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## Frontier Encounters Knowledge and Practice at the Russian, Chinese and Mongolian Border

Open Book Publishers

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## 6. The Case of the Amur as a Cross-Border Zone of Illegality

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Publisher: Open Book Publishers  
Place of publication: Open Book Publishers  
Year of publication: 2012  
Published on OpenEdition Books: 1 June  
2015  
Serie: OBP collection  
Electronic ISBN: 9782821854055



<http://books.openedition.org>

### Electronic reference

RYZHOVA, Natalia. 6. *The Case of the Amur as a Cross-Border Zone of Illegality* In: *Frontier Encounters: Knowledge and Practice at the Russian, Chinese and Mongolian Border* [online]. Cambridge: Open Book Publishers, 2012 (generated 26 October 2017). Available on the Internet: <<http://books.openedition.org/obp/1533>>. ISBN: 9782821854055.

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# 6. The Case of the Amur as a Cross-Border Zone of Illegality

*Natalia Ryzhova*

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This chapter concerns poaching and other illegal fishing activities in the Amur, the border river separating Russia and China. Both Russian and Chinese citizens take part in these activities, which have greatly reduced the number of fish in the river.<sup>1</sup> Other factors have also significantly contributed to a reduction of fish stocks, such as industrial development on areas adjacent to the river, outdated technology, deforestation and generally poor environmental conditions. However, reports issued by Russian officials and media sources lead readers to believe that Chinese poachers have a particularly negative impact on the river and other natural resources.

The aim of this study is not to allocate blame but rather to reflect on what can be done in response to environmental degradation. Water resources are a classic example of natural “resources of general use” (common pool resources). It is precisely through the example of the catastrophic depletion of river resources that the so-called “tragedy of accessibility”

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1 Some ideas for this article were drawn by the author in the course of a discussion of the project “Property Rights in Extralegal Extraction of Natural Resources: Enforcement and Social Norms (study of cases in Russia, Kyrgyzstan, Tajikistan and Mongolia)”. I wish to thank Prof. A. Oleynik (Memorial University, Canada), Prof. F. Thoumi (United Nations International Narcotics Control Board), Sh. Abrorov (Tajik National University, Tajikistan), Dr. A. Dooranov (Kyrgyz National University, Kyrgyzstan), Dr. E. Lee (Institute of Economic Research, Far Eastern Department of the Russian Academy of Science, Russia), Dr. E. Nevzorova (Baikal State University, Russia), and O. Shagdarsüren (National University of Mongolia, Mongolia).

(Hardin 1968) is usually discussed. In essence, it considers that if a river is common, its resources will be drawn up until they are completely degraded. This involves factories discharging waste, farmers cultivating the soil and using agricultural chemicals, power stations modifying river outflows and fishermen eliminating first the most valuable fish then other breeds. Each “member of the community” (i.e. user) can, by increasing his burden on the river, increase his own income, and the resources of the river will be reduced slightly. However, if all users do the same, the impact on the resources of the river will be significantly higher. If a user reduces his consumption, the resources of the river will improve slightly, however his personal gain from it will be far lower than the amount of lost revenues. Studies for solutions to the “tragedy of accessibility” are being conducted in the social sphere, with the creation of incentives for the social unacceptability of predatory use of natural resources. Research by Nobel Prize winner Elinor Ostrom (1990) and her synthesis of other projects’ empirical results demonstrate that communities themselves, without government interference, find effective strategies that prevent the “tragedy” from occurring.

But what happens when shared resources are crosscut by state boundaries? What kind of incentive can the state create against predatory practices, when it sees the task of maintaining the border’s impassability as its first priority? In response to these questions, the chapter examines: the formal rules regulating fishing activities and the legal mechanisms ensuring effectiveness of these rules in the Russian Federation; informal fishing practices (i.e. those that violate applicable laws); and social enforcement (i.e. social norms ensuring the effectiveness of formal rules).

## **Enforcement of property rights to natural resources and informal practices**

According to Douglass C. North (2003), institutions make up formal rules, informal constraints and means of enforcement, i.e. procedures for ensuring the effectiveness of these restrictions. Studies conducted in countries with transition economies show that changes in formal rules and attempts to introduce institutions determining the economic life of society, radical changes in accepted social norms, and a transformation of former illegal practices into legally acceptable and recognised economic activity, have led to the prevalence of an informal economy in these countries.

Russia and China have not been spared these “side effects” of the transition to market economy, and an informal activity is developing not only in the sphere that is traditionally most “suitable” for this, such as in trade, public catering and the service sector, but in the sphere of nature management as well.<sup>2</sup> Of course, the informal use of natural resources is not an exceptional practice occurring only in China (or in the border regions of Russia). In varying degrees, it is common in both developed and developing countries, as well as in countries with transition economies. Research studies have described poaching practices in the context of Canada (Bodiguel 2002) and illegal gold and diamond mining and timber smuggling practices in Africa (International Labour Office 1999). The reasons for the prevalence of informal nature management are often understood by researchers to be found in ineffective legislation or the inefficient application of that legislation (Acheson 2006).

However, the quality of legislation and of legal enforcement (i.e. enforced through the courts or fines) is not wholly determined, not even to a significant extent, by the resolution of the problem of informal nature management. Aside from the legal support of formal rights, “informal” mechanisms exist that operate through social norms, civil society institutions, etc. North, as well as other researchers (Posner and Rasmusen 1999; Sobel 2006), have pointed out that formal, including market, institutions require the existence of special enforcement norms (and not associated only with written law) rooted in traditions, customs and religion, i.e. in social and moral norms. Contrasting the role of formal rules (such as their fluidity in the process of market transition) and social norms (e.g. survival rate of imported legal rights) in terms of their impact on the development of the informal economy, the authors agree that social norms take precedence.

The fact that social norms take precedence over legal enforcement is clear from everyday examples. It makes sense to expect that massive annual poaching of spawning fish will be more likely to occur in a society where the practice of poaching is morally acceptable and rests upon traditional economic norms than in a society where poaching nets constitute an historically forgotten and socially excluded anomaly.

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2 For example, the number of amateur “grey” companies exploiting various natural resources in China had reached 250 thousand tonnes by the twenty-first century, a quantity dozens of times higher than any country in the world for a similar index (International Labour Office 1999).

As transpires from academic and expert publications (Hentschel, Hruschka and Priester 2002), informal nature management is to a large extent characteristic of developing countries rather than developed nations. There are numerous reasons for this, such as poverty, technological archaism and weakness of political institutions. Other mechanisms of social enforcement are carried out through the media. On the one hand, newspapers and television provide a framework for discussions of social life and constitute a guide that takes up, disseminates and creates stereotypes, including the admissibility or inadmissibility of certain commercial practices. On the other hand, as a resolution to voters' lack of information, the media can exert a significant influence on political institutions and decisions, including in the field of environmental protection. A number of papers link the media (or more precisely the media's (in)corruptibility and freedom of speech) to political institutions and effective resolutions for the protection of the natural environment (Suphachalasai 2005).

The causes for the prevalence of the informal use of natural resources are frequently examined through the concepts of property rights theory, which are less well-defined in developing countries and in countries with a transition economy. Ronald H. Coase (1960) was one of the first to draw attention to the economic significance of ownership rights with a well-known "theorem". According to this theorem, externalities (the discrepancies between costs and benefits) occur only when property rights are poorly defined. Lack of clarity in property rights gives rise to conflicts between recipients of benefits and costs: in the case of air polluted by plant emissions, for example, costs are borne by the people living in the vicinity while benefits are drawn by the owners of the plant. According to Coase and his followers, a way to overcome externalities lies in the pre-definition of property rights. Yet if property rights are divided between various actors, who will prevent all owners from adopting opportunistic behaviour? It is after all reasonable to try and obtain additional benefits rather than to relinquish them.

The necessity to resolve this social dilemma is far more pressing when it comes to resources of common use (such as water resources from seas and rivers, common pastures, national parks, etc.). Common pool resources (CPR) may be available either for all or for only a limited number of individuals. The first alternative is referred to as CPR with open access (water in a river, air in a city), the second is CPR with restricted access (national parks). The situation in which a few individuals acting independently and rationally in the pursuit of their own interests, ultimately destroying the limited

common resources, is known in the scientific literature as the “tragedy of the commons/common accessibility”. This pessimistic view of CPR was first described in Garrett Hardin’s work (1968). He pointed out that ownership of public resources may take place if: a) the right to ownership was never established; b) the State has legalised it; c) there are no effective controls in place; and d) it is virtually impossible to implement it.

In the theoretical frameworks aimed at a resolution of the CPR dilemma, a key question has long remained: “Why do people choose (or should choose) a rule that will constrain or restrict their choice?” (Buchanan and Yon 1999). A large number of cases has accumulated, demonstrating that the resolution of this social dilemma takes place in the negotiation process, provided the community has the opportunity and time to organise itself. The outcome will be different if the resolution of the issue is attempted through coercion – by state intervention, for instance, and the nationalisation of resources (Ostrom, 1990). An overview of theoretical works suggests that the resolution of the problem of informal practices in the use of common pool resources is achievable through the resolution of the social issue of harmonisation between individual and common interests.

## Characteristics of the empirical basis

Given that the focus of this paper’s research interests are the institutional provision mechanisms (both legal and social) guaranteeing the implementation of standards in nature management, and that the media constitute one of the mechanisms to ensure this, empirical data will essentially be based on media materials.

This empirical basis will include:

- a. A *normative* basis (the Russian Constitution, the Water Code (*Vodny Codex*), federal laws relating to fishing and the state border, various regulations and agreements).
- b. An *official* basis – publications of the Russian Federation’s Federal Security Service (FSB) and the Federal Customs Service.<sup>3</sup> The choice to include these bases was informed by the fact that these

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3 The selection of cases was made on official websites of the Federal Customs Service (<http://www.customs.ru>) and the Federal Security Service (<http://www.fsb.ru>) with the keywords “China” and “resources” (for the period 2001–2010). From this sample were selected those texts in which border violations in the field of fish resources were reported – the total number of these cases was 18.

services are officially responsible for the ongoing representation in Russia of the fight against smuggling. This representation is limited by many objective and subjective factors, such as internal (customs management) or external (i.e. originating from the federal centre) policies concerning the frequency and nature of links to the public. However, these same constraints can be interpreted as advantages, given that formal regulations are supported not only by concrete strong actions, but also by congruent discursive practices. Accordingly, a change in the frequency of official reports about sanctions, or indications within those reports of an increase in the severity of penalties can be viewed as signals directed to adjust informal practices.<sup>4</sup>

- c. A *social* basis – authored publications in the media, posted on Internet sites, relating to violations of Russian fishing regulations by Chinese (“social China”) and Russian (“social Russia”) citizens.<sup>5</sup> If the bases of the FSB and the Federal Customs Service have been studied with a view to typifying and characterising informal practices, journalistic texts have been examined in order to study the characteristics of social enforcement. The number of authored newspaper pieces in each basis equals the number of statements in the official basis, totalling 36 texts.
- d. A *Chinese* basis – publications of the Chinese news agencies Xinhua and Renmin Ribao.<sup>6</sup> The idea to refer to these texts was to compare Chinese and Russian mass media from the point of view of social enforcement in respect to the resources of “common rivers”. Unfortunately, due to the small number of these texts, formal quantitative comparison is impossible and only a few qualitative conclusions have been drawn.

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4 “Lu Guisan was sentenced to 2 years imprisonment to be served in a penal colony. Note that this was *the first time* a sentence was passed for the smuggling of biological resources [emphasis added]. As a rule, criminals get off with fines or suspended sentence” (FCS 2006).

5 Media outlets include NTV (<http://www.ntv.ru>); RIA-novosti (<http://dv.rian.ru>); *Nezavisimaya gazeta* (<http://www.ng.ru/ngregions>); *Komsomolskaya Pravda* ([www.kp.ru/daily](http://www.kp.ru/daily)); *Amurskaya Pravda* ([www.amurpravda.ru](http://www.amurpravda.ru)); *Zolotoy rog* ([www.zrpress.ru](http://www.zrpress.ru)); *Teleport* (<http://www.teleport2001.ru>).

6 The search engines of the agencies Xinhuanews (<http://russian.news.cn>) and Peoples Daily Online (<http://russian.people.com.cn>) returned only five articles with the key words “fish”, “fishermen” and “Amur”.

- e. *Scientific* (Lyapustin, Pervushina and Fomenko 2010; Sherbina 2008; Vaisman and Fomenko 2006; Simonov and Dahmer 2008) – used for the typification of informal practices in the fishing industry. They are partly used for the qualitative characteristics of social enforcement, since scientific texts may also impact on the guarantee of regulation effectiveness.

Research methods have included a quantitative and qualitative content analysis using the software QDA Miner v.2.0.8 with the module WordStat v.5.1.12 developed by Provalis Research (Montreal).<sup>7</sup>

## Formal regulations and legal enforcement

Russian legislation includes a definition of the “right to common use of natural resources”: guaranteed by Article 42 of the Constitution of the Russian Federation is the freedom to use, in all liberty and without charge, the atmosphere, water resources, etc. Starting in 2004, Russian legislation on fisheries and water resources in general have improved and become stricter. Russian Federation’s Water Code of 03.06.2006 No. 74-FZ defines the right of citizens to common water resources (Article 88) as follows: “citizens are entitled to free use of water resources for personal and domestic needs (including movement and sojourn on strips of land in the vicinity of bodies of water to engage in amateur and sport fishing, and to moor marine equipment)”.

Also in existence is a law relating to *special use of natural resources*, which defines the possibility to use certain portions of natural resources in accordance with their intended purpose. Obtaining this right is subject to a fee. In addition to this code, these activities are regulated by Federal Law of 20 December 2004 No. 166-FZ “On fishery and conservation of marine biology resources”, as well as other legal acts (in particular, regulating industrial quotas and authorisations, zonal delimitations, etc.). In addition, legislative acts have also been developed and adopted, aiming

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7 In this study, a correlational dictionary was used. For example, to the one category “fishermen, to fish”, derivative words such as fisherman, fishermen, fish, fishing were also linked. When counting the number of cases of that category, it was calculated in how many texts the category occurred: for example, the category “poacher” was found in 11 (61%) of the 18 official texts in and 12 (67%) of the 18 informal texts. When counting the number of mentions, it was calculated how many times each category was found in the total number of words of the given base. For example, the category “Chinese” was found 50 times in the “official” base, which contains 2034 words.



at strengthening accountability with respect to poaching. Thus, the Federal Law "On the introduction of amendments to the Code of the Russian Federation concerning administrative violations" has increased sanctions for violations of fishing regulations.

In principle, amateur and sport fishing is free, but each angler must have the appropriate ticket, as well as the right to operate motor boats (if used). In recent years, this type of activity has become much more regulated. Thus, for instance, the Federal Fisheries Agency may (and should): impose bans on fishing in certain areas for certain species of fish, and even certain categories of citizens (fishing being allowed for example for children under 16 years of age or pensioners older than 70); close off some areas for certain periods (e.g. during spawning); limit the minimum/maximum dimensions and weight of fish caught; determine the types, quantities, designs and mesh sizes of authorised instruments and catching methods, including the types of vessels and times of use. To catch certain species of fish within the context of recreational fishing, a licence (special permit) may be required, and will be subject to a fee. Violation of these restrictions may incur administrative and criminal liability. Article 256 of the Criminal Code "Illegal fishing of aquatic animals and plants" allows for fines ranging from 100 to 500 thousand roubles, or imprisonment for up to two years; Part 2 of Article 8.37 of the Administrative Code of the Russian Federation, "Violation of the rules regulating the use of wildlife", introduces a penalty of one to two thousand roubles and confiscation of the vessel and other fishing equipment.

Industrial fishing (fisheries) involves the commercial harvesting (catching) of marine biological resources through the use of special means of quality control, processing, handling, transportation and storage of catches and their by-products. The right to use aquatic biological resources is based on the authorisation to harvest (catch) aquatic biological resources and agreement on the use of fishing sites. Some contradictions exist between amateur and commercial fishing. On the one hand, licensees frequently engage in uncontrolled and predatory fishing, thereby restricting access of amateur fishermen to water sites, and, in some cases, leaseholders demand illegal additional fees for fishing at water sites allocated to commercial usage. On the other hand, commercial fishermen point out that amateur fishermen frequently engage in poaching and pollute waterways and river banks.

To return to the issue of fishing in the border river, it should also be noted that active legislation has banned the harvesting of aquatic biological resources by foreign individuals. Of course, Chinese citizens engaging in poaching activities in Russian waters violate the legislation

for the provision of the integrity and sovereignty of Russia's state borders. An agreement "On cooperation in the field of conservation, management and reproduction of living aquatic resources in the Amur and Ussuri border rivers", was signed on 27 May 1994 between the governments of Russia and China. According to this document, the conservation and reproduction of fish stocks and the regulation of fishing activities with regards to the protection of biological resources take place within the framework of the protection of national borders. In order to implement this document, an operation called "Fishing-season-Amur", previously known as "East" and "Frontier", is carried out every year.

The main actor implementing legal enforcement in the sphere of fishing activities is the state inspector for fish conservation. If we are talking about informal fishing activities in the border river, then the provision of formal regulations is also guaranteed by border and other services of the FSB, and, for contraband fishing production, by the customs authorities. Additionally, in the course of special campaigns aiming to curb smuggling, the Ministry of the Interior, the Ministry for the Environment, the Ministry for Agriculture and other departments and agencies are also involved.

Chinese legislation, in contrast to Russian legislation, includes stricter sanctions (including the death penalty for the smuggling of tigers, pandas and wild Asian elephants) in respect to violations of environmental legislation. At the same time it allows for criminal, administrative and disciplinary sanctions not only within the law, like the Russian Criminal Code and Administrative Code, but also directly in the legislative acts governing customs and the use and protection of natural resources (Lyapustin, Pervushina and Fomenko 2010: 53). In China, the State Council's acting Committee for wildlife plays an active role and public security bodies are actively involved in the control of implementation of legislation relating to environment protection (ibid.: 47).

China and Russia regularly hold meetings and engage in joint campaigns aimed at reducing the number of cases of poaching and smuggling of fish resources from Russia to China. However, despite attempts to harmonise legal enforcement, and regardless of the tightening of applicable sanctions, poaching remains widespread, and every year the situation is only getting worse:

The ubiquitous and widespread nature of poaching, whose aim is frequently to prepare production for subsequent contraband, has been highlighted by the results of activities carried out within the environmental framework of the Ministry for the Environment, the Ministry for

Agriculture and the Federal Agency for Fishing. Information originating from all stakeholders in the Far Eastern federal district, demonstrates the massive amount of illicit acts. According to data by the administration of the Primorye region, in 2008 over 700 raids were carried out to curb poaching, in the course of which around 600 violations of the legislation relating to environmental protection were found, including poaching. As a result of the activities undertaken, over 50 species of illegally caught animals were confiscated. In 2009, following weekly anti-poaching raids in the Primorye, 981 offences were found. In the region of Khabarovsk, in 2008, 686 crimes were identified, just in the area of illicit traffic of aquatic biological resources (they numbered 618 in 2007) (Lyapustin, Pervushina and Fomenko 2010: 23).

Concrete methods exist to legally enforce formal rules (analysis of publications of the “official” base): in five out of eighteen of the cases analysed, the FSB declared the launch of a criminal investigation. Criminal cases, recorded in the database, mostly involved violations of the state border and the smuggling of large quantities of fish, but did not include poaching. Russian legislation does not allow for criminal prosecution for illegal trafficking in fish, only for its illegal production. Therefore, all poachers (Russian or Chinese), who do not have nets in their boats, can claim that they “found” the fish, “decided to look after it”, “were surprised to find the fish in the boat when they returned from dinner”, etc.

The main sanction for Chinese citizens is the confiscation of their equipment, and, in some cases, boats, as well as short-term detention and subsequent transfer to the Chinese authorities. In only one case out of eighteen, the FSB announced a sentence, which, incidentally, was also relatively mild:

“The tribunal of the Amur region sentenced to three months’ detention two citizens of China for violating Russia’s state borders... The court sentenced the perpetrators to a period of three months’ imprisonment, to be served in a penal colony. Given that they were detained during preliminary investigations, the sentence has already been served by the prisoners. They were therefore released and left Russia’s territory” (FSS 2004b).

The changes in the legislation and mechanisms for its enforcement implemented in Russia and China and resulting from negotiation processes, do not lead to a decrease in cases of poaching and appear in fact to merely exacerbate the social dilemma of differences between individual and public interests.

## Informal practices in fishing activities

The analysis of the “official” basis of the FSB and Federal Customs Service shows that, as indicated by official documents regarding the poaching and smuggling of fish resources, up to 25% of all violations occur on the Russian-Chinese border (followed in second place by forests, then sea products, wildlife and flora, then finally minerals). Nonetheless, official statistics indicate that forests are the main resource for which regulations are violated (Lyapustin and Fomenko 2003).

Of course, informal fishing on the Amur border river has a long history (Lyapustin 2006). Given that informal economic activities aim at avoiding the costs linked to compliance with laws and administrative regulations, we can say that informal fishing on the border river began with the creation, in the Russian Empire, of formal rules regarding the use of natural resources in the Far East. At the turn of the twentieth century, there were illegal (i.e., in violation of the law) cross-boundary practices: in particular in relation to fishing by Chinese nationals of the most valuable fish species in inland Russian waters and exploitation of the indigenous population for this purpose. However, until 1 January 1913, i.e. until the abolition of the 50-verst free-trade strip, fishing in the Amur River had a more *extralegal* character (i.e. unregulated by applicable legislation): the Chinese harvested, bought and exported without duties resources such as fish (Lyapustin and Fomenko 2003).

Changes in the existing rules, as well as the socio-economic and political turmoil in the pre-revolutionary, Soviet and post-Soviet periods, did not inhibit access to fishing resources in the Amur River by Chinese citizens, although an extremely strict enforcement in the 1960s-1980s did reduce illegal (from the point of view of Russian legislation) Chinese activities along the Russian bank, which due to particularities of the riverbed, is richer than the Chinese side.

It would be nonetheless naïve to imagine that Soviet citizens were not involved in informal fishing practices. They did not have any economic stimulus to fish on the Chinese side. They had, however, numerous reasons to engage in illegal fishing practices on their “own shore”. Moreover, prohibitions introduced in the Soviet period and at other times frequently contribute directly to the creation of informal rules:

On ‘average’, in the 70’s and 80’s, the catching of [mandarin fish] was probably a sporadic occurrence... [sometimes] up to a quarter of the fish caught with

floating nets were mandarin fish. However, because of the ban on catching them, the mandarin fish caught by fishermen for personal consumption and through commercial fishing was not included in statistics... In our assessment, the effectiveness of all these prohibitions is very low... when there were indeed very few (until the mid 1990's), fishermen did not release the *zheltoschyok* [*Elopichthys bambusa*] they caught (it seemed silly to release fish that was dead or half-dead). In addition, it is impossible to follow every single fisherman, and *zheltoschyok* is considered a delicacy by many residents of the Amur. Since during the Soviet period it was difficult to sell 'red book species' officially, the *zheltoschyok* caught by fishing companies ended up in the homes of fishermen (Novomodnyi, Zolotukhin and Sharov 2004: 19).

"Pilfering" was just one form of the informal economy of Soviet times. Fish brought home (as well as any other commodity) became the subject of monetary and non-monetary forms of exchange. However, emerging informal practices became fixed over time, and changes in formal rules (e.g. transition to the market) just created a terrain for its transformation. Indeed, during the economic collapse, when Far Eastern fishermen as well as other workers did not receive their salaries for several months, a survival mechanism emerged on its own. As a result of this and other reasons, various informal and illegal practices consolidated, were becoming a tradition.

The Amur fish resources were dealt with in a "traditional" manner, i.e. they were exploited highly intensively both on the Russian and Chinese territories. As a result of official and unofficial fishing, stocks showed continual decline and by 1970, no longer reached 2000 tons (see Fig. 1).

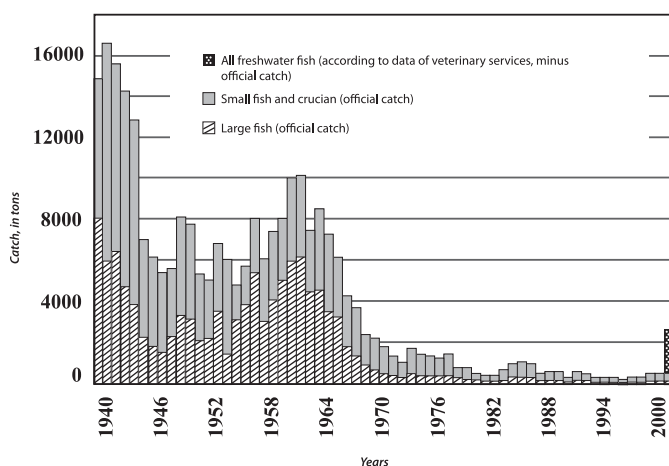


Fig. 1 Evolution of Amur fish caught through nets (source: Novomodnyi, Zolotukhin and Sharov 2004: 8)

Here, the consensus among researchers is that China has consistently used rivers' biological resources more actively than Russia, due to the vast population living on Chinese territories:

As is well-known, in China's Heilongjiang Province, in areas adjacent to the Amur, fishing and fish farming constitute some of the key industries. Further, in the second half of the 20th century, and especially in the past two decades, the province's population has grown significantly. Under the impact of intensive fishing and environmental changes, sturgeon, salmon and several other species of fish have gradually disappeared from the Songhua River. The number of sturgeons in the upper and middle Amur have also decreased significantly. In the mid-1960s, a strategy was adopted in the province to expand the fish farming sector as an alternative to fishing, and by 2002 the fishing industry already represented just 12% of the total fish production in the region (over 400 thousand tons) (Novomodnyi, Zolotukhin and Sharov 2004: 28).

Despite the greater activity of Chinese fishermen, their activities on their bank of the river are, as a rule, mostly circumscribed to the realm of formal regulations. Levels of poaching in China are significantly lower than in Russia. (Lyapustin, Pervushina and Fomenko 2010). In Russia, illegal catches exceed official ones, and the volume of poaching, particularly the illegal fishing of sturgeon, is constantly on the increase. Research on the informal economy is always confronted with the task of evaluating its volume in absolute and/or relative terms. According to Amur'yev's data, poaching in the Amur River exceeds legal activities by a factor of two-three (Khabarovskiy krai 2009). These estimates are probably inaccurate. The official catch of chum salmon in the Amur was less than a thousand tonnes in 1999, but according to the methodically justified estimates of Pacific Scientific Research Fisheries Centre (PSRFC) specialists (Novomodnyi, Zolotukhin and Sharov 2004) the consumptive catch of autumnal salmon in the area of the Amur, a length of 1,200 km, amounted to about nine tonnes in 1990. In other words, the discrepancy is already nine times wider, but to this must be added the illegal trafficking of sturgeon, including caviar, as well as other fish (mandarin fish, *zheltoschyok*, catfish, etc.). According to PSRFC's conservative estimates, the illegal catch, just for sturgeon and only in the main part of the river, was not less than 750 tonnes in 1990. Thus, the excess of informal trafficking of fish over formal activities is to be multiplied by at least ten.

Extralegal fishing practices along the Russian riverbank include:

- fishing without documentation for personal consumption, including prohibited species, through prohibited means, etc.;

- use and appropriation of unlimited fishing rights for industrial aims by representatives of indigenous and minority peoples;
- small-enterprise catch by unregistered groups;
- bribery of people in charge, procuring extralegal fishing;
- non-observance of the border regime, creation of networks in Russian waters; and
- reciprocal exchanges with regulatory officials (inspectors and individuals responsible for legal enforcement can trade the fish themselves and, through personal agreements, establish “acceptable” and “unacceptable” forms of violations; such informal contracts being reinforced by reciprocal links – you scratch my back and I’ll scratch yours – beyond monetary exchanges).

Practices ensuring extralegal trade include:

- purchase of fish obtained by extralegal means, “legalisation” through use of forged documents, and export to China;
- smuggling of caviar, including live and fertilised, for consumption and breeding purposes;
- smuggling of fish products, including fish prohibited by Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES);
- extralegal delivery of fish products to points of sale;
- processing of fish, sea products and caviar for small-enterprise purposes (cutting, salting, packaging), without issue of the documentation appropriate to conducting such business;
- creation of enterprises carrying out illegal traffic in fish products, including businesses registered to figureheads; and
- trade without documents or with forged documents (including under the guise of products confiscated by conservation organisations).

Many practices are to some extent connected with cross-border exchanges – fish caught illegally are sent to China using false documents:

“In the course of search operations, it was revealed that the CEO of one of Vladivostok firms, had acquired for profit more than 127 tonnes of frozen salmon and about 65 tonnes of salt without any documents and had signed a contract with a Chinese firm for the supply of this fish. To obtain the necessary documents for export, three certificates of quality issued by another firm were presented to the Primorye office for Rossel’khoznadzor [Russian Agricultural Council]. On the basis of these documents, veterinary



certificates were obtained. To make it look as described in the accompanying papers, on the order of the CEO, the entire fish production was packed into bags tagged with the name of the company listed in the fake quality documentation. After that, the dishonest dealers registered the cargo as export, and part of the cargo was sent to China. But when they attempted to send another batch of vehicles with the fish products, they were detained simultaneously in three places by the Far Eastern Customs Service: in Ussuriysk, in Vladivostok and in the Khasan area..." (FCS 2010).

The FSB and the Federal Customs Service reported informal fishing practices in Russian waters by Chinese citizens, and in particular concerning: Chinese fishermen obstructing the Amur with their nets and not complying with the border regime; buying of illegally obtained fish for export to China, smuggling of fish products; organisation of informal small-enterprise teams on both sides of the river; and the creation of enterprises involved in illegal fishing and/or fish export, including businesses registered to figureheads.

Fishing on the opposite (Russian) coast is the most common practices of the *private* (i.e. non-commercial) use of cross-border natural resources by citizens of the PRC. The aspiration of Chinese to catch fish on Russian territory is due to the fact that, in China, former fishing grounds are significantly regulated by dams, are degraded by industrial pollution, and wild fish populations have been legally and extensively fished for many years, for both commercial and domestic purposes. As a result, many species of fish have disappeared. On the Russian side legal fishing has always been limited, and industrial and agricultural pollution has been lower.

Every year, jointly agreed periods of total fishing ban are set with the aim of preserving fish stocks' reproduction. During these periods, operations are carried out by the Russian border guards in conjunction with other services to halt these types of activities (commonly known as the Fishing-season-Amur special campaign). The majority of the reports in the analysed basis were made precisely during that campaign: from 11 June to 15 July 2003, more than 70 boats with Chinese citizens were detained (FSS 2006); in 2001, over the same period, 40 charges were made (FSS 2001); in 2006, in one day, about 500 fishermen went fishing on 180 boats (FSS 2006b).

Both "amateurs" and "professional teams" are involved in informal fishing activities. Even when they hold an official licence, "professional" fishing teams often do not respect the periods and locations specified on the licence, evade fiscal payments and also fail to respect employment requirements for their employees. The seasonal work of paid fisherman is extremely



difficult, requiring great physical and moral strength (every evening and early morning the fishermen place and remove the nets and all day gut and salt the fish), and in case of sickness or other *force majeure* they are not remunerated. Sometimes, Chinese are hired to carry out such work:

“In the Far Eastern region, on the Amur River, in the area of Smidovichesky in the Jewish Autonomous Region, border guards foiled an attempt by a group of poachers consisting in five Chinese and three Russians to fish salmon... As it turned out, a local entrepreneur had organised an international group of poachers. He had hired some Chinese who had come to Russia on a visa but did not have the right to be in the border area and had promised them a solid reward if the plan to fish salmon was successful. The detained poachers were transferred to law enforcement authorities for trial” (FSS 2004a).

Prior to the recent changes in legislation differentiating between amateur and commercial fishermen, a clear “dividing line” existed, and it never occurred to those who engaged in commercial production to call themselves “amateurs”. Following changes in legislation, it became beneficial to informal traders to be registered as amateurs. The head of Federal Agency for Fishing declared: “a sub-category of fishermen has now emerged who catches dozens or hundreds of kilos of fish. When our service for the conservation of fish detains them, they say – we are amateur fishermen, we have the right... one hundred, two hundred, three hundred kilos of fish” (Newsland 2010).

In terms of legislation, the Chinese fishermen who are active on Russian territory can not in any case be classified as “amateurs”. It would be interesting nonetheless to find out to what extent this activity is commercial or private. Out of the eighteen cases, the FSB pointed out in fourteen of them that they had caught a group of people. However, it is far from clear in these cases whether these violations constitute an individual strategy or whether they represent a particular operation through a business scheme. For example, the following quote mentions a specific “Chinese citizen”, however the volume and price of the exports points to a commercial nature of the operation:

“Employees of the office of the FSB for the Jewish Autonomous Region foiled an attempt yesterday to smuggle a large cargo of Amur sturgeons and kalugas into China. In a private house in Birobidzhan 1,300 kilos of fish were discovered. According to the owner of the house, the fish was hidden by a Chinese citizen who had promised to take the goods to China this week. FSB Public relations officer Sergey Dorofeev said that the value of the fish which the Chinese had, in all likelihood, purchased from poachers, is estimated at 130 thousand roubles. In China, its value is considerably higher” (FSS 2002).

On the other hand, if it is reported that a group of offenders has been caught, it does not necessarily indicate affiliation to a commercial entity:

“Two citizens of China were sentenced to three months imprisonment by a court in the Amur region for a violation of Russia’s state borders. The regional office of the FSB reported that in June the Chinese were detained by border guards in the Svobodnensky area in the upper Amur, 118 kilometres downstream, near the Russian coast as they were poaching fish. A wooden rowing boat and fishing equipment were confiscated from the perpetrators. The court sentenced them to a period of imprisonment of three months to be served in a penal colony. Given that they were detained during preliminary investigations, the sentence has already been served by the prisoners. They were therefore released and have left Russia’s territory” (FSS 2004b).

Judging from the temporal dynamics of communications, an illegal commercial activity was recently actualised for the purpose of export to China. This conclusion is confirmed by a study by Sergey N. Lyapustin (2006). The informal export of fish is based on the use of forged documents. Both Russian and Chinese firms can act as exporters:

“At once, 5 criminal cases were filed by Sakhalin customs regarding the procurement of fish products. In the course of a few years, more than 1500 tonnes of frozen humpback salmon, squid and plaice have been delivered to China and the Republic of Korea through fraudulent documents. The total amount of smuggled sea products amounted to more than 34 million roubles...” (FCS 2009).

The following is a schematic diagram illustrating how extralegal practices are coordinated from the date of purchase (procurement) of fish until it is exported (Fig. 2). In the first stage, in order to avoid penalties, extralegal actors (members of indigenous communities, individuals, small groups) bribe inspectors. As a result, fish is not confiscated and can be traded. The fish production is then bought by firms specialising in export. The purchased illegal goods need to be legalised. To this end, the firm can use documents registered to other companies. The presence of registered documents can also be explained through ties to organisations issuing veterinary certificates, quality control certificates, etc. As a result, exporting firms are able to submit documents to customs for export of fish products, for instance to China. The registration of the paperwork at the customs may also be accompanied by bribes – for example, to accelerate the completion of procedures. Finally, the “properly” registered fish is supplied to consumers in another country. In this scheme, the key role is played by the “exporting firm”, which is “registered” in the name of a Russian citizen. However that

citizen may simply be a figurehead while the actual owner is a Chinese (or other) importing firm. Of course, this scheme is not unique, either in terms of interaction or its key players.

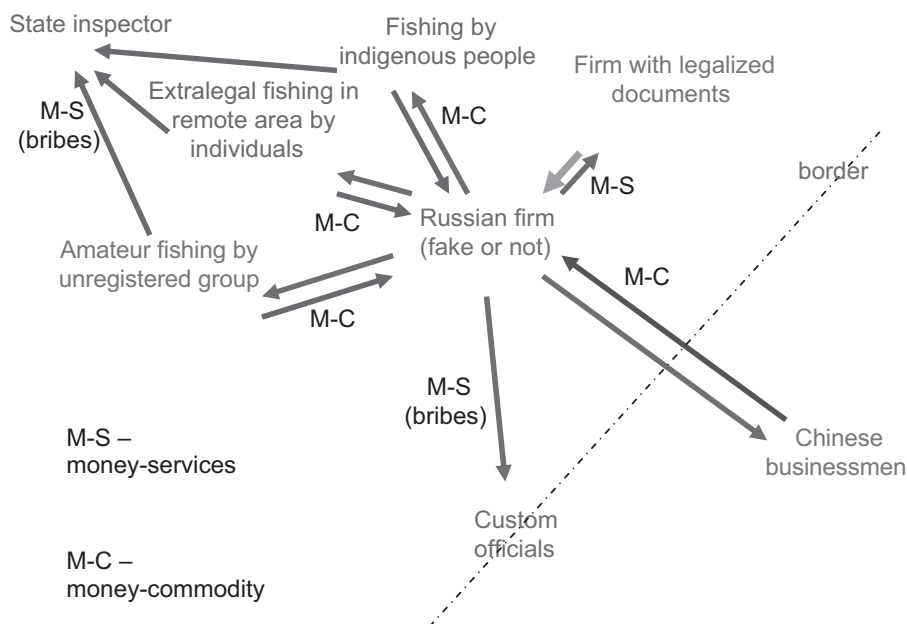


Fig. 2 Illustration of the coordination of extralegal fish traffic

A comparison of informal practices of Chinese and Russian fishing activities shows that both sides are actively involved in the predatory use of fishing resources in the river across the border. Informal fishing practices are based on traditions and historical continuity and, consequently, social norms exist that provide legitimacy (recognition) of informal rules. Tightening of legal enforcement does not affect practices, something which can be explained if we accept the fact that the main reason for the existence of the illegal economy is the desire of market participants to overcome state pressure. So what is the solution?

## Social enforcement

Following Ostrom's (1990) theoretical concepts for solving the problems of collective action, a solution may be found by coordinating private and public interests given that "societies" (or stakeholder groups) have in this case very different motivations. The most significant conflict of river

interests is between Chinese and Russian communities. China strives to maintain fishing activities in the border zone with Russia, stressing that representatives of ethnic groups should not be banned from fishing. Russia seeks to restrict Chinese fishing because the fish generally passes by the Russian bank. It is necessary for China to guarantee work to its population, but it does not have the possibility to invest in environmental projects – thus the greater part of Chinese industry does not have treatment plants. And Russia wants to protect water resources from harmful Chinese emissions.

Let us consider for a moment how the difference between these interests is reflected in the mass-media, which, as I pointed out in the theoretical review, can constitute one of the very mechanisms of social enforcement. A quantitative content analysis of the “official” and “social China” basis revealed a similarity between them in respect to the criterion of word frequency. In official reports, the most common categories encountered are: China, Russia, detain, poacher, frontier, FSB, fish, Amur, border and boat. In newspaper publications about Chinese poachers, the categories are: Amur, Russia, fish, China, poacher, border authorities, fishermen, river, border and violation. Of the 45 categories most frequently encountered in official publications, about 35 (or 80%) are also found in the “informal” basis. Conversely, of the 45 categories most commonly encountered in newspaper publications, 32 (or 88%) of them occur in the “official” basis.

The prevalence of all usage categories reaches a level of statistical significance here, i.e. the revealed similarity takes on a systematic character. But if such a selection of categories for official publications is logical (after all, the publications of the FSB and Federal Customs Service report discovered violations), their unusual consistency with unofficial publications points in all likelihood to the adoption of official stock phrases by journalists. Does this constitute simply an extension of legal enforcement or does it reflect the journalists’ weak interest in covering this topic? Or could it point to a lack of freedom [of speech], both in the selection of topics and their coverage? If the latter is correct, then one may surmise that the media unduly contribute to social enforcement. To answer these questions more research is evidently required.

Interesting conclusions can be drawn by analysing the context of the categories emphasised in the texts. Official publications do not have an emotional colour, they point dryly to the Chinese fishermen’s violation of Russia’s territorial borders and attempts to export resources to China: “prevention of export of large cargoes to **China**”; “were taken to **China** in

the space of a few years"; "part of the shipment was exported to **China**"; "served their sentence in **Russia**"; "Chinese **fishermen** showed fierce opposition"; "the **fishermen** violated the national border"; and "the **fishermen** who violated the border defended themselves".

Newspaper articles reporting on the same facts, but using such phrases, paint a far more pessimistic, and sometimes disastrous picture: "Chinese **fishermen** ignore the border"; "investigations lead to some organisation in **China** aiming to take over"; "for that kind of crime in **China** they get their heads chopped off..."; "some restrictions were introduced for the Amur sturgeon at least, but in **China** fishing of king-fish is allowed in any quantity"; "sentences that are passed in **China** for border violations are very strict"; "by contrast **Russia** has no laws to protect goldfish"; and "to take over the waters still belonging to **Russia**...".

Linguistic devices inciting phobia in order to maintain the unacceptability of Chinese poaching are common. "Factual" evidence is also employed for these aims, provoking widespread, often negative, discussion of the transfer of islands to China:

"The fact is that Chinese fishermen, even before the demarcation of the area of Tarabarov and Bolshoi Ussurii islands, began to take over the waters still belonging to Russia. Border guards claim that poachers in the area began to violently resist arrest, arguing that they were catching 'their own fish in their own territory'" (Sergeev 2005).

The media discusses negatively not only the poaching carried out in Russian waters, but more generally any fishing activities in the Amur by the Chinese, including those carried out in their own waters:

"Khabarovsk residents have heard that our Chinese neighbours exploit the fish stocks of the Amur far more actively than us... stating that the Chinese and us have different attitudes to the river – is not saying anything new, Sergey Denisovich argues" (Pimin 2000).

Interestingly, certain scientific texts (which because of their paucity were not analysed quantitatively) include similar rhetoric:

"Poaching by Chinese fishermen is the scourge of the Middle Amur. Uncoordinated with the Russian side, the construction of dams on the Chinese coast will lead to an intensification of the erosion of our coast. In fact, China will certainly play a leading role in the ecological destabilisation of the Amur basin and of the river itself. If Russia and China do not take action, the additional human impacts on the larger ecosystem of the Amur basin may lead to a regional environmental crisis even without any dams on the main riverbed" (Podolskiy and Gotvinskiy 2007).

The social basis of texts that discuss or mention Russian poaching on the Amur River differs significantly in terms of words most frequently used and include the following categories: fish, roubles, thousands, poacher, Amur, Russia, market, goods and the past. Overall, these texts show much more diversity in both form and content and deal with characteristic stocks, the consumer market and its security problems and market competition with China: “this year red **fish** is increasingly directed towards Beijing”; “but even the increase in domestic prices in **Russia** in comparison to **China** does not bring more humpback salmon to native stalls”; “but Russians do not see it on their shelves or tables”; and “**Chinese** businesses quickly pay for goods delivered and, if necessary, in cash, unlike **Russian** companies”. They also note that poachers only play a secondary role: “The number of **poachers** in the lower reaches of the Amur River has decreased significantly”; “200 fishing enterprises and national communities, let alone **poachers**, fish in the lower reaches of the Amur”; and “half are caught by **poachers** and by the unemployed population.”

It is interesting that a few texts about fishing activities on the Amur border river published on the Russian-speaking Chinese sites give a sense of “acknowledgement” by their neighbours of their guilt. Contextual use of categories most frequently encountered underscore the social significance of fishing for local populations (ethnic groups, descendants of fishermen), and of the ongoing efforts to increase fish stocks which were previously destroyed in a predatory manner: “The **border** line between **China** and **Russia** had been fully settled”; “**Chinese fishing** industries foster the protection of rare types of **fish** that live in the Heilongjiang”; “this is the third release of **young fish** organised by the **Chinese** government”; “more than 20 tons of quality **young fish** are found in this river”; “**Fish from the river** represents the main source of income for local residents”; “her father is a **fisherman**, a husband – a veteran”; “**fisherman** Guan Sanchen, a member of the Xibo ethnic group”; “there, as before, the population engages in **fishing** activities”; “**Russia** and **China** are world powers”; “**China** and **Russia** act jointly”; and “on both sides of the border one find **Russian** and **Chinese** houses”.

In general, when comparing the basis of publications on Chinese and Russian poaching, the conclusion can be reached that Chinese poaching is considerably more widespread than Russian (though WWF analytical reports indicate the opposite). Both official and unofficial texts aim at reinforcing the strict social unacceptability of the Chinese poaching in Russian waters, but not against Russian poaching in the border river. Never

was there a direct indication that the numerous violations of prohibitions by Russian fishermen have an impact on resource conditions in the common border river. On the contrary, informal communications suggest that Russians “have a right” to the resources of the border river, and that the Chinese have already lost this right on account of their “behaviour”. However, such rhetoric constitutes a direct path to the realisation of the full “tragedy of the commons”, i.e. to the final exhaustion of limited resources.

## Conclusion

Of the eight principles articulated by Ostrom (1990) relating to increasing the likelihood of success in solving dilemmas of coordination between individual and social interests, none are met in the case of the cross-border Amur river. However, three in particular are critically infringed. First of all, according to Ostrom, the rules should be worked out by the players themselves: both Russia and China are strongly centralised states, and all formal rules, common to all regions and communities, are produced at the top of the power hierarchy. Second, the rights of users of fish resources to self-organise and establish their own rules are not actually (or formally) recognised by local and central authorities to any extent. Therefore, any decision can be made only on the basis of unanimity, not only within the groups of Russian or Chinese fishermen, but also between them. However, to achieve such unanimity, enormous cost and time resources are required – a task insurmountable within reasonable timescales. Third, resource users are not able to appoint or select overseers accountable to them. On the contrary, the main controllers are the representatives of the centre (the State Security Service, for example).

Despite the fact that international practice and science are now identifying ways to overcome social dilemmas linked to the exhaustion of fish resources, for the Amur border river the answer to the question in the title is a resounding yes. Tragically, the present generation of children may grow up to see the waters of the former “Father Amur” devoid of any form of life.