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**THE SOVIET UNION RIVER
DIVERSION PROJECT.**

From Plan to Cancellation 1976-1986

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From Plan to Cancellation 1976-1986.1

The **Soviet Union** has immense resources of fresh **surface** water. A ninth of the world's total fresh water is found in **Soviet lakes and rivers.**² However, these water resources are unevenly distributed in the USSR. 84% of the **nation's** annual river discharge flows north and east **across** sparsely **inhabited** and economically underdeveloped territory to the Arctic and Pacific oceans. (Fig.1) The remaining 16% **crosses** the southern and western regions, which contain 75% of the population of the country, 80% of the economic activity and 80% of the **cropland**, including the most fertile land.³

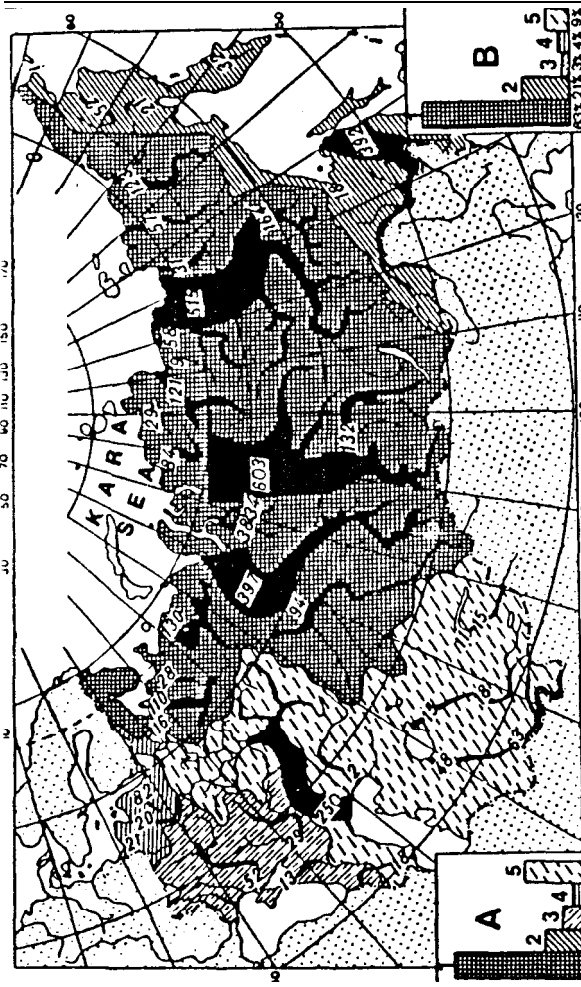
Despite the **fact** that the southern regions of the USSR **have** the best **soils** and the most suitable **conditions** for agriculture in the country, they **have**, on average, a negative **moisture balance**. (Fig 2) Great variations of precipitation with frequent intervals of drought are a serious obstacle to **stable grain crop production** in the **Soviet Union.**⁴ In order to reduce these problems, the USSR has allocated a great amount of investments for irrigation purposes **during** the last

¹ This paper is a **revised** version of a **B-level** essay, presented by the **author** at the Department of Economic **His-** tory, Uppsala University, in January 1988.

² Alain Giroux, "La maitrise de l'eau en URSS", *Le Courier des Pays de l'East*, no. 294 - Avril 1985, p.6.

³ Philip P. Micklin, "The Status of the **Soviet Union's** North-South Water Transfer before their Abandonment in 1985-86, *Soviet Geography*, May 1986, p. 291.

⁴ In a speech at the plenum of the central committee of the Communist Party of the **Soviet Union** on **October 23, 1984**, the chairman of the council of ministers at that time, N. A. Tikhonov, described the problems that the **Soviet Union** faced with drought in the period 1976-1980. Tikhonov's speech is printed in *Ekonomicheskaya Gazeta*, "0 dolgovremmenoy **prog-** ramme melioratsii, povyshenii effektivnosti ispol'zovanniya meliorirovannykh zemel' v tselyakh ustoychivogo **narashchivan-** iya prodovol'stvennogo **fonda** strany", 1986:44, pp. 5-8. (In the 1970's, the grain **crop** results **varied** between 140 and 287 million tons).



A. Percentage of USSR's territory with river discharge into specified sea and ocean basins. B. Percentage of USSR's average annual river discharge accounted for by rivers flowing into specified sea and ocean basins. Numbers in boxes A and B indicate: 1-Arctic Ocean Basin; 2-Pacific Ocean Basin; 3-Black and Azov sea basins; 4-Baltic Sea Basin; 5-Caspian and Aral sea basins.

Source: Nikol'skiy, I. V., V. I. Tonyayev and V. G. Krashenninikov, *Geografiya vodnogo transporta SSSR* (Geography of USSR water transport) (Moskva: Transport, 1975), p. 65.

Fig 1: Mean flow USSR rivers (km^3/year).

Source: Micklin 1983. p.10.

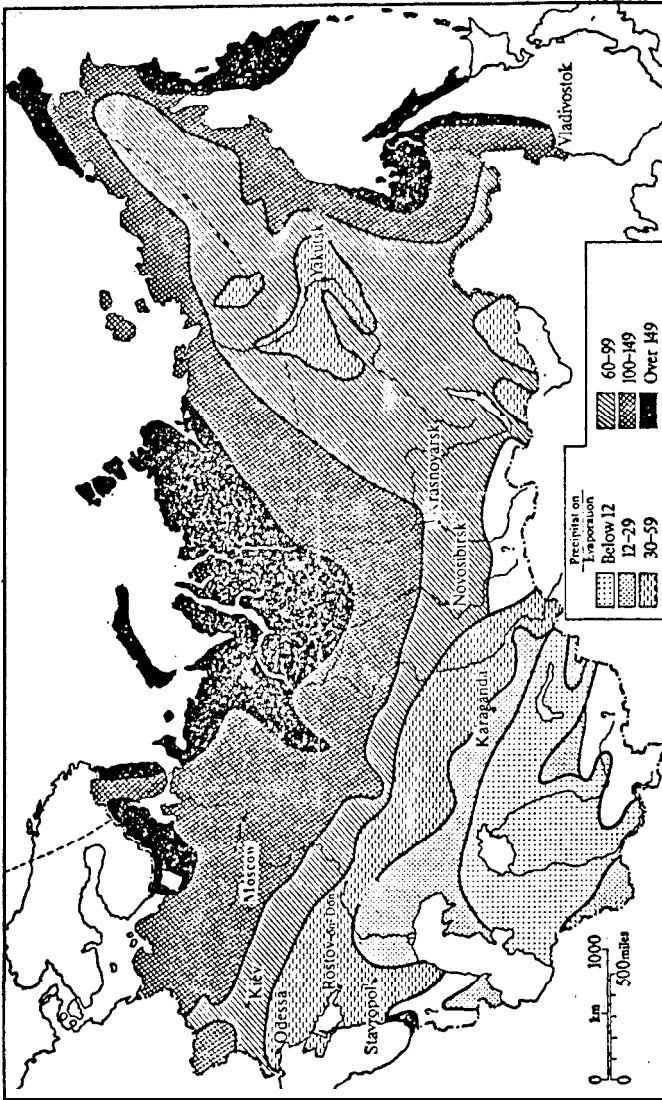


Fig. 2: Distribution of effective moisture

Source: D. J. M. Hosson, The Geographical Setting, p. 7.

$\frac{\text{Precipitation}}{\text{Evaporation}} = \text{Equilibrium (after Ivanov)}$

twenty years. Of 337 km³ water withdrawn for all uses in the Soviet Union in 1980, 177 km³, or 53% went to irrigation.⁵ Of the croplands being irrigated, more than half or 62%, is located in Central Asia and Kazakhstan.⁶

In the future, a further expansion of the irrigated area is proposed. According to Soviet plans, in 1990 nearly 23 million hectares will be irrigated and by the end of the century 30-32 million hectares. In 1985, the irrigated area was 19,6 million hectares.⁷

An additional factor complicating the water management situation in the southern regions of the USSR is the condition of the big water bodies: the Caspian, Azov and Aral seas. Due to increased water consumption for industrial and irrigation purposes, the water inflow to these lakes has been substantially reduced during the last decades. Together with climate variations, this has resulted in increased water salinity and a sinking water level in the lakes. Between 1961 and 1985, the level of the Aral Sea dropped 10 metres and its salinity doubled. These changes have already caused serious ecological and economic harm.⁸

Considering the unfavourable distribution of water resources, the wish to increase the country's agriculture output and the increasing problems with water management in the last years, it is not surprising that Soviet water planners and engineers have been reflecting upon the idea of a large-scale transfer of water from the northern to the southern regions of the USSR for a long time. The northern parts of the country are rich in water resources and could in this

⁵ Philip P. Micklin, "The Fate of 'Sibaral': Soviet Water Politics in the Gorbachev Era", *Central Asian Survey*, Vol.6 No.2 1987, p.68. For a comparison of the quantities of water mentioned: the yearly water consumption of Paris is about 0,3 km³; the annual flow at the mouth of the Mississippi River is 600 km³.

⁶ Giroux, p.8.

⁷ See the speech of Tikhonov mentioned above, and Micklin 1987, pp. 68-69.

⁸ Micklin 1987, pp. 68-69.

way be used to ease the strained water management situation in the south.

Even in Tsarist times the possibility of moving water from the Siberian **rivers** into Central **Asia** was recognized. Seventy years later, in the late 1940's, a Leningrad hydraulic engineer, M. M. Davydov, presented a grandiose water transfer plan. The Davydov plan proposed to take water from the Siberian Ob' and Yenisey **rivers** southward into the **Aral** and **Caspian Seas**. This plan would have required the construction of several dams and a **gigantic water reservoir**.⁹

In the late 1950's, proposals were put forward for a water transfer **project** from the **Pechora** and **Vycheгда rivers** of northern European **Russia** into the Kama-Volga river system and farther southward into the **Caspian Sea**. However, these plans were shelved in the mid 1960's.¹⁰

A few years later, in the late 1960's, the **interest** in large-scale water transfers was renewed in the USSR. A general strategy for the **complex** use and **protection** of water resources was worked out and was confirmed by the State Planning Committee, Gosplan, in 1970. Also, in 1968, the Institute of Water Problems of the Academy of Sciences was specially created to work on this issue.¹¹

After this short **background**, we turn to the progress of the **Soviet River Diversion Project** during the period 1976-1986, and the considerable debate accompanying it in the USSR in these years.

⁹ For more information about the Davydov plan, see Kristian Gerner and Lars Lundgren, *Planhushållning och miljöproblem. Sovjetisk debatt om natur och samhälle 1960-1976*, Stockholm 1978.

¹⁰ Micklin 1986, p.293.

¹¹ Ibid., p.294.

The Progress of the Project 1976-1986.

The 25th Party Congress in 1976 **called** for scientific research and planing on the River Diversion Project. According to this **decision**, a big design and research program was initiated, to be carried **out during** the 10th five-year plan 1976-1980. Altogether, more than 120 different research institutes and central agencies took part in the work within the project. Under the primary responsibility of the National Water Management Design and Scientific Research Institute, Soyuzgiprovodkhoz, and the **specific guidance** of the Institute of Water Problems, technical-economic feasibility studies were completed for the different parts of the River Diversion Project. Subsequently, these studies were submitted to **Gosplan** for their approval. Soyuzgiprovodkhoz and several of the other agencies involved in the project were subordinated to the **Ministry of Reclamation** and Water Management, Minvodkhoz.

Research and design work on the project continued **during** the 11th five-year plan 1981-1985. The 26th Party Congress **decided** that the first construction work on the European part of the project should be **started** before 1990 and that the scientific evaluation of the Siberian part should be **continued**. In early 1984, after one minor **change** that increased the **proposed** annual water transfer from 25 to **27,2 km³**, the Siberian part of the project was finally **approved** as well.¹²

The **approved** plan of the River Diversion Project **consisted** of two parts, one in the European part of the USSR and one between western Siberia and **Central Asia**. The purpose was to divert parts of the river systems in the northern regions of the **Soviet** Union southward into the Caspian and **Aral seas**, as follows:

(The river diversion **schemes** are presented in fig. 3)

¹² "The Problem of Redistribution of Water Resources in the Midlands Region of the USSR", G. V. Voropayev et. al., *Soviet Geography*, Dec. 1983, pp. 713-715 (translation in English of an article in *Isvestiya AN SSSR, seriya geograficheskaya*, 1982:6) and Micklin 1986, pp. 294-295.

A. The European Part.

A total water diversion of $19,1 \text{ km}^3$ annually was planned, to be divided into three steps: the first, a diversion of $5,8 \text{ km}^3$ water/year from the upper reaches of the Sukhona river and from the Lacha, Vozhe and Kubena lakes, to be transferred via the Rybinsk reservoir into the upper Volga and then farther southward to the Caspian Sea. The second step was the diversion of $3,5 \text{ km}^3$ annually from the Lake Omega into the Volga river system. Finally, a third step in which $9,8 \text{ km}^3$ per year were to be transferred from the Pechora river via the upper reaches of the Kama river into Volga. The construction works were to be started in 1986 and completed in the 1990's. According to the plans, the redistribution of water was to be further extended in a second phase in the next century. The total costs for the first phase, involving $19,1 \text{ km}^3$ water per year, were estimated at approximately 2,4 billion rubles in 1982's prices (around 24 billion SEK or \$ 4 billion).¹³

B. The Siberian Part.

This was to have been both longer and more complicated than the European part. The Siberian part was also to be carried out in two different phases. The first phase, with a total annual water diversion of $27,2 \text{ km}^3$, was to draw water from the river Ob' and its tributary Irtysh and send it southward. The transfer route would have stretched from the confluence of the Ob' and Irtysh rivers through the central parts of western Siberia southward to the Syrdar'ya and Amudar'ya rivers, a distance of more than 2500 km. The water would have been taken from the Ob' and lower Irtysh during the lower flow period of September through April and from the middle and upper Irtysh during the remainder of the year. From the

13. Philip P. Micklin, "The Vast Diversion of Soviet Rivers", *Environment*, Vol 27 No 2 1985, pp.17-18. Detailed descriptions of the European part of the River Diversion Project are given by Micklin 1986 and Giroux.

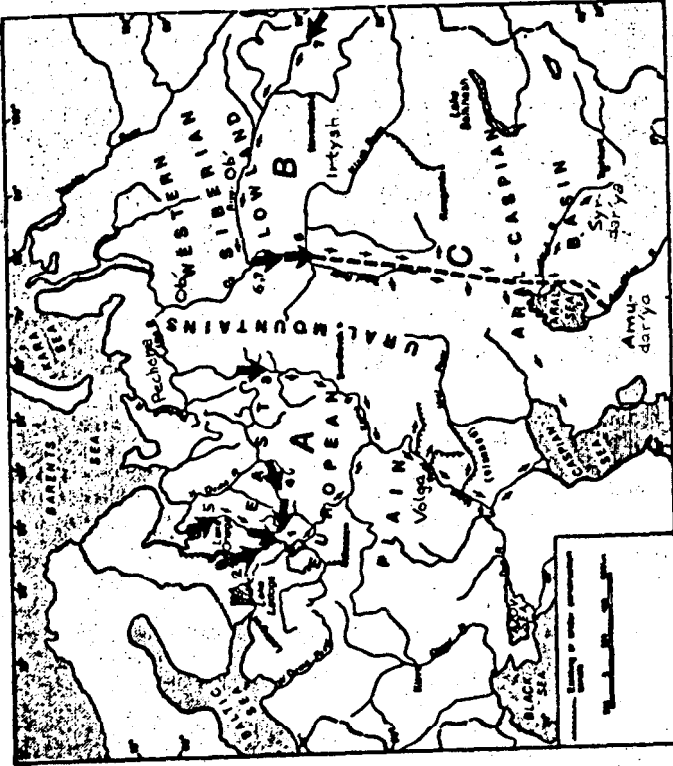


Fig. 3 Water-diversion projects of the USSR.

A. European Divisions.

Phase I

- 1—First stage (Lakes Lacha, Vozhe and Kubena and upper Sukhona River)
- 2—Second stage (Lake Omega)
- 3—Third stage (upper Pechora River)

Phase II

- 4—First stage (Lower Sukhona and Malaya Northern Dvina Rivers)
- 5—Second stage (Omega Gulf Reservoir)

B. Siberian Divisions.

Phase I

- 6—Irtysk River and middle and upper Ob' River

Phase II

- 7—Middle and upper Ob' River and Yenisey River)

C. Main diversion canal from Siberia to Aral Sea region.

Source: Micklin 1986, p. 297.

lower Irtysh, water was to be diverted against the river's natural flow direction by a series of dams with pumping facilities. The water would then have been delivered into a small water reservoir near the city of Tobol'sk in western Siberia. From there, the water would have been sent southward via a large canal, the Sibaral Canal. This, in turn, would have needed enormous pumping stations to lift the water over the Turgay divide between western Siberia and the Aral Sea Basin. The difference in altitude between the Ob' and the Turgay water divide is 113 m.. The rest of the route, after the divide, would have allowed the water to move southward naturally. The Sibaral Canal would have been of grand proportions, with a length of more than 2200 km, a width varying from 108 to 212 metres, and a depth of 12-15 m. The costs of the first phase was estimated at 13-14 billion rubles. An additional 18 billion was deemed necessary for the construction of water distribution and irrigation facilities along the transfer route. This meant a total cost of approximately 32 billion rubles (320 billion SEK / \$ 53 billion).¹⁴ The construction work was due to start in the late 1980's and to be completed around the turn of the century. A second stage, increasing the total water redistribution to 60 km³ annually, was also recommended. This would have been accomplished by increasing the capacity of the Sibaral Canal, as well as the pumping rate of the Ob' and Irtysh. According to the plans, it should be possible to carry out this second phase sometime in the first half of the next century.¹⁵

At a plenary session of the Central Committee of the Communist Party of the USSR in October 1984, the water diversion question was specifically discussed. In connection with a

¹⁴ This figure should be compared with the total investments spent on irrigation and land reclamation during the period 1966-1985, 115 billion rubles.

¹⁵ Micklin 1985, pp. 18-20, and Micklin 1987, pp. 70-71. A very detailed description of the Siberian section, with emphasis on the geographical and environmental aspects of the project, is given in Micklin 1986, pp. 309-319.

general draft for the **country's** water management and land **reclamation** plans up to the year 2000, the River Diversion Project **also** was mentioned. According to this draft, the European part of the project was to be completed in the period 1986 to 2000. However, the final design work for the Siberian part remained to be finished "in the immediate future". A time schedule for the Siberian construction works was to be decided after the final approval of the **project**.¹⁶

In November 1985 the **proposal** of the guidelines for the 12th five-year plan 1986-1990 was published. Concerning the River Diversion Project, it was suggested that the **construction** works of the European part should start in the plan period of 1986-1990. The Siberian part, on the other hand, was not mentioned at all in the proposal. Later, on **March 9** 1986, when the **revised** version of the guidelines for the 12th five-year plan was published in the major **Soviet** newspapers, there was no word at all about **any** tangible river diversion project. Now, even the European part of the project had **been dropped**. Instead of mentioning **any specific** water **redistribution** plan, the **revised** draft only **called** for "deepening the study of problems associated with the regional distribution of water **resources**".¹⁷

The final **decision** to stop the River Diversion Project **came** in August 1986. In a report from the weekly meeting of the Politburo (week **33**), it was announced that "it is **appropriate** to stop the planing of and preparations for the diversion of parts of the flow of the northern and Siberian **rivers** and to **perform** additional scientific research on the ecological and economical **aspects** of the **problem**".¹⁸ In a resolution, **approved** by the **party's** Central Committee and the Council of Ministers shortly afterwards, it was **officially** decided to **abandon** the project and **exclude** it from the **five-**

¹⁶ Tikhonov, p.7.

¹⁷ Micklin 1986, pp. 289-291.

¹⁸ Pravda 1986-08-16.

year plan 1986-1990. With this, the River Diversion Project was definitely shelved. On the other hand, the Academy of Sciences of the USSR and other national agencies were instructed to **carry** on research on problems concerning the regional transfer of water **resources**.¹⁹

The Soviet Debate.

In terms of **Soviet conditions**, the official debate about the **Soviet** River Diversion Project was unusually **lively** and protracted. From the time the Project was seriously initiated in the late **1970's**, it involved both scientists and laymen in the country. At the very least, the **latter** were able to **voice** their opinions with the help of Russian writers and **intellectuals**, who in different ways protested **against** the plans for the project. On several occasions **during** the **1980's**, there were intense **discussions** in the **Soviet** press about the River Diversion plans. The issue was the **subject** of sometimes **heated** debate among scientists as well, although this was not always reflected in the **Soviet** press.

As early as 1979, in a **publication** about the **geographical aspects** of large-scale water redistribution in western Siberia, several objections were raised **against** the Siberian part of the project. In this report some geographers at the Siberian Department of the Academy of Sciences expressed their **concern** about the plans to **realize** the River Diversion Project. Among other things, they predicted harmful **effects** on the fishery resources of the Ob' **basin**.²⁰

At the end of the period of the 10th five-year plan, around 1980, the intense research work about the project was summarized, and several scientific **articles** were published in this connection. Among the writers were many geographers. One **such** report is an **article** by four **Moscow** geographers in the **periodical** "Messages from the Academy of Sciences of the

¹⁹ Pravda 1986-08-20.

²⁰ Micklin 1987, p.76.

USSR. Geographical Series." The **authors** motivated the need of the European part of the project, pointing to the **deteriorating water balance** of the Caspian **Sea**, which necessitated additional water resources from the outside. A redistribution of water from the northern **rivers** to the south could help to **solve** this problem, they wrote. In the **case** of Central **Asia**, a large-scale water transfer could not alone be the solution to the water management problems of the region. First of all, a more **effective** use of the water resources already existing in this area should be considered. Considering the long distance of the Sibaral Canal, the possibility of substantial water **losses during** transportation had to be taken into account. Concluding their article, the **authors stated** that additional and more **accurate** investigations were needed before the Siberian part of the project could be **initiated**.²¹

A **similar** opinion was put forward by the jurists Kolbasov and Kazannik in an article in the **periodical "The Soviet State and Justice"** in 1981, in which they **stressed** issues of environmental law. They too considered the River Diversion **Project** feasible only after very thorough **evaluations** of all possible **effects** on the environment. Kolbasov and Kazannik did not emphasize the **difference** between the European and Siberian parts of the project as had the **Moscow** geographers, but they observed that the Siberian diversion would involve extensive interference with the environment of the **region**.²²

A more **optimistic** view was held by A. S. Berezner from Soyuzgiprovodkhoz, one of the main agencies involved in the project. In an **contribution** in the "Messages..." in 1982, he forecasted that the **Soviet** Union in the future would need around 50 million **hectares** of irrigated land (in 1980, 18

21. "Geograficheskiye prognozy v probleme mezhzonal'noy perebroski rechnogo stoka v SSSR", I.P. Gerasimov **et.al.**, *Izvestiya AN SSSR.Seriya geograficheskaya*, 1981:2, p.14.

22 O. C. Kolbasov and A. I. Kazannik, "Okhrana prirody pri perebroske stoka severnykh i sibirskikh rek v yuzhnye rajony **strany**", *Sovetskoye gosudarstvo i pravo*. 1981:9, pp. 71-79.

million hectares were irrigated). To manage this, he stated, the River Diversion Project was definitely necessary.²³

Later that year, the leader of the Institute of Water Problems, G. V. Voropayev, together with some Moscow geographers presented a more careful analysis of the project in the same periodical. Pointing out that additional studies of the Siberian transfer problem were necessary, the authors expressed doubt as to whether the Sibiral Canal would be as effective in solving the water problems of Central Asia as was claimed by Berezner and others. Actually, the potentials for irrigation in Central Asia would only be marginally increased by the construction of the canal, they noted. At a conference in Irkutsk in August 1983, Soviet geographer and the head of the Department of Economic Geography at the Institute of Geography in Moscow, O. A. Kibal'chich, raised in a lecture several objections against the Sibiral Canal. The first phase of the Siberian project alone would cost nearly 150 billion rubles (1500 billion SEK / \$ 250 billion), including the irrigation construction works.²⁴ Considering this, he stated, alternative approaches to the problem that made more efficient use of the available water resources in Central Asia - for instance the reconstruction and modernization of existing irrigation systems - were recommendable.²⁵

As the articles mentioned above show, at the beginning of the 1980's, the most widespread view among scientists involved in the River Diversion Project was that the European part of the project was ready to be started. However, additional research was needed regarding the Siberian part before any decisions could be made about how it should be

²³ A. S. Berezner, "Long Term Projection of Water Needs for Irrigation in the USSR", *Soviet Geography*, May 1983, pp. 333-345 (from *Izvestiya AN SSSR. Seriya geograficheskaya*, 1982:1).

²⁴ This should be compared with the total cost of 32 billion rubles mentioned earlier.

²⁵ The article by Voropayev et. al. and the lecture given by Kibal'chich are presented in *Soviet Geography*, Dec. 1983, pp. 713-727.

realized. The great efforts and costs connected with the construction of the Sibaral Canal were **especially** stressed.

Although the number of scientific **publications** about the project was considerable, **articles** and reports of this kind hardly **reached** a larger portion of the **Soviet public**. However, in **March** 1982, an article was published in the *Literaturnaya Gazeta*, one of the most influential **Soviet** newspapers **on public** debate in the country. Entitled "Project of the **century** from different points of view", the article presented both an advocate of and an opponent of the project. The **discussion** in the article mainly concerned the Siberian diversion plans.

1. Gerardi, **chief** engineer of the Siberian water **redistribution**, spoke for the project. He **stressed** the growing problems with regard to the water management situation in Central **Asia** as imperative reasons to complete the project. Considerable research and design work had already **been** done to evaluate the impact of the water **redistribution**. According to these calculations, Gerardi **stated**, it would be possible to pay off the costs for the Sibaral Canal in 10 years. This would be realizable in that the **canal** would provide an **increased** potential for irrigation and water transport.

The economist V. Perevedentsev was of another opinion. According to him, the calculations done regarding the economy of the project were imperfect and over-optimistic. It would hardly be possible to pay for the Sibaral Canal in 30 years, **much** less in 10. The **decisions** of the 26th Party Congress 1981 **called** for additional scientific research concerning the River Diversion Project. **Such** research must take alternative ways to **solve** the water management situation in Central **Asia** into **consideration**, Perevedentsev **stated**. As examples of **such** solutions he mentioned a more **rational** use of existing irrigation systems and the **introduction** of a new system of payment for water **consumption**.²⁶

²⁶ The Gerardi-Perevedentsev debate is published in *Literaturnaya Gazeta* 1982-03-10, " 'Proekt veka' s raznykh tochek **zreniya**".

Perevedentsev and his views were strongly denounced a month later, in April 1982, in an article in the Uzbek paper *Pravda Vostoka*.²⁷ It was stated here that Perevedentsev was totally uninformed and his arguments absurd. The authors of the article also repeated that the payoff period for the project would be only 10 years, as mentioned by Gerardi.²⁸

During the years following the article in *Literaturnaya Gazeta*, criticism of the River Diversion Project was notably scarce. The adoption of the plans for the Siberian part of the project by Gosplan 1983 seemed to indicate that the advocates of the diversion plans now had the upper hand. Another confirmation of this was an interview with the first Deputy Minister of Reclamation and Water Management, P. Polad-Zade, in *Izvestiya*, the paper of the Council of Ministers. Considering the future needs of agricultural production in the USSR and - as a consequence of this - increased irrigation, the Deputy Minister emphasized the necessity to complete the River Diversion Project.²⁹

Although official criticism of the project appeared only infrequently in the Soviet press at this time, there were protests against it from several groups. Objections against the project were formulated and sent to higher officials, and even samizdat-literature about the problem was circulated.³⁰ A samizdat document of this kind was published in 1982 in the Paris-based Russian émigré paper *Russkaya Mysl* by the Russian writer Vasilii Belov. Belov sharply criticized the European part of the project and appealed to the Soviet leaders to give up the whole project. The article by Belov, who himself lives in the northern part of Russia, indicated how concerned many Russians were about the environment in northern Russia.

²⁷ The Uzbek SSR is one of the four Central Asian Soviet republics.

²⁸ Micklin 1987, p.77.

²⁹ P. Polad-Zade, "Severnaya voda dlya yuga", interview, *Izvestiya* 1984-06-22.

³⁰ Micklin 1987, p. 78. The Russian word *samizdat* means unofficially published and distributed literature.

The River Diversion Project was **seen** as a major threat to **forests** and villages in the **north**.³¹

Belov was not the only person who tried to achieve a cancellation of the project. Several prominent scientists and humanists **also compiled** material with arguments **against** the project. Some articles, containing substantial material on the project that had **been** presented for higher **officials** in the USSR, were published 1984 in another Russian émigré **periodical, Grani** (published in the FRG). In these articles a group of Russian scientists, writers and artists criticized the River Diversion Project, concentrating on the European part of it. Emphasising both the ecological and economical disadvantages of the project, the **authors** suggested that an expert committee should be set up to provide an additional evaluation of the whole problem, independent of the **interests** of the ministries and research institutes already involved in the project. As a special issue, the **authors discussed** the unique buildings and other memorials of great architectural and **historical** value in northern **Russia**, which according to them were threatened by the **planned** construction works connected with the project. **Grani** also presented copies of letters to the Politburo and to the General Secretary of the Communist party at that time, Yuriy Andropov, from **several** prominent scientists, appealing to the **Soviet** leaders to reconsider the whole **project**.³²

Contrary to the opinion of many Russian intellectuals, there were clear signs of **interest** in the River Diversion Project in Central **Asia**. The Sibaral Canal was **seen** as a possible solution to the water shortage problems in this region. **Beside** the institutions engaged in the project, its strongest advocates were Central Asian **politicians** and **offic-**

³¹ V. I. Belov, "Können das Kaspische Meer, der Voze- und Lacasee noch gerettet werden?", *Osteuropa-info*, no. 57/58 1984, pp. 101-111. (This is a slightly shorter translation of the **article** from *Ruskaya Mysl* 1982-07-15).

³² "Eshche o proekte veka. Materialy k probleme perebroski chasty severnykh rek na yug", *Grani*, No. 133, 1984, pp. 190-268. Some of the letters were **dated** 1983.

ials. At the 25th and 26th party congresses in 1976 and 1981, several party **officials** from the Uzbek, Kazakh and Turkmen **Soviet republics** strongly supported the plans of the Siberian **diversion**.³³ The press in Central **Asia** published several **articles** and statements about the project in the early 1980's, expressing confidence that it would go ahead as planned.³⁴

Towards the mid 1980's, the River Diversion Project seemed to be **close** to its **realization**. In spite of the **resistance** to it among several groups in **Soviet** society, criticism was not brought up either **officially** or in the **Soviet** media. In 1985, however, a **change** occurred, which was **also** reflected in **Soviet** newspapers and **periodicals**. In late 1985, when the suggested guidelines for the 12th five-year plan were **published** in the press, the Siberian part of the project was not included. This was remarkable, considering **official statements** made earlier that year promoting both parts of the project.³⁵

Following this, the **official** debate was **started** again, after some years of **silence** in the **Soviet** press. Criticism was expressed **against** the project, **especially** the European part of it. In the **July** edition of the **Soviet** periodical *Nash Sovremennik*, a remarkable **article** was presented to the **public**. It was a **summary** of a round-table conference held by the editors of the paper with a group of **Soviet** experts, representing several different **branches** of science. The experts gave an extensive critical evaluation of the whole project, **concentrating** on its European part, and questioned whether it was meaningful to transfer water southward on **such** a large **scale** for irrigation purposes. It would be **better**, they **stated**, to increase output from **agricultural**

³³ Philip P. Micklin, "Soviet Water Diversion Plans: Implications for Kazakhstan and Central **Asia**", *Central Asian Survey*, Vol. 1, No. 4 1983, p.29.

³⁴ Ann Sheehy, "Central Asian River Diversion Lobby Hits Back", *Radio Liberty Research*, RL 243/87, p.2.

³⁵ Micklin 1987, p.79.

production by other means, **such as better** transport and storing facilities and different kinds of **soil improvement**.³⁶

At the **congress** of the Russian Writers Union in December 1985, new objections were made to the River Diversion **Project**, among others by the Russian writer and engineer Sergey Zalygin.³⁷ Zalygin's **contribution** was followed two months later by fundamental economic **criticism** of the whole **idea** of the **project** presented by five members of the **Soviet** Academy of Sciences, among them the prominent **Soviet** economist Abel Aganbegyan. In an article in *Pravda* in February 1986, they provided a thorough analysis of the **importance** of irrigation for total agricultural productivity in the USSR. According to the article, in spite of increased efforts in this area **during** the last few years, only 5% of the total **cropland** in the country was irrigated. On average, the **Soviet** Union **invested** 5 billion rubles (50 billion SEK / around \$ 8 billion) annually in irrigation systems. However, only 0,2 billion rubles (2 billion SEK / \$ 0,3 billion) - that is, 25 times less - were spent **each** year on all other methods of land improvement. Yet there were several other ways to **increase** agricultural output that were more appropriate than irrigation, Aganbegyan and his colleagues **stated**. Irrigation generally demanded large investments, without giving a **corresponding** return. Instead of irrigation, a more **rational** use of existing agricultural resources was to be considered. It was of greatest **importance** to economize on water resources and to stimulate **lower** water consumption by means of **water-saving** technology, instead of planing large-scale river diversions. The **authors** concluded their article by **recom-**

³⁶ M. Nazarov, "Chto legche povernut' vspyat': reki ili resheniya partii?", *Posev*, 1986:4, pp. 31-39.

³⁷ Bobo Scheutz, "Jättelikt flodprojekt stoppas. Signalen i sovjetisk press.", *Svenska Dagbladet*, 1986-01-05. Kristian Gerner, "Första steget från planeekonomi. Om Sovjets skrinlagda flodprojekt.", *Svenska Dagbladet*, 1986-12-10.

mending that the whole project be **dropped** from the guidelines of the 12th five-year **plan**.³⁸

The **article** in Pravda by Aganbegyan was a sign of the turning point for the River Diversion **scheme**. When the final guidelines for the 12th five-year plan were proclaimed by the **Soviet** Government in March **1986**, they **contained** no definite plans with regard to the River Diversion.

However, there were **indications** that the authorities responsible attempted to continue working on the project even after the new guidelines went into **effect**.³⁹ At the 7th congress of the **Soviet** Writers Union in June 1986, the problem was **again discussed** by some Russian writers, among them Vasilii **Belov**, Sergey Zalygin and Valentin Rasputin. In his speech at the congress, Sergey Zalygin pointed **out** that the **Ministry** of Land Reclamation and Water Management, **Minvodkhoz**, continued to **carry** on preparatory construction work for the project, in spite of the Government **decision** in March the same year. This observation was confirmed by Rasputin, who claimed that, through Gosplan, a go-ahead signal had already **been** given to Minvodkhoz to start with the construction works for the European part of the River Diversion **Project**. In his speech, Rasputin appealed to the Politburo and the General Secretary, Mikhail Gorbachev, to **once** more reconsider the whole **question**.⁴⁰

The definite **decision** to **cancel** the River Diversion **Project** came in August 1986 and was published in the major **Soviet** newspapers on August 20. At the same time, national planning institutions, scientific research institutes and

³⁸ "zemlya - glavnoe bogatstvo.", A. Aganbegyan et al., *Pravda*, 1986-02-12.

³⁹ See for instance Stefan Lundgren, "Flodvändningsprojektet igång", *Upsala Nya Tidning*, 1986-04-15.

⁴⁰ The **speeches** of Rasputin and Zalygin at the 7th congress of the **Soviet** Writers Union are reproduced in *Literaturnaya Gazeta*, 1986-07-02.

agriculture and water authorities were **ordered** to prepare a **complex** development program for Central **Asia** for the year 2010. This was to be done together with the councils of Ministers of the Central Asian **Soviet** republics and was to be presented **during** the first half of 1987. **Particular** attention was to be paid to the **region's** water management situation and agriculture **production**.⁴¹

If the southern part of the Kazakh SSR is added to the four Central Asian **Soviet** republics, we get a geographically **coherent** region with an area of over 2 million **km²** and a population of more than 35 million **inhabitants**.⁴² This is approximately one eighth of the total population in the USSR. Moreover, this region has the fastest growing population in the **country**.⁴³

Together with the Kazakh SSR, Central **Asia** has about 48% of the land used for **agricultural** purposes in the **Soviet** Union. The **crop** lands of the region, comprising 42 million **hectares**, are 19% of the total **Soviet crop** land (that is approximately 14 times more than the total **crop** land in Sweden). The remaining 220 million **hectares** are mainly used as grazing land. Thus Central **Asia** and the Kazakh SSR are most important for the **Soviet** economy in the area of **agricul-**ture. More than 90% of the cotton and around 20% of the grain in the USSR are produced in this region. The cotton is **cul-**tivated in the south and almost exclusively with the help of irrigation. Cotton is one of the biggest **Soviet** export **pro-**ducts, and it is refined to fibers and material mainly in the European part of the USSR.

The region is **rich** in raw materials of different kinds, **such** as minerals, **oil** and gas. In that Central **Asia** is the

⁴¹ "V tsentral'nom komitete KPSS i **Sovete** Ministrov SSSR", *Pravda*, 1986-08-20.

⁴² The four Central Asian **Soviet** republics are the Uzbek, Turkmen, Tadzhik and Kirgiz SSR.

⁴³ The following geographical and economical **descrip-**tion is **based** on Adolf Karger, *Sowjetunion / Fischer Länder-*kunde, Frankfurt 1978, pp. 322-340; Micklin 1983, pp. 12-23 and Micklin 1987, pp. 82-85.

cotton producer of the **Soviet Union**, the whole region has the status of raw material exporter to the other parts of the country. Although the industry in the area has **been** developed over the past **decades**, Central **Asia** still lags **behind** the other **Soviet republics**.

The **importance** of agriculture, its dependence on irrigation, the increasing population pressure and the need to develop the industry in the region - all these **factors call** for a good supply of water resources.

However, it is precisely the water management situation which is causing the biggest problems for Central **Asia**. The whole region has a **distinctly** dry climate, with little and irregular precipitation. Subsequently, the population in Central **Asia** is concentrated to the area between the **upper** reaches of the Syrdar'ya and Amudar'ya. These two **rivers** provide the bulk of the water resources used for irrigation purposes in the region. **Since** irrigation causes large water **losses** due to evaporation, filtration and other **losses during** transportation, it has contributed to a **dramatic deterior-**ation of the region's water management situation in the 1970's and 1980's. In 1984, more than 8 million **hectares** was being irrigated.

As a consequence of the increased water consumption in Central **Asia**, the **Aral Sea** has **been** severely affected. Of the estimated annual total river flow of 127 **km³** into the **Aral Sea basin**, Syrdar'ya and Amudar'ya contribute 73 and 37 **km³** respectively. Of this, only around 56 **km³** reaches the **Aral Sea** because of natural **losses** along the way. In addition, water consumption for irrigation and other purposes is already so high that the discharge of the **rivers during** dry periods has almost disappeared. **Since** 1961, the water level of the **Aral Sea** has sunk 10 metres, its area has **decreased** by 30%, its volume by 50% and the salinity of the lake has doubled. According to some experts, the **Aral Sea** may be reduced in the future to a shrunken, lifeless brine lake.

Following the **decision** of the Council of Ministers in August 1986 to **cancel** the River Diversion **Project**, an **article** was published in the *Literaturnaya Gazeta* in September of the

same year entitled "Learnings from the project of the century", in which the earlier **discussions** about the problem in this newspaper were commented upon. In the same article, Boris Khorev, geographer and member of the national expert committee that had **examined** the project, summarized the shortcomings of the **project**.⁴⁴ It lacked a **realistic economic** base, and sufficient **consideration** had not **been** taken regarding the possible **effects** of the extensive construction work on the environment. In connection with the **contribution** by Khorev, there was **also** a report from the Central Asian city of Tashkent. In the report the problems of water management in the town were described. The water consumption of Tashkent was nearly 500 **litres** per person and day, **much** too high an amount, the reporter **stated**. To reduce this waste of water resources, it was necessary to economize, for example by introducing a stricter **price** policy for water **consumption**.⁴⁵

Another reminder of the alarming situation of the **Aral Sea** was given in the same paper in November 1986. An Uzbek writer, Sarvar Azimov, claimed that the water in the **south-eastern** part of the lake had receded 80-100 km from the old shore line. Due to the **reduction** in the **size** of the **Aral Sea**, the **climate** in the area already had worsened. Urgent measures **were** needed to save the lake, he **wrote**.⁴⁶

It is obvious that the cancellation of the River Diversion **Project** was **seen** by many as a sign of the changed policy initiated by the party leaders, headed by the new General Secretary, Mikhail Gorbachev, who was appointed in **March** 1985. In the editorial **column** of *Pravda* on January 10, 1987, the **decision** to **cancel** the project was described as **evidence**

⁴⁴ The expert committee was appointed by order of the Politburo and presented its report to the government **July** 19 1986.

⁴⁵ "Uroki proekta veka", *Literaturnaya Gazeta*, 1986-09-03; and Kristian **Gerner**, *Svenska Dagbladet*, 1986-12-10.

⁴⁶ Sarvar Azimov, "Kak spasti Aral?", *Literaturnaya Gazeta*, 1986-11-26.

of the **party's** consciousness of environmental problems and ecological questions. Further, Minvodkhoz was criticized for not having enough **respect** for the **public** opinion **against** the project. In the paper of the **Soviet** trade unions, *Trud*, an **article** was published in **October** 1986, in which a representative of the **Soviet** Writers Union gave an account for the **resistance against** the diversion plans. He emphasized the **role** played by many Russian writers and members of the **Academy of Sciences** in the struggle **against** the authorities involved in the project. He considered the decision made in August by the Party leaders and the government to be a **victory** for the **public** opinion **against** the bureaucracy and the self-interest of the **Soviet** authorities. ⁴⁷

In a **contribution** entitled "The turn. Learning from a **discussion**" in the first number of the literary monthly *Novyy Mir* in 1987, the **author** Sergey Zalygin (who is **also** **chief** editor of the **periodical**) **once again discussed** the River Diversion Project. For Zalygin, the cancellation of the project was one of the most important proofs that **perestroika**, the transformation of the **Soviet** society initiated under Gorbachev, had now really **been** put into motion in the country. The leaders of the nation had **listened** to **public** opinion and **stopped** a poorly prepared project. Zalygin was **also** severely critical towards the authorities and institutions which had **been** responsible for the project. These had worked only for their interests, with no **concern** for either the economic or ecological **aspects** of the problem. The **Ministry** for Land **Reclamation** and Water Resources and the Institute for Water Problems had seriously misused state funds, **according** to Zalygin, and instead of doing valuable research, they had tried to secure state subsidies by keeping the project **alive**. Further, the whole project **lacked** a solid economic base. Zalygin **also** suggested that the **officials** responsible for the mistakes which had **been** made should be severely reprimanded. The decision taken by the **Soviet lead-**

⁴⁷ Vladimir Krupin, "Zemlya i nasledstvo", *Trud*, 1986-10-26.

ers to cancel the project was a victory for the general public over corrupted authorities. Common sense had overcome bureaucratic narrowmindedness.⁴⁸

Although the River Diversion Project was already definitely shelved, and in spite of the flow of articles and statements in the Soviet press condemning it, there were still signs that the Central Asian lobby had not completely given up hope. After nearly two years of silence on the question, an editorial was published in the Uzbek literary journal *Zvezda Vostoka* in June 1987. Introducing two open letters from Central Asian specialists in water management as an answer to Yalygin's article in *Novyy Mir*, the Uzbek article openly stated that the Sibaral Canal was the only possible solution to the water deficit in Central Asia. Zalygin and other "anti-river diverters" had not considered the fact that Central Asia was lagging behind the rest of the country with regard to economic and social development. If the region did not get additional water resources from outside, it would end up still further behind. Further, the article claimed that the Siberian transfer had broad support from a number of Central Asian scientists.⁴⁹

A more objective analysis was given by the geographer B. Kamalov in the economic journal *Economicheskaya Gazeta* in July 1987. In a report from the Aral Sea he described the severe problems with the water balance in the region. During the last 25 years, more than 50 billion rubles (500 billion SEK / around \$ 8 billion) had been invested in new cropland and irrigation facilities. However, the returns had not been up to the expectations. Instead, there had been many cases of wasted resources and ineffectiveness. The sharply increased water consumption and exploitation of the Syrdar'ya and Amudar'ya had to be stopped, Kamalov wrote. More effective

⁴⁸ Sergey Zalygin, "Povorot. Uroki odnoy diskussii", *Novyy Mir*, 1987:1, pp. 3-18. Zalygin's article elicited very sharp reactions from people engaged at the Institute of Water Problems. In a letter to the editor in *Izvestiya* on April 20, 1987, they denounced the criticism delivered by Zalygin and others.

⁴⁹ Sheehy, pp. 1-5.

cultivation and irrigation systems had to be introduced. A substitution of cotton by other crops that did not demand as much water, was recommendable. Instead of cotton, synthetic materials could be used in the textile industry, which would also be cheaper than the production of natural cotton.⁵⁰

The article in *Zvezda Vostoka* showed that many Central Asian officials continued to advocate the idea of Siberian water diversions. Also, the increased publicity about the Aral Sea may be seen as evidence that some groups still think that the construction of a north-south canal from the Siberian rivers would be a solution to the worsening problems of the water situation in Central Asia.

That the party and government leaders were conscious of the problems in Central Asia was shown by the resolution from August 20, 1986 concerning a general economical development plan for the whole region, which had to be carried out by both national and Central Asian authorities. This was followed by a new resolution on June 20, 1987, expressing impatience with the ineffective use of water and land resources in Central Asia.⁵¹

Summary and conclusions.

The plans for the River Diversion Project were initiated in the 1970's. Design work on the project started seriously during the 10th five-year plan 1976-1980 and continued in the following period 1981-1985. The intention in the final plans was, in a first phase, to divert southward a total amount of 19,1 km³ and 27,2 km³ water annually from rivers in northern Russia and western Siberia respectively. The European part of the project included a water transfer through the Volga river basin to the Caspian Sea, while the Siberian part planned to take water from the Ob' and Irtysh rivers to the

⁵⁰ B. Kamalov, "Ob Arale v proshedshem vremeni?", *Ekonomicheskaya Gazeta*, 1987:29.

⁵¹ Sheehy, p.5.

Aral Sea via the Central Asian **rivers** Syrdar'ya and **Amud-ar'ya**.

The reasons given for the project were that it would **redress** the water **balance** of the Caspian and **Aral seas**, increase the potentials for irrigation in southern **Russia**, Kazakhstan and Central **Asia** and thereby improve the **agriculture production** of these regions.

After a long and continuous debate in the **1980's**, with **contributions** from **Soviet** scientists, administrators, **economists**, writers and other intellectuals, the **Soviet** leaders in August 1986 **decided** to **cancel** the River Diversion Project. The debate culminated in 1985 and 1986, when the opponents of the project got the advantage in the discussion.

Both the cancellation as **such** and the discussion **accompanying** it were remarkable. **When** the final decision **came** in August 1986, research and design had **been** going on for more than 10 years. A large number of different planning organs, scientific research **institutes** and other organizations had **been** engaged in the project. In his **article** in *Novyy Mir*, Sergey Zalygin **stated** that nearly 65 thousand persons had **been** involved within the framework of the **project**.⁵² The **fact** that the **Soviet** leaders intervened and changed their minds concerning the project, in spite of the **fact** that it already had proceeded almost to its realisation, indicates that it both was a difficult and important decision for them to take. It **also** shows that the structure of the **Soviet** society is a very **complex** one, with many different **interest** groups involved in the **Soviet** planning and decision making. The development of the River Diversion Project is an illustrative example of this.

In the **Soviet discussions** about the project, the **official** debate became more intense in 1985 and the following years. The amount of **articles** in **Soviet** newspapers and **periodicals** about this **subject** significantly increased **during** this time. Thanks to the unusually open **discussions** about the

⁵² Zalygin, p. 13.

project, it was possible to recognize the different **interest** groups involved in the debate.

The scientists - mostly represented by geographers - who discussed the project in the specialist literature, generally concentrated on the possible **effects** on the environment because of the construction work within the river diversion plans. In most **cases**, they **noted** that more research about the environmental consequences of the project was needed. A usual opinion was that alternative solutions of the problem, **especially** concerning Central **Asia**, should be considered more **carefully**. Scientific **articles** of this kind were for the most part published in the early **1980's**, as a result of the considerable research done **during** the 10th five-year plan 1976-1980. Most scientists were not **against** the **idea** of the project as **such**; they mainly discussed how the **technical** solution of the problem could be solved in the best way. The Siberian part of the project was the most complicated **section**, as it required considerably more effort than the **European** part, **especially** the construction of the Sibiral Canal.

A clearly **optimistic** attitude was held by the leading representatives of the authorities and **organizations** involved in the planning of the River Diversion **Project**. They **motivated** the project by stating the great need for water in the southern parts of the **Soviet** Union, the most important **agriculture** region of the country. To obtain higher productivity in agriculture, increased irrigation was needed. To increase the amount of irrigated **crop** land, more water was needed. However, in the southern parts of the **Soviet** Union, water resources were no **longer** sufficient. Thus, water had to be transferred from the water-rich regions of the north. An argumentation of this kind was **common** in interviews and other **contributions** by **Soviet** officials, representing the **authorities** responsible for the **projection work**.⁵³

Different regional interests were **also** involved. Many Russian intellectuals took an **active** part in the **discussion**

⁵³ A good example of this is the **article** by Berezner (Long Term **Projections...**).

about the European part of the project. They feared that the diversions of the northern **rivers** would destroy many unique **cultural** values in northern **Russia**. The persistent activity by the Russian writers **Belov** and **Zalygin** are **significant** examples of this group.

On the other **side**, the strongest adherents of the River Diversion Project were to be found in Central **Asia**. There, many people saw the construction of the Sibiral Canal as a solution to the severe water shortage problems of the region. Additional water transfers from the Siberian **rivers** were considered vital for the future development of Central **Asia**. Among the supporters were both intellectuals, as **well** as party **officials** from the region.

The criticism raised **against** the River Diversion Project was principally of three different kinds; ecological, **institutional-political** and economic. The considerable **consequences** for the environment connected with the realization of the project both in northern **Russia** and western Siberia attracted attention from many sides. Even those scientists who in general supported the **idea** of the project **stressed** that serious **considerations** had to be made regarding the possible **effects** on the environment of the regions where the **construction** works were to be carried **out**. **Also**, the lobby group of Russian intellectuals had the ecological risks as their main argument **against** the River Diversion Project. Even **officially**, as in the editorial in *Pravda* on January 10, 1987, the cancellation of the diversion plans was **seen** as an **evidence** of the **party's** consciousness about ecological problems.

In the **Soviet** debate serious criticism was put forward **against** the authorities and state organisations responsible for the **projection** work. They were accused of misusing their influence, wasting state resources and money and providing insufficient scientific evaluation of the problem. Not **surprisingly**, the **decision** to shelve the whole project was regarded by **Zalygin** and other opponents of the River Diversion Project as a **victory** for **public** opinion **against** the powerful **Soviet** bureaucracy.

The most serious arguments **against** the river diversion plans were **based** on economic considerations and **came** from economists **such** as Aganbegyan and Perevedentsev. According to them, the whole **project lacked** a sound economic base. The **idea** of huge water transfers from the north to **solve** the water management problem of the southern regions of the country was not **realistic**. It would **have** demanded enormous capital investments and other state resources. Instead, the problems of **Soviet** agriculture were to be solved by other means. The existing land and water resources had to be more effectively utilized, for example by a stricter **price** policy for water consumption, a more cautious use and maintenance of irrigation facilities already in **existence**, and by **substituting** water-demanding **crops such** as cotton with other plants that did not require as **much** water.

The arguments above reflect the new kind of economic thinking in the **Soviet** Union put forward by the **Soviet** leaders under the Gorbachev regime. Already as Minister of **Agriculture** in the period 1978-1983, Mikhail Gorbachev **stressed** in his work the **importance** of more economic effectiveness in the **Soviet agricultural sector**. After Gorbachev was appointed as General Secretary in 1985, he has continued to spread his economic and **political ideas** throughout **Soviet** society. The opponents of the River Diversion **Project** found important support in Gorbachev and his fellow **thinkers**.⁵⁴

Considering the **very** extensive scientific research and planning carried **out during** the 10th and 11th five-year plans 1976-1985, it seems clear that the **Soviet** leaders **decision** to **cancel** the River Diversion **Project** was not made mainly because of poor planning and insufficient scientific research on the part of the responsible planning organizations. Rather economic considerations were the most important reasons for the **decision** in this **case**. The **Soviets** can no **longer** afford large-scale giant **projects** that appropriate considerable

⁵⁴ Among western Observers stressing the **role** of **Gorbachev** in the **official decision** to stop the River Diversion **Project**, see **Micklin** 1987, pp.78-79.

portions of the state budget for a long period of time. Moreover, the possible positive **effects** of the river diversions were not convincing enough, **especially** concerning the **question** of **effective** pay-off in the **agricultural sector**.

The **Soviet River Diversion Project** has until further **notice been cancelled**. However, according to the **decision** of the **Soviet** leaders in August 1986, further research about problems associated with water redistributions on a **regional scale** is to be continued. If the water management problems in Central **Asia** remains in the future, and if the **Soviets** wishes to **manage** the critical situation of the **Aral Sea**, it is not unthinkable that the **idea** of a larger water transfer from the north, at least to the **Aral Sea**, will be raised **again**. Perhaps in 10-20 years, and if then, perhaps in a reduced, less **costly** form. The development in Central **Asia** and the future economic and **political** situation in the **Soviet Union** will **decide** whether the **discussion** about river diversions will be **started again**.

RESEARCH REPORTS

1. Bo Gustafsson: The Causes of the Expansion of the **Public Sector** in Sweden during the 20th Century. 1983.
2. Mats **Essemyr**: Food Consumption and Standard of Living: Studies on Food Consumption among Different **Strata** of the Swedish Population 1686-1933. 1983.
3. Göran Rydén: Gammelstilla **stångjärnsmedja** - en manufakturindustri. 1984.
4. Alf Johansson: **Market, Nature** and Work: The basics of **work organization** in a nineteenth-century export **sawmill**. 1984.
5. Lena Sommestad: Strukturomvandling och yrkessammansättning: **Ala** sågverk under mellan-krigstiden. 1985.
6. Li Bennich-Björkman: Nationalekonomi och ekonomisk historia. **Inställningen** hos nationalekonomer till **ämnet** ekonomisk historia 1929-1947. 1985.
7. Håkan Lindgren: International **Firms** and the Need for **Historical Perspective**. 1985.
8. Alice Teichova: Economic Policies in **Interwar** East Europe: **Freedom** and Constraints of Action. 1985.
9. Lynn Karlsson & Ulla Wikander: Kvinnoarbete och **könssegregering** i svensk industri 1870-1950: Tre uppsatser. 1985.
10. Bo Gustafsson: Det antika slaveriets nedgång: En ekonomisk teori. 1985.
11. Mats Morell: Eli F. Heckscher, utspisningsstaterna och den svenska livsmedelskonsumtionen från 1500-talet till **1800-talet**. Sammanfattning och **kompletering** av en lång debatt. 1986.
12. Ragnhild Lundström & Kersti Ullenhag: Methodological Problems in Business History: **Two Papers**. 1986.
13. Kersti Ullenhag (**editor**): Books and Articles from the Department of Economic History at Uppsala University. 1986.

14. Geogr **Péteri**: The **Role** of State and **Market** in the Regulation of Capital Imports: Hungary 1924-1931. 1987.
15. Håkan Lindgren: **Banking** Group Investment⁶ in Swedish Industry: On the emergence of banks and associated holding companies **exercising** shareholder influence **on** Swedish industry in the first half of the 20th **century**. 1987.
16. Mats **Morell**: Om mått- och viktsystemens utveckling i Sverige sedan **1500-talet**. Vikt- och rymd-mått fram till metersystemets **införande**. 1988.
17. **Jürgen Salay**: The **Soviet** Union River Diversion Project. From Plan **to** Cancellation 1976-1986. 1988.