CAN THE DRAGON AND BEAR DRINK FROM THE SAME WELL?
Examining Sino-Russian cooperation on transboundary rivers through a legal lens

DR SERGEI VINOGRADOV
Centre for Energy, Petroleum and Mineral Law and Policy, University of Dundee

OUTLINE

INTRODUCTION*

Water security is rapidly becoming one of the most pressing global issues and it is increasingly evident that the world's capacity to respond meaningfully to water security risks is in serious doubt. The growing tension over access to water resources manifests itself at all levels – local, national and international[1] – with the potential for water-related conflicts most apparent in transboundary (or shared) water systems (rivers, basins or aquifers), which cross administrative or international borders.[2]

Management and utilisation of transboundary water resources is a multi-dimensional phenomenon where economic and environmental factors are intertwined with geopolitical and legal concerns. At the heart of this tangle is the problem of how to resolve the inherent contradiction between the physical integrity of an international watercourse (basin) and the sovereign right to use its waters by each state sharing it. The evident reduction in the amount and decline of the quality of freshwater resources intensifies competition between various uses and users across borders, which creates the potential to turn it into open rivalry.

Interstate tensions and disputes over water resources are becoming increasingly common in different geographical regions, such as the Middle East, Northern Africa and Southeast Asia, and are now considered as a new emerging threat to regional and even global security. Water controversies usually arise either from water shortage, where existing and projected needs cannot be satisfied by available resources, or from transboundary impacts, first and foremost pollution. In order to prevent such conflicts it is important to strike a balance between the competing interests of different states sharing an international watercourse, while also taking into account the requirements of ecosystems. This objective can be achieved only through interstate cooperation, with appropriate legal and institutional frameworks being its central piece.

It is within this context that the article explores an important issue for Northeast Asia: how China and Russia 'cooperate' in the management of their shared water resources. While over the last two decades Russia and China have been able to achieve substantial progress in many areas of common interest – one of these being the boundary delimitation, serious problems remain. The utilisation and management of

* This article is a short version of a paper to be published in the *Stockholm Papers* series of the Institute for Security and Development Policy (Sweden). The article is in two parts and part 2 will appear in the next issue of *The Journal of Water Law*. The author would like to express his gratitude to Professor Patricia Wouters for her valuable contribution to the preparation of this article.

1 See eg P Wouters, S Vinogradov and B-O Magsig 'Water security, hydrosolidarity and international law: a river runs through it …' (2009) *Y'book of Int'l Env'l Law* 97–138.

2 International legal instruments and literature on the topic employ a variety of terms designed to define so-called 'shared water resources', ie water resources that cross international boundaries. They vary from traditional terms such as 'international (or transboundary) rivers' and 'international (transboundary) watercourses' to more comprehensive terms such as 'international basins'. However, in practice the differences between these terms are subtle and they are often used interchangeably. One should also add that, according to S McCaffrey: 'Historically, a distinction has been drawn between "contiguous" and "successive" international watercourses. These terms refer respectively to watercourses that form or traverse boundaries between states'. Contiguous rivers (watercourses) are often called boundary rivers; see S McCaffrey *The Law of International Watercourses: Non-navigational Uses* (2nd edn Oxford University Press 2007) 41.

transboundary waters across this region is a significant challenge for a number of reasons.

China and Russia are key players in the international arena, with China now emerging as the world's second strongest economy and Russia home to significant natural resources. The two countries are close neighbours geographically, and have a long history of bilateral relations, spanning several centuries. While their bilateral diplomacy has had its ups and downs over the past 50 years, it has been elevated to the level of strategic partnership between the two nations, evidenced through their participation as the two key members in the Shanghai Cooperation Organisation and at the bilateral level, and propelled by regular high-level diplomatic meetings. Sino-Russian ties cover a broad range of issues – from trade and energy to environmental protection, including cooperation on transboundary water resources.

The two states share one of the largest river basins in the world – the Amur River (Heilongjiang), which is traversed by their common boundary, as well as some smaller but important basins with other countries. Although the total amount of shared waters between them is substantial, the availability of the resource is becoming increasingly inadequate both in terms of quality and quantity. Given the scale and pace of economic development in China, the rising scarcity of water resources is already adversely affecting its ambitious development plans. Constantly growing demand for water required to meet its economic and social needs amplifies the potential for international tensions across all of China's borders. While the current situation with transboundary water resources shared by China and Russia remains stable, existing and new water security challenges in the Northeast Asia are mounting.

Significant transboundary pollution, water transfers and growing abstraction of water for food production and urban development increase the risk of serious interstate tensions in the future. Such potential conflicts can be avoided and resolved only through collaborative efforts of both parties at various levels – intergovernmental, regional and local. Ironically, the need for better coordination and possibly joint management and development of shared watercourses was emphasised by recent devastating floods of summer and autumn 2013 in the Amur basin, which caused enormous material damage to both countries.

The main focus of this article is on the evolving legal frameworks and mechanisms governing cooperation over transboundary waters shared by Russia and China. This subject matter is examined from two angles. First, the bilateral dimension of the Sino-Russian interaction on transboundary waters will be analysed in the context of applicable multilateral environmental agreements and their bilateral treaty practice. Secondly, the article will study the preconditions and opportunities for multilateral basin-wide cooperation, which extends beyond Russian and Chinese territories and may involve their neighbours Kazakhstan, Mongolia and North Korea, who share with the two countries some important 'multinational' watercourses. Finally, the article will attempt to identify what steps and measures Russia and China should take in the legal area that might contribute to strengthening cooperation and dispute avoidance, and thus enhance water security in the transboundary context.

SINO-RUSSIAN TRANSBOUNDARY WATER COOPERATION

Hydrological and economic context

The border separating the territories of China and Russia is the sixth longest international boundary in the world, composed of two sections – the short western segment in the Altai Mountains, which divides China's Xinjiang Uyghur Autonomous Region and Russia's Altai Republic and the long eastern section. The eastern segment, which starts at the eastern China – Mongolia – Russia tripoint, is almost entirely formed by the contiguous rivers:[3] the Argun (Ergun),[4] the Amur (Heilongjiang) and the Ussuri (Wusuli). The Argun flows for about 950 km to the point of its confluence with the Shilka River, where they together form the Amur.

The Argun-Amur system is the fourth longest river in Russia and the tenth longest river in the world.[5] It is worth noting that the Amur River is unique in many respects, including that it is the only major river in the world that has no dams or reservoirs on the main stem. The Amur Basin[6] is formed by several rivers flowing both from Russian territory – left tributaries Zeya, Bureya and Amgun, and from Chinese territory – right tributaries Songhua (Sungari) and Huma rivers. Its catchment area is located within territories of Russia (995,000 km, or around 54 per cent of the catchment), China (44.2 per cent) and Mongolia (1.8 per cent).[7]

The final, most eastward stretch of the border also runs along several rivers – the Ussuri River,[8] its

3 Detailed information concerning these and other water systems in Northeast Asia can be found in UNECE *Second Assessment of Transboundary Rivers, Lakes and Groundwaters* (ECE/MP.WAT/33, NY and Geneva 2011) 99–107.

4 The upper reaches of the Argun River are known as the Hailaer River in China. Its length is 1620 km. It is worth mentioning that in years with high precipitation the Argun River receives water from the normally confined Lake Dalai (Hulun Nur), which overflows at its northern shore. The lake is supplied by water from the Kerulen (Kherlen) River, which flows from Mongolia into China. The Argun River marks the border established by the Nerchinsk Treaty of Peace and Boundaries signed on 27 August 1689; G P Hertslet *China Treaties vol I* (3rd edn London 1908) 437.

5 It has a total length of 5052 km. The Amur forms the Russian-Chinese border for about 3000 km up to the point where it joins the Ussuri River, its right tributary, near the Russian city of Khabarovsk. There it ceases to define the border, flows north-easterly across Russian territory towards the Pacific Ocean and discharges into the Strait of Tartary (Sea of Okhotsk); see C Hogan 'Amur River' in *The Encyclopedia of Earth* http://www.eoearth.org/article/Amur_River?topic=78166.

6 The basin occupies 1,855,000 km^2. The average water flow in the Amur River is about 10,000–11,500 m^3/s. For detailed information on the Amur River basin, its geographic and physical characteristics, economic uses and environmental problems see E Simonov, T Dahmer (eds) *Amur-Heilong River Basin Reader* (WWF Ecosystems Ltd Hong Kong 2008).

7 Y Kovtun 'The experience of the Russian Federation in jointly responding to emergencies on international waters: pollution of the Amur River in 2005' (in Russian) http://www.unece.org/fileadmin/DAM/env/teia/doc/Slubice_09/19JuliaKovtun-RU.pdf.

8 The Ussuri River, which is approximately 900 km long and has a catchment area of 193,000 km^2, rises in the Sikhote-Alin mountains and flows north until its confluence with the Amur.

tributary Sungacha (Songacha) and the Tumen River, and crosses Lake Khanka (Xinkai).[9] The boundary, which was established by the Sino-Russian Convention of Peking of 1860,[10] separates Primorsky Krai (Russia) and Heilongjiang province (Northeast China). The last frontier river – the Tumen River – is shared by China, North Korea and Russia.[11]

There is another important transboundary watercourse – the Irtysh River[12] – in the westernmost part of China. The Irtysh is the main (first order) tributary of the Ob' River – the second longest river in Russia.[13] Thus, the basin of the Ob' River is shared by China, Kazakhstan, Mongolia and the Russian Federation.

This overview of transboundary water resources shared by China with its northern neighbour would be incomplete if it was limited to surface waters only. There are several major transboundary aquifers, which are found underneath the Sino-Russian border in the Amur Basin.[14]

China's population is approximately 10 times that of Russia, which has almost twice the land-mass of its neighbour. China and Russia are among the 10 largest water users (assessed on a national level).[15] China faces increasingly serious water problems.[16] Its total annual renewable water resources amount to about 2812 km^3, the sixth largest in the world, but its annual per capita freshwater resources (about 2156 km^3) are among the lowest for a major country.[17]

Challenges related to livelihoods, health and ecosystems are linked directly to the over-exploitation of China's water resources.[18] China is taking action to address some of these issues through its current five-year plan[19] and under its national policy, which places water as its number one priority. It is worth noting that while the western part of China faces the most serious challenge when it comes to lack of water, Northern China is not far behind. It accounts for only 19.6 per cent of its naturally available water resources, 46.5 per cent of this country's population, 64.8 per cent of the arable land and 45.2 per cent of China's GDP.[20]

The Plan of Revitalising Northeast China for the 11th Five-Year Planning Period,[21] which contains some objectives up to 2020, has an extensive environmental component including a wide range of water-related measures. In particular, it envisages significant water transfer, storage and irrigation projects. One of these is the controversial Argun (Hailaer) River–Lake Dalai water transfer, whose potential transboundary impacts are causing serious concerns in Russia.[22]

In Russia, similar challenges exist, although not of the same magnitude and scale. The current situation in the water sector and its prospects are reflected in the Water Strategy adopted by the Russian Government in 2009.[23] While Russia, along with Brazil, Canada and some other countries, possesses very significant renewable fresh water resources (4300 km^3, or 30,000 m^3 per capita),[24] their distribution is very uneven. The European part of the country, with 70 per cent of its population and economic potential, has less than 10 per cent of its overall water resources. The main problems faced by the water sector in Russia are the deficit of water in economically developed regions, as well as a high level of pollution and low water quality in most river basins. According to the Strategy, among the river basins which currently experience particularly stressful ecological situations are the basins of the Volga, Yenisei, Ob' and Amur rivers.[25] The last two are transboundary basins, shared with China, which are of particular relevance for this study.

Environmental context

The ecological situation in the Sino-Russian transboundary basins is far from satisfactory.[26] Pollution as a result of industrial accidents and wastewater discharges is a recurrent issue. One of the most serious pollution incidents occurred on 13 November 2005, and involved an accidental release of about 100 tons of chemical pollutants into the Songhua (Sungari) River by a petrochemical plant in Jilin City, China.[27]

9 Lake Khanka belongs to the Ussuri River system and is divided between China and Russia. The lake is fed by 23 rivers (8 in China and 15 in Russia), but the only outflow of the lake is the Sungacha River. The lake's catchment area is about 17,000 km^2, of which 97 per cent is in Russia.

10 Hertslet (n 4).

11 The Tumen River first forms the border between China and North Korea, and then, for a few kilometres, marks the border between North Korea and Russia before entering the Sea of Japan.

12 The river has its source in the western part of Mongolia, flows across China (the upstream part of the river is called Black Irtysh), then Kazakhstan and finally into Russia.

13 See UNECE *Second Assessment* (n 3) 91.

14 See eg Han Zaisheng, R Jayakumar, Liu Ke, Wang Hao and Chai Rui 'Review on transboundary aquifers in People's Republic of China with case study of Heilongjiang-Amur River Basin' (June 2008) 54(7) *Environmental Geology* 1411–12.

15 'Water in a changing world' (2009) 3 *UN World Water Development Report* 98.

16 For details see Jian Xie and others *Addressing China's Water Scarcity: Recommendations for Selected Water Resource Management Issues* (World Bank Washington DC 2009).

17 ibid.

18 Chaoqing Yu 'China's water crisis needs more than words' (17 February 2011) 470 *Nature* 307; J Qiu 'China faces up to groundwater crisis' (15 July 2010) 466 *Nature* 308; see also P Gleick 'China and water' in *The World's Water* vol 7 2008–2009 Pacific Institute www.worldwater.org.

19 China's Twelfth Five-Year Plan (2011–2015) http://cbi.typepad.com/china_direct/2011/05/chinas-twelfth-five-new-plan-the-full-English-version.html.

20 Note 16 at 10.

21 The Russian translation of the Plan can be found in (2009) 1 *Spatial Economics* 62 ff (in Russian).

22 This will be discussed in Part 2 of this article (n 196).

23 'Water Strategy of the Russian Federation for the period until 2020', adopted by the Order of the Government of the Russian Federation no 1235-p (27 August 2009) http://mnr.gov.ru/ (in Russian). The Water Strategy emphasises the importance of international cooperation, which has to be developed through bilateral and multilateral normative frameworks governing joint utilisation and protection of transboundary watercourses.

24 ibid.

25 ibid.

26 A detailed overview of transboundary environmental and water issues can be found in the proceedings of the conference *Status and Prospects of the Russian-Chinese Cooperation in Environment Conservation and Water Management*: Materials of the international conference (Moscow, 27–28 September 2007).

27 For details see V Kulakov and others 'Riverbank filtration as an alternative to surface water abstraction for safe drinking water supply to the city of Khabarovsk, Russia' in C Ray, M Chamrukh (eds) *Riverbank Filtration for Water Security in Desert Countries* (Springer 2011) 286–7.

Although the incident did not result in direct casualties, it caused contamination of drinking water, damaged the environment, adversely affected human health and resulted in significant social and economic losses both in China and Russia. While Russian authorities have never requested financial compensation for the damage caused, China admitted its responsibility and provided drinking water and equipment necessary to deal with chemical pollution.

It is claimed, however, that waters of the Amur-Heilongjiang receive a variety of toxic substances, most of them having nothing to do with industrial spills or other accidents, but resulting from everyday land-use practices.[28] The greater input of chemical compounds to river water is caused by spring and autumn floods, where surface and ground run-off contains pesticides, oil products and mineral and organic fertilisers. In addition, aquatic ecosystem processes are seriously affected by deforestation and the destruction of wetlands and wildfires, but this is rarely considered in pollution management programmes. Excessive logging and land conversion to agriculture lead to erosion and concomitant pollution by suspended matter.[29]

Significantly increased water pollution and frequent accidents have finally attracted the attention of the Chinese Government. On 3 December 2005, the State Council's *Decision on Implementing the Strategy of Scientific Development and Strengthening Environmental Protection* prioritised 'drinking water security and important river basin pollution control as the keystone of strengthening water pollution prevention and control', and listed it as one of the seven pivotal objectives of environmental protection in China for the next 15 years.[30] In February 2006, the *National Plan for Environmental Emergency Response* was released.[31] At the bilateral level the Sungari accident persuaded the two states to engage more actively in the joint monitoring of their transboundary waters and in developing emergency preparedness and response measures.

Owing to obvious economic and demographic disproportions and natural conditions, the inputs of the two countries to transboundary environmental problems differ significantly.[32] It is estimated that China contributes 87.5 per cent of the total pollution of the Argun River, 75 per cent in the middle section of the Amur River and 97.6 per cent of pollution of the Ussuri River.[33] While both countries look at water resource utilisation from the perspective of their economic development, conservation of the aquatic ecosystems and biodiversity, as well as maintaining the natural flow regime, have been of lesser significance. It was noted that: 'the most exploited Amur's tributaries, as well as the headwaters of other transboundary watercourses are located in China, where anthropogenic pressure on shared water resources is, by all measures, stronger than in Russia, and is expected to remain so in the long run'.[34]

In view of the current pollution rates and water withdrawals in Chinese territory, Russia finds itself in a vulnerable position. Whereas there are sufficient water reserves in the Amur Basin to meet the requirements of both states, the quality of water is of primary concern at present. However, there is a growing water shortage in the Upper Amur (Songacha River) and Khanka areas and, in particular, the Irtysh Basin. It is expected that the water deficit will become increasingly acute in the future, because of the continuous aridisation in north and northeast China and much greater consumption of water in order to increase its food production.[35]

Thus, to ensure each country's interests and to achieve a proper balance between the developmental needs and ecosystem requirements in the transboundary basins, it is essential to establish a coordinated approach to shared water resources management on the basis of adequate regulatory frameworks and efficient institutions. The history of the Sino-Russian cooperation in this field, which will be discussed next, gives some hope for optimism.

History of Sino-Russian water cooperation

Sino-Russian relations concerning the utilisation of their transboundary waters have a long history, which has evolved through different periods: from very close cooperation in the 1950s to a complete suspension of any contact in the late 1960 and 1970s. Over the past few decades, the diplomatic pendulum has swung back and bilateral relations between the two countries have significantly improved, especially during the last 20 years.

In August 1956, the two countries agreed to examine the economic, and especially hydropower, potential of their boundary rivers Amur and Argun.[36] This was an ambitious attempt jointly to appraise available natural resources, primarily water, with a view to their future development. The ultimate objective of this exercise was to determine the economic efficiency of the comprehensive ('complex') utilisation of natural resources and production forces of the basin for the benefit of the two states, with a special emphasis on the hydropower potential of the Amur and its main tributaries. It focused, in particular, on the construction of dams and reservoirs in order to improve navigation and regulate water flow for flood control, as well as development of irrigation and enhancement of fisheries.

28 L Kondratieva 'Amur-Heilong River pollution: a downstream perspective for understanding and managing environmental risks' in *Amur-Heilong River Basin Reader* (n 6) 322–24.

29 ibid.

30 Zhong Ma 'Emergency planning and response for accidental release of water pollutants in China: lessons from the Songhuajiang River incident' in World Bank Analytical and Advisory Assistance Program 'China: addressing water scarcity' Background Paper Series.

31 ibid.

32 E Simonov, E Shvarts and L Progunova (eds) *Environmental Risks to Sino-Russian Transboundary Cooperation: From Brown Plans to a Green Strategy* (WWF Trade and Investment Programme Report 2011) (WWF Report).

33 Press release of the Ministry of Natural Resources and Ecology of the RF (29 October 2007) http://www.mnr.gov.ru/news/detail.php?ID=16378&sphrase_id=269349&print=Y.

34 V P Karakin 'Transboundary water resources management on the Amur River: competition and cooperation' in WWF Report (n 32) 86.

35 ibid.

36 In 1956 the USSR and the PR of China concluded a special intergovernmental agreement on the joint study of the natural resources and production potential of the Amur and Argun basins; see n 94 infra.

By 1962, a significant amount of hydrological and geological studies had been completed and a number of proposals were formulated on how to utilise the boundary rivers and their resources. One grand idea was to connect the Amur with the Sea of Japan via the Ussuri and Songacha rivers and Lake Khanka. In the early 1950s the two countries simultaneously carried out related feasibility studies, which were later merged into a single project (approved in 1957) to construct a navigation route, including a hydropower station with locks, from the Amur River to Amur Bay[37] in the Sea of Japan. In total, different development plans for the Amur Basin, which had been put forward during the period between the 1930s and the 1960s, proposed the construction of up to 32 dams and reservoirs on the main stem of the river and its tributaries.

The work on the scheme was interrupted as a result of a fall-out between the two states in the 1960s–70s and was resumed only 20 years later. During the period of the political freeze, the Soviet academic community and the public voiced their opposition to the construction of dams on the main watercourse. It was generally acknowledged that the plans, if implemented, would cause the inundation of flood plains and of significant areas of forest and agricultural lands, numerous settlements and mineral deposits; 75 per cent of the inundated territory would be located in the Russian part of the Amur Basin.

In 1986, with the onset of the Sino-Russian 'thaw', the local authorities of the Amur Oblast' (Region) called on the Soviet Government to consider building at least one hydropower station together with China in order better to control periodic devastating floods on the watercourse. A Joint Commission was established to lead the work on the scheme of the comprehensive utilisation of the water resources.[38] The Commission considered several options for the proposed hydropower development, involving the construction of a number of dams on the river. By 1990, the two sides had reached a tentative decision to build a dam on the main stem of the Amur River below the confluence with the Shilka River. However, the expected formal approval of the project never happened, partly as a result of opposition to the development by the local population in Russia. After the break up of the Soviet Union, Russia proposed in 1994 to postpone the project until 2010–2013. However, at present opposition to the project remains strong, and the decision on its future is yet to be made.[39]

In 2004, following the conclusion of the bilateral Treaty of Good Neighbourliness,[40] the two countries adopted a comprehensive plan of its implementation.[41] They pledged, among other things, to step up their cooperation with respect to the joint monitoring of water quality in transboundary rivers and to develop an international agreement in this area; to enhance cooperation in the conservation and management of aquatic living resources in regional and global organisations; to boost their activities within the joint environmental working group; and to increase consultations on joint measures to improve the hydrological situation in the region of Khabarovsk. It is important to note that there are some regional policy documents that reflect the need for transboundary cooperation in the field of water and environment. Thus, the Strategy of the Social and Economic Development of Khabarovsky Kray (January 2009) envisages 'addressing … transboundary pollution of the Amur-Heilong River'.[42]

Current state of and challenges to cooperation

At present, Sino-Russian water cooperation appears to be quite limited in scope. It is focused primarily on the joint monitoring of transboundary water quality and emergency response, which fall far short of the joint management concept, which had been at the heart of cooperative efforts in the 1950s and 1960s. Additionally, the bilateral cooperation has migrated toward the inter-regional level, which involves the neighbouring provinces and regions of Russia and China. The programme of inter-regional cooperation was approved by the leaders of the two countries in September 2009.[43]

However, this level of cooperation is insufficient in view of the magnitude and complexity of the environmental and water utilisation problems facing both states. According to one recent report published in Russia by the WWF: 'it is quite clear that the issue of transboundary water resource management or, more broadly, natural resource management is seen … as one of the largest, if not the largest, environmental challenge for the years to come'.[44] This was demonstrated, in particular, by the unprecedentedly powerful and protracted flooding in the Amur basin in August–September 2013, which seriously affected the adjacent regions of the Russian Far East and China.[45] The worst

37 Apart from its name, Amur Bay has nothing to do geographically with the Amur River. It is located in a north-western part of Peter the Great Gulf and has no natural connection with the Amur Basin.

38 For a detailed overview of the work on the scheme see V Gotvanskiy *The Amur River Basin: How to Protect While Using It* (in Russian) (2nd edn Khabarovsk 2007).

39 ibid.

40 Treaty of Good Neighbourliness, Friendship and Cooperation between the Russian Federation and the People's Republic of China (Moscow, 16 July 2001, in Russian). The agreement entered into force on 28 February 2002.

41 Plan of Action for the implementation of the provisions of the Treaty of Good Neighbourliness, Friendship and Cooperation between the Russian Federation and the People's Republic of China (2005–2008), approved by President Vladimir Putin and Chairman Hu Jintao (Peking, 14 October 2004, in Russian) http://archive.kremlin.ru/text/docs/2004/10/78193.shtml.

42 WWF Report (n 32) 34. The strategy suggests improving the monitoring of transboundary environmental pollution, including water quality, bottom sediments and fish.

43 The Programme of Cooperation between the Regions of the Far East and Eastern Siberia of the Russian Federation and the Northeast of the People's Republic of China (2009–2018) (in Russian, on file with the author). It provides for collaboration between various regions of Russia and China in a number of areas, including transboundary waters and water ecosystems.

44 A Dikarev, V Dikarev 'Accountability of environmental factors in regional development strategies, programmes, and plans in Russia and China: a case study of the Russian Far East and Northeast China' in WWF Report (n 32) 35.

45 See eg T Dmitrakova 'Amur River floods more areas in Russian Far East' (3 September 2013) *Russia beyond the Headlines* http://rbth.ru/society/2013/09/03/amur_river_floods_more_areas_in_russian_far_east_29451.html.

flooding in 120 years will cost the two countries billions of dollars in damages and economic losses.

It is asserted, and not without grounds, that inadequate enforcement of domestic water protection laws and ineffective transboundary organisations plague proper management of the Amur basin.[46] Thus, in principle, the two states should aim at developing a more integrated approach to managing their shared water resources and utilising them in an optimal and sustainable manner in order to achieve maximum benefits, while ensuring their adequate protection. This is the principal challenge which can be addressed by the two countries only through cooperative efforts on the basis of compromise, taking into account each other's interests. This in itself may be somewhat challenging, since China is rather reluctant to make concessions with respect to what it perceives to be its sovereign right to use transboundary waters within its territory. China's traditional emphasis on sovereignty as the main pillar of its economic and foreign relations policy manifests itself in different fora and settings, including negotiations and arrangements on international watercourses.

While 'sovereignty' is and will remain in the foreseeable future one of the fundamental precepts of interstate relations, this is not an absolute notion, especially where there are potential transboundary implications of one state's activities within its territory for its neighbours. It is a well established principle of international law that states have: 'the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other states or of areas beyond the limits of national jurisdiction'.[47]

What constitutes the state's core interests, and how to reconcile the economic priorities with environmental imperatives and transboundary effects, must be decided and resolved in the context of applicable international principles and norms. International law, especially in the area of development and environment, is sufficiently mature and provides a matrix of cooperative approaches and guidelines that can be used by states in managing their shared resources. In the Wang Tieya lectures, Ian Brownlie reflected on the purpose of international law, suggesting that it 'provides the practical rounding out of the principles of peaceful co-existence'.[48]

Along with sovereignty, peaceful co-existence has always been regarded as a mainstay of the Chinese, as well as Asian in general, approach to international relations. In observations on China's foreign policy, Xue Hanqin, the judge of the International Court of Justice, remarked:

> China pursues an independent foreign policy of peace and promotes equal and mutually beneficial cooperation for common development. … China is now fully engaged in international affairs. Either for security issues or for development matters, it attaches importance to the role of international institutions and the rule of law in international affairs.[49]

There is, however, another political challenge, which has been revealed in the context of Chinese involvement in water-related cooperation. One can easily ascertain China's aversion to a multilateral approach to managing international watercourses, where more than just two states are concerned, and its clear preference of bilateral interactions and arrangements. It was noted that China has about 50 agreements regarding its shared waters, all of which are bilateral, despite the fact that many of them relate to multi-state basins.[50] This was reflected in the official position of China at the UN General Assembly concerning the law of international watercourses, whereby it reserved its 'right to address the question of the non-navigational uses of international watercourses with its neighbours in a fair and reasonable manner and in accordance with relevant international practice and *with bilateral watercourse agreements*'[51] (emphasis added).

While studies on the Asian traditions in managing shared natural resources offer somewhat ambivalent assumptions,[52] these insights provide the context for the evolving bilateral cooperation between China and Russia regarding their transboundary waters. Thus, most of the water-related activities have been carried out in various institutional mechanisms formed at the interstate level mainly during the last two decades – joint commissions and working groups. These are established by and function within different, mainly bilateral, legal frameworks with a view to enhancing cooperation in jointly managing their shared natural resources and ecosystems, which will be discussed next.

THE USE AND MANAGEMENT OF SINO-RUSSIAN TRANSBOUNDARY WATERS: AN INTERNATIONAL LEGAL PERSPECTIVE

This part begins with a summary of the legal foundations for cooperation in the development and management of Sino-Russian shared water resources, as a background for the more detailed examination of the relevant legal practice that follows later.

46 J Kim, M Murphy 'Transboundary river tensions: opportunities for collaboration' *China Environment Series* (Woodrow Wilson International Center for Scholars 2006) 211 http://www.wilsoncenter.org/publication/china-environment-series-8-2006-0.

47 This principle was articulated initially as Principle 21 of the 1972 Stockholm Declaration and later reiterated as Principle 2 of the Rio Declaration; see Declaration of the UN Conference on the Human Environment (UN Doc A/CONF/48/14/Rev 1) and Declaration of the UN Conference on Environment and Development (UN Doc A/CONF/151/26/Rev 1).

48 I Brownlie 'The Wang Tieya Lecture in public international law the peaceful settlement of international disputes' (2009) 8(2) *Chinese J of Int'l Law* 267.

49 Xue Hanqin 'China's open policy and international law' (2005) 4(1) *Chinese J of Int'l Law* 138–39.

50 See P Wouters, Huiping Chen 'China's "soft-path" to transboundary water cooperation examined in the light of two global UN water conventions – exploring the "Chinese way"' (2013) 22 *J of Water Law* 232.

51 Statement of the Chinese representative Mr Gao Feng, UN General Assembly Fifty-first session, Official Records of the 99th Plenary Meeting (21 May 1997) UN Doc A/51/PV.99 para 6.

52 See eg E Benvenisti 'Asian traditions and contemporary international law on the management of natural resources' (2008) 7(2) *Chinese J of Int'l Law* 273–83.

Principle of cooperation in international watercourses law

International water law is based on three fundamental precepts – equitable and reasonable utilisation, no significant harm and cooperation. According to Stephen McCaffrey: 'the fundamental importance of cooperation between riparian states is the inevitable result of the fact that an international watercourse is a shared natural resource'.[53] The notion that the duty to cooperate was at the heart of the fair and beneficial uses of transboundary watercourses by all riparian states is not new. It was acknowledged in a classical book by Herbert Smith on international water law published in the early 20th century:

> The first principle is that every river system is naturally an indivisible physical unit, and that as such it should be so developed as to render the greatest possible service to the whole human community which it serves, whether or not that community is divided into two or more political jurisdictions. It is the positive duty of every government concerned to cooperate to the extent of its power in promoting this development.[54]

International practice overwhelmingly supports the fundamental importance of the principle of cooperation, which is reflected in numerous international treaties, decisions of international courts and tribunals, declarations and resolutions adopted by intergovernmental organisations, conferences and meetings, and studies by intergovernmental and non-governmental organisations. A strong assertion of the significance of cooperation with regard to shared waters is contained in Principle XII of the European Water Charter, adopted by the Committee of Ministers of the Council of Europe as early as 1967, which declares: 'Water knows no frontiers; as a common resource it demands international co-operation'.[55]

Cooperation in international water resources management is achieved in a number of ways, through formal and informal arrangements and practices, which will be reviewed below. This will be done first in the context of multilateral cooperation: the two nations are parties to several multilateral treaties that are relevant to their transboundary water resources. The focus then will shift onto China and Russia's bilateral treaty practice, including a number of specific water-related agreements.

At the global level, recent studies on transboundary water resources management have explored the challenges and opportunities for enhancing cooperation across international boundaries.[56] The role of adequate legal frameworks, especially where institutional mechanisms have been established, is particularly essential in ensuring properly functioning and efficient cooperation.

The duty to cooperate is anchored in the 1997 UN Convention on the Law of the Non-navigational Uses of International Watercourses (UNWC),[57] where it provides the bridge between the substantive and procedural rules codified and progressively developed by the UN International Law Commission (ILC). Under the UNWC, watercourse states are required to 'cooperate on the basis of sovereign equality, territorial integrity and mutual benefit in order to attain optimal utilisation and adequate protection of an international watercourse' (Article 8). In its commentary to this provision, the ILC explains: 'Cooperation between watercourse states with regard to their utilisation of an international watercourse is an important basis for the attainment and maintenance of an equitable allocation of the uses and benefits of the watercourse and for the smooth functioning of the procedural rules …'.[58] The duty to cooperate is central to the UNWC, finding expression in its various provisions and forming the platform for specific watercourses' legal frameworks.

The UNWC was adopted by the UN General Assembly Resolution 51/229, which garnered 104 votes in support, including Russia.[59] Although China was among the only three states (together with Turkey and Burundi) that voted against, it endorsed the primacy of the rule of equitable and reasonable use during the discussions in the UN Sixth (Legal) Committee related to the Draft Articles.[60]

However, with respect to the draft treaty as a whole the Chinese position was much less sympathetic. Its principal objections were reflected in the statement made by the representative of China in the UN General Assembly.[61] In view of the Chinese delegate it 'failed to reflect general agreement among all countries',[62] although it is not clear how this agreement should look given a great diversity of standpoints of the states concerned. More specifically, the Chinese representative opined that the text did not reflect the principle of the *territorial sovereignty of a watercourse state* (emphasis added): 'Such a state had undisputable sovereignty over a watercourse which flowed through

53 S McCaffrey (n 2) 399.

54 H A Smith *The Economic Uses of International Rivers* (P S King & Son Ltd London 1931) 150–51.

55 Adopted on 28 April 1967 by the Consultative Assembly of the Council of Europe (Recommendation 493 (1967)) and on 26 May 1967 by the Committee of Ministers (Resolution (67) 10); text reproduced in (1974) 2(2) *Y'book Int'l Law Commission* 342–43 Document A/CN.4/274 para 373.

56 GWP TEC *International Law: Facilitating Transboundary Water Cooperation* Background Paper No 17 (2013); see also GWP and INBO *Handbook for Integrated Water Resources Management in the Basins of Transboundary Rivers, Lakes and Aquifers* (2012) http://www.gwp.org.

57 UN Convention on the Law of the Non-navigational Uses of International Watercourses, (1997) 36 *ILM* 700. The UNWC was opened for signature on 31 May 1997 and so far has been ratified or acceded to by 30 states.

58 Draft articles on the law of the non-navigational uses of international watercourses and commentaries thereto and resolution on transboundary confined groundwater (1994) 2(2) *Y'book of Int'l Law Commission* 105.

59 UN Doc A/RES/51/229 (1997).

60 During the discussions of the Draft Articles in the UN Sixth Committee Meeting in 1996, China supported the primacy of the principle of equitable and reasonable use; see UN Doc A/C.6/48/SR.25 paras 7–8; A/C.6/46/SR.28 paras 2–3; A/C.6/43/SR.42 para 15. China considered UNWC art 5 as 'the cornerstone … set forth a general principle … and established a proper balance between the rights and responsibilities of each watercourse state'; see UN Doc A/C.6/51/SR.15 para 7.

61 See Press Release 'General Assembly adopts Convention on the Law of Non-navigational Uses of International Watercourses' UN Doc GA/9248 (21 May 1997).

62 ibid.

its territory'.[63] The statement asserts further that there was an imbalance between the rights and obligations of the upstream and downstream states. However, no explanation as to the nature of the alleged imbalance was offered.

China, together with a few other states,[64] was particularly opposed to provisions 'on the mandatory settlement of disputes'. In the words of its representative, China 'favoured the settlement of all disputes through peaceful negotiations'.[65] One might question whether the dispute resolution procedure is indeed as 'mandatory' as is sometimes alleged. Any submission of the dispute to a fact-finding commission, provided for in Article 33 of UNWC, does not entail any obligatory decision. According to one authority, 'the Convention's provisions on fact-finding should be non-threatening to states … The report of the fact-finding commission envisaged in Article 33 is not binding on the states concerned, but may be of assistance to them in resolving their dispute'.[66] However, the Chinese preference for negotiations as the principal (if not the only) means of dispute settlement is well known and is mirrored in its transboundary water agreements. Although China fully adheres to the principle of the peaceful resolution of disputes, how this plays out in practice in the transboundary water context remains to be seen.[67]

It must be noted that at present neither Russia nor China participates in the UNWC. This does not mean, however, that the Convention is of little relevance. On the contrary, its key provisions reflect established state practice and can be viewed as customary international law, eg legal rules that are binding on all states irrespective of their participation in the treaty. Notwithstanding the alleged inadequacies of the UNWC, Chinese legal practice demonstrates that on the whole it endorses the principal provisions of the Convention. As will be shown below, a number of its substantive and procedural rules can be found in numerous bilateral water agreements concluded by China. While the UNWC is not yet in force and none of China's neighbours participate in it, there is another general agreement which has the potential to become applicable to Sino-Russian relations concerning their transboundary waters.

The UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes (UNECE TWC),[68] provides an example of how regional legal frameworks, especially when assisted by a well developed institutional mechanism, can bolster cooperation at regional and global levels. This instrument is aimed at limiting transboundary impact in all transboundary basins in the UNECE area.[69] The Convention was endorsed by almost 40 states including Russia. China, which is not a member of the UNECE, is not a party to this treaty. However, the latter has finally been opened for universal accession (from February 2013),[70] which means that any state outside the European region, including China, will be able to join it.

The conventional regime is supported institutionally by the Meeting of the Parties, the Secretariat and a number of subsidiary bodies. Its participants are urged to

> cooperate on the basis of equality and reciprocity, in particular through bilateral and multilateral agreements, in order to develop harmonised policies, programmes and strategies covering the relevant catchment areas, or parts thereof, aimed at the prevention, control and reduction of transboundary impact and aimed at the protection of the environment of transboundary waters or the environment influenced by such waters, including the marine environment (Article 2 para 6).

The UNECE TWC encourages and supports river basin and transboundary cooperation in the Pan-European (including Central Asia) region. Being a framework document, the Convention provides a set of basic obligations and general guidelines, which must be operationalised through watercourse-specific agreements to be concluded by the states sharing the same watercourse. Again, as will be shown in this article, China's bilateral treaty practice is generally consistent with the norms of the UNECE TWC. Given the prominence of the regime established by the Convention, its subsidiary instruments (protocols and guidelines) and institutions, it may be prudent for China to examine carefully the UNECE TWC practice and its possible applicability within the Sino transboundary context.

The next part of this article will review and analyse the corpus of normative provisions that govern Sino-Russian transboundary water cooperation. These provisions can be found in some multilateral treaties, which will be discussed further below, as well as numerous bilateral instruments related to water resources, environment and biodiversity concluded by China and Russia.

MULTILATERAL ENVIRONMENTAL AGREEMENTS RELEVANT TO SINO-RUSSIAN TRANSBOUNDARY WATERS

China and Russia are parties to a number of multilateral environmental treaties that are relevant to the

63 ibid.

64 During the voting in the Working Group of the Whole at the UN on the draft art 33, China, Colombia, France, India and Turkey voted against the provision. See UN Doc A/C.6/51/NUW/L.3/AD1.

65 Note 61.

66 S McCaffrey (n 2) 444.

67 P Wouters 'The legal response to international water conflicts: the UN Watercourses Convention and beyond' (1999) 42 *German Y'book of Int'l Law* 293–336.

68 UN Economic Commission for Europe (UNECE) Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Helsinki, 17 March 1992) (1996) 1936 UNTS 269; entered into force 6 October 1996.

69 For a comprehensive analysis of the evolving legal regime under the UNECE TWC see P Wouters, S Vinogradov 'Analyzing the ECE Water Convention: what lessons for the regional management of transboundary water resources?' [2003/2004] *Y'book of Int'l Cooperation on Environment & Development* 55.

70 On 28 November 2003, the Parties to the UNECE TWC adopted amendments to arts 25 and 26 which will allow accession to the convention by states not members of the UNECE (see MP.WAT/2003/4). On 8 November 2012, the conditions for the entry into force of the above-mentioned amendments were met and they entered into force on 6 February 2013.

management of their transboundary water resources. Among the multilateral treaties directly applicable to water cooperation between Russia and China the most important are two global conventions: on wetlands of international importance under the Ramsar Convention[71] and on biological diversity.[72] These multilateral treaties provide a platform for collaboration in a number of areas that relate directly to the management of transboundary water resources.[73]

The 1971 Ramsar Convention establishes a legal framework for national action and international cooperation in the conservation and wise use of wetlands and their resources. Wetlands perform important ecosystem functions, such as flood and erosion control, retention of nutrients, sediments and pollutants, all of which are conducive to the protection of water resources and the preservation of aquatic ecosystems.[74] The Ramsar Convention has recognised and responded to the need to manage wetlands as part of river basins. Thus, the ecological status of watercourses greatly depends upon and can be improved as a result of the sustainable management of wetlands, which, under the Ramsar Convention, must be achieved inter alia through their inclusion in the List of Wetlands of International Importance (Ramsar List).[75]

The main duty of the Ramsar states is to designate suitable wetlands for their inclusion in the list, to ensure their effective management and to cooperate internationally concerning, among other things, 'development projects that may affect wetlands'. There are several such sites within the shared river basins, both in Russia and in China. For example, the Khingano-Arkharinskaya Lowland Nature Reserve in Russia, which is located close to the Chinese border, is a unique wet forest-steppe (prairie) ecosystem set in the Amur River Valley. The site includes vast floodplains with rain-fed rivers, islands, beaches, levee systems, oxbow lakes and marshes.[76]

While this and other protected areas belong to the basins of the two states' boundary rivers, they are located entirely within the territory of one or other country. Nonetheless, Article 5 of the Ramsar Convention explicitly requires the parties to consult with each other about implementing their obligations 'where a water system is shared' by them.[77] The Ramsar 'Guidelines on international cooperation' elucidate further: 'In this area of shared river basins Contracting Parties should, where appropriate, seek to harmonise their implementation of Article 5 of the Ramsar Convention with obligations arising from any watercourse agreements to which they may also be signatories'.[78]

In line with this obligation, in 2008 Russia proposed the Amur Regional Initiative under the Ramsar Convention in order to promote international cooperation in conservation and sustainable use of the Amur basin ecosystems. The initiative involves China, Mongolia and Russia, and could possibly include Korea and Japan as interested parties.[79] It envisages the development of a joint strategy on the conservation and sustainable use of the Amur River ecosystems, coordination of the strategy implementation by a common secretariat, a joint search for funds for implementation of projects and more effective use of results garnered from earlier projects.

The same provision of Article 5 of the Ramsar Convention demands that the states concerned consult also 'in the case of wetlands extending over the territories of more than one Contracting Party'. There is one genuinely transboundary protected area, which traverses the Sino-Russian boundary – Lake Khanka (Xingkai). The lake is the source of the Songacha River and is part of the Amur catchment area. It comprises two nature reserves, both Ramsar listed, on either side of the boundary and is governed by a special agreement – Agreement on the Natural Reserve 'Lake Khanka/Xingkai' (Lake Khanka Agreement)[80] concluded in 1996. The agreement includes, among its objectives, the protection of ecosystems within the conservation area, and the facilitation of bilateral cooperation in the rational utilisation of natural resources (Article 2). In order to achieve these aims, a Joint Commission was set up to coordinate activities within the conservation area. It is worth noting here, that while the agreement establishes a truly bilateral nature reserve, the latter is not included on the Ramsar List of transboundary sites.[81]

Russia and China cooperate within the 1992 Biodiversity Convention (CBD),[82] which is the principal global instrument in the area of ecosystem protection. There is a considerable degree of complementarity between its objectives and the ultimate goal of bilateral water

71 Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar, 2 February 1971) (Ramsar Convention) (1976) 996 UNTS 247.

72 Convention on Biological Diversity (Rio de Janeiro, 5 June 1992) (2001) 1760 UNTS 79.

73 See eg S Brels, D Coates and F Loures *Transboundary Water Resources Management: The Role of International Watercourse Agreements in Implementation of the CBD* (CBD Technical Series No 40, Secretariat of the Convention on Biological Diversity, Montreal 2008).

74 A close interface between wetlands management and river basins, including transboundary, is reflected in the Ramsar handbooks for the wise use of wetlands (4th edn 2010) eg *River Basin Management: Integrating wetland conservation and wise use into river basin management* (Handbook 9) and *International Cooperation: Guidelines and other support for international cooperation under the Ramsar Convention on Wetlands* (Handbook 20).

75 The List of Wetlands of International Importance (7 March 2013) http://www.ramsar.org/pdf/sitelist.pdf.

76 See Annotated Ramsar List: Russian Federation http://www.ramsar.org/cda/en/ramsar-pubs-notes-annotated-ramsar-16091/main/ramsar/1-30-168%5E16091_4000_0.

77 Note 71. Article 5 of the Convention requires the Parties to 'consult each other about implementing obligations arising from the Convention especially in the case of wetlands extending over the territories of more than one Contracting Party or where the water system is shared by Contracting Parties . . .'.

78 *International Cooperation* (n 74).

79 See T Minaeva 'Cooperation prospects of the Russian Federation, China and Mongolia under the Ramsar Convention' in *Status and Prospects of the Russian-Chinese Cooperation in Environment Conservation and Water Management* (n 26) 283–89.

80 Agreement between the Government of the Russian Federation and the Government of the People's Republic of China on the Natural Reserve 'Lake Khanka' (Peking, 25 April 1996, in Russian) http://open.lexpro.ru/document/302218#63.

81 Transboundary Ramsar Sites http://www.ramsar.org/cda/en/ramsar-documents-trss/main/ramsar/1-31-119_4000.

82 Note 72.

cooperation – protection and adequate management of transboundary water resources. The scope of the CBD clearly includes 'aquatic ecosystems'.[83]

The main pillar of the treaty is its Article 3, which is a literal reproduction of Principle 21 of the Stockholm Declaration.[84] This fundamental rule of environmental law is equally valid with respect to the use of aquatic ecosystems in a transboundary context.[85] Additionally, Article 5 imposes a duty to cooperate 'directly or, where appropriate, through competent international organisations … on other matters of mutual interest, for the conservation and sustainable use of biological diversity'.

More specifically, the CBD provides for *in situ* conservation, including: 'a system of protected areas or areas where special measures need to be taken to conserve biological diversity', and 'environmentally sound and sustainable development in areas adjacent to protected areas' (Article 7). Its contracting parties are required to: '(a) integrate consideration of the conservation and sustainable use of biological resources into national decision-making; [and] (b) adopt measures relating to the use of biological resources to avoid or minimise adverse impacts on biological diversity' (Article 10).

There are a number of essential procedural provisions designed to facilitate the implementation of the conventional obligations, such as EIA (Article 14 para. 1(a)). One procedural requirement explicitly relates to activities 'which are likely to significantly affect adversely the biological diversity of other states'. In this regard, the parties must, as far as possible and as appropriate, 'promote, on the basis of reciprocity, notification, exchange of information and consultation on [such activities], by encouraging the conclusion of bilateral, regional or multilateral arrangements' (Article 14 para 1(c)). Each party also has a duty 'in the case of imminent or grave danger or damage, originating under its jurisdiction or control, to biological diversity within the area under jurisdiction of other states …, to notify immediately the potentially affected states of such danger or damage, as well as initiate action to prevent or minimize such danger or damage' (Article 14 para 1(d)).

It was submitted in one commentary that:

> … although the CBD recognises the need for international cooperation in its implementation, that convention lacks appropriate provisions dealing specifically with the rights and duties of co-basin states for sharing waters equitably and sustainably. This is a regulatory gap that will eventually need to be addressed by CBD Parties if they are serious about achieving the goal of conserving inland water biodiversity in transboundary water systems.[86]

However, this criticism seems somewhat misplaced. The CBD was not designed to deal specifically with transboundary watercourses and their ecosystems; these issues should be left to water-related conventions, such as 1992 UNECE TWC and 1997 UNWC and basin-specific agreements. On the other hand, the evolving conventional regime never ignored issues of 'inland water biodiversity', including in shared river basins. This follows from the relevant decisions of the Conference of the Parties,[87] and from the CBD close collaboration with the Ramsar Convention on such issues as managing biodiversity, wetlands and river basins.[88]

In any event, the CBD, even in its current form of a general legal framework, contains some fundamental substantive and procedural rules, which its parties sharing the same watercourse must observe. This broad framework has a very appropriate companion in a more pragmatic instrument – the Ramsar Convention, which has evolved into an effective applied mechanism of ecosystem protection. The fact that China and Russia are actively engaged with both instruments should be viewed as an important stimulus to cooperate with respect to their shared water systems. This is particularly true in the case of the Ramsar Convention, which serves as a convenient umbrella for bilateral initiatives and projects.[89] However, the principal emphasis of interstate cooperation between the two countries rests on a bilateral framework, which will be discussed next.

SINO-RUSSIAN TRANSBOUNDARY WATER COOPERATION: EXAMINING BILATERAL LEGAL PRACTICE

Evolution of the Sino-Russian regime for transboundary waters: Soviet period

Although China has a number of bilateral water agreements with a few of its neighbours, the majority of them have been concluded with Russia. As was shown earlier, almost 80 per cent of the Sino-Russian border is formed by rivers, and the two countries have a long history of diplomatic and legal relations with regard to their shared waters.[90] After a period of hostility, the Sino-Russian cooperation has drastically improved over the last two decades.

This process came to a head with the conclusion of the Treaty of Good Neighbourliness in 2001.[91] Such general agreements are indispensable for bilateral cooperation: they form the legal foundation for joint

83 Article 2 defines 'biological diversity' as 'the variability among living organisms from all sources including, inter alia, terrestrial, marine and other *aquatic ecosystems* and the *ecological complexes of which they are part*; this includes diversity within species, between species and of ecosystems'.

84 Note 47.

85 Article 3 para (b) reads: 'in the case of processes and activities, regardless of where their effects occur, carried out under its jurisdiction or control …'.

86 Brels, Coates and Loures (n 73) 19.

87 Numerous references to 'transboundary catchments, watersheds and river basins' are contained in the revised programme of work on inland water biological diversity, which was approved by Decision VII/4 'Biological diversity of inland water ecosystems' UNEP/CBD/COP/DEC/VII/4 (13 April 2004).

88 ibid.

89 The Russian National Report submitted to Ramsar COP 11 referred in particular to active work implemented in the Amur River basin between Russia, China and Mongolia. The work is coordinated within bilateral and trilateral (Dauria) cooperation; see National Report on the Implementation of the Ramsar Convention on Wetlands to the 11th Meeting of the Conference of the Contracting Parties (Romania, June 2012) http://www.ramsar.org/pdf/cop11/nr/cop11-nr-russia.pdf.

90 Karakin provides a list of the transboundary water-related topics discussed over the past 100 years by China and Russia (n 34) 87.

91 Treaty of Good Neighbourliness, Friendship and Cooperation (n 40).

activities in all areas of mutual interest by establishing key principles and institutions of cooperation. The 2001 Treaty was concluded with the express 'hope of promoting and establishing a just and fair new world order based on universally recognised principles and norms of international laws' and was aimed at enhancing 'relations between the two countries to a completely new level' (preamble). The agreement is a strategic commitment to build cooperation in a number of areas, including environmental protection and the fair and rational use of shared natural resources. Sino-Russian relations have also been evolving through a series of high-level meetings between their leaders.

Numerous legal and institutional arrangements concerning utilisation of the common watercourses date back to the 1950s and also constitute part of the overall legal framework of cooperation. On 14 February 1950 the two states – USSR and the PRC – signed the Treaty on Friendship, Cooperation and Mutual Assistance, effective for a fixed 30-year period. Soon after that Russia and China concluded their first water-related agreements. Two of them established the regime of navigation on the boundary rivers and lakes – the Agreement of 1951[92] and the Agreement of 1957.[93] An important step in the area of water resources management was made in 1956, when Russia and China concluded an agreement aimed at jointly examining the economic potential of the Argun and Amur basins.[94] However, its implementation was later suspended and resumed only 30 years later, in 1986, when a new agreement was signed between the PRC and the USSR.[95] Around that time an Agreement on Cooperation in the Field of Fisheries (1988 Fisheries Agreement)[96] was also adopted. The signing of the 1991 Border Agreement further improved Sino-Russian relations.[97]

Evolution of the Sino-Russian regime for transboundary waters: post-Soviet period

With the demise of the Soviet Union, Russia and China continued their cooperation focusing on the conservation of living resources, protection of the environment and the joint economic use of islands and adjacent aquatic territories. Several bilateral treaties on these issues were concluded, including the Agreement on Cooperation in the Protection, Regulation and Reproduction of the Living Aquatic Resources in the Boundary Waters of the Rivers of Amur and Ussuri (1994) (Living Aquatic Resources Agreement 1994),[98] the Agreement on Cooperation in the Field of the Protection of the Environment (Environmental Agreement 1994),[99] the Agreement on the Guiding Principles of the Joint Economic Use of Certain Islands and Adjacent Aquatic Areas of the Boundary Rivers (Agreement on the Guiding Principles of the Joint Use 1997)[100] and the Agreement on the Joint Economic Use of Certain Islands and Adjacent Aquatic Areas of the Boundary Rivers (Joint Use Agreement 1999).[101] In 1999, the two countries agreed to review their Soviet-period treaties, including those concerning boundary rivers, most of which currently remain in force.[102]

Following the conclusion of the 2001 Treaty of Good-Neighbourliness, the two states adopted a comprehensive plan for its implementation.[103] Under the environmental section, the two sides committed jointly to monitor water quality in transboundary waters, to work on the conclusion of a transboundary waters agreement, to cooperate within the joint environmental working group inter alia on monitoring of transboundary water pollution, to expedite expert consultations on the improvement of the hydrological situation around the city of Khabarovsk, and to strengthen cooperation within regional and global organisations in the conservation and management of aquatic living resources. Practically all of the agreed activities have been implemented. Of particular importance in this respect was the work on a binding instrument that deals specifically with transboundary water resources.

92 Agreement between the Government of the Union of Soviet Socialist Republics and the Government of the People's Republic of China on the Navigation on the Boundary Rivers of Amur, Ussuri, Argun, Sungacha and Khanka Lake and Establishment of Navigable Conditions on these Waterways (Kharbin, 2 January 1951, in Russian).

93 Agreement between the Government of the Union of Soviet Socialist Republics and the Government of the People's Republic of China on the Regime of Commercial Navigation on the Boundary and Adjacent Rivers and Lake Khanka (Moscow, 21 December 1957, in Russian) http://base.consultant.ru/cons/cgi/online.cgi?req=doc;base=INT;n=4880.

94 Agreement between the Government of the Union of Soviet Socialist Republics and the Government of the People's Republic of China on the joint scientific research studies of the natural resources and production potential of the Amur River basin and engineering and design works for the development of the Scheme of the comprehensive utilisation of the Argun River and the upper reaches of the Amur River (Peking, 18 August 1956, in Russian). The 1956 Agreement was formally terminated in 1999.

95 Agreement between the Government of the Union of Soviet Socialist Republics and the Government of the People's Republic of China on the Joint Soviet-Chinese Commission for the Development of the Scheme of Comprehensive Utilisation of Water Resources of the Frontier Sections of the Argun and Amur Rivers (Moscow, 23 October 1986, in Russian) http://russia.bestpravo.ru/fed1991/data02/tex13819.htm.

96 Agreement between the Government of the Union of Soviet Socialist Republics and the Government of the People's Republic of China on Cooperation in the Field of Fisheries (Moscow, 4 October 1988, in Russian) http://lawsector.ru/data/dos10/txc10166.htm.

97 Agreement between the Union of Soviet Socialist Republics and the People's Republic of China on the Soviet-Chinese State Boundary in its Eastern Part (16 May 1991, in Russian, text on file with author).

98 Agreement between the Government of the Russian Federation and the Government of the People's Republic of China on Cooperation in the Protection, Regulation and Reproduction of the Living Resources in the Boundary Waters of the Rivers of Amur and Ussuri (Peking, 27 May 1994, in Russian) http://faolex.fao.org/docs/texts/bi-47950.doc.

99 Agreement between the Government of the Russian Federation and the Government of the People's Republic of China on Cooperation in the Field of the Protection of the Environment (Peking, 27 May 1994, in Russian) http://www.chinaruslaw.com/RU/CnRuTreaty/004/2010122785908_347164.htm.

100 Agreement between the Government of the Russian Federation and the Government of the People's Republic of China on the Guiding Principles of the Joint Economic Utilisation of Certain Islands and Adjacent Aquatic Areas of the Boundary Rivers (Peking, 10 November 1997, in Russian) http://lex-faoc028285.

101 Agreement between the Government of the Russian Federation and the Government of the People's Republic of China on the Joint Economic Use of Certain Islands and Adjacent Aquatic Areas of the Boundary Rivers (Peking, 9 January 1999, in Russian). The agreement entered into force on 19 January 2000.

102 Agreement between the Government of the Russian Federation and the Government of the People's Republic of China on the Inventory of the Treaties between the USSR and PRC during the period from 1949 to 1991. Concluded by the Exchange of Notes (Moscow, 28 April 1999, in Russian).

103 Note 41.

An attempt to conclude a water treaty was made in the early 1990s. In 1997, a draft prepared by the Russian Ministry of Natural Resources was submitted to their Chinese counterparts.[104] However, negotiations proceeded without much urgency and it took another 10 years before they successfully concluded. They were spurred on by the rapid economic development on the Chinese side and, in particular, serious transboundary pollution accidents. The latter in particular emphasised the need for a set of concrete rules governing the two countries' water-related activities. In February 2006, in the aftermath of the Sungari River chemical spill, the environmental agencies of the two states signed a Memorandum of Understanding on joint monitoring of transboundary waters.[105] Two years later, after several rounds of consultations between Russian and Chinese experts, the text of the draft water treaty was finalised.[106] The Agreement on the Rational Utilisation and Protection of Transboundary Waters (Water Agreement 2008) was signed in January 2008.[107]

The Sino-Russian treaty practice has evolved principally from boundary questions and the joint study of water resources and their development potential to a more comprehensive legal framework that covers a much broader range of transboundary issues, with an emphasis on pollution prevention and control and resource utilisation. This framework is supplemented by regulations contained in the recent Additional Agreement on the Russian-Chinese State Boundary[108] and the Agreement on the Regime of the Russian-Chinese State Boundary (Boundary Regime Agreement 2006).[109] Thus, one may conclude that there exists now a considerable body of treaty norms which directly or implicitly relate to various uses of the two countries' shared water resources.

The 2001 Treaty of Good Neighbourliness constitutes the legal basis for water and environmental cooperation. In the context of this study the key obligation is articulated in Article 19, which provides:

> … the Contracting Parties shall cooperate in the protection and improvement of the environment, prevention of transboundary pollution, *equitable and reasonable utilisation of the boundary watercourses* and the living resources in the Northern Pacific and *the basins of the boundary rivers*; undertake joint efforts in protecting rare species of flora, fauna and the natural ecosystems in the border areas, as well as cooperate in preventing emergencies of the natural and technogenic character in both states and eliminating their consequences.[110] (emphasis added)

This general provision of the 2001 Treaty is operationalised through specific environment- and water-related agreements already mentioned above. The Environmental Agreement 1994 considers water as a key component of the natural environment, and most of the treaty's provisions apply to water resources. For example, it includes among the main areas of cooperation 'protection and comprehensive utilisation of water resources with due account of pollution of transboundary watercourses' (Article 2).[111] It also encourages developing 'systems of purification and treatment from pollution of surface and ground waters' and 'methods and means of analysis and assessment of the status of water bodies'. However, the Environmental Agreement as such is a programmatic document; it has very few normative provisions establishing concrete substantive or procedural rights and obligations (apart from its institutional mechanism, which will be discussed further in Part 2).

The Boundary Regime Agreement 2006 has a special section (Chapter 4) entitled 'Boundary waters', which is of direct relevance here.[112] Seven articles of Chapter 4 cover a wide range of issues that may arise in the context of exploitation of boundary waters, their living resources and adjacent land territories: from navigation, fisheries and timber floating to maintenance of hydraulic installations and agricultural activities. These provisions will be analysed in more detail later.

The Water Agreement 2008 is at the core of the normative framework governing Sino-Russian relations in the area of transboundary waters.[113] The Water Agreement is a typical framework treaty, similar to the Environmental Agreement 1994, and as such does not offer more than a general set of programmatic provisions. It has 10 Articles, which define its scope of application, main areas of cooperation, some substantive and procedural obligations, institutional arrangements and dispute settlement procedure, all of which will be discussed in more detail in Part 2 of this article.

There are various water-related provisions in agreements regulating the exploitation of aquatic living

104 The text of the draft agreement is contained in the Decree of the Government of the Russian Federation No 555 of 7 May 1997 on the conclusion of the Agreement between the Government of the Russian Federation and the Government of the People's Republic of China on Cooperation in the Field of Protection and Rational Utilisation of Transboundary Waters (in Russian) http://www.LawRussia.ru.

105 Memorandum of Understanding between the Ministry of Natural Resources and Ecology of the Russian Federation and the State Administration of Environmental Protection of the Peoples' Republic of China on cooperation in joint monitoring of water quality in the transboundary waters (Moscow, 21 February 2006, in Russian, text on file with author).

106 Yury Trutnev, the then Russian Minister of Natural Resources and Ecology, explained that: 'The agreement makes the most of what could have been achieved at present. It is the result of a compromise between the two states … Now we have an official channel for information exchange, mandatory at both ends … Additionally, any actions or inaction of the parties which lead to the deterioration of transboundary waters should be considered as a breach of the agreement' (2 February 2008) *Rossiyskaya Gazeta* http://www.rg.ru/2008/02/02/-priroda.html.

107 Agreement between the Government of the Russian Federation and the Government of the People's Republic of China on the Rational Utilisation and Protection of Transboundary Waters (Peking, 29 January 2008, in Russian) http://mid.ru/bdomp/spd_md.nsf. The agreement entered into force on 23 May 2008.

108 Additional Agreement between the Government of the Russian Federation and the Government of the People's Republic of China on the Russian-Chinese State Boundary in its Eastern Part (Peking, 14 October 2004, in Russian). The agreement entered into force on 2 June 2005.

109 Agreement between the Government of the Russian Federation and the Government of the People's Republic of China on the Regime of the Russian-Chinese State Boundary (Peking, 9 November 2006, in Russian) http://www.rosgranitsa.ru/ru/node/3140. The agreement entered into force on 4 August 2007.

110 Note 40.

111 ibid.

112 Note 109.

113 Note 107.

resources and other economic activities in frontier waters. The Soviet-Chinese Fisheries Agreement 1988 addresses general issues of bilateral cooperation in the field of 'conservation, rational management and optimal use of the living resources of the North Pacific Ocean and adjacent boundary rivers and lakes' (Article 1) on the one hand[114] but does not deal with fresh waters as such. The Living Aquatic Resources Agreement 1994, on the other hand, focuses specifically on transboundary waters according to its objective to ensure 'rational utilisation of the living aquatic resources of the Amur and Ussuri river basins'.[115] While the latter agreement provides both a general legal framework for aquatic living resources and detailed regulations for their conservation and exploitation, some of its provisions explicitly apply to water.

In 1997 and 1999, Russia and China adopted two intergovernmental agreements aimed at establishing a special regime for some recently delimited frontier areas (islands and surrounding stretches of boundary rivers), where the local populations of the two states can engage in traditional economic activities.[116] Both agreements require the 'frontier population' of the two countries to avoid causing any damage to the environment and natural resources of their respective states.

Other bilateral instruments, mostly related to trade and commercial navigation on the boundary rivers, will not be discussed in this article. However, even without the latter documents the existing legal framework for the utilisation of the shared water resources is impressive. The normative foundation of bilateral cooperation has also been strengthened by non-binding but authoritative commitments contained in declarations and joint statements periodically adopted by the leaders of the two states.[117] Invariably, these documents include provisions aimed to strengthen interstate collaboration in the area of water utilisation and environmental protection.[118] For instance, in their Joint Declaration of 21 March 2006,[119] the leaders of the two states stressed the need to galvanise joint efforts in the field of environmental protection in the boundary areas with the aim of preventing technogenic catastrophes and to minimise harm to nature and peoples on both sides of the boundary from possible accidents and natural disasters. They pledged to expedite consultations with regard to a draft intergovernmental agreement on transboundary waters.

More practically oriented measures and decisions are adopted usually within the regular (annual) meetings of the heads of governments. This aspect of bilateral cooperation will be discussed in Part 2 in the section dealing with the institutional framework.

Part 2 of this article will follow in the next issue of The Journal of Water Law.

114 Note 96.
115 Note 98, preamble.
116 Joint Use Agreement 1997 (n 100); Joint Use Agreement 1999 (n 101).

117 See eg Joint Statement of the Russian Federation and the Peoples' Republic of China on further development of the Russian-Chinese relations of comprehensive equal and trustworthy partnership and strategic cooperation (Moscow, 5 June 2012, in Russian) http://news.kremlin.ru/ref_notes/1230.
118 For example, in their Joint Statement of 17 June 2009 the Heads of State pledged to deepen cooperation in the sphere of rational utilisation and protection of the transboundary waters and transboundary specially protected areas'; see Joint Russian-Chinese Statement on the Results of the High-Level Meeting (Moscow, 17 June 2009, in Russian) http://kremlin.ru/transcripts/15552.
119 Joint Declaration of the Russian Federation and the People's Republic of China (Peking, 21 March 2006, in Russian) http://asiadata.ru/?lang=ru&id=2979.