

1. Introduction

I. OVERVIEW

Interest in global environmental governance has grown significantly in recent years, demonstrating its practical interest to scholars of international law and relations in particular,¹ as attempts are made to overcome largely state-based entrenched problems that have been recognised for some time.² Global environmental governance is therefore concerned with regulation in national as well as international contexts,³ and responds and relates furthermore to issues of transnational environmental law which have also gained support.⁴ This book is concerned with a related concept to global environmental governance and transnational environmental law, known as transboundary environmental governance. It examines this concept in practice in Asia, specifically with respect to matters of treaty implementation and compliance. Concerned mainly with governance across borders, examples in southeast Asia include the regulation of haze and other transboundary pollutants, water management (for instance in the Mekong river basin), trade in environmental

¹ See for example Jean-Frédéric Morin and Amandine Orsini (eds), *Essential Concepts of Global Environmental Governance* (Routledge, Abingdon, UK and New York, USA 2015).

² In a national context, problems experienced in the USA have been found globally by other nations also. See *Breaking the Logjam: An Environmental Law for the 21st Century, Background of the Breaking the Logjam Project*, accessed 22 November 2014 at http://www.law.yale.edu/documents/pdf/Alumni_Affairs/Esty_Breaking_the_Logjam_414.pdf.

³ As to globalisation and the importance of context in connection with global environmental governance, see Robert Lee and Ellen Stokes, 'Environmental Governance: Reconnecting the Global and Local' (2009) 36(1) *Journal of Law and Society* 1.

⁴ For examples, see *Transnational Environmental Law* (Cambridge Journals), accessed 12 November 2014 at <http://journals.cambridge.org/action/displayJournal?jid=TEL>.

resources, and resolution of environment related issues in the South China Sea.⁵

In other parts of Asia, many of these issues are also present, with water quality issues dominant in international rivers and lakes (for instance the Caspian and Aral Seas), and the need to manage related pressures for infrastructure development, such as hydroelectricity. Coastal and marine issues, often involving disputed sovereignty claims,⁶ are not discussed. This is mainly because they are beyond the scope of the five United Nations Economic Commission for Europe (UNECE) treaties,⁷ which are the core focus of the book.⁸ Until recently, the primary application of these agreements has been to European states, so it is important to be aware of the different regional contexts to environmental regulation between Europe and Asia, as well as the motivation for involvement of Asian states, which is essentially linked with social and economic development as well as environmental protection. However the possibility, and in some cases, reality, of accession to these five treaties by all United Nations (UN) member states furthermore emphasises the global

⁵ Antonio P Contreras, 'Transboundary Environmental Governance in Southeast Asia', in Amit Pandya and Ellen Laipson (eds), *Transnational Trends: Middle Eastern and Asian Trends* (The Henry L Stimson Center, Washington DC 2008), 156–9; see also Nathan Badenoch, *Transboundary Environmental Governance: Principles and Practice in Mainland Southeast Asia* (World Resources Institute, Washington DC 2002).

⁶ For current discussion in an Asian context, see S Jayakumar, Tommy Koh and Robert Beckman, *The South China Sea Disputes And Law Of The Sea* (Edward Elgar, Cheltenham, UK and Northampton, MA, USA 2014); and Stefan Talmon and Bing Bing Jia (eds), *The South China Sea Arbitration: A Chinese Perspective* (Hart Publishing, Oxford 2014).

⁷ In chapter order, see Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus, 25 June 1998) 2161 UNTS 447, in force 30 October 2001 (*Public Participation Convention*, Chapter 3); Convention on Environmental Impact Assessment in a Transboundary Context (Espoo, 25 February 1991), 30 ILM (1991) 802, in force 27 June 1997 (*EIA Convention*, Chapter 4); Convention on the Transboundary Effects of Industrial Accidents (Helsinki, 17 March 1992), 2105 UNTS 457, in force 19 April 2000 (*Industrial Accidents Convention*, Chapter 5); Convention on the Protection and Use of Transboundary Watercourses and Lakes (Helsinki, 17 March 1992), 31 ILM (1992) 1312, in force 6 October 1996 (*Water Convention*, Chapter 6); and the Convention on Long-range Transboundary Air Pollution (Geneva, 13 November 1979), 1302 UNTS 217, in force 16 March 1983 (*Air Pollution Convention*, Chapter 7).

⁸ Coastal issues are, however, noted to some degree in connection with the *Water Convention*.

aspect of environmental governance as well as the transboundary dimension, which is also discussed at length in the book.

There are three parts to the book. Part I concerns transboundary environmental governance, and contains the first two chapters. Chapter 1 will provide an overview of transboundary environmental governance in Asia and the role of the UNECE, before Chapter 2 considers institutions and regimes outside the UNECE to put the subject matter in context. It will first set out the objectives, research questions and approach; second, define transboundary environmental governance; third, consider the role of the UNECE in environmental policy making and capacity building; fourth, examine questions of implementation and compliance; and fifth, provide chapter summaries for what follows. Part II contains the substantive chapters on the UNECE agreements, Chapters 3–7. These examine each of the five environmental treaties and 12 related protocols in an Asian context, with a detailed common framework for the chapters enabling comparisons to be easily made wherever possible. Part III considers the combined effect and outlook for the UNECE agreements, and contains the final two chapters. Chapter 8 is a case study analysing the combined significance of the five agreements in central Asia,⁹ where together with the Caucasus (considered in each of Chapters 3–7), application beyond Europe has been the greatest to date. Conclusions follow in Chapter 9 in relation to both this key question, together with thoughts on current (drawn from the other chapters) and prospective (based on discussion of existing experience) development in other parts of Asia.

⁹ Central Asia consists of the five former Soviet states of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan. It should be noted that geographical terminology in relation to Asia is a source of some confusion, with the ‘Middle East’ also a common descriptor for the Islamic states of western Asia, and China’s self-description as the ‘Middle Kingdom’ – despite some claims to geographical accuracy in an Asian continent in relation to the latter – where the Russian ‘Far East’ situates China very centrally in Asia, adding to the confusion.

II. OBJECTIVES, RESEARCH QUESTIONS AND APPROACH

The primary objective of this book is to analyse the contribution made to the development of transboundary environmental governance¹⁰ in Asia by the UNECE. The book is focused on both transboundary governance and transboundary environmental governance in the context of these treaties, as the first examined, the *Public Participation Convention*, extends beyond environmental matters to also address, and link, human rights issues with environmental concerns. Similarly, a number of the agreements have a related focus on health as well as environmental protection, notably the *SEA Protocol*,¹¹ and *Water and Health Protocol*.¹² The book therefore potentially contributes to the discourse of both transboundary governance and transboundary environmental governance, as well as the related concepts of global/international environmental governance and transnational environmental law.

Asia has received minimal scholarly analysis in the area of transboundary governance or transboundary environmental governance,¹³ particularly in comparison to European discussion,¹⁴ and the book aims to

¹⁰ As indicated in the text above, an extensive literature exists on global governance in general, and on transboundary environmental governance in particular. Additional recent examples of each are: Gráinne de Búrca, Claire Kilpatrick and Joanne Scott (eds), *Critical Legal Perspectives on Global Governance* (Hart Publishing, Oxford 2013); and Robin Warner and Simon Marsden (eds), *Transboundary Environmental Governance: Inland, Coastal and Marine Perspectives* (Ashgate Publishing, Farnham 2012).

¹¹ Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Transboundary Context (Kiev, 21 May 2003) unreported, in force 11 July 2010.

¹² Protocol on Water and Health to the Convention on the Protection and Use of Transboundary Watercourses and Lakes (London, 17 June 1999), UNTS 2331, 202, in force 4 August 2005.

¹³ Although now dated, early examples are Kazu Kato and Wakana Takahashi, *Regional/Subregional Environmental Cooperation in Asia* (Institute for Global Environmental Strategies, Kanagawa 2001), which considers northeast, southeast and south Asia; and Badenoch, above n. 5, who emphasises the role of the Mekong River Commission in the southeast Asia subregion.

¹⁴ See Simon Marsden and Timo Koivurova (eds), *Transboundary Environmental Impact Assessment in the European Union: The Espoo Convention and its Kiev Protocol on Strategic Environmental Assessment* (Earthscan/Routledge, Abingdon, UK and New York, USA 2011). In relation to comparing domestic environmental governance generally between these two regions, see Jona Razzaque, *Environmental Governance in Europe and Asia: A Comparative Study of*

(re-)address this imbalance as well as consider links between these regions.¹⁵ The UNECE is one of five regional commissions of the UN,¹⁶ whose treaty-making efforts uniquely intersect Europe with parts of Asia, because of its membership, in particular central Asia and the Caucasus.¹⁷ The focused analysis in the book is especially concerned with questions of implementation and compliance (the ‘practice’ aspect in the subtitle),¹⁸ which may help identify resource and capacity needs of developing states in Asia and its subregions. Implementation and compliance have for some time been recognised as the weak link in international environmental law.¹⁹ In relation to compliance especially, the UN Environment Programme (UNEP) developed an influential guidance document over a decade ago to assist Parties and other stakeholders with this.²⁰ A secondary objective of the book is therefore to examine the operation of

Institutional and Legislative Frameworks (Routledge, Abingdon, UK and New York, USA 2013).

¹⁵ Although focused on pollution, see S Jayakumar, Tommy Koh, Robert Beckman and Hao Duy Phan (eds), *Transboundary Pollution: Evolving Issues of International Law and Policy* (Edward Elgar, Cheltenham, UK and Northampton, MA, USA forthcoming).

¹⁶ In addition to the UNECE (established in 1947), these are UN Economic and Social Commission for Asia and the Pacific (UNESCAP, 1947), UN Economic and Social Commission for Western Asia (UNESCWA, 1973), the UN Economic Commission for Latin America and the Caribbean (UNECLAC, 1948), and the Economic Commission for Africa (UNECA, 1958).

¹⁷ The latter, consisting of Georgia, Armenia and Azerbaijan, and named after a mountain range, is often regarded to be part of the border dividing the combined continents of Europe and Asia known as ‘Eurasia’. To the north the Europe/Asia boundary is found in the Ural Mountains of Russia. Other states have strong claims to both parts of Eurasia, in particular Turkey, to the west of the Caucasus, with Europe and Asia separated by the Bosphorus.

¹⁸ A distinction has been made between the ‘facilitative’ and the ‘enforcement’ schools of thought on how states’ compliance with international environmental law can be improved. The former is focused on assisting states to comply and the latter punishment. In both cases, non-compliance procedures have an important role to play in the process. See Timo Koivurova, *Introduction to International Environmental Law* (Routledge, Abingdon, UK and New York, USA 2014) 20.

¹⁹ In relation to enforcement by courts and tribunals, see Philippe Sands and Jacqueline Peel, *Principles of International Environmental Law* (Cambridge University Press, New York 2012) 15–16.

²⁰ United Nations Environment Programme, *Manual on Compliance with and Enforcement of Multilateral Environmental Agreements* (UNEP 2001).

the processes for implementation and compliance in the UNECE agreements with a view to learning valuable lessons for similar processes operating under other international and regional agreements.

Finally, the book also recognises that the UNECE environmental treaties and related protocols are increasingly of global interest, with many potentially capable of accession by all UN member states and others likely to be so in the near future. As such, a third objective is to highlight this application (the 'prospects' in the subtitle), drawing on the experience in the Asian context specifically, and the UNECE context more broadly, to encourage UN states to introduce and/or develop existing transboundary governance mechanisms in other parts of the world. The potential for these agreements to contribute to the development of customary international law has also been noted by jurists and scholars, with the principle of transboundary environmental impact assessment (EIA) as established by the *EIA Convention* in particular, cited in cases before international courts and tribunals.²¹ Based on state practice and judicial opinion, the development of customary international law is more than possible in relation to the content of these treaties – such as the procedure as well as the principle of the *EIA Convention* – in the future.

The central research question is similar to and related to these three objectives and asks: What is the current and potential combined contribution of the UNECE environmental agreements to the development of transboundary environmental governance in Asia and globally? Only after distinguishing the UNECE role from other institutions and regimes in Chapter 2, careful analysis of the application of the provisions of the agreements in Chapters 3–7 (particularly concerning implementation and compliance), and evaluating the application of each in the test subregion of central Asia, may it be possible to provide a tentative answer to this complex question in the conclusions at the end of the book. A recent study however provides an example of the potential combined effect of the UNECE agreements in specifically addressing water issues in another part of Asia, the Himalayas, and whether this experience is capable of transfer. The authors comment:

²¹ For examples, see International Court of Justice, *Case Concerning Pulp Mills on the River Uruguay (Argentina v. Uruguay)*, Judgment of 20 April 2010; and, in relation to discussion on the multiplicity of jurisprudence, see Simon Marsden, 'MOX Plant and the Espoo Convention: Can Member State Disputes Concerning Mixed Environmental Agreements be Resolved outside EC Law?' (2009) 18(3) *Review of European Community and International Environmental Law* 312, 321.

Assessing the normative and institutional relationship between the UNECE Water Convention and other UNECE environmental legal instruments is vital to understanding the potential role of the UNECE water regime as a whole, and thus to its transferability beyond the UNECE region.²²

First it may be helpful to modestly and briefly consider three related questions: Why is Asia the focus? Why is the UNECE role in Asia of significance? And why is implementation and compliance so important? Second, transboundary environmental governance must also be defined and explained in the Asian context, the role of the UNECE in relation to it must be carefully explained, and the importance of implementation and compliance considered in a little more detail. The remainder of this chapter therefore briefly answers these three questions, and provides these definitions and explanations to set the scene for the rest of the book.

First, why is Asia the subject of this book? It is the largest continent, comprising 30 per cent of the land area of the globe, and it has the greatest population, amounting to 60 per cent of the world's total. Not including dependent and other territories, it is also ranked a very close third place for continents with the largest number of states (49), just behind Africa (54) and Europe (50). Geographically it is also home to the third largest number of international rivers and lakes (57), behind Europe (69) and Africa (59). The protection of international rivers and lakes is either a direct or indirect focus of three of the five UNECE treaties,²³ and several of the subregional agreements are also focused upon them.²⁴ Asia is also subject to rapid development to meet the needs of a population

²² Ruby Moynihan and Bjørn-Oliver Magsig, 'The Rising Role of Regional Approaches to International Water Law: Lessons from the UNECE Water Regime and Himalayan Asia for Strengthening Transboundary Water Cooperation' (2014) *Review of European, Comparative and International Environmental Law* 43.

²³ Directly, note the *Water*, and indirectly the *Industrial Accidents*, and *EIA Conventions*.

²⁴ See Framework Convention for the Protection of the Marine Environment of the Caspian Sea (Tehran, 4 November 2003), unreported, in force 12 August 2006; Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin (Chiang Rai, 5 April 1995), unreported, in force 5 April 1995; and Agreement on the Establishment of the Tumen River Area Development Coordination Committee (New York, 6 December 1995), unreported, in force 6 December 1995; and Agreement on the Establishment of the Consultative Commission for the Development of the Tumen River Economic Development Area and Northeast Asia (New York, 6 December 1995), unreported, in force 6 December 1995.

that has quadrupled in the last century. Linked with the increased chance of industrial accidents impacting the environment, all of these factors highlight the potential for significant cross border impacts upon air and watersheds, with the consequent need to be matched by effective regimes for transboundary environmental governance.

Second, why is the role of the UNECE in Asia the subject of this book? The UNECE is the only one of the UN regional commissions to have produced any environmental treaties, and the subject matter of these treaties matches the concerns raised in the previous paragraph. It has also been actively involved in Asia, especially in the Caucasus and central Asia since the breakup of former Soviet Union. The need for its work in western Europe has additionally diminished since the European Union (EU) has developed and expanded. The following comment in relation to the *Industrial Accidents Convention* explains this as follows:

From my point of view the problem is that the Convention serves primarily countries in [South-Eastern Europe, Eastern Europe, the Caucasus and Central Asia]. It does not serve so much EU member countries. So [the countries of South-Eastern Europe, Eastern Europe, the Caucasus and Central Asia] are the ones that really benefit from the Convention and its activities. They should identify their real needs and how they can improve. I would say it is up to them to develop the Convention further.²⁵

Third, why is implementation and compliance the focus of the analysis? As noted, enforcement is the weakest link in regard to international environmental law in general, and in relation to the UNECE treaties and related protocols in Asia by the Parties in particular. Implementation is concerned with the transposition of the treaty obligations into domestic law,²⁶ and compliance means the practical fulfilment of the treaty obligations. Reporting mechanisms under the treaties are a means of evaluating the former, and non-compliance procedures (NCPs) respond to failings concerning the latter. NCPs are, however, distinct from the

²⁵ Wolfgang Gierke, in United Nations Economic Commission for Europe, *The Convention on the Transboundary Effects of Industrial Accidents: Twenty Years of Prevention, Preparedness and Response* (United Nations undated) 23, see http://www.unece.org/fileadmin/DAM/env/teia/doc/IA_Publications/TEIA-2October-final.pdf accessed 12 November 2014.

²⁶ This is to be distinguished from implementation by the treaty bodies themselves of workplan activities. See for example, Meeting of the Parties (Convention and Protocol), Working Group on Environmental Impact Assessment and Strategic Environmental Assessment, Third meeting, Geneva 11–15 November 2013, Implementation of the workplan activities, note by the secretariat, ECE/MP.EIA/WG.2/2013/INF.6, 16 October 2013.

dispute resolution procedures typified by the International Court of Justice (ICJ), which are considered in Chapter 2.

Chapter 2 provides an overview of applicable institutions and regimes in Asia outside the UNECE. The framework for analysis in Chapters 3–7 that follow is a documentary evaluation of the history and procedural effectiveness of the agreements themselves, Asian membership and potential membership of the agreements, Asian states' implementation of and compliance with their procedures, and the capacity building efforts of the UNECE and other public and private bodies. Extensive reference is made to UNECE documents as well as secondary sources where available. As Chapter 8 is focused on central Asia, examples of implementation and compliance in Chapters 3–7 will be focused on other Asian states, either current Parties (such as the Caucasian states) or those interested in joining the UNECE regimes. The remainder of this chapter will define transboundary environmental governance generally and in Asia specifically, explain the role of the UNECE broadly and in this region in particular, and individually summarise the purpose, content and significance of the remaining chapters very briefly.

III. TRANSBOUNDARY ENVIRONMENTAL GOVERNANCE IN ASIA

'Governance' is a system of control or management of human activities and is concerned generally with law, policy and institutions. The emphasis on the 'will of the people' as 'the basis of the authority of government' in the relationship between institutions, individuals and groups, as identified in Article 21(3) of the *Universal Declaration of Human Rights*,²⁷ has also been stressed by Suzuki, who comments significantly in a little more detail:

Governance covers both the compatibility of substantive goals of institutions with expectations of authority that support the institutions and the appropriateness of broader processes of decision making of these institutions in carrying out their mandates entrusted to them. The question of governance hinges on the quality of the empowering relationship between authoritative

²⁷ Article 21(3), Universal Declaration of Human Rights (1948) GA res. 217A (III), UN Doc A/810 at 71, accessed 12 November 2014 at <http://www.un.org/en/documents/udhr/>.

decision makers on one hand, and those aggregate individuals and groups that are subject to the former's decisions.²⁸

'International environmental governance' has been defined as part of a management review of environmental governance within the UN system, as consisting of the following elements:

- (a) coherent decision-making and objective-setting for international environmental policies, among different environmental agreements and institutions;
- (b) institutional architecture to implement and coordinate environmental policies and decisions;
- (c) management and operationalization of the policies and decisions;
- and (d) coordination of the effective implementation of international environmental governance decisions at the country level.²⁹

'Transboundary' primarily refers to the crossing of legal borders and boundaries, between sovereign nations, dependent and other territories, and within federations.³⁰ Transboundary governance includes formal and informal regulatory processes which may assess, mitigate and compensate significant impacts of human activities on the natural environment. EIA and strategic environmental assessment (SEA), NCPs and judicial enforcement are examples.³¹ Government institutions, non-governmental organisations (NGOs) and the public – including indigenous people residing in areas of concern and which decide, input and implement these processes – are all key stakeholders and rightsholders.³²

The transboundary aspect can also relate to activities which cross the boundary between areas within national jurisdiction and interactions with and between the global marine commons – such as the high seas, outer

²⁸ Eisuke Suzuki, 'Global Governance and International Financial Institutions' (2011) 19(1) *Asia Pacific Law Review* 13, 17.

²⁹ Inomata, Tadanori, *Management Review of Environmental Governance within the United Nations System* (United Nations Joint Inspection Unit 2008), JIU/REP/2008/3, 1. For details on environmental governance within the UN system generally, see Part II.

³⁰ Belgium, Canada, the USA and Russia are examples of the latter.

³¹ See Robin Warner and Simon Marsden, 'Perspectives on Transboundary Environmental Governance', in Robin Warner and Simon Marsden (eds), *Transboundary Environmental Governance: Inland, Coastal and Marine Perspectives* (Ashgate Publishing, Farnham 2012) 1, 3.

³² In relation to the latter, note the role of the *UN Declaration on the Rights of Indigenous People*; see Simon Marsden, 'The World Heritage Convention in the Arctic and Indigenous People: Time to Reform?' (2014) 6 *Yearbook of Polar Law* in press. The Declaration can be found at: http://www.un.org/esa/socdev/unpfii/documents/DRIPS_en.pdf, accessed 12 November 2014.

space and Antarctica – each of which is subject to a detailed regulatory regime.³³ Environmental issues that cross borders include air, water and soil pollution, transit of waste, protected areas and trade in flora and fauna. Some of these issues have international regulatory frameworks and some are regulated at the regional level, including the efforts of the UNECE and sub-regional bodies as will be seen in Chapter 2. For others there has been minimal or no regulation and there is regulatory space for this in the future.³⁴

Transboundary environmental governance can include the relationship between international and domestic law, between law and policy, and between institutions of government within a state. More flexibly, learning across disciplines such as international law and international relations, and the relationship between environment, economy and society in exploring sustainable development can be included in the notion of transboundary environmental governance. Although it typically involves states acting through and with global and regional organisations, as noted, non-state actors are also important players.³⁵ NGOs perform a critical role in advocating, developing, and sometimes implementing transboundary environmental governance.³⁶ Finally, as indicated above,

³³ Above n. 31, 3–4.

³⁴ A notable example is historical pollution, or site contamination. For detailed analysis of the current situation and future options, see Elizabeth Brandon, *Global Approaches to Site Contamination Law* (Springer, Dordrecht 2013).

³⁵ See Bob Reinalda (ed.), *Non-State Actors in the International System of States* (Ashgate Research Companion, Ashgate Publishing, Farnham 2011). This recognises three types of non-state actor: non-governmental organisations (NGOs), intergovernmental organisations (IGOs) and transnational corporations (TNCs), which all play roles alongside nation-states (represented by governments). The UNECE is an example of an IGO. While environmental governance is typically public in nature, TNCs operate in the sphere of *private* environmental governance, with corporations lobbying states in relation to multilateral environmental agreements. See Robert Falkner, 'Private Environmental Governance and International Relations: Exploring the Links' (2003) 3(2) *Global Environmental Politics* 72.

³⁶ See Lars Gulbrandsen, Steinar Andresen and Jon Birgir Skjærseth, 'Non-State Actors and Environmental Governance: Comparing Multinational, Supranational and Transnational Rule Making', in Reinalda above n. 35, 463, who argue that the role of NGOs in environmental governance is strongly related to the authority and competence of states. Their three models of rule making (multinational, supranational and transnational) show a declining role for states and an increasing one for NGOs when moving from multinational to supranational and transnational rule making.

individuals and local and indigenous communities are essential to its development.³⁷ As an example in the context of the UNECE and its environmental treaties, the most recent EIA/SEA Meeting of the Parties (MOP) was attended by representatives not just of intergovernmental organisations such as UN bodies and multilateral development banks (MDBs)/international financial institutions (IFIs), but also some 15 NGOs.³⁸

In the Asian context, the development of transboundary environmental governance was considered over a decade ago by Kato and Takahashi in relation to environmental cooperation efforts in northeast, southeast and south Asia.³⁹ They acknowledged the significance of the subsidiarity principle in contending with environmental challenges at the levels closest to the source rather than at the global level. However, they also recognised the importance of cooperative efforts at the international level, especially the role for regional and subregional approaches to address these challenges. As examples, they pointed to the work of UNEP – discussed in Chapter 2 – which has recognised the importance of a regional approach in establishing regional offices in the different parts of the world including the Asia-Pacific region. They also noted the establishment of a ‘Regional Strategy for Environmentally Sound and Sustainable Development’ as perhaps the initiation of transboundary environmental governance efforts in the Asian region as a whole.⁴⁰

Kato and Takahashi finally acknowledged efforts in the Asian subregions as largely preceding this work. This began with the adoption of the Association of South East Asian Nations (ASEAN),⁴¹ Subregional Environment Programme in 1977, followed by the establishment of the South Asia Cooperative Environment Programme in 1981 and the North-east Asia Subregional Programme on Environmental Cooperation (NEASPEC) in 1992.⁴² These are other governance mechanisms – including several subregional treaties that establish institutions to ensure

³⁷ Above n. 31, 4.

³⁸ Meeting of the Parties Sixth session (Convention), Second session (Protocol), Geneva, 2–5 June 2014, Report of the Meeting of the Parties, ECE/MPE.IA/20–ECE/MPE.IA/SEA/4, 15 July 2014, para. 4.

³⁹ Above n. 13, i.

⁴⁰ This was adopted at the second Ministerial Conference by one of the other UN regional commissions, UNESCAP in 1991, which is also considered in Chapter 2.

⁴¹ <http://www.asean.org/>, accessed 12 November 2014.

⁴² <http://www.neaspec.org/>, accessed 12 November 2014.

cooperation on environmental issues – which are explored in Chapter 2 of this book.

IV. ROLE OF THE UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE

Geographically the UNECE region is more than 47 million square kilometres in size, and is home to 20 per cent of the world population.⁴³ It includes high-income developed states, as well as those with a relatively low level of development. States include the countries of Europe, Canada and the United States of America (USA), the central Asian states, the Caucasus, Turkey and Israel. In 1991 there were 34 member states, but as a result of the disintegration of the Soviet Union, Yugoslavia and Czechoslovakia, numbers increased significantly, and today there are 56 member states. The diverse nature of the Commission's membership has its source in history. When established, the UNECE included all participants in the reconstruction of post-war Europe: all European countries, from east and west, and North America. Israel was added to the list in 1991 followed by the former Soviet states and those from the Balkans and central Europe.⁴⁴

The UNECE is one of the five regional commissions of the UN.⁴⁵ Its main aim is to promote pan-European economic integration,⁴⁶ and cooperation in environment, forests, housing and land management, statistics, energy, trade and transport.⁴⁷ It was established as a key UN organisation for ongoing dialogue and improved relationships among eastern and western European countries, Canada and the USA at a time

⁴³ <http://www.unece.org/oes/nutshell/region.html>, accessed 12 November 2014, from which this section is drafted.

⁴⁴ See generally, Yves Berthelot and Paul Rayment, *Looking Back and Peering Forward – A Short History of the United Nations Economic Commission for Europe, 1947–2007* (United Nations Economic Commission for Europe, Geneva 2007).

⁴⁵ For the others see above n. 16 and Chapter 2, with the work of UNESCAP and UNESCWA – which operate in Asia specifically – explained.

⁴⁶ <http://www.unece.org/termsofreferenceandrulesofprocedureoftheunece.html>, accessed 12 November 2014.

⁴⁷ For detailed general background, see <http://www.unece.org/oes/history/history.html>, accessed 12 November 2014.

of high political tension.⁴⁸ The signature of the Final Act of the Conference on Security and Cooperation in Europe (CSCE) in 1975,⁴⁹ with two references to the environment therein, led to a referral to the UNECE of an examination of two transboundary environmental issues, long-range transmission of air pollutants and the concept of EIA, including its later application to policies, plans and programmes, the proposals targeted by SEA.⁵⁰ The former was motivated by concerns about acid rain, the latter in part as a result of the US promulgation of the National Environmental Policy Act in 1969⁵¹ – which led to the development of EIA globally thereafter – and also with Principle 21 of the *Stockholm Declaration*.⁵²

Environmental policy is a significant part of the UNECE's work.⁵³ The broad aim of UNECE's environment activities is to safeguard the environment and human health, and to promote sustainable development in its member countries in line with *Agenda 21*.⁵⁴ The practical aim is to reduce pollution so as to minimise environmental damage and avoid compromising environmental conditions for future generations. The Committee on Environmental Policy (CEP) works to support countries to enhance their environmental governance and transboundary cooperation as well as strengthen implementation of the UNECE regional environmental commitments and advance sustainable development. It meets annually with special sessions convened as necessary. Organisations of the UN system as well as IGOs⁵⁵ and NGOs active in the UNECE region

⁴⁸ Robert G Connelly, 'The UN Convention on EIA in a Transboundary Context: A Historical Perspective' (1999) 19(1) *Environmental Impact Assessment Review* 37, 38.

⁴⁹ See <http://www.osce.org/who/timeline>, accessed 12 November 2014.

⁵⁰ See UNECE, *Policies and Systems of Environmental Impact Assessment* (United Nations 1991), and UNECE, *Application of Environmental Impact Assessment Principles to Policies, Plans and Programmes* (United Nations 1992).

⁵¹ National Environmental Policy Act of 1969 [42 U.S.C. 4321].

⁵² See 11 ILM 1416 (1972).

⁵³ See <http://www.unece.org/env/welcome.html>, accessed 12 November 2014. See also United Nations Economic and Social Council, Economic Commission for Europe, Committee on Environmental Policy, Tenth session (Geneva, 20–22 October 2003) (Item 8 of the provisional agenda), Future UNECE Strategic Directions for the Environment, CEP/2003/25, 23 July 2003, in particular 11–13 'UNECE conventions and environmental policy'.

⁵⁴ See <http://sustainabledevelopment.un.org/content/documents/Agenda21.pdf> accessed 12 November 2014.

⁵⁵ See above n. 35.

are invited to participate in CEP meetings as observers. Its main aim is to assess countries' efforts to reduce their overall pollution burden and manage their natural resources, to integrate environmental and socio-economic policies, to strengthen cooperation with the international community, to harmonise environmental conditions and policies throughout the region and to stimulate greater involvement of the public and environmental discussions and decision making.

The UNECE has adopted a five-pronged approach. First, the CEP brings together governments to formulate environmental policy and support its implementation. Intergovernmental meetings, seminars, workshops and advisory missions are organised under the Committee and its subsidiary bodies, providing a platform for environmental decision making as well as a forum for networking, sharing experiences and good practices. Second, the UNECE has an active role in regional and cross-sectoral processes, in particular the 'Environment for Europe' ministerial process, environment, transport and health, and education for sustainable development. Third, through its environmental performance reviews, the UNECE assesses individual countries' efforts to bring down pollution levels and manage their natural resources, and makes recommendations to improve their environmental performance. Fourth, the UNECE's work on environmental monitoring and assessment continues to help strengthen the environmental information and observation capacity in the countries of eastern Europe, the Caucasus and central Asia (EECCA) and Russia, as well as in interested countries of southeast Europe.

Reflecting its original purpose, the UNECE has since been responsible for a significant amount of treaty development in a transboundary context, notably the five environmental agreements that are the subject of this book, which in order of the date of adoption are: the Convention on Long-Range Transboundary Air Pollution (*Air Pollution Convention*); the Convention on EIA in a Transboundary Context (*EIA Convention*); the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (*Water Convention*); the Convention on the Transboundary Effects of Industrial Accidents (*Industrial Accidents Convention*); and the Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (*Public Participation Convention*). All are examples of procedural environmental law, so called because they focus on contributing to the prevention of harm and transboundary cooperation rather than substantive obligations of attributing liability resulting from harm and

resolving claims for damage.⁵⁶ The focus on transboundary cooperation brings an additional benefit, consistent with a UN body: the prevention of conflict which can often arise in relation to natural resources.⁵⁷

In relation to the protocols, excluding the eight associated with the *Air Pollution Convention*,⁵⁸ there are four of these. The first is the *Water and Health Protocol*, adopted in 1999 under the *Water Convention*. The other three were all adopted in Kiev in 2003, and are the Protocol on Pollutant Release and Transfer Registers (*PRTR Protocol*),⁵⁹ adopted under the *Public Participation Convention*; the *SEA Protocol* adopted under the *EIA Convention*; and the Protocol on Civil Liability and Compensation for Damage Caused by the Transboundary Effects of Industrial Accidents on Transboundary Waters (*Civil Liability Protocol*),⁶⁰ adopted under both the *Industrial Accidents Convention* and *Water Convention*. Unlike the five treaties and all of the other protocols, the *Civil Liability Protocol* – in addressing issues of responsibility and compensation – goes beyond the procedural obligations of the other agreements; this largely explains

⁵⁶ See Simon Marsden, *Strategic Environmental Assessment in International and European Law: A Practitioner's Guide* (Earthscan/Routledge, Abingdon, UK and New York, USA 2008), ch. 4 in relation to the *EIA* and *Public Participation Conventions*.

⁵⁷ See Branko Bošnjaković, 'The UNECE Environmental Conventions: Their Role and Potential to Promote Conflict Prevention and Settlement of Disputes in Transboundary Environmental Issues' in Eileen Petzold-Bradley, Alexander Carius and Arpád Vincze (eds), *Responding to Environmental Conflicts: Implications for Theory and Practice* (Kluwer, Dordrecht 2001) 263.

⁵⁸ See Chapter 7 for full adoption, ratification and citation details. In summary these are the: Protocol on Long-term Financing of the Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe (*EMEP Protocol*), the Protocol on the Reduction of Sulphur Emissions or their Transboundary Fluxes by at least 30 Per Cent (*Sulphur Protocol*), the Protocol on the Control of Emissions of Nitrogen Oxides or their Transboundary Fluxes (*NOx Protocol*), the Protocol on the Control of Emissions of Volatile Organic Compounds or their Transboundary Fluxes (*VOCs Protocol*), the Protocol on Further Reduction of Sulphur Emissions (*Second Sulphur Protocol*), the Protocol on Heavy Metals (*Heavy Metals Protocol*), the Protocol on Persistent Organic Pollutants (*POPs Protocol*), and the Protocol to Abate Acidification, Eutrophication and Ground-level Ozone (*AEO Protocol*).

⁵⁹ Protocol on Pollutant Release and Transfer Registers to the Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Kiev, 21 May 2003), unreported, in force 8 October 2009.

⁶⁰ Protocol on Civil Liability and Compensation for Damage Caused by the Transboundary Effects of Industrial Accidents on Transboundary Waters (Kiev, 21 May 2003) unreported, not in force.

why it has yet to obtain support from the members of the UNECE, and is therefore the only one of any of the agreements not yet in force.

V. IMPLEMENTATION AND COMPLIANCE

As noted in Part II above, implementation and compliance are traditionally the weak elements of international environmental law. There is a close relationship between implementation and compliance as noted in connection with Parties in EECCA, which have a shared history of former occupation by the Soviet Union. For example the *EIA Convention MOP* has noted that: 'compliance concerns both legal implementation and practical application'.⁶¹ NCPs have grown hugely in recent years resulting in considerable scholarly comment,⁶² and operate with a large degree of autonomy.⁶³ There is also an increasing trend towards the judicialisation of such procedures.⁶⁴ Implementation and compliance in central Asia is used as case study in this book, for the achievements

⁶¹ ECE/MP.EIA/10, decision IV/2 (review of compliance), annex III, para. 24.

⁶² See for example Tullio Treves, Attila Tanzi, Cesare Pitea, Chiara Ragni, and Laura Pineschi (eds), *Non Compliance Procedures and Mechanisms and the Effectiveness of International Environmental Agreements* (TMC Asser Press, The Hague 2009); Karen Scott, 'Non-compliance Procedures and the Resolution of Disputes under International Environmental Agreements', in Duncan French and Nigel White (eds), *International Law and Dispute Settlement: New Problems and Techniques* (Hart Publishing, Oxford 2010) 225. Note compliance mechanisms are also found in human rights regimes.

⁶³ Together with MOPs and other arrangements, NCPs are an example of an 'autonomous institutional arrangement'; they are, however, no longer a 'little-noticed phenomenon'. See Robin Churchill and Geir Ulfstein, 'Autonomous Institutional Arrangements in Multilateral Environmental Agreements: a Little-Noticed Phenomenon in International Law' (2000) 94 *American Journal of International Law* 623; and more recently, Nils Goeteyn and Frank Maes, 'Compliance Mechanisms in Multilateral Environmental Agreements: An Effective Way to Improve Compliance?' (2011) 10(4) *Chinese Journal of International Law* 791.

⁶⁴ Neil Craik and Timo Koivurova, 'Subsidiary Decision Making under the Espoo Convention: Legal Status and Legitimacy' (2011) 20 *Review of European Community and International Environmental Law* 258.

under the five treaties and related protocols to date,⁶⁵ and to enable consideration of the potential to expand to other parts of Asia and globally.

In recognition of this, the UNECE has therefore developed five modern treaties and (including the *Air Pollution Convention* protocols) 12 protocols, which overwhelmingly put these matters at the core of its environmental protection regime. Apart from the *Water Convention*, each of the agreements contains a reporting procedure to consider implementation. Similarly, apart from the *Industrial Accidents Convention*, each of the treaties contains a NCP and, other than the *Civil Liability Protocol*, the other 11 protocols each have a NCP included within its arrangements or applying to it. There is therefore significant experience dealing with implementation and compliance in the UNECE environmental regime as a whole, and the new NCP in the *Water Convention* has learnt from this experience in developing its own procedure. An informal network of the chairs of the bodies administering these NCPs furthermore operates to explore ways to improve implementation and compliance across states Parties to the treaties and protocols.⁶⁶

In the central Asian context – as will be seen in Chapter 8 – the different contextual arrangements of post Soviet independence has left a legacy of a different approach to significant procedural matters that are the core of the *Public Participation Convention* and *EIA Convention*, and also concern procedures for EIA and assessment under both the *Industrial Accidents Convention* and *Water Convention*. The reporting processes and NCPs have had to contend with these different approaches in evaluating implementation and compliance, which has implications for the legal systems of these states as well as the specific environmental law affected by the UNECE treaties. While monist states allowing for direct application of international law into the central Asian domestic legal systems, the NCPs have, despite this, maintained a need for implementation by domestic law in order to effectively implement the UNECE agreements. Without this, it is not deemed possible to comply with the law in question.

⁶⁵ For background and examples of the role of various organisations in this fast changing region, see Emilian Kavalski (ed.), *The New Central Asia: The Regional Impact of International Actors* (World Scientific, Singapore 2010).

⁶⁶ Economic Commission for Europe/Environment, Informal Network of the Chairs of Compliance/Implementation Bodies under the Multilateral Environmental Agreements, First Meeting, Geneva, 25 March 2013, Note Prepared by the Chair of the Aarhus Convention Compliance Committee with the Assistance of the Secretariat.

Clearly, implementation of and compliance with the UNECE environmental treaties in Asia is a very different matter to implementation of and compliance with them in western Europe, notably in the EU. The reason for this is that the EU benefits from a strong governance framework with harmonised environmental regulation across the member states.⁶⁷ For the most part implementing the UNECE agreements has therefore been much easier in the EU. In addition, in some instances the UNECE agreements have been developed from existing EU legislation, for example the *SEA Protocol* which followed experience with developing the *SEA Directive*.⁶⁸

The added value of this book to the existing literature therefore emphasises that in Asia different approaches to transboundary governance may be in place, derived largely from existing domestic contexts. Whether this is because of religion, state ecological expertise systems, or due to different attitudes towards key human rights known as the 'Asian values',⁶⁹ or the 'Asian way',⁷⁰ it nonetheless makes it much harder to ensure implementation and compliance. From the Islamic states of the Middle East/western Asia, to the post Soviet states of the Caucasus and central Asia, across to the states belonging to ASEAN, or indeed within the economic powerhouse of China, approaches to governance and the rule of law are very different to those in the west.

As access to information, public participation and access to justice – the three pillars of the *Public Participation Convention* – are a key part of the success of the other treaties, the application of this treaty in particular is likely to be more of a challenge to achieve than the procedural provisions of the other agreements, at least where the three pillar requirements are not also a part of the other agreements. In practice, given overlapping membership and cross-fertilisation of procedures,

⁶⁷ See for example Maria Lee, *EU Environmental Law, Governance and Decision-Making* (Hart Publishing, Oxford 2014).

⁶⁸ Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment, [2001] OJ L197/30–37.

⁶⁹ See for example M Jacobsen and O Brun (eds), *Human Rights and Asian Values. Contesting National Identities and Cultural Representations in Asia* (Curzon Press, Abingdon 2000); and more recently, in summary, accessed 12 November 2014 at http://therightsfuture.com/wp-content/uploads/2010/11/The_Rights_Future_CT5_Asian_Values.pdf.

⁷⁰ For a positive outlook on this, see Asian Human Rights Commission, *Asian Human Rights Charter, a People's Charter*, 17 May 1998: accessed 12 November 2014 at <http://www.refworld.org/pdfid/452678304.pdf>. See also <http://www.theguardian.com/commentisfree/2010/mar/04/global-problem-solving-asian-way>, accessed 12 November 2014.

many of these issues, however, also pertain to the implementation and compliance of the other agreements.

VI. CHAPTER SUMMARIES

A brief overview of the book is set out as follows. As noted above, the common framework for Chapters 3–7 explains the status, membership and institutions in an introductory section, before turning to historical background and legal development, examining the objectives and main procedural provisions, evaluating practice, and examining prospects in Asia and globally. Conclusions from each of these chapters will be further analysed and synthesised with the conclusions from Chapter 2 – which concerns other institutions and regimes – in Chapter 8, with its focus on central Asia. As emphasised, implementation of and compliance with each of the agreements is examined in particular detail in Chapter 8 as this is the part of Asia where – beyond the Caucasus – the greatest take-up of the agreements has been.

Chapter 2 concerns institutions and regimes and aims to distinguish the UNECE from other organisations and its environmental treaties from other agreements. Four types of institutions are identified. These are first UN global institutions: UNEP, UN Development Programme (UNDP), Global Environment Facility (GEF), World Health Organisation (WHO) and the ICJ. They are second, other UN regional commissions operating in Asia: the UN Economic and Social Commission for Asia and the Pacific (UNESCAP), and the UN Economic and Social Commission for Western Asia (UNESCWA). Third, they are MDBs/IFIs, in particular the World Bank (WB, which is also part of the UN system); the European Bank for Reconstruction and Development (EBRD), and the Asian Development Bank (ADB). Finally, they are specialist environmental organisations operating globally or regionally, in particular, the International Union for the Conservation of Nature (IUCN). The multilateral regimes identified include the numerous conservation, waste, and climate/ozone protection conventions which also apply in Asia. The subregional regimes include those based on treaties operating in south-west and central Asia, southeast and northeast Asia.

Chapter 3 concerns the first of the UNECE treaties, the *Public Participation Convention*, and its related *PRTR Protocol*. This is dealt with first because it can be distinguished from the other UNECE treaties by focusing on a domestic rather than a transboundary context. Transboundary processes are, however, affected by this treaty, which links environmental and human rights. For example, it incorporates more

detailed procedures for access to information, public participation in decision making and access to justice in environmental matters than any of the other treaties, is a benchmark for these to the extent to which these matters are taken into account in domestic contexts globally, and furthermore promotes the application of information, participation and access principles to decision making in international organisations more broadly, which includes those considered in Chapter 2. The Protocol pursues the same goal of public access to information, specifically through the establishment of national inventories of pollution from industrial sites and other sources. Being an 'open' global agreement, any country may accede to it, whether or not they are a party to the Convention, which is also, however, of this nature.

Chapter 4 explains the role of the *EIA Convention* and its related *SEA Protocol*, the latter which like the *Public Participation Convention* also operates primarily in a domestic context. It follows Chapter 3, since the principles of this agreement have also been raised in international institutional contexts, notably recent jurisprudence of the ICJ. The *EIA Convention* is also considered after the *Public Participation Convention*, as there has traditionally been a close relationship between the two. Public participation requirements under the second pillar of the latter treaty have been applied in a transboundary context in relation to the *EIA Convention* for example. Another illustration of the close relationship is that the *SEA Protocol* under the *EIA Convention* was initially considered as a joint instrument to both the *Public Participation* and *EIA Conventions*. Subject to further ratification and entry into force of an amendment, the *EIA Convention* will also become a global treaty; the *SEA Protocol* is already potentially open to accession by all UN members.

Chapter 5 concerns the *Industrial Accidents Convention*, which has a close relationship with the *Water Convention*, the subject of Chapter 6. Both were adopted at the same time in the Finnish capital city. The *Industrial Accidents Convention* is discussed after the *EIA Convention* in part since it also contains a transboundary EIA procedure applicable to hazardous domestic activities that may have serious transboundary effects. Notification and consultation provisions in the *Industrial Accidents Convention* require assessments to be carried out by the country in which the hazardous activity occurs, and specific information on effects to be provided to the affected country. Public participation is part of the notification and consultation process. Chapter 5 also includes discussion of the *Civil Liability Protocol*, which requires a significant number of ratifications before its entry into force. Although discussed in Chapter 5, it is also relevant to Chapter 6 as it is a joint legal instrument to both the *Industrial Accidents* and *Water Conventions*.

Chapter 6 analyses the *Water Convention*, the second of the two treaties – after the *Air Pollution Convention*, discussed in Chapter 7 – to focus on a specific environmental medium rather than a process (like the *Public Participation* or *EIA Conventions*) or address an issue of concern (*Industrial Accidents Convention*). The *Water Convention* will shortly be available for accession by all UN member states and contains provisions relevant to all Parties and those applicable to riparian Parties. A *Protocol on Water and Health* to the *Water Convention* is also in force and is furthermore analysed in this Chapter; as mentioned above the *Protocol on Civil Liability* – a joint legal instrument with the *Industrial Accidents Convention* which is yet to enter into force – is considered in Chapter 5.

Chapter 7 explores the well-established *Air Pollution Convention*, the first of the UNECE treaties adopted, together with its eight protocols. This treaty sets out a framework for scientific, technical and policy measures to be introduced at the domestic level, as well as for international collaboration measures, to reduce and prevent air pollution. The protocols contain specific measures and targets for the reduction of certain pollutant emissions. There is currently an emphasis on assisting central Asian countries to implement the treaty and key protocols, as well as the possibility that membership of the Convention could in future be expanded from regional to global. Given the serious, ongoing transboundary air pollution issues in some parts of Asia, it is opportune to ask whether the *Air Pollution Convention* and protocols may offer an appropriate regime in response.

Chapter 8 draws together examples of implementation of and compliance with each of the legal instruments in central Asia, the part of Asia with the greatest uptake of the treaties and related protocols. Central Asia is first considered as a distinct geo-political sub-region, environmental issues are outlined, and the UNECE role there is addressed. Explanation of the different approach to EIA – known as ‘state ecological expertise’ – is provided to set the frame of reference for why practice with the legal agreements has posed particular challenges. Chapter 9, in concluding the book, draws lessons from the central Asian experience for other parts of Asia and globally in addressing the central and related research questions asked in Chapter 1.