Provision of expert status for scientific institutions while making decisions on protection of Lake Baikal

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Abstract. Creation of international and Russian legal basis of Lake Baikal preservation and examples of prevention of its ecosystem threats are determined by professionalism and consolidation of scientific community, joint actions of Russian and international experts and NGOs. The examples of inclusion of Lake Baikal into the World Heritage Site list, adoption of the federal law “On protection of Lake Baikal” and transfer of the “Eastern Siberia - Pacific Ocean” oil pipeline, show the central role of subjective factor in decision making by authorities and consideration of opinion of scientific and expert community. Interests and actions of authorities in regards to global threats to the Lake Baikal ecosystem are studied. Having defined scientific community as the only institution that is capable to find ecologically safe solutions for development of Baikal region, it is necessary to integrate functions of the science as an expert body in decision making by authorities. The article includes a set of measures for achieving of common positions of scientific community based on the Scientific council on Lake Baikal problems, and for achieving of legal support of the council’s status as an expert body which position is considered in governmental decision making for Lake Baikal.

1. Introduction
Legal framework of the Lake Baikal protection is based on the Convention for the protection of the World cultural and natural heritage [1, 2] and Federal law of the Russian Federation “On protection of Lake Baikal” [3].

Scientists were inspirers, organizers and idea providers for creation of documents: in 1990 at the initiative of Head of Siberian branch of the Soviet Academy of sciences V.A. Koptyug and Director of limnological institute of the Soviet Academy of sciences M.A. Grachyev UNESCO formed a group of advisors to study unique qualities of Lake Baikal. In Conclusion [4] the advisory group reflected their unanimous opinion that Lake Baikal “to a great extent meets four main criteria as “an outstanding universal value”, worthy of inclusion into the List of world heritage”. Norms of admissible impact (unique document both by its legal status and by requirements) on the Lake Baikal ecosystem [5] are basis for the federal legislature on the Lake Baikal protection.

Development of the Federal law “On protection of Lake Baikal” was also initiated by Siberian scientists. The work was carried out from 1990 till 1999: more than 40 statutory wordings [6] were prepared during 10 year period, almost all specialists in neighbor fields of science and law took part in it; coordination work, formulation and justification of the Law’s norms were conducted by scientists of Siberian branch of the Russian academy of sciences. Many years of work on the Lake Baikal Law enabled to assess subjective factors as determinative ones in shaping of legislature on the Lake Baikal protection: scientific recognition of V.A. Koptyug in the Lake Baikal protection and leadership of
governor of Irkutsk region Yu. A. Nozhikov at the federal level became a support assurance in their ecologically oriented position in scientific society, in regions and federal agencies. Thus, personal factor ensured common position of science, society and relevant agencies.

Realization of norms of the federal law also depends upon certain people. For instance, special financing in Baikal protection since the year 2000 and resumption of work of the Interagency commission on the Lake Baikal protection since the year of 2007 would not be possible without State Duma deputy from Irkutsk region V.B. Shuba. In fact within the 2000 Federal budget he created a Target budget fund for the Lake Baikal protection, which was allocated by the Governmental commission on Baikal! In 2004 within the Federal law №122-FZ [7] there were amendments to the Federal law “On protection of Lake Baikal”, such as (article 15 FZ) “coordination body for harmonization of joint actions of relevant executive authorities”, what enabled to create Interagency commission.

Change of “Eastern Siberia - Pacific Ocean” oil pipeline routing was the largest and the most meaningful state decision, which prevented imminent threats to Lake Baikal. It was justified by ecological infeasibility of the project with the pipeline on an earthquake endangered zone 800 meters far from Baikal, as well as by suggestions on alternative versions of the project, based on compliance with international and Russian legislature related to the World heritage site.

That decision would not be possible without professional and uncompromising work of scientists: Ulomov V.I., Chegasov G.S., Kuzmin M.I., Kantorovich A.E., Antipov A.N., Trzhitsinsky Yu.B., Laverov N.P., Kolesnikov S.I. The decision proved the defining role of scientific community and its leaders, NGOs, big public outcries in the region involving leaders of regional authorities, and it also proved existence of the only single subject that makes decisions in key problems of Lake Baikal – personally the president of Russia [8].

2. Current threats to Lake Baikal and reasons of absence of ecological solutions

Analysis of science influence on the state actions in relation to current key problems in the Lake Baikal protection allows us to assess productivity of used instruments as insufficient. Despite significant scientific basis, special comprehensive expert conclusions done by institutes of the Russian academy of sciences, scientific opinion on current problems of Baikal is ignored. In 2017-2018 scientists of Siberian branch of the Russian academy of sciences developed expert conclusions on key problems, including expert assessment and proposals to the Federal project “Lake Baikal Preservation”, conclusion and proposals regarding problems of correction of ecosystem admissible impact norms, justification and proposals on setting of boundaries of the Lake Baikal water protection zone [9, 10], scientifically based assessments of impact of hydro constructions in Mongolia on the Selenga river basin and Lake Baikal [11]. Real success in achieving common position on problems of Mongolian hydropower construction impact on the Lake Baikal ecosystem is exceptional example, which shows practical possibilities of country’s ecological approach in modern conditions [15]. Key factor is building of national consolidated position and coordinated actions applying science based assessments.

Research on ecological crisis is studied by Limnological institute of Siberian branch of the Russian academy of sciences [12]. 2018 year brought the first practical result in Bolshiye Koty settlement, where filamentous algae square decreased [13]. In addition, research and development works within the federal target program were excluded; there is no shore zone monitoring; international talks on phosphate-free detergents use are not held; new waste treatment facilities on the shore are not constructed and existing ones do not meet the standards. There is no solution to a problem of closed Baikal paper plant [14].

In the light of global threats to the Lake Baikal ecosystem due to eutrophication of shore waters and serious risk from accumulated industrial wastes on geologically dangerous territory of the shore, decisions’ making and their realization for benefit of the Baikal ecosystem preservation are needed without any delay. However, current economic interests of Russian regions together with absence of responsibility for condition of unique ecosystem stimulate actions on weakening of existing legal
regime of the Lake Baikal protection. The federal authorities do not have effective legal and institutional instruments to secure economic efficiency of “ecological” decisions for Baikal. In such conditions the federal authorities are forced to legitimize the decrease of status of legal protection of Baikal: decrease of water protection zone territory, lowering of dangerous activity regulation and requirements for admissible impact, disregard of catastrophic threats to the ecosystem.

Absence of ecological priority in legislature led to failure of the Federal target program “Lake Baikal protection and socio-economic development of the Baikal nature territory”, what was officially detected by the Accounting chamber of the Russian Federation. In federal project “Preservation of Lake Baikal”, started in 2019, the major part of financing of waste treatment facilities falls to Irkutsk despite that the goal of the project is “ecological recovery of Lake Baikal”. It is obvious that this indicator stipulates financing of waste treatment objects, located on the Baikal nature territory, including atmospheric influence zone, what was written in certain activities.

3. Suggestions on provision of expert status for scientific institutes while making decisions by authorities

Scientific society is only institute able to suggest ecologically safe solutions on the Baikal region development. It is important that only science has abilities of an independent institute that is objectively interested in preservation of Lake Baikal and prevention of threats to its ecosystem.

Formation of institute for development and submission of consolidated science community position on the Lake Baikal protection problems is possible on the base of the Lake Baikal scientific council of Siberian branch of the Russian academy of sciences, providing that the institute has legal status of expert body and its position is considered in making any decisions concerning Lake Baikal. Realization of this proposal requires:

- Development and submission of consolidated positions of scientific community to authorities on behalf of Siberian branch of the Russian academy of sciences and its institutes. Positions are done within the scope of preparation and presentation of expert conclusions of the Scientific council as per requests from authorities and upon its own initiative regarding the Lake Baikal protection problems and development projects, which impact the Lake Baikal ecosystem.
- Establishment of legal status for the Scientific council on the Lake Baikal problems as an expert body that forms a consolidated position of scientific community in the sphere of the Lake Baikal protection. The council should be included in expert system of the Russian academy of sciences, what will allow fulfilling functions of approval of draft regulations of the Russian government on changes in federal programs, other normative acts in the sphere of the Lake Baikal protection.
- Legal, organizational and financial support of functioning of the Scientific council as an expert body.

4. Conclusion

Inclusion of Lake Baikal in the World heritage list, adoption of the Federal law “On protection of Lake Baikal” and change of “Eastern Siberia - Pacific Ocean” oil pipeline routing were determined not only by roles of personality of scientist-supporters, but as a result of alliance of scientists, public, local population, international organizations. Formation of institute for development and submission of consolidated science community position on the Lake Baikal protection problems is possible on the base of the Lake Baikal scientific council of Siberian branch of the Russian academy of sciences, providing that the institute has legal status of expert body and its position is considered in making any decisions concerning Lake Baikal.

Revival of mutual trust in scientific community, professional and objective researches for achieving common positions will create a basis for science’s influence on state decisions for benefit of the Lake Baikal preservation.
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