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THE BAYKAL CONTROVERSY: A RESOURCE USE CONFLICT IN THE U.S.S.R.

PHILIP P. MICKLIN*

But even in our society there may be miscalculations and errors in the practical attitude toward nature if our actions are not based on a deep and comprehensive study of the problem of the interaction of nature and society. It is unfortunately true that we are still not making full use of the possibilities and advantages of a socialist system and often inflict serious damage to nature and consequently to our society.

—F. V. Konstantinov¹

Conflicts between groups concerned with the preservation and protection of unusual or especially beautiful aspects of the natural environment and those interested in economic development have characterized the field of resource management in the U.S. for a number of years. The well-publicized arguments over the advisability of building dams in the Grand Canyon, erecting steel mills in the Indiana Dunes, or flooding the Yukon Valley are only too well known to those interested in conservation. Not so familiar to Americans, however, are such conflicts occurring outside of the U.S., although in terms of what is at stake some of these dwarf even our most crucial battles. A case in point is the clash now raging in the Soviet Union over the future of one of the world's largest and most unusual fresh water bodies—Lake Baykal.

The controversy over this lake which is situated in the extreme southern part of Eastern Siberia has been underway since the late 1950's. However, it has attracted national attention only in the last two years with the appearance of a number of polemical articles on the subject in leading Soviet Journals.² The point of contention is the construction of two large pulp mills on the shores of Lake Baykal (Fig. 1). The largest of these, located in the town of Baykalsk on the lake's southern shore, is nearly completed while the smaller Selenga Plant probably is in the early stages of construction at the mouth of the river by the same name. The proponents of the two

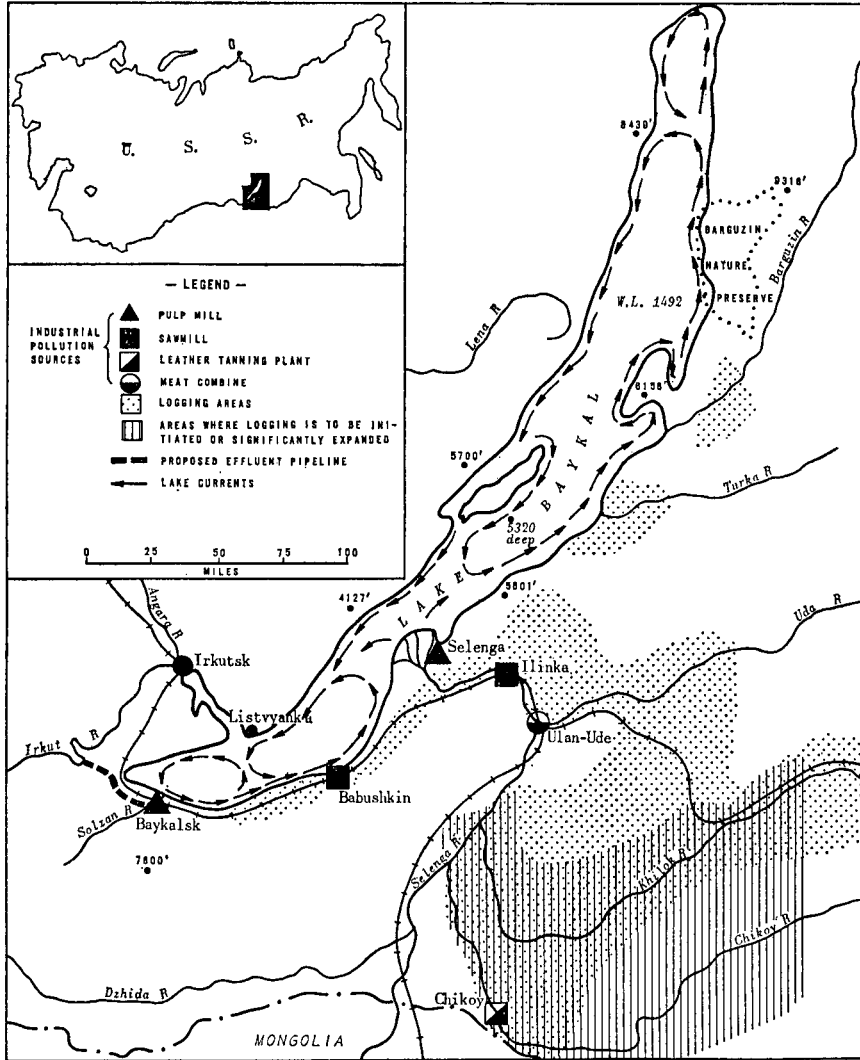
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1. F. V. Konstantinov, *Interaction between Nature and Society and Modern Geography*, Soviet Geography: Reviews and Translation, Dec. 1964, at 69.

2. See Pravda, Feb. 28, 1965; Literaturnaya Gazeta, Feb. 6, 1965, Mar. 18, 1965, Apr. 10, 13, and 15, 1965, Jan. 29, 1966, and Oct. 6, 1966; Soviet Life, Aug. 1966.

LAKE BAYKAL AND ENVIRONS

Fig.1



plants, led by the powerful Ministry of Forest, Cellulose, Paper and Wood Processing Industries, claim that the choice of site is correct and stand firmly behind the construction and operation of both enterprises. On the other hand, a diverse, loosely organized group headed by a number of leading Soviet scientists, academicians, and writers strongly oppose the plants on the basis that they will not only pollute the waters of Baykal, but result in destruction of the area's scenic beauty.³

I

THE NATURE OF BAYKAL

The intense and widespread concern for the protection of Lake Baykal is engendered first of all by recognition of its unique physical and biological character. Lying in an elongated depression of Tertiary age which was later deepened by faulting, Baykal is truly a remarkable fresh water body. Not only is it the most ancient lake in the world but also the deepest at 5,320 feet and the second greatest in volume after the Caspian Sea. In addition it contains a plethora of floral and faunal life comprised of nearly 600 plant and over 1200 animal species; more than 70% of this life is found nowhere else in the world.⁴ Outstanding in this regard are the omul, a large fish somewhat like a salmon, the golomyanka, a viviparous fish that lives at great depth, a fresh water seal, the nerpa, as well as various types of plankton. Much of this life is quite ancient, dating from the early part of the Tertiary Period. In fact, the aquatic life is considered to have such scientific interest that the Academy of Sciences established a special research station, now a limnological institute, on Baykal's shores in 1929.⁵ The sole purpose of this institution, located in the village of Listvyanka, is the detailed study of the lake and its unique flora and fauna.

But scientific considerations, although of sufficient gravity in themselves, are not the only reason for wanting to protect and preserve Baykal. Aesthetic factors are also of great importance. Nearly 400 miles long with a maximum width of less than 49 miles and surrounded on all sides by forested mountains that fall precipitously to its shores, Baykal is a sight of pristine beauty. Adding to the splen-

3. Included in this group: Pyotr Kapitsa, the famous physicist; Boris P. Konstantinov, Vice-President of the Soviet Academy of Sciences; Innokenty Gerasimov, a leading geographer and soil scientist, and the famous novelist Mikhail Sholokov.

4. A. Alpatyev *et al.*, *Fizicheskaya Geografiya SSSR* (part II) 446 (1965).

5. L. Rossolimo, *Baykal* 5 (1966).

dor of the landscape are the lake's dark blue waters which, it is claimed, are so transparent that one can see to depths of over 90 feet.⁶ Indeed, the lake so awed the ancient Mongols inhabiting the region that they worshiped it as Dalai Nor or the "holy lake." And while not a subject of contemporary reverence, Baykal is still very impressive. So much so that the noted Russian physical geographer, Lev Semyonevich Berg, referred to it "as a miracle of nature in all its aspects."⁷

The most obvious reason for opposition to the pulp plants is fear of water pollution and its consequences resulting from the release of waste effluent into Baykal. The main pollutant contained in the discharge will be organic material in the form of wood fibers. Upon entering the lake, this waste immediately begins to be broken down by aquatic biota into harmless inorganic substances. In this process, euphemistically termed self-purification, however, oxygen present in the water is consumed. If the waste load is slight, the oxygen reduction in the water is slight and of short duration. On the other hand, if the load is large and continuous the oxygen drop is marked and of a permanent nature.⁸ Considering that many types of aquatic life, particularly fish, are dependent on dissolved oxygen for life, one can imagine the consequences of the latter occurrence.

That the pulp mills on Baykal's shores would lead to such a situation cannot be absolutely proven. However, as the director of the Baykal Limnological Institute has pointed out, the 8 million cubic foot discharge of the Baykalsk plant alone, if untreated, would daily require 35 million cubic feet of pure lake water to oxidize the sewage it bears.⁹ By any standards this is a heavy waste load. Moreover, in a lake such as Baykal, where the ecological balance is very delicate, even a minor drop in the dissolved oxygen level could have fatal consequences for the aquatic life.

Organic substances, unfortunately, are not the only type of pollutants that the pulp mills are capable of discharging into the lake. There is also a threat from inorganic chemicals, specifically calcium bisulfate and sodium sulfate which are used to process the wood into pulp. If present in sufficient quantities, these compounds are toxic to water life. Furthermore, since such pollutants are non-degradable, that is not subject to breaking down by biotic action, they accumulate

6. A. Osipova, *Sibiri i Dalniy Vostok* 41 (1960).

7. A. Alpatyev, *supra* note 4, at 444.

8. O. Herfindahl & A. Kneese, *Quality of the Environment* 10-11 (1965).

9. Volkov, *The Call of Lake Baykal*, *Soviet Life*, Aug. 1966, at 8.

over a period of time in a still water body and can build up to toxic levels.

A final factor that would make the dumping of industrial sewage into Baykal an even more serious problem is the lake's current pattern. The circulation is in the form of counterclockwise gyros of various sizes that together cause a nearly constant movement of water parallel to the shore (Fig. 1).¹⁰ Hence, any material dumped into the lake is not carried into the deeps nor widely dispersed but is concentrated in the shallow coastal areas where most of the fish live. Due to this phenomenon, the director of the Baykal Limnological Institute sees the effluent from the Baykalsk installation alone creating a "dead zone" that would eventually spread all along the eastern shore of the lake.¹¹

However, fear that waste effluent will contaminate the lake is not the only reason for opposition to the pulp combines. Opposition is also engendered by concern for what would be the effects both directly and indirectly of greatly increased logging in the Baykal territory which is necessary to provide timber for the mills. As to how great this increase would be is indicated by estimates that both plants will require timber from a minimum area of 125,000 acres annually.¹²

The most serious direct effect would be the lessening of the region's scenic beauty. For even if logging in the forested zone around Baykal is carefully and selectively done, it would still lead to caterpillar trails, logging roads, and slash being left in cut-over tracts. And as those familiar with logging in the U.S. realize, such things don't add to the aesthetic charm of a forest. On the other hand, if logging is carried out by clear cutting methods, scenic destruction will be even more serious. Not only would there be the aforementioned eyesores, but in addition, a patchwork of barren and forested stretches to detract from the area's beauty. Moreover, the timber growth rate is exceedingly slow here so that reforestation would require a long period of time.

But opponents of the pulp plants do not see the above as the primary threat. Their main concern is with two probable indirect effects of increased logging: more timber floating on Baykal and its tributaries and greatly accelerated soil erosion. In regard to the

10. L. Rossolimo, *supra* note 5, at 68.

11. Volkov, *supra* note 9.

12. Volkov, *A Trip to Baykal*, Current Digest of the Soviet Press, Vol. XVIII (1966) at 5.

former, the fear is that it will result in more bark and wood chip pollution which has already reached significant proportions in some areas. This would not only detract from the beauty of the lake but even more seriously could wreck the major fish spawning grounds in the larger tributaries.

A rise in soil erosion activity, however, seems to be the gravest threat of increased logging. This results from the fact that the slopes are steep and the vegetation cover, other than the forests themselves, quite thin in the prime logging areas. Hence, deforestation would result in rapid runoff and severe erosion. Indeed, it is estimated by one writer that the increase in the amount of soil erosion caused by the cutting of the minimum amount of timber required by both mills will be around 320,000 tons annually.¹³ This contention is supported by the prestigious Geographical Society of the USSR which stated emphatically in 1962 that "cutting of forests in the Baykal area by modern methods under mountain conditions where the soil is thin will lead to destruction and erosion."¹⁴ Aggravating this situation is the fact that much of the cutting for the pulp mills is to be carried out in the basins of the Khilok and Chikoy rivers where the annual average precipitation of eight to twelve inches is so meager that it is doubtful the forest cover, once cut, would ever regrow (Fig. 1). Thus, in this area, soil erosion once started on a large scale by logging would be difficult if not impossible to contain. Some evidence even indicates that extensive logging here would start the underlying sands moving again over wide areas.¹⁵ Moreover, greatly increased erosion would inevitably lead to a rise in the sediment content of Baykal and its tributaries with almost certain harmful consequences for their aquatic life.

The proponents of the pulp combines, as one might expect, have not taken these attacks lying down. On the contrary, they have mounted a vigorous and concerted counter-offensive based on three contentions: first, that the pulp to be produced by the mills is vitally necessary to the national economy; second, that the Baykal area is the most favorable place for the installations; and third, that neither the lake's unique aquatic life nor the region's aesthetic beauty will be damaged by the plants.

In support of the first contention, those backing the plants point

13. *Id.*

14. *Literaturnaya Gazeta*, Apr. 13, 1965, at 2.

15. Volkov, *supra* note 12.

out the USSR's dire need of pulp for making paper products and artificial fibers. (The latter product is especially important since it is used not only in textile manufacturing but more importantly as cord for tires.) Indeed, by 1970, it is asserted, fiber production alone will require 347,000 tons of pulp annually. And to meet only this goal, officials of the artificial fiber industry claim, the Baykalsk plant, which is to produce 200,000 tons of high quality pulp per year, is absolutely necessary. As further proof of the need for more pulp, they cite the fact that the USSR at the present time does not even produce enough pulp to satisfy domestic requirements and has been forced to buy this material at high prices from abroad.¹⁶

Two pieces of evidence are put forward to substantiate the second claim; i.e., that the Baykal area is the most suitable location for the pulp plants. The first is that high grade pulp production requires extremely clean water of which Baykal has an abundance. The second is that the Baykal area has a copious supply of larch and pine—the best raw materials for production of high quality pulp—which other possible sites, such as lakes Onega and Ladoga in northwest European Russia do not possess.

However, the third contention which holds that Baykal and its environs will not be harmed by the pulp mills is most heavily stressed. The argument here is that such careful and detailed protective measures have been taken that "Baykal will not be done any harm, not only in regard to preservation of its unique reservoir of fresh water with its fauna and flora but also in regard to the cultural-aesthetic significance of the lake."¹⁷ And, indeed, the planned protective measures do appear impressive.

Thus, to prevent water pollution, an elaborate purification system is to be installed at each plant. Passing through this system, sewage will be chemically and biologically treated as well as sand filtered to remove impurities. Then, to insure an adequate oxygen content, the purified effluent is to be oxygenated in special aerators. Only after this complicated treatment, it is stated, will the waste water be released into Baykal at a depth of 130 feet. Supposedly when released the industrial waste water will have been purified to drinking water standards.¹⁸ Furthermore, if in spite of these measures water pollution still occurs, then the plant designers state emphatically that a

16. *Literaturnaya Gazeta*, Apr. 10, 1965, at 2.

17. *Id.*

18. *Id.*

diversionary pipe line will be built to carry the sewage from at least the Baykalsk combine to the Irkut River which does not flow into the lake (Fig. 1).¹⁹

Equally elaborate protection measures are supposed to be taken as regards logging in the area surrounding Baykal. First of all, there is to be no cutting of timber on water divides, along banks of small rivers, on slopes of more than 25°, or on slopes of 15 to 25° where the soil is thin. Secondly, there is to be no floating of logs down small mountain rivers. Instead, trucks will be utilized to move the timber. Finally, within a distance of three to six miles and in some cases as much as 18 miles of the lake and in the strip along the main rivers flowing into Baykal, cutting will be entirely forbidden. Officials concerned with the construction and operation of the plants feel the above measures are entirely adequate to protect the area's beauty as well as preventing soil erosion and the spread of desert conditions.²⁰

The case for the pulp mills elaborated above seems quite sound on the surface. However, closer examination of the matter reveals that the key arguments used by the pro-plant group have some glaring weaknesses. The opposition forces, of course, have been quick to capitalize on these vulnerabilities in their continuing struggle against these installations.

To begin with, they question the need for large increases in pulp production and consequently the necessity of constructing pulp mills on Lake Baykal. They point out that tire cord is a major use of high quality viscose pulp and that such cord can now be made from synthetic fibers derived from oil.²¹ Thus, it is reasoned that with the elimination of one of the major uses of pulp, little or no increase in production of this material is necessary. On the other hand, government officials responsible for pulp production claim that tire cord made from synthetic fiber is not as strong as that made from pulp and cannot replace it.²²

The second contention of the plant proponents—that the Baykal area is the best location for the two mills—is also under heavy attack for a variety of reasons. First, while it is generally agreed that the Baykalsk installation needs extremely pure water and the pine and larch wood of the Baykal area in order to produce high quality

19. Volkov, *supra* note 12.

20. *Literaturnaya Gazeta*, Apr. 10, 1965, at 21.

21. *Literaturnaya Gazeta*, Apr. 13, 1965, at 2; Volkov, *supra* note 12, at 15.

22. *Literaturnaya Gazeta*, Apr. 10, 1965, at 2.

pulp, this is not true of the Selenga plant. On the contrary, it is to process low grade pulp for cardboard and rough paper which requires water of only moderate purity and no particular species of tree.²³ Therefore, why locate the combine near Baykal where water pollution would be a national disaster when numerous other sites would serve equally as well? Secondly, it is felt that the supposed abundance of timber in the Baykal area is a chimera and that the area cannot meet the timber needs of both or even one of the pulp plants on a sustained basis. Again, however, there is great disagreement on this point with the proponents of the mills claiming timber reserves of the area are adequate for 100 years while their adversaries doubt they will last 25.²⁴ Finally, the opposition group claims the Baykal region is unsuitable for large industrial structures because of intensive seismic activity.²⁵ And, indeed, the southern and eastern shore of Baykal—the locale of both plants—is one of the two or three most active tectonic zones in the USSR which is characterized by earthquakes of such an intensity as to nearly completely destroy buildings.²⁶

But the pulp plant opponents greatest wrath is directed at the last contention of those in charge of the project: that due to the elaborate protective measures being taken, Baykal and its environs will not suffer at the hands of the combines. On the contrary, they claim, there is no question but that Baykal and its surroundings will be done great harm. This feeling is based in the first place on a lack of faith in the effectiveness of the waste purification facilities to be used at the plants. Relying for the most part on a 1962 report by the State Committee on Scientific Research, this group notes that (1) the purification equipment has never been tested under industrial conditions but only in a laboratory situation; (2) the basic reagent for the second stage of purification is not available; (3) activated sludge, a necessity for the biological treatment process, can only be prepared in above freezing weather which is a rarity in the Baykal area from October through April; and (4) the biological purification unit requires heated water and constant temperatures to operate correctly, but such conditions are impossible to maintain during the winter months. Indeed, in light of all these factors the

23. *Literaturnaya Gazeta*, Apr. 15, 1965, at 2.

24. *Literaturnaya Gazeta*, Apr. 10, 1965, at 2.

25. *Literaturnaya Gazeta*, Apr. 13, 1965, at 2.

26. *Atlas SSSR* (Moskva: Glavnoye Upravleniye Geogesii i Kartografii, (1962), p. 67.

report went on to conclude that "pollution of the coastal zone of Lake Baykal in the region of the entrance of effluent from the Baykalsk plant is inevitable even with the realization of practically acceptable methods of water purification."²⁷

As mentioned earlier, there is a plan to transmit effluent by pipe line from the Baykalsk plant to the Irkut River—a distance of about 33 miles—if it is found to be polluting the lake. This proposal has received favorable comment from some individuals concerned for the lake. However, it would seem to involve a number of difficulties. For one thing it would be only a partial solution to the pollution problem since sewage would still be dumped into the lake from the Selenga plant. Of course a pipe line could be built from this combine to Baykalsk but it would be well over 100 miles long. An even more insurmountable obstacle would be how to keep the pipe lines from freezing during the long cold winter when temperatures remain well below zero for weeks at a time. This perhaps would be a technical impossibility. Finally, one wonders what would be the effects of dumping massive amounts of effluent into the Irkut River. For even though few people use this stream for a water supply, it flows into the Angara River which is heavily utilized for this purpose.

A second element responsible for the attitude that the lake will be harmed by the plants is the premonition that industrial operations will begin regardless of whether the waste treatment facilities are completed. And there is evidence that this is a very real possibility. For example, one writer has reported that the purification system at the Baykalsk plant will not be ready until 1968 although the mill is supposed to begin operations at least a year earlier.²⁸ This, he claims, flatly contradicts the promise of the builders that in no case would operations be started here before the purification system was in working order.

Finally, the feeling that the plants will be harmful is predicated on doubts about the implementation of suitable logging techniques in the area around the lake. Thus, although selected cutting is supposed to be the prime timber harvesting method employed here, it is claimed that no preparations for such logging practices have been made. Furthermore, those who feel that the timber reserves of the Baykal region were greatly overestimated by the pulp mill planners in the first place think that it is impossible to carry out the stipulated conservation measures and still get enough timber for the mills. In-

27. *Literaturnaya Gazeta*, Apr. 13, 1965, at 2.

28. *Literaturnaya Gazeta*, Apr. 15, 1965, at 2.

deed, they are of the opinion that these measures will not be followed at all. As proof of this assertion, one writer cites the case of timber cutting in the forest adjacent to the southern end of Baykal. Here cutting was to be permitted only for thinning, hygienic, and restoration purposes. Nevertheless, in 1965 150,000 cubic meters of timber were taken from the area to supply industrial needs.²⁹

II

A PLAN TO SAVE BAYKAL

In order to prevent the adverse effects on the lake mentioned above and to afford future protection for the area, a group of leading Soviet citizens in May, 1966, publicly recommended the following measures:

- (1) that approval for the scientifically unfounded Giprobium [state paper] organization projects be withdrawn and that work on the Baykal and Selenga pulp mills be stopped and the structures dismantled;
- (2) that in the economic and scientific interests of the country and for the good of the generations to come, Lake Baykal and its basin be declared a territory of extraordinary value to the country so as to guarantee the uninterrupted natural replenishment of its waters and of the forests in its basin;
- (3) that this territory of extraordinary value to the country be administered by one agency responsible for the comprehensive utilization of its natural resources.³⁰

A detailed plan of action for implementing these proposals has not as yet been presented by the opposition group. In regard to the second point, however, one interesting suggestion has been to create a "national park" around Lake Baykal. Initially to encompass 5,000 square miles and later to be enlarged to 15,000, the park would be the first of its type in the USSR. The ostensible aim of its creation would be "to preserve for all time the natural beauty of the region and the unexcelled purity of the Lake's waters."³¹

The outcome of the Baykal controversy is difficult if not impossible to predict at the time of this writing. It is true the Soviet Government has appointed a special committee of experts within the

29. Volkov, *supra* note 12, at 6.

30. *Baikal Waits*, Soviet Life, Aug. 1966, at 6-7.

31. *First National Park*, Soviet Life, Aug. 1966, at 8.

State Planning Committee (Gosplan) to study all the available material and to draw up recommendations for Baykal.³² But as yet, the committee has not released any specific recommendations. Moreover, since the middle of 1966 relatively little on the controversy has appeared in Soviet publications. The outstanding exception to this was the August, 1966 issue of *Soviet Life* which as part of the larger subject of the relationship of man to his environment discussed the Baykal controversy at some length. However, this discussion for the most part consisted of a selected rehash of material previously published in the Soviet press and made no mention of any firm decisions regarding Baykal.

In spite of the difficulty of making firm predictions regarding the future of the lake, it is nevertheless worthwhile to point out some major factors that will weigh heavily on any final decision of the matter. First of all, operating to the advantage of the anti-plant group are a number of things. Most important is the indisputable fact that they have articulated their case very well. Indeed, there is little doubt that this excellent presentation has done much in winning widespread support for their position. Secondly, the case against the pulp plants is supported by a substantial body of scientific data indicating unequivocally that their operation will result in great harm being done to Baykal and its environs. Third, the opposition group, rather than basing its strategy strictly on arguments against the pulp plants, has developed a number of constructive proposals as to how to handle the Baykal area, and although somewhat vague, these could provide a starting point for more detailed future plans. Finally, the clumsy defense of the pulp plants made by spokesmen for the timber industry has also helped the opposition forces. For aside from the economic argument that the country will need more pulp in the 1970's, their case is somewhat weak, particularly regarding protection measures to be taken to ensure the preservation of Baykal and its surrounding area from industrial despoilation. Indeed, the adequacy of most of the latter has been thoroughly refuted, and in the process the proponents of the pulp combines have been made to look the part of liars.

However, to conclude that one or both of the projects will be abandoned is entirely unwarranted. For even though the pro-plant forces have not put up an adequate defense of the plants, a number of practical factors are operating in their favor and may in the end

32. *Baikal Waits*, Soviet Life, Aug. 1966, at 7.

nullify the opposition's convincing arguments against the combines.

In the first place the mills are already under construction and hence represent a significant capital investment. Consequently, to tear them down as has been proposed would mean a substantial monetary loss running into the tens or even hundreds of millions of rubles. Proposals to convert the plants to other uses would probably be less costly, but one wonders what these other uses would be and if they would not also endanger the lake.

Secondly, the pulp that the Baykalsk plant is to produce will be the basic raw material for a number of artificial fiber factories which are now either being constructed or expanded in Siberia.³³ Thus, to write off this installation necessitates finding new sources of supply for these other plants. Moreover, if new pulp supply sources cannot be located, it could very well result not only in failure to meet the production norms for the artificial fibers industry but also for the prime user of this material—the tire industry. When it is remembered that fulfillment of the economic plan traditionally has had the highest priority in the USSR, it is quite conceivable that the government in the name of economic expediency will yet find some rationale for allowing the completion and operation of at least this one plant.

Finally, a decision to stop the construction of the structures and declare the Baykal area a protected zone could result in demands that might be extremely difficult for the government to meet. Thus, Soviet conservationists spurred by their success in preventing pulp mill pollution might ask that all types of sewage be prevented from entering the lake. To accomplish this would necessitate industrial establishments as well as settlements along the lake's tributaries and shore, installing reliable waste treatment facilities, or closing up shop. Considering that there are already a number of industrial establishments and settlements so situated, either move would be quite expensive (Fig. 1). For example, only along the lake's major tributary—the Selenga—within 60 miles of its mouth, is found a large sawmill at Ilinka and the city of Ulan-Ude. The latter not only has a population of over 200,000, but a significant industrial structure which includes the largest meat packing plant in East Siberia.

Or, perhaps, there may be demands that further restrictions be placed on logging in the Baykal area in order to guarantee the prevention of erosion and to preserve the forested areas in their

33. E. Shuvalov, A. Moshkin & V. Zhuravlev, *Ekonomicheskaya Geografiya SSSR* 218 (1965).

natural state. Indeed, not only the prevention of clear-cutting but of all logging would seem to be necessary in the protected zone proposed to be created around Baykal if it is to have any meaning. However, such action would be a real blow to the local economy. For this area is presently a major source of timber for the forest industry of the Buryat Republic. And if it were completely removed from commercial exploitation, serious unemployment could result in this sector of the economy which employs 30% of the republic's total work force.³⁴

CONCLUSION

After completion of this manuscript, it was brought to the author's attention that the Soviet government in late December, 1966, accepted the plan to create a national park around Baykal. However, this action does not appear to signal an end to the controversy since the official statement did not rule out industrial development within the park but simply stated, "As far as industry is concerned, it will be allowed in the area provided and only provided, it does not detract from the beauty, health, or amenities of the area." Indeed, such a statement seems to be an "out" for the Soviet authorities from a very delicate situation and would seem to be intended to please both sides in the controversy without providing a real solution to the Baykal problem.³⁵

34. V. Krotov *et al.*, *Vostochnaya Sibir*, 703 (1963).

35. *USSR's First National Park*, *American Forests*, Jan. 1967, at 31, 49.