and create the prerequisites for performance of constantly more demanding blue-collar occupations.

8204

CSO: 2400/283

HIGHER OUTPUT DESPITE LIMITS EXPECTED OF AGRICULTURE

Budapest FIGYELO in Hungarian 23 Feb 84 p 13

[Text] Efficiency and Growth

Purchasing abilities greatly influence the technological conditions of agricultural development. One of the major structural contradictions of the economy is that the relatively well developed agricultural sector, neither in a quantitative nor in a qualitative sense, has adequate industrial support. This is one of the trains of thought, that the Agricultural Department of the Karl Marx University of Economic Sciences convening on February 29th for a scientific session under the heading of "Efficiency and Growth in Agriculture," will address in twenty lectures to the participants of the debate.

Rhapsodical Demand (Demand by fits and starts)

Quantitatively, the domestic industry does not even produce half of the needed factors of production in the agricultural sector. So the import of these items has a great role, although the imported machinery and other factor inputs, compared with domestic ones, do not represent a relatively higher technical standard.

In the agricultural (production equipment input) manufacturing branches of the industry, namely the machine and chemical industries, the prices have steadily increased. Part of the subsequent price increases that befell the agricultural sector were reduced through indirect subsidies through economic directives. While the machine and chemical industries--according to audits from 1938 to the present--passed on the cost increases of their inputs to consumers, the agricultural sector has hardly had the opportunity to do so. In fact, from the second half of the seventies, input prices and purchase prices increasingly diverged.

The domestic manufacturers of the (production equipment inputs) have difficulties adjusting to the demands of agriculture. Agriculture's restricted purchasing power created strict market conditions which, however paradoxically, did not stimulate the industry to (improve a better supply offer). As a result, the agriculture sector (evolved), for example, its building capacity within its own organizational system. The reason behind the move was partially that various sought-after

agricultural machinery was not available, therefore the agricultural planter preferred to use their funds for construction. Whenever the purchase of agricultural machinery became imperative, the management was satisfied with accepting less modern products. Thus, the demand of the agricultural sector for industrial production equipment became unpredictable.

This problem, however, cannot be separated from the directives of the national economy. Especially when the normatively based investment funds occasionally exceed the (plan target of the economy). Such excesses will prompt the economic directors to initiate restrictions against overstepping investments (e.g., freezing the funds, reducing indirect subsidies, etc.). Such measures further increase the incalculableness of the investment market, and create uncertainty for the agricultural investment measures. The main question however continues to be whether or not the investment resources surplus is proportional to the actual value of the relative output surplus.

Without Competition

Agriculture faces almost entirely monopolistic organizations. In the successor enterprises of the trusts, such transformation as the food industries competing with one another for agricultural producers and consumers, is not evident even these days. The individual enterprises even in such domains where the state produce trade and price regulations would allow competition, prefer to gather in price cartels with harmonized prices (e.g., certain small stock-raiser branches).

Similarly, the foreign trade companies have little or no effect on agricultural production. The separation of foreign trade and production has also had a negative influence on the efficiency and the growth of the agricultural sector.

In the view of society, the economic reforms materialized more in agricultural than in the other branches of the national economy. Thus, concerning the relationship of the agricultural sector and the other branches--in which the reforms only partially materialized some contradictions may be detected. Numerous contradictions originate from the conduct of the monopolistic enterprises located in the input and output spheres of the agricultural sector and because of the official protection of the obtained or legally proclaimed monopoly rights.

For Three Markets

The Hungarian Food-Product Economy produces for three markets. Approximately 68-70 percent of its products end up for domestic use, 22-23 percent for dollar-accounting, and 7-8 percent for rubel-accounting export. None of the three markets is "perfect," and they all have different characteristics. The capitalist market prices are distorted

by regional protectionism, while the domestic ones are distorted by the organizational system and by consumer price supports.

A valid question: under these conditions, how can the influence of the market be improved with less central intervention. It seems obvious that as a realistic measure, the economy should adjust to world prices. It is true, that on the world market for agricultural products, if we can talk about a world market altogether since the market has broken up into regional markets by various bilateral and multilateral agreements, not only the producers, but also the state trade politics are in competition. As the market's stability faltered, the intensity of the trade fluctuations increased. In spite of this, however, the world market price is a reality from which the internal price system cannot be separated.

The domestic producer price level of Hungarian agriculture, aside from the annual fluctuation of the market boom, in totality approximately coincides with the price level of the world market. The price ratio of the major products, however, significantly differ from the ratio of the world market price level. The price level of the agricultural production equipment is not identical with that of the world market; the price of chemical products is usually lower, but that of machinery--considering the qualitative differences--is usually higher.

In the long run, the gradual introduction of the long lasting world market price influences into the domestic market is proper. In setting the prices of the most important products, however, prudent consideration to the major and minor side effects of the expected changes of the price ratio on domestic conditions should be given. Moreover, progress can be made in a number of areas by smaller steps in amalgamation of the production and the world market. However, the further development of the price system in this direction is predicated on organizational changes.

The demands of the nation's trading partners, and the domestic interest of agricultural production maximization, warrant the increase of foodstuffs exports to CEMA countries. To accomplish this, incentive methods which serve the international and domestic evolution of the active role of prices, must be found.

Foodstuff-production should be brought closer not only to the export but also to the domestic market. One possibility of achieving this is through the fusing of producer and consumer prices. The application of approximately one hundred various government subsidies for promoting export, is not justifiable, even with socio-political aims in mind. Only a few selected products should have lasting national subsidies.

A further prerequisite for strengthening the market relations is the decentralization of the foodstuffs distribution, and also the increased participation of state farms, small and medium-size processing plants, and small-scale producers in the local foodstuffs distribution.

Decreased Demand for Resources

In Hungary, since 1978, the price level of the factor inputs needed by the agricultural producers, has increased more sharply than the price level of the agricultural products. The widening gap between the relative prices of agricultural and industrial products, however, is the result of a realignment of the world market price ratios. Agriculture must adjust to these realignments. Therefore, the government's agricultural subsidies should not increase, neither should the grants applied to materials and equipment used in the production process. On the contrary, the government subsidies given under various titles must decrease. The future volume of agricultural revenues, will depend mainly on the increase of agriculture's more efficient use of production equipment.

The growth of fixed assets is not negligible, but its status of development in certain respects is more complicated than earlier. Among the smaller expansion possibilities, between 1976-80, investment in capital machinery was still high, although it is gradually decreasing now, but growth of infrastructure and other essential non-profit yielding sectors is significant.

Although the technical level has not increased there has been no decrease in the difference in levels between certain branches. The number of machines ready for replacement has increased. On the other hand, for the first time in the agricultural sector--somewhat due to non-availability, and more efficient use--the demand for production resources has declined.

The strict conditions--like in the other branches of the economy--affected not only the development, but also the current state of the economy. The subsidies between 1976 and 1982 increased by 5 billion forints annually on the average. This was followed by the near 2.2 billion forint annual increase of withholdings. Among the subsidies, however, the grants serving the necessary and selective aims of the national economy, have doubled. On the other hand, the amount of indirect production expenses supporting subsidies, decreased.

Based on Marketability

The increasing expenditures have stimulated the search for budget saving possibilities. As a result, the energy need of agricultural production, has declined. But the thriftiness has had questionable side effects also: the decline in the use of fertilizers and a cutback in irrigation.

The overproduction of certain goods is of recent concern. The results of this, in spite of governmental assistance, affect mainly the producers. Therefore, now there is a greater need for the production policies to be regulated by marketability, and the resources be used for development according to market capacities.

In the first half of the eighties, the foodstuff economy had no significant achievements in the increase of biological potentials. The agricultural production has decreased along with the technical development of foodstuff processing. The structure of the cultivation of field crops has not changed; the ratio of fodder producing fields has not decreased, and in the animal husbandry, the utilization of the by-products is still not significant. Efficiency improvements in the vegetable growing branch have not been successful yet, however, the division of labor between the large and small-scale productions appears to be promising. For the establishment of economic growth, the agricultural sector has available favorable agro-ecological and biological potential, in addition to material and intellectual resources.

Utilization of these potentials during the second half of the 1980's justifies continued growth of production--in harmony with market conditions--the development of the production equipment manufacturing and processing industries in harmony with the foregoing and enhancement of the competitiveness of agricultural products calls for improved efficiency. Thus the foodstuffs sector of the economy, until the end of the decade will remain an important factor in the growth of the economy.

12618

CSO: 2500/257

FOREIGN TRADE RESULTS FOR 1983 SUMMARIZED

Warsaw ZYCIE GOSPODARCZE in Polish No 6, 5 Feb 84 p 8

[Article by Jan Siebeneichen: "Foreign Trade '83"]

[Text] The results of Polish foreign trade in 1983 cannot be assessed in a simple, unequivocal statement. They have many positive features, testifying to the progress that this branch of the economy is making in coming out of the crisis, but it is still a long way from the state in which all functions of trade exchange and economic cooperation with countries abroad are being performed and the benefits which an international division of labor brings are being fully attained.

Commodity turnovers abroad were larger in 1983 than in the previous year. The growth rate of export was higher than the growth rate of production. This is particularly worthy of note, because export encountered difficulties. One of the real complications was the matter of supplies. Export production in 1983 was not covered by an operational program guaranteeing the availability of goods. The priority established for supplying export production in relation to other fields of the economy was not always effective, particularly in view of the constant difficulties in importing from the free foreign-exchange countries, and in procurements for purposes of obtaining supplies.

Also, export production was not rated the highest area of their activity by many producers, because it was more difficult than the production intended for the domestic market and did not bring benefits so much higher that it would become attractive in comparison with the production intended for domestic customers. Goods for the foreign markets must be compared with goods supplied by other producers. Prices are established by supply and demand, but they also depend on the individual features of the goods being offered: quality, modernity, reliability of operation. When the internal demand for goods is not satisfied, the goods on the domestic market are not subject to such comparisons, and the domestic price can be established without difficulty at a level which satisfies the needs of the producer, while the export price is set by conditions on many foreign markets.

In 1983 these conditions were not very good. The poor economic conditions on the capitalist markets sharpened the competition, and thus also increased the requirements on the goods, and also the requirements on the suppliers, e.g., as to delivery - schedules, quality, packaging, reliability, etc.

Producers were more inclined to export to the first payments area [socialist countries] than to the second [capitalist countries]. This was due to the lasting coproduction ties between Polish industry and the socialist countries, and also to the steadily growing price trends as a result of the application of the known principle of graduated prices. Because of this principle, the fluctuations of economic conditions on the capitalist markets reach the turn-overs with the first payments area with delay, while higher prices are still prevailing there.

In the first payments area there were also implemented profitable deliveries which were supplemental to the decisions of interstate protocols, deliveries of a tie-in nature. The additional exchange covered exports of commodities with which the domestic market was relatively saturated (e.g., hard coal, coke) in exchange for imports of commodities replacing purchases in the capitalist countries of a raw-materials nature or goods necessary to supply the domestic market.

Products of the electromachinery industry had a high place in exports to the first payments area (constituting over 60 percent of this export), and also hard coal, products of the chemical industry, the metallurgy industry, and farm-food commodities (mainly fruits and vegetables). But in comparison with 1982, exports of light industry, the timber-paper industry, and construction facilities declined.

The value of imports from the countries of the first payments area was 11.1 percent higher in 1983 than in 1982. By volume, export grew 1.6 percent. Imports of electromachinery products and fuels rose greatly. The import quotas of annual protocols to interstate agreements were not fully utilized in such fields as iron ore, asbestos, paper pulp, pig iron, and coniferous timber, either due to lack of demand on the part of domestic purchasers, or because of assortment differences between the offer and the demand.

The basic part of the imports from the first payments area continued to be the commodities necessary for production of consumer goods (78 percent of the import from the first area). It should also be noted that investment import in 1983 rose by 17.9 percent, and market import by 13.1 percent.

Commodity turnovers with socialist countries closed with a surplus of imports over exports amounting to 36.7 billion zlotys, resulting in an increase of the national income for division.

Trade exchange with the first-payments-area countries in 1983 was good. It provides a good base for a greater trade exchange with these countries in the years following.

Turnovers with the second payments area were different. The increase in the value of export, 10.1 percent, may be deemed to be satisfactory but only if the problems which had to be overcome are taken into account. The economic recession in the western countries, and the protectionist tendencies that this provoked, slowed down the development of export. The economic sanctions applied against Poland by the NATO countries made access to markets difficult, and also make it difficult to obtain credits for imports. The tendencies toward

a deterioration in quality of production, extension of delivery schedules, as well as lack of consumer goods, along with the incomplete utilization of production capacity by factories due to labor shortages, were felt very strongly. Because of the strong competition on the foreign markets, these factors seriously complicated orders-soliciting and exporting activity.

Nevertheless, exports of hard coal, metallurgical, chemical and wood-paper products rose, as well as food and farm products. However, exports of products of the electromachinery industry continued their downward trend. There was also a strong regression in such areas of export as roller bearings, tools, lathes, road-construction and land-reclamation machinery, and means of vehicle transport. This is linked both to the amount of the export offers on the part of the producers and the recessive situation and complications in access to the foreign markets, including also the tariff increases connected with suspension of the most-favored-nation clause by the United States.

The number of construction facilities exported also dropped as a result of the payments situation of our main purchasers, and also the weak interest in this area on other markets.

The declining trend in the export of light-industry products is attributed to the severe shortage of these products on the domestic market.

In 1983 export was the main source of foreign-exchange revenues needed to cover import expenditures and to service the foreign debt in the second payments area. Exports made it possible to finance 9.8 percent more import than in 1982. Over 75 percent of the imports were allocated for purposes of consumer-goods availability. In comparison with the previous year, investment import dropped 19.7 percent, and import of market goods dropped 4.9 percent.

Prices on the foreign markets were not good. In comparison with 1982, prices of commodities exported in 1983 dropped 2.3 percent, while prices of imported commodities rose 1.9 percent. Terms of trade in trade with the second area were at a 95.9 level.

In turnovers with countries from the second payments area, the surplus of import over export amounted to 135 billion zlotys and was necessary to cover expenditures other than import. This surplus, which reduced the national income for division, is indispensable for the servicing of the foreign debt and will be a constant element in foreign trade turnovers in future years.

Although the 1983 figures can be called satisfactory, the starting point for a further increase in turnovers, dependent primarily on an increase in exports, is not good. The declining trend in the export of electromachinery products will have to be turned around by extreme efforts, because in the second payments area the amount of foreign-exchange obtained from exports will continue to be dependent upon the possibilities of meeting the import needs of the economy.

		(2) I obszar		(3) II obszar	
(1) Wyszczególnienie		(4) CPR 1983	(5) wykonanie 1.1.83-31.XII.83	CPR 1983	wykonanie 1.1.83-31.XII.83
		(6) wartość w mld zł	proc. 31.XII.83 CPR = 100	(7) wartość w mld zł	proc. 31.XII.83 CPR = 100
EKSPORT:					
(8) -- w cenach stałych		X 488,6	X 103,3	X 342,8	X 112,8
(9) -- w cenach bieżących		480,8	108,8	944,6	94,4
(10) w tym wyroby przemysłów:					
(11) -- elektromaszynowego		291,4	109,4	198,2	94,8
(12) -- obiekty budowlane		15,7	86,1	48,8	69,4
(13) -- paliw i energii		44,8	131,5	197,7	113,4
(14) -- metalurgicznego		36,9	73,2	61,1	122,3
(15) -- chemicznego		41,2	119,5	82,7	96,2
(16) -- mineralnego		2,3	127,7	8,1	67,5
(17) -- drzewno-papierniczego		3,8	96,0	17,0	93,3
(18) -- lekkiego		33,0	86,8	24,0	111,0
(19) -- spożywczego i produkty rolnictwa		8,8	186,0	83,7	108,9
IMPORT:					
(8) -- w cenach stałych		X 511,4	X 101,8	X 387,2	X 106,9
(9) -- w cenach bieżących		561,4	99,7	431,7	92,9
(10) w tym wyroby przemysłów:					
(11) -- elektromaszynowego		197,9	97,8	67,7	108,9
(12) -- paliw i energii		206,2	98,9	28,3	105,5 ^{a)}
(13) -- metalurgicznego		56,8	91,1	37,8	110,2
(14) -- chemicznego		45,1	87,5	89,5	102,3
(15) -- mineralnego		7,3	108,6	5,5	100,7
(16) -- drzewno-papierniczego		13,9	102,2	6,9	62,4
(17) -- lekkiego		18,2	118,9	21,4	193,4
(18) -- spożywczego i produkty rolnictwa		12,4	168,7	138,2	87,3
IMPORT:					
(20) według kierunków wykorzystania					
(21) -- inwestycyjny		44,0	110,0	25,8	76,0
(22) -- zaopatrzeniowy		485,6	93,7	354,8	85,4
(23) -- rynkowy		91,8	138,0	91,3	97,7
(24) Saldo obrotów:					
(25) -- w cenach stałych		X -39,8	X 77,9	X +101,4	X 132,7
(26) -- w cenach bieżących		-39,8	45,4	+112,2	119,3

*Exclusive of import for re-export of crude oil and re-export of petroleum products.

Note: Execution of foreign-trade turnovers according to temporary Government Statistics Office data.

[Key to table on preceding page]

Key:

1. Item
2. First payments area [socialist countries]
3. Second payments area [capitalist countries]
4. 1983 Central Annual Plan
5. Execution 1 January 83-31 December 83
6. Value in billion zlotys
7. Percentage of Central Annual Plan
8. In fixed prices
9. In current prices
10. Including products from the following industries:
11. Electromachinery
12. Construction facilities
13. Fuels and energy
14. Metallurgy
15. Chemical
16. Mineral
17. Wood-paper
18. Light
19. Food and farm products
20. According to how used
21. Investment
22. Supply of goods
23. Market
24. Turnovers balance statement
25. In fixed prices
26. In current prices

9295

CSO: 2600/852

POLAND

PROSPECTS FOR TRADE WITH BRAZIL DISCUSSED

Warsaw RYNKI ZAGRANICZNE in Polish No 16, 7 Feb 84 p 8

[Interview with Roman Mlyniec, commercial counsellor in Brazil, conducted by Andrzej Krzemirski: "Strengths and Weaknesses of Trade with Brazil"; time and place not given]

[Text] Brazil is our best trade partner among nations of the Third World. We have approached the commercial councillor of the Polish People's Republic's embassy in Brazil, taking advantage of his short stay in Warsaw, in order to obtain his assessment of economic relations between Poland and Brazil.

[Question] It is well known that both Brazil and Poland are currently undergoing serious economic difficulties. In both countries, a high level of indebtedness and low level of production continue. In your opinion, how much have these unfortunate events influenced economic relations between the two countries, especially in the recent period?

[Answer] Yes, both our countries have the same problems. Our economies must mobilize all the means to increase exports and to limit to a minimum our imports. I must say that Brazil succeeded last year. This was virtually the only area in which that country achieved the targets imposed by the International Monetary Fund. Brazil managed to achieve a favorable balance of trade of \$6.491 billion, which is an enormous achievement. Of course, this was done to a great extent at the expense of imports and the economy.

For this year, the Brazilians set up as the target, or rather the IMF dictated it, a favorable balance of trade of \$9 billion. Of course, this will again force an export-oriented economy to take a cold look at imports. In this respect, we are in a similar situation.

As is known, for many years Brazil and Poland have had complementary economies. There are many items in which we are interested and there are some, unfortunately fewer, products which interest the Brazilians.

Our relationship is dominated by two features. One--we are Brazil's debtors, we owe about \$1.8 billion and this is strongly reflected in our relationship. Two--we have a multiyear contract with Brazil for the delivery of coal for coke ovens which is valid until 1990. This is our trump card because, as is

well known, the steel industry is strategically important, and one-third of Brazilian industry depends on deliveries from Poland, especially in view of the fact that the Brazilians adapted their steel-producing technology to the characteristics of Polish coal. If we stopped our deliveries it would necessitate the modification of steel mills.

This is also a trump card for Brazil because we are one of the few countries who settle accounts through barter. Under the current circumstances, this is a very favorable method for Brazil.

Brazil is an extremely important trade partner for us because it has a wide variety of products and raw materials which are essential for our economy. It fulfills the fodder needs in competition with the United States. This is beneficial for us because we are not tied to one supplier who, as we know, often uses peculiar methods in its dealings. Hence, it is very important to assure the supply of essential soy products from Brazil.

Our light industry is strongly tied to Brazilian cotton yarn and other raw materials and semi-finished products, including sisal. Also, we import magnesite, which our steel industry uses for heat-resistant lining in ovens, and other items such as manganese ore, castor oil and pepper. The Brazilians also offer such products as cocoa and coffee, both very useful, but we cannot afford them at this time.

[Question] For a long time, Brazil was and probably still is Poland's greatest trade partner among all Third World countries. Has this changed in the last year?

[Answer] Brazil still holds the first place. Brazilian-Polish trade reached its peak in 1980 when it exceeded \$700 million but, unfortunately, this consisted of our exports at a steady level of \$100 million, the rest consisting of our imports based on credit. Hence our indebtedness to Brazil, which always favored exports and made credit easy.

Last year was atypical because in March, at the conclusion of bilateral talks during which we could not satisfy their requests to repay out debts, the Brazilians stopped exporting under the barter arrangement. They furnished only the iron ore tied to the multiyear coal contract, while delivery of other products was stopped. They decided that we can purchase goods other than the iron ore under the conditions of payment in hard currencies.

Thus, last year our exports amounted to \$136 million. This consisted mostly of coal and also sulphur, which is included in the multiyear contract valid until 1992. On the import side, we purchased, under the barter arrangement, goods valued at \$45 million while the remaining \$60 million were used for hard currency imports. This turned out to be the best test of how attractive the Brazilian market is for Poland: our trade centers continued to buy for hard currency the same articles which they used to buy on the barter basis—the underlying economic ties are durable and can withstand the current difficulties.

[Question] I would like to suggest that we review the future of trade between Brazil and Poland from the Brazilian economic policy point of view. Most observers agree that the stiff anti-inflationary program implemented in Brazil may lead to a deeper recession. Additionally, the planned increase of exports while maintaining imports at the same level as this year if possible (this year imports were 20 percent lower than in the preceding year) may have repercussions on Brazilian economic relations with other countries. In your opinion, what are the main factors affecting our relations and are there reasons to fear that our exports may be affected?

[Answer] Yes. There are such fears, especially because the Brazilian program is recessionary and is based primarily on slowing down investments. For this reason, we cannot have much hope that it will be possible to increase our sales of investment items, and this is the main problem with our export to Brazil.

We are the traditional supplier of ships to Brazil, but only of specialized ships. We will do our best to retain this position. This quarter we will probably finalize the negotiation of a contract to build a polar research ship worth about \$50 million which is scheduled to be assigned to an antarctic research program. The Brazilians have quite high ambitions in that area. This is a specific example of investment goods export, but the deal will be consummated in 2 years at the earliest.

Traditionally, we have supplied special-purpose machine tools, and we hope to continue this export to some extent. We sell to Brazil ball bearings, and we hope to continue to supply certain varieties. Also, we hope to continue selling certain types of laboratory equipment which is not produced there.

In Brazil the "similar nacional" rule is in force and, in practice, there is no chance of obtaining an order for a product similar to that produced locally unless its production cost is substantially lower and attractive credit is offered. But we know that we cannot offer very attractive credit in comparison to other countries. It should be noted, however, that despite difficulties Brazil is still an area of growing exports where companies of the great world powers face each other.

Talking about investment goods export, we must emphasize one difficulty which we must overcome to have a serious chance in that market. I am referring to our absence from the International Monetary Fund and, consequently, from the World Bank. The inability to comply with this requirement eliminates us from 80 percent of the bidding for investment goods in Brazil. At the same time, we must realize that under no circumstances are there chances to sell a complete installation, but there are chances to be included in a deal and to sell certain elements.

[Question] Under these circumstances, are there any chances of investment cooperation?

[Answer] We participate in the mining development program. We cooperate with a Brazilian company in producing mining equipment, including coal scrubbers.

We try to take advantage of other opportunities but we encounter stiff competition regarding technology, financing and delivery dates.

[Question] How about other markets? It is well known that the Brazilians have good positions in many countries.

[Answer] Yes, we have a specific example. We cooperated in Iraq. A Brazilian company obtained a contract there and we were a subcontractor for rails within our barter clearing arrangement. Currently, the same company won the bid (a very substantial one--\$1.5 billion) and they want to invite us. At the moment, Iraq has payment problems but we want to look closely at this matter.

[Question] What you are saying indicates that the composition of our exports should not be subjected to major changes.

[Answer] No, no major changes are expected, especially since there are no real chances of increasing our investment goods exports. But let me emphasize again that we are the only socialist country tied to Brazil with multiyear contracts. For this year, we anticipate that our exports of coking coal will amount to 2.3 million tons and up to 300,000-400,000 tons of sulphur.

These are raw materials and, although we would prefer to supply processed items, the mere fact that we have multiyear contracts and we know the amount of sale on which we can base our import plans is of great importance for a planned economy. We have also other export items which may have takers, especially chemical products, raw materials for breweries and selected metallurgical products.

[Question] Should we expect that the composition of our imports from Brazil will remain unchanged like that of our exports?

[Answer] Certainly, we would like to broaden the composition of our imports. At this time we cannot afford it but in the future Brazil will be a potential supplier of many more goods.

[Question] Talking about indebtedness, can we count on some credits from the Brazilians?

[Answer] No. At this time, the matter of repayment of our medium- and long-range debts guaranteed by the government (and we have only those) was transferred to the Paris Club. Brazil, as our 17th creditor, asked to join that group. Since we owe \$1.8 billion, we do not have a chance to obtain new credits.

[Question] Are there any plans to discuss organizational matters, exchange of trade missions, exhibitions, participation in fairs, industrial talks or more general discussions?

[Answer] Following government-level talks which took place last November in Brazil, it was decided that our delegations will meet at the beginning of

this year to negotiate trade in 1984 and beyond. A Brazilian mission is coming to Warsaw in February.

Regarding exhibitions and fairs, inasmuch as our bilateral cooperation is based on known, traditional items and there is no chance of broadening that list in the near future, both countries temporarily ceased demonstrating new products. Nevertheless, to maintain close contact between various industries, it is reasonable and desirable that our representatives visit the Brazilian market and that Poland receive delegations from Brazil. Close cooperation and knowledge of one's partner are absolutely necessary for success.

[Question] To sum this up, is it reasonable to expect that Brazil will retain its prominent position among the Third World countries in relations with Poland?

[Answer] Absolutely so.

[Question] Despite the current difficulties on both sides, can we be optimistic?

[Answer] Of course.

8801

CSO: 2600/715

POLAND

LIMITED LEEWAY FOR SELF-MANAGEMENT AT GDYNIA SHIPYARD

Warsaw ZYCIE GOSPODARCZE in Polish No 2, 8 Jan 84 p 5

[Article based on interviews with Cyryl Slomowicz, council chairman, Fryderyk Tokarski, secretary, and council presidium members Eugeniusz Konkolewski, Stanislaw Korzewski, and Ryszard Mackiewicz, by Malgorzata Niepokulczycka: "On Employee Self-Government at Gdynia Shipyard"]

[Text] A self-government body began to operate at the Paris Commune Shipyard [SKP] in Gdynia on 15 May 1981. The decisions which were made at that time proved to be "right on target" so that no changes were necessary in the decision document after 25 September 1981, when the law regulating the legal status of self-government became effective.

By 13 December 1981, bylaws for a self-government council and election rules were prepared and preliminary consideration of the rules of operation was begun. On 4 December 1982 the minister of metallurgy and machine industry approved the resumption of activity by SKP self-government. On 31 December 1982 the shipyard director recognized the preparatory activities in which the employee council had engaged. The council began its statutory work on 13 June 1983.

Several persons among the 52 members of the council elected in May 1981 withdrew from the council, while continuing to aid it as consultants. Delegates were elected in March and April 1983.

The first general meeting of the shipyard work force delegates on 13 June 1983 voted (by open ballot) to transform the founding committee of the employee council into the employee council, to approve the election rules, and to adopt the self-government bylaws which, in keeping with the legislation, sanction its right and obligation to form decisions, opinions, and motions on all essential issues concerning the enterprise. The following is a selection of decisions made by SKP self-government in recent months.

On 7 July 1983, the employee council approved by its resolution No 1 the changes made in the shipyard's organizational structure on the levels of vertical spheres of authority (deputy director). The proposed change to affect the lower levels of authority required, in the council's opinion, more complete information about the overall concept of shipyard organization and

more specific determination of spheres of authority and duties for organizational components. The council also voiced its expectation that the organizational modifications at the shipyard would be geared toward the elimination of the shortcomings listed in the "Survey of 1983 Employment, Summary and Results." The council expressed the view that the chief engineer should be empowered to form organizational decisions within his sphere of authority. The council also approved the instituting of semester bonuses for completion of tasks and pronounced favorably on a set of bonus rules.

The 21 October 1983 Resolution No 2 affirmed the rules of procedure for the council's activities, and obligated the council presidium to abide by the rules and transmit them to the director. The council also expressed its concern over the situation in the shipyard, chiefly caused by:

- production performance in the fourth quarter of 1983 and lack of information about shipyard tasks for 1984,
- the lack of visible effects of completed organizational modifications and a survey of the levels and composition of personnel,
- the lack of information concerning conceptual lines for changes to be made in the emolument system for personnel,
- deficiencies in the shipyard's management system.

The latter are lodged in the area of task planning and task accounting and failure on the part of supervisory personnel to enforce the performance of assigned duties by organizational subunits at all levels of management. This results in prevalent discouragement, imprecise scopes of authority, nonfulfillment of duties, and attempts to transfer responsibility to other persons or subunits.

The employee council mandated the director to submit within 1 month a draft of measures targeted on the elimination of deficiencies in the operation of the shipyard. A commission was also formed and charged with the task of evaluating those measures.

Many other issues were examined at that meeting in October. Approval was granted to transfer 15,000 zlotys to the Wincenty Witos memorial construction fund, to enroll the shipyard as a sponsoring member in the ZBoWiD [Union of Fighters For Freedom and Democracy] organization in Gdynia and as a collective member in the TPPR [Polish-Soviet Friendship Society], to sell 48 apartments in the shipyard's residential buildings to the Paris Commune worker housing cooperative, and to transfer several of the shipyard's residential buildings to the state treasury.

This timetable of shipyard self-government activities results in its becoming an integral part of the shipyard management system, a process which is perhaps unlikely to be completed in so distinctive a plant as the shipyard. Employee council representatives in Gdynia share a common view of this problem--the shipyard will never become totally independent, self-financing, and

self-governing. Each of these "three S's" inscribed in the economic reform is encountering some obstructions which impose lesser or greater limitations.

The existence of what is known as branch ministries with divergent interests, along with the activity of anti-reform groups (see PRZEGLAD TYGODNIOWY No 38/83, author's note) was not conducive, among other things, to the establishment of a realistic dollar conversion rate in shipbuilding, an industry with the highest processing index. By treating this industry on a par with, e.g., needle production, numerous adverse affects were caused. At a meeting with Minister Lukosz in the shipyard in August 1983, employee council representatives raised the problem of external conditions influencing the shipyard's performance, including foreign currency exchange rates and so-called surcharges. At the time, the minister agreed with the self-government's position on special conditions applicable to the operation of shipbuilding industry and promised to transmit this concern to Minister Baka. At this time it can be affirmed that there are some signs suggesting that the problem will be resolved in keeping with the shipyard representatives' proposals, i.e., the rates will be approved at the time when contracts are signed.

Concern with external conditionings is not limited to financial problems. Many decisions made internally in other kinds of enterprises with the participation of the local self-government are made outside of shipyard enterprises. This is true with regard to the structure of production and distribution of output among lines of sales. Such decisions are made by the Planning Commission and are virtually uninfluenced by the shipyard self-government and management.

The employee council is not represented on issues as important for the shipyard as the signing of contracts, marketing, and determinations of foreign trade terms. These decisions are made by the central authorities and reach the shipyard in the form of external input which is not subject to change by the self-government. In brief, there is a divergence between external and internal conditions at the shipyard.

An essential problem resulting from the nature of production and external conditionings, and one that tends to limit self-government at the shipyard, is a disparity of the time frame imposed by the employee council term versus the duration of a full production cycle. This adversely affects the reality of joint management of the shipyard by employee self-government. The council's term is 2 years, which amounts to the average length of talks prior to the signing of a contract. In effect, in the course of a single term the employee council is practically unable to decide on the composition of production (considering the presence of external limitations) because either the terms of a contract are still unknown or the structure of production has been formed under prior council terms.

In this situation, the work of employee councils can dwindle to nothing but internal operations in work organization and monitoring which have little in common with the language of the law on employee self-government. Opportunities to streamline internal operations are of altogether minor importance in comparison with decisions made with no self-government participation. The

question, therefore, is whether self-government can truly be self-governing under these conditions.

However, the shipyard employee council is encountering many internal problems about which it is able to make decisions, which is to say it is not making them now, e.g., in imports. The shipyard receives a constant flow of new legislation compelling it to tackle new issues and typing it up with a multitude of the conditions resulting from the operations of central bodies for foreign trade and from other factors. A whole array of "upper" intermediaries are in operation: Polifarb Centrostal, Maritime Economy Office, Ministry of Foreign Trade, and others. Yet, to use the opinions of SKP employee council members, if the lawmakers put their confidence in enterprises and placed financial resources at their disposal, then this step must indispensably be followed by enabling enterprises to follow import policies of their own.

Planning is another issue. In early November 1983, the conditions for shipyard operation in 1984 were unknown. Planning becomes fictitious if the rules of the game are unknown and constantly changed.

Depreciation of fixed assets is becoming a serious problem, with poor prospects for halting this process. There is a shortage of funds not only for the regeneration but even for the upkeep of fixed assets. No lesser in importance are the problems of wages and employment.

Nearly 9,000 persons with average wages of 15,000 zlotys are employed at the shipyard in Gdynia. A result of this situation is that since December 1981 a single production department has lost nearly 200 persons. There is no improvement from the fact that shipyard employees are required to give 6 months' notice. They abandon their jobs regardless of the consequences. Personnel turnover is very rapid, especially in production-line employees. Most of them come from out-of-town "recruitment" and have no chance to obtain apartments of their own.

There is also a dangerous drop in the employment of workers known as those indirectly involved in production, partially due to the fact that designers are paid piecework rates. Not for their intellectual effort, but for square meters of paper used! Overall, the wage structure is defective and should be modified so as to provide incentives to the employees. This applies to the group of personnel labeled "ink-pushers" and "necktie-wearers" in the shipyard lingo without whom the proper operation of the shipyard and correct progression of production cycles would, after all, be impossible.

This sketchy survey reveals a number of problems. Not all of the solutions are within the self-government's authority. Is it needed, then? This question is answered unambiguously by employee council members: yes, despite the fact that the self-government's range of activity is considerably reduced by the specific nature of shipbuilding industry. The self-government body can accomplish much to put what is available to the best use. To bring this about it is necessary to reduce the amount of steam expended on whistle blowing, and apply it to concrete work. And this is the motto of SKP employee council members.

8795

CSO: 2600/719

RECTOR CLAIMS ECONOMICS CURRICULUM IN LINE WITH ECONOMIC REFORM

Warsaw SLOWO POWSZECHNE in Polish 9-10-11 Mar 84 pp 3, 4

[Interview with Prof Dr hab Zygmunt Bosiakowski, rector of the Main School of Planning and Statistics, by Marek Matusiak; date and location of interview not given]

[Text] [Question] Do you agree that the economy is as good or as bad as our economists?

[Answer] I cannot agree with this. Moreover, the very assumption is false. First, because the Polish economy boasts of a whole range of names known and respected throughout the world. Second, it follows from the first statement that there is no direct, functional link between the quality of economists and the state of the national economy.

[Question] While I do not wish to leave myself open to being accused of harboring ill will, I do think that your conclusions are based on fairly superficial premises. You were talking about individuals; meanwhile, roughly speaking, economists represent several tens of thousands of those employed in the entire economy.

[Answer] In no way does that change the substance of my conclusions. You are merely forcing me to dot the "i." More than once I have heard clever but false comparisons. It is said that the economy is in the hands of economists, just as a patient is in the hands of a doctor. But the latter is not even correct, since the state of a sick person's health depends not only on the quality and skill of the doctor, but also on the investments base or the technological equipping of the health service and the like. One can only speak of ethical and professional responsibility.

[Question] Fine. Then let me attempt to formulate the question more clearly in this light. How valid is the statement that economists are responsible for the severity of the Polish economic crisis?

[Answer] Are we starting all over from the beginning? Fine, then I repeat: I believe that this statement misses the point. It would be valid if economists steered the economy during the period that led to the crisis. While there were several economists on the decisionmaking team at the time,

ask yourself whether they really had any influence over decisionmaking. What's more, there were many people at the time from the scholarly community that warned against the implementation of certain kinds of solutions.

[Question] Then what is the role of the economist in today's socioeconomic life?

[Answer] All economic decisions are of an economic-political nature. We can set guidelines for a substantive part of decisionmaking, but the concept itself is political. For example, let us say that the capital accumulation fund ranges from 10 to 25 percent. The minimum is 10 percent, for otherwise the rate of consumption will drop over the long term; the maximum is 25 percent, for otherwise this will cause a drop in the current rate. On this basis the politician makes a concrete decision depending upon whether, in his opinion, society expresses greater preference for current or future consumption.

In other words, the economist's role is to prepare for the politician certain variants that guarantee the correct functioning of the economy. However, the ultimate choice among variants is no longer our domain.

[Question] Do you see this stratification (conventionally speaking) of the sphere of politics and economics as the source of the noted deviations from the reform assumptions?

[Answer] The answer to this question lies well outside the framework of our interview. That is why I limit myself to the obvious statement that thus far in the world of economists, differences of opinion exist until now with regard to the reform assumptions and the degree and method of their implementation. To tell the truth, I am not terribly anxious to get involved in these largely academic quarrels.

To return to this stratification, however, it should not be treated as a contradiction, but should be characterized by total mutual understanding. This means that if the economist marks out the framework for a particular decision, the politician is not permitted to exceed the bounds of these instructions. Otherwise, he ignores economic indicators.

[Question] History demonstrates that such instances have taken place.

[Answer] They have occurred many times. One example is that economists have often warned that the growth rate of the country's debt is too great compared with the growth rate of our national income. Despite the fact that this was given as a barrier not to be exceeded, it was trespassed, with obvious political, economic and social consequences.

[Question] Let us stop rehashing the past. The purpose of all of my questions thus far has been to prepare the foundation for a discussion of the future. Since you are the rector of the largest and most well known economics school in Poland that has the most longstanding traditions, going back 75 years, clearly I am interested in the training of cadres that will be in a position to cope with ever growing duties and economic requirements. Please tell me

from the outset whether in your opinion SGPiS [Main School of Planning and Statistics] prepares its graduates well to do theoretical and practical work as economists in the broad sense.

[Answer] We believe--for I do not speak for myself alone here--that in general our institution prepares students well for their profession. Of course, this does not refer to everyone, which is true of every higher school, since the good will and intelligence of every student also affects teaching quality.

[Question] What do you mean when you say that it prepares them "well"?

[Answer] I mean that our graduates understand the processes and mechanisms that operate in the economy. We do not have the kind of gaps in our study programs that prevent students from understanding economic macro-and-micro-processes. In no way does this mean, however, that the graduate is exempt from having to learn certain routine tasks when he begins to work in a specific enterprise.

[Question] So, you are consistent. But I had the impression that, for all this, my preliminary questions shook your faith in the effectiveness of the existing teaching systems.

[Answer] On the other hand, I did not say that we can rest on our laurels in this regard. Please do not interpret this solely according to the pattern that anything that is better is the enemy of the good and that every process can be perfected. What is most important--and everyone knows this by now--is that certain processes in the economy are subject to change and we must adapt our teaching programs to these changes. The reform undeniably demands this.

[Question] To be honest, I was getting at this very thing, especially since the reform is not only--and not mainly--a change in economic mechanisms, but a change in principles of thinking, in the way of approaching economic processes.

[Answer] Exactly. That is why we are trying to adjust our program so that SGPiS graduates are prepared with regard to the long-term process of economic reform as well and are also able to function within the reformed economy.

We are doing just that. At this moment, all of the Faculty and Senate Councils are working on changing the types of study programs and on introducing a so-called modular training system.

[Question] Forgive me, but I am met with a sad reflection. The reform has been in practice for over 2 years, its principles were in the planning stage for an additional 2 years and the most important institution for training economists is restructuring its study program only now. Is it not too late?

[Answer] The entire matter is based on a certain misunderstanding. The institution has been living the reform since the very beginning. Our teachers took an active part in discussing and conceptualizing the new principles of management. Since the reform's implementation, no lecture, no academic discipline lacks discussion or analysis of it.

What we are doing, however, is rebuilding the entire educational system so that every student, regardless of how precisely his course of studies has been laid out, is able systematically to familiarize himself with the entire picture of knowledge on this subject, and not only with the area in which his "private" interests lie. This means breaking down faculty and chair barriers that now prevent this exchange of information.

[Question] How far have you come in this project?

[Answer] Our progress has been considerable. In one faculty, modular classes have been held for 3 successive academic years; 3 months ago this method of teaching was introduced into another faculty. By the next academic year, this October, we would like to add to these layers and include all faculties in this modular system.

[Question] In other words, within 6 months the institution will be fully prepared to teach according to the new principles.

[Answer] Yes.

[Question] While I do not wish to undermine such an unequivocal position, I am afraid that the institutional prejudices themselves--which is what we are discussing--will not make matters easy.

[Answer] Unfortunately, that is true. We can only create the rational bases for training according to the new formula. We realize however, that every new idea--and the reform continues to be a new idea--must penetrate old habits and break down a routine that has lasted many years. The introduction of a new system of teaching, in which the role and importance of the particular economic disciplines has changed, where the parochialism of certain chairs is expressed--why hide it?--certainly will not be easy or spared conflicts between individuals. These apparently petty matters, quarrels and the like can even effectively block this system.

But since we are aware of this, we are also prepared for a possible confrontation here. Nor do we lack perseverance in implementing the previously noted teaching assumptions.

[Interviewer] I hope so. Thank you for the interview.

8536

CSO: 2600/860

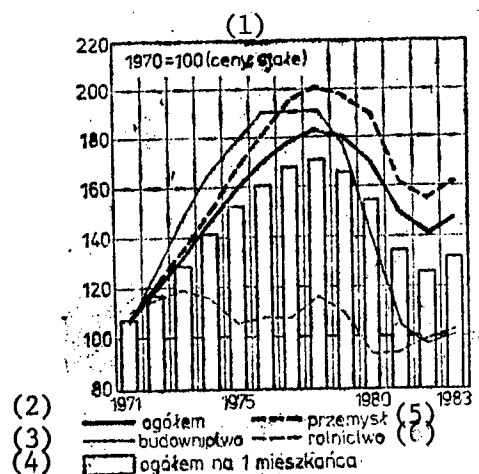
'GUS' ISSUES SPECIAL STATISTICS PACKAGE FOR PZPR DELEGATES

Warsaw ZYCIE GOSPODARCZE in Polish No 12, 18 Mar 84 p 2

[Article by Marek Misiak: "Where Are We?"]

[Excerpts] Never before this early has the Government Statistical Office (GUS) publicly announced so vast a compilation of statistical information about the past year. Usually this occurred after the first, and sometimes even after the second quarter of the following year. The issuance of the statistical data was accelerated in order to give the PZPR National Conference of Delegates a more complete description of the economy. The conferees received a special publication containing 98 statistical tables and many graphs. We are publishing some of the graphs prepared for this occasion by GUS.

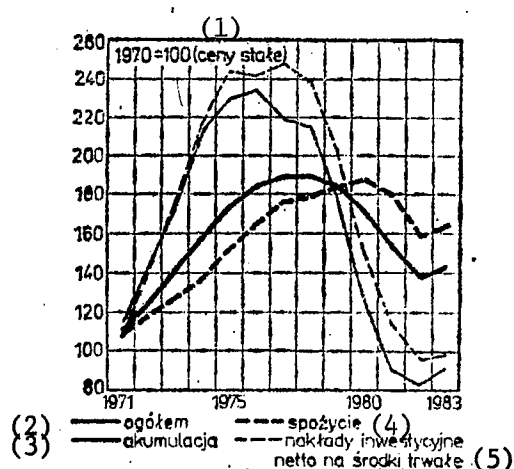
National Income Generated



Key:

1. Fixed prices
2. Total
3. Construction
4. Total per one inhabitant
5. Industry
6. Agriculture

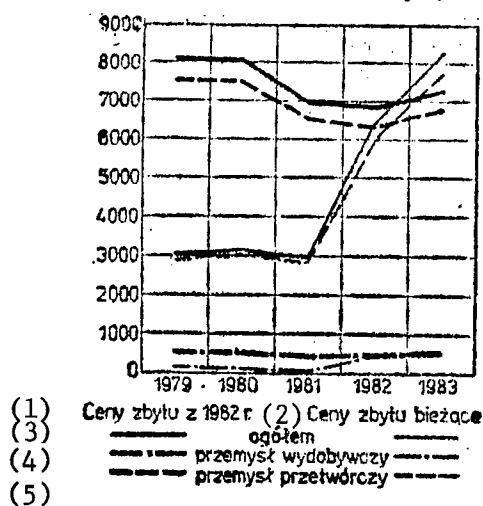
National Income Divided



Key:

1. Fixed prices
2. Total
3. Accumulation
4. Consumption
5. Net investment outlays for durable goods

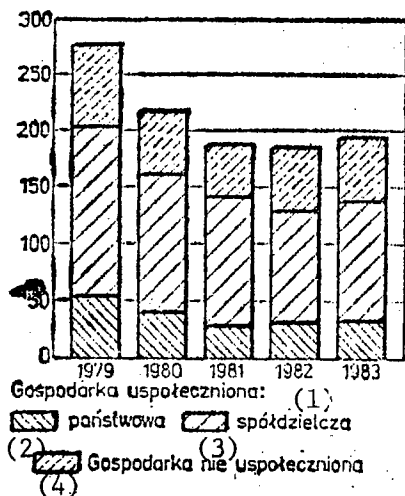
Sold Production in Socialized Industry (in Billions Zlotys)



Key:

1. 1982 sales prices
2. Current sales prices
3. Total
4. Extraction industry
5. Processing industry

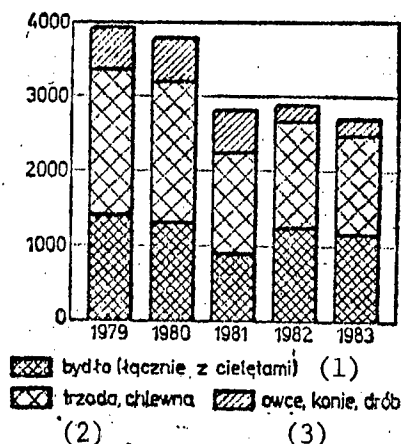
Housing Completed (in Thousands)



Key:

1. Socialized economy
2. State
3. Cooperative
4. Private economy

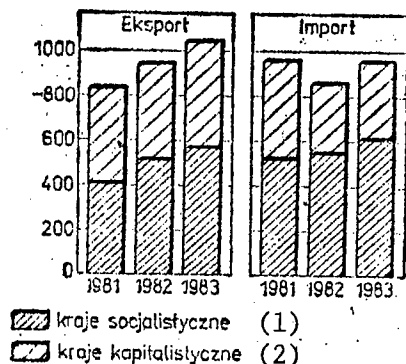
Farm-Animal Procurement (in Thousand Tons of Live Weight)



Key:

1. Cattle, including calves
2. Hogs
3. Sheep, horses, poultry

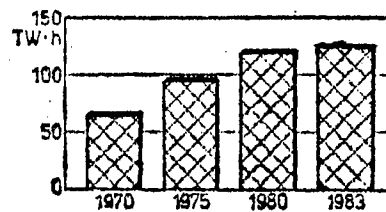
Foreign-Trade Turnovers (Billion Zlotys, Current Prices)



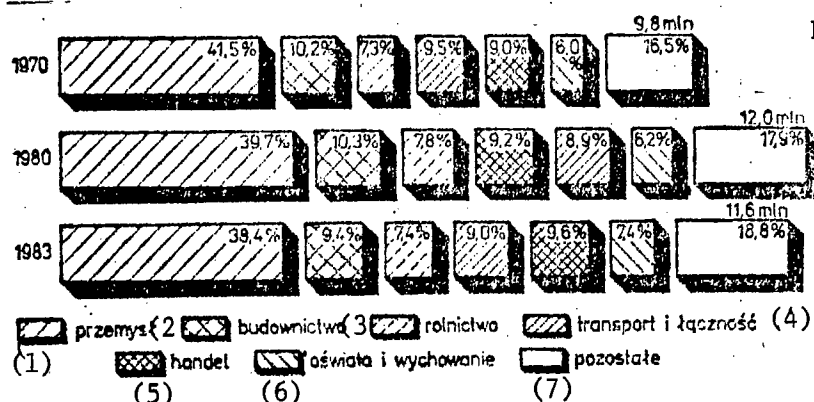
Key:

1. Socialist countries
2. Capitalist countries

Electric Energy Production



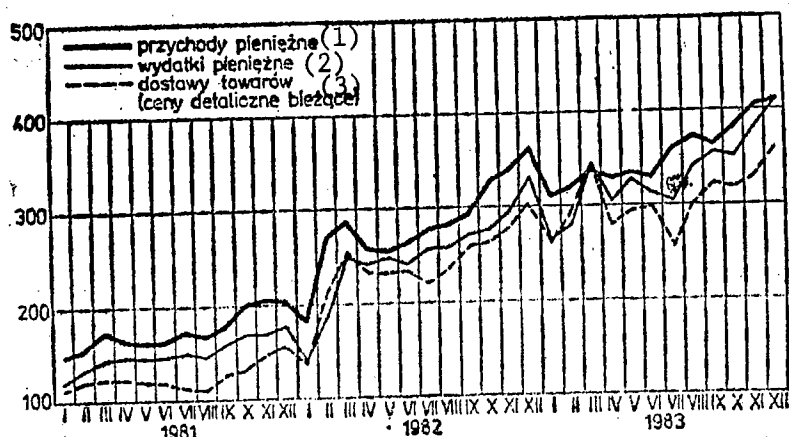
Average Employment in the Socialized Economy



Key:

1. Industry
2. Construction
3. Agriculture
4. Transportation and communication
5. Trade
6. Education and upbringing
7. Other

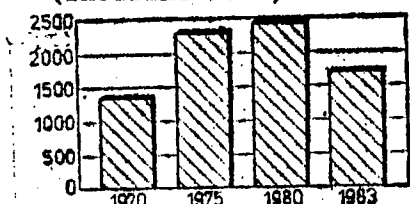
Population's Income and Expenditures and Flow of Consumer Goods to the Marketplace (in Millions of Zlotys)



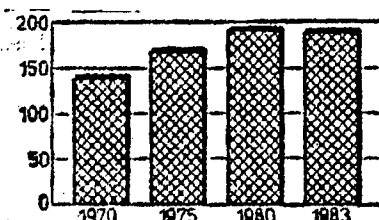
Key:

1. Income
2. Expenditures
3. Deliveries of goods (in current prices)

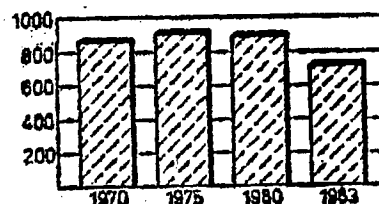
Meats and Fats (Commercial Slaughter) in After-Slaughter Warm Weight (Thousand Tons)



Hard-Coal Mining (Million Tons).



Production of Cotton and Cottonlike Fabrics (Thousand Kilometers)



Thus the graphs show that in many areas of primary importance to the economy, 1983 was a better year than the previous two. But still a far cry from the pre-1981 level. External and internal conditions indicate that further development of the economy will not be easy, because it will require fuller and more effective utilization of resources and deep structural transformations.

9295

CSO: 2600/821

'GOVERNMENT PURCHASE ORDERS' DEFINED

Warsaw POLISH ECONOMIC NEWS in English No 23, 15 Dec 83 p 6

[Text] Government Orders

As of 1 January 1984 a role of operational programs will have been taken over by governmental orders [zamowienia rzadowe] which, although in force since 1983, will nevertheless be modified.

While operational programs introduced along with the martial law were a protective shield for an economy in a state of crisis, the governmental orders provide a possibility of flexibly affecting production--its type, volume and quality.

At first glance, nothing has changed for in the both cases there is a question of appropriate (from above) management of national economy in its most sensitive areas. The government orders are, however, a much more perfect instrument. For one thing, commands are replaced by a voluntary agreement between the orderer and the contractor. Operational programs can be abandoned because a commanding formula is no longer needed at the present stage of economic recovery. With the normalization getting underway a need has arisen to shape a more responsive relationship between the state administration and the independent, self-funding enterprises.

This year, 6 out of 14 operational programs have been maintained but experimentally governmental orders have simultaneously been placed for some industrial products.

Orders will be placed on a competitive tendering basis with the participation of state, cooperative and private enterprises. The resulting contracts will go to those who will offer the most favourable terms: prompt delivery date, high quality, competitive prices. The orderer guarantees a supply of raw materials, fuels, and hard currency for the imports of necessary components, and then a purchase of the ordered production.

It is assumed that governmental orders will cover not more than 20 percent of the overall industrial production (the operational programs comprised 50 percent of it).

The orders will fall into four categories:

1) scarce raw materials, semiproducts, products indispensable for the functioning of economy (e.g., cables for the mining industry, tires for tractors, special types of steel, etc.),

- 2) some market products (i.e., footwear), medicine, sanitary equipment,
- 3) 10 investment projects particularly important for the nation's economy (e.g., the Ursus tractor factory, the Police fertilizer plant, the Polfa pharmaceutical plant in Tarchomin),
- 4) research projects related to, for example, the problems of food economy, exports, raw materials conservation, environmental protection.

The government side will be represented in the negotiations by the minister of materials management acting through the units of supply and market trade.

CSO: 2020/84

CONTROVERSY OVER POLONIA FIRMS CONTINUES

Impact of Financial Measures

Warsaw PRZEGLAD TYGODNIOWY in Polish No 7, 12 Feb 84 p 6

[Interview with Tadeusz Przyborowski, government plenipotentiary for foreign small businesses in Poland, by Mirosław Ziach]

[Excerpts] The development of foreign-owned firms in Poland has undoubtedly reached a critical point.

Some people say that conditions for a full stabilization of these firms have now been furnished. Others retort that they fear a time bomb has been planted on the train carrying these firms through Poland.

These utterly contradictory opinions were occasioned by changes in certain regulations concerning foreign-owned firms. The 6 July 1982 law on "Operations of small foreign-owned businesses in the Polish People's Republic" was supplemented in July 1983 by new tax provisions raising income tax rates from 50 to 85 percent, and with new rules for clearing these firms' export transactions with the state treasury. Moreover, the finance minister, who pushed through these changes, also significantly increased sales tax rates for these firms.

Polonian businessmen have deplored all these changes as harmful to them.

Yet the finance minister's proposals (raising tax rates for Polonian firms, etc.) have also been hailed as admirable moves because, it is argued, these firms are a Trojan horse which can help devour at least part of the inflationary overhang. Since these firms produce what consumers (more exactly, well-off consumers) demand, and which nationalized industry is incapable of supplying, then the state, by putting a high sales tax on the most desired Polonian products, can reach deeper into consumers' wallets without incurring any costs to itself.

For example, the state can pocket 65 percent of a car battery's retail price of 12,500 zlotys, which means 7,500 zlotys, or it can tap 180 zlotys (as a 60-percent sales tax) of the 300 zlotys consumers pay for pantyhose in a Polonian shop. Consumers will probably direct their outrages at the sellers, because everyone is aware that they put the price tags on. Yet, few people are aware that these prices include sales tax.

So, these new rules may blur what has all but been established as a common view of Polonian firms. This may particularly concern people who work for Polonian firms and know from their own experience that work is well organized there, but that, in order to earn more than in the public sector, they have to work really hard, occasionally even harder than their earnings justify.

Customers who come into contact with Polonian firms at their shops or service centers, in turn, envision these firms primarily as setting high prices as a rule for goods or services of relatively poor quality.

I heard someone say that there is no need to tell people that Polonian firms are alien bodies in Polish society. This person argued that people can see this for themselves, especially in the prices they find in Polonian shops. Someone else even compared Poland's opening to foreign capital to vaccinating Polish society against certain Western charms.

But Polonian firm owners, especially those who have been in business here for a long time, have quite different views. They believe that the changes in regulations will not only hamper a Polonian firm's expansion in absolute figures (total number of businesses, turnover figures, exports volume, etc.), but they are likely to have an adverse effect on the structure of capital flowing into Poland.

Those who bring capital into Poland belong to either of two categories. Some want to establish themselves in Poland for a long time (for one or more decades), while others hope to do "quick business." The latter are particularly happy with the grace period for income tax payment (which, as before, is three years). It should be pointed out that none of the Polonian firms operating in Poland for more than three years (which means they have started paying a 50-percent income tax) has so far declared an intention of closing down.

Since the income tax rate is to be raised to 85 percent, the three-year grace period will now make such a huge difference to businessmen that the majority of potential investors will be those who are set on making large profits in Poland within three years.

Even now, among the capitalists who establish businesses in Poland are found gamblers and people out to make an easy buck, who are incapable of considering mutual interests, namely their own and Poland's. Egoistic greed alone stirs their imaginations. After these high taxes are introduced, they may be predominant in the group of potential investors. Something along the lines of a negative selection may ensue. Instead of attracting serious Polonian businessmen, Poland will lure people who are out to make an easy buck, and whose activities and conduct may dismally distort the image of Poland's economic cooperation with Polonian businessmen.

As is known, this cooperation is watched by Western centers hostile to Poland (see my commentary entitled "A Test of Nerve" in PRZEGLAD TYGODNIOWY from several months ago). I wonder how these centers will react to these significant changes in legislation introduced in last year's Sejm decision? I am sure they will jump at this as another opportunity to make anti-Polish noises.

If they have not yet done so, then it is probably only because they are waiting for a more convenient moment, say for discussions on a proposed law on large-scale joint-stock companies with foreign capital (it should be remembered that Polonian firms operate exclusively in the small-business sector) which Poland is interested in as a way to unblock some frozen investment projects. Should Radio Free Europe and similar radio stations take up this topic, they may influence Western capitalist circles contemplating possible involvement in cooperation with Poland. I can hear it already--you intend to invest in Poland? Look what they did to Polonian firms: At first, they granted them liberal conditions for development; then, after one year, they passed legislation which rendered those who had swallowed the bait and invested their money bankrupt. This, in turn, is likely to elicit predictable reactions in the Polish press, which will naturally make Polonian businessmen operating in Poland even more nervous. It is conceivable that they may then close down, which the West might use as yet another argument against getting involved in the Polish economy, and so on, and so forth.

This is perhaps a murky scenario. But they say it is better to anticipate and fear the worst than to be caught by surprise.

Meanwhile, complete clarity in Polish-Polonian cooperation is as remote as ever. Nobody has said Polonian firms operating in Poland must dominate the forefront of this cooperation. There are other, well-tested forms of mutual contacts.

Those whom this may concern may attend the 10th Polonian Economic Forum and the 6th Congress of the [official] Polonia Society this year. Discussions which will presumably precede these events will furnish opportunities to reconsider ways of promoting mutually-beneficial cooperation between Poland and Polonian businessmen. Minister Tadeusz Przyborowski has explained to me some debatable points.

Question: Mr Minister, is it justified to say that 1983 was a breakthrough year for small foreign businesses in Poland?

Answer: It is. We in the administration have begun putting in order things connected with operations of foreign firms in Poland. I hope their representatives will help us out.

We have devised a mechanism permitting an equitable distribution of benefits provided by these operations between the national economy and foreign investors.

Question: This is a noble undertaking. However, can putting things in order be described as a "breakthrough?"

Answer: In this particular case, yes. Remember that Polonian firms in Poland have been developing up to the present in what has primarily been an uncontrolled process. We have learned from each other. The firms have become familiar with general rules governing the Polish economy and social life, while the state and economic administration, in turn, have become familiar with these firms'

specific style of work and internal and foreign conditions. This mutual learning process has been very intensive in recent years. Whereas by the end of 1981, that is, in the five years since the first such firms had been established in Poland, a total of 144 licenses were issued; by November 30, 1983, more than 500 foreign businesses were operating here. Their turnover figures have been soaring even more rapidly. Last year, foreign firms recorded an estimated total turnover of 40 billion zlotys, as opposed to only 3 billion zlotys in 1981.

Question: Shops are better stocked than before, while state coffers receive taxes these firms pay.

Answer: But the firms are also making money. Their profits are already going into billions of zlotys. If you will allow me to answer facetiously, complaints of some firm owners remind me of that greenhouse owner from Warsaw who had planned to earn four million zlotys, and who wept when he earned three million because he had lost a million.

Question: Without good prospects for profits or early effects from their operations, these people would certainly not invest a single dollar in Poland. But, in order to invest more, they must have a sense of stability. However, the 6 July 1982 law on operations of small foreign businesses in Poland, which was intended to stabilize their development, remained in force for only one year in its original form. The July 1983 tax law substantially altered these firms' operating conditions.

Answer: I still maintain that the 6 July 1982 law stabilizes procedures for establishing and operating foreign-owned firms. It continues to express the Sejm's commitment to the idea that these firms are a permanent element in the Polish economy. With this in mind, please consider that the July 1983 law, which is intended to regulate all tax matters, had to include taxes levied from foreign-owned firms, which constitute an admittedly small yet genuine segment of Poland's national economy.

Question: Or do you perhaps believe that the 6 July 1982 law was, to put it bluntly, too liberal toward foreign investors?

Answer: I would rather say that this law gave them more than the public believes should have been given, considering foreign firms' investment expenditures and efforts, for these were disproportionately low in relation to their benefits, as last year's practices showed.

Question: Are you aware of any forecasts of anticipated effects the 28 July 1983 law may have?

Answer: The new tax rules for foreign-owned firms and for the clearing of their export transactions with the state treasury took effect on 1 August 1983, and on 1 January 1984. So, it would be premature to speak of possible effects of these changes at this time.

Question: But I was asking about forecasts.

Answer: Let's wait another six months or another year.

Question: Since arguing that the new tax rules are designed this time to furnish genuinely stable conditions for foreign-owned firms has been received by many foreign firm owners as a poor joke, I'd like to know what new arguments you, as a government plenipotentiary, can use to persuade Polish businessmen that cooperation with Poland is still attractive to them.

Answer: As I understand it, this is an ill-phrased question. Attractiveness is not the point. All we can talk about is what we are offering foreign businessmen in return for their invested capital in Poland. Our offer is well known to them. But since you keep returning to guarantees of stability, let me also repeat the argument that foreign investors' fears are unfounded. I share the view of those who say that, only by creating conditions for these firms similar to those binding for public businesses and private trades, can full guarantees be provided for foreign firms' stable development over the years. We all know that privileges do not always help, but that they may even, especially in the eyes of the public, prove damaging to those who receive them. It is harder now to accuse small foreign businesses of winning in a competition against domestic enterprises owing to privileges alone.

The problem of "guarantees of stability for foreign-owned firms" has recently aroused various emotions, which are unnecessary and even harmful. They may--and in this I agree with your argument--be exploited by our political adversary. However, why do some people repeatedly speak of the new tax law destabilizing foreign capital in Poland or point deploringly at the upper income tax limit [85 percent], but not mention the system of tax rebates this law introduced? Foreign firms may, and do, get 5-20 percent income tax rebates whenever they turn out import-substituting, export or consumer goods, as well as a 50-percent tax rebate on investment expenditures. Before you get emotional, you should perhaps look at the figures. At present, voivodship offices are considering some three hundred applications for new foreign-owned firms.

Question: However, 15 owners of foreign capital have already withdrawn their applications.

Answer: That's true, 15 out of nearly 400.

Question: It is not just Poland who has been trying to attract foreign capital. Do you analyze conditions created for foreign investors by other countries?

Answer: It's difficult to compare what is essentially incomparable. Different countries have different economic and social situations. Let me reverse the question--could foreign investors with the capital they have--which is usually small--score such great successes as they have in Poland? They talk loudly about taxes, but less about their return rates, which are indeed very high here. Besides, are they really unable to mobilize any new reserves? We have been compelling the entire public sector to look for latent reserves (via the reform).

Question: Since foreign-owned firms have been creating various controversies, please tell us specifically what is so bad about this movement and define the scale of these phenomena.

Answer: One particularly adverse phenomenon involves obvious violations of Polish law. As soon as competent state agencies state such things, the culprit is deprived of its license. This has happened in six cases, which shows it is not a frequent occurrence.

What is certainly not infrequent is many firms' greed, their desire to get rich quick, which irritates people. These firms mercilessly capitalize on shortages of various goods in Poland. Greedy for profit, their owners impose prices which are unacceptable to most people in Poland. These firms' products are bought exclusively by wealthy people, and less well-off do buy them at the expense of fulfilling other family needs. In some cases, as much as 80 groszy of every zloty spent on a Polonian product was pocketed as profit by a given firm's owner.

Compared to the generally high prices, product quality is too low. Another cause of public indignation are the wages in many firms, which are too high, as well as the fact that foreign firms often lured the most-qualified specialists from public enterprises.

However, these adverse phenomena apart, positive effects must also be acknowledged. The adverse phenomena I mentioned must not mislead us into one-sided denunciations. The baby must not be thrown out with the bath water. Positive phenomena, after all, predominate in foreign-owned business operations. This is why they have been given guarantees for their operation in Poland.

Question: Do you share the view that, under the new regulations, negative phenomena will increase?

Answer: You can't expect me to say I do.

Question: Still, I'd like you to say why you don't.

Answer: That would boil down to making conjectures. The appearance of some new adverse phenomena cannot be ruled out entirely. The authorities' intent, when they decided to introduce these changes, was to rule out the adverse phenomena I mentioned.

Question: What are you, as a government plenipotentiary, going to do about emotions which foreign-owned business operations arouse? Economic cooperation does not proceed smoothly as long as there are such emotions.

Answer: That is true. Whatever legislative decisions were made in 1983 have to be quietly put into practice in 1984 by the state administration, the Inter-Polcom [association of Polonian firms] and by the firms themselves. Naturally, we're going to watch foreign-owned business operations. We're going to draw conclusions from our observations. I believe it is precisely during the past few months that conditions for implementing the 6 July 1982 law were created.

PRZEGLAD TYGODNIOWY: Thank you for the interview.

Audit of Warsaw Firms

Warsaw EXPRESS WIECZORNY in Polish No 32, 14 Feb 84 p 7

[Text] Of the 500 Polonian companies operating in Poland, some 200 are based in Warsaw and the metropolitan voivodship. Yearly, they turn out products and services worth over 13 billion zlotys.

Recently, 196 of the Warsaw-based Polonian companies were involved in an audit carried out by the Fiscal Chamber, the State Trade Inspectorate, the Labor Inspectorate, the City Council's Department of Employment and health authorities. Inspection findings, which have been presented to the mayor of Warsaw, dispel many legends and myths regarding Polonian business operations.

For example, while four firms were found to record profit rates of 100 percent and 24 had profit rates between 40 to 100 percent, none of the remaining 168 firms exceeded the decent limit of 25 percent. Excessive profits result largely from applying unofficial, exorbitant dollar exchange rates for imported raw materials and machinery.

This drives Polonian prices up. However, [state-owned] commercial enterprises, desperate for merchandise, do not avail themselves of their right to inspect price calculations for products they buy from Polonian companies. This has to be changed.

Auditors also reviewed employment levels, disclosing higher-than-permitted staffing in two cases. The 196 companies have in all 6,000 people on their payrolls, which invalidates the charge that they have been snatching job seekers from the labor market. However, it is true that many of these 6,000 are highly qualified former employees from the public sector who quit to take jobs with Polonian companies, hoping to use fully their skills and experience and to earn more. While wages in Polonian firms are higher than in the public sector, they are not as high as many people imagine.

Company directors and representatives apart, Polonian wages average 16,000-18,000 zlotys monthly. However, auditors found that productivity and work discipline in these companies are incomparably higher [than in state enterprises], which, of course, improves product quality. Complaints involved barely 0.5 percent of Polonian firms' total turnover value. Complaints about food products are extremely rare, because Polonian food producers have to submit quality certificates four times a year to competent authorities.

As a result of the audit operation, 14 companies have lost their license. In some other cases, license extension is now conditional on improving their operations.

Stanislaw Szewczuk, a deputy mayor of Warsaw, underlined that Polonian companies in Warsaw and in the voivodship around it will be allowed to develop, but under the authorities' strict control, Polonian companies not only help allay goods shortages, but also bring with them new technologies and by their exports help the state earn hard currency, half of which ends up in the state treasury.

New licenses will be granted primarily to firms which will be useful to the capital city. For example, Warsaw needs no more clothing, purse-making or furrier firms. Preference will be given to firms in the medical area, especially to producers of medicinal drugs, including those made from herbs. Any firm planning to process post-production wastes and municipal refuse will be welcome, as will be one willing to produce power cables.

CSO: 2600/914

ROMANIA

RULES ON INDUSTRIAL COOPERATION WITH DEVELOPING COUNTRIES

Bucharest REVISTA ROMANA DE STUDII INTERNATIONALE in Romanian Mar-Apr pp 147-152

[Article by Dr Victor Babiuc, researcher, Institute of World Economics, Roxana Munteanu, researcher, Institute of Juridical Sciences, Dr. Dumitra Popescu, researcher, Institute of Juridical Sciences]

[Text] A characteristic of our era, economic cooperation has asserted itself as a factor of promotion of economic development, of creation of conditions for reduction and elimination of gaps existing between development levels in economies of world states, of establishment of a new international economic order. In this light, Romania has made active participation in international economic cooperation with all states of the world one of the constants of her foreign economic policy.

Romania's international economic cooperation with developing countries has been, especially in recent years, and continues to be an important factor. This cooperation, the same as cooperation with the other countries in the world, is developing on the basis of respect for national sovereignty and independence, equal rights and mutual benefit, non-interference in domestic affairs. These principles, confirmed by the Constitution (Article 14) and reaffirmed by Law Nr 1/1971 on the activity of foreign trade and international economic cooperation are restated in the agreements of economic cooperation concluded by Romania with developing countries.

The legal framework of international economic cooperation is ensured, at interstate level, by economic treaties -- of cooperation, of guaranteeing investment projects, of avoiding double taxation, of payments -- concluded by Romania with most of developing countries, and at the level of direct participants in the activity of economic cooperation, by cooperation contracts concluded for this purpose and by the law that governs these contracts.

The economic cooperation agreements concluded by Romania with developing countries may be divided in several categories: general economic and technical cooperation agreements, long-term economic and industrial cooperation agreements,

outline economic and technical cooperation agreements, program agreements on long-term development of economic and technical cooperation, economic and technical cooperation agreements and sectorial or special agreements (such as those in the mining or petroleum areas). Noteworthy is the sharp increase, at least in recent years, in the number of sectorial or special agreements.

By the provisions which they contain, these agreements provide the legal framework of international law, governing bilateral economic cooperation. They reflect the mutual commitment to cooperate in various forms, the principles that underlie cooperation, the economic branches or fields taken into consideration, the legal means for implementation, and so forth.

Dwelling on the area of industrial cooperation, we emphasize that from the 46 agreements concluded by Romania in recent years with developing countries, 10 agreements directly involve industrial cooperation [1], and the others involve the industrial field in the broader framework of economic and technical cooperation [2].

At intergovernment level the agreements provide rules for legal cooperative relations, regardless of differences between national laws of the states involved and ensure a genuine degree of judicial certitude which is so necessary in these relations [3].

The fields of cooperation are diverse, in light of the resources, potentialities and interests of the parties concerned. For instance, the agreement on long-term cooperation with Indonesia (23 November 1982) specifically involves the following areas: mining industry, machine building industry, power industry, petrochemical industry, building material industry, transportation and telecommunications, agriculture, animal husbandry and forestry. The areas do not have a limitative character. The long-term economic and industrial cooperation agreement with Venezuela (10 September 1973) also unlimitatively specifies the areas of the petroleum and petrochemical industries, mining and power industries, the agroindustrial area; the general economic and technical cooperation agreement with Argentina (21 July 1978) uses a synthetic and all-embracing formula: "in all the areas that provide opportunities of mutual interest" (Article I). Of course, there are many more examples, but the conclusion is identical: the areas of cooperation are diversified, they have an orientational character and it is the task of authorities in each country and/or of directly participating economic units of agreeing, at one point, to complete a cooperative project in a special area of mutual interest.

The forms of economic cooperation adopted have by and large depended on the object of cooperation, the specific conditions of implementation and the concrete interests of the sides. All the agreements concluded by Romania contain provisions on these forms, with the character of principle or in a more detailed manner. For instance, the general economic and technical cooperation agreement

with Argentina specifically recommends the following forms: production and marketing of goods; specialization in production and development; exchange of technologies, technical information, patents and licenses; application and refinement of existing technical procedures and/or development of new products; exchange and training of technicians and experts; other forms of cooperation on which the two sides will agree (Article II).

In the long-term economic and industrial cooperation agreement with Venezuela the sides specifically agreed on the following forms: construction of new industrial facilities and expansion and modernization of existing ones; joint production and marketing of goods and specialization in production and marketing; establishment of joint production and marketing companies; exchange of know-how, technical information, patents and licenses; application and upgrading of existing technical procedures and development of new technical procedures, and training and exchange of experts (Article II).

The economic and industrial cooperation agreement with Mexico (10 June 1975) specifies as major forms of cooperation the joint completion of factories and other industrial facilities, production and marketing of goods through the joint company and any other forms that will be agreed upon (Article 2). The cooperation agreement with Indonesia only specifies that diverse forms will be used, upon which the economic organizations in the two countries will agree (Article 4).

Evidently, all the forms recommended have an orientational character, with tasks for the sides involved, eventually with the proper authorities in each country, of concretely determining the form to be adopted and of ensuring the entire economic and judicial framework of the project.

A survey of cooperative projects of recent years completed with partners in developing countries points out the predominant use of the following forms of cooperation:

- a. Joint completion of new economic units or modernization of existing economic units, delivery of equipment, technology and technical documentation fully or partly paid in products, including products other than those resulting from cooperation;
- b. Mining prospecting and exploration for utilization and exploitation of mining and geological deposits;
- c. Technical assistance for training personnel from developing countries in Romania and, afterwards in the economic facility completed in the country involved. This assistance may include, distinctly, under the agreement of the parties, also the start-up of the economic facility and also the management of technical-economic processes;
- d. Joint production or marketing companies [4].

Without surveying in detail these forms of cooperation we believe that it is necessary to point out that they involve specific features, which distinguish them from the traditional trading forms, such as:

1. The legal link has the intuitu personae character;
2. The contracting sides are inspired by the intention to cooperate (affectio cooperationis);
3. The economic and legal link has the character of duration and stability;
4. Both sides provide various services -- delivery of products or documentation, completion of projects, performance of services -- characterized by economic and/or technical solidarity, which contributes to the completion of the project of cooperation;
5. The price of services is not paid in currency, at least partially;
6. A community of interest between contracting sides is created which requires permanent cooperation for completion of the common objective;
7. One or several contracts are concluded, which state the mutual rights and obligations -- that have an evolutive character -- and which pursue the completion of the common objective, contracts which exist in relations of interdependence [5].
8. The results of cooperation are equitably divided between the sides.

Recent years also have seen the tendency to use more and more complex contractual techniques, specifically in the case of multiple participation in cooperative projects. For instance, in addition to the basic contract concluded on the basis of the bilateral agreement and which frequently takes the form of "establishment agreement" required by the law of the host country, also other agreements occur between the sides, such as the management contract for the technical-economic management of the company or the agreement for the establishment of a union of investing shareholders.

All the cooperation agreements specify, expressly or implicitly, that the cooperative projects shall be completed on the basis of the contracts concluded by the economic enterprises and organizations in the countries involved. Hence, the contract appears as the chief legal tool for materialization of cooperation at the microeconomic level, with the result that the content of each contract hinges on the theme and form of cooperation but also on the judicial system which governs it.

Consequently, as international economic relations expand, we witness the emergence of new forms of cooperation and, correspondingly, adoption and evolution

of the international economic contract, besides the conventional selling-buying, company contracts -- which, too, are undergoing continuous adaptation to the new needs -- with new contractual forms emerging, such as: the contract for the export of sophisticated installations (which, often, require the conclusion of a contract of agent or subcontracting with local partners to make possible the participation in auctions), the contract of know-how and engineering.

Because there are no rules directly involving the international economic contract in our legal system, arbitral practice is assigned an important role in defining its specific traits [6].

The importance assigned to the contract by internal agreements also emanates from the recognition by these factors of a broad field of application of the principle of contractual freedom, through those provisions according to which important matters -- such as those involving the obligations that derive from the contract, datelines, terms of delivery and payment -- are explicitly left to the latitude of the contracting sides, of course under the reservation of limits imposed by public order and imperative norms.

The will of the contracting sides has a broad field of action in the configuration of the contract also generated by the fact that the legal provisions expressly destined for the cooperation contract by and large are few and incomplete, and the trading norms in this area are only in the process of taking shape.

The international agreements which we are surveying, with the exception of a set of provisions of administrative, financial law for the triggering of cooperative projects, do not provide uniform rules for the two states with regard to the legal framework of contracts for cooperation in production and also do not contain provisions of private international law that should indicate from virtually applicable laws the proper law of governing (*lex contractus*).

For instance, the survey of legal procedures that involve the clause "in compliance with the laws and rules in effect in the countries concerned or within the framework of the laws in effect in the two countries" frequently contained in the above-mentioned agreements indicates that they incorporate a variety of facilities which the sides grant on a mutual basis, to the extent that their territorial laws permit them. Hence, it is a reference to the provisions of administrative, financial law and by no means civil, conflictual or processual civil law.

Consequently, on the basis of the legal framework created by the agreements concluded at statal level and the contracts entered upon at the level of economic units economic and industrial cooperation among Romania and developing countries is expanding and diversifying. For the purpose of finding avenues

and methods for implementing the provisions of agreements, of coordinating cooperation on an overall basis, and proposing measures for expansion of economic cooperation among Romania and developing countries a special role is assigned to the joint commissions created under the cooperation agreements concluded between the signatory states.

FOOTNOTES

1. This category includes the industrial, economic and technical cooperation agreements concluded with the People's Republic of Angola (approved by HCM [Council of Ministers Decision] No 67/1978, in B.Of. [BULETINUL OFICIAL] RSR [Socialist Republic of Romania], I, No 32, 19 April 1978), F.R. of Brazil (approved by HCM No 781/1975, in B.Of. RSR I, No 94, 28 August 1975); R. of Costa Rica (approved by HCM No 1723, in B.Of. RSR I, No 5, 10 January 1974); R. of Ecuador (ratified by D [Decree] 697/1973, in B.Of. RSR I, No 4, 9 January 1974); R. of Guinea-Bissau (ratified by DCS [Council of State Decree] No 211/1976, in B.Of. RSR I, No 68, 12 July 1976); Republic of Liberia (approved by HCM No 1457/1972, in B.Of. RSR I, No 152, 19 December 1972); R. of Salvador (approved by HCM No 763/1974, in B.Of. RSR I, No 97, 10 July 1974); D.R. of Sao Thome and Principe (approved by DCS No 99/1976, in B.Of. RSR I, No 40, 3 May 1976); R. of Venezuela (approved by HCM No 163/1973, in B.Of. RSR I, No 201, 18 December 1973); Mexico (approved by HCM No 786/1975, in B.Of. RSR I, No 94, 28 August 1975).
2. This category includes the agreements concluded with: R. of Argentina (approved by HCM No 530/1974, in B.Of. RSR I, No 77, 25 May 1974); P.R. of Bangladesh (approved by HCM, No 849/1974, in B.Of. RSR I, No 108, 11 August 1974); P.R. of Benin (approved by D No 96/1976, in B.Of. RSR I, No 39, 30 May 1976); R. of Bolivia (approved by HCM No 572/1970, in B.Of. RSR I, No 48, 9 May 1970); R. of Burubdi (ratified by DCS No 389/1977, in B.Of. RSR I, No 118, 17 November 1977); U.R. of Cameroons (ratified by DCS No 97/1976, in B.Of. RSR I, No 39, 30 April 1976); Centrafrican R. (ratified by D No 162/1974, in B.Of. RSR I, No 90, 27 June 1974); R. of Sri Lanka (approved by HCM No 913/1968, in B.Of. RSR I, No 59, 10 May 1968); R. of Chad (approved by HCM No 1075/1971, in B.Of. RSR I, No 105, 3 September 1971); R. of Ivory Coast (ratified by DCS No 98/1976, in B.Of. RSR I, No 40, 3 May 1976); R. of Zaire (approved by HCM No 61/1970, in B.Of. RSR I, No 5, 12 February 1970); D.R. of Congo (ratified by HCM No 1065/1970, in B.Of. RSR I, No 102, 11 August 1970); A.R. of Egypt (ratified by DCS No 254/1978, in B.Of. RSR I, No 64, 17 July 1978); R. of the Philippines (ratified by D no 85/1975, in B.Of. RSR I, No 87, 4 August 1975); R. of Gabon (ratified by D No 121/1975, in B.Of. No 116, 5 November 1975); R. of Ghana (ratified by DCS No 324/1981, in B.Of. RSR I, No 94, 28 November 1981); R. of Indonesia (approved by HCM No 142/1974, in B.Of. RSR I, No 52, 12 April 1969); Iran (ratified by D No 453/1973, in B.Of. RSR I, No 139,

15 November 1973); R. of Irak (ratified by DCS No 404/1982, in B.Of. RSR I, No 99, 2 November 1982); A. R. of Lybia (ratified by D No 159/1974, in B.Of. RSR I, No 90, 27 June 1974); Jordan (ratified By D No 327/1969, in B.Of. RSR I, No 52, 12 April 1969); Malaysia (approved by HCM No 1642/1970, in B.Of. I, No 132, 27 November 1970); Morocco (ratified by DCS No 432/1978, in B.Of. RSR I, No 104, 16 November 1978); P.R. of Mozambique (approved by HCM No 11/1979, in B.Of. RSR I, No 7, 17 January 1979); Islamic Republic of Mauritania (ratified by D No 236/1974 in B.Of. RSR I, No 169, 30 December 1974); F.R. of Nigeria (approved by HCM No 758/1971, in B.Of. RSR I, No 79, 29 June 1971); Islamic Republic of Pakistan (ratified by D No 454/1973, in B.Of. RSR I, No 139, 15 September 1973, amended by Protocol of 23 January 1978, ratified by DCS No 432/1978, in B.Of. RSR I, No 104, 16 November 1978); R. of Peru (ratified by D No 147/1969, in B.Of. RSR I, No 139, 15 September 1969); R. of Senegal (ratified by D No 212/1976, in B.Of. RSR I, No 69, 13 July 1976); D.R. of Somalia (ratified by DCS No 67/1981, B.Of. RSR I, No 19, 27 March 1981); R. of Sierra Leone (ratified by D No 237/1974, in B.Of. RSR I, No 169, 30 December 1974); Syrian A.R. (ratified by HCM No 461/1969, in B.Of. RSR I, No 41, 25 March 1969); R. of Togo (ratified by DCS 45/1976, in B.Of. RSR I, No 39, 30 April 1976); R. of Tunisia (ratified by D No 89/1975, in B.Of. RSR I, No 88, 15 August 1976); A.R. of Yemen (approved by HCM No 1188/1970, in B.Of. RSR I, No 166, 3 September 1970); R. of Zombabwe (ratified by DCS No 67/1981, in B.Of. RSR I, No 19, 27 March 1981).

3. See Roxana Munteanu, "International Cooperation in Area of Industrial Development," in "Principii si Forme Juridice ale Cooperarii Economice Internationale" [Legal Principles and Forms of International Economic Cooperation], Bucharest, Editura Academiei, 1979, p 64 and following.
4. In reference to the characteristics, mode of establishment, legal status of joint companies formed in Romania see Yolanda Eminescu, O. Capatina, I. Rucareanu, Roxana Munteanu, V. Tanasescu, "Societatile Mixte Constituite in R. S. Romania. Fundamentare, Caractere, Constituire." [Joint Comapnies Established in Socialist Republic of Romania. Substantiation, Characteristics, Establishment], Bucharest, Editura Academiei, 1976; for joint companies formed abroad see O. Capatina and V. Tanasescu, "Joint Companies With Romanian Participation Established Abroad," in "Legal Principles and Forms of International Economic Cooperation," p 127 and following.
5. In reference to the characteristics of the cooperation contract see V. Babiu, "Contract of International Economic Cooperation," in REVUE ROUMAINE DES SCIENCES SOCIALES, Serie de Sciences Juridiques, No 2, 1981, pp 185-199.
6. On arbitral practice in this area see I. Nestor and O. Capatina, "Romanian Jurisprudence of Private International Law (IV)," in REVISTA ROMANA DE STUDII INTERNATIONALE, No 4(22), 1973, pp 243-246.

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