Formation of effective cooperation instruments for development projects in the Lake Baikal basin

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Abstract. Key factor of Russia-Mongolia conciliation procedures in development projects on the Lake Baikal basin territory is the status of Baikal as a World Heritage site. Both countries are the parties to the World heritage Convention. Hydropower construction projects in the Lake Baikal basin, which currently are under consideration, are indicative examples of elaboration of procedures in achievement of harmonized decisions of Russia and Mongolia with participation of international institutions. This paper gives analysis of problem solving instruments, as well as consolidated actions of authorities, science and the public in international talks on threat prevention in Baikal region. The paper emphasizes not only necessity of scientific support as one of the mandatory conditions of any cooperation, but also highlights formation of working groups and their mandates; different levels of talks for harmonization of views; interaction of science, regional and federal authorities; role of NGOs and citizens, public consultations. The following preliminary conclusions are justified: accomplished scientific and public actors can be a key element in harmonization of interests; there is a subjective factor that has a crucial significance – availability of specialists, who provide substantive work and organizational management of actions; it is reasonable to regulate main stages of harmonized actions with identification of existing legal and institutional instruments.

1. Introduction
The Lake Baikal’s status of World Heritage site [1] sets international requirements to member-countries of the world cultural and natural heritage Convention (Paris, 23 November 1972), inclusive obligations “not to take any deliberate actions that can be directly or indirectly damaging to cultural and natural heritage, located on territories of other member-countries of the Convention” (par. 3, Article 6), as well as “by joining the Convention, the member-country acknowledges the universal status of the World heritage sites and all countries must work together for their protection” (par.1, Article 6 of the Convention).

Mongolian hydrotechnical construction projects in the Selenga river transboundary basin, main tributary of Baikal, are object matter of active cooperation between Russia and Mongolia, as well as scientific organizations, the public and international society. During searching for mutually acceptable solutions there is a process of formation and practicing of effective cooperation instruments for development projects in the Lake Baikal basin.
2. Analysis and assessment of institutions influencing interstate decision making

The sense of analysis of responsibilities and actions of stakeholders in decision making in transboundary water resources development projects is: assessment of effectiveness of their influence instruments; determination of maximum effective ways to consolidate national actors; formation and provision of technologies of interstate interest harmonization; elaboration of suggestions on legitimization of effective technologies for harmonization of the Lake Baikal basin development projects; formulation of suggestions on introduction of amendments and additions to regulatory framework of the Russian Federation and regions in order to realize potential of different actors for preservation of Baikal and prevention of threats to its unique ecosystem.

Participation of international institutions is the fundamental factor of problem solution in the Lake Baikal basin [2]. Russia and Mongolia are parties to the Convention on the Wetlands of international importance especially as wildlife habitat (Ramsar, 2 February 1971) [3] and the Convention for the protection of the world cultural and natural heritage (Paris, 23 November 1972) [4]. Besides, Russia is a party to the Convention on the protection and use of transboundary watercourses and international lakes (Helsinki, 17 March 1992) [5].

Effectiveness of the World heritage institute [6] in solving of energy development problems in Mongolia enables us to use it as one of key instruments for prevention of potential threats to the Lake Baikal [7]: due to hydrotechnical construction plans in Mongolia potential impact of the Selenga river flow regulation on the object “Lake Baikal” is the key factor of Russia-Mongolia conciliation procedures. Since 2012 the World heritage Committee has been adopting resolutions for preservation of the World heritage site “Lake Baikal” with the focus on problems of potential impact on Baikal from planned hydro constructions in the Selenga river basin in Mongolia.

Besides the list of concrete actions, which have to be taken by member-countries of the Convention, the made decisions also include directives on preliminary harmonization of projects for their approval. The 2016 Decision [8] for Mongolia includes the following point: “Not approve any of the projects until the above – mentioned EIAs and assessment of cumulative impacts have been reviewed by the World Heritage Centre and IUCN”, and also message to Russia and Mongolia about collaborative development of Strategic ecological assessment for any future hydropower and water projects, which potentially can impact the object considering any existing and planned projects on territories of both countries. The World heritage committee (WHC) again confirmed its demands in Decision 41 at the 2017 session [9]. WHC decision impact is done through member-countries of the Convention, and the member-countries must follow the decisions made. Moreover, the countries must annually present the WHC decision compliance reports and reports on safe state of the World heritage sites and fulfillment of recommendations. In addition to interactions with official countries’ bodies, the WHC and the International Union for Conservation of Nature and Natural Resources (IUCN) cooperate with different experts and NGOs.

Due to development projects with use of water resources, bilateral relationships between Russia and Mongolia are directly regulated by the Protection and use of transboundary waters Agreement between government of the Russian Federation and government of Mongolia (Ulaanbaatar, 11 February 1995). Unfortunately, legal and institutional norms of the Agreement do not include effective and reliable instruments for prevention of ecological threats in the Russian Federation [10]. The main conceptual problem of the existing Agreement is the term “transboundary waters” [11], which includes only State border crossing rivers, streams, lakes and other surface water objects, as well as groundwater deposits (Article 1 of the Agreement). In this regard there are different definitions of planned projects qualifying them to the regulation sphere of this Agreement. Mongolia [12] and Russia [13] have different interpretations of achieved agreements. Correcting the norms in order to set the basin approach to scope of the Agreement will enable us to comprehensively consider all development projects. Another serious problem here is a mandate limited institutional mechanism of cooperation – institute of Plenipotentiaries [14], as well as that the Agreement lacks liabilities of the parties for consultations in elaboration of the Selenga basin water use and protection measures. Moreover, the former 1974 Agreement on rational use and protection of the Selenga river waters
(Moscow, 3 July 1974), which was terminated by adoption of the 1995 Agreement, stated that “Negotiating Parties without mutual understanding are not going to take water related actions, which could negatively impact the change of water regime and cleanliness of the Selenga river basin waters” (article 9). Recovery of this requirement in the existing bilateral Agreement will be a reliable guaranty of harmonized policy and measures of the Lake Baikal basin water use.

The existing bilateral agreement lacks mandatory provisions in project planning in transboundary basin of the Selenga River, as well as defined procedure of mutually acceptable decision takings. Therefore, it stipulates complicated and time consuming harmonization process, involving external and internal actors for achieving compromise for all interested social, economic and political groups in both countries.

Interests of the Russian Federation are expressed by competent federal executive authority in this field – Ministry of natural resources and environment of the Russian Federation, as well as Russian-Mongolian commission for economic-trade and scientific-technical cooperation, Meeting of government Plenipotentiaries of the Russian Federation and Mongolia on fulfillment of the Russian-Mongolian governmental Agreement on protection and use of transboundary waters, and Joint Russian-Mongolian working group on fulfillment of the Agreement. Due to above mentioned limitations discussion of impact of the Selenga river flow regulation, planned by Mongolia, at the intergovernmental meetings in 2012-2015 did not go beyond intents of elaboration of the possibilities to collaboratively study the projects considering possible ecological risks, and expression of concern from the Russian side [15].

In 2014-2015 scientific institutes of the Siberian branch of the Russian Academy of Sciences (primarily, Energy systems Institute of the SB RAS and Irkutsk Scientific center of the SB RAS) prepared formulation of the problem of assessment of impact on the Lake Baikal and Russian part of the Selenga river basin, done by water flow regulation in Mongolian part of the Selenga river basin. It was presented in 2015 in the Ministry of natural resources and environment of the Russian Federation at the sitting of expert group on assessment of the Lake Baikal ecosystem impact, done by Shuren hydropower construction project and other hydrotechnical construction projects, which are planned to be implemented on the Selenga river and its tributaries in Mongolia. Joint work of the Ministry of natural resources and environment of the Russian Federation and scientific institutions of the SB RAS, done in the framework of Interagency commission on the Lake Baikal protection, as well as in process of preparation and holding of special meetings and expert consultations of representatives of Russia and Mongolia, led to the ministerial decision on necessity of carrying out a targeted scientific research of this problem, which was included into 2016-2017 R&D scope of implementation of the Federal targeted program “Development of water industry of the Russian Federation in 2012-2020” [16]. The goal of the research was elaboration of science based assessments of how planned hydro constructions in Mongolia impact the transboundary basin of the Selenga river within the Russian territory [17]. The science based assessments and recommendations, resulted from research works, became the rationale for Russia’s position in negotiations with Mongolia, international organizations, international financial institutions.

Analysis of mandates and practical actions of authorized institutions enables us to make conclusions about productivity of negotiation positions under condition of joint efforts of the authorities and scientific organizations: political mandates and scientific justifications are complementary necessary conditions of formation of consolidated state position, what was the essential factor for beginning of productive Russian-Mongolian talks on problems of transboundary water projects in 2016-2017.

Considerable part of hydropower projects in Mongolia (for example, Shuren Hydropower project, Orkhon-Gobi drainage project) is financed by the World bank, which has to adhere to international Conventions as mandatory and endorsed norms of international law. Such are the Convention on environment impact assessment in transboundary context (Espoo, 25 February 1991), and UNECE Protocol on strategic environmental assessment(Kiev, 21 May 2003),for example, in cases when
realization of a certain strategic plan or program may lead to substantial ecological consequences outside the country of the plan or program.

Consideration of public opinion in decision making is an integral and principle requirement of above mentioned international legal acts, therefore those documents is an important instrument of influence on decisions of the World Bank. NGOs not only give an opinion of local community position, which can be concerned in a result of project realization, but also form and implement active interaction with international institutions, including WHC, UNESCO, IUCN. An opportunity of use of public impact on international financial institutions has a crucial significance: Greenpeace Russia and international coalition “Rivers without boundaries” managed to put the Hydropower construction projects in Mongolia for additional consideration in the World Bank. As a result, the projects were put for public discussion, and in spring 2017 there were public consultations in the Russian Federation (Buryatia and Irkutskaya oblast) [18]. Joint actions of the federal agencies, firstly, Ministry of natural resources and environment and Ministry of Energy, authorities of territorial entities of the Russian Federation, scientific community, NGOs, municipalities allowed to achieve a very important result – decision of the World Bank on procedural segregation of Regional ecological assessment (REA) of the planned projects considering existing hydropower projects in Mongolia and development of Environment impact assessment (EIA) and feasibility study, which will be elaborated only after preparation and harmonization of EIA results with Russian side.

3. Effective institutions of interstate interest alignment

Elaborated technologies of interaction of authorities, science and the public, based on existing mandates, qualifications, cooperation instruments, as well as full mutual trust, allowed for productive institute of Russian-Mongolian expert consultations with development of common ground for the main part of principal problems, what was introduced in Irkutsk in April 2018 at the Russian-Mongolian Working group meeting on comprehensive consideration of issues, coming from the hydrotechnical construction plans in Mongolian part of the Selenga river catchment area. Using exclusive instruments of each organization, participated in the alignment procedure, areas of responsibilities were identified and procedures of agreed solution development were carried out. The exclusive instruments are:

- Ministry of natural resources and environment of the Russian Federation – political functions, including interaction with diplomatic structures, international organizations and partner-country;
- Scientific organizations – development of science based assessments and justification of the country’s position; preparation, explanation and submission of content materials to authorities and the public;
- NGOs – interaction with international organizations, world financial institutions; collaboration with local population.

Other functions and joint actions were also distributed during preparations to the meeting (table 1). The main condition was full alignment of all actions of each party with other actors, as well as agreements on presentation of a common position from the Russian expert side, and management control of those agreements.

Besides Russian participants, mentioned in the table, who were involved in preparation and holding of the meeting, other designated federal and regional authorities took part in the event, as well coastal municipalities, scientific institutions, primarily located in the region and working with Mongolian scientific organizations, experts and employees of protected areas, etc. All mentioned experts and organizations worked in contact with key actors.

As a result of the meeting, the following principal positions were aligned by Russian and Mongolian experts:

- Execution of UNESCO World heritage committee decision on putting all planned hydrotechnical construction projects under consideration; as well as inclusion of a separate section about preservation of the Lake Baikal as the World heritage site;
• Involvement of Russian experts in elaboration and consideration of technical specifications for all stages of impact assessments;
• Formulation of main goal of the REA – assessment of projects’ realization tolerance and possibility of their implementation resignation;
• Deep study of alternatives to presented hydrotechnical construction projects; and others.

**Table 1.** Distribution of responsibility areas in preparation and holding of talks of Russian and Mongolian experts for consideration of REA project technical specification of the Selenga river hydrotechnical constructions

| Areas of responsibility          | Ministry of nature resources of Russia | Authorities of Irkutskaya oblast | Irkutsk Scientific center of the SB RAS | NGOs |
|---------------------------------|----------------------------------------|---------------------------------|----------------------------------------|------|
| **Political and official support** | Key functions                          | Support functions               | Support functions                      | Support functions |
| **Scientific researches**       | Coordination                           | Key functions                   |                                        |                  |
| **Analytical support**          | Coordination                           | Key functions                   | Key functions                          |                  |
| **Consultation management**     | Coordination                           | Key functions                   |                                        |                  |
| **Organizational support**      | Coordination                           | Key functions                   | Support functions                      |                  |
| **Funding**                     | Coordination                           | Key functions                   |                                        |                  |

In fact, considerable part of disputes was arranged. Thus, format of the meeting provided results that were maximum possible in current conditions of interstate negotiation positions. Basing on the achieved results one can make the following assessments:

• Productivity of interstate decision making in development projects in transboundary water basin is possible only under conditions of active official support from international bodies; eligible science based position of the state; political will of designated agency management; consolidation of authorities, science and NGOs; support of local population, municipalities and regions.
• Maximum effectiveness of national actors is possible only under conditions of use of exclusive mandates. Other functions and responsibilities should be fulfilled in interaction and alignment with other actors – stakeholders.
• High degree of trust among authorities, science and public leaders, from the view of professionalism and reliability of compliance with decisions.
• Format of expert meeting is productive under subjective conditions, such as: common position of national experts; professional conduct of discussion; qualified preparation of content materials.

Experience of interest harmonization among authorized experts from the countries of the Lake Baikal basin allows justifying suggestions on legal coverage of involvement of scientific organizations and NGOs in preparation of the state’s position in international talks, as well as their inclusion into coordination governmental bodies responsible for decision making on federal and regional levels. Realization of this suggestion is possible under condition of legal coverage for liabilities on
implementation of scientific research results, done according to government order, and appropriate funding.

4. Conclusion
The Lake Baikal is reckoned by world community as universal global merit; and this status sets high requirements to development projects in the Lake Baikal catchment basin, which includes territories of Russia and Mongolia.

The goal of current hydrotechnical construction plans in the Selenga river basin is energy security of Mongolia and water supply for population and industry. Elaboration of harmonized decision system with safety guarantees to the Lake Baikal will allow finding a solution to economic problems in Mongolia together with guaranties of prevention of the Lake Baikal ecosystem threats.

The project work is currently in progress, including processes within the scope of bilateral working and expert groups. A number of essential issues, which go together with achievement and realization of mutually acceptable decision, is worth paying attention to: media representation of projects and processes of solution searching, monitoring of decision realization by all stakeholders and financing of harmonized decision development.

Monitoring of harmonized decision realization – is the most important function, which is actually done by NGOs. Inclusion of obligation for submission of full and clear information into the normative requirements to preparation procedures of applied project can allow for timely and objective consideration of all stakeholders’ suggestions.

One of the principal issues of preparation of joint Russian-Mongolian mutually satisfactory development plans in the Lake Baikal basin is the financing of elaboration of such projects. Interests of the countries can be realized only under condition of equal or independent funding. Research works or projects carried out using the funds of one of the countries (for example, scientific researches on planned hydrotechnical construction impact done by the SB RAS using the Federal Targeted Program funds in Russia, research works on Egiin-Gol Hydropower plant impact on hydrological regime of the Selenga river and the Lake Baikal done by French-Belgian company «TRACTEBELEngineering» using the funding from Mongolian government)or using investments from one of the countries, always arouse mistrust.

Russia and Mongolia have positive experience of joint development of projects: Strategic Action Program [19] for the transboundary basin of the Lake Baikal as well as Transboundary Diagnostic Analysis [20] was elaborated in 2011-2015 within the scope of the Lake Baikal basin Project, implemented by United Nations Development Program. The project was endorsed by competent authorities in Russia and Mongolia, and was highly appraised by United Nations. Problems of use of transboundary water basins were not considered in this work due to political reasons. Resumption of joint work within the scope of UN program can currently be regarded as maximum independent formation instrument for mutually accepted decisions on securing interests of both countries in the sphere of use of the Lake Baikal basin water resources.

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