

CHINA'S 'SOFT-PATH' TO TRANSBOUNDARY WATER COOPERATION EXAMINED IN THE LIGHT OF TWO UN GLOBAL WATER CONVENTIONS – EXPLORING THE 'CHINESE WAY'

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1. INTRODUCTION

China, the world's largest developing country, is now on course (within the next decade) to emerge as the world's biggest economy.¹ As has occurred in most developed nations, this development drive has had, and continues to have, significant adverse impacts on China's environment. This is evident especially in the diminishing quantity and quality of available water resources, both within China and crossing its national borders. In the international transboundary context this has resulted in water-related problems, in the past with Russia (industrial pollution on the Amur)² and currently with India on the Brahmaputra, where China seeks to construct some major dams despite India's protestations.³ China's reaction to these transboundary watercourse events has been by using international diplomacy, the so-called 'soft-path' of cooperation, which is the bedrock of China's foreign policy.⁴ This

approach, based on 'dialogue, consultation and peaceful negotiations' and crafted around the notion of restricted territorial sovereignty, has been expressed both in legal scholarship⁵ and confirmed in foreign policy statements under China's new leadership, President Xi Jinping⁶ and Premier Li Keqiang.⁷

President Xi recently asserted that: '... we should boost cooperation as an effective vehicle for enhancing common development ... While pursuing its own interests, a country should accommodate the legitimate concerns of others. ... We need to work vigorously to create more cooperation opportunities, upgrade cooperation, and deliver more development dividends to our people and contribute more to global growth'.⁸ The theme of China as 'the good neighbour' and promoter of regional cooperation was advanced strongly at the 18th Communist Party of China National Congress in November 2012 and now is being expressly reaffirmed in public forums.⁹ This move builds on past Sino state practice which used international

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1 OECD Economic Surveys: China (Overview Report) (March 2013) p 2 (on file with authors) available at http://www.oecd.org/eco/surveys/Overview_CHINA.pdf (accessed 11 June 2013).

2 In 2005 an industrial accident in China resulted in serious pollution downstream in Russia on the Amur River on the border between Russia and China. A huge oil slick polluted the Songhua River (known as Sungari in Russia), a tributary of the Amur, and the main source of drinking water for the 600,000 residents of the Russian city of Khabarovsk, across the border from China; the accident also affected the Chinese city of Harbin, leaving up to four million people without public water services. See news story at http://www.terraily.com/reports/Water_Pollution_Found_In_Eastern_Russia_Following_Chinese_Factory_Blast.html.

3 China proposes to construct a series of dams on the Brahmaputra, which is contested by India. Indian Prime Minister Manmohan Singh conveyed his concerns directly during his first meeting with the new President of China, Xi Jinping. See 'Brahmaputra: panel alert on China projects' (15 April 2013) <http://www.indianexpress.com/news/brahmaputra-panel-alert-on-china-projects/1102520/>.

4 See 'China issues white paper on peaceful development' (September 2011) <http://www.fmprc.gov.cn/eng/zxxx/t856325.htm>, which states:

'China's overall goal of pursuing peaceful development is to promote development and harmony domestically and pursue cooperation and peace internationally'.

5 Hanqin Xue 'Relativity in international water law' (1992) 3 *Colo. J. Int'l Envtl. L. & Pol'y* 45. Xue, now a judge on the International Court of Justice, provides insights on this approach.

6 In a recent speech at the opening ceremony of the Boao Forum (8 April 2013), President Xi stated: 'The world today is experiencing profound and complex changes. Countries have become increasingly interconnected and inter-dependent. ... The trend of the times, namely, peace, development, cooperation and mutual benefit, is gaining momentum. On the other hand, our world is far from peaceful'.

7 China's new Premier Li Keqiang has remarked that China's limited water resources have become serious economic and social development constraints and suggested that water conservation and improved water-use efficiency are priorities. See <http://chinawaterrisk.org/resources/analysis-reviews/2012-review-5-trends-for-2013/>. See also 'China's new premier vows to tackle pollution' (18 March 2013) *The Guardian* <http://www.guardian.co.uk/environment/2013/mar/18/china-new-premier-vow-tackle-pollution>.

8 President Xi, Boao Forum (n 6).

9 'China will continue to promote friendship and partnership with its neighbors, consolidate friendly ties and deepen mutually beneficial cooperation with them and ensure that its development will bring even greater benefits to its neighbors. ... We will energetically promote regional cooperation in Asia and around the world.' Full text of President Xi's speech at opening ceremony of Boao Forum (n 6) *Xinhua* (8 April 2013) <http://english.peopledaily.com.cn/102774/8198393.html>.

agreements to forge cooperation across national borders.¹⁰ However, China appears to embrace a restricted territorial sovereignty approach to the implementation of its transboundary water cooperation, explored in more detail below.¹¹

This article examines Chinese transboundary water cooperation specifically through the prism of the rules of international law that govern the uses of transboundary water resources. China's state practice will be considered in the light of the principal legal instruments in this field – the UN Watercourses Convention (UNWC)¹² and the UNECE Transboundary Water Convention (UNECE TWC), each a result of codification and progressive development of the rules in this field.¹³ Increasing transboundary water cooperation is a global theme as the international community seeks new ways to tackle serious water problems, witnessed at the recent UN Security Council meeting that concluded by emphasising this very topic.¹⁴ As one of the largest players in the international arena, China has an opportunity to build upon and enhance its cooperation on transboundary waters.¹⁵

2. THE DUTY TO COOPERATE IN INTERNATIONAL WATER LAW

The UN declared 2013 the International Year of Water Cooperation,¹⁶ urging all member states and all other actors 'to promote actions at all levels, including

through international cooperation, as appropriate, aimed at the achievement of the internationally agreed water-related goals contained in Agenda 21, the Programme for the Further Implementation of Agenda 21, the United Nations Millennium Declaration and the Johannesburg Plan of Implementation, as well as to increase awareness of their importance' (Article 4). This call for implementing cooperative actions on the ground in the field of water builds upon the UN's considerable and long-standing work in this area.

From an international law perspective, the UN's efforts regarding transboundary waters are embodied in two main instruments – the UNWC and UNECE Conventions. Central to each of these conventions is the fundamental rule of international law – the 'duty to cooperate'. This is clearly articulated in Article 8 of the UNWC:

General obligation to cooperate

1. Watercourse States shall cooperate on the basis of sovereign equality, territorial integrity, mutual benefit and good faith in order to attain optimal utilization and adequate protection of an international watercourse.
2. In determining the manner of such cooperation, watercourse States may consider the establishment of joint mechanisms or commissions, as deemed necessary by them, to facilitate cooperation on relevant measures and procedures in the light of experience gained through cooperation in existing joint mechanisms and commissions in various regions.

The International Law Commission (ILC) in its Commentary to the 1994 draft articles on the law of international watercourses explained that: 'Cooperation between watercourse States with regard to their utilization 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 contained in part three of the UN WC'.¹⁷ Linking the governing rule of 'equitable and reasonable use' to the rules of procedure infuses the duty to cooperate with a multi-dimensional normative content – it is at once a substantive norm ('Watercourse States shall cooperate') and at the same time includes procedural components. Its position in the treaty as a link between the key substantive rules and the procedural rules supports this interpretation.

On the substantive side, the inherent tension between the notion of national sovereignty ('on the basis of sovereign equality, territorial integrity, mutual benefit and good faith') and the objective to attain 'optimal utilization and adequate protection of an international watercourse' is delicately addressed in this provision.

The functional aspects of cooperation are featured throughout the UNWC. Article 3 deals with the process to be followed in concluding watercourse agreements, stressing the need to consult and include all

10 A Carlson 'Constructing the dragon's scales: China's approach to territorial sovereignty and border relations in the 1980s and 1990s' (2003) 12 *Journal of Contemporary China* 677–98.

11 Xue (n 5) observed at 48: 'Restrictive theory of territorial sovereignty, as a balance between the principle of permanent sovereignty over natural resources and the principles of good-neighbourliness and international cooperation derived from the Latin maxim *sic utere tuo ut non alienum laedas*, is gradually gaining acceptance as the guiding principle for the uses of international waters'.

12 Convention on the Law of the Non-navigational Uses of International Watercourses 1997 http://untreaty.un.org/ilc/texts/instruments/english/conventions/8_3_1997.pdf. The UNWC, following close to 30 years' study on the topic by the ILC, was adopted by a large majority of the UN General Assembly in 1997 and was open for signature, acceptance, approval or accession from 21 May 1997; currently (as at April 2013) it has 30 Parties and 16 signatories (4 signatories have yet to ratify – Côte d'Ivoire, Paraguay, Venezuela and Yemen). For the current status of the Convention see http://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-12&chapter=27&lang=en.

13 UN Economic Commission for Europe (UNECE) Convention on the Protection and Use of Transboundary Watercourses and International Lakes, Helsinki (Helsinki 17 March 1992) 31 ILM 1312 (entered into force 6 October 1996) <http://www.unece.org/env/water/pdf/watercon.pdf>.

14 UN Roundtable on Water Security (25 September 2012) <http://www.state.gov/secretary/rm/2012/09/198179.htm>.

15 See inter alia E Benvenisti 'Asian traditions and contemporary international law on the management of natural resources' (2008) 7(2) *Chinese Journal of International Law* 273–83.

16 UN Resolution International Year of Water Cooperation http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/65/154. The resolution was submitted by Tajikistan, co-sponsored by Afghanistan, Armenia, Australia, Bahrain, Bolivia, Chile, Costa-Rica, Gabon, Honduras, Iraq, Kazakhstan, Madagascar, Mongolia, Nepal, Pakistan, Russia, Thailand and Ukraine. See also the Dushanbe Declaration on Water adopted in the High-level International Conference on the Midterm Comprehensive Review of the Implementation of the Decade of Action 'Water for life' 2005–2015 (June 2012) <http://www.un.int/wcm/webdav/site/tajikistan/shared/International%20Year%20of%20Water%20Cooperation-2013.pdf>.

17 Commentary to the Draft Articles on the Law of the Non-navigational Uses of International Watercourses, adopted on Second Reading in Report of the International Law Commission on the work of its forty-sixth session [1994] 2(2) YB International Law Commission 105 http://untreaty.un.org/ilc/documentation/english/a_cn4_1493.pdf.

riparian states that may be affected.¹⁸ Article 5(2) introduces the obligation to 'participate in the use, development and protection of an international watercourse in an equitable and reasonable manner', which 'includes both the right to utilize the watercourse *and the duty to cooperate* in the protection and development thereof'. There are also provisions related to planned measures contained in Part III (Articles 9 and 11–17), including the requirement to cooperate 'with the notified States by providing them, on request, with any additional data and information that is available and necessary for an accurate evaluation' (Article 14). Article 25 requires cooperation 'where appropriate, to respond to needs or opportunities for regulation of the flow of the waters'. Finally, Article 31 obliges states to cooperate in good faith in providing 'as much information as possible under the circumstances' as regards data and information vital to national defence or security. While most of these provisions in Part III of the UNWC are process-oriented, they support implementation of the governing rule of 'equitable and reasonable use'.

The UNECE TWC is also based on the duty to cooperate and provides considerable detail on how this rule is to be implemented, especially within the context of transboundary pollution.¹⁹ Central to the list of 'appropriate measures' required for implementing the Convention's primary substantive rule of 'limiting transboundary impact' (Article 2) is the duty on 'Riparian Parties' (ie states that share the same watercourse) to 'cooperate on the basis of equality and reciprocity, in particular through bilateral and multilateral agreements, in order to develop harmonized policies, programmes and strategies covering the relevant catchment areas, or parts thereof' (Article 2(6)).

The duty to cooperate is the normative cornerstone of the instrument, with more concrete obligations of Riparian Parties provided for in Part II, including the requirement to enter into specific transboundary water agreements.²⁰ Particular activities to be undertaken by

the parties in order to operationalise the duty to cooperate enables the ongoing monitoring of implementation of the Convention, primarily by its core institutional body, the Meeting of the Parties (Article 17). In fact, the 20 years of practice under the UNECE TWC has yielded a model for regional cooperation on transboundary waters, which is now available universally to states in other geographic regions.²¹

In exploring how the duty to cooperate is operationalised in practical terms, this study will use as a benchmark the key provisions of the two UN global water conventions. In addition, it will also employ an analytical framework (developed by one of the authors elsewhere²²) to evaluate the coherence of transboundary watercourse regimes. The legal analytical framework comprises five elements, each of which serves as a litmus test to measure the adequacy of the cooperative regime: (i) scope; (ii) substantive rules; (iii) procedural rules; (iv) institutional mechanisms; and (v) dispute settlement. The extent to which transboundary watercourse states address these legal issues in their agreements provides a means for evaluating the quality of the cooperation that occurs. The significant body of rules of customary international law that apply to transboundary waters are also considered in this context.²³ Thus, we propose to consolidate these elements into a framework for analysing Chinese transboundary practice in this field, with a focus on the 'duty to cooperate' as it has been codified and progressively developed under the two UN water conventions.

The next section sets forth the political and hydro-geographic context for this regional case study.

3. CHINA'S TRANSBOUNDARY WATERS: THE POLITICAL AND HYDRO-GEOGRAPHIC CONTEXT

China is the world's most populous country (1.3 billion), the second largest economy and fourth largest nation in terms of physical size (after Russia, Canada and the USA). China's 22,000 km land border is shared with 14 neighbours and two special administrative regions (Hong Kong and Macau). These national borders are crossed by some 40 major international

18 The ILC Commentary provides at 94–97: 'Otherwise, a few States of a multi-State international watercourse could appropriate a disproportionate amount of its benefits for themselves or unduly prejudice the use of its waters by watercourse States not parties to the agreement in question. Such results would run counter to fundamental principles which will be shown to govern the non-navigational uses of international watercourses, such as the right of all watercourse States to use an international watercourse in an equitable and reasonable manner and the obligation not to use a watercourse in such a way as to injure other watercourse States'.

19 A Tanzi 'The relationship between the 1992 UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes and the 1997 UN Convention on the Law of the Non-navigational Uses of International Watercourses' Report of the UNECE Task Force on Legal and Administrative Aspects (2000) at 32–37 <http://www.unece.org/fileadmin/DAM/env/water/publications/documents/conventiontotal.pdf>.

20 UNECE TWC art 5 provides: 'The Parties shall cooperate in the conduct of research into and development of effective techniques for the prevention, control and reduction of transboundary impact'; art 9(1) provides: 'Riparian Parties shall on the basis of equality and reciprocity enter into bilateral or multilateral agreements or other arrangements, where these do not yet exist, or adapt existing ones, where necessary to eliminate the contradictions with the basic principles of this Convention, in order to define their mutual relations and conduct regarding the prevention, control and reduction of

transboundary impact; art 9(4) provides: 'Joint bodies according to this Convention shall invite joint bodies, established by coastal States for the protection of the marine environment directly affected by transboundary impact, to cooperate in order to harmonize their work and to prevent, control and reduce the transboundary impact'.

21 The UNECE TWC has celebrated its 20th anniversary and with the latest endorsement of Turkmenistan now includes 40 Parties, including the European Union. For more details on the most recent Meeting of the Parties see <http://www.unece.org/env/water/mop6.html>.

22 See P Wouters, S Vinogradov et al 'Sharing transboundary waters: an integrated assessment of equitable entitlement: the legal assessment model' (Technical Documents in Hydrology No 74 UNESCO Paris 2005); see also S Vinogradov, P Wouters and P Jones 'Transforming potential conflict into cooperation potential: the role of international water law' (UNESCO 2003).

23 P Wouters 'Rivers of the world: what are the substantive rules that govern the non-navigational uses of international watercourses? The principles of equitable utilization and no harm in theory and practice' PhD dissertation (1997) on deposit at the Graduate Institute of International Studies, University of Geneva, Switzerland.

watercourses (including tributaries)²⁴ with significant freshwater resources.²⁵

Recent reports highlight China's impending water crisis, which will only be exacerbated with further economic development; already 11 of China's 31 provinces suffer from water scarcity.²⁶ Serious issues of pollution and related adverse impacts on human health and the environment are linked directly to the over-exploitation of China's water resources.²⁷ One recent report claims that some 28,000 waterways have vanished from China's maps as a result of pollution.²⁸ China is taking action to address some of these issues in its current five-year plan.²⁹ In a meeting to explore how the No 1 Policy Document on Reform and Development in the Water Sector is being implemented, the Global Water Partnership (GWP) China explains the approach: 'The system will be supported by "three red lines", ie the sub-systems on flood control, drought prevention and disaster reduction; rational allocation and efficient use of water resources, water resources protection and river-lake health security; and water scientific development' and will require cross-sectoral reform and coordination, including new laws.³⁰

24 See Luwei Ying and Xianlong Hou 'The accomplishment and strategy in developing transboundary waters in China CE 397: transboundary waters' [http://www.caee.utexas.edu/prof/mckinney/ce397/Topics/China/China2\(2012\).pdf](http://www.caee.utexas.edu/prof/mckinney/ce397/Topics/China/China2(2012).pdf); and J E Nickum 'The upstream superpower: China's international rivers' in O Varis, A K Biswas and C Tortajada Management of Transboundary Rivers and Lakes (Springer Berlin 2008) 227-44; see also Chao-Yang Du, Hua-Ping Zhong 'Study on transboundary water issues in China' *Water Resource and Environmental Protection (ISWREP) 2011 International Symposium* vol 1 (May 2011) 20-22, 40, 43.

25 'Issue brief: water resource issues, policy and politics in China' (12 February 2013); this report states that: 'In aggregate, China possesses substantial water resources, constituting the world's fifth-largest national endowment of fresh water. By per-capita standards, however, China's water resources are much more modest at approximately 2000 cubic meters per person annually, as compared to a global average of about 6200 m³/person/year' <http://www.brookings.edu/research/papers/2013/02/water-politics-china-moore>.

26 HSBC 'Water stress: analysing the global challenges' (2011); and 'No water, no power: is there enough water to fuel China's power expansion?' Research reports on file with authors.

27 C Yu 'China's water crisis needs more than words' (17 February 2011) *Nature* 470(7334) 307; J Qui 'China faces up to groundwater crisis' (15 July 2010) *Nature* 466(7304) 308.

28 '28,000 Chinese waterways dry up amid pollution tidal wave' (30 March 2013) <http://rt.com/news/china-pollution-rivers-development-101/>. 'A report from the Ministry of Water Resources found that the number of rivers in China with catchment areas of over 100 square kilometers has halved compared to 60 years ago, an official report from China's Ministry of Water Resources released earlier this week said'. The report also notes problems with flooding and severe events: 'In 2012, over 70 people were killed by the disaster and 1.6 million others were affected in Beijing alone. In total, more than 66 percent of the population and 90 percent of all cities are located in regions threatened by floods'.

29 China's Twelfth Five Year Plan (2011-2015) English version at http://cbi.typepad.com/china_direct/2011/05/chinas-twelfth-five-new-plan-the-full-english-version.html. See also HSBC Report 'China's rising climate risk - the 20 questions investors need to ask' (6 October 2011) 10 <http://www.research.hsbc.com/midas/Res/RDV?ao=20&key=Fxjcu6AJgD&n=309614.PDF>.

30 See GWP 'High-Level Roundtable on Water in China'; 'China to invest \$608b in water projects' *China Daily* (31 January 2011) cited in HSBC Report 'China's rising climate risk' (n 29) at <http://www.research.hsbc.com/midas/Res/RDV?ao=20&key=Fxjcu6AJgD&n=309614.PDF> and <http://www.gwp.org/en/gwp-in-action/China/News-and-Activities-GWP-China/High-Level-Roundtable-on-Water-in-China/>.

Located upstream on the majority of its transboundary watercourses, China shares water resources with most of its neighbours - North Korea, Russia, Mongolia, Kazakhstan, Kyrgyzstan, Tajikistan, Bhutan, Myanmar, Laos, Nepal, Pakistan (Kashmir), Afghanistan, India and Vietnam. Less than 1 per cent of Chinese water comes from outside its borders, but it contributes significantly to river basins flowing from its territory. Nine provinces and autonomous regions across the country - Guangxi, Heilongjiang, Inner Mongolia, Jilin, Liaoning, Qinghai, Tibet, Xinjiang and Yunnan - are located within transboundary watersheds, which include a vast array of contiguous and successive rivers, lakes and aquifers with diverse geophysical qualities.³¹ These basins stretch into 19 countries. A recent report has identified the key vulnerabilities and drivers relating to China's transboundary waters making it clear that serious challenges exist.³²

4. CHINA'S LEGAL FRAMEWORKS FOR COOPERATION ON TRANSBOUNDARY WATERS

China is party to some 50 treaties governing or related to its shared transboundary water resources (Annex I).³³ Many of these concern its borders (China has boundary agreements with 12 of its 14 neighbours). All transboundary water-related agreements are bilateral, despite the fact that many of them relate to multi-state basins, ie the Heilongjiang/Amur and Kherlen Rivers shared between China, Russia and Mongolia; the Tumen River, between China, Russia and North Korea; and the Irtysh shared by China, Kazakhstan and Russia in the northern part of the country. Most of the transboundary water-related treaties have been concluded with its four northern neighbours (Kazakhstan, Mongolia, North Korea and Russia). There is very limited coverage of the significant transboundary watercourses in the southern parts of the country, originating from the Himalayan 'water towers', where some of the world's most important basins have their source, such as the Siquan/Indus River (China, India

31 China shares some eight major transboundary aquifers, including a major one between China and Russia; see 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* 1411-22.

32 Yan Feng, Daming He 'Transboundary water vulnerability and its drivers in China' (2009) 19(2) *Journal of Geographical Sciences* 189-199; the authors conclude that there are five major drivers affecting shared water vulnerability in China: '(1) changes in physical conditions affecting the availability of water; (2) competing objectives between economic development and ecological conservation; (3) lack of emergency response mechanisms; (4) unsound administrative institutions; and (5) shortcomings in the development of regional cooperation based on transboundary waters. We concluded by identifying four pathways for reducing vulnerability: (1) encouraging scientific research cooperation; (2) constructing information-sharing channels; (3) establishing early-warning mechanisms; and (4) promoting further coordination and negotiation'.

33 The Chinese transboundary water agreements can be classified into two broad categories: (i) boundary treaties and those dealing with border-related matters; (ii) treaties dealing specifically with transboundary waters. This classification reveals that China's international transboundary waters are regulated in a number of diverse agreements, with only a limited number specifically aimed at international watercourses.

and Pakistan), the Lancang/Mekong River (China, Myanmar, Thailand, Cambodia, Laos and Vietnam) and the Tsangpo/Brahmaputra River (China, Bangladesh and India).

As an upstream state on almost all of its transboundary watercourses, China faces a major challenge: how to balance its needs to use transboundary waters with the similar needs of its predominantly downstream neighbours. This issue has been explored in the literature and recent reports.³⁴ While bilateral cooperation appears to be actively developing with Russia, there are some difficult issues involving India and some other downstream countries that remain unresolved.³⁵

China's transboundary water-related treaty practice considered through the analytical framework, developed in more detail below, reveals interesting patterns in regional cooperation. This offers a platform for President Xi's aspiration for China to 'energetically pursue regional cooperation' regarding its transboundary water resources in ways that address some of the existing gaps, including in the context of the UN Resolution on water cooperation.

4.1 Evaluating China's transboundary water cooperation

The legal analytical framework to be used in this study contains five main components, which usually form the substantive content and structure of most transboundary water cooperative arrangements. Various transboundary watercourse regimes, including the two UN water conventions cover these areas. Evaluating how China has addressed each of these issues in its legal arrangements will help to distil its approach to transboundary water cooperation.

The following analysis focuses on the most relevant water-related agreements concluded by China. Two caveats apply to this analysis: (i) China is party to several multi-national agreements that touch on transboundary water-related issues, but these will not be discussed here; (ii) this study considers primarily the transboundary agreements that involve the uses of shared fresh-waters. While one can identify 50 agreements of relevance to China's transboundary waters

(Annex I), many deal with issues other than water as their central areas of concern. Regarding the first caveat, this refers primarily to two multilateral environmental agreements relating to wetlands of international importance (Ramsar Convention),³⁶ and to biological diversity (Convention on Biological Diversity).³⁷

4.2 Scope – issues of relativity in international water law

It is difficult to cooperate effectively unless the *scope* of cooperation is properly defined. Most of the water-related agreements concluded by China with its neighbours include clauses on their applicability in terms of *ratione loci* and *ratione materiae*. In other words, 'scope' defines the spatial (geographical, hydrographical and/or hydrological) and substantive parameters and limits of the treaty application by determining both the water resources in question and uses or activities regulated by the agreement. The two UN water conventions adopt slightly different approaches to defining scope,³⁸ and it must also be noted that the significant corpus of watercourse treaties have charted their own course on defining scope in each instance.

The particular relevance of 'scope' to transboundary water cooperation was highlighted by Dr Xue in her comments to the ILC Draft Articles, where she raises the issue of 'relativity'. This is an interesting point that provides insights into the Chinese practice reviewed in more detail below. Dr Xue, now a judge at the International Court of Justice, on the UNWC definition of scope observed:

We must bear in mind that the reason that the conceptualization of 'watercourse', the very basic issue, proves to be one of the most difficult questions on the topic of non-navigational uses of international watercourses is not primarily due to lack of knowledge of the physical nature of the watercourses, but rather still to the *basic legal controversy*: to what extent a riparian State should bear the legal duty to give due consideration to the interests of other riparian States and restrict its rights to use the water resources even within its own territory.³⁹

Linking the issue of scope to the notion of territorial sovereignty and defining it as a complex issue of international law (generally), and not simply a matter of hydro-geography, leads Xue to assert that '... international watercourses cannot be dealt with purely on the

34 Nickum (n 24); see also Ying and Hou (n 24) and E Sievers 'Transboundary jurisdiction and watercourse law: China, Kazakhstan, and the Irtysh' (2002) 37(1) *Texas International Law Journal* 1–42. Sievers argues: '... that China's project, a "totalitarian, gigomaniac monument which is against nature" violates customary international law both in its conception and in China's dealings with co-riparians'. Also S le Clue 'Geopolitical risks: transboundary rivers' (9 Feb 2012) *ChinaWaterRisk* <http://chinawaterrisk.org/resources/analysis-reviews/geopolitical-risks-transboundary-rivers/citing-inter-alia-The-Economist-Damming-the-Mekong-in-suspension/> (7 January 2012).

35 See also B Chellaney 'The lessons of the China-India war' (14 October 2012) *Project Syndicate*, which states that the 'entire 4057-kilometer border – one of the longest in the world – remains in dispute, without a clearly defined line of control in the Himalayas' <http://www.project-syndicate.org/print/why-china-india-tensions-are-growing-by-brahma-chellaney>; Chellaney refers to China as 'The water hegemon', claiming it is 'the world's biggest dam builder – with slightly more than half of the approximately 50,000 large dams on the planet'; see B Chellaney 'The water hegemon' (14 October 2011) *Project Syndicate* <http://www.project-syndicate.org/commentary/the-water-hegemon>.

36 Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar 2 February 1971) United Nations Treaty Series Vol 996 1-14583 (1976) 247. On China's commitments under RAMSAR see http://www.ramsar.org/cda/en/ramsar-documents-list-anno-china/main/ramsar/1-31-218%5E16477_4000_0.

37 Convention on Biological Diversity (Rio de Janeiro 5 June 1992) United Nations Treaty Series Vol 1760 (2001) 79.

38 See Tanzi (n 19) at 6 ff.

39 Xue (n 5) 55 (emphasis added). Xue identifies the 'scope' issue as one of the most difficult issues of the draft: 'the essential question with the issue of the scope of the draft articles was how to reconcile the relation between the natural phenomenon of interconnected physical unity of international watercourses and the social phenomenon of independent riparian sovereign rights over territorial water resources. In other words, in balancing the rights of riparian States to use the water resources within their territory and the duty not to interfere with, or cause harm to, the rights of other riparians in regard to their water resources, the question is to what extent international law should come into play'.

basis of physical conditions of the subject, as other inner waters'.⁴⁰ She suggests that:

... the essential question with the issue of the scope ... was how to reconcile the relation between the natural phenomenon of interconnected physical unity of international watercourses and the social phenomenon of independent riparian sovereign rights over territorial water resources. In other words, *in balancing the rights of riparian States to use the water resources within their territory and the duty not to interfere with, or cause harm to, the rights of other riparians in regard to their water resources, the question is to what extent international law should come into play.*⁴¹

The Chinese reaction to the adoption of the UNWC echoed this view:

[T]erritorial sovereignty is a basic principle of international law. A watercourse State enjoys indisputable territorial sovereignty over those parts of international watercourses that flow through its territory. It is incomprehensible and regrettable that the draft Convention does not affirm this principle.⁴²

This was one of the four reasons that China voted against the adoption of the UNWC, whilst expressly reserving 'the 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'.⁴³

Positioning this issue squarely within the context of territorial sovereignty resonates with the Chinese practice reviewed in more detail below. While the rules of international law in this field have embraced the notion of limited territorial sovereignty,⁴⁴ this on its face is consistent with China's approach.

The analysis of the issue of scope in China's treaties shows that they prefer the term 'transboundary waters/ rivers' (more consistent with the UNECE TWC approach)⁴⁵ rather than the more comprehensive term 'international watercourse' as defined under the UNWC.⁴⁶ For example, according to the 2001 Sino-Kazakh Agreement: 'the term "transboundary river" means all rivers and river flows that cross state borders or are located along the border'.⁴⁷ Similarly, in the 2008 Sino-Russian Agreement, the scope is defined as 'the

utilization and protection of transboundary waters, which include rivers, lakes, streams, and marshes located on or crossing the boundary' between the two states.⁴⁸ A more comprehensive definition of the scope of the treaty application was used in the 1994 Sino-Mongolian Water Agreement. It covers transboundary waters defined as 'lakes, rivers, streams and other waters that straddle or are located on the boundary between the two countries'. It is noteworthy that the latter agreement specifically identifies the most important transboundary waters that fall within its remit – the 'Halaha River, Kerulen River, Bor Nor Lake and Bulgan River'.⁴⁹ Thus, the approach under China's treaties is to define the scope in terms of the particular transboundary waters concerned, linked primarily to surface waters, but sometimes including connected groundwaters. However, while there are many transboundary freshwater aquifers across the region,⁵⁰ the Chinese practice is somewhat inconsistent and does not always embrace the integrated approach to surface and groundwaters, unlike the UNWC.

Another interesting feature of some of China's water-related treaties is the reference to the notion of joint 'ownership' or common use as regards shared water resources. For example, Article 3 of the 1962 Sino-DPRK Treaty on the State Boundary provides that 'the boundary rivers between the two countries shall be *jointly owned and managed*'.⁵¹ Under Article 2 of the 1962 Sino-Mongolian Boundary Treaty the parties agree that 'The water in the transboundary rivers is subject to *common use*'.⁵² The inclusion of these provisions might be explained by two reasons: first, they are present in the border-related treaties which apply mostly to contiguous rivers where the upstream-downstream dilemma is much less prominent; or, secondly, they appear where China is a downstream country, as in the case of the Sino-Mongolian transboundary rivers.

The notion of scope in bilateral agreements concluded by China often extends beyond determining the geographical or hydrographical parameters of the treaty application or particular uses. Most of these instruments are also quite specific in defining areas of cooperation. This is demonstrated by the provisions of Articles 2 and 3 of the 1994 Sino-Mongolian Water Agreement⁵³

40 *ibid.*

41 *ibid.* (emphasis added).

42 Statement by Chinese delegate Mr Gao Feng (*interpretation from Chinese*) UN General Assembly Fifty-first Session, Official Records of the 99th Plenary Meeting (21 May 1997) UN Doc A/51/PV.99 at 6.

43 *ibid.* 7.

44 See P Wouters 'Rivers of the world' (n 23).

45 The UNECE TWC defines 'transboundary waters' as: 'Any surface or groundwaters which mark, cross or are located on boundaries between two or more States, wherever transboundary waters flow directly into the sea, ending at a straight line across their respective mouths between points on the low-water line of their banks' (art 1).

46 Under UNWC art 1, the term of 'international' watercourse (as opposed to transboundary watercourse) is used, defined as 'a watercourse parts of which are situated in different States'; the term 'watercourse' is defined as 'a *system* of surface waters and groundwaters constituting by virtue of their physical relationship a unitary whole and normally *flowing into a common terminus*'.

47 Agreement between the Government of the Republic of Kazakhstan and the Government of the People's Republic of China on Cooperation in the Use and Protection of Transboundary Rivers 2001 art 1.

48 Agreement between the Government of the People's Republic of China and the Government of the Russian Federation Concerning Reasonable Use and Protection of Transboundary Waters 2008 art 1 (unofficial translation by authors).

49 Agreement on Protection and Utilization of Transboundary Waters between PRC and Mongolia 1994 art 1 (unofficial translation by authors).

50 Transboundary Aquifers in Asia with special emphasis on China, UNESCO Report (2006) <http://unesdoc.unesco.org/images/0014/001483/148390e.pdf>.

51 Unofficial translation by authors.

52 Unofficial translation by authors.

53 Sino-Mongolian Agreement provides cooperation in such areas as scientific investigations, monitoring and mitigating pollution; maintaining irrigation works and flood protection facilities 1994 art 2. Article 3 provides a list of activities 'in order to implement the cooperation provided in Article 2', including water quality monitoring; technology exchange; joint investigation; joint research. Article 5 provides for cooperation in the 'protection, development and utilization of the Bor Nor Lake and its fishing resources' (all provisions translated from Chinese into English by authors).

and Article 2 of 2008 Sino-Russian Agreement, which all spell out specific areas and activities for cooperation.⁵⁴

4.3 Substantive rules – balancing competing interests

During the discussions of the UN Working Group of the Whole in its formulation of the final draft of the UNWC, China's delegate stated that China considered Article 5 on equitable and reasonable utilisation as 'the cornerstone [which] set forth a general principle ... and established a proper balance between the rights and responsibilities of each watercourse State', showing clear support for this principle.⁵⁵ This theme of 'balancing' riparian state interests in uses of transboundary waters is embraced in the Chinese treaties, albeit in much less detail than in the UNWC and without guidance on how this is to be implemented in practice. For example, the 1994 Sino-Mongolian Water Agreement provides that 'any development and utilization of transboundary waters shall adhere to the equitable and reasonable principle'.⁵⁶ The 2001 Sino-Kazakh Agreement has a similar provision.⁵⁷ The principle of 'equitable and reasonable use and protection of transboundary waters' is mentioned in the preamble of the 2008 Sino-Russian Agreement on transboundary waters.⁵⁸ In the absence of guidance on how to implement the rule of 'equitable and reasonable use' problems of its interpretation and application may arise. In most cases this lack of detail is remedied by the institutional mechanisms created by the various transboundary water treaties.

The 2001 Sino-Kazakh Agreement requires that mutual interests should be taken into account, but also provides that 'no Party shall limit the other Party in the reasonable use and protection of the water resources of transboundary rivers'.⁵⁹ This provision is to be operationalised within the Sino-Kazakh Joint Commission (discussed below). However, recent reports suggest that the delayed attention to the diminishing quality and quantities of these rivers to downstream Kazakhstan is compromising its economic and environmental interests.⁶⁰ Indeed, one European official has

called for the international community to urge China to endorse the UNWC as a way forward.⁶¹

The principle of equitable and reasonable use has been qualified in one instrument, however: the 1994 Sino-Mongolian Agreement provides that the Parties 'will agree through consultation the volume of annual use of transboundary waters. They shall take effective measures to avoid activities on either side of the boundary that will result in exceeding the fixed volume of annual use'.⁶² How this apportionment is to be executed and monitored is not clear, but one can assume that the Joint Commission will have an important role to play in this regard.⁶³

As to the factors relevant to equitable and reasonable use, there is no clear explanation on this in any of China's transboundary water agreements, compared with the non-exhaustive list of relevant factors set forth in Article 6 of the UNWC.

In the 2008 Sino-Russia Water Agreement, the preamble refers to 'the principles of ... equitable and reasonable use and protection of transboundary waters taking into consideration economic, social and demographic factors'.⁶⁴ These three factors – economic, social and population – are not as broad as the seven factors listed under the UNWC (Article 6). Compared to China's practice the approach under the UNWC is open-ended as regards identification and consideration of 'all relevant factors'. This facilitates taking into account changing circumstances, thus offering future-proofing to address new and emerging issues related to climate change, trade, and so forth.

4.4 The obligation to protect and preserve ecosystems

Quite a few of China's water-related treaties contain references to the protection of ecosystems or the environment in terms reminiscent of the relevant provisions of the UNWC (eg Article 20). The 1994 Sino-Mongolian Water Agreement has a general obligation of the Parties to 'jointly protect the ecosystem of transboundary waters'.⁶⁵ This duty is further developed in Article 6, which requires the Parties to 'take measures to prevent, mitigate and eliminate any possible harm to the quality, resources, natural dynamics of the transboundary waters, and aquatic animals and plants caused by natural or human factors such as flood, drifting ice floes or industrial accidents'. The Sino-

54 Sino-Russian Agreement 2008 art 2 lists 16 areas of cooperation, ranging from technology exchange, maintaining irrigation works, flood prevention, undertaking joint research projects, determining and addressing pollution issues and so forth.

55 UN Doc A/C.6/51/SR.15 at 7.

56 Agreement on Protection and Utilization of Transboundary Waters between PRC and Mongolia 1994 art 4.

57 Agreement between the Government of the Republic of Kazakhstan and the Government of the People's Republic of China Concerning Cooperation in Use and Protection of Transboundary Rivers 2001 art 2 provides that 'in the use and protection of transboundary rivers, the Parties shall adhere to the principles of equity and reasonableness'.

58 In the Sino-Russian Water Agreement 2008 the preamble provides: 'according to such principles as peaceful co-existence, mutual understanding, and equitable and reasonable use and protection of transboundary waters on the basis of considering economic, social, population and other factors'.

59 Agreement between the Government of the Republic of Kazakhstan and the Government of the People's Republic of China Concerning Cooperation in Use and Protection of Transboundary Rivers 2001 art 4.

60 R Stone 'For China and Kazakhstan, no meeting of the minds on water' (27 July 2012) 337(6093) *Science* 405–407 DOI: 10.1126/science.337.6093.405 at 407.

61 *ibid.*

62 Agreement on Protection and Utilization of Transboundary Waters between the Government of the People's Republic of China and the Government of Mongolia art 7 (unofficial translation by authors).

63 The Sino-Mongolian Agreement art 4(2) provides that the two countries will utilise their transboundary waters in accordance with the agreement concluded by the Joint Commission. Under art 11 the Joint Commission will discuss transboundary waters issues annually.

64 The 2008 Sino-Russia agreement in its preamble provides: 'according to such principles as peaceful co-existence, mutual understanding, and equitable and reasonable use and protection of transboundary waters on the basis of considering economic, social, population and other factors'; unofficial translation by the authors.

65 Agreement on Protection and Utilization of Transboundary Waters between PRC and Mongolia art 4 (unofficial translation by authors).

Mongolian Border Treaty also provides that both parties have the obligation of preventing water pollution (Article 7(6)), and prohibits changes to the water-course (Article 8).

On the other hand, the Sino-Russian Transboundary Water Agreement and the Sino-Kazakh Agreement, concluded much later, do not refer specifically to ecosystems but include a range of provisions relevant to ecosystem preservation and protection. Thus, ecosystems are dealt with more broadly in bilateral agreements between the two countries. Article 19 of the Sino-Russian Treaty on Good Neighbourliness and Friendly Cooperation includes a general provision requiring:

... cooperation in the protection and improvement of the environment, prevention of cross-border pollution, the fair and reasonable use of water resources along the border areas and the use of biological resources in the northern Pacific and boundary river areas; joint efforts in protecting rare flora, fauna and the natural ecosystem, and cooperation in preventing the outbreak of major accidents arising from natural disasters or due to technical reasons and eliminating their after-effects.

This framework approach to 'fair and reasonable use' and environmental protection and pollution prevention provides a platform for China's evolving bilateral treaty-practice on transboundary waters. Moreover, the focus of Part 4 of the Sino-Russian Border Regime Agreement is the preservation of ecosystems (Article 8(2)), prevention of pollution (Article 8(3)), conservation of fisheries (Article 10), protection of the river banks (Article 11) and protection of hydraulic installations and facilities (Article 12), each a matter that relates to ecosystem protection and preservation.

Similarly, the 2006 Sino-Kazakh Agreement on the Border Regime contains several references to the duty to protect the riverbed, water flow and banks of their boundary rivers. The treaty protects the shared fisheries (Article 9) and the integrity of the riverbed and banks (Article 10). More specifically, it provides that: 'When a Party's behaviour may change the riverbed location and the flow conditions of boundary waters, affect the utilization of water resources and fish migration, destroy environment and cause harm to other beneficial uses ..., the two Parties shall resolve it by agreement'.⁶⁶ Even more relevant to ecosystem preservation and protection, Article 15 requires the Parties to protect natural resources connected to the border river areas.⁶⁷

The 2011 Sino-Kazakh Agreement on the Protection of Water Quality of Transboundary Rivers pays specific attention to the conservation of the aquatic environment and the protection of transboundary rivers from pollution (Preamble) and considers the prevention of pollution as the main area of cooperation (Article 3).

It is noteworthy that the ecosystem approach, albeit in a limited version, was reflected even in some early border regime treaties, reflecting the common interest of riparian states. The transboundary agreements concluded by China with its neighbours are also quite

specific when it comes to particular cooperative measures. To some extent, these provisions are more comprehensive than those of the UNWC but they are less detailed than the provisions, practices and procedures that have evolved under the UNECE TWC. China has established several joint bodies, such as the Sino-Mongolian joint transboundary waters commission,⁶⁸ the Sino-Russian Joint Border Commission,⁶⁹ the China-Kazakh Joint Border Commission,⁷⁰ as well as the Sino-Kazakh Commission on Cooperation in the field of environmental protection.⁷¹ These bodies play a key role in operationalising cooperation under the various agreements, including on ecosystem protection.

In addition, there is also the broader context for China's duty in this area, as China is party to various international environmental treaties such as the Convention on Biological Diversity, and RAMSAR, which include duties in this regard. China's annual reporting mechanism under the CBD reveals its state practice in areas that touch transboundary waters.

4.5 The due diligence obligation not to cause significant harm

Both the UNWC and UNECE TWC have, among their principal objectives, prevention of transboundary harm, albeit in different ways; but both instruments are based on due diligence obligations.⁷² This is a duty of conduct, as distinct from a duty of result. Thus, the lawfulness of activities related to trans-boundary waters is determined primarily by the nature of the states' actions rather than the worthiness of the outcome. An evaluation of China's practice in this area reveals a similar attitude to the issue of transboundary harm.

This approach is determined by China's outlook on international law, which embraces the notion of restricted territorial sovereignty and is contextualised in practice by its repeated commitments to cooperation.⁷³ China did not support the relevant UNWC provision (Article 7), explaining this by the perceived 'obvious imbalance between those of States on the upper reaches of an international watercourse and those of States on the lower reaches'.⁷⁴ Clearly an absolute no-harm rule places much higher requirements on upstream states and may constrain their development, which they most likely will not agree to.⁷⁵ However, this view does not acknowledge that the no-significant-harm obligation under the UNWC is mitigated by the *due diligence* obligation, especially

66 Sino-Kazakh Agreement on the Regime of the State Border 2006 art 11 (unofficial translation by authors).

67 *ibid* art 15.

68 Sino-Mongolian Transboundary Water Agreement art 10.

69 Sino-Russian Border Regime Agreement art 50.

70 Sino-Kazakh Border Regime Agreement art 49.

71 Sino-Kazakh Agreement on the Protection of Water Quality of Transboundary Rivers 2011 art 5.

72 UNWC art 7; UNECE TWC art 2.

73 Xue (n 5) 52, in exploring the UNWC suggests that: '... as long as non-navigational uses of watercourses are primarily subject to the respective sovereignty of the riparian States, international law is bound to perform a coordinating, guiding function'.

74 UNGA 99th Plenary Meeting of the 51st Session, Official Records A/51/PV.99 (n 42) at 6. In the opinion of the Chinese representative this 'imbalance' 'will not facilitate broad acceptance of the draft Convention and will make it difficult to implement'.

75 Wang Xi *International Environmental Law* (Law Press 1998) 188.

considered in the context of the governing principle of 'equitable and reasonable use'.⁷⁶

China appears fully to embrace the due diligence approach, as evidenced, for example, in the 2001 Sino-Kazakh Agreement, which requires the Parties to 'undertake appropriate measures' and to make 'efforts to prevent or mitigate serious harm caused to a State Party as a result of flooding disasters and man-made accidents' (Article 3). The obligation to 'make efforts to prevent' is clearly a duty of conduct and not of result.

The 1994 Sino-Mongolian Water Agreement provides that the two countries must 'develop and utilise transboundary waters in a way that shall not be detrimental to the other side'. Any such development or use 'shall be consistent the principle of fairness and equity without impeding reasonable use of transboundary waters'.⁷⁷ This formulation somewhat lowers the threshold of the no-harm rule, although this is made less absolute by reference to the term 'reasonable use'. Notably, however, China's agreements make no reference to the issue of compensation where injury occurs.

4.6 Procedural rules

As noted above, the duty to cooperate has substantive as well as procedural expressions. Rules of procedure determine the mechanisms through which cooperation is realised. Thus, Article 2 of the 2001 Sino-Kazakh Water Agreement provides that the two countries, '[i]n the use and protection of transboundary rivers ... shall closely cooperate in a sincere, neighbourly, and friendly manner'. This is further elaborated in subsequent provisions of the same agreement.

While the range of procedural obligations used in international water agreements is sufficiently broad (these are generally reflected in Part III of the UNWC), the Chinese practice is slanted toward the following two: exchange of data and information;⁷⁸ and consultations as the principal means of cooperation.⁷⁹

76 The ILC Commentary to the UNWC draft article 7 explains: 'The approach of the Commission was based on three conclusions: (a) that article 5 alone did not provide sufficient guidance for States in cases where harm was a factor; (b) that States must exercise due diligence to utilize a watercourse in such a way as not to cause significant harm; and (c) that the fact that an activity involves significant harm would not of itself necessarily constitute a basis for barring it. In certain circumstances "equitable and reasonable utilization" of an international watercourse may still involve significant harm to another watercourse State. Generally, in such instances, the principle of equitable and reasonable utilization remains the guiding criterion in balancing the interests at stake' Commentary to the Draft Articles on the Law of the Non-navigational Uses of International Watercourses, adopted on Second Reading in Report of the International Law Commission on the work of its forty-sixth session [1994] 2(2) YB International Law Commission p 103 http://untreaty.un.org/ilc/documentation/english/a_cn4_1493.pdf.

77 Sino-Mongolian Water Agreement 1994 art 4.

78 eg the Sino-Kazakh Agreement 2001 (arts 6 and 7) contains conditions applicable to the content, quantity and times for exchange of data and information, including extraordinarily important hydrological information.

79 eg in the 1994 Sino-Mongolian Water Agreement references to consultations can be found in arts 5 (consultation regarding fishing), 7 (consultation regarding annual consumption) and 8 (consultation regarding location of stations and posts).

As regards the exchange of information, more broadly, China has agreed to exchange hydrological data and information with a number of its neighbours, concluding agreements with Bangladesh (2008), India (2008), Kazakhstan (2006) and Russia (2008) in this regard and also with the Mekong River Commission (2002 Agreement, renewed in 2008).⁸⁰

In line with its adherence to the principle of limited territorial sovereignty China does not support the UNWC's procedural rules on planned measures, such as notification; and these are not found in any of its agreements with its neighbours. Under the UNWC there is a phased mechanism for a planned measure, which requires notification, exchange of information and consultations; where consent is not obtained, there is a suite of actions that the notifying state can take.

Nonetheless, some of China's water-related treaties refer to planned measures, which require mutual agreement prior to their implementation. For example, according to the Protocol on Borderline (China and North Korea) any party planning engineering works which are likely to change the navigation channel, affect the water flow or river banks of another party, must seek approval of the latter (Article 17). The 2009 Provisional Agreement on the Border Affairs between China and Vietnam requires a prior agreement of the parties for any project likely to have a negative effect on boundary waters (Article 2). However, these treaties deal with water in the context of boundary matters, and this approach of prior agreement is typical of all similar agreements.

Planning for hazardous events provides an opportunity for cooperative approaches to emergency response measures. Part V of the UNWC sets forth individual and joint obligations in this regard.⁸¹ The UNECE TWC embraces a similar approach with more detailed requirements for riparian parties.⁸²

China is ready to address the issues of harmful conditions and emergency situations in its bilateral treaties. The 2001 Sino-Kazakh Water Agreement has one general obligation of a due diligence character.⁸³ The 1994 Sino-Mongolian Agreement obliges its parties to take measures to prevent, mitigate and eliminate any possible harm caused by natural or human factors, such as industrial accidents (Article 6). Following the

80 Agreement on provision of hydrological information between China and MRC (August 2008) <http://www.mrcmekong.org/news-and-events/news/agreement-on-provision-of-hydrological-information-renewed-by-china-and-mrc/>.

81 UNWC art 27 provides: 'Watercourse States shall, individually and, where appropriate, jointly, take all appropriate measures to prevent or mitigate conditions related to an international watercourse that may be harmful to other watercourse States'. UNWC art 28 provides: 'In case of emergency situations, a Watercourse State shall, without delay and by the most expeditious means available, notify other potentially affected States and competent international organizations of any emergency originating within its territory'.

82 See Part II UNECE TWC arts 9-16; art 14 deals with 'Warning and alarm systems' and art 15 sets forth details on 'Mutual assistance'.

83 Sino-Kazakh Agreement 2001 art 3 provides that: 'The Parties shall undertake appropriate measures and shall make efforts to prevent or mitigate serious harm caused to a State Party as a result of flooding disasters and man-made accidents'.

transboundary pollution incident on the Songhua River, which was caused by an industrial disaster in China with adverse impacts downstream in Russia, the two countries concluded an Agreement on Cooperation in the Area of Prevention and Elimination of Emergency Situations (2006),⁸⁴ which however has not entered into force. Instead, an inter-ministerial memorandum of understanding, which was concluded in 2008, created a separate mechanism of early warning and exchange of information concerning transboundary emergencies of environmental character.⁸⁵ The two parties agreed promptly to warn each other of any incidents involving among other things significant pollution of their transboundary rivers. The 2008 Sino-Russian Water Agreement also addresses emergency events, requiring the two countries immediately to exchange relevant information and to undertake necessary and reasonable measures to eliminate or mitigate any consequence arising.

4.7 Institutional mechanisms

There are very few areas of interstate relations where a permanent institutional mechanism would be as important as in the area of transboundary waters. Any developed legal regime in this field has some kind of institutional mechanism, although they vary in terms of their mandate, powers, composition and structure. While the UNWC is not very specific when it comes to institutional mechanisms, it encourages states to establish such joint mechanisms or commissions to facilitate cooperation on relevant measures and procedures.⁸⁶ The 1992 UNECE TWC goes further in outlining tasks of such joint mechanisms.⁸⁷ The UNECE TWC regime has evolved into a complex institutional framework, with the central role played by the Meeting of the Parties (MoP), which serves as a forum for cooperation and implementation of the treaty and has its own system of subsidiary bodies and groups.⁸⁸

China has a number of joint bodies responsible for environmental and water cooperation with its neighbours, all at a bilateral level. These include: (i) Sino-Kazakh

Joint Commission on the Use and Protection of Transboundary Rivers (Article 8, 2001 Water Agreement); (ii) Sino-Kazakh Commission on Cooperation in the Field of Environmental Protection (Article 5, 2011 Water Quality Agreement); (iii) Sino-Mongolian Joint Commission on Transboundary Waters (Article 10, 1994 Water Agreement); and (iv) Sino-Russian Joint Commission on the Reasonable Utilization and Protection of Transboundary Waters (Article 4, 2008 Water Agreement). These joint bodies have similar remits, which usually include information exchange, water quality monitoring, joint scientific research and emergency response cooperation. Most of them provide a platform for consultations, which serve an important function of dispute prevention. On the whole, these institutions act as a focal point for continuous cooperation of the neighbouring states with respect to their shared waters, or environmental issues more generally. The joint bodies often establish working groups, such as the Working group on monitoring and the Working group on the emergencies and pollution (Sino-Kazakh Joint Commission on Water Quality).⁸⁹

These bilateral commissions usually meet annually. For example, the Sino-Kazakh Water Commission has held nine annual meetings as of September 2012.⁹⁰ It received recognition for its work by both governments in a recent Joint Communiqué.⁹¹ As a result of the efforts of the Commission, the Parties decided jointly to build waterworks on the Khorgos River, to exchange data from gauging stations on the main transboundary rivers and to enhance research cooperation.⁹² Nevertheless, major issues remain in the bilateral transboundary water relations between China and Kazakhstan.⁹³

4.8 Dispute settlement procedures

A broad range of dispute settlement mechanisms is available to watercourse states in dealing with differences, which usually arise either as a result of activities affecting their transboundary waters or from disagreements over treaty interpretation or application. If a dispute or a disagreement arises, most international watercourse legal regimes tend gradually to elevate it from one level of dispute settlement procedure to another: from using technical experts within a joint institution to consultations or diplomatic negotiations and, occasionally, third-party involvement, including arbitration or adjudication.

The UNWC makes provision for the peaceful resolution of disputes that might arise in the transboundary

84 Agreement between the Government of the Russian Federation and the Government of the People's Republic of China on Cooperation in the Area of Prevention and Elimination of Emergency Situations (Peking 21 March 2006. For Russian text see <http://www.mid.ru>). The agreement is not in force.

85 RF and PRC create a system of early warning about emergency situations. For Russian text see ria.ru/eco/20081112/154870768.html#ixzz2LGfTeIoW.

86 1997 UNWC art 8(2) and art 24(1).

87 UNECE TWC 1992 art 9 sets out the duties of joint bodies, which include, inter alia, data collection, exchange, inventories and evaluation regarding pollution, joint monitoring programmes concerning water quality and quantity; elaborating and evaluating emission limits for waste water, early warning systems, joint participation in environmental impact assessments and so forth.

88 There may be other benefits from the institutional framework established under the UNECE TWC, which promotes cooperation at a range of scales and including a wide spectrum of actors and stakeholders. This improves collaboration, awareness, knowledge and capacity at cross-sectoral and multi-layered levels in State and regional contexts. ... Thus advantages may as well be derived by Parties from those provisions that bear also on the exercise of their internal sovereignty, ie on the relation between a Government and its local administrations, on the one hand, and its citizens and regional individuals and companies, on the other' (para 33).

89 Sino-Kazakh Agreement 2011 art 5.

90 The Ninth Meeting of China-Kazakhstan Joint Commission on the Use and Protection of Transboundary Rivers was held in Urumqi <http://www.jfdaily.com/a/2790971.htm>.

91 China-Kazak Joint Communiqué 2011 para 13 http://news.xinhuanet.com/world/2011-02/23/c_121115212.htm.

92 http://www.cawater-info.net/5wwwf/national_report_kazakhstan_e.htm.

93 Stone (n 60); A Dunn 'The Irtysh River in hydro-politics of Russia, Kazakhstan and China' (27 February 2013) <http://eurodialogue.org/euro-central-asia/The-Irtysh-River-in-Hydro-politics-of-Russia-Kazakhstan-and-China>. See also Sievers 'Transboundary jurisdiction and watercourse law' (n 34) 1-42.

water context. It contains a set of settlement procedures (Article 33, with some 10 sub-provisions and an Annex), which include among other means an innovative mechanism – compulsory fact-finding where other traditional procedures have been unsuccessful.⁹⁴ The UNECE TWC takes a similar but less elaborate approach to dispute settlement: the parties must seek a solution by negotiation or by any other means of dispute settlement acceptable to them (Article 22 and Annex).⁹⁵ Where a dispute is not resolved under this provision the dispute may be settled by arbitration or be submitted to the International Court of Justice.

China presents itself as a strong supporter of the peaceful resolution of international disputes. However, it did not agree with the compulsory fact-finding provided by the UNWC, which in China's opinion contradicts Article 33 of the UN Charter.⁹⁶ This position was shared by some other countries during the voting on the text of the UNWC in the Working Group of the Whole.⁹⁷ While China's position generally embraces the principle of peaceful settlement of disputes, its practical application is restricted; China generally accepts neither compulsory dispute settlement nor any third party involvement in dispute resolution. Its traditional approach is to address differences with other states directly through consultations or diplomatic negotiations. Such inclination towards these means of resolving possible disagreements with its neighbours can be seen in the dispute settlement provisions of the 1994 Sino-Mongolian Agreement (Article 14) and the 2001 Sino-Kazakh Agreement (Article 12), both of which refer to consultations. The 2008 Sino-Russian Agreement provides for negotiations (Article 7). Quite often, the task of facilitating dispute resolution is entrusted to a joint body.⁹⁸ This approach is reiterated in current challenges facing China on several of its transboundary waters, such as the Brahmaputra, where President Xi maintains that

China is prepared to cooperate on the planned series of dams being constructed upstream.⁹⁹

5. CHINA'S 'SOFT-PATH' TO COOPERATION: CHALLENGES IN THE SOUTH

While China's northern transboundary waters are governed by quite a few bilateral treaties and institutions, the number of which continues to grow, the situation across its southern borders is rather different. Main transboundary watercourses such as the Lancang/Mekong (China, Myanmar, Thailand, Laos, Cambodia and Vietnam), the Yarlung Zangbo River/Brahmaputra River (China, India, Bangladesh), Shiquqn/Indus (India and Pakistan), for example, are not subject to any intergovernmental agreements with China as a party. Nevertheless, there exist some legal arrangements relating to hydrological data exchange (Annex I). This section will identify some of the outstanding issues in the context of China's cooperation on the Lancang/Mekong and the Yarlung Zangbo River/Brahmaputra, as two selected case studies.

5.1 The Lancang/Mekong River

The Lancang River is the longest river flowing from north to south and crossing the Chinese border. It takes its source from the Zhaqu of the Guangguori Peak of Tanggula Mountain Range in Qinghai Province, running south until it leaves China at the Nanla Bayout of Yunnan Province and from there on it becomes the Mekong River.¹⁰⁰ China is currently developing the water resources of its upper reaches, mostly by building dams to produce hydropower. The lower Mekong (80 per cent of the total drainage basin)¹⁰¹ is governed by the 1995 Mekong Agreement (Cambodia, Laos, Vietnam and Thailand).¹⁰² While Article 39 of the agreement permits China and Myanmar to become parties, the latter cooperate as 'dialogue partners' in the work of the Mekong River Commission (MRC). China has an agreement with the MRC concerning provision of hydrological data on the Lancang/Mekong,¹⁰³ referred

94 The UNWC requires its parties to seek a peaceful settlement of any disputes between them. If negotiation is unsuccessful, the Parties may jointly employ the good offices of, or mediation or conciliation by a third party or use joint commissions or agree to arbitration or to have the matter brought before the ICJ. Where no result occurs from six months of the date of request for negotiation, any Party may request the dispute be submitted to impartial fact-finding. See art 33(4)–(9), art 33(10) and Annex.

95 Tanzi (n 19) 39, in comparing the dispute settlement provisions under the UNWC and UNECE TWC does not find any incompatibility in the two formulations, since both instruments provide options.

96 The Chinese position was expressed in the following statement of its representative: 'Article 33 of the United Nations Charter lays down that States may seek a peaceful solution to a dispute by means of their own choice. The compulsory fact-finding dictated by the draft Convention goes against the provisions of the Charter. The Chinese Government favours the settlement of all disputes by peaceful means, through consultations. We are not against fact-finding as an optional means of settlement, but we cannot agree to any mandatory means or procedures for the settlement of a dispute without the consent of the countries parties to the dispute'. See UNGA 99th Plenary Meeting of the 51st Session, Official Records A/51/PV. 99 (n 74) 7.

97 During the voting in the Working Group of the Whole at the UN on the draft provision article 33, China, Colombia, France, India, and Turkey voted against the provision. See UN Doc A/C.6/51/NUW/L.3/AD1 and UNGA 99th Plenary Meeting of the 51st Session, Official Records A/51/PV. 99 supra (n 74) 6–7.

98 eg Sino-Russian Water Agreement 2008 art 4(3).

99 Recent reports concerning China's projects on the Brahmaputra have stated that China's President Xi had proposed a five-point formula under which both India and China would accommodate each other's concerns in matters of 'core interests'. See 'PM wants India-China body on Brahmaputra dams' (28 March 2103) <http://www.hindustantimes.com/world-news/Africa/PM-wants-India-China-body-on-Brahmaputra-dams/Article1-1033494.aspx>.

100 Chinese Ministry of Culture 'Lancang River' http://www.china-culture.org/gb/en_travel/2003-09/24/content_34164.htm (15 July 2010), cited in P Wouters 'The international law of watercourses: new dimensions: collected courses of the Xiamen' (2010) 3 *Academy of International Law* 427. See also <http://www.fao.org/nr/water/aquastat/basins/gbm/index.stm>.

101 UN Doc E/CN.11/457, ST/ECAFE/SER.F/12 'Development of water resources in the lower Mekong Basin' 1957) 12 *Flood Control Series* 3.

102 Agreement on the Cooperation for the Sustainable Development of the Mekong Basin (signed and entered into force 5 April 1995) *ILM* 34 (1995) 864. The Mekong Agreement, upon closer scrutiny, appears to cover each of the cornerstone issues relevant to effective transboundary watercourse management – scope, substantive rules, procedural rules, institutional mechanisms and dispute settlement. See P Wouters 'The international law of watercourses' (n 100) 347.

103 Agreement on Provision of Hydrological Information on the Lancang/Mekong River during Flood Season <http://www.mrcmekong.org/news-and-events/news/agreement-on-provision-of-hydrological-information-renewed-by-china-and-mrc/>.

to in the Mekong Commission's latest work plan.¹⁰⁴ This document raises concerns over China's dam construction upstream, as well as issues of water quality. On the other hand, it also highlights the potential for increased cooperation across the basin and strengthening engagement with China and Myanmar.¹⁰⁵

5.2 The Yarlung Zangbo/Brahmaputra River

The Yarlung Zangbo River, 'the highest great river in the world' stretches across some 2057 kilometres in China, third largest in China (after the Yangtze and the Pearl).¹⁰⁶ Upon its entry into India, it becomes the Brahmaputra, which on its course meets the Ganges River before emptying into the Indian Ocean at the Bay of Bengal. The Qinghai-Tibet Plateau has been called the 'Water Tower' for China.¹⁰⁷

The current issue on the Yarlung Zangbo/Brahmaputra River relates to China's intention to build dams on its upper reaches, raising serious concerns in India. There are signs that Bangladesh is also worried about China's development plans upstream.¹⁰⁸ Recent reports call for a treaty to be concluded to address transboundary water issues between China and India.¹⁰⁹ The matter has been raised by the leaders of the two countries, with President Xi assuring India's Prime Minister Manmohan Singh that his country's concerns would be addressed.¹¹⁰ Various reports from China suggest

that the dams as 'run-of-the-river' projects will not cause problems downstream and that it has shared information on the proposed works with India.¹¹¹ Despite this, China's actions vis-à-vis India continue to attract considerable criticism, referred to as a regional 'water hegemon' by one persistent critic¹¹² and recent reports citing lingering border problems that have led to growing concerns.¹¹³

5.3 Towards enhanced cooperation on the Lancang/Mekong and the Yarlung Zangbo/Brahmaputra Rivers

China maintains its restricted territorial sovereignty approach in its relations with its southern neighbours. While the transboundary water resources across this region are not covered by treaties, China is involved in some, albeit limited, forms of cooperation. As was noted earlier, there are agreements related to the exchange of hydrological data and information inter alia with the MRC¹¹⁴ and with India (as just two examples, see Annex I).¹¹⁵ It has been acknowledged that sharing hydrological data on the Lancang/Mekong has 'improved the quality of flood forecasting for the Mekong River and played a significant role in reducing losses caused by floods in the MRC member countries of Cambodia, Laos, Thailand and Vietnam'.¹¹⁶

Overall, however, there is a clear lack of adequate normative and institutional frameworks capable of reconciling competing demands over shared water resources of the transboundary states concerned. While it might be too optimistic to expect that China and its neighbours will be able to create sufficiently developed frameworks in the near future, there is a need to formalise transboundary cooperation in some form. There have been increased bilateral relations in the region, notably Sino-Indian relations in recent times, with Chinese Premier Li declaring that: 'The

104 Mekong Work Plan 2012 <http://www.mrcmekong.org/assets/Publications/strategies-workprog/work-program-12-final.pdf>.

105 There are, however, a range of trans-boundary benefits of the water resources of the Mekong Basin that are shared amongst riparian countries. This puts the six countries that share the basin in a unique position to focus on the sharing of water benefits, rather than simple volumetric allocation of water. Examples of this could include the beneficial effect of floods on agriculture; the benefit of alluvial silt deposits; and the importance of the Tonle Sap reverse flow on the cycle of fish breeding. Far from being a point of conflict; in this environment, trans-boundary water-use in the Mekong is an opportunity for cooperation and improved development across the region.' See Mekong Work Plan 2012 <http://www.mrcmekong.org/assets/Publications/strategies-workprog/work-program-12-final.pdf> at 11 and 151, which provides concrete plans for engagement with China and Myanmar, especially in areas of technical cooperation and sustainable hydro-power initiatives.

106 P Wouters 'The international law of watercourses' (n 100) 427.

107 H Daming, W Zhao and F Feng 'Research progress of international rivers in Asia' (2004) 14(1) *Journal of Geographical Sciences* 21–28.

108 *The Daily Star* 'Brahmaputra river water for mutual benefit' (7 April 2013) <http://www.thedailystar.net/beta2/news/brahmaputra-river-water-for-mutual-benefit/>.

109 *NY Daily News* (5 May 2103) 'India should push for treaty with China on Brahmaputra: experts' <http://india.nydailynews.com/news/article/5d63e4859870588b5b49f670ea953a41/india-should-push-for-treaty-with-china-on-brahmaputra-experts>.

110 China proposes to construct a series of dams on the Brahmaputra, which is contested by India. Indian Prime Minister Manmohan Singh conveyed his concerns directly during his first meeting with the new President of China, Xi Jinping. See 'Brahmaputra: panel alert on China projects' (15 April 2013) <http://www.indianexpress.com/news/brahmaputra-panel-alert-on-china-projects/1102520/>. Recent reports concerning China's projects on the Brahmaputra have stated that China's President Xi had proposed a five-point formula under which both the countries would accommodate each other's concerns in matters of 'core interests'. See 'PM wants India-China body on Brahmaputra dams' (28 March 2103) <http://www.hindustantimes.com/world-news/Africa/PM-wants-India-China-body-on-Brahmaputra-dams/Article1-1033494.aspx>. See also *The Economic Times* (2 March 2013) 'China claims Brahmaputra dam not affecting water flow to India'

http://articles.economicstimes.indiatimes.com/2012-03-02/news/31116830_1_zangmu-brahmaputra-river-tsangpo-river.

111 S Bose 'Chinese dam diplomacy on Brahmaputra River' (8 May 2013) <http://maritimeindia.org/chinese-dam-diplomacy-brahmaputra-river-0>. Dr Bose asserts: 'The unilateral and non-cooperative decision of China is definitely a sign of exercising power over South Asian region'.

112 Chellaney claims that China is 'the world's biggest dam builder – with slightly more than half of the approximately 50,000 large dams on the planet'; see Chellaney 'The water hegemon' (n 35). See also B Chellaney *Water: Asia's New Battleground* (Georgetown University Press September 2011).

113 Some 4000 km of the boundary between China and India remains unsettled, and troops now assemble in the Himalayan region where the border is unmarked. See 'India and China square off – high stakes' *The Economist* (30 April 2013) <http://www.economist.com/blogs/banyan/2013/04/india-and-china-square>.

114 According to Jeremy Bird, former CEO of the MRC: 'As a Dialogue Partner, China has since 2002 provided the MRC Secretariat with daily water level and rainfall data from two Lancang River hydrological stations at Yunjinghong and Man'an during the flood season from 15 June to 15 October each year'. http://news.xinhuanet.com/english/2008-09/25/content_10110507.htm.

115 Memorandum of Understanding (MoU) on the Provision of Hydrological Information of the Brahmaputra/Yaluzangbu River in flood season 2008. This MoU replaced the first MoU which was signed in 2002 and was valid for five years. See <http://www.fsou.com/html/text/eag/1006692/100669213.html>.

116 'MRC chief satisfied with cooperation with China' http://news.xinhuanet.com/english/2008-09/25/content_10110507.htm.

peace of the world and the stability of the region cannot be guaranteed without strategic mutual trust between China and India'. Such statements imply that the countries might agree more formal arrangements regarding their shared transboundary water resources.¹¹⁷ It is suggested that the evolution of the Sino-Kazakh legal regime (from a typical umbrella agreement to more specific regulations and arrangements) may provide a useful model for increasing meaningful transboundary water cooperation across China's southern borders.

5.4 Cooperation on China's transboundary water: the three cornerstones of its hydro-diplomacy

China's approach to transboundary water resources management is embedded within the 'duty to cooperate', which in the Sino practice examined above, is based upon three core principles: (i) the concept of restricted territorial sovereignty; (ii) bilateral relations as the locus for engagement; and (iii) a focus on the procedural and institutional aspects of cooperation.

Examined in the light of the UN Resolution on Water Cooperation, China's approach contributes to the instrument's overall objective of improving global management of water resources, including transboundary.¹¹⁸ The UN Resolution calls for international cooperation aimed at achieving the water-related goals of Agenda 21 and related programmes and initiatives with a primary focus at the national level (ie Implementation Programme, UN Millennium Declaration; Johannesburg Plan of Implementation).¹¹⁹ Nevertheless, both Agenda 21 and the Johannesburg Plan of Implementation emphasise the importance of the international/transboundary facet of water resources utilisation. This is particularly evident in the context of implementing the concept of integrated management of water resources (IWRM), the main objective of which is to ensure sustainable, equitable and efficient water use in order to meet the needs of water users and nature. The complexity of the practical application of IWRM in a single country is evident. Its implementation at the transboundary level, involving interaction of different national jurisdictions over parts of an integrated natural system (a river or drainage basin), is an even more challenging proposition. However, the integrated approach to the management of water resources should over time become an essential element of any legal regime governing transboundary watercourses. While Chinese practice in this field appears to cover the fundamental precepts in this regard, two important observations can be made: (i) the soft-path to transboundary water cooperation presents 'hard' problems for unresolved transboundary water regimes

(ie where treaties have not been concluded), such as on the Yarlung/Brahmaputra; (ii) as an upstream riparian state on most of its shared transboundary water resources, China faces complex challenges in rolling out its 'soft-path' to cooperation, which must be considered in the broad context of Chinese foreign policy and its approach to international law.

From an international legal perspective, the views expressed by Xue Hanqin (prior to her appointment to the ICJ) that 'China pursues an independent foreign policy of peace and promotes equal and mutually beneficial cooperation for common development' elaborates on China's approach.¹²⁰ President Xi expresses similar views, stressing the two sides of international cooperation. Thus, while China actively pursues its goal to be the 'good neighbour', this will not come at a cost to China's national interests: 'No foreign country should expect us to make a deal on our core interests ...'.¹²¹ This is reflected in the Constitution of the People's Republic of China, which provides that peaceful coexistence involves mutual respect for sovereignty and territorial integrity, mutual non-aggression, non-interference in each other's internal affairs, equality and mutual benefit as well as peaceful coexistence in developing diplomatic relations and economic and cultural exchanges with other countries.¹²² This pluralistic approach, the essence of the Chinese 'soft-path', is based upon seeking mutual consent and recognising national diversity in its alliances, which influences directly the nature of its transboundary water cooperation.¹²³

In the absence of transboundary water agreements, such as across most of its southern reaches, China implements the 'soft-path' primarily through bilateral high-level meetings (ie with India and Pakistan most recently)¹²⁴ and in selected multilateral forums (such as ASEAN, BRICs and SCO)¹²⁵ in accordance with China's

120 Hanqin Xue 'China's open policy and international law' (2005) 4(1) *Chinese Journal of International Law* 138–39.

121 Xi said that China will adhere to an 'open, cooperative and "win-win" development model with due consideration for both domestic and international situations. China will pursue its development by seeking a peaceful international environment while safeguarding and promoting world peace' *Shanghai Daily.com* 'Xi vows no compromises over China's sovereignty' (30 January 2013) Xinhua <http://www.shanghaidaily.com/nsp/National/2013/01/30/Xi%2Bvows%2Bno%2Bcompromises%2Bover%2BChinas%2Bsovereignty/>.

122 'Preamble' Constitution of the People's Republic of China (4 December 1982) <http://www.english.people.com.cn/constitution/constitution.html>, cited in L Odgaard 'China's coexistence strategy and the consequences for world order' (23 May 2013) 13(11) *China Brief Volume* [http://Jamestown/programs/chinabrief/single/?tx_ttnews\[tt_news\]=40914&tx_ttnews\[backPid\]=25&cHash=d900758cecbfbd2396fe08fa6e8dac0d](http://Jamestown/programs/chinabrief/single/?tx_ttnews[tt_news]=40914&tx_ttnews[backPid]=25&cHash=d900758cecbfbd2396fe08fa6e8dac0d). Odgaard identifies five practices in Chinese-style coexistence in its foreign relations.

123 Odgaard (n 122) argues that: 'The Chinese coexistence model is an interest-based version of world order with no domestic model for state-society relations comparable to the way the U.S.-led liberal international order encourages representative democracy. The Confucian notion of "harmonious society" remains a rhetorical device without much practical applicability'.

124 Chinese Premier Li Keqiang recently paid official visits to India and Pakistan (May 2013); see <http://english.cntv.cn/special/lifournations/homepage/index.shtml>.

125 ASEAN is the Association of South-East Asian Nations founded in 1967 as a regional political, economic and security organisation of 10 states in South-East Asia (Indonesia, Malaysia, the Philippines,

117 'Chinese premier's India trip helps build mutual trust, deepen cooperation' *Xinhuanet News* (23 May 2013) http://news.xinhuanet.com/english/china/2013-05/23/c_124750043.htm.

118 See details on China's approach in Wang Xinjun 'On China's traditional culture and Peaceful development strategy' Asia Paper, Institute for Security and Development Policy (August 2012) 26–27.

119 On the UN approach see http://www.un.org/waterforlifedecade/water_cooperation.shtml.

long culture of peace and approach to international coexistence.¹²⁶ While this approach has many positive aspects, the difficult challenges for downstream states related to the development activities by geographically advantaged upstream states remains a 'hard' problem, especially where the soft-path yields an impasse. The two UN global water conventions studied here provide frameworks for implementing cooperation, which cover the five key legal issues in transboundary water regimes, including compulsory dispute settlement. China strongly adheres to peaceful means for conflict management, but reserves this right to national governments (eschewing third-party involvement), based on its firm focus on national sovereignty.

China appreciates the view of UN Secretary General Ban Ki-Moon that 'Water is central to the well-being of people and the planet'.¹²⁷ In its national and international strategies China attempts to address the challenges associated with effective water resources management within and beyond its borders, including in developmental contexts abroad.¹²⁸ Whether China's actions to realise 'China's dream'¹²⁹ will move from coexistence to 'co-progressiveness', identified by one Chinese legal scholar as an evolved approach to addressing global community issues, remains to be seen.¹³⁰

Singapore, Thailand, Brunei, Burma (Myanmar), Cambodia, Laos and Vietnam); China acceded to the ASEAN Treaty of Amity and Cooperation in South-East Asia and actively engages with ASEAN. The Shanghai Cooperation Organisation (SCO), a regional international organisation promoting cooperation in political, military, economic, energy and cultural fields, includes states in Europe, the Near East, Central Asia and South-East Asia (China, Russia, Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan are member states; Mongolia, Iran, Pakistan and India are observer states). BRICS, comprised of Brazil, Russia, India, China and South Africa, is a group of emerging leading economies. See further discussion in M de Haas 'Russian-Chinese security relations: Moscow's threat from the East?' Netherlands Institute of International Relations Clingendael Report 3 (March 2013).

126 See Wang Xinjun (n 118) 13–14, 44. Wang cites the long-standing peaceful relations China has maintained in the south, including strong engagement under ASEAN, which continues to strengthen and discusses also the approach to improving Sino-Indian cooperation. See also China white paper on peaceful development.

127 'UN kicks off year promoting international cooperation on water management' (11 February 2103) http://www.un.org/apps/news/story.asp?NewsID=44118&Cr=water&Cr1=environment#_UZ-biMqoDYE.

128 China's Twelfth Five Year Plan (2011–2015) (n 25). In the Asian context see M S Huda 'Can robust bilateral cooperation on common rivers between Bangladesh and India enhance multilateral cooperation on water security in South Asia?' (2013) 37(3) *Strategic Analysis*.

129 'Xi Jinping's vision – chasing the Chinese dream' *The Economist* (4 May 2013) <http://www.economist.com/news/briefing/21577063-chinas-new-leader-has-been-quick-consolidate-his-power-what-does-he-now-want-his>. But see also G Rachman 'The Chinese dream is smothered by toxic smog' *Financial Times* (6 May 2013) <http://www.ft.com/cms/s/0/618f93a8-b318-11e2-b5a5-00144feabdc0.html#axzz2UEL CgnSD>, which notes: 'The fact that environmental activists are allowed to speak out, however, may be a sign that the government wants to act and is willing to encourage a public debate'.

130 Sienho Yee 'The international law of co-progressiveness and the co-progressiveness of civilizations' (10 October 2012) <http://wpfcd.org/politics/1017-the-international-law-of-co-progressiveness-and-the-co-progressiveness-of-civilizations>. Yee considers this within the context of inter-state competition and national sovereignty and suggests that: 'A State is a "leader State" if it has respected the value of, and shouldered, with success, substantial responsibility toward, the international system, has not only been making good faith efforts or even exemplary efforts to comply with the existing legitimate rules, but

With China's growing importance as a significant regional and global player, the stage is set for increased transboundary water cooperation, in ways that more fully reflect the fundamental principles and practices of international water law, expressed in large part in the UNWC and the UNECE TWC, as well as relevant multilateral environmental agreements. Twenty years of successful state practice under the UNECE TWC (and the associated suite of sister conventions)¹³¹ provides an emerging model of best practice that would contribute to relevant transboundary water issues facing China and its neighbours (ie pollution prevention; ecosystem protection; regional cooperation mechanisms and practices) and offer concrete insights into meaningful cooperation; the entry into force of the UNWC would also contribute to enhanced cooperative practices. The peaceful management of China's transboundary waters through international agreements on key issues related to matters of scope, substantive rules, procedural rules, institutional mechanisms and dispute settlement, will provide a comprehensive platform to address the complex challenges in this field.¹³² China has a considerable opportunity for demonstrating what the soft-path to transboundary water cooperation means in practice – especially as it recognises the interdependency of the global community.¹³³ There are clear challenges ahead; but these are ripe with opportunities for finding a new way. China has persisted with the Chinese way – let us see what this bodes for the future.

also, more importantly, has helped to formulate or refine a proper vision of the international system and to build it up so that the flourishing of humanity can be achieved to the greatest extent possible'.

131 The UNECE TWC is part of a package of five UNECE environmental conventions that mostly deal with transboundary issues including the 1979 Convention on Long-range Transboundary Air Pollution (LRTAP Convention); the 1991 Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention); the 1992 Convention on the Transboundary Effects of Industrial Accidents (Industrial Accidents Convention); and the 1999 Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention). See 'Draft guide to implementing the Convention' UNECE Doc ECE/MP.WAT/2009/L.2 (31 August 2009, on file with authors).

132 P Wouters 'The international law of watercourses' (n 100) 347–541.

133 Xue (n 5) 52 observes: 'The interdependence of States in the changing structure of the world order is more than ever borne out by the very fact that we are sharing a common and indivisible world'. China's current leaders continue to give public pronouncements on China's role in actively promoting regional and global cooperation; see President Xi's speech at Boao Forum (n 6).





Legend

- International Boundary
- Administrative Boundary
- Capital, Regional Capital, Town
- Zone of Irrigation Development
- Qaidam River Basin
- River
- Canal
- Lake
- Dam

Autonomous regions and municipalities in italics.

0 750 1,500 3,000 4,500 km
Albers Equal Area Projection, WGS 1984

CHINA

FAO - AQUASTAT, 2011

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**Annex I. List of China's major international watercourses (listed by country) and relevant treaties
(www.chinainternationalwaterlaw.org)**

<i>Country</i>	<i>Watercourse shared</i>	<i>Agreements</i>
Afghanistan	1. Aksu (Agsu) River 2. Karachukur Su River 3. Wakhjir River	None
Bhutan	1. Yarlung Zangbo-Brahmaputra River (India)	None
India	1. Yarlung Zangbo River/Brahmaputra River (Bangladesh) 2. Shiquan River/Indus (Pakistan)	<ul style="list-style-type: none"> • 2008 Memorandum of Understanding (MoU) upon Provision of Hydrological information of the Brahmaputra/Yaluzangbu river in flood seasonⁱ • 2005 Memorandum the Provision of Hydrological Data on Langqen Zangbo/Sutlej during Flood Seasonⁱⁱ
Kazakhstan	1. Irtysh-Ob River (Mongolia; Russia) 2. Yili River	<ul style="list-style-type: none"> • 2011 Cooperation Agreement on Environmental Protection • 2011 Agreement on Protection of Water Quality of Transboundary Rivers • 2010 Cooperation Agreement on the Joint Construction of Horgos River Friendship Joint Diversion Control Project • 2007 Joint Communiqué (Para. 6) • 2006 Agreement on Management System of China-Kazakhstan Border (Art. 1(14) and (15), Chap. 4 (Arts. 8–11), Art. 15(2))ⁱⁱⁱ • 2006 Agreement on Exchange of Hydrological and Hydrochemical Information (Data) of Border Gauging Stations on Major Transboundary Rivers • 2006 Agreement on Development of Scientific-Research Cooperation on Transboundary Rivers • 2005 Agreement on emergency notification of the Parties of Natural Disasters on Transboundary Rivers • 2001 Cooperation Agreement on the Utilisation and Protection of Transboundary Rivers^{iv}
Kyrgyzstan	Aksu River	None
Laos	Lancang River/Mekong River	<ul style="list-style-type: none"> • 2011 Joint Statement on Law Enforcement Cooperation along the Mekong River among China, Laos, Myanmar, Thailand • 2000 Agreement on Commercial Navigation on Lancang/Mekong River among the governments of China, Laos, Burma (Myanmar) and Thailand • 1994 Agreement on Freight and Passenger Transport along the Lancang/Mekong River^v
Mongolia	1. Ulungur River (Russia) 2. Heilongjiang/Amur River (North Korea; Russia) 3. Kherlen River	<ul style="list-style-type: none"> • 2010 Treaty on the Management of the Boundary (Art. 1(11), Chapter 4)^{vi} • 1988 Treaty on Common Boundaries and Settlement of Boundary Matters (Part 3)^{vii} • 1994 Agreement on Protection and Utilisation of Border Waters^{viii} • 1962 Boundary Treaty (Art. 2)^{ix}
Myanmar	1. Lancang River/Mekong River 2. Nu Jiang/Salween River 3. Ayeyarwady River	<ul style="list-style-type: none"> • 2011 Joint Statement on Law Enforcement Cooperation along the Mekong River among China, Laos, Myanmar, Thailand^x • 2000 Agreement on Commercial Navigation on Lancang/Mekong River among the governments of China, Laos, Burma (Myanmar) and Thailand^{xi} • 1997 Agreement on Border Management and Cooperation (Art. 1(5), Arts. 9 and 10) • 1994 Agreement on Freight and Passenger Transport along the Lancang/Mekong River^{xii}
Nepal	Ganges (India, Bangladesh)	None

Continued

Annex I. List of China's major international watercourses (listed by country) and relevant treaties
(www.chinainternationalwaterlaw.org) (Continued)

Country	Watercourse shared	Agreements
North Korea	1. Yalujiang River 2. Tumenjiang River (and Russia) 3. Heilongjiang/Amur River (Mongolia; Russia) 4. Tianchi Lake/ Heavenly Lake	<ul style="list-style-type: none"> • 2012 Agreement on Joint Construction, Management and Maintenance of Ji'an-Manpu Border-River Road Bridge on Yalujiang River • 2011 Cooperation Agreement on Maritime Administration of Yalujiang Water Area • 2010 Agreement on Joint Construction, Management and Maintenance of Border-River Road Bridge on Yalujiang River • 2002 The Protocol on Cooperation on Navigation and Shipping in Boundary Rivers^{xiii} • 1995 Memorandum of Understanding on Environmental Principles Governing the Tumen River Economic Development Area and Northeast Asia • 1995 Agreement on the Establishment of the Consultative Commission for the Development of the Tumen River Economic Development Area and Northeast Asia • 1982 Rules for Vessel's Navigation in the Border Rivers • 1978 Cooperation Agreement on Hydrologic Work of Yalujiang River and Tumenjiang River • 1964 The Protocol on Borderline (Art. 17)^{xiv} • 1962 The Treaty of Borderline (Art. 3)^{xv} • 1960 The Agreement on Cooperation on Navigation and Shipping in Boundary Rivers^{xvi}
Pakistan	Shiquan River/Indus (and India)	None
Russia	1. Heilongjiang/Amur River (Mongolia; North Korea) 2. Tumenjiang River (and North Korea) 3. Argun River 4. Irtysh-Ob River (Kazakhstan; Mongolia) 5. Wusuli River/Ussuri River 6. Shuifeng River 7. Kherlen River (and Mongolia) 8. Xingkai Lake/ Khanka Lake	<ul style="list-style-type: none"> • 2008 Agreement on Reasonable Utilisation and Protection of Transboundary Waters^{xvii} • 2006 Agreement on Management System of China-Russia Border^{xviii} • 2001 Treaty of Good-Neighborliness and Friendly Cooperation^{xix} • 1999 Agreement on the Joint Economic Use of Separate Islands and Surrounding Water Areas in Frontier Rivers^{xx} • 1998 The Protocol to the Cargo Transportation between Coastal Ports and Inner Water Ports by Chinese Ships via the Russian Part of Heilongjiang River^{xxi} • 1996 Agreement on Khanka/Xingkai Lake International Nature Reserve^{xxii} • 1995 Memorandum of Understanding on Environmental Principles Governing the Tumen River Economic Development Area and Northeast Asia^{xxiii} • 1995 Agreement on the Establishment of the Consultative Commission for the Development of the Tumen River Economic Development Area and Northeast Asia^{xxiv} • 1994 Agreement Concerning Protection, Regulation and Reproduction of Living Water Resources in Frontier Waters of Rivers Amur and Ussury^{xxv} • 1992 Agreement on the Organizing of Shipping of Foreign Trade Goods by Ships of China and Russia in Amur and Songhua River^{xxvi} • 1988 Agreement between China and Soviet Union on Cooperation in Fisheries^{xxvii} • 1956 Agreement on Joint Research Operations to Determine the Natural Resources of the Amur River Basin and the Prospects for Development of its Productive Potentialities and on Planning and Survey Operations to Prepare a Scheme for the Multi-Purpose Exploitation of the Argun River and the Upper Amur River • 1951 Agreement on the Navigation and Construction of Border Waters including Amur, Ussuri, Argun, Sungacha River and Khanka Lake^{xxviii}
Tajikistan		None

Continued

Annex I. List of China's major international watercourses (listed by country) and relevant treaties
(www.chinainternationalwaterlaw.org) (Continued)

Country	Watercourse shared	Agreements
Vietnam	1. Lancang River/ Mekong River 2. Yuan River/ Red River 3. Beilun River/ Ka Long River	<ul style="list-style-type: none"> • 2009 China-Vietnam Land Border Management System Agreement (Art. 1(11), Chapter 4)^{xxix} • 1991 Provisional Agreement on the Handling of Border Affairs (Art. 2)^{xxx}
Mekong River Commission		<ul style="list-style-type: none"> • 2002 Agreement on Provision of Hydrological Information on the Lancang/ Mekong River during Flood Season
i		This MoU is a second one based on the first MoU which was signed in 2002 that was valid for five years. The first MoU was available at http://www.fsou.com/html/text/eag/1006692/100669213.html , last visited September 15, 2012.
ii		Neither the Chinese version nor the English version of the MoU is available online so far.
iii		2006 Sino-Kazak Agreement on Management System of China-Kazakhstan Border, Art. 1, 8, 11, 15 translated from Chinese by the authors.
iv		The Chinese Agreement is, available at http://www.fsou.com/html/text/eag/1006692/100669255.html , last visited September 15, 2012. The English version of the Agreement is available at Ronald B. Mitchell and the IEA Database Project, 2002–2012, http://iea.uoregon.edu/pages/view_treaty.php?t=2001-UseProtectionTransboundaryRivers.EN.txt&par=view_treaty_html , last visited September 15, 2012.
v		Available in Chinese at http://www.gx-law.gov.cn/news_show.asp?id=709 , last visited September 15, 2012.
vi		Available in Chinese at http://www.fmprc.gov.cn/chn/gxh/zlb/tyfg/t812099.htm , last visited September 15, 2012.
vii		Available in Chinese at http://www.hebgs.gov.cn/Yw/Yp/M_content.asp?yclassID_20040527=5&ArticleID=59253 , last visited September 14 2012.
viii		Available in Chinese at http://www.law-lib.com/law/law_view.asp?id=77528 , last visited September 15, 2012.
ix		Available in Chinese at http://www.npc.gov.cn/wxzl/gongbao/1963-03/04/content_1480962.htm , last visited September 18, 2012.
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