

**A FRAMEWORK FOR THE ESTABLISHMENT OF AN ENVIRONMENTAL
COURT IN INDONESIA:
OPPORTUNITIES AND CHALLENGES**

WINDU KISWORO

LLB, University of Indonesia, Indonesia

LLM, University of Melbourne, Australia

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Abstract

Environmental cases are widely known to be multidimensional and scientifically sophisticated, and to involve uncertainty. Science, economics and technology are changing faster than the law, which makes it difficult for the judiciary to adjudicate complex environmental cases. Traditional processes of adjudication are insufficient for handling many environmental cases efficiently and effectively. Recently, there has been a significant move in favour of environmental courts and tribunals (ECTs) worldwide, which have unique characteristics and different levels of success and challenges. However, despite the challenges of judicial specialisation, ECTs are acknowledged to be the mechanism that can best protect environmental rights and achieve sustainable development. Given the current environmental issues, challenges and progress in adjudicating environmental cases in Indonesia, this thesis proposes the creation of a specialised environmental court for Indonesia and develops a framework for its establishment.

The thesis examines selected ECTs and their unique features, successes and challenges to deduce instructive lessons for Indonesia, and it tailors relevant international experience to suit the country's unique and special features. Thus, this study analyses (a) the relevance and applicability of foreign experience in the Indonesian context and (b) the problems and prospects of establishing an environmental court in Indonesia. The thesis identifies and draws upon the features of the most effective model of an environmental court that best suits Indonesia's legal culture, judicial system and specific environmental goals to determine a framework for the establishment of a specialised environmental court.

This thesis concludes that an environmental court would essentially be a specialised environmental court (*pengadilan khusus lingkungan*) within the general and administrative courts, which can offer a better forum to effectively facilitate the adjudication of complex environmental cases in Indonesia. A specialised environmental court under the general court would adjudicate civil and criminal matters, whereas a specialised environmental court under the administrative court would adjudicate administrative matters. Some preconditions must exist within and outside the Indonesian judiciary to realise the creation of a specialised environmental court. The Indonesian Government must take a step-by-step approach to establish a specialised environmental court. To this end, this thesis recommends some essential and sequential steps for policymakers to take as a foundation for developing a strategic plan for the creation of an environmental court. This plan will assist the Indonesian Government to measure its progress towards establishing a specialised environmental court. The outcome of this research will contribute to (a) the existing literature on environmental courts, (b) the modernisation and reform of the Indonesian judiciary and (c) the

creation of a domino effect on other countries that are desirous of establishing ECTs amid challenges and conditions similar to those in Indonesia.

Declaration

The work presented in this thesis is, to the best of my knowledge and belief, original except as acknowledged in the text. I hereby declare that I have not submitted this material, either in full or part, for a degree at this or any other institution.

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Windu KISWORO
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International Conferences

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List of Abbreviations

ADB	Asian Development Bank
ADR	Alternative dispute resolution
ASEAN	Association of South-East Asian Nations
BEML	Basic Environmental Management Law
CTD	Conductivity temperature and depth
DKI	<i>Daerah Khusus Ibukota</i> (a special regency of a capital city)
DNA	Deoxyribonucleic acid
DPD	<i>Dewan Perwakilan Daerah</i> (local representative council)
ECNZ	Environment Court of New Zealand
ECC	The Environment Courts of Chile
ECS	Environmental Certification System
ECTs	Environmental courts and tribunals
EIA	Environmental Impact Assessment
ELTO	Environmental and Land Tribunal of Ontario
EML	Environmental Management Law
EPML	Environmental Protection and Management Law
HRM	Human resources management
IASTP	Indonesia–Australia Specialised Training Project
ICEL	Indonesian Center for Environmental Law
ICJ	International Court of Justice
IFCE	International Framework of Court Excellence
IMF	International Monetary Fund
IUCN	International Union for the Conservation of Nature
KLHS	<i>Kajian Lingkungan Hidup Strategis</i> (Strategic Environmental Assessment)
KPK	<i>Komisi Pemberantasan Korupsi</i> (Corruption Eradication Commission)
KPPU	<i>Komisi Pengawas Persaingan Usaha</i> (Business Competition Supervisory Commission)
LECNSW	Land and Environment Court of New South Wales
LECS	Land and Environment Courts of Sweden
LEIP	<i>Lembaga Independensi Peradilan Indonesia</i> (Indonesian Institute for Independence of Judiciary)
M&E	Monitoring and evaluation

MENPAN RB	Ministry of Empowerment of Apparatus and Bureaucratic Reform
MODIS	Moderate Resolution Imaging Spectroradiometer
MoE	Ministry of Environment
MoEF	Ministry of Environment and Forestry
MoU	Memorandum of understanding
NASA	National Aeronautics and Space Administration
NEMA	National Environmental Management Authority
NET	National Environmental Tribunal
NGO	Non-government organisation
NGT	National Green Tribunal
NSW	New South Wales
PEC	Planning and Environment Court, Queensland
POLRI	Indonesian National Police
PSN	<i>Proyek Strategis Nasional</i> (National Strategic Project)
PT	<i>Perseroan Terbatas</i> (Limited Liability Company)
PTJJP	PT Jatim Jaya Perkasa
PTKA	PT Kalista Alam
PTNMR	PT Newmont Minahasa Raya
PTWAJ	PT Waringin Argo Jaya
SDG	Sustainable Development Goal
STD	Submarine tailings disposal
UKL–UPL	Environmental Monitoring and Management Plans
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
US	United States
WALHI	<i>Yayasan Wahana Lingkungan Hidup Indonesia</i>
YLBHI	<i>Yayasan Lembaga Bantuan Hukum Indonesia</i> (Indonesia Legal Aid Foundation)

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Chapter 1: The Need to Strengthen Environmental Adjudication: An Introduction

1.1 Background of the Study

The protection of the environment is central to the current development of international law and relations,¹ which address some major environmental problems that have wide, and even trans-boundary, effects, such as climate change, forest fires and hazardous waste.² Environmental law at both the national and international levels is a rapidly expanding and extremely complex legal area. Despite the existence of environmental laws in most countries, ‘an enormous gap exists between the letter of the law and what is actually happening on the ground’.³ The scale and pace of environmental destruction are growing;⁴ therefore, the need to protect the environment from development has also increased. For example, Yale’s Program on Climate Change Communication found that 70% of United States (US) citizens believe that environmental protection is more important than development.⁵

The specific characteristics of environmental cases make it difficult to protect the environment through law. Environmental cases are known to be multidimensional and scientifically sophisticated,⁶ and to involve uncertainty.⁷ Science, economics and technology are changing faster than the law and, as a result, judicial decision-makers may find it difficult to keep up-to-date with the development of environmental law.⁸ Thus, some researchers argue that the traditional processes of adjudication are insufficient in handling many environmental disputes.⁹ This has

¹ M Rafiqul Islam, *International Law: Current Concept and Future Directions* (LexisNexis Butterworths, 2014) 619.

² Brian J Preston, ‘Benefits of Judicial Specialization in Environmental Law: The Land and Environment Court of New South Wales as a Case Study’ (2012) 29(2) *Pace Environmental Law Review* 396, 396.

³ Paul Stein, ‘Why Judges Are Essential to the Rule of Law and Environmental Protection’ in *Judges and the Rule of Law Creating the Links: Environment, Human Rights and Poverty* (International Union for the Conservation of Nature, 2004) 53, 57.

⁴ Tim Stephens, *International Courts and Environmental protection* (Cambridge University Press, 2009) 1.

⁵ Jennifer Marlon et al, ‘Yale Climate Opinion Maps 2018’ (Yale Program on Climate Change Communication, 2018) <http://climatecommunication.yale.edu/visualizations-data/ycom-us-2018/> (accessed on 7 February 2019).

⁶ George Pring and Catherine Pring, *Greening Justice: Creating & Improving Environmental Courts & Tribunals* (The Access Initiative, 2009) 55.

⁷ Brian J Preston, ‘Limits of Environmental Dispute Resolution Mechanisms’ (1995) 13 *Australian Bar Review* 148, 161.

⁸ Pring and Pring, above n 6, 73.

⁹ See, in particular, Keum J Park, ‘Judicial Utilization of Scientific Evidence in Complex Environmental Torts: Redefining Litigation Driven’ (2011) 7(2) *Fordham Environmental Law Review* 483, 496; Robert Carnwath, ‘Institutional Innovation for Environmental Justice’ (2012) 29(2) *Pace Environmental Law Review* 555, 562.

encouraged the need to ‘streamline and rationalise’ a mechanism for adjudicating environmental cases worldwide.¹⁰

Although international law does not explicitly state the need to create a special adjudication to deal with environmental cases, it recognises the need to provide effective access to judicial and administrative proceedings, and to apply it under domestic jurisdiction. This legal recognition has laid the foundation for the creation of an effective and efficient adjudication system through a specialised court. There has been much recognition of the need for adequate access to justice at the international level. A major recognition of access rights occurred in 1992 with Principle 10 of the *Rio Declaration on Environment and Development*, which specifies that ‘effective access to judicial and administrative proceedings, including redress and remedy, shall be provided’ by states in environmental matters.¹¹ The *1998 Aarhus Convention* is the first binding treaty to be entirely devoted to access rights in environmental disputes.¹² It requires states to guarantee the rights of access to information, public participation in decision-making and access to justice in environmental matters. Further, *Agenda 21* emphasises the need to improve the legal and institutional capacities of countries to ensure the law is applied in the field of the environment and sustainable development.¹³ Lastly, the *Johannesburg Principles on the Role of Law and Sustainable Development* and its Plan of Implementation emphasise the need to further strengthen the adequacy of national judicial institutions so that they have the ability to effectively implement and enforce applicable international and national laws.¹⁴

Recently, there has been a significant move in favour of environmental courts and tribunals (ECTs) worldwide, which have unique characteristics and different levels of success and challenges. Two comprehensive studies of ECTs exemplify the rapid development of ECTs. In 2009, Pring and Pring¹⁵ documented around 350 ECTs in 41 countries,¹⁶ and only seven years later, in 2016, Pring and others¹⁷ noted that there were more than 1,200 ECTs in at least 44 countries with different

¹⁰ Pring and Pring, above n 6, 11.

¹¹ United Nations Conference on Environment and Development, Rio de Janeiro, Brazil, 3-14 June 1992, Rio Declaration on Environment and Development, UN. GAOR, 46 Sess., Agenda Item 21 UN Doc. A/CONF.151/26 (1992), Principle 10.

¹² *Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters 1998*, 2161 U.N.T.S. 447, opened for signature 25 June 1998 (entered into force 30 October 2001).

¹³ ‘Agenda 21’ of the United Nations Conference on Environment & Development (3–14 June 1992), para 8.26 <<https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf>> (accessed on 7 February 2019).

¹⁴ *The Johannesburg Principles on the Role of Law and Sustainable Development, 2002*, adopted at the Global Judges Symposium held in Johannesburg, South Africa on 18–20 August 2002 <<https://www.eufje.org/images/DocDivers/Johannesburg%20Principles.pdf>> (accessed on 7 February 2019).

¹⁵ Pring and Pring, above n 6.

¹⁶ Ibid xiii.

¹⁷ George Pring et al, *Environmental Courts & Tribunals—A Guide for Policy Makers* (United Nations Environment Programme [UNEP], 2016).

statuses, authorities and models.¹⁸ Acknowledging other social–political factors, the creation of an environmental court is inspired by two considerations. The first is a growing concern about the effectiveness of traditional courts in adjudicating environmental cases, which covers a wide variety of problems such as remoteness, lack of technical expertise and capacity, high litigation fees, delays and inadequate quality of decisions.¹⁹ The second consideration is the need for particularly specialised expertise in environmental disputes, particularly owing to the nature and characteristics of environmental cases, as highlighted above.

Recent studies have asserted that ECTs provide positive results in some jurisdictions.²⁰ Some countries have experienced this development despite facing a range of challenges during ECTs' implementation. The Land and Environment Court of New South Wales (LECNSW)²¹ in Australia has been acknowledged as one of the most effective environmental courts in the world. Preston stated that it has received many positive appraisals and has been used as a primary example during the development of ECTs worldwide.²² The Philippines has been a pioneer in recognising the right to a balanced and healthy environment in its constitution.²³ Its environmental courts have implemented innovations such as enforcing powers to promote access to justice. To promote environmental jurisprudence, the Supreme Court of India—particularly the National Green Tribunal (NGT)²⁴—has been proactively protecting environmental rights by guaranteeing them under the constitution.²⁵ These are only a few examples of the encouraging progress of ECTs worldwide.

¹⁸ Ibid 1.

¹⁹ Pring and Pring, above n 6, 1.

²⁰ See, in particular, Pring and Pring, above n 6; Pring et al, above n 17; Brian J Preston, 'Characteristics of Successful Environmental Courts and Tribunals' (2014) 26(3) *Journal of Environmental Law* 365.

²¹ *The Land and Environment Court 1979* (NSW) (Court Act).

²² Brian J Preston, 'Operating an Environment Court: The Experience of the Land and Environment Court of New South Wales' (2008) 25 *Environmental and Planning Law Journal* 385, 409.

²³ Hilario G Davide Jr, 'Environment as Life Sources and the Writ of Kalikasan in the Philippines' (2012) 29(2) *Pace Environmental Law Review* 592, 594.

²⁴ *National Green Tribunal Act 2010* (India).

²⁵ See Domenico Amirante, 'Environmental Courts in Comparative Perspective: Preliminary Reflections on the National Green Tribunal of India' (2011) 29 *Pace Environmental Law Review* 441, 465; Naim Gitanjali Gill, 'The National Green Tribunal, India: Decision-Making, Scientific Expertise and Uncertainty', in Proceedings of Symposium on Environmental Adjudication in the 21st Century, Auckland, New Zealand, April 2017 (2017) 29(2–3) *Environmental Law & Management* 82, 82.

1.2 Study Justification

The *Strait Times* recently highlighted Indonesia's position in light of the result of the 24th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP24 summit) in Katowice, Poland,²⁶ stating:

As the world races against time, COP24 is the perfect platform to deal with the thorniest of issues that constantly plague climate talks ... so all countries work as one in tackling threats against our one home. While setting its own target at an ambitious 29 per cent, *Indonesia* is expanding national palm oil production at the expense of its forests. It also plans to build 100 coal-fired power plants and is promoting the primary use of fossil fuel vehicles in its infrastructure development to increase fuel consumption, when coal and oil are among the greatest sources of greenhouse gas (GHG) emissions (emphasis added).²⁷

The reason for focusing the discussion on the opportunity and challenges involved in creating a specialised environmental court stems from two major problems. First, the above article illustrates Indonesia's struggle to balance the need to protect the environment and promote growth. The country faces serious environmental problems and challenges when trying to achieve economic growth. These problems have escalated because of Indonesia's target economic growth combined with an increasing population and inadequate environmental management.²⁸ Indonesia's aim to increase its annual economic growth to 7% by 2019 includes a significant increase in infrastructure development.²⁹ The Ministry of Environment and Forestry (MoEF)³⁰ found a consistent decline in Indonesia's environmental quality index from 2011-2017.³¹ In terms of forestry crime, an average of 0.7 million hectares of forest was lost every year between 1990 and 2013 through illegal

²⁶ The 24th Conference of the Parties to the United Nations Framework Convention on Climate Change, Katowice, Poland, 2–15 December 2018.

²⁷ 'Indonesia's Crucial Role in Climate Change: The Jakarta Post', *The Straits Times* (online), 10 December 2018 <<https://www.straitstimes.com/asia/se-asia/indonesias-crucial-role-in-climate-change-the-jakarta-post>> (accessed on 7 February 2019).

²⁸ Chris Brummitt, 'Indonesia's Jokowi Finds Traction after Tumultuous First Year', *Bloomberg* (online), 15 February 2016 <<http://www.bloomberg.com/news/articles/2016-02-14/indonesia-s-jokowi-finds-traction-after-tumultuous-first-year>> (accessed on 7 February 2019).

²⁹ The World Bank, 'World Bank and Environment in Indonesia', 1 August 2014 <<http://www.worldbank.org/en/country/indonesia/brief/world-bank-and-environment-in-indonesia>> (accessed on 12 February 2019).

³⁰ 'Profil Kementerian Lingkungan dan Kehutanan (Profile Ministry of Environment and Forestry', [menlhk.go.id](http://www.menlhk.go.id/profil-kami.html), <<http://www.menlhk.go.id/profil-kami.html>> (accessed on 7 February 2019). During President Jokowi's administration in 2014 the Ministry of Forestry was merged with the Ministry of Environment (MoE) to become the Ministry of Environment and Forestry (MoEF). This thesis will use the terms MoE and MoEF alternately according to their needs.

³¹ Ministry of Environment and Forestry, Republic of Indonesia, 'State of the Environment Report: 2017' (2017), 32. The Air Quality Index (IKU) and the National Water Quality Index (IKA) based on this report show fluctuating values. This means that in the last six years, the water quality and air quality have not shown significant changes (good, fixed or downward quality trends). In addition, the National Land Cover Quality Index (IKTL) shows a trend that has decreased at a rate of decline of 0.55 per year. This means that nationally in the past six years, the land cover has experienced a constant decline or degradation.

actions—a total of more than 16 million acres, which is nearly the size of Cambodia.³² The Corruption Eradication Commission (*Komisi Pemberantasan Korupsi* [KPK]) estimated that the shortfall in the state’s income as a result of these illegal actions amounted to US\$6.47 to \$8.98 billion between 2007 and 2013.³³

In Indonesia, the need to protect the environment through courts’ decisions remains challenging. In *Ministry of Environment and Forestry v PT Bumi Mekar Hijau* (*MoEF v PTBMH*) in 2016, the decision of the district court of Palembang, South Sumatera,³⁴ in relation to a forest fire attracted significant public attention. Despite reliable scientific evidence presented by the plaintiff, the court rejected the plaintiff’s claim that PTBMH was liable for the forest fire in the company’s concession area. The court determined that the element of damage was not established because the forest could still be replanted.³⁵ This decision was publicly criticised for its lack of logical reasoning because it implied that it is permissible to burn a forest as long as it can be replanted.³⁶ In 2018, the decision of the district court of Meulaboh in *PT Kalista Alam v Ministry of Environment and Forestry* (*PTKA v MoEF*)³⁷ annulled the execution of the Supreme Court’s final and binding decision in *Ministry of Environment v PT Kalista Alam* (*MoE v PTKA*).³⁸ However, despite acknowledging the Supreme Court’s decision to recognise important international environmental laws and principles,³⁹ the district court argued that the decision of *MoE v PTKA*⁴⁰ does not have executorial title/power upon the plaintiff.⁴¹

³² Christophe Bahuet, “Multi-Door Approach” to Address Forest-Related Crimes in Indonesia’, *The Jakarta Post* (online) <<https://www.thejakartapost.com/news/2016/03/21/multi-door-approach-address-forest-related-crimes-indonesia.html>>.

³³ Ibid.

³⁴ *Ministry of Environment and Forestry v PT Bumi Mekar Hijau* [2015] The District Court of Palembang No. 24/Pdt.G/2015/PN.Plg (30 December 2015) (*‘MoEF v PTBMH’*).

³⁵ Ibid 114.

³⁶ ‘Opini: Berkaca Pada Putusan Kasus PT BMH (An Opinion: Reflect from the Decision of PT BMH)’, *Mongabay Environmental News* (online), 13 January 2016 <<http://www.mongabay.co.id/2016/01/13/opini-berkaca-pada-putusan-kasus-pt-bmh/>> (accessed on 7 February 2019).

³⁷ *PT Kalista Alam v Ministry of Environment and Forestry* [2017] Decision of Meulaboh District Court No 16/Pdt.G/2017/PN.MBO (2017) (*‘PTKA v MoEF’*).

³⁸ *Ministry of Environment v PT Kalista Alam* [2017] Decision of the Supreme Court No 1 PK/PDT/2017 (18 April 2017) (*‘MoEF v PTKA’*). In *MoE v PTKA*, the MoE filed a civil proceeding against PTKA for causing a forest fire. PTKA appealed the decisions of the Meulaboh District Court and the High Court, which accepted the plaintiff’s claims. However, the panel of the Supreme Court justices affirmed the decision of the lower courts and ordered the company to pay IDR 366 billion (US\$25.6 million) as compensation and for restoration of the damaged environment. PTKA appeal through a PK; however, the Supreme Court upheld its previous decision.

³⁹ Windu Kisworo, ‘Kalista Alam Case Set Precedent for Combating Forest Fires’, *The Jakarta Post* (online), 23 September 2015 <<https://www.thejakartapost.com/news/2015/09/23/kalista-alam-case-set-precedent-combating-forest-fires.html>>; ‘Sixth ASEAN Chief Justices’ Roundtable on the Environment: Forging the Sustainable Future of the ASEAN Region’ (Asian Development Bank (ADB), 10 November 2016) 20 <<https://www.adb.org/sites/default/files/publication/398416/6th-asean-chief-justices-roundtable-proceedings.pdf>> (accessed on 7 February 2019).

⁴⁰ *MoEF v PTKA*, above n 38.

⁴¹ *PTKA v MoEF*, above n 37.

In 2018, there are two SLAPP Suit (Special Legal Action Against Public Participation) decisions that illustrate the above challenges. In *PT Jatim Jaya Perkasa (PTJJP) v Bambang Hero*,⁴² a prominent expert witness on forest fires, Professor Bambang Hero, was taken to court by PTJJP, which the Supreme Court had ruled to be the cause of a forest fire.⁴³ PTJJP claimed that the expert provided false opinions in the court's hearing of the company's case. In the same year, in *Nur Alam v Basuki Wasis*,⁴⁴ another expert witness, Dr Basuki Wasis, was sued on the grounds that he gave a false opinion that had caused immaterial losses to the plaintiff.⁴⁵ The plaintiff was the former governor of South East Sulawesi who was prosecuted by the KPK on a corruption charge. The court stated that he had misused his authority as governor on the issuance of a mining license.⁴⁶ The expert had testified as a witness regarding the calculation of environmental losses in the corruption case of *Komisi Pemberantas Korupsi (KPK) v Nur Alam*.⁴⁷ The plaintiff was convicted of corruption. Both of these cases were highly scrutinised by the public.

These four cases illustrate some of the challenges in environmental adjudication in Indonesia. The inadequacy of enforcement of environmental cases requires the availability of an efficient and effective court.⁴⁸ In the context of this thesis, this inadequacy presents problems within and outside the court. Problems within the court include corruption, inadequacy of the court system and judges' lack of competence in environmental law—particularly a lack of understanding of the extensive evidence rule and highly sophisticated scientific evidence as applied to environmental cases, as well as their narrow interpretation of the law, which leads to inadequate legal reasoning.⁴⁹ Problems outside the court include the inadequate capacity of enforcement apparatuses, a lack of coordination and common misperceptions concerning enforcement apparatuses.⁵⁰

⁴² *PT Jatim Jaya Perkasa v Bambang Hero*, [2018] District Court of Cibinong No 223/Pdt.G/2018/PN.Cbi (2018).

⁴³ 'KLHK Soal Prof IPB Digugat Rp 510 M: Bambang Pahlawan Lingkungan (KLHK Questioning Prof. IPB for being Sued IDR 510 Billion: Bambang is a Environmental Hero)', *Detik News* (online), 10 October 2018 <<https://news.detik.com/read/2018/10/10/110008/4250047/10/klhk-soal-prof-ipb-digugat-rp-510-m-bambang-pahlawan-lingkungan>> (12 February 2019).

⁴⁴ *Nur Alam v Basuki Wasis* [2018] Decision of the District Court of Cibinong No 47/Pdt.G/2018/PN.Cbi (13 December 2018) ('*Nur v Wasis*').

⁴⁵ 'KPK Apresiasi Pengadilan Cibinong Tolak Gugatan Nur Alam Ke Ahli (*KPK Appreciates the District Court of Cibinong that Reject the Nur Alam's Lawsuit to the Expert*)', *Tempo* (online) 13 December 2018 <<https://nasional.tempo.co/read/1155119/kpk-apresiasi-pengadilan-cibinong-tolak-gugatan-nur-alam-ke-ahli>> (accessed on 7 February 2019).

⁴⁶ *Nur v Wasis*, above n 44.

⁴⁷ *Komisi Pemberantas Korupsi (KPK) v Nur Alam* [2018] Decision of the Supreme Court No 2633 K/PID.SUS/2018 (5 December 2018).

⁴⁸ See Academic Draft of Environmental Management Bill, 1; *The Decree of Chief Justice of the Supreme Court of Indonesia No 134/KMA/SK/IX/2011 on Certification of Environmental Judges (5 September 2011)* ('*Supreme Court Decree on ECS*').

⁴⁹ BAPPENAS and Van Vollenhoven Institute, *Efektivitas Penyelesaian Lingkungan Hidup Di Indonesia* (BAPPENAS and Van Vollenhoven Institute, 2010) 10–16.

⁵⁰ *Ibid.*

Facing similar conditions as judges in terms of competence, non-court actors face three problems. First, they have inadequate knowledge of environmental laws and regulations. The lack of expertise in the use of criminal law principles has prevented the formulation of sound investigation reports by investigators and indictments by prosecutors. For example, a lack of understanding of the corporate liability principle resulted in the prosecution of field staff for environmental crimes rather than the company that ordered the activity that caused environmental harm.⁵¹ Second, there is a lack of clear coordination between non-court actors during several stages before a case is brought to the court. An effective investigation of an environmental crime requires coordination between police and prosecutors. Further, it is often difficult and costly to obtain evidence, and there is a limited number of competent scientific experts.⁵² Law No 32 of 2009 on Environmental Protection and Management Law (EPML)⁵³ requires clear coordination through integrated enforcement.⁵⁴ The lack of coordination worsens when it is combined with a lack of clear common perceptions of substantive and procedural legal issues. It consists of: (1) different opinions on the use of relevant criminal enforcement principles; (2) the determination of environmental harm (proof of evidence); (3) the identification of a hazardous waste material and clear investigation by authorities in a criminal environmental case; and (4) inadequate training and a lack of clear rules and procedures in relation to handling environmental cases. For example, the use of a standard in evaluating environmental harm, contribute to those perceptions.⁵⁵

To address the above problems and challenges, Indonesia's relevant agencies and authorities have been improving environmental laws and regulations along with their enforcement. To address problems within the court, the Supreme Court of Indonesia (hereafter 'Supreme Court') stated:

The important role of the court which led the policy underlying the Supreme Court to prepare the judge and court rules (court proceedings) that are in line with protecting the capacity of ecosystems, sustainable development and good governance, are:

1. Conducting the program of certification of judges which will handle environmental cases (certified judges);
2. Send a judge which has been certified to examine the case in the courts where there are no certified judges (*detasering* judges or flying judges);

⁵¹ *Republic of Indonesia v PT Kalista Alam* [2014] Decision of the District Court of Meulaboh No 131/Pid.B/2013/PN.MBO (15 July 2014); *Republic of Indonesia v Ibarhim Lisaholet* [2012] Decision of the Supreme Court No 1363 K/PID.SUS/2012 (10 October 2012).

⁵² 'Rapat Koordinasi Penegakan Hukum Pidana Lingkungan Hidup (Coordination Meeting on Criminal Environmental Enforcement)', Menlh (online) <<http://www.menlh.go.id/rapat-koordinasi-penegakan-hukum-pidana-lingkungan-hidup/>> (accessed on 7 February 2019).

⁵³ Law No 32 of 2009 on Environmental Protection and Management ('EPML').

⁵⁴ Ibid art 95.

⁵⁵ 'Rapat Koordinasi Penegakan Hukum', above n 52.

3. Requiring the parties to conduct the mediation process before their case reviewed in court;
4. To encourage the judges to do “judicial activism” in the sentences that will produce a number of initiatives that will be the steps of the Supreme Court.⁵⁶

The Supreme Court has translated this commitment into various initiatives in cooperation with other related agencies and actors to ensure that environmental cases are handled successfully. This study highlights the Supreme Court’s establishment of the Environmental Certification System (ECS) in 2011 to enable certified judges to handle environmental cases.⁵⁷ The ECS represents the Supreme Court’s commitment to strengthen environmental adjudication. This thesis examines some certified judges’ decisions that are considered landmark decisions for establishing new legal principles of environmental law, responding to social dynamics within society and reflecting the direction of environmental law reform. The decision in *Dedi cs v PT Perhutani*⁵⁸ recognised the precautionary principle for the first time in judicial decision-making in Indonesia. The decision of the Supreme Court in *MoE v PTKA*⁵⁹ recognised the doctrine of *in dubio pro natura*. The Supreme Court upheld the decision of the district court of Meulaboh in *MoE v PTKA*.⁶⁰ In *Ministry of Environment and Forestry v PT Waringin Argo Jaya (MoEF v PTWAJ)*,⁶¹ the district court of South Jakarta for the first time specifically assessed the element of strict liability on a forest fire case.⁶² The use of strict liability has been tested in various civil environmental cases; however, most courts have decided to use liability based on fault (*perbuatan melawan hukum*).⁶³

The Directorate General of Environmental and Forestry Law Enforcement of the Ministry of Environment and Forestry (MoEF) has completed 567 criminal cases in court, 18 lawsuits against companies (*inkracht*) with a value of IDR 18.3 trillion (equivalent to US\$1.3 trillion) and 132 disputes that were settled out of court.⁶⁴ To address problems outside the court, relevant

⁵⁶ Harifin Tumpa, ‘Role of Judges on the Environmental Cases’, Asian Judges Symposium on Environmental Decision Making, the Rule of Law, and Environmental Justice, Manila, Philippines, 27-29 July 2010
<<https://www.scribd.com/document/37749202/Dr-Harifin-Tumpa-Asian-Court-Views-Indonesia>> (accessed on 7 February 2019).

⁵⁷ *The Supreme Court Decree on ECS*, above n 48.

⁵⁸ *Dedi cs v PT Perhutani cs.* [2003] Decision of District Court of Bale Bandung No 49/Pd.T.G/2003/PN. Bdg. (4 September 2003).

⁵⁹ *Ministry of Environment v PT Kalista Alam* [2015] Decision of the Supreme Court No 651 K/PDT/2015 (28 August 2015).

⁶⁰ *Ministry of Environment v PT Kalista Alam* [2012] Decision of the District Court of Meulaboh No 12/PDT.G/2012/PN.MBO (2012) (*MoE v PTKA*).

⁶¹ *Ministry of Environment and Forestry v PT Waringin Argo Jaya* [2017] Decision of the District Court of South Jakarta 456/Pdt.G-LH/2016/PN Jkt. Sel (7 February 2017) (*MoEF v PTWAJ*).

⁶² Andri Gunawan Wibisana, *Civil Enforcement on Environmental Law* (Badan Penerbit FHUI, 2017) 141–143.

⁶³ Ibid 114. Wibisana analysed some decisions whereby the plaintiff used both civil liability based on fault and strict liability. For example, *Ministry of Environment v PT Kalista Alam*, Decision of the Meulaboh District Court No 12/PDT.G/2012/PN.MBO (8 January 2014) and *Walhi v PT Freeport Indonesia Company*, Decision of the South Jakarta District Court No 459/Pdt.G/2000.

⁶⁴ ‘Ditjen Gakkum KLHK Menangkan Rp18,3 Triliun Gugatan Kehutanan (Directorate General of Law Enforcement of MoEF Won IDR 18,3 Trillion on the Forest Fire Lawsuits)’, *Media Indonesia* (online), 2 January 2019

enforcement agencies signed a memorandum of understanding (MoU) to adopt a multi-door approach to ensure clear coordination in the handling of environment-related cases.⁶⁵ To address the problem of a lack of coordination, the MoU also attempts to ensure that ‘corporate accountability, recovery of state losses and restoration of the environment are incorporated’ into every investigation of forest-related crimes by the relevant enforcement agencies.⁶⁶

This study highlights the effect on the quantity and quality of decisions of two factors that determine the possibility of implementing the above reform initiatives and improvements. The first factor is the development of environmental laws and regulations. The operationalisation of the ECS has mainly been supported by the current development of environment-related laws—particularly EPML⁶⁷—and other relevant regulations such as the Supreme Court’s guideline for environmental case handling⁶⁸ and Regulation of the Ministry of Environment No 7 of 2014 on Environmental Loss Caused by Environmental Pollution and/or Degradation.⁶⁹ In practice, the recognition of the basic concept of the precautionary principle, as well as a more solid concept of strict liability under EPML, facilitates a more rigorous application of this principle to cases, as shown in the above case analyses.⁷⁰ The second factor relates to current developments in overall judiciary reform, which should be acknowledged as equally important in providing a strong foundation for reform in environmental adjudication. Its major reforms consist of the development of the Supreme Court’s Blueprint for Reform in 2003 and 2010, the development of the Technical Team of the Reform, which also consists of the representative of civil society working on the independence of the judiciary, and the establishment of the chamber system within the Supreme Court of Indonesia. This study identifies some challenges facing the progress of reform.

Despite the initiatives to improve environmental laws and their capacity for enforcement, the abovementioned data on environmental problems indicate their escalation. Despite the progress in environmental adjudication reform, the current structure and mechanism of handling

<<http://mediaindonesia.com/read/detail/207670-ditjen-gakkum-klhk-menangkan-rp183-triliun-gugatan-kehutanan>> (accessed on 7 February 2019).

⁶⁵ *A Memorandum of Understanding on Multi-Door Approach*, Indonesian National Police Chief, Attorney General, Minister of Environment, Forestry Minister, Finance Minister and Head of PPATK (Indonesian Financial Report and Analysis Centre) (signed 20 May 2013). This is called a ‘multi-door approach’.

⁶⁶ *Ibid.*

⁶⁷ EPML, above n 53.

⁶⁸ The Decree of Chief Justice of the Supreme Court of Indonesia No 36/KMA/SK/II/2013 on the Procedure of Handling Environmental Cases (‘Supreme Court Guideline for Environmental Cases Handling’).

⁶⁹ The Decree of Ministry of Environment No 7 of 2014 on Environmental Loss Caused by Environmental Pollution and/or Degradation (‘Ministry’s Guideline for Environmental Valuation’).

⁷⁰ See particularly, *Ministry of Environment v PT Kalista Alam* [2015] Decision of the Supreme Court No 651 K/PDT/2015 (28 August 2015); *Ministry of Environment and Forestry v PT Waringin Argo Jaya* [2017] Decision of the District Court of South Jakarta 456/Pdt.G-LH/2016/PN Jkt. Sel (7 February 2017); *Dedi cs v Perhutani Limited Liability Company (persero)*, Decision of District Court No 49/PdT.G/2003/PN. Bdg (4 September 2003).

environmental cases must be addressed. To this end, proposals have been made by environmental non-government organisations (NGOs), academics, the government, members of parliament and the local representative council (DPD) to establish a specialised environmental court. The Indonesian Center for Environmental Law (ICEL), which is an NGO that specialises in environmental law, proposed the establishment of the environmental court in its ‘Green Bench’ proposal. The ICEL deems the main drivers to be the escalation of environmental problems, the lack of understanding of judges on environmental laws and the lack of environmental enforcement.⁷¹ Another NGO, *Wahana Lingkungan Hidup Indonesia* (WALHI) also advocated the need to establish an environmental court, basically with a similar argument.⁷²

The MoE also supports the establishment of an environmental court, asserting that such a court would give exclusive authority to the court to handle environmental cases in Indonesia. In that respect, environmental cases should be handled by a specialised court whereby its judges possess a solid understanding of the urgency of the protection and management of the environment.⁷³ Recently, members of parliament also proposed the establishment of the environmental court, arguing that it would provide adequate sentencing for environmental crimes, accelerate decision-making processes in relation to the escalation of environmental degradation and provide competent judges.⁷⁴

However, these proposals have not yet been supported by in-depth research to assess the pros and cons of establishing such a court under Indonesia’s legal and judiciary system, as well as challenges to, and progress in, handling environmental cases. Further, no proposals have conducted detailed analysis of how the characteristics and best practices of successful environmental courts worldwide, which have unique characteristics and different levels of success and challenges, can be used as points of reference.

In light of the abovementioned problems and the proposals to establish a specialised environmental court, ECTs worldwide—along with their unique features, successes and challenges—offer instructive know-how to countries that want to improve or establish ECTs. However, borrowing

⁷¹ See Prayekti Murharjanti et al, *Menuju Peradilan Lingkungan Pro Lingkungan (Toward a Pro Environment Court)* (Indonesian Center for Environmental Law [ICEL], 2009).

⁷² ‘Pengadilan Khusus Lingkungan Mutlak Dibutuhkan’ *Hukum Online* (online), 16 January 2013 <<http://www.hukumonline.com/berita/baca/lt50f6bf8f4b5e8/pengadilan-khusus-lingkungan-mutlak-dibutuhkan>> (accessed on 7 February 2019).

⁷³ ‘Mewujudkan Efektifitas Penanganan, Perlindungan dan Pengelolaan Lingkungan Hidup’, *Menlh* (online) <<http://www.menlh.go.id/mewujudkan-efektivitas-penanganan-perlindungan-dan-pengelolaan-lingkungan-hidup/>> (accessed on 7 February 2019).

⁷⁴ ‘DPR mengusulkan Pembentukan Pengadilan Khusus Lingkungan’, *Republika* (online) 19 September 2015 <<http://www.republika.co.id/berita/ekonomi/makro/15/09/19/nux2ga349-dpr-usulkan-pembentukan-pengadilan-khusus-lingkungan>> (accessed on 7 February 2019).

from international experiences might be problematic for Indonesia. Therefore, before establishing a specialised environmental court, the extent to which its establishment is necessary in the Indonesian context must first be analysed. Pring and Pring provided sequential steps for a country wanting to establish an ECT: (1) weigh the argument for and against a specialised ECT based on the country's context; (2) analyse the characteristics of effective ECTs that best fit the country's characteristics and goals; (3) develop strategic planning in implementing the ECT; and (4) evaluate its effectiveness and performance.⁷⁵

This thesis examines selected ECTs and their unique features, successes and challenges to deduce instructive lessons for Indonesia, and it tailors relevant international experience to suit the country's unique and special features. Therefore, as an analytical framework, this study examines the characteristics of effective ECTs and analyses their relevance and applicability within the Indonesian context, as well as the problems and prospects of establishing an environmental court in Indonesia. Further, this study identifies and draws upon the features of the most effective model of ECT that best suits Indonesia's legal culture, judicial system and specific environmental goals to determine a framework for the establishment of its own specialised environmental court.

Whatever model is chosen by Indonesia, the judiciary is only one of the key players in the adjudication of environmental cases. The role of other enforcement actors is also important in handling environmental cases. In light of the above objective, this study limits the analysis of the problems and prospects pertaining to the establishment of a specialised environmental court in Indonesia.

1.3 Significance of the Study

This study will contribute to existing literature on environmental courts and why they are essential for increasing the quality of environmental decision-making. It will focus on Indonesia, which has both significant natural resources and environmental problems, because few international studies have discussed the progress and challenges of environmental adjudication in Indonesia. For example, Pring and others only briefly explained the Indonesian experience in assigning a special judge to handle environmental cases.⁷⁶

This study will contribute to the modernisation and reform of the Indonesian judiciary, particularly in adjudicating environmental cases. It will provide a comprehensive analysis of relevant actors to determine whether establishing a specialised environmental court will circumvent some of the

⁷⁵ Pring and Pring, above n 6, 5–6.

⁷⁶ Pring et al, above n 17, 32–33.

underlying problems of Indonesia's judicial system, including legal competence and corruption. This is significant given the experiences of other types of specialised courts in Indonesia and their increasing use elsewhere. Thus, this study provides a framework for the creation of a specialised environmental court based on detailed analysis of the relevant characteristics of ECTs and their best practices that best suit the development of Indonesia's legal and judicial system, taking into account the country's specific environmental goals. This study outlines steps for policymakers in Indonesia as the foundation for developing a strategic plan for the creation of a specialised environmental court. This strategic plan will help the Indonesian Government measure its progress towards establishing a specialised environmental court.

Lastly, this study will help other countries that want to establish, or have already established, an ECT, but that still need to improve its quality amid challenges and conditions similar to those in Indonesia.

1.4 Rationale for Methodology

This research employs a qualitative approach. In doing so, it identifies the most adequate model of ECT that best suits Indonesia's legal and judicial system and environmental goals. The methodology engages with two major stages. First, it analyses characteristics and best practices in environmental courts in various countries. In doing so, the study acknowledges the risks involved in using foreign materials, including 'superficiality' and 'getting the foreign law wrong'.⁷⁷ Moreover, there is often a discrepancy between the theory and practice of the law.⁷⁸ Despite these challenges, and taking into account recent legal developments in Indonesia, this study finds that the experiences of other countries will benefit Indonesia. Although Indonesia uses a civil law legal system, which is not dependent on the rule of precedent and case law, judges make significant decisions through judicial activism. In addition, some principles of law originally came from a common law system applied in environmental legislation, including class action, NGOs' standing and Strategic Lawsuit against Public Participation (SLAPP).⁷⁹

Indeed, these characteristics of effective ECTs are established based on existing ECTs in 'a full range of legal culture and political situations'.⁸⁰ Second, this study uses the characteristics and best practices generated in the first stage to facilitate legal analysis in the Indonesian context. In

⁷⁷ Alan Watson, *Legal Transplants: An Approach to Comparative Law* (Scottish Academic Press, 1974), as quoted in Terry C M Hutchinson, *Researching and Writing in Law* (Thomson Reuters/Lawbook Co, 3rd ed, 2010) 119.

⁷⁸ Terry C M Hutchinson, *Researching and Writing in Law* (Thomson Reuters/Lawbook Co, 3rd ed, 2010) 119.

⁷⁹ EPML, above n 53.

⁸⁰ Pring and Pring, above n 6, 3–4.

particular, it examines its applicability in Indonesia based on the current status of environmental problems and challenges and the development of the country's legal and judicial system.

1.5 Methodology of the Study

To connect the above two stages, this study uses the following methods. First, the doctrinal method is used to conduct a literature review of existing studies, including textbooks, journals, reports and articles, related to the main issues of this thesis—particularly the characteristics of effective ECTs and their best practices. The doctrinal method is also used to analyse primary materials from a variety of national and international sources, including treaties, legislations and regulations, which consist of the internal regulations of the Supreme Court, ministerial regulations and decrees and court decisions. This study also uses secondary materials such as commentary of the law in textbooks and legal journals, and it analyses selected decisions in environmental cases in Indonesia.

Second, this study conducts empirical research by conducting interviews with senior justices of the Supreme Court, judges of district courts, commissioners of the Judicial Commission of Indonesia, commissioners of the KPK, relevant staff of the MoEF, academics, civil society and donor agencies. In addition, this study interviews some prominent scholars on ECTs, including Justice Brian J Preston, Chief Judge of the LECNSW, Australia, and Paul Stein, former judge of the Supreme Court in NSW, Australia. This study conducts semi-structured interviews to elicit opinions and provide a space for interviewees to discuss their knowledge and experiences.

Third, the results of the above two stages are analysed and interpreted by:⁸¹ (1) organising and preparing the data for analysis; (2) reading the data to obtain a general sense of the information and reflect on its overall meaning; (3) coding the data; (4) use the coding process to generate a small number of themes and categories as key findings; (5) interpreting the findings and results.

1.6 Synopsis of the Study

Chapter 1 contains a general overview of the study, outlines the research question and highlights ECTs around the world, along with their unique features, successes and challenges to deduce instructive lessons for Indonesia and tailors relevant international experience to suit the unique and special features of Indonesia. Finally, this chapter highlights the limitations of the study and outlines its methodology and its structure.

⁸¹ Hutchinson, above n 77, 197–200.

Chapter 2 discusses the move of ECTs worldwide, along with characteristics of effective ECTs. It consists of two sections. First, it examines the development of ECTs around the world and the characteristics of effective ECTs that have been studied by prominent scholars. Second, it analyses the common characteristics of effective ECTs as the analytical framework of this study. In doing so, it briefly highlights the need for specialisation in the judiciary. The chapter then discusses current literature and academic studies on judicial specialisation in environmental matters. Based on this discussion, the chapter analyses policy considerations when creating an environmental court, as well as the characteristics of ECTs and relevant best practices from countries with ECTs as identified by prominent scholars. Finally, the chapter concludes by comparing and identifying the characteristics of effective ECTs.

Chapter 3 examines the current progress and challenges of adjudicating environmental cases in Indonesia within the institutional structure in which environmental adjudication operates. It starts with a discussion of the current judiciary system and reform—particularly the system and reform progress that are relevant to environmental adjudication in Indonesia. It then proceeds with an analysis of the extent to which the current initiative—particularly the ECS—has contributed to the improvement of environmental adjudication. To this end, this chapter highlights some important developments at both the institutional and policy levels. Based on the analysis of the existing problems and opportunities involved in strengthening environmental adjudication within the overall institutional structure of the Indonesian judiciary and its reform development, the chapter concludes by analysing the relevance and applicability of the common characteristics of effective ECTs in Indonesia.

Chapter 4 analyses the current judiciary's competence in handling environmental cases. The first part of the chapter provides a brief overview and analysis of some attempts to define and classify competence. It then analyses the extent to which the ECS's competence refers to these theoretical foundations. Based on the analysis of the relevant characteristics of ECTs in Chapter 2, this chapter assesses the extent to which the system and mechanism have been used to improve and maintain the competence of judges which have been certified under the ECS (certified judges). In doing so, it discusses different levels of education and training before and during judges' tenure in respect to environmental law. This chapter discusses the training methodology and teaching material used in the ECS to ensure that certified judges possess special competence to handle environmental cases. As part of assessing the contribution of the ECS to the quality of decision-making, the chapter conducts a critical review of two landmark decisions on forest fires, focusing on how the judges identified, interpreted and applied the law in their decisions. Building upon these analyses, the chapter concludes with an analysis of the progress made in developing judiciary competence

in Indonesia, as well as judges' decision-making in handling environmental cases, supported by the identification of some critical areas of improvement.

Chapter 5 examines the use of scientific evidence in environmental cases. The chapter starts with a brief discussion of the relation between science and law and how this relation is reflected in court processes. In doing so, it analyses the systems for assessing expert evidence from the US and Australia as reference points. Based on these references, the chapter identifies important principles that Indonesia should consider when addressing the challenges highlighted in the previous chapters. The chapter then analyses the current use of scientific evidence in handling environmental cases. It covers both relevant legal framework concerning the use of scientific evidence and its implementation. It also analyses two selected decisions on forestry that involved scientific disputes. The chapter concludes with a discussion of some issues in the legal framework of scientific evidence and its use in cases, followed by recommendations on how to improve the use of scientific evidence in environmental cases.

Chapter 6 analyses the most adequate and rational model of environmental court based on the examination of the common characteristics of effective ECTs and the findings of the previous chapters. It provides a more in-depth analysis of the need to identify the best model of a specialised environmental court, as highlighted in Chapter 3, in relation to the type of forum. The chapter also analyses the applicability of the type of ECT forum categorised by Pring et al⁸²—along with best practices in various countries—in the Indonesian context. It analyses the existing court model or mechanism and covers a wide range of issues from the history of the court's establishment to successes and challenges in its implementation. It concludes with a recommendation of the most suitable model of environmental court and some preconditions for the effective and efficient implementation of the proposed model of environmental court in Indonesia.

Chapter 7 presents the key findings of the study and concluding remarks on the challenges and opportunities for Indonesia in establishing a specialised environmental court. It proposes the most appropriate model of environmental court supported by a sequential framework to conduct a step-by-step approach to establish such a court. The chapter also emphasises the significance of this study to existing literature in the area of environmental adjudication—especially relating to ECTs. This study will help the Indonesian Government and policymakers—especially the Supreme Court of the Republic of Indonesia—by giving them important insights to better formulate the necessary strategies and reforms to pursue the establishment of a specialised environmental court. Lastly, the

⁸² Pring et al, above n 17, 20–38.

chapter provides lessons for other countries facing similar challenges as Indonesia when improving their existing ECTs or creating new ECTs.

Chapter 2: An Effective Environmental Court and Its Characteristics: An Analytical Framework

2.1 Introduction

The growth of environmental laws and their complexity means that courts require judges and other judicial members with expertise in relevant law and non-law disciplines. The inability of traditional courts to adjudicate particularly complex environmental cases stems from their lack of special expertise, including insufficient expertise in legal and technical issues, unaffordable costs for litigation, and speed and quality of decisions.¹ In response to this challenge, there have been some extraordinary growth of ECTs around the world, and some countries, including Indonesia, have been discussing whether it is necessary to create ECTs.²

This chapter examines the literature relating to the features and development of ECTs worldwide. This has been a subject of considerable interest by international academics, judges and practicing lawyers. Further, the need to promote the effectiveness of environmental adjudication has been addressed by international organisations and think tanks through studies and advocacy. According to these proponents, ECTs provide a better forum for adjudicating environmental. However, there have been concerns that the creation of specialised courts, including ECTs, has some disadvantages, ranging from substantive to procedural grounds to their position within the judicial system. Countries that are considering the establishment of an environmental court must analyse the advantages and disadvantages involved because every country has its own legal system, environmental goals, political structure, culture and socio-economic conditions.³ Based on this analysis, countries can then decide whether it is desirable to establish a new environmental court or maintain and improve existing mechanisms.

A wide range of ECTs have been established in various countries. Each country has its own model supported by certain features that have both strengths and weaknesses. These ECTs might provide instructive best practices for a country thinking of establishing an ECT. In this regard, the introductory chapter provided a justification of this study, which examines why Indonesia should consider these instructive experiences to establish a specialised environmental court. However, this study acknowledges the possible challenges involved in using foreign systems and experiences

¹ George Pring and Catherine Pring, *Greening Justice: Creating & Improving Environmental Courts & Tribunals* (The Access Initiative, 2009) 1.

² Ibid.

³ Ibid 2.

in a country like Indonesia: ‘Transposing models or design options from one country to another requires both careful analysis and modification to ensure that a special forum addresses the individual needs and political environment of the jurisdiction’.⁴ This thesis argues that choosing the most appropriate environmental court requires a detailed analysis of the relevant institutional structure in which the court operates. Despite the instructive characteristics and best practices that have been developed in some environmental courts, Indonesia needs to first identify the characteristics of effective ECTs and the best practices that are relevant to the country, and then subsequently analyse its applicability.

This chapter discusses the development of ECTs worldwide, along with their characteristics and best practices. It starts by discussing various studies on ECTs, as well as some characteristics of effective ECTs that have been studied by scholars. It then analyses the characteristics of effective ECTs as an analytical framework for this study. After briefly discussing judicial specialisation—focusing on its pros and cons—this chapter highlights some policy considerations for the creation of ECTs. The chapter concludes by noting common characteristics of effective ECTs as identified by scholars. This comparison will highlight some of the relevant best practices of countries with an environmental court to assist countries that want to establish such a court.

2.2 Policy Considerations and Characteristics of an Effective Environmental Court

2.2.1 Specialisation in the Judiciary

Specialisation in court has been the subject of discussion in studies in areas such as human rights, competition law and juvenile courts. In a general sense, specialists know more about less; their knowledge is ‘narrow but deep’.⁵ In contrast, generalists know less about more; their knowledge is ‘broad but shallow’.⁶ Professionally, specialisation is ‘a multi-faceted principle and dynamic practice’ relating to a specific competence that is enhanced and carried out at a high level.⁷ In relation to legal specialisation, there is a distinction between: (1) legal specialisation; (2) specialisation in underlying factual material; and (3) specialisation in non-legal disciplines.⁸ The first category is measured according to academic guidelines—that is, the specialisation in one legal

⁴ Ibid 19.

⁵ Anthony Hol and Marc Loth, *Reshaping Justice: Judicial Reform and Adjudication in the Netherlands* (Shaker Publishing B V, 2004) 25.

⁶ Ibid.

⁷ Ibid.

⁸ Ibid.

field (e.g., civil law, criminal law, administrative law).⁹ The second appears in material expertise and non-legal areas (e.g., associated knowledge, technical expertise, medical questions, psychological problems).¹⁰ In the last category, non-legal disciplines form an integral component of the legal practice—for example, when a legal institution employs non-lawyers (e.g., company law office, tenancy agency, arbitration chambers).¹¹ According to Legomsky, issues relating to judicial specialisation include its composition and independence, jurisdiction and procedural issues¹²—for example, relating to law of evidence and provisions related to standing. Other studies have compared the advantages and disadvantages of special adjudication.¹³ In regard to the specialisation in underlying factual material, decision-makers will analyse these advantages and disadvantages based on their respective conditions.

Specialised courts have some advantages. According to Stephen H. Legomsky, they can improve the quality of the end product, the efficiency of the process and the ‘acceptability of the entire package to the public’.¹⁴ Honourable T.F. Bathurst asserted that the process can improve case management by adopting practices and procedures that are more appropriate to the issues they deal with.¹⁵ Anthony Hol and Marc Loth categorised three advantages of specialised courts: knowledge, environmental and organisational.¹⁶ In terms of knowledge, specialised courts may increase the quality of the decision, coherency and legal unity, and strengthen legal development.¹⁷ In terms of the environment, specialisation may create legitimacy.¹⁸ In terms of organisation, specialisation improves efficiency, including the ability to examine cases quickly and reduce costs to parties as a result of the reduced number of steps.¹⁹

The above characteristics and advantages of specialised courts offer three alternatives for creating a more effective mechanism in handling environmental cases. First, it offers a mechanism to ensure

⁹ Ibid.

¹⁰ Ibid.

¹¹ Ibid.

¹² Stephen H Legomsky, *Specialized Justice: Courts, Administrative Tribunals, and a Cross-National Theory of Specialization* (Oxford University Press, 1990) 4.

¹³ Ibid.

¹⁴ Ibid 7.

¹⁵ Hon T F Bathurst, ‘Specialised Courts/Court Tracks—The Way to Go?’ (Paper presented at the Pacific Judicial Conference, Papua New Guinea, (14 September 2016) 1.

<http://www.supremecourt.justice.nsw.gov.au/Documents/Publications/Speeches/2016%20Speeches/Bathurst%20CJ/Bathurst_20160914.pdf>. (accessed on 7 February 2019).

¹⁶ Hol and Loth, above n 5, 25.

¹⁷ Ibid 25-26.

¹⁸ Ibid 27-29.

¹⁹ Ibid 29-30.

the availability of judges with special competence—in this context, competence related to the nature of environmental cases—whereas general court judges may not have this competence. Specialised courts should be supported by decision-makers that are familiar with and competent in specialised matters. Second, the features enable the creation of special rules and procedures to accommodate special characteristics of cases in their jurisdiction. In environmental cases, the proof of causation involves scientific evidence, and tackling the issue with a conventional procedure of assessing scientific evidence may result in poor decisions. Third, features that suit the rationale and objective of the court’s establishment may result in good decisions and a high level of public trust in the court’s effective mechanism for addressing environmental problems. The next section discusses the development of judicial specialisation in dealing with environmental cases. Some disadvantages of specialised courts will be discussed as part of analysing the challenges of ECTs.

2.2.2 Policy Considerations that Inform Decisions to Establish Environmental Courts and Tribunals

The reasons for creating an ECT depend on the particular problems faced by a country. Every country has its own legal system, environmental goals, political structure, culture and socio-economic conditions that determine the most appropriate model of ECT for the country.²⁰ Warnock described ECTs as ‘unusual and highly complex legal institutions, representative of modern, dynamic forms of adjudication, and they often have powers that we might expect to find in court’.²¹ Researchers have suggested that ECTs are the best model of a ‘modern court’ because they balance the needs of the public and the rights of individuals.²²

Despite some arguments against ECTs, the need to develop them combined with the growth of judicial specialisation in handling environmental cases has been the subject of three types of studies. The first type of research conducts comparative analysis of a wide range of existing ECTs and provides a practical framework to guide decision-makers in countries that want to establish ECTs. The second category conducts in-depth research of an individual ECT, while the third category evaluates the desirability of establishing ECTs in particular jurisdictions.

²⁰ Pring and Pring, above n 1, 19–20.

²¹ Ceri Warnock, ‘Reconceptualising Specialist Environment Courts and Tribunals’ (2017) 37(3) *Legal Studies* 391, 392.

²² J Resnik, ‘Reinventing Courts as Democratic Institutions’ (2014) 143(3) *Daedalus* 9, 9-10; George Pring and Catherine Pring, ‘Twenty-First Century Environmental Dispute Resolution’ (2015) 33(1) *Journal of Energy and Natural Resources and Environmental Law* 10, 10.

Examples of the first type of research include studies by George Pring and Chaterine Pring,²³ Pring and others²⁴ and Brian J Preston.²⁵ Pring and Pring provided a comprehensive description and analysis of existing ECTs around the world.²⁶ They explained how to enhance access to environmental justice and outlined the specific factors that contribute to the efficient design and operation of ECTs.²⁷ In this study, effective access to justice can be viewed as a three-stage process. The first stage is access to the courthouse door.²⁸ The second stage is access within the ECT to proceedings that are fair, efficient and affordable.²⁹ The third stage deals with access to enforcement remedies and tools that can affect the ECT's decision.³⁰ This study examines the first two stages—that is, whether access to justice is being provided by the ECT in terms of giving parties access to the adjudication process.³¹

The authors used a multidisciplinary approach and 'on-the-ground' analysis based on interviews with respondents from 41 countries.³² They defined ECTs as 'judicial or administrative bodies of government empowered to specialise in resolving environmental, natural resources, land use [planning] development, and related disputes'.³³ After analysing 12 elements provided by 'best available practices' and descriptions of successes and failures, they argue that some models of environmental courts are more successful than others in providing access to information and ensuring participation and justice.³⁴

In 2016, Pring and others expanded the above research with the support of the United Nations Environment Programme (UNEP)³⁵ to provide an overview for policymakers, decision-makers and other leaders that are interested in improving the adjudication of environmental disputes. 'Improving the environmental rule of law, access to justice and environmental dispute resolution is essential for achieving the UN's 2030 Sustainable Development Goals (SDGs), particularly SDG Goal 16 – to provide access to justice for all and build effective, accountable and inclusive

²³ Pring and Pring, *Greening Justice*, above n 1.

²⁴ Pring et al, *Environmental Courts & Tribunals—A Guide for Policy Makers* (UNEP, 2016).

²⁵ See, for example, Brian J Preston, 'Characteristics of Successful Environmental Courts and Tribunals' (2014) 26(3) *Journal of Environmental Law* 365.

²⁶ Pring and Pring, *Greening Justice*, above n 1, 11.

²⁷ *Ibid.*

²⁸ *Ibid.*

²⁹ *Ibid.*

³⁰ *Ibid.*

³¹ *Ibid.*

³² *Ibid.*, xiii.

³³ *Ibid.* 3.

³⁴ *Ibid.* 11.

³⁵ Pring et al, above n 24.

institutions at all levels'.³⁶ The study aimed to help them make better decisions on environmental cases that 'directly support achievement of many of SDGs, particularly the SDG Goal 16'.³⁷ The study described different institutional models, gave examples of best practices in ECTs around the world and provided a roadmap for those interested in exploring, creating or improving environmental dispute resolution institutions in their country.

Preston also drew upon the systems and experiences of various jurisdictions' ECTs. Focusing on the LECNSW's experience, he drew upon examples from several jurisdictions to analyse the performance of ECTs. Preston consistently noted the importance of having a specialisation to deal with environmental cases. Acknowledging that 'the judiciary has a role to play in the interpretation, explanation and enforcement of laws and regulations', he emphasised the need to have particular expertise within the judiciary.³⁸ Preston argued that this feature would mark 'the environmental courts as best placed to help achieve ecologically sustainable development'.³⁹

In addition to the above comparative study, a number of studies have conducted in-depth analyses of individual ECTs and outlined their structure and operationalisation by identifying their successes and challenges. These studies have found that each court has its own characteristics that determine the effectiveness of its implementation, and that each court's experience can be used as an instructive experience for other countries that have similar opportunities and challenges. A selective account of these studies is presented below.

Some studies describe the benefits of a particular ECT. For example, Domenico Amirante analysed India's NGT and emphasised the need to internalise the local context when designing the best model of an environmental court.⁴⁰ In addition, Amirante highlighted the proactive role of judges in protecting environmental rights under the constitution through extensive jurisprudence.⁴¹ In addition to providing a detailed explanation of the Superior Tribunal de Justica in Brazil, Nicholas S. Bryner illustrated how the court creates important jurisprudence in various areas, such as strict liability.⁴² Preston focused on how the operationalisation of the LECNSW facilitates quick, just

³⁶ Ibid, vi.

³⁷ Ibid.

³⁸ Brian J Preston, 'Benefits of Judicial Specialization in Environmental Law: The Land and Environment Court of New South Wales as a Case Study' (2012) 29(2) *Pace Environmental Law Review* 396, 398.

³⁹ Brian J Preston, 'Operating an Environment Court: The Experience of the Land and Environment Court of New South Wales' (2008) 25 *Environmental and Planning Law Journal* 385, 386.

⁴⁰ Domenico Amirante, 'Environmental Courts in Comparative Perspective: Preliminary Reflections on the National Green Tribunal of India' (2011) 29 *Pace Environmental Law Review* 441, 466.

⁴¹ Ibid.

⁴² Nicholas S Bryner, 'Brazil's Green Court: Environmental Law in the Superior Tribunal de Justica (High Court of Brazil)' (2011) 29 *Pace Environmental Law Review* 470, 482.

and cheap resolutions.⁴³ In explaining this, he elaborated how the LECNSW's factors contribute to effective operationalisation.⁴⁴

Some studies have emphasised the challenges faced by particular ECTs, including unclear jurisdictions,⁴⁵ huge case backlogs,⁴⁶ lack of substantive and procedural rules,⁴⁷ lack of expertise and experience at the bench and the bar,⁴⁸ and lack of independence from other bodies or agencies. Based on an analysis of the difficulties faced by the Environmental Court of New Zealand, which mixes 'judicial forms with power more traditionally found in the executive',⁴⁹ Warnock argued that ECTs 'raise complex issues of governance and power and foster different conceptions of legitimacy'.⁵⁰

A recent book by Professor Gitanjali Gill entitled *Environmental Justice in India: The National Green Tribunal* presents the success and challenges of environmental court in India in four respects.⁵¹ First, it examines the promotion of sustainability and good governance by ensuring access to justice in environmental matters promoting. Second, it provides an analytical and critical account of the NGT's judicial structures. Third, it analyses the establishment, working practice and effectiveness of the NGT in promoting environmental jurisprudence in India. Finally, it presents and reviews the success and external challenges faced and overcome by the NGT.

Further, some studies have evaluated the desirability of establishing ECTs in particular jurisdictions. These studies proposed a specialised court, even though the existing courts in those countries had made many important decisions relating to environmental cases. The idea of creating a specialised court was chiefly driven by the need to have specialisation in the judiciary—not the quality of decisions and decision-makers. In evaluating whether the US needs to establish an ECT, Scott C. Whitney stated that environmental matters involve highly technical questions that require the court to be equipped with expertise developed from 'a continual application of environmental

⁴³ Preston, 'Operating an Environment Court', above n 39, 387.

⁴⁴ These factors include its history, purpose of the establishment, comprehensive jurisdiction, caseload and court personnel.

⁴⁵ Samson Okong'o, 'Environmental Adjudication in Kenya: A Reflection on the Early Years of the Environment and Land Court in Kenya', in Proceedings of Symposium on Environmental Adjudication in the 21st Century, Auckland, New Zealand, April 2017 (2017) 29(2–3) *Environmental Law & Management* 103, 106.

⁴⁶ Zhang Minchun and Zhang Bao, 'Specialised Environmental Courts in China: Status Quo, Challenges and Responses' (2012) 30 *Journal of Energy and Natural Resources Law* 361, 361.

⁴⁷ Rafael Asenjo, 'Environmental Justice in Chile: Three Years after the Establishment of the Environmental Court of Santiago', in Proceedings of Symposium on Environmental Adjudication in the 21st Century, Auckland, New Zealand, April 2017 (2017) 29(2–3) *Environmental Law & Management* 110, 114.

⁴⁸ Okong'o, above n 45, 109.

⁴⁹ Warnock, above n 21, 391.

⁵⁰ Ibid 417.

⁵¹ See Gitanjali Gill, *Environmental Justice in India: The National Green Tribunal* (Routledge, 2016).

statutes and regulations to technically complex issues'.⁵² Regarding the coherency and consistency principles, Whitney argued that ECTs increase the uniformity and certainty of the law.⁵³ In addition, Malcom Grant noted some important features of ECTs in a study of the feasibility of establishing an environmental court in England and Wales.⁵⁴ Grant emphasised that ECTs have important features such as specialised jurisdiction and non-legal judges. In terms of jurisdiction, Grant further argued that the wider the jurisdiction, the more likely the existence of an ECT.⁵⁵

Lastly, the literature on environmental courts and related aspects have produced proceedings or documents of international conferences managed by international organisations, courts and universities, either individually or as collaborative programs, including studies by the Asian Development Bank (ADB),⁵⁶ the UNEP⁵⁷ and the International Union for the Conservation of Nature (IUCN).⁵⁸ In 2017, Environmental Adjudication conducted the International Symposium on Environmental Adjudication in the 21st Century in Auckland, New Zealand.⁵⁹ Gathering extensive experiences of ECTs worldwide from international speakers,⁶⁰ the conference acknowledged particular challenges in adjudicating complex environmental cases. In practice, these challenges have created tension. For example, in facilitating the transition from 'traditional legal thinking' to 'problem-solving', decision-makers might need to change the legal and judicial system. The conference concluded that 'environmental problem solving is by its very nature iterative, and adjudication is playing a critical role'.⁶¹

⁵² Scott C Whitney, 'The Case for Creating a Special Environmental Court System—A Further Comment' (1973) 15(3) *William & Mary Law Review* 33, 48.

⁵³ *Ibid* 49.

⁵⁴ Malcom Grant, 'Environmental Court Project: Final Report (Report to the Department of Environment, Transport and the Regions, 2000) 2.

⁵⁵ *Ibid* 2–3.

⁵⁶ *Asian Judges Symposium on Environmental Decision Making, the Rule of Law, and Environmental Justice: The Proceedings of the Symposium* (Asian Development Bank, Philippines, 27–29 July 2010).

⁵⁷ UNEP, *Report of the Regional Symposium on the Role of the Judiciary in Promoting the Rule of Law in the Area of Sustainable Development*, Sri Lanka, 4–6 July 1997.

⁵⁸ IUCN, 'Judges and the Rule of Law Creating the Links: Environment, Human Rights and Poverty', IUCN Environmental Law Programme (ELP) Side Event at the 3rd IUCN World Conservation Congress, Bangkok, 17–25 November 2004.

⁵⁹ Symposium on Environmental Adjudication in the 21st Century, Auckland, New Zealand, April 2017 (2017) 29(2–3) *Environmental Law & Management* 58. Environmental Adjudication was initially established with a grant from the Royal Society of New Zealand. The group held a judges' forum at the IUCNAEL Colloquium in Oslo, Norway in June 2016 and established a judicial forum at <http://environmental-adjudication.org> to disseminate information, including research into environmental adjudication, mutual knowledge-sharing among members of ECTs around the world and the organisation of training, symposia and conferences.

⁶⁰ It consists of a presentation from Laurie Newhook (Principle Environmental Judge, Environmental Court of New Zealand), Justice Brian J Preston (Chief Judge, LECNSW, Australia) and Lord Robert Carnwath (Justice of the Supreme Court of the United Kingdom). In addition, there were justices from Hawaii, Kenya, Chile, New Zealand and Sweden.

⁶¹ 'Symposium on Environmental Adjudication in the 21st Century', above n 59, 58.

In addition to the positive aspects of ECTs noted above, there have been concerns about the effectiveness of specialised courts. These concerns represent challenges to judicial specialisation in general and to ECTs in particular. Specialised courts face four main criticisms:

1. They can affect integration within the judiciary. Markus B. Zimmer argued that moving specialised judges into a particular area of law will shift them away from ‘the mainstream of legal thought’.⁶² Rochelle Cooper Dreyfuss supported the need for this integration by highlighting that tackling various types of cases addresses the need for ‘cross-pollination among legal theories as a fundamental source to change the law’.⁶³
2. In certain situations, specialised courts can create inefficiencies in terms of jurisdiction and the budget for judges, staff, equipment, training and oversight processes.⁶⁴ In some jurisdictions, there is a concern regarding whether the caseload justifies the establishment of a specialised court.⁶⁵ ‘When there are few cases, it does not make good administrative sense to develop a separate forum, resulting in judicial down-time and uneven workload compared with the rest of the judiciary’.⁶⁶ Preston highlighted this as an important feature of a successful environmental court, arguing that ‘the ability of an environmental court to develop environmental jurisprudence is, in turn, dependent upon it being presented with opportunities to do so’.⁶⁷
3. Given the significance of judicial activism in promoting environmental jurisprudence, opponents of specialised courts argue that applying judicial activism has some risks. It ‘has been frowned upon as making policy—an arena typically vested in the executive and legislative branches’.⁶⁸ In some instances, specialised courts have been accused of ‘substituting their judgment’ for that of the responsible government agency.⁶⁹ For example, judicial activism by the Supreme Court of India has restricted the growth of a responsible and independent bureaucracy.⁷⁰ The above arguments indicate that the term judicial

⁶² Markus B Zimmer, ‘Overview of Specialized Courts’ (2009) 2(1) *International Journal for Court Administration* 1, 3.

⁶³ Rochelle Cooper Dreyfuss, ‘Specialized Adjudication’ (1990) *Brigham Young University Law Review* 377, 379.

⁶⁴ Pring and Pring, *Greening Justice*, above n 1.

⁶⁵ For example, in China, Kenya, the Philippines and Indonesia. By 2 April 2017, China has over 956 divisions of the various courts that have specific jurisdiction over environment that matters. This figure has increased more than 70% compared with the previous year: The Report on Adjudication of Environment and Resources (the White Paper Book) and the Report on the Development of Environmental Justice Are Released] (13 July 2017) as quoted by Richard Zhang Qing and Benoit Mayer, ‘Public Interest Environmental Litigation under China’s Environmental Law’ (2017) 1(2) *Chinese Journal of Environmental Law* 202-228, 213.

⁶⁶ Pring and Pring, *Greening Justice*, above n 1, 17.

⁶⁷ Preston, ‘Characteristics of Successful Environmental Courts and Tribunals’, above n 25, 368.

⁶⁸ Pring and Pring, *Greening Justice*, above n 1, 17.

⁶⁹ Ibid.

⁷⁰ Lavanya Rajamani, ‘Public Interest Litigation in India: Exploring Issues on Access, Participation, Equity, Effectiveness and Sustainability’ (2007) 19(3) *Journal of Environmental Law* 293, 319.

activism is not fully accepted in the judiciary. Thus, Section 2.4.6. provides further explanation of the term of judicial activism in the promotion of environmental jurisprudence by courts.

4. Unclear jurisdiction can also create problems in ‘drawing jurisdictional boundaries’.⁷¹

From the above studies, the present research observes that there has been significant development of ECTs worldwide. Contemporary challenges of adjudicating environmental cases require the continuous application of environmental law, especially in complex cases, and ECTs are the most appropriate mechanism for protecting environmental rights and achieving sustainable development. In this role, a court that is supported by judges with particular expertise and an exclusive jurisdiction will ensure the continuous application of laws that create coherence and consistent principles to secure the remedial objectives of statutes and norms.

This study further identifies that policy considerations in the creation of an environmental court are chiefly motivated by two sets of goals. The first relates to the need to overcome the limitations of traditional courts. As one of the most effective environmental courts, the LECNSW is an example of how judicial system’s performance determine the creation of a specialised environment court. Before the establishment of the LECNSW, the judicial system was ‘irrational and inefficient’.⁷² Before the establishment of LEC, different courts and tribunals in New South Wales dealt with various land and environment matters in accordance to its jurisdictions.⁷³ The Land and Valuation Court, Valuation Boards of Review, and the Supreme Court dealt with compulsory acquisition and land matters.⁷⁴ Whereas, the Local Government Appeals Tribunal had jurisdiction over matters related to building, subdivision and development.⁷⁵ In respect to civil enforcement and judicial review, the Supreme Court has the ultimate jurisdiction.⁷⁶ Finally, the Local Court and District Court undertook criminal enforcement.⁷⁷ The experiences of Kenya⁷⁸ and Ecuador⁷⁹ are indicative of the difficulties faced by traditional courts in overcoming the challenge of meeting public expectations when adjudicating environmental cases. In these countries, general courts have

⁷¹ Ellen R Jordan, ‘Specialized Courts: A Choice’ (1981) 76 *North-western University Law Review* 745, 748.

⁷² Preston, ‘Benefits of Judicial Specialization in Environmental Law’, above n 38, 402.

⁷³ Ibid.

⁷⁴ Ibid.

⁷⁵ Ibid.

⁷⁶ Ibid.

⁷⁷ Ibid.

⁷⁸ See Laurence Juma, ‘Environmental Protection in Kenya: Will the Environmental Management and Co-Ordination Act (1999) Make a Difference?’ (2000) 9 *South Carolina Environmental Law Journal* 181; Okong’o, above n 45.

⁷⁹ See Mary Elizabeth Whittemore, ‘The Problem of Enforcing Nature’s Rights under Ecuador’s Constitution: Why the 2008 Environmental Amendments Have No Bite’ (2011) 20(3) *Pacific Rim Law & Policy Journal* 659.

been reluctant to interfere with government decisions and have lacked the power to impose sanctions against the government.

Another policy basis for creating an environmental court is the need for specialised expertise. The nature and characteristics of environmental cases have been put forward as the primary reasons for the need for specialisation. In this respect, environmental cases are known to be scientifically sophisticated, ‘which makes it difficult to identify the victims and the perpetrators, as well as ascertain causation between pollution and damages’.⁸⁰ Further, they involve ‘uncertainty’ and ‘irreversible ecological effects’.⁸¹ As a result, ‘law-trained judges do not generally have the scientific-technical training to analyse expert testimony’.⁸²

Despite the above challenges, criticisms and disadvantages of specialised courts in general and ECTs in particular, this research argues that ECTs in various jurisdictions provide instructive examples for Indonesia. As Nicholas A Robinson pointed out, there is an ‘urgent need to employ comparative law techniques to exchange judicial experience’ to achieve the ‘objectives of sustainable development’.⁸³ The success of ECTs depends on the various characteristics of a country. Pring and Pring argued that:

There is no one ‘best model’—no ‘one-size-fits-all’ structure for an environmental court because the best model for its jurisdiction is the unique combination of elements which results in a relevant, efficient environmental dispute resolution process with access to justice for all affected interests.⁸⁴

However, countries must analyse factors such as the current state of environmental challenges and the development of the country’s legal and judicial system to determine the most suitable model of environmental court, or to improve the existing mechanism or create a new specialised court. This study will use the experiences of ECTs worldwide—particularly the characteristics of effective ECTs and their best practices—as a point of reference. The next section explores some of these characteristics and best practices.

⁸⁰ Minchun and Bao, above n 46, 8.

⁸¹ Brian J Preston, ‘Limits of Environmental Dispute Resolution Mechanisms’ (1995) 13 *Australian Bar Review* 148, 161.

⁸² Pring et al, above n 24, 26.

⁸³ Nicholas A Robinson, ‘Ensuring Access to Justice through Environmental Courts’ (2011) 29(2) *Pace Environmental Law Review* 363, 369.

⁸⁴ Pring and Pring, *Greening Justice*, above n 1, 19.

2.3 Characteristics of Environmental Courts and Tribunals

The above literature review on ECTs around the world shows that few studies have conducted in-depth analysis of different models of ECTs, along with their features, in various jurisdictions. According to the World Resources Institute, until 2009, studies would chiefly ‘examine single ECTs in depth or report on multiple ECTs without evaluating and comparing their specific features’.⁸⁵ This thesis examines three scholars which provided the most detailed analyses of the characteristics of effective ECTs. The two studies highlighted in the previous section provided a detailed framework of effective ECTs,⁸⁶ while Preston listed the characteristics of effective ECTs. Thus, this study will use these important works to create an analytical framework. The next section outlines the two sets of characteristics of effective ECTs based on the above three studies.

2.3.1 Decisional Framework for Effective Environmental Courts and Tribunals: ‘Building Blocks’

Pring and Pring created a decisional framework that consisted of 12 elements, or ‘building blocks’, to guide decision-makers in improving existing ECTs or creating new ECTs.⁸⁷ Each element is accompanied by best available practices and descriptions of successes and failures. The framework generated from this study will help countries that are considering establishing an environmental court to determine a model and combination that fits their context.⁸⁸ The 12 elements or building blocks are: (1) type of forum, (2) legal jurisdiction, (3) ECT’s level, (4) geographical area, (5) case volume, (6) standing, (7) costs, (8) access to scientific–technical expertise, (9) alternative dispute resolution (ADR), (10) competent judges and decision-makers, (11) case management and (12) enforcement tools. The next section summarises their features and identifies some of their interconnections.⁸⁹

ECTs have various types and structures of forum supported by wide and comprehensive legal and levels of jurisdiction. It can be an environmental court, an environmental tribunal or other dispute

⁸⁵ Ibid ix.

⁸⁶ Pring et al, above n 24; Pring and Pring, *Greening Justice*, above n 1.

⁸⁷ Pring and Pring, *Greening Justice*, above n 1, 20.

⁸⁸ Ibid 3–4. The ECTs that were studied represent: (1) national, state/provincial and local government jurisdictions; (2) all six inhabited continents; (3) developing and developed nations, from the very rich to the very poor; (4) common law, civil law and religious law systems; (5) Christian, Muslim, Hindu and Buddhist religious environments; (6) civil, criminal, administrative and hybrid civil–criminal ECTs; (7) independent ECTs as well as ‘green benches’ in general courts; (8) models ranging from purely adversarial adjudication to combined adjudication–mediation to purely mediation; (9) countries with traditional (‘first generation’) environmental laws and those with more modern or elaborate ones; and (10) ECTs applying traditional ‘legalistic’ approaches as well as those engaging in more holistic ‘problem solving’.

⁸⁹ Ibid 20.

resolution forum.⁹⁰ An effective ECT usually has an integrated legal jurisdiction supported by various enforcement tools. It consists of two areas of jurisdiction: specific laws that are covered and the availability of civil, criminal and administrative enforcement.⁹¹

ECTs with a wide jurisdiction usually enjoy the presence of competent judges and decision-makers with special knowledge.⁹² To ensure that ECT members deliver intelligent, just, consistent and informed decisions, this study identifies five interrelated components for ECTs in managing judges and decision-makers: selection process, initial qualifications, ongoing training in environmental law, tenure and career enhancement system, and salary system.⁹³ In addition, given the special characteristics of environmental cases, this decisional framework recognises that ECTs require access to scientific expertise to resolve environmental disputes.⁹⁴ This access is needed in areas such as causation, damage and future effects.⁹⁵

Lastly, this framework identifies the need for ECTs to employ as many cost mitigation tools as possible to enhance access to justice and support the right of citizens to be heard, including filing public interest lawsuits.⁹⁶ In this respect, ECTs can develop procedures and mechanisms that allow citizens to easily access every stage of the judicial process. To ensure efficiency and access to justice, ECTs may provide alternative mechanisms to resolve conflicts, such as court annexes and court-paid services supported by trained providers as mediators.⁹⁷

2.3.2 Characteristics of Effective Environmental Courts and Tribunals

Creating a similar framework, Preston identified 12 characteristics of effective environmental courts.⁹⁸ He argued that '[i]t is evident that the lack of success of some ECTs may attributed to the lack of success of some environmental courts'.⁹⁹ He elucidated these features through a comparison of several jurisdictions and by emphasising the experience of the LECNSW, which has been called the most ideal environmental court in the world. The 12 characteristics are: (1) status and authority; (2) independence from government and impartial; (3) comprehensive and

⁹⁰ Ibid 21.

⁹¹ Ibid 26.

⁹² Ibid 72.

⁹³ Ibid.

⁹⁴ Ibid 55.

⁹⁵ Pring et al, above n 24, 55.

⁹⁶ Ibid 54.

⁹⁷ Ibid 61.

⁹⁸ See Preston, 'Characteristics of Successful Environmental Courts and Tribunals', above n 25, 392.

⁹⁹ Ibid 392.

centralised jurisdiction; (4) judge and members that are knowledgeable and competent; (5) operates in a multi-door courthouse; (6) provides access to scientific and technical expertise; (7) facilitates access to justice; (8) achieves just, quick and cheap resolutions of disputes; (9) responsive to environmental problems and relevant; (10) develops environmental jurisprudence; (11) underlying ethos and mission, and flexible and innovative; and (12) provides value-adding function.¹⁰⁰ These features and interconnections are defined below.

To ensure just, quick and cheap resolutions of proceedings, effective ECTs usually enjoy a comprehensive jurisdiction. First, it should employ authorities to hear, determine and dispose of disputes or matters arising under all environmental laws.¹⁰¹ Second, it should cover a broad range of substantive environmental matters.¹⁰² Finally, it has a comprehensive jurisdictions to hear (merit review, judicial review, civil enforcement, criminal proceeding) as well as to impose administrative, civil, criminal penalties.¹⁰³ In exercising this jurisdiction, ECTs can adopt innovative practices, procedures, remedies and holistic solutions to environmental problems.¹⁰⁴ ECTs have a variety of policies, processes and technologies,¹⁰⁵ such as court rules, practice notes and policy regarding the dispute resolution process from filing to finalisation.¹⁰⁶

Similar to Pring and Pring, Preston considered that a comprehensive jurisdiction is enhanced through the existence of ‘knowledgeable’ and ‘competent’ judges and decision-makers.¹⁰⁷ They should possess an adequate understanding of environmental matters and have a specific professional education to ensure competence during their occupancy.¹⁰⁸ Having a critical mass of cases also enables them to increase their knowledge and expertise over time.¹⁰⁹ Further, given the complexity of environmental cases, effective ECTs require scientific experts to examine evidence. These technical experts facilitate a ‘free and beneficial exchange of ideas and information’ and

¹⁰⁰ Ibid 365.

¹⁰¹ Ibid 373

¹⁰² Brian J. Preston, ‘Environmental Public Interest Litigation: Conditions for Success’ (Paper presented at the International Symposium Toward an Effective Guarantee of the Green Access: Japan’s Achievements and Critical Points from a Global Perspective, Japan, 30-31 March 2013, 2 <
http://www.leg.justice.nsw.gov.au/Documents/preston_environmental%20public%20interest%20litigation.pdf>. (accessed on 7 February 2019).

¹⁰³ Preston, ‘Characteristics of Successful Environmental Courts and Tribunals’, above n 25, 373.

¹⁰⁴ Ibid 383.

¹⁰⁵ Ibid 385.

¹⁰⁶ Ibid.

¹⁰⁷ Ibid 377.

¹⁰⁸ Ibid.

¹⁰⁹ Ibid.

give judges greater assistance in reviewing the evidence provided by experts on discrete issues.¹¹⁰ As a result, these ECTs are given greater opportunities to develop environmental jurisprudence.¹¹¹

Effective ECTs should be impartial and independent from the government.¹¹² According to Preston, ‘it requires not only independence from legislative and executive branches of government but also from all influences external to the ECT which might lead it to decide cases otherwise than on the legal and factual merits’.¹¹³ Impartiality requires that there be no conflict of interest and no actual or apprehended bias.¹¹⁴ The LECNSW is an example of a freestanding court that is operationally independent of the executive and legislative branches of government. It has a separately identified budget, is not controlled by agencies subject to its review and gives judges the security of tenure.

2.4 Common Characteristics of Effective Environmental Courts and Tribunals

It is important for countries that want to establish an environmental court to first analyse the characteristics of effective environmental courts worldwide and their best practices. They then need to tailor their applicability to suit the country’s circumstances. Thus, Chapter 3 further analyses the relevancy and applicability of these characteristics in Indonesia by considering relevant factors, including the scale of environmental problems, judicial system and its reform, particularly, in the environmental adjudication reform. The next section identifies some common characteristics of ECTs, supported by some best practices of the characteristics from various countries.

2.4.1 Model of Environmental Courts and Tribunals, Status and Authority

Pring, Pring and Preston agreed on a number of key features related to ECT models. The ‘type of forum’ building block is equivalent to the ‘status and authority’ characteristic identified by Preston. Pring and Pring categorised environmental courts into: (1) freestanding courts; (2) panels of judges in general courts (green chambers); and (3) a select judge or judges in a general court with expertise on environmental laws to handle environmental cases.¹¹⁵ Environmental tribunals consist of: (1) independent tribunals; (2) quasi-independent tribunals; and (3) captive tribunals.¹¹⁶

¹¹⁰ Ibid 377–378.

¹¹¹ Ibid 388.

¹¹² Ibid 369.

¹¹³ Ibid.

¹¹⁴ Ibid 370.

¹¹⁵ Pring and Pring, *Greening Justice*, above n 1, 21.

¹¹⁶ Ibid.

In a subsequent study, Pring and others expanded the above three categories of environmental courts into five models.¹¹⁷ Chapter 6 details these types of forums of ECTs in the Indonesian context.

Scholars agree that ECTs can be established in three levels: trial, intermediate appellate and Supreme Court. However, Preston argued that this status and authority does not guarantee the success or failure of ECTs.¹¹⁸ He argued that:

[S]uccessful ECTs are usually recognised by governments, stakeholders and the wider community alike as the appropriate and legitimate forum to adjudicate environmental disputes.¹¹⁹

In addition, the researchers agreed that effective ECTs are supported by various enforcement tools. Pring and Pring identified this as a specific characteristic, whereas Preston considered it an element of a comprehensive and centralised jurisdiction.

Table 2.1. Typology of Environmental Courts (ECs)¹²⁰

No	Environmental Courts (ECs)	Features
1	Operationally Independent EC	Separate, fully or largely independent environmental court
2	Decisionally Independent EC	Within a general court, but a separate and free to make its own rules, procedures, and decisions
3	Mix of Law-Trained and Science-Trained Judges	May be either model 1 and 2 above with the two types judges sharing decision making
4	General Court ‘Designated Judges	Assign environmental cases in addition to their regular docket, often without necessary interest, expertise or training
5	Environmental Law-Trained Judges	Who may or may not therefore be assigned environmental law cases from time to time

Table 2.2. Typology of Environmental Tribunals (ETs)¹²¹

No	Environmental Tribunals (ETs)	Features
1	Operationally Independent ET	Separate, fully or largely independent environmental
2	Decisionally Independent ET	Under another agency’s supervision, but not the one whose decisions they review
3	Captive ET	Within the control of the agency whose decisions they review

¹¹⁷ Pring et al, above n 24, 20.

¹¹⁸ Preston, ‘Characteristics of Successful Environmental Courts and Tribunals’, above n 25, 367.

¹¹⁹ Ibid.

¹²⁰ Pring et al, above n 24, 20.

¹²¹ Ibid, 32.

2.4.2 More Environmental Courts and Tribunals

A specialised and centralised jurisdiction is an important feature of ECTs. Pring, Pring and Preston highlighted that the jurisdiction consists of the area of law that is covered and the type of enforcement power. In terms of the area of law covered, the court should be able to deal with a wide range of substantive environmental matters. Enforcement powers cover civil, criminal and administrative jurisdiction. Pring and Pring argued that an integrated jurisdiction represents ‘the jurisdictional scope that best provides access to environmental justice’.¹²² However, its effective implementation requires clear institutional arrangements and rules as its basis. In addition, ECTs should be impartial and independent from other government branches and external influences.¹²³

Some ECTs have this characteristic of jurisdiction regardless that each ECT has a range of varied jurisdictions. The LECNSW (Australia), Vermont Superior Court, Environmental Division, Hawaii Environment Court (US) and Environment & Land Court (Kenya) have jurisdiction over all environment-related laws and combined jurisdiction over environmental laws with jurisdiction over land use and planning laws. Some ECTs include a geographical jurisdiction—planning ECTs in multiple locations—or authorise judges to travel to conduct site visit and hearings. Examples include the Planning & Environment Court (Queensland, Australia), Environment and Land Tribunal Ontario (Canada) and the Planning Board (Ireland).

2.4.3 Knowledgeable and Competent Judges

Both frameworks identified the presence of competent judges and decision-makers as a characteristic of ECTs. Competence covers environmental law, ecology and environmental decision-making.¹²⁴ According to Preston, judges might already have the required knowledge as a predetermined competence, or they might be trained to be environmentally knowledgeable.¹²⁵ These features will help judges to make better judgments¹²⁶ and ensure uniformity, consistency¹²⁷

¹²² Pring and Pring, *Greening Justice*, above n 1, 29.

¹²³ Preston, ‘Characteristics of Successful Environmental Courts and Tribunals’, above n 25, 369.

¹²⁴ Pring and Pring, *Greening Justice*, above n 1, 73.

¹²⁵ Preston, ‘Characteristics of Successful Environmental Courts and Tribunals’, above n 25, 377.

¹²⁶ Zimmer, above n 62, 2.

¹²⁷ Pring and Pring, *Greening Justice*, above n 1, 15.

and access to environmental justice.¹²⁸ Ideally, judges should be environmentally literate before their appointment.¹²⁹ If necessary, a non-legal expert can be appointed to support judges.¹³⁰

Building and maintaining competence requires an accountable and transparent selection process that involves appointing third parties.¹³¹ In addition, judges need high-quality and continuing environmental legal education training.¹³² Ensuring judges' continual development requires clear welfare that is proportionate with general court judges supported by the security of tenure.¹³³ Further, they should have the same career advancement opportunities as general judges.¹³⁴ Finally, maintaining such competence also requires a sufficient caseload. Pring, Pring and Preston argued that environmental law is an evolving discipline that requires judges to follow its development.

The Environmental Enforcement Court of the Flemish Region for Building Permit Disputes (Belgium) and the Environmental Commission (Trinidad & Tobago) are examples of the selection process and initial and ongoing training. Judges require a minimum of 10 years' experience as an attorney, as well as specialised training and experience, and they must express interest in environmental law before their selection process.¹³⁵ In relation to tenure and career enhancement, the Court of Environmental & Agrarian Issues (Brazil) and the Planning and Environment Court (PEC; Queensland, Australia) provide good references.

2.4.4 Clear Access to Scientific Expertise

Both frameworks emphasised the importance of courts' access to scientific expertise, which is usually needed to determine causation, damage and likely environmental harm.¹³⁶ In these areas, technical experts will hear, determine and dispose of complex environmental cases.¹³⁷ Access to scientific expertise in ECTs provides better analysis of scientific evidence in environmental cases. Further, ECTs should have a mechanism that will eliminate, or at least reduce, the potential of partisan and biased testimony from external experts.¹³⁸

¹²⁸ Ibid 72.

¹²⁹ Preston, 'Characteristics of Successful Environmental Courts and Tribunals', above n 25, 377.

¹³⁰ Ibid 377-379

¹³¹ Pring and Pring, *Greening Justice*, above n 1, 29.

¹³² Ibid 72.

¹³³ Ibid 75.

¹³⁴ Ibid.

¹³⁵ Ibid 73; Preston above n 25, 381.

¹³⁶ Pring and pring, above n 1; Preston, above n 25.

¹³⁷ Ibid.

¹³⁸ Preston, 'Characteristics of Successful Environmental Courts and Tribunals', above n 25, 381.

Access to scientific expertise can be obtained from internal and external ECTs. Internal expertise is ‘a decisional body combining law-trained judges with expert scientific-technical judge plus’.¹³⁹ It includes the authority to engage independent experts when there is not an appointed judge with the required expertise.¹⁴⁰ Ideally, environmental courts should have internal technical experts.¹⁴¹ Examples of internal experts include expert judges (included in the environmental court as decision-makers), expert panels (the environmental court has a pool of experts that are selected on a case-by-case basis to sit with judges to make decision) and institutes (the environmental court seeks an independent and governmental environmental technical institute).¹⁴²

Conversely, external experts should make ‘their first duty to the court, rather than to the parties paying the fee’.¹⁴³ This will help parties that cannot afford an expensive expert to rely on other parties’ experts to testify objectively,¹⁴⁴ and it will enable judges to require parties’ experts to have a pre-hearing meeting to resolve problems and write a joint report.¹⁴⁵ Examples of external experts include ‘focusing meeting’ (in which ‘the judge and parties work out an order for specific deadlines and expectations’),¹⁴⁶ ‘hot-tubbing’ (‘a process of taking concurrent testimony from like experts at the same time’)¹⁴⁷ and ‘amicus curiae’ (‘reports of briefs from experts that are not affiliated with the ECT or representing the position of a party, but have expertise to share which may otherwise be presented’).¹⁴⁸

The Land and Environment Courts of Sweden (LECS) and the Environmental Court in Chile provide best practices on access to scientific expertise. Their ECTs include both law-trained judges and science–technical decision-makers (combined law competence and scientific–technical competence). The PEC has rules and procedures for managing (controlling) experts’ testimony and evidence to promote maximum reliability and efficiency.

¹³⁹ Pring and Pring, *Greening Justice*, above n 1, 61.

¹⁴⁰ Ibid 62.

¹⁴¹ Pring and Pring, *Greening Justice*, above n 1, 56–57.

¹⁴² Ibid.

¹⁴³ Ibid 62.

¹⁴⁴ Ibid.

¹⁴⁵ Ibid.

¹⁴⁶ Ibid 59–60.

¹⁴⁷ Ibid 60.

¹⁴⁸ Ibid.

2.4.5 Promotion of Access to Justice

Generally, the scholars asserted that ECTs have policies and mechanisms in place to promote access to justice. They generally argued that providing broad access rights to ECTs would facilitate citizens' access to every stage of the judicial process. Preston emphasised that ECTs ensure access to justice by having 'just, quick and cheap' resolutions.¹⁴⁹ Similarly, Pring and Pring emphasised that ECTs provide rules and procedures that mitigate costs and provide access to file lawsuits—especially public interest lawsuits—at all stages of a hearing.¹⁵⁰ In relation to standing, Preston emphasised that ECTs can authorise a standing for 'any person' raising an environmental issue, including individuals, citizens and community groups, NGOs, businesses and future generations.¹⁵¹ The promotion of access to these mechanisms of justice requires an effective case management system. If the geographical area is large, special accommodations can be made to permit access to the ECT by persons who live far from the forum through the use of 'travelling' courts and judges, as well as video and telecommunication.¹⁵²

The LECNSW (Australia), Environmental Court (New Zealand, Kenya), National Green Tribunal (India), Environment Courts (Philippines), Vermont Superior Court and Environmental Division (US). The LECNSW (Australia) and Environment Courts (Philippines) are examples of ECTS which has a broad and open standing to raise environmental issues, including public interest litigation, citizens' suits and class actions. In addition, the Environmental Court (New Zealand), Vermont Superior Court and Environmental Division (US) have good case management systems for promoting access to justice.

2.4.6 Producing Environmental Jurisprudence

The complexity of environmental cases means that their resolution has a 'multifaceted' approach and exercise that goes beyond 'traditional legalistic decision-making'.¹⁵³ In addition, given the mandate to protect the environment and independence to make innovative decisions, many judges have become 'activist advocates'.¹⁵⁴ In this role, they view themselves as 'problem solvers' and look 'beyond the narrow application of the rule of law' to ensure high-quality decisions.¹⁵⁵ The above characteristics, status, comprehensive jurisdiction and specialised knowledge enable ECTs

¹⁴⁹ Preston, 'Characteristics of Successful Environmental Courts and Tribunals', above n 25, 384.

¹⁵⁰ Pring et al, above n 24, 54.

¹⁵¹ Ibid 40.

¹⁵² Ibid 31.

¹⁵³ Pring and Pring, *Greening Justice*, above n 1, 16.

¹⁵⁴ Ibid.

¹⁵⁵ Ibid.

to produce environmental jurisprudence by hearing a large number of cases. While Preston emphasised the creation of environmental jurisprudence as a feature, Pring and Pring acknowledged it as an output of knowledgeable and competent judges.

A number of decisions made by judges around the world demonstrate this approach. *Leatch v National Parks and Wildlife Service and Shoalhaven City Council*¹⁵⁶ is an instructive example of the application of judicial activism by Australian judges whereby the panel judges recognised the precautionary principle, which is one of the principles of ecologically sustainable development. Another interesting example is *Oposa v Factoran* in the Philippines, in which the panel judges acknowledged the right of future generations to a healthy environment.¹⁵⁷

In addition, India has innovative judges which create important environmental jurisprudences. The establishment of the NGT in India confirmed the commitment of the Indian legal system to environmental protection and created a long-term commitment to the state. The Indian Supreme Court has played a proactive role in the protection of environmental rights enshrined in the constitution through extensive jurisprudence.¹⁵⁸ The court has implemented environmental legislation to resolve environmental disputes in India by: (1) entertaining petitions on behalf of the affected party and inanimate objects, and taking *suo motu* action against the polluter; (2) expanding the sphere of litigation and the meaning of existing constitutional provisions; (3) applying international environmental principles to domestic environmental problems; (4) appointing an expert committee to provide input and monitor the implementation of judicial decisions; (5) making spot visits to assess environmental problems at the ground level; (6) appointing amicus curiae to speak on behalf of the environment; and (7) encouraging petitioners and lawyers to draw the court's attention regarding environmental problems through cash awards.¹⁵⁹

2.4.7 Availability of Alternative for Dispute Settlement

The two frameworks recognised the need for ECTs to provide ADR mechanisms. Indeed, most ECTs incorporate ADRs in various forms, including mediation, conciliation, early neutral evaluation and arbitration, to ensure efficiency. The objective of an ADR is to reduce costs, reduce court caseloads and backloads, and shorten the time needed to make a decision. They facilitate the process of achieving creative outcomes to 'deal with multiple facets of an environmental dispute

¹⁵⁶ *Leatch v National Parks and Wildlife Service and Shoalhaven City Council* (1993) 81 LGERA 270.

¹⁵⁷ *Oposa v Factoran*, G R No 101083 (S C July 30, 1993) (Phil.).

¹⁵⁸ See, particular, Geetanjoy Sahu, 'Implications of Indian Supreme Court's Innovations for Environmental Jurisprudence' (2008) 4(1) *Environmental & Development Journal* 3.

¹⁵⁹ Ibid 3.

without the constriction of jurisdictional limitations'.¹⁶⁰ To ensure the effective application of an ADR, it should not be mandatory, but cases should be assessed at intake to determine whether an ADR is appropriate.¹⁶¹

The LECNSW provides best practice by having a multi-door courthouse and providing a wide range of options for parties to resolve disputes outside the courtroom. The New Zealand Environmental Court and the PEC use both internal and external ADR providers which are trained in multiple forms of ADR and frequently undertake refresher training. The New Zealand Environmental Court encourages ADRs, and a high percentage of cases are resolved without a court hearing/decision.

2.5 Analytical Framework for Assessing Environmental Courts and Tribunals

The features or characteristics of effective ECTs discussed above generally provide detailed guidance for decision-makers to either assess their performance or establish a new ECT. This chapter finds that, regardless of the differences in the phrases used, there are some common characteristics of effective ECTs, as outlined below:

1. There are various models of ECTs, which generally consist of courts and tribunals. Each model has its own status and authority and can be created at three levels: trial, intermediate appellate and Supreme Court.
2. Effective ECTs have a wide and integrated jurisdiction. In terms of the coverage of the law, the court should be able to deal with a wide range of substantive environmental matters. Enforcement powers cover civil, criminal and administrative enforcement.
3. ECTs have judges and other judicial members that are competent and knowledgeable on environmental laws and other related environmental matters. Maintaining and improving their competence requires a clear system of selection, high-quality and continuing environmental legal education training and security of tenure and career enhancement. If possible, ECTs should combine law-trained judges and science-trained judges.
4. Given the nature of environmental matters, environmental cases involve the use of scientific evidence in the area of causation, proof of damage and likely environmental harm. Thus, ECTs should have access to scientific expertise, which can be internal or external to the ECT. Further, ECTs should have mechanisms in place to ensure that expert witnesses provide objective opinions.

¹⁶⁰ Preston, 'Characteristics of Successful Environmental Courts and Tribunals', above n 25, 379.

¹⁶¹ Ibid 72.

5. Effective ECTs implement policies and mechanisms to ensure there is access to justice. They are efficient in terms of cost and facilitate a broad range of lawsuits. The availability of an effective case management system is essential to manage the operationalisation of these policies and mechanisms.
6. ECTs may encourage judges to create environmental jurisprudence by hearing a large number of cases. In this role, judges go beyond traditional legalistic decision-making and view themselves as problem solvers. Further, they look beyond the narrow application of the rule of law.
7. Effective ECTs provide alternatives to dispute resolution mechanisms, including mediation, conciliation, early neutral evaluation and arbitration. They ensure efficiency by reducing costs, reducing caseloads and backloads, and reducing the time needed to make a decision.

Outside these common features, Preston identified that ECTs will be ‘responsive to environmental problems and relevant’¹⁶² and provide an ‘underlying ethos and mission’, as well as a ‘value-adding function’.¹⁶³ The development of ECTs inspires an ethos and mission that is subsequently adopted as a statement of purpose that can be used as a benchmark to measure performance.¹⁶⁴ In addition, ECTs add value beyond the resolution of particular environmental disputes by developing environmental jurisprudence, conducting administrative decision-making by formulating and applying non-binding principles, and through innovative practices and procedures.¹⁶⁵

It should be noted that the common characteristics of effective ECTs described above are characteristics that are ideal. Thus, having these characteristics in place and working effectively requires the existence of some preconditions, which may vary in each country. Based on the best practices of effective ECTs, this thesis finds that an effective ECT is usually supported by an effective court system that has some preconditions, as outlined below.

First, an effective ECT is usually supported by a system that measures the ECT’s performance. The system assesses the extent to which some aspects of the ECT’s system meet the objective of facilitating a just, quick and cheap resolution in court proceedings. For example, the ECT’s performance measurement system can measure the extent to which affordability, accessibility and responsiveness of the court affect users’ satisfaction. The results of these measurements inform

¹⁶² Ibid 387.

¹⁶³ Ibid 390.

¹⁶⁴ Ibid.

¹⁶⁵ Ibid.

decision-makers of the ECT's overall performance, as well as areas for improvement. Some countries, including Indonesia, have struggled to ensure the independence of their judiciary; thus, the establishment of an effective judiciary has been their priority. As Elizabeth Barrett Ristoph highlights:

Rule-of-law reforms have typically sought to increase administrative and judicial capacity and reduce corruption, although it might make sense to devote resources toward drafting laws more suitable to country circumstances. Still, even if laws could be perfectly adapted to these countries, there would be a need for national and local institutions capable of implementing laws, and independent judiciaries willing to uphold the laws.¹⁶⁶

Given these contemporary challenges, courts in most countries either have no court performance system in place or they lack an effective system. Thus, a performance measurement system is an important precondition in the creation of an effective environmental court.

Second, the availability of competent and knowledgeable judges and other judiciary members is not taken for granted in effective ECTs. This is the result of a systemic process that combines input, process and output. In some ECTs, in addition to requiring a comprehensive human resource management system, high-quality judges and other judicial members are supported by judges and other judicial members who have experience in the field of law (or other relevant disciplines in the case of non-law members). For example, judges at the NGT in India and the NET in Kenya are former judges with experience in law practice. Further, some environmental jurisprudence decisions made by the LECNSW are the result of the judges' learning process supported by the availability of an adequate caseload. Around 20 years from its establishment, judges learn from other judges' decisions—especially in cases with important legal and environmental principles. Thus, it is difficult to ensure the availability of competent and knowledgeable judges and other judicial members in countries in which existing courts are not supported by an effective human resource management system and qualified candidate judges that are the best law school graduates. In some countries in which courts recruit prospective judges from graduate law schools rather than recruiting highly experienced legal practitioners, the courts are not supported by the best law graduates. The lack of qualified candidate judges is exacerbated by human resource management systems that are not professional and objective.

Third, effective ECTs usually have a high degree of independence from executive and legislative branches in the areas of court management and making judgments. This feature requires, among other things, a clear and strong 'type of forum' of the ECT that has some independence. For

¹⁶⁶ Elizabeth Barrett Ristoph, 'The Role of the Philippines in Establishing Environmental Rule of Laws', 42 *Environmental Law Reporter* 10866, 10869-70.

example, the independent LECNSW has the authority to manage its finances, administration and staff, which has been acknowledged as a significant precondition for an effective environmental court. Another requirement is the existence of a clear and objective tenure and salary system in the ECT. In the absence of such systems, challenges might arise in establishing an effective ECT that has the common characteristics described above. The absence of an adequate salary and tenure system may enable the court's members to become involved in activities that threaten the independence of the court (e.g., corruption, collusion and nepotism).

Thus, the situation of countries that have an environmental court or that plan to establish one will determine whether these characteristics will be relevant. This might depend on policy considerations identified by the country establishing the ECT. A country may regard that ensuring case management, particularly, a quality and quantity of case handling better than provided by the general court as priority. Whereas other countries might consider the development of alternative jurisprudence, moving from traditional 'legalistic' adjudication to a 'problem-solving' or interdisciplinary approach as a priority.¹⁶⁷ Thus, choosing the most appropriate environmental court requires a detailed analysis of the overall institutional structure in which the court operates.

There is a strong link between the effectiveness of ECTs and the capacity of the overall judiciary system. The above comparison provides some examples of how these two areas are interrelated. To ensure the competence of judges that handle environmental cases, a transparent, open and competitive selection process is needed, as well as security of tenure and salary and career enhancement. Countries that want to establish an environmental court should use these best practices as their reference point, combined with further analysis to render those best practices relevant to their context and challenges.

2.6 Conclusion

Some scholars have conducted extensive research based on practical experience as a reference to identify characteristics of effective ECTs. Recently, there has been a significant move in favour of ECTs worldwide, which have unique characteristics and different levels of success and challenges. However, despite the challenges of judicial specialisation, ECTs are acknowledged to be the mechanism that can best protect environmental rights and achieve sustainable development. Generally, the drivers for establishing an environmental court is to improve the effectiveness of traditional courts and to obtain particular expertise in adjudicating environmental cases.

¹⁶⁷ Pring and Pring, *Greening Justice*, above n 1, 11.

This research identifies some common characteristics of ECTs. Effective ECTs can be in the form of a court, tribunal or other dispute resolution forum that usually has a comprehensive jurisdiction. Ideally, they hear a wide range of substantive environmental matters supported by the availability of civil, criminal and administrative enforcement mechanisms. Operationalising these features requires competent judges or other judicial members with special expertise. Sustaining their competence requires an objective selection process, training, secure tenure and career enhancement system, and a sufficient caseload. In addition, handling complex environmental cases requires ECTs to have access to internal and external scientific expertise. These features will in turn promote the development of environmental jurisprudence. Finally, ECTs should have mechanisms in place to ensure there is access to justice and alternatives to dispute resolution.

The experiences of ECTs in many countries provide an instructive point of reference for countries that are considering developing an environmental court. However, as argued by Pring and Pring, there is no single best model; instead, the most appropriate model for each country will be determined by the interconnections between various factors. This research argues that choosing the most appropriate ECT requires detailed analysis of the overall institutional structure in which an ECT operates. Accordingly, Indonesia needs to first identify the most relevant characteristics of ECTs and the best practices within the Indonesian context. Specifically, Indonesia should determine the most suitable type of forum, the required competence by members of the judiciary, access to scientific expertise, how to encourage judges to apply for judicial activism and the definition of an environmental case. The next chapter examines the common characteristics of effective ECTs by analysing some important and relevant factors within the institutional structure in which environmental courts operate.

This chapter identified some policy considerations in the formation of a special environmental court and described several preconditions that must exist in countries seeking to establish an effective ECT. Each country has its own policy considerations determined by its legal and judicial systems, political stability, environmental problems and environmental goals. Indonesia, which still has law enforcement problems involving the judiciary, faces critical challenges in creating an effective environmental court, including the lack of a court performance appraisal system, the lack of interest among the best law graduates in becoming a judge and the involvement of a few court officials in activities that threaten the independence of the court. The effectiveness of existing special courts is also under the spotlight because of their performance and the sustainability of judges—especially ad hoc judges.

However, these challenges should not prevent the establishment of a special environmental court in Indonesia that possesses the abovementioned characteristics of effective ECTs. Instead, the

current and potential high scale of environmental problems and its lack of enforcement require Indonesia to create an effective and efficient mechanism for adjudicating environmental cases. Thus, a comprehensive study is needed of Indonesia's institutional structures in which adjudication operates to identify the relevance, applicability and priorities of ECTs' effective characteristics. Indonesia should choose the most suitable model of environmental court and make improvements during its implementation. The results of this study will provide a basis for decision-makers to determine the design, identify the necessary requirements and create a detailed and realistic work plan to ensure the creation of an effective environmental court.

Chapter 3: Current Structure and Practices of Adjudicating Environmental Cases in Indonesia

3.1 Introduction

To determine the best model for adjudicating environmental cases in Indonesia, it is necessary to consider the current status of handling environmental cases within the country's institutional structure to understand what has been achieved. While Indonesian courts might customise the characteristics of ECTs from various jurisdictions, there is further scope to identify the courts' problems and challenges in handling environmental cases. Some initiatives have been undertaken by various actors, including the judicial, to address these challenges. In terms of improving the quality of decisions, some certified judges have decided some environmental cases. Two of the landmark decisions highlighted in the introductory chapter were decided by panel members of the court whose members consisted of judges certified under the ECS. These cases are *Ministry of Environment v PT.Kalista Alam*¹ (*MoE v PTKA*) and *Ministry of Environment and Forestry v PT. Waringin Argo Jaya* (*MoEF v PTWAJ*).²

Despite the above progress, strengthening environmental adjudication in Indonesia—particularly through the ECS—still requires improvement in some areas. For example, an effective monitoring and evaluation (M&E) system is needed to inform progress and challenges regarding its implementation. At the same time, the Supreme Court has been improving its organisation through various initiatives under its judicial reform program. The ECS operates under the general court, which is one of the courts under the Supreme Court; therefore, improvements to the system may take into account progress in the overall judicial reform.

Using the characteristics of effective ECTs as a point of reference requires an assessment of their relevance and applicability in the Indonesian context. Thus, this chapter examines some progress and challenges of the mechanisms and practices in handling environmental cases in Indonesian courts. The results of the assessment of ECTs' characteristics in the Indonesian context will be used as the basis to propose the most appropriate model of environmental court. This chapter argues that there has been significant progress in environmental adjudication in Indonesia. Some intertwined factors contribute to this development, including environmental law reform, a

¹ *Ministry of Environment v PT Kalista Alam* [2012] Decision of the District Court of Meulaboh No 12/PDT.G/2012/PN.MBO (2012) ('*MoE v PTKA*').

² *Ministry of Environment and Forestry v PT Waringin Argo Jaya* [2017] Decision of the District Court of South Jakarta 456/Pdt.G-LH/2016/PN Jkt. Sel (7 February 2017) ('*MoEF v PTWAJ*').

capacity-building program for judges and overall judicial reform. However, some areas remain to be improved.

This chapter describes the institutional structure in which environmental adjudication operates. The first part outlines the current system of the Indonesian judiciary along with its current reforms that are relevant to improving environmental adjudication in Indonesia. The second part analyses the extent to which the current initiative—in particular, the ECS—has contributed to improving environmental adjudication. To this end, it highlights some important developments at both the institutional and policy levels. At the policy level, the chapter focuses on Law No 32 of 2010 concerning Environmental Management and Protection (EPML).³ At the institutional level, it provides an overview of the implementation of the ECS. It also identifies some of the existing problems and opportunities involved in strengthening environmental adjudication. The chapter concludes with an analysis of the relevance and applicability of the characteristics of effective ECTs in Indonesia.

3.2 Indonesian Judiciary System and Its Reform Initiatives

3.2.1 Indonesian Judiciary: An Institutional Structure for Environmental Adjudication

The Indonesian judiciary operates under the Indonesian legal system, which adopts a civil law system that was derived from the Roman–Dutch model during the colonial era.⁴ The judiciary is independent from the executive and legislative branches in organising the judicature to enforce law and justice.⁵ However, there are some challenges to this independence. Authoritative studies on Indonesian law and politics by Sebastian Pompe,⁶ Daniel Lev,⁷ Moh Mahfud MD,⁸ Tim Lindsey⁹ and Simon Butt and Tim Lindsey¹⁰ highlighted Indonesia’s struggle over the independence of the judiciary. They also defined the concept of the separation of power, which covered the period from the Revolutionary Era (1945–1950) to the Parliamentary System (1950–1959), Guided Democracy (1959–1965), New Order (1965–1998) and the *Reformasi* Era (1999–2018).

³ Law No 32 of 2010 concerning Environmental Management and Protection (‘EPML’).

⁴ Simon Butt and Tim Lindsey, *Indonesian Law* (Oxford University Press, 2018) 73.

⁵ The Constitution of the Republic of Indonesia, art 24(1) (‘Constitution’).

⁶ Sebastiaan Pompe, *The Indonesian Supreme Court: A Study of Institutional Collapse* (Cornell University Press, 2005).

⁷ Daniel Lev, *Legal Evolution and Political Authority in Indonesia: Selected Essays* (Springer, 2000).

⁸ Moh. Mahfud M D, *Politik Hukum Di Indonesia (The Politic of Law in Indonesia)* (Rajawali Press, 2009).

⁹ Tim Lindsey (ed), *Indonesia: Law and Society* (Federation Press, 2nd ed, 2008).

¹⁰ Butt and Lindsey, above n 4, 73.

The financial crisis in 1997 created more pressure to establish stronger independence of the judiciary. In 2000, an amendment to the constitution laid the foundation for a clear separation of power between the executive, the legislature and the judicial. This momentum enabled the implementation of the ‘one-roof policy’ (*sistem satu atap*) in the Supreme Court. This gives the Supreme Court the highest power over technical judicial matters as well as the administrative, financial and human resources management (HRM) of the court.¹¹ With this policy, in 2003, the Supreme Court crafted a comprehensive reform agenda for the Indonesian judiciary. The next section briefly summarises some aspects of the judiciary in Indonesia.

3.2.2 Judicial System in Indonesia

Law No 48 of 2009 on judicial power provides the basis for the judicial system. It involves two basic terms: *peradilan* (judiciary) and *pengadilan* (court). Judiciary is a process carried out in a court and relates to the tasks of examining, deciding and adjudicating cases, whereas the court is an official body or agency that implements the justice system in the form of examining, hearing and deciding cases.¹² It is essential to understand the two terms when discussing the specialised court in Indonesia within the Indonesian judiciary. Art 18 states that:

Judicial power is carried out by a Supreme Court and a judicial body under it in the general court, religious court, military court, administrative court, and by a Constitutional Court.¹³

Based on the above provision, the Supreme Court together with its subordinate courts and the Constitutional Court perform the judicial processes.¹⁴ The Supreme Court supervises its subordinate courts.¹⁵ These courts are: (1) the general court (*peradilan umum*); (2) the religious court (*peradilan agama*); (3) the administrative court (*peradilan tata usaha negara* [TUN]); and (4) the military court (*pengadilan militer*).¹⁶ The general court has authority to examine, hear and decide criminal and civil cases.¹⁷ The religious court examines, decides and resolves cases among Muslims.¹⁸ The military court has authority to examine, hear and decide military cases under the

¹¹ Law No 48 of 2009 on Judicial Power, 21(1) (‘Judiciary Power Law’).

¹² ‘The Difference between Peradilan and Court (*Perbedaan Peradilan dan Pengadilan*)’, *Hukum Online* (online), 21 September 2016 <<https://www.hukumonline.com/multimedia/bacagrafis/lt57e20b90bdb53/perbedaan-peradilan-dengan-pengadilan>>. Hukum Online based the explanation on Judiciary Power Law.

¹³ Judiciary Power Law, above n 11, art 18.

¹⁴ However, this study will not discuss the Constitutional Court because its jurisdiction to review the consistency of laws in the Indonesian Constitution is outside the scope of this study.

¹⁵ Judiciary Power Law, above n 11, art 20.

¹⁶ Ibid art 25.

¹⁷ Ibid art 25(2).

¹⁸ Ibid art 25(3).

provisions of the legislation.¹⁹ The administrative court is authorised to investigate, prosecute, adjudicate and resolve disputes in accordance with the state administration and the provisions of the legislation.²⁰ This structure functions at three decisional levels: the district court/first instance court (*pengadilan tingkat pertama/negeri*), the high court/appellate court (*pengadilan tinggi*) and the Supreme Court. The Supreme Court performs as the final appellate court.²¹ Each court under the Supreme Court has both the first instance and appellate jurisdictions.

The Supreme Court has the authority to hear a trial at the highest (cassation) level of the lower courts.²² Other authorities review consistency between regulation below the law and the law,²³ as well as other authorities as provided by statute.²⁴ In addition to this judicial technical function, the Supreme Court is responsible for managing its organisational, administrative and financial aspects, as well as all four courts under both the first instance and appellate levels.²⁵ The high court hears appeals from the district court. Further, appeals to the high court's decisions go to the Supreme Court. As a last appeal, the final and binding decision of the Supreme Court can be appealed under *peninjauan kembali* (PK)²⁶ with special requirements.²⁷ Butt and Lindsey used the term 'reopening' or 'reconsidering' for PK on the grounds that it involves reopening or reassessing the trial courts or even the decision of the Supreme Court itself.²⁸ There are six grounds for PK in civil, administrative and religious courts. Two of them are new determinative evidence (called *novum*) and clear judicial errors.²⁹

3.2.3 Specialised Courts

The Indonesian judicial system recognises the handling of special cases by a specialised court. Law No 19 of 1964 on Basic Judicial Power for the first time mentioned the specialised court at the same level as the general court and the administrative court.³⁰ According to this law, the specialised court includes the religious court and the military court. The specialised court was

¹⁹ Ibid art 25(4).

²⁰ Ibid art 25(5).

²¹ Law No 14 of 1985 on the Supreme Court ('Supreme Court Law') (as amended by Law No 3 of 2009 on the Supreme Court).

²² Judiciary Power Law, above n 11, art 20(2) a.

²³ Ibid 20(2) b.

²⁴ Ibid 20(2) c.

²⁵ Ibid art 21.

²⁶ Supreme Court Law, above n 21, art 34.

²⁷ Ibid art 67.

²⁸ Butt and Lindsey, above n 4, 93.

²⁹ Supreme Court Law, above n 21, art 67.

³⁰ Law No 19 of 1964 on Basic Judicial Power, art 7(1) (elucidation) (replaced by Law No 14 of 1974 on Judicial Power; amended by Law No 48 of 2009 on Judicial Power).

eliminated by Law No 14 of 1974 on Judicial Power, which amended Law No 19 of 1964. In this amendment, the religious court was no longer classified as a specialised court. Instead, it became one of the courts at the same level and in the same category as the general, administrative and military courts.³¹ In 2009, art. 27 of Law No 48 of 2009 on Judicial Power provided a more authorised provision as a basis for this specialisation in the judiciary. It stated that a specialised court (*pengadilan khusus*) can only be established within the four courts under the Supreme Court by a special law.³²

Within the general court, some specialised courts have the authority to examine, adjudicate and decide a particular (specific) case.³³ These specialised courts are the anti-corruption court,³⁴ human rights court,³⁵ juvenile court,³⁶ fisheries court,³⁷ commercial court³⁸ and industrial relations court.³⁹ There are also two other specialised courts within other courts: Aceh's sharia court,⁴⁰ which operates under the religious court, and the tax court,⁴¹ which operates under the administrative court. Under these courts, judges with specialised expertise can be appointed—called an ad hoc judge.⁴² While some of these courts have been considered successful, there has been concern about the ineffectiveness of these courts.

3.2.4 Some Basic Principles of Judicial Decision-Making

In their decision-making role, judges are guided by several principles. As a basic principle, judges should maintain judicial independence when performing their tasks and functions.⁴³ Unless otherwise specified by statute, the court examines, hears and decides a case with a panel of at least three judges, including a presiding judge and two judge's members.⁴⁴ In addition, decisions on a case are made based on confidential trial deliberations in which each judge delivers a judgment or

³¹ Law No 14 of 1974 on Judicial Power, art 10(1) (amended by *Judiciary Power Law*).

³² Ibid art 27.

³³ Law No 49 of 2009 on General Court, art 8(2) ('General Court Law').

³⁴ Law No 46 of 2009 on the Corruption Court ('Corruption Court Law').

³⁵ Law No 26 of 2000 on the Human Rights Court ('Human Rights Court').

³⁶ Law No 3 of 1997 on the Juvenile Court ('Juvenile Court Law').

³⁷ Law No 31 of 2004 on the Fisheries (Fisheries Law).

³⁸ Law No 4 of 1998 on Bankruptcy (Bankruptcy Law).

³⁹ Law No 2 of 2004 on the Industrial Relations Court ('Industrial Relations Court Law').

⁴⁰ Law No 18 of 2001 on the Special Autonomy for Aceh Special Province as the Nanggroe Aceh Darussalam.

⁴¹ Law No 14 of 2002 on the Tax Court ('Tax Court Law').

⁴² General Court Law, above n 33, art 8.

⁴³ Supreme Court Law, above n 21, art 3(1).

⁴⁴ Ibid, art 11(1–2).

a written opinion.⁴⁵ Courts need to overcome the obstacles and challenges faced by parties in disputes to ensure there is a simple, quick and low-cost judicial process.⁴⁶

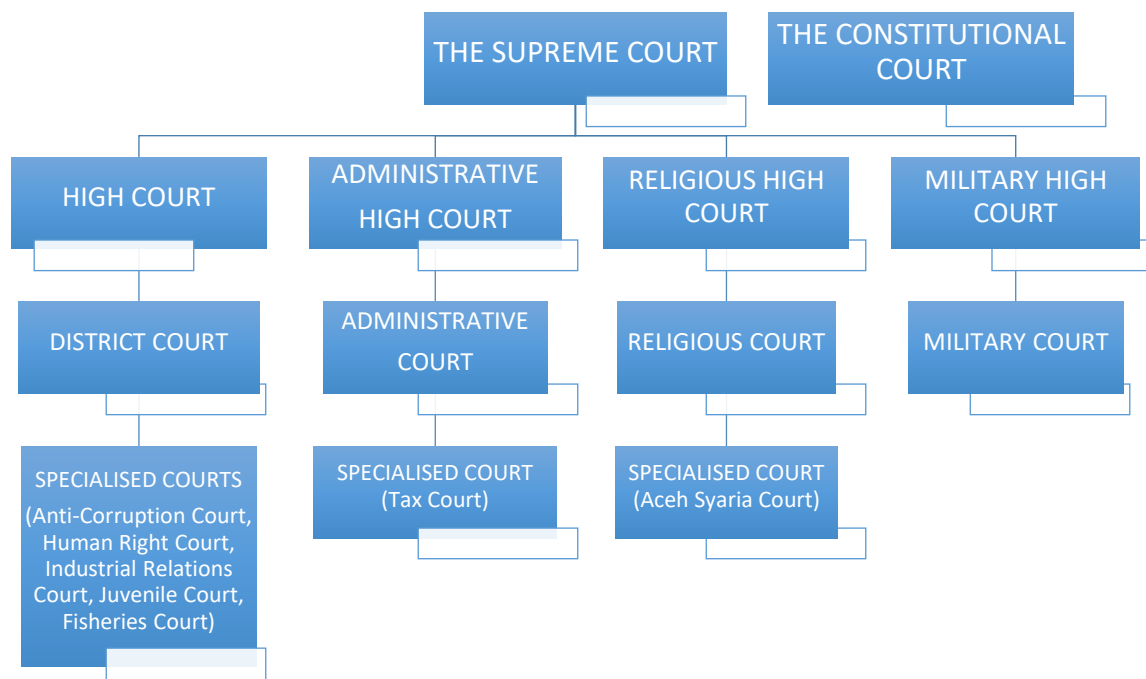


Figure 3.1. Structure of the Court

The civil law system does not recognise a system of precedent as practiced in common law countries. However, most civil law countries practice ‘an informal and non-binding system of precedent’.⁴⁷ Adopting the civil law system, Indonesia does not formally recognise the reasoning of previous cases (*jurisprudence*) as a source of law. However, judges are not prohibited from following it. ‘Indeed, many courts treat previous decisions—particularly those of higher courts—as highly persuasive and authoritative’.⁴⁸ Under the judicial system, judges should explore, follow and understand the values of the law and justice present in the community.⁴⁹ Moreover, they are prohibited from refusing to examine and decide a case that has been filed by using the reason that a law does not exist or is less clear; rather, they are obliged to examine and hear the case.⁵⁰

⁴⁵ Ibid, art 14(1).

⁴⁶ Ibid, art 4(2).

⁴⁷ Butt and Lindsey, above n 4, 73.

⁴⁸ Simon Butt, *Judicial Review in Indonesia: Between Civil Law and Legal Accountability? A Study of Constitutional Court Decisions 2003–2005* (University of Melbourne, 2006), 93.

⁴⁹ Supreme Court Law, above n 21, art 5(1).

⁵⁰ Ibid art 10.

To provide courts with authoritative decisions, the Supreme Court compiled selected decisions, called *yurisprudensi*. However, there are different opinions as to whether judges should follow previous decisions using *yurisprudensi* as a source of the law.⁵¹ In this respect, after comparing how the court followed previous rulings between Indonesia and the Netherlands, Nasima argued that ‘the prohibition on the use of precedent in the continental legal system should no longer be used as a barrier to maintain the continuity of the opinions of supreme judges’.⁵² Chief Justice of the Supreme Court (*Hoge Raad*) of the Netherlands, Justice Maarten Feteris, encouraged the use of case law in the Indonesian judiciary, arguing that ‘now the judge is no longer just a mouthpiece for the law. However, a judge is required to find a solution to the settlement of a case, especially when the law does not regulate certain legal issues’.⁵³

Indonesian judges almost always follow previous rulings by the Supreme Court—particularly in relation to an unclear interpretation of a certain provision for a case.⁵⁴ In the past five years, two environmental cases—*MoEF v PTWAIJ*⁵⁵ and *MoE v PTKA*⁵⁶—referred to *Dedi cs v PT Perhutani cs*.⁵⁷ when making the decision. Chapter 4 analyses some of these decisions when discussing the characteristic of judges’ competence in the Indonesian context.

3.2.5 Indonesian Judicial Reform: Relevant Progress to Strengthen Environmental Adjudication

In 2003, the Supreme Court started its comprehensive judicial reform by drafting its first Blueprint for Reform of the Supreme Court of Indonesia (2003–2009).⁵⁸ This blueprint covered areas of reform consisting of nine aspects: case management, information and technology, training and education, human resources development, financial management, internal supervision, transparency and access to justice.⁵⁹ Shortly before the end of the blueprint’s term, the Supreme

⁵¹ Butt and Lindsey, above n 4, 72.

⁵² Imam Nasima, ‘Sistem Hukum Kontinental Dan Wibawa Putusan Hakim: Sebuah *Pengantar*’ (Civil Law System and Authority of Judicial Decision: An Introduction)’ in *Kumpulan Tulisan Pilihan Pembaruan Peradilan* (Indonesian Judicial Reform Forum, 2018) 1, 12.

⁵³ ‘Pentingnya *Yurisprudensi* di Mata Ketua MA Belanda (*The Importance of the Jurisprudence in the Eyes of the Chief Justice of the Supreme Court of Netherlands*)’, *Hukum Online* (online) 7 December 2018 <https://www.hukumonline.com/berita/baca/lt5c0a29fbf0de1/pentingnya-yurisprudensi-di-mata-ketua-ma-belanda> > (accessed on 11 February 2019).

⁵⁴ Erman Rajaguguk, ‘Judicial Reform: A Proposal for the Future of the Commercial Court’ in Tim Lindsay (ed), *Indonesia: Bankruptcy, Law Reform & the Commercial Court* (Desert Pea Press, 2000) 57, 57.

⁵⁵ *MoEF v PTWAIJ*, above n 2.

⁵⁶ *MoE v PTKA*, above n 1.

⁵⁷ *Dedi cs v PT Perhutani et al* [2003] Decision of the District Court of Bale Bandung No 49/PdT.G/2003/PN. Bdg. (‘Dedi cs v PT. Perhutani’) (4 September 2003).

⁵⁸ Supreme Court of the Republic of Indonesia, ‘Blueprint of Judicial Reform (2003–2009)’, (The Supreme Court of Republic of Indonesia, August 2003).

⁵⁹ *Ibid.*

Court evaluated its implementation. The result of this evaluation became the basis for the development of the second Blueprint for Reform of the Supreme Court of Indonesia (2010–2035).⁶⁰ The International Framework of Court Excellence (IFCE) was used as a benchmark in the development of the second blueprint.⁶¹ This blueprint continued to cover most of the reform areas from the first blueprint, along with some significant improvements, supported by clearer and more detailed output and outcome indicators in a longer timeframe of 25 years.

The progress of the overall judicial reforms has been documented and analysed both in the Supreme Court’s internal report and other sources. Since 2011, as part of the reforms, the Supreme Court has produced an annual report. For accountability, these reports highlight the progress of the reform program each year by providing a specific section.⁶² It covers several activities to ensure the interrelation between improving judicial technique capacity and case management. Improving judicial technique capacity aims to achieve accountable decisions,⁶³ whereas improving case management covers wide areas of supporting system to achieve a fair trial process. Further, the report of the Indonesian Judicial Reform Forum (IJRF) identifies achievements, challenges and recommendations in 11 aspects,⁶⁴ including the unity of law, case management, knowledge management, fair trial and access to justice for vulnerable people, legal certainty and business climate, supervision of judicial apparatus and education of the legal profession.⁶⁵

The next section highlights reform progress that is relevant to environmental adjudication. Given the space limitations of this study, the following aspects are not exhaustive but selective.

3.2.6 Human Resources Management

As part of its authority to manage non-judicial functions, the Supreme Court recruits all judges and other court staff members. In relation to the recruitment of judges, the Judicial Authority Law stipulates that a judge must be a *state official (pejabat negara)* and no longer a civil servant (*pegawai negeri*).⁶⁶ However, the law is not clear in terms of the definition of *state official* under

⁶⁰ Supreme Court of the Republic of Indonesia, ‘Blueprint of Judicial Reform (2010–2035)’, (The Supreme Court of Republic of Indonesia, August 2010) vi.

⁶¹ International Consortium for Court Excellence (IFCE), <<http://www.courtexcellence.com/>> (accessed on 12 February 2019). The IFCE is a quality management system designed to help courts improve their performance. It is an all-encompassing approach to achieving court excellence rather than a model with a limited focus on particular aspects of court governance, management and operations.

⁶² See, for example, Supreme Court of the Republic of Indonesia, *the 2017 Supreme Court Annual Report*, Annual Report (2017).

⁶³ Ibid.

⁶⁴ ‘The Judiciary Reform: Achievement, Challenges, and Recommendation’ (Proceeding of the Indonesian Judicial Reform Forum, 15 January 2018).

⁶⁵ Ibid.

⁶⁶ Judiciary Power Law, above n 11, art 19.

this law. Under this law, Civil State Apparatus is defined as ‘a profession for civil servants and government employees with employment agreements that work in government agencies’.⁶⁷ In practice, the Supreme Court continues to follow the recruitment system under Law No 5 of 2014 on the State Civil Apparatus.⁶⁸ This recruitment consists of three major stages: administrative, basic competence test (*Seleksi Kompetensi Dasar* [SKD]) using a computer-assisted test and field competence test (*Seleksi Kompetensi Bidang*).⁶⁹ The field competence test includes legal substances (50%), a psychological test (25%) and an interview (25%).⁷⁰ The Judicial Commission recommended postponing the recruitment of new judges because of the lack of a legal basis for recruiting judges with their new status, as stipulated by art 19 of the Judicial Authority Law.⁷¹ The provision also mandates a special law on judges’ status (*Jabatan Hakim*).⁷² This bill is listed in the National Legislation Program (*Program Legislasi Nasional* [PROLEGNAS]) 2015–2019 under priority number 52. However, as a result of this urgency, the Supreme Court recruited 1,687 judges in 2017⁷³ using the above mechanism and legal basis for civil servants.

In the current system, the Supreme Court has continued to improve its promotion and transfer system by setting up more objective and accountable requirements.⁷⁴ The system provides a more structured and systematic promotion and transfer that is synchronised with a reward and punishment mechanism.⁷⁵ Further, the remuneration system has been improved based on levelling and position based and linked to performance allowances. In 2014, responding to concerns

⁶⁷ The Law No 5 of 2014 on Civil States Apparatus (‘Civil States Apparatus Law’) art 1(1).

⁶⁸ Ibid.

⁶⁹ Ibid.

⁷⁰ The Decree of the Selection Committee of the Supreme Court of the Republic of Indonesia, Notification No 01/Pansel/MA/07/2017 on the Selection of the Judge’s Candidate in the Supreme Court of the Republic of Indonesia of 2017. This notification is given based on the Ministry Decree of State Apparatus and Bureaucratic Reform No 29 of 2017, 7 July 2017, on the Need of Apparatus State Civil of the Judge’s Candidate within the Supreme Court of 2017, 16 November 2017 <https://www.mahkamahagung.go.id/media/3901> > (accessed on 11 February 2019).

⁷¹ ‘Perjalanan 20 Tahun Reformasi Peradilan: Menegaskan Hakim Sebagai Pejabat Negara dan Konsekuensinya (A 20-Year Journey of Judicial Reform: Affirming Judges as State Officials and Consequences)’, *Komisi Yudisial* (online), 27 July 2018 http://www.komisiyudisial.go.id/frontend/news_detail/705/perjalanan-tahun-reformasi-peradilan-menegaskan-hakim-sebagai-pejabat-negara-dan-konsekuensinya > (accessed on 11 February 2019).

⁷² The ‘Jabatan Hakim’ Bill has been prepared by the government. It includes provisions on recruitment, promotion, transfer, performance and supervision of judges.

⁷³ ‘The Supreme Court Announces 1,607 Candidate Judges (*MA Umumkan 1,607 Peserta Lolos Seleksi Calon Hakim*), *CNN Indonesia* (online), 3 November 2017 <<https://www.cnnindonesia.com/nasional/20171103210438-20-253380/ma-umumkan-1607-peserta-lolos-seleksi-calon-hakim>> (accessed on 11 February 2019).

⁷⁴ Consideration part, point b, Decree of the Supreme Court Justice No 48/KMA/SK/XII/2017 on Promotion and Transfer of Judge in Four Court’s Branches.

⁷⁵ Ibid.

regarding the welfare of judges,⁷⁶ the Supreme Court increased the performance allowance of judges in addition to their basic salary during the implementation of the new system.⁷⁷

3.2.7 Case Management

To ensure legal certainty, legal quality and consistency of decisions, the Supreme Court created a chamber system in which special areas of law are handled by specialist judges.⁷⁸ The primary objective of the system is to ensure unity of law.⁷⁹ Before implementing this system, the Supreme Court created seven groups of justices to maintain, among other things, consistency of decisions. However, the groups were not divided based on the type of case, which created problems such as difficulty monitoring the status of a case's progress, inconsistency of decisions and large backlog of cases.⁸⁰ The groups consist of the chief justice of the Supreme Court, vice of chief justice and seven deputy chief justices on cases, deputy chief justice on development and deputy chief justice on supervision.⁸¹ The Supreme Court anticipated some problems in the implementation of the new system. According to the Indonesian Institute for Independence of Judiciary (*Lembaga Independensi Peradilan Indonesia* [LEIP]), problems occurred because of the lack of a clear work plan to implement the chamber system (to transfer from the old to the new system), the lack of adequate involvement of all related actors in the implementation (registrar, judges and head of chambers) and other administrative and organisational aspects.⁸² For example, the amount and composition of the Supreme Court judges and registrar, the changing of the registrar's structure, the standard of procedure for case handling and adequate infrastructure.⁸³

⁷⁶ 'Kenaikan Gaji Hakim Mendesak (*The Urgent Increase of Judges' Salary*)', *Kompas.com* (online), 13 April 2012 <<http://nasional.kompas.com/read/2012/04/13/04245382/Kenaikan.Gaji.Hakim.Mendesak>>; 'KY Akan Dorong Kenaikan Remunerasi Hakim', *Hukum Online* (online), 30 March 2012 <<http://www.hukumonline.com/berita/baca/lt4f756dd73f481/ky-akan-dorong-kenaikan-remunera>> (accessed on 12 February 2019).

⁷⁷ The Decree of the Chief of the Supreme Court of the Republic of Indonesia No 128/KMA/SK/VIII/2014 on Performance Allowance for the Civil Servant within the Supreme Court and Courts underneath the Supreme Court. The Decree determines an increase of 80% of the 2008 allowance. Number 1 is the lowest level, with an allowance of IDR 1,719,000–1,803,000 (US\$ 121.78–127.73). The highest is number 27, with an allowance of IDR 30,345,000–32,865,000 (US\$ 2,149,87–2,328,15).

⁷⁸ The Decree of the Chief of the Supreme Court of the Republic of Indonesia No 213/KMA/SK/XII/2014 on the Guideline for the Application of the Chamber System within the Supreme Court of the Republic of Indonesia (30 December 2014). This decree replaced the previous Decree No 142/KMA/SK/IX/2011 on the Application of Chamber System (9 September 2011), Decree No 017/KMA/II/2012 (3 February 2012) and Decree No 112/KMA/SK/VII/2013 (10 July 2013).

⁷⁹ 'The Implementation of the Chamber System to Maintain the Unity of Law (*Penerapan Sistem Kamar Untuk Menjaga Kesatuan Hukum*)' (Justice Sector Support Program and the Supreme Court of the Republic of Indonesia) 2 <http://leip.or.id/wp-content/uploads/2017/04/Penerapan-Sistem-Kamar-JSSP.pdf> (accessed on 11 February 2019).

⁸⁰ *Ibid.*, 3.

⁸¹ *Ibid.*

⁸² Anugerah Rizki Akbari, 'Evaluasi 1 Tahun Penerapan Sistem Kamar Pada Mahkamah Agung Republik Indonesia Tahun 2011–2012' (Evaluation of the 1-Year Implementation of the Chamber System under the Supreme Court of the Republic of Indonesia) (Indonesian Institute for Independent Judiciary, 2013) 38. For example, the amount and composition of the Supreme Court judges and registrar, the changing of the registrar's structure, the standard of procedure for case handling and adequate infrastructure.

⁸³ *Ibid.*

The implementation of the chamber system and the development of other supporting systems have contributed to a better case management system.⁸⁴ Since the establishment of the chamber system, the Supreme Court has conducted six plenary meetings of the chamber system (*Pleno Kamar*). One agenda discussed in the plenary meeting was the law that occurs in each chamber that could potentially trigger disparity in decisions.⁸⁵ The discussion in each chamber resulted in a legal formulation that became a guideline in handling cases in each chamber of the Supreme Court in the form of a Circular Letter of the Supreme Court (*Surat Edaran Mahkamah Agung* [SEMA]).⁸⁶ The Supreme Court reported that this system has contributed to improving the ratio of case decisions.⁸⁷ In 2017, about 16,474 out of 17,862 cases (92.23%) were resolved.⁸⁸ This exceeded the Supreme Court's Main Performance Indicator target of 70%.⁸⁹ Further, the productivity ratio in making decisions in 2017 was 87.31%, which was the highest ratio in history.⁹⁰ Other factors that contribute to the improved ratio are: (1) simultaneous reading of drafts of decisions and the day of deliberative discussion (*musyawarah*);⁹¹ (2) policies on case handling periods to limit the maximum time for handling cases;⁹² and (3) efficiency of the process of writing decisions through a joint correction mechanism.

Further, in 2007, the Supreme Court established a national directory of decisions from all levels of courts. This online directory overcame the problem of accessing decisions manually, which prevented easy and cheap access to courts' decisions. Before 2007, only a few decisions had been published in the form of a compilation, called *Yurisprudensi Indonesia* (Indonesian Jurisprudence).⁹³ The database of all decisions facilitates a learning process among judges and encourages them to make good-quality decisions because the public has easy access to read and criticise their decisions.⁹⁴ At the end of 2017, the number of decisions available online was 2,511,865,⁹⁵ which the Supreme Court claimed was the highest number of online published

⁸⁴ 'The Implementation of the Chamber System', above n 79, 8–12.

⁸⁵ 'The 2017 Supreme Court Annual Report', above n 62, 6.

⁸⁶ *Ibid.* Six SEMAs were produced from meetings between 2012 and 2017.

⁸⁷ 'The 2017 Supreme Court Annual Report', above n 62, 6.

⁸⁸ *Ibid.* xviii.

⁸⁹ *Ibid.* 6.

⁹⁰ *Ibid.* 6.

⁹¹ Decree of the Chief of the Supreme Court No 119 of 2013 on the mechanism for reading case files simultaneously and the determination of the day of deliberation after the chairperson of the assembly receives a decree from the chair of the room.

⁹² Decree of the Chief of the Supreme Court No 213 of 2014 on the Acceleration of the Case's Handling in the Supreme Court; Decree of the Chief of the Supreme Court No 214 of 2014 on Case's Handling Period.

⁹³ Butt and Lindsey, above n 4, 74–75.

⁹⁴ 'The 2017 Supreme Court Annual Report', above n 62, 75.

⁹⁵ *Ibid.*

decisions available in the world.⁹⁶ In relation to environmental decisions, the Supreme Court issued a decree on the special numbering of decisions on environmental cases⁹⁷ to facilitate their identification and inventory. This decree applies to all decisions from the district courts (*Pengadilan Negeri*), the high court (*Pengadilan Tinggi*) and the Supreme Court.⁹⁸ Section 6.3.4.4. explains in more detail on this particular Decree.

3.2.8 Access to Justice

Based on the Decree of the Supreme Court No 1 of 2014 on Guidelines for Providing Services Law for Community with Limited Access in Court, there are three types of service relating to access to justice: (1) case fee exemption; (2) hearing outside the court; and (3) legal aid post (*Pos Bantuan Hukum*). The decree provides benefits to the community to obtain justice, especially for those who have limited access to court and who reside far from the court.⁹⁹

Despite the above progress, some problems and challenges still exist for the effective and efficient implementation of the reforms, and Indonesia is still seeking ‘an independent and credible judiciary’.¹⁰⁰ These problems have resulted in a low level of public trust in judicial institutions.¹⁰¹ The IJRF relied on various surveys to reach this conclusion, including the *Kompas* Survey, which showed that the public’s trust in the judiciary decreased from 70% in January 2015 to 60% in April 2015.¹⁰² Further, the Indonesian Legal Roundtable (ILR) in the Rule of Law Index report showed that 44% of respondents believe that the settlement of cases takes a long time.¹⁰³ Judicial institutions face a variety of issues, such as interventions that lead to allegations of corruption, collusion and nepotism,¹⁰⁴ a long and costly judicial process,¹⁰⁵ and inconsistency of decisions.¹⁰⁶ Regarding the latter problems, the Supreme Court, through its reform program, created the chamber system, as highlighted above. However, the objective of the chamber system, which is to create unity of law, faces challenges. Some decisions by the Supreme Court have not followed the

⁹⁶ Ibid.

⁹⁷ Ibid.

⁹⁸ Supreme Court of the Republic of Indonesia, *The 2016 Supreme Court Annual Report*, Annual Report (2016) 11.

⁹⁹ ‘The 2017 Supreme Court Annual Report’, above n 62, 71.

¹⁰⁰ M Rafiqul Islam and Iman Prihandono, ‘Political Strategies of TNCs for Corporate Interest in Indonesian Public Interest Litigation: Lessons for Developing Countries Hosting FDI’s (2011) 12(5) *Journal of World Investment & Trade* 701, 706.

¹⁰¹ ‘The Judiciary Reform’, above n 64, 8.

¹⁰² Kompas.com, ‘Jajak Pendapat “Kompas”: Wajah Lembaga yang Tercoreng Kasus’ (4 April 2015) <<https://nasional.kompas.com/read/2015/05/04/15121611/Jajak.Pendapat.Kompas.Wajah.Lembaga.yang.Tercoreng.Kasus>> (accessed in 7 February 2019).

¹⁰³ ‘The Judiciary reform’, above n 64.

¹⁰⁴ Chapter 6 provides examples of cases in which judges were involved in corrupt practices.

¹⁰⁵ ‘The Judiciary Reform’, above n 64, 8.

¹⁰⁶ Ibid 21.

agreement reached by the chamber's plenary meeting in certain legal principles.¹⁰⁷ In this regard, the Deputy of Chief Justice for Advancement of the Supreme Court of Indonesia, Justice Takdir Rahmadi stated:

Even though the chamber system has been implemented in Indonesia, at present the judges in handling cases rarely use jurisprudence in giving legal considerations. In fact, the Supreme Court has several selected jurisprudences and decisions every year.¹⁰⁸

Regarding the promotion and transfer of judges, the report found two challenges. First, the process of recruitment of a judicial apparatus in each judicial institution has not been fully effective and efficient in minimising opportunities for corruption.¹⁰⁹ Closed, long, unaccountable bureaucracy and budget constraints play a big role in creating these opportunities.¹¹⁰ Second, the transfer and promotion system is not fully integrated with the supervision unit.¹¹¹ Butt and Lindsey argued that changes in the transfer and promotion system have 'further entrenched corruption by strengthening patronage network within the judiciary'.¹¹² This situation indicates that Indonesia is still struggling over the independence of the judiciary: 'Corruption became widespread in these institutions during the Soeharto period and, with some adaptation, has survived Indonesia's post-Soeharto reforms'.¹¹³

Despite the large number of published decisions, the continuation of online directory has slowed down. This study could not access some decisions on environmental cases in the National Directory of Decisions of the Supreme Court. This problem indicates the existing gap between the judiciary reform and 'justice delivery'.¹¹⁴ Butt and Lindsey argued that 'these reforms have also not gone any considerable way towards remedying two particular problems that continue to plague Indonesia's judiciary'.¹¹⁵ There are elements of judicial incompetence and corruption.¹¹⁶

¹⁰⁷ Ibid 22.

¹⁰⁸ 'Pentingnya Yurisprudensi di Mata Ketua MA Belanda', above n 53.

¹⁰⁹ 'The Judiciary Reform', above n 64, 52.

¹¹⁰ Ibid.

¹¹¹ Ibid 51.

¹¹² Butt and Lindsey, above n 4, 82.

¹¹³ Ibid 299.

¹¹⁴ 'The Judiciary Reform', above n 64, 8.

¹¹⁵ Butt and Lindsey, above n 4, 83.

¹¹⁶ Ibid.

3.3 Indonesian Environmental Law in Practice

Environmental laws in some jurisdictions, including Indonesia, have a layer of laws and rules. This thesis categorises them into general environmental law, environment-related laws and other relevant regulations. As a general environmental law, Indonesia enacted Law No 32 of 2009 (EPML).¹¹⁷ Sectoral environmental laws include: Law No 18 of 2004 concerning Plantation,¹¹⁸ Law No 41 of 1999 concerning Forestry,¹¹⁹ Law No 4 of 2009 concerning Coal and Mineral Mining,¹²⁰ Law No 5 of 1984 concerning Industry¹²¹ and Law No 26 of 2007 concerning Spatial Planning.¹²² There are also some other relevant regulations, including Decree No 36/KMA/SK/II/2013 of 2013 of the Supreme Court concerning the Procedure of Handling Environmental Cases.¹²³ The analysis of these cases in Chapters 4 and 5 illustrates how this procedure was used in recent decisions on forest fires. This section limits its discussion to EPML.

3.3.1 Journey to Environmental Protection and Management Law

The early development of Indonesian environmental law was initiated by the country's involvement at the United Nations Conference on the Human Environment (Stockholm) in 1972.¹²⁴ This involvement represented the transition of use-oriented law from the country's colonial era to environment-oriented law.¹²⁵ As a realisation of its participation, in 1982, Indonesia formulated its first environmental law: Law No 4 of 1982 on Basic Environmental Law (BEML).¹²⁶ The role of the first minister of the environment, 'the charismatic and forward-thinking' Emil Salim, was critical in the promulgation of the BEML.¹²⁷ The BEML introduced a number of environmental law principles, including the Environmental Impact Assessment (EIA) and criminal clauses, that could enable the prosecution of those causing harm to the environment.

¹¹⁷ EPML, above n 3.

¹¹⁸ Law No 18 of 2004 concerning Plantation ('Plantation Law').

¹¹⁹ Law No 41 of 1999 concerning Forestry ('Forestry Law').

¹²⁰ Law No 4 of 2009 concerning Coal and Mineral Mining ('Coal and Mineral Mining Law').

¹²¹ Law No 5 of 1984 concerning Industry ('Industry Law').

¹²² Law No 26 of 2007 concerning Spatial Planning ('Spatial Planning Law').

¹²³ Decree of Chief of the Supreme Court of Indonesia No 36/KMA/SK/II/2013 on the Procedure of Handling Environmental Cases ('Supreme Court Guideline for Environmental Cases Handling').

¹²⁴ The United Nations Conference on the Human Environment (The United Nation, Stockholm, 1972).

¹²⁵ Sukanda Husin, *Indonesian Environmental Law Enforcement (Penegakan Hukum Lingkungan Indonesia)* (Sinar Grafika, 2009) 1.

¹²⁶ Law No 4 of 1982 on Basic Environmental Law ('BEML') as replaced by Law No. 32 on Environmental Management and Protection (EPML).

¹²⁷ Adrian W Bedner, 'Amalgamating Environmental Law in Indonesia' in J Arnscheidt, J M Otto and B Van Rooij (eds), *Lawmaking for Development: Explorations into the Theory and Practice of International Legislative Projects* (Leiden University Press, 2008) 171, 176.

At that time, Indonesia's environmental law was 'right up there with the world's most sophisticated countries and certainly a leader among developing countries'.¹²⁸

The BEML was amended twice through Law No 23 of 1999 on Environmental Management Law (EML).¹²⁹ To some extent, the EML continued the BEML.¹³⁰ Although the number of articles was reduced from 52 to 24 in the EML, the EML is nonetheless similar to the BEML, with the EML requiring 16 regulations to be implemented.¹³¹ However, the state minister of the environment still had insufficient powers to effectively enforce the law.¹³²

In addition, there are some flaws regarding civil enforcement.¹³³ Based on the analysis of 24 decisions between 1982 and 2002, David Nicholson concluded that 'judicial decision-making in environmental disputes has tended to interpret environmental legislation in a legalistic, narrow and conservative manner, to the frustration of environmental public interest litigation'.¹³⁴ He further argued that the ability of the plaintiff to provide evidence and present expert witnesses, combined with the inadequate capacity of judges handling environmental cases to understand scientific evidence as legal evidence, is a serious problem for effective enforcement.¹³⁵ For example, this study examines *Yayasan Wahana Lingkungan Hidup Indonesia (WALHI) v PT Pakerin* (1998)¹³⁶, in which the court did not admit hotspots as evidence.¹³⁷ A report conducted by the National Planning Agency (BAPPENAS) and Van Vollenhoven Institute (VVI)¹³⁸ identified that the inadequate capacity of judges in substantive environmental law and procedural law has affected the quality of decisions.¹³⁹

¹²⁸ Ibid 180.

¹²⁹ Law No 23 of 1999 on Environmental Management Law ('EML') as replaced by Law No. 32 on Environmental Management and Protection (EPML).

¹³⁰ Nicole Niessen, 'Indonesian Environmental Management Act 1997: Comprehensive and Integrated?' in Adriaan W Bedner and Nicole Niessen (eds), *Towards Integrated Environmental Law in Indonesia* (Research School CNWS, 2003) 66, 68.

¹³¹ Ibid.

¹³² Adriaan W Bedner, 'The Legal Potential for Enforcement' in Adriaan W Bedner and Nicole Niessen (eds), *Towards Integrated Environmental Law in Indonesia* (Research School CNWS, 2003) 80, 91–4.

¹³³ David Nicholson, 'The Legal Framework for Environmental Public Interest Litigation in Indonesia' in Adriaan W Bedner and Nicole Niessen (eds), *Towards Integrated Environmental Law in Indonesia* (Research School CNWS, 2003), 94.

¹³⁴ David Nicholson, *Environmental Dispute Resolution in Indonesia* (KITLV Press, 2009) 263.

¹³⁵ Ibid.

¹³⁶ *Yayasan Wahana Lingkungan Hidup Indonesia (WALHI) v PT Pakerin* (1998), Decision of District Court of Pekalongan, No. 8/pdt.G/1998/PN.PLG.

¹³⁷ 'One of the tools that enables the identification of forest fire hotspots is Geographical Information Systems (GIS). The GIS provides means that can help to illustrate the spatial extension of forest fire hotspots': Safwanah Ni'matullah, El-Said Mamdouh Mahmoud Zahran and Shahriar Shams, 'Forest Fire Risk Assessment Using Hotspot Analysis in GIS' 12 *The Open Civil Engineering Journal* (2017), 787-801, 788.

¹³⁸ Ibid.

¹³⁹ National Planning Agency and Van Vollenhoven Institute, *Efektifitas Penyelesaian Lingkungan Hidup Di Indonesia* (National Planning Agency and Van Vollenhoven Institute, Leiden University, 2011) 14.

Still, the EML was an important step forward compared with the BEML. Bedner noted the following three contributions of the EML: (1) ‘opening up of new legal avenues for victims of environmental pollution or destruction, including class actions and a mechanism for environmental mediation’;¹⁴⁰ (2) ‘...the institutional mechanism created by the EML plays an important role in protecting the environment’.¹⁴¹

3.3.2 Towards Integrated Environmental Protection and Management

In 2009, the EML was amended by the EPML. The EPML provides a more comprehensive approach in protecting and managing the environment compared with its predecessors for several reasons. First, it structures the protection and management of the environment into planning, use, controlling, conservation, supervision and law enforcement. The Instrument of the protection and management of the environment consists of a strategic environmental assessment (*Kajian Lingkungan Hidup Strategis* [KLHS]), spatial planning, environmental quality standard, environmental degradation quality standard, EIA, pre-EIA, licensing, economic instrument, environment-based legislation, environment-based budget, environmental risk analysis and environmental audit.¹⁴² Second, it provides better recognition and tools to promote access to justice in environmental rights. Third, the EPML provides a more advanced mechanism to ensure there is an obligation to preserve environmental functions and control environmental pollution and/or damage. Fourth, another important development under the EPML is the advancement of the licensing structure.

In relation to access to justice, the EPML has more advanced recognition than the EML. The EPML recognises the right of humans to a clean and healthy environment.¹⁴³ However, in some cases, the court did not clearly articulate this relation. For example, in 2008, the panel judges in *Yayasan Lembaga Bantuan Hukum Indonesia v PT Lapindo Brantas* (YLBHI v PT Lapindo Brantas)¹⁴⁴ made an insufficient argument regarding the extent to which environmental damage had affected human rights. In addition, the EPML changes requirements for applying strict liability compared with the EML. It changed the requirements for strict liability under EML from ‘an abnormally dangerous activity’¹⁴⁵ to a ‘serious threat’.¹⁴⁶ EPML defined a serious threat as one

¹⁴⁰ Bedner, ‘Amalgamating Environmental Law in Indonesia’ above n 127, 194.

¹⁴¹ Ibid 194.

¹⁴² EPML, above n 3.

¹⁴³ Ibid art. 3(g).

¹⁴⁴ *Yayasan Lembaga Bantuan Hukum Indonesia (YLBH) v PT. Lapindo Brantas*, Decision of the Supreme Court No 2710K/PDT/2008 (3 April 2009).

¹⁴⁵ EML, above n 129, art 35.

¹⁴⁶ EPML, above n 3, art 88.

that has an extensive effect on the environment and causes public unrest.¹⁴⁷ Despite some criticism of the provision and elucidation of strict liability under the EPML, this provision has been used in several cases, including a case decided by certified judges (i.e., *MoEF v PTWAJ*).¹⁴⁸ Further, the EPML provides more operational guidance of the right to information and the right to participate in environmental management.¹⁴⁹ It includes ensuring public participation by providing the right not to be prosecuted in civil and criminal courts for reporting an environmental case.¹⁵⁰ There have been many cases in which environmental defenders and activists were reported by companies for defamation.¹⁵¹ Global Witness showed that at least 207 land and environmental activists in various countries were killed in only four weeks in 2017, making it the worst year on record.¹⁵² In relation to standing, the EPML also provides a basis for procedures in court consisting of an NGO standing and a class action.¹⁵³

In relation to the mechanism that ensures an obligation to preserve environmental functions, the EPML provides some important authorities. First, it gives authority to the government responsible in an environmental sector to file a proceeding for requesting compensation and certain actions to a business or activity causing environmental degradation or pollution.¹⁵⁴ Government standing is established through the ‘state responsibility principle’ under EPMA, which stipulates that the state is responsible for ensuring that the use of natural resources is for the greatest benefit of both current and future generations.¹⁵⁵ In the EML, the government’s standing to sue in the form of ‘the representative standing’ is not clearly articulated and is underused. This authority contributes to an increase in the government’s litigation to the business or activity causing environmental degradation or pollution and creating environmental loss.¹⁵⁶ Second, the EPML gives authority to the MoE to supervise the compliance of personnel in charge of business and/or activities that have an environmental permit issued by the regional government. Third, it empowers various types of

¹⁴⁷ Ibid art 1(34); See particular Andri Gunawan Wibisana, *Civil Enforcement on Environmental Law* (Badan Penerbit Fakultas Hukum Universitas Indonesia, 2017) 110.

¹⁴⁸ *MoEF v PTWAJ* above n 2.

¹⁴⁹ EPML, above n 3, art 65(2).

¹⁵⁰ Ibid art 66.

¹⁵¹ *Rignolda Djamiluddin v PTNMR*, Decision of the District Court of Manado No 278/Pdt.G/2004/PN. Manado (2 Augustus 2005); *Republic of Indonesia v Yani Saragosa*, Decision of the Supreme Court No 1212K/Pid/2006 (7 December 2006); *Republic of Indonesia v Sawin*, Nanto, and Sukma, Decision of the District Court of Indramayu No 397/Pid.B/2018/PN.Idm (7 January 2019).

¹⁵² ‘Deadliest Year on Record for Land and Environmental Defenders, as Agribusiness is Shown to be the Industry Most Linked to Killings’, *Global Witness* (online), 24 July 2018 <<https://www.globalwitness.org/en/press-releases/deadliest-year-record-land-and-environmental-defenders-agribusiness-shown-be-industry-most-linked-killings/>> (accessed on 12 February 2019).

¹⁵³ EPML, above n 3, art 91–92.

¹⁵⁴ Ibid art 90.

¹⁵⁵ Ibid art 2(a).

¹⁵⁶ Justice Takdir Rahmadi, opening remarks in Andri Gunawan Wibisana, *Civil Enforcement on Environmental Law* (Badan Penerbit Fakultas Hukum Universitas Indonesia, 2017) v.

administrative sanctions, including written warnings, government coerciveness, and freezing and revoking environmental permits. Government coerciveness can be in the form of a suspension of production activities, removal of production facilities, and confiscation and suspension of whole activities after imposing written warnings.¹⁵⁷ However, it can be directly imposed if the violation: (1) is an extremely serious threat to humans and the environment; (2) will have greater and broader effects unless the pollution or destruction is terminated; (3) will present a greater loss to the environment unless the pollution or destruction is terminated.¹⁵⁸

In relation to the licensing mechanism, the EPML introduced an integrated licensing mechanism by establishing an environmental license (*Izin Lingkungan*)¹⁵⁹ that integrates various environment-related licenses both horizontally and vertically. Horizontally means that it simplifies various licences into a single licence, whereas vertically refers to strengthening the business process relation between the EIA, Environmental Monitoring and Management Plans (UKL–UPL),¹⁶⁰ environmental licence and business licence. Some provisions show this vertical integration: (1) provide an obligation for the ministry, governor and regent/major to refuse issuing environmental licenses without an EIA or UKL–UPL;¹⁶¹ (2) criminal sanctions for the ministry, governor and regent/major for not refusing environmental licenses without being supported by an EIA or UKL–UPL;¹⁶² (3) criminal sanctions for business and activities with no environmental license;¹⁶³ (4) administrative court or authorised officers may revoke an environmental license if violations occur in relation to requirements imposed on environmental licenses, requirements under the decision of the EIA or UKL–UPL recommendations and implementation of the obligation of business and activities stipulated under the EIA or UKL–UPL.¹⁶⁴

However, *Izin Lingkungan* faces significant challenges in its implementation. The government regulation that implements this provision does not list the criteria for suspending or revoking the environmental permit, but only sets general requirements that are so broad that they might lead to a wider interpretation.¹⁶⁵ This requirement might lead to tension if several ministries object to the

¹⁵⁷ EPML, above n 3, art 80(1).

¹⁵⁸ Ibid art 80(2).

¹⁵⁹ Ibid art 36(1).

¹⁶⁰ Ibid art 1(12). UKL–UPL (Environmental Management and Monitoring Programs) is the management and monitoring of business and activities that do not have a substantial effect on the environment. It is needed for making decisions on the operation of business and activities.

¹⁶¹ Ibid art 37(1).

¹⁶² Ibid art 111(1).

¹⁶³ Ibid art 109.

¹⁶⁴ Ibid art 38.

¹⁶⁵ See Government Regulation No 27 of 2012 on Environmental Permit, art 72.

interconnection between the revocations of the environmental permit and the validity of the business licence.

3.3.3 Non-Court Mechanism in Addressing Environmental Disputes

The use of a non-court mechanism in the settlement of cases is recognised in Indonesia, with judges in the Indonesian civil procedural court asking litigants in civil cases to reach a settlement before the hearing is conducted. For environmental cases, the EPML regulates that in addition to settling the case through litigation, parties can settle through a non-litigation dispute settlement.¹⁶⁶ Some environmental cases have been settled through a mediation process, even during the BEML (e.g., *Tapak River* and *Kayu Lapis Indonesia*). The Tapak River case was the first environmental case to be settled by mediation. The case was an environmental dispute regarding companies polluting the Tapak River at Semarang, Central Java. The pollution affected the land of farmer along the river. The communities, represented by NGOs, asked the local government to settle the case through mediation rather than through litigation. While in Kayu Lapis Indonesian case, the local government and a company and was mediated after enactment. The company's waste caused pollution in the fisheries area that belonged to the communities. All parties agreed to resolve the dispute and asked a mediator from a university. There were several stages of mediation between December 1999 and February 2001. In these processes, the communities, which consisted of 16 fisheries, were represented by local NGOs. The company attended the first seven meetings.

Given that the use of ADR has been recognised in various laws, and because existing laws do not detail how the ADR system should be managed in court, the Supreme Court developed a specific regulation as a guideline, especially for judges as mediators. Since its establishment in 2013, the Court-Annex Mediation mechanism has been amended three times. In 2016, the Supreme Court issued Supreme Court Regulation (PERMA) No 1 of 2016 on the Court-Annex Mediation Procedure.¹⁶⁷

3.4 Applying Environmental Law in Court

3.4.1 Civil Liability and Enforcement

In a civil environmental lawsuit, those who suffer losses can request damages from the parties causing harm. This can be in the form of compensation or to perform certain actions for the environmental damage.¹⁶⁸ Before taking legal action, parties in a dispute may choose to settle out

¹⁶⁶ EPML, above n 3, art 84.

¹⁶⁷ Regulation of the Supreme Court (PERMA) No 1 of 2016 on the Court-Annex Mediation Procedure.

¹⁶⁸ EPML, above n 3, art 87.

of court in a civil case (ADR).¹⁶⁹ An in-court settlement may only be conducted if the out-of-court mechanism that has been chosen is not successful in reaching an agreement.¹⁷⁰ If the parties have agreed to ADR, the court mechanism can only be conducted if the ADR fails to reach an agreement.¹⁷¹

Under the EPML, this right can be exercised either through general fault-based liability (*perbuatan melawan hukum*)¹⁷² or strict liability. Fault-based liability is derived from art 1865 of the Civil Code (*Perbuatan Melawan Hukum* [PMH]).¹⁷³ Under fault-based liability, the plaintiff should prove the existence of: (1) an action that constitutes an illegal action; (2) fault; (3) damage; and (4) causation between the illegal actions with the damage.¹⁷⁴ In contrast, under strict liability, the plaintiff does not need to prove the element of fault. Strict liability under EPML means:

Any person conducting an activity and/or business using a hazardous material, producing and/or managing hazardous waste and/or causing a *serious threat* to the environment shall be responsible strictly for the incurred losses without it being necessary to prove the substance of the mistake. (emphasis added)¹⁷⁵

Scholars have differing opinions regarding whether strict liability is part of the PMH. Scholars that argue that strict liability is part of the PMH require proof of PMH elements in addition to the fault element.¹⁷⁶

According to Wibisana, this requirement can be illustrated in *WALHI v PT Freeport Indonesia Company*¹⁷⁷ and *MoE v PTKA*.¹⁷⁸ In these two cases, although the plaintiffs used strict liability as the basis for liability, the proceedings did not find the existence of strict liability elements; rather, the plaintiffs only provided proof of PMH elements.¹⁷⁹ Wibisana noted that in addition to the PMH,

¹⁶⁹ Ibid art 84(1).

¹⁷⁰ Ibid art 84(3).

¹⁷¹ EPML, above n 3, art 84(3).

¹⁷² Ibid art 87.

¹⁷³ *Indonesian Civil Procedural Law*, art 1865.

¹⁷⁴ Takdir Rahmadi, *Environmental Law in Indonesia* (Raja Grafindo Persada, 2011) 269; Husin, above n 125, 107.

¹⁷⁵ EPML, above n 2, art 88 (explanation). Chapter 4 analysed the decision in *MoEF V PTWAI* in which the court interprets the ‘serious threat’ to satisfy the use of strict liability in a forest fire case.

¹⁷⁶ Rahmadi, above n 174, 268.

¹⁷⁷ *WALHI v PT Freeport Indonesia Company* [2001] Decision of the South Jakarta District Court No 459/Pdt.G/2000/PN.Jkt.Sel (2001).

¹⁷⁸ *MoE v PTKA*, above n 1.

¹⁷⁹ Andri Gunawan Wibisana, *Civil Enforcement on Environmental Law* (Badan Penerbit Fakultas Hukum Universitas Indonesia, 2017) 113–118.

civil liability in environmental cases includes strict liability.¹⁸⁰ Thus, the PMH and strict liability are two different types of civil liability under Indonesian law.

A number of cases have been brought to court that have established important principles. For example, in 1982, the decision by a court chaired by Judge Paulus E Lotulung in *WALHI v PT Inti Indorayon Utama (WALHI v PTIU)*¹⁸¹ became a seminal decision in environmental cases. For the first time in Indonesia, the standing of an environmental NGO, regardless of ‘the lack of material interest’, was recognised by the court.¹⁸² This decision encouraged many actors to improve the quality of decisions through various initiatives. In environmental law training for the judiciary, this case has been used as an example of judicial activism in environmental cases. Judge Lotulung later became one of the leading advocates of strengthening environmental adjudication and overall judiciary reform.

Despite this development, a few decisions have raised critical legal questions in areas of causation between unlawful action and environmental damage. Chapter 1 highlighted *Ministry of Environment and Forestry v PT Bumi Mekar Hijau (MoEF v PTBMH)*,¹⁸³ which received public criticism for its lack of adequacy of judgement. The court’s ruling showed a lack of understanding of the basic principles of the environment—particularly in relation to forest fires. Having examined all of the relevant scientific evidence presented in the hearing, the court should have considered the environmental issues more carefully. Determining the relevance of scientific evidence related to forest fires also requires scientific knowledge. Forest fires produce dangerous chemical airborne emissions that have a significant effect on water, flora, fauna, the atmosphere and humans.¹⁸⁴ An understanding of this information can help judges make an appropriate assessment.

3.4.2 Criminal Liability and Enforcement

A criminal environmental offence is an action that causes environmental pollution or degradation.¹⁸⁵ Under the EPML, environmental pollution is ‘the presence of creature, substances,

¹⁸⁰ Ibid 47.

¹⁸¹ *Wahana Lingkungan Hidup Indonesia (WALHI) v PT Inti Indorayon Utama* [1989] Decision of the District Court of Central Jakarta No 820/Pdt.G/1988/PN.JKT.PST (19 August 1989) (‘*WALHI v PTIU*’).

¹⁸² Nicholson, *Environmental Dispute Resolution in Indonesia*, above n 134, 52.

¹⁸³ *Ministry of Environment and Forestry v PT Bumi Mekar Hijau* [2015] The District Court of Palembang Nomor 24/Pdt.G/2015/PN.Plg (30 December 2015) (‘*MoEF v PTBMH*’).

¹⁸⁴ ‘Teaching Module of Environmental Judge Certification’, (Teaching Module, the Supreme Court of Republic of Indonesia and ICEL, 2014), 219. The main chemical products of combustion include volatile (but not oxidised) chemical products during the combustion process, forming a partial chain or all of the perfect oxidation of organic fuels, forming pyro synthesis during combustion. Some of these products, such as CO₂ and moisture, are normal fillers of the atmosphere, but others are often air pollutants (CO, SO₂, NO₂ and ozone [O₃] particles).

¹⁸⁵ The Indonesian Penal Code also stipulates a provision on criminal offences under art 55 (types of offence) and 56 (abettor).

energy and/or other components into the environment exceeding a tolerable amount by the environment to preserve its function'.¹⁸⁶ Conversely, environmental damage is 'a direct and/or indirect change in physical, chemical and/or biological characteristics of the environment, which exceeds the standard criteria for environmental damage'.¹⁸⁷ The EPML categorised these offences into 'material' and 'formal'.¹⁸⁸ According to the EPML, 'anybody intentionally or by negligence committing an action causing the exceeding of the standard quality of ambient air, water, sea water or the standard criteria for environmental damage can be fined and imprisoned'.¹⁸⁹ Thus, enforcing a criminal environmental offence requires proof that an action has caused environmental pollution or degradation, whereas a formal offence does not require proof. These offences apply to individuals, business entities and authorised officials who commit actions that breach regulations and/or environment-related permits while performing their duties. The EPMA lists several actions that are qualified as formal offences. For instance: (1) the release and distribution of genetically modified products to an environmental media;¹⁹⁰ (2) the management, production and dumping of waste and/or materials without permit;¹⁹¹ (3) the importing of waste and/or hazardous waste into Indonesian territory;¹⁹² (4) the importing of hazardous waste prohibited by the legislation into Indonesian territory;¹⁹³ (5) the committing of forest and/or land fires;¹⁹⁴ (6) running a business and/or activity without an environmental permit;¹⁹⁵ (7) providing false and misleading information, eliminating the information or providing false information needed for supervision and law enforcement;¹⁹⁶ (8) not implementing the government's coercive action;¹⁹⁷ and (9) intentionally preventing, impeding or aborting the execution of the duty performance of the authorised officer.¹⁹⁸

¹⁸⁶ EPML, above n 3, art 1(14).

¹⁸⁷ Ibid, art 1(16).

¹⁸⁸ Supreme Court's Guideline for Environmental Cases Handling, above n 123, 28–40.

¹⁸⁹ EPML, above n 3, art 98-99.

¹⁹⁰ Ibid art 101.

¹⁹¹ Ibid art 102-104.

¹⁹² Ibid art 105-107.

¹⁹³ Ibid art 69(1) c.

¹⁹⁴ Ibid art 108.

¹⁹⁵ Ibid art 109.

¹⁹⁶ Ibid art 113.

¹⁹⁷ Ibid art 114.

¹⁹⁸ Ibid art 115.

Example of material offences are: (1) formulating an EIA without an EIA certificate of competence;¹⁹⁹ (2) issuing environmental permits without an EIA or UKL–UPL;²⁰⁰ and (3) and intentionally not supervising the compliance of personnel in charge of business and/or activities according to regulations and the environmental permit, thus causing harm to the environment and human life.²⁰¹ Some environment-related laws stipulate criminal provisions, including Law No 18 of 2004 concerning Plantation,²⁰² Law No 41 of 1999 concerning Forestry,²⁰³ Law No 4 of 2009 concerning Coal and Mineral Mining,²⁰⁴ Law No 5 of 1984 concerning Industry²⁰⁵ and Law No 26 of 2007 concerning Spatial Planning.²⁰⁶

One breakthrough of the EPML is the advancement of the provisions of corporate liability. The EPML covers three aspects of corporate liability: (1) the circumstances under which a corporation should be liable for an offence; (2) who should be held responsible for any violation committed by the corporation; and (3) type of sanction to be imposed. The EPML stipulates that corporate liability applies in the case of ‘an environmental crime being committed by, for and on behalf of a business entity or by a person based on employment or other relation acted within the scope of the business entity’.²⁰⁷ Actors who are responsible include corporations, persons ordering or acting as managers in the environmental crime (functional perpetrators) and executives authorised to represent the business entity.²⁰⁸ To be liable, the representative of the corporation must meet three criteria: (1) have authority (‘power’) over the act, (2) be encouraged to perform the act; and (3) does not prevent (‘acceptance’) the act.²⁰⁹

The challenges of implementing corporate liability are evident in some decisions in criminal environmental cases that have applied corporate liability.²¹⁰ In these cases, the panels appeared to have a varied degree of understanding of corporate liability under the EPML by: (1) mixing

¹⁹⁹ Ibid art 110.

²⁰⁰ Ibid art 111.

²⁰¹ Ibid art 112.

²⁰² Plantation Law above n 118, art 46-50.

²⁰³ Forestry Law, above n 119, art 78 (1,3,4,5,6), (11i).

²⁰⁴ Coal and Mineral Mining Law, above n 120, art 158-162.

²⁰⁵ Industry Law, above n 121, art 27.

²⁰⁶ Spatial Planning Law, above n 122, art 70, 71, and art 73.

²⁰⁷ EPML, above n 3, art 116.

²⁰⁸ Ibid art 116–118.

²⁰⁹ ‘Supreme Court’s Guideline for Environmental Cases Handling’, above n 123.

²¹⁰ *Republic of Indonesia v Ibrahim Lisaholit*, Decision of the Supreme Court of the Republic of Indonesia No 1363 K/Pid.Sus/2013 (10 October 2012); *Republic of Indonesia v PT Adei Plantation*, Decision of the District Court of Palalawan No 228/Pid.Sus/2013/PN.Plw (9 September 2014); *Ministry of Environment v PT Jatim Jaya Perkasa*, Decision of Court of Appeal of Riau No 186/Pid.Sus/2015/PT.PBR.

between a legal person and a corporation and; (2) imposing imprisonment for corporation. Addressing this problem, the Supreme Court issued a decree to guide judges in uniformly applying corporate liability. The decree defined corporate liability as an offence committed by a person, based on the working scope of a corporation or other relations, acting for and on behalf of a corporation.²¹¹ The decree further stipulated the circumstances in which a corporation should be liable,²¹² the representative of a corporation in the court hearing²¹³ and the type of sanction.²¹⁴

3.4.3 Environmental Administrative Enforcement

Administrative legal disputes arise because of the issuance or non-issuance of a state administrative decision that must be final, individual and concrete in nature.²¹⁵ Administrative environmental cases in court usually occur as the result of improper decisions made by the administrative officer or non-compliance of requirements under the environmental permit. In this respect, the administrative court deals with various environmental administrative disputes such as the administrative court for review, including the issuance of an environmental permit without an EIA and the issuance of a business licence without an EIA.²¹⁶ Administrative sanctions are imposed as a result of two requirements: (1) failure to comply with the requirements under the environmental permit and; (2) the result of the supervision by the authorised agency, business holders. This can be in the form of written warnings, government coerciveness, freezing of environmental permits and revocation of environmental permits.²¹⁷ In addition, the authorised agency might nullify the environmental permit on the grounds that illegal or incomplete data were provided.²¹⁸ Indeed, every business activity should have an environmental permit,²¹⁹ which contains requirements on environmental feasibility and recommendations of UKL–UPL as a prerequisite to obtain an EIA.²²⁰ Licence holders may challenge administrative sanctions at the administrative court.

²¹¹ Decree of the Supreme Court No 13 of 2016 on Mechanism of Corporate Criminal Liability, art 3 ('Supreme Court's Decree on CCL').

²¹² Ibid art 4(2).

²¹³ Ibid art 11(1).

²¹⁴ Ibid art 25.

²¹⁵ Law No 5 of 1986 on the Administrative Court, art 1(3) ('Administrative Court Law').

²¹⁶ EPML, above n 3, art 93.

²¹⁷ Ibid art 76.

²¹⁸ Ibid art 37(1).

²¹⁹ Ibid art 36(1).

²²⁰ Ibid art 36(3).

In the case of the administrative court granting the proceeding in relation to a decision made by the administrative officer or agency, the court might order the defendant to revoke the decision or revoke the decision and issue a new decision.²²¹ The revocation of a decision based on the court's decision requires the administrative officer or agency to issue a new decision. The consideration of the new decision should state the legal basis of the revocation and take into account the General Principles of Clean State Governance (*Asas-Asas Umum Pemerintahan yang Baik* [AUPB]).²²² AUPB is 'principles which uphold the norms of morality, fairness and lawful norms in order to establish State Administrators clean and free from corruption'.²²³ Procedurally, the administrative officer should first issue a decision on the revocation as the basis for granting a new decision.

However, it appears that the execution of these obligations faces some challenges. In *Joko Priyanto cs v Governor of Central Java and PT Semen Gresik (Persero) Tbk*,²²⁴ the plaintiff asked the court to annul the local government's approval of an environmental licence for PT Semen Gresik. The court agreed with the plaintiff that the decision did not take into account the Strategic Environmental Assessment (*Kajian Lingkungan Hidup Strategis* [KLHS]) as the basis for issuing the environmental licence. Accordingly, the environmental licence should be revoked. However, just before the court delivered the verdict, the local government issued a new decision to amend the environmental permit challenged in court. This response raises an issue of the legality of the new decision.

3.5 Status of Decisions of Environment-Related Cases

To date, there are no detailed initiatives that measure the quality of the decisions because it is a relatively new system and some improvements are anticipated. Despite the effort made by the Supreme Court to compile a national directory of decisions, as well as the numbering system of environmental decisions, not all decisions made by certified judges can be readily accessed through the existing online database. This limits the data that are available to measure the overall status of environmental decisions. To overcome this problem, as part of the M&E program, the Supreme Court requested all high court chiefs to send all environmental decisions to the National Team in 2015. Unfortunately, not all courts adequately responded to this request. Even the head of the High Court of Riau, which had heard many regional forest fire cases, did not send the

²²¹ Administrative Court Law, above n 215.

²²² Law No 28 of 1999 on State Administrators Clean and Free of Corruption, Collusion, and Nepotism, art 1(6); EPML, above n 140, art 2; Guideline of Environmental Case Handling, above n 121, 46-47.

²²³ Ibid.

²²⁴ *Joko Priyanto cs v Governor of Central Java and Semen Gresik (Persero)*, Decision of the Supreme Court of Indonesia No 99 PK/TUN/2016 (5 October 2016).

requested data.²²⁵ As previously mentioned, the guidelines for indicating that a decision is an environmental issue aim to overcome this problem.

Before 2011, the database of decisions of environmental cases was even more limited. Nicholson identified that in the period 1982–2002, 14 environmental private interest cases were brought, which was an average of only one case every 1.5 years.²²⁶ This figure was only slightly higher than the number of public interest environmental cases (10 cases).²²⁷ ‘Whilst the first environmental public interest case, *WALHI v PT Inti Indorayon Utama*,²²⁸ was lost on substantive grounds, it achieved a significant procedural victory of environmental standing, however, this was not matched by a high rate of success in a substantive legal sense’.²²⁹ Another study from BAPPENAS, mostly relied on Nicholson’s data, provided three additional cases (27 in total), and the case reviews covered the period 2002–2009.²³⁰

Situations improved after the EPML was enacted. Cases covering various types of environmental problems were brought to and decided by the court using the EPML and other environment-related laws. For example, as previously mentioned, art 90 of the EPML enables the government to file a proceeding to protect the environment. Tables 3.1–3.3 outline some of these decisions using data obtained from sources such as the National Database of Decisions of the Supreme Court of Indonesia and the ICEL’s database. The tables present decisions made in civil (see Table 3.1), criminal (see Table 3.2) and administrative (see Table 3.3) environmental cases, along with data pertaining to the issues covered, the parties involved and the case number. Given the difficulty in obtaining the data, these tables do not represent the total number of decisions made by the court. However, they cover the most famous decisions that established important legal principles and attracted public attention.

Table 3.1. Decisions on Civil Environmental Cases

No	Issues	Parties	Case Number	Date of Issue
1	Landslide	<i>Dedi cs v PT Perhutani cs</i>	Decision of District Court of Bale Bandung No. 49/Pdt.G/2003/PN.Bdg.	(4 Sep 2003).

²²⁵ Interview with Hendri Subagyo, Director of the ICEL (12 August 2017).

²²⁶ Nicholson, *Environmental Dispute Resolution in Indonesia*, above n 134, 247.

²²⁷ Ibid 247. It consisted of eight cases in the general courts and three in the administrative courts. The first five cases were lost on substantive grounds. The sixth case was won in the first instance but lost on appeal. The seventh case was successful against only two out of 11 defendants. The eighth and ninth cases were both lost on substantive grounds, while the tenth case was partially successful.

²²⁸ Ibid 246.

²²⁹ Ibid 251.

²³⁰ ‘Efektifitas Penyelesaian Lingkungan Hidup’, above n 139, 2.

No	Issues	Parties	Case Number	Date of Issue
2	Forest and land fires	<i>Ministry of Environment v PT Kalista Alam</i>	Decision of District Court of Meulaboh No 12/Pdt.G/2012/PN.MBO	8 Jan 2014
			Decision of High Court of Banda Aceh No 50/PDT/2014/PT.BNA	15 Aug 2014
			Decision of the Supreme Court No 651 K/PDT/2015	28 Aug 2015
			Decision of the Supreme Court No 1 PK/PDT/2017	18 Apr 2017
3	Forest and land fires	<i>PT Kalista Alam v Ministry of Environment and Forestry</i>	Decision of Meulaboh District Court No. 16/Pdt.G/2017/PN.MBO.	2017
4	Forest and land fires	<i>Ministry of Environment v PT Surya Panen Subur</i>	Decision of District Court of South Jakarta No 700/Pdt.G/2013/PN.Jkt.Sel	25 Sep 2014
5	Forest and land fires	<i>Ministry of Environment v. PT. National Sago Prima</i>	Decision of District Court of South Jakarta No. 591/Pdt.G.LG/2015/PN.Jkt.Sel	11 Aug 2016
			Decision of the Court of Appeal of DKI No. 540/PDT/2017/PT.DKI	4 Des 2017
6	Forest and land fires	<i>Ministry of Environment and Forestry v PT Waringin Argo Jaya</i>	Decision of District Court of South Jakarta No 456/Pdt G-LG/PN.Jkt.Sel	7 Feb 2017
			Decision of High Court of DKI No 492/PDT.G-LH/2017/PT.DKI	2 Nov 2017
7	Forest and land fires	<i>Ministry of Environment v PT National Sago Prima</i>	Decision of District Court of South Jakarta No 591/Pdt.G.LG/2015/PN.Jkt.Sel	11 Aug 2016
			Decision of the Court of Appeal of DKI No 540/PDT/2017/PT.DKI	4 Des 2017
8	Forest and land fires	<i>Ministry of Environment and Forestry v PT Bumi Mekar Hijau</i>	Decision of District Court of Palembang No 24/Pdt.G/2015/PN.Plg	30 Dec 2015
			Decision of High Court No 51/Pdt/2016/PT.PLG	12 Aug 2016
9	Forest and land fires	<i>Ministry of Environment and Forestry v PT Jatim Jaya Perkasa</i>	Decision of District of North Jakarta No 108/Pdt.G/2015/PN.Jkt.Utr	15 Jun 2016
			Decision of High Court of DKI No 727/PDT/2016/PT DKI)	10 Mar 2017

No	Issues	Parties	Case Number	Date of Issue
10	Forest and land fires	<i>Ministry of Environment and Forestry v PT Ricky Kurniawan Kertapersada</i>	Decision of District Court of Jambi No 139/Pdt-LH/2016/PN.Jmb	12 Jun 2017
			Decision of High Court of Jambi No 65/PDT-LH/2017/PT JMB	16 Nov 2017
11	Illegal Logging	<i>Ministry of Environment v PT Merbau Palalawan</i>	Decision of the Supreme Court of Republic of Indonesia No 46 K/Pdt/2016	18 Aug 2016
12	Sand mining	<i>Ministry of Environment v Selat Nasik Limited Liability Company and PT Simpang Pesak Indokwarsa</i>	Decision of District Court of North Jakarta No 105/PDT/G/2009/PN.JKT.UT	3 Feb 2010
			Decision of High Court of DKI Jakarta No 400/Pdt/2010/PT.DKI	18 Apr 2011
			Decision of the Supreme Court of Republic of Indonesia No 499K/Pdt/2012	16 Aug 2012
			Decision of the Supreme Court of Republic of Indonesia No 109 PK/Pdt/2014	23 May 2014
13	Oil and gas mining	<i>YLBHI v PT Lapindo Brantas</i>	Decision of the Supreme Court No 2710K/PDT/2008	3 Apr 2009
14	Climate Change	<i>Komari cs v the Municipal Government of Samarinda et al.</i>	Decision of the District Court of Samarinda No 55/PDT.G/2013/PN.Smda	16 Jul 2013
			Decision of the High Court of Samarinda No 138/PDT/2015/PT.SMR	9 Feb 2016
			Decision of the Supreme Court of Republic of Indonesia No 490 K/Pdt/2018	24 May 2018
15	SLAPP	<i>Nur Alam v Basuki Wasis</i>	Decision of the District Court of Cibinong No 47/Pdt.G/2018/PN.Cbi.	13 Dec 2018.
16	SLAPP	<i>PT Jatim Jaya Perkasa v Bambang Hero</i>	Decision of the District Court of Cibinong No 223/Pdt.G/2018/PN.Cbi.	2018
17	SLAPP	<i>Rignolda Djamaluddin v PTNMR</i>	Decision of the District Court of Manado No 278/Pdt.G/2004/PN. Manado.	2 Augustus 2005
18	Citizen Lawsuit	<i>Ari Rompas cs v Republic of Indonesia et al.</i>	[2017] Decision of the District Court of Palangkaraya No. 18/Pdt.G/LH/2016/PN.Plk	27 March 2017.

Table 3.2. Decisions on Criminal Environmental Cases

No	Issues	Parties	Case Number	Date of Issue
1	Forest and land fires	<i>Republic of Indonesia v PT. Kalista Alam</i>	Decision of District Court of Melauboh No 131/Pid.B/2013/PN.MBO	15 Jul 2014
2	Plantation	<i>Republic of Indonesia v PT Adei Plantation & Industry</i>	Decision of District Court of Palalawan No 228/Pid.Sus/2013/PN.Plw	2013
3	Mineral mining	<i>Republic of Indonesia v PT Newmont Minahasa Raya Jaya and Richard B Ness</i>	Decision of the District Court of Manado No 284/Pid.B/2005/PN.Mnd	2005
4	Waste dumping	<i>Republic of Indonesia v PT Indominco Mandiri</i>	Decision of the District Court of Tenggara No 526/Pid.Sus-LH/2017/PN.Trng	4 Dec 2017
5	Illegal Logging	<i>Republic of Indonesia v Ibrahim Lisaholit</i>	Decision of the Supreme Court of the Republic of Indonesia No 1363 K/Pid.Sus/2013	10 Oct 2012.
6	SLAPP	<i>Republic of Indonesia v Sawin, Nanto, and Sukma</i>	Decision of the District Court of Indramayu No 397/Pid.B/2018/PN.Idm.	7 January 2019
7	SLAPP	<i>Republic of Indonesia v Yani Saragoa</i>	Decision of the Supreme Court No 1212K/Pid/2006.	7 December 2006

Table 3.3. Decisions on Administrative Environmental Cases

No	Issues	Parties	Case Number	Date of Issue
1	Cement plant	<i>Joko Prianto cs v PT Semen Indonesia (Persero) cs.</i>	Decision of the Supreme Court No 91 K/TUN/2017	20 Jun 2017
			Decision of the Supreme Court No 99 K/TUN/2017	5 Oct 2016
2	Water pollution from textile industry	<i>WALHI cs v The Major of Sumedang, PT Kahatex, PT Five Star Textile Indonesia</i>	Decision of Administrative District Court of Bandung No 178/G/2015/PTUN.BDG	24 May 2016
			Decision of High Administrative Court of Bandung No 237/B/2016/PT.TUN.JKT	17 Oct 2016
			Decision of the Supreme Court No 187 K/TUN/LH/2017	17 May 2017

No	Issues	Parties	Case Number	Date of Issue
3	Cement plant	WALHI v the Governor of West Java	Decision of Administrative District Court of Semarang No 039/G.PLW/2017/PTUN.SMG	16 Aug 2017
4	Coal mining	<i>PT Batubara Lahat v Governor of South Sumatera cs.</i>	Decision of Administrative District Court of Palembang No 25/G/2017/PTUN-PLG	8 Jun 2017
			Decision of High Administrative Court of Medan No 165/B/2017/PTTUN-MDN	31 Oct 2017
5	Coal mining	<i>PT Brayan Bintang Tiga Energi v The Governor of South Sumatera cs.</i>	Decision of Administrative District Court of Palembang No 26/G/2017/PTUN-PLG	29 Aug 2017
6	Steam power plant	<i>I Ketut Mangku Wijana cs. v the Governor of Bali</i>	Decision of Administrative District Court of Denpasar No 2/G/LH/2018/PTUN-DPS	16 Aug 2018
7	Coal mining	<i>PT Duta Energi Mineratama v The Governor of South Sumatera cs.</i>	Decision of Administrative District Court of Palembang No 37/G/2017/PTUN-PLG	6 Sep 2017
			Decision of High Administrative Court of Medan No 223/B/2017/PTTUN-MDN	11 Jan 2018
8	Steam power plant	<i>Rosmad cs. v the Head of Investment and Integrated License of the Provincial of West Java cs.</i>	Decision of Administrative District Court of Bandung No 148/G/LH/2017/PTUN-BDG	2 May 2018
			Decision of High Administrative Court of Jakarta No 174/B/LH/2017/PTTUN-JKT	1 Aug 2018
9	Mining dumping tailing	<i>WALHI cs. v PT Newmont Nusa Tenggara cs.</i>	Decision of Administrative District Court of Jakarta No 145/G/2011/PTUN-JKT	3 Apr 2012
10	Access to environmental information	<i>Greenpeace v The Ministry of Environment and Forestry</i>	Decision of the Information Commission of Republic of Indonesia No 056/XI/KIP-PS-A/2016	24 Oct 2016
			Decision of the Supreme Court No 239 K/TUN/KI/2017	13 Jun 2017
11	Palm oil plantation	<i>Lembaga Swadaya Masyarakat Barisan Anak Dayak (LSM BADAK) v The Major of Kutai Kartanegara cs.</i>	Decision of the Supreme Court No 225 K/TUN/LH/2017	8 Aug 2017
12	Land use change—	<i>Lembaga Swadaya Masyarakat Barisan Anak Dayak (LSM</i>	Decision of the Supreme Court No 484 K/TUN/LH/2017	26 Oct 2017

No	Issues	Parties	Case Number	Date of Issue
	spatial planning	<i>BADAK) v, the Major of East Kutai cs.</i>		
13	Coal mining	<i>PT Trans Power Indonesia v The Governor of North Sumatera cs.</i>	Decision of Administrative District Court of Palembang No 36/G/2017/PTUN-PLG	6 Sep 2017
			Decision of High Administrative Court of Medan No 222/B/2017/PT.TUN-MDN	11 Jan 2018
13	Steam Power Plant	<i>Dawinah cs. Regent of Indramayu</i>	Decision of the DKI Jakarta State Administrative High Court No. 38/B/LH/2018/PT.TUN.JKT.	6 April 2018
			Decision of the Supreme Court of Republic of Indonesia No. 465K/TUN/LH/ 2018.	19 September 2018
14	Steam Power Plant	<i>Dusmad cs v BPMPT West Java Province cs.</i>	Decision of the Bandung State Administrative Court No. 124/G/LH/2017/PTUN-BDG.	19 April 2017
15	Steam Power Plant	<i>Sarjun cs v DPMPT of West Java cs.</i>	Decision of the Administrative Court of Bandung No. 148/G/LH/2017/PTUN-BDG.	2 May 2018
16	Access to Information	<i>Greenpeace Indonesia v. the Ministry of Environment and Forestry cs.</i>	Decision of the Supreme Court No. 239 K/TUN/KI/2017	13 Jun 2017

These tables illustrate the progress and dynamic of environmental adjudication in Indonesia in some particular issues. The first issue is environmental cases pertaining to forestry, mining, air pollution, water pollution and climate change. In the past five years, the number of forest fire cases brought to court has increased significantly. Second, plaintiffs for civil environmental cases consist of individuals, NGOs and the MoE/MoEF. In around nine cases, the MoE/MoEF was the plaintiff as a result of the recognition of the government's right to file a proceeding on environmental cases. Third, the proportion of decisions coded as environmental cases is still low. In the above tables, only 13 out of 48 decisions were decided after the decree on numbering made the environmental LH (*Lingkungan Hidup*) code in the decisions. Fourth, the proportion of cases decided by the panel, which consists of certified judges, is still low. Table 3.4 lists cases that were

decided by certified judges. This is not an exhaustive list because of the inadequate database of decisions.

Table 3.4. Decisions on Environmental Cases Decided by Certified Judges²³¹

No	Decisions	District Courts	High Courts	Results
1	<i>Ministry of Environment v PT Kalista Alam</i>	2 certified judges (including head of panel)	1 certified judge	District court: in favour of the plaintiff High court: in favour of the plaintiff Supreme Court: in favour of the plaintiff
2	<i>Ministry of Environment v PT Waringin Argo Jaya</i>	1 certified judge (head of panel)	3 certified judges (including head of panel)	District court: in favour of the plaintiff High court: in favour of the plaintiff Supreme Court: in favour of the plaintiff
3	<i>Ministry of Environment and Forestry v PT Bumi Mekar Hijau</i>	1 certified judge	2 certified judges (including head of panel)	District court: in favour of the defendant High court: in favour of the plaintiff
4	<i>Ministry of Environment v PT National Sago Prima</i>	2 certified judges (including head of panel)	Not available	District court: in favour of the plaintiff High court: in favour of the defendant Supreme Court: in favour of the plaintiff
5	<i>WALHI cs v The Major of Sumedang, PT Kahatex, PT Five Star Textile Indonesia</i>	3 certified judges (including head of panel)	3 certified judges (including head of panel)	District court: in favour of the plaintiff High court: in favour of the plaintiff Supreme Court: in favour of the plaintiff

Case Related to Construction of Steam Power Project (PLTU)

Table 3.1- 3.3 highlights the number of lawsuits brought by NGOs and the public regarding the construction of the steam power plant, which is a National Strategic Program (*Program Strategis Nasional* [PSN]) under President Joko Widodo's administration.²³² In May, Widodo pressed a

²³¹ Extracted from the ICEL's database. The ICEL has been actively involved in the implementation of the ECS.

²³² Presidential Regulation No 3 of 2016 concerning the Acceleration of the Implementation of National Strategic Projects (as amended by President Regulation No 58 of 2017).

button to generate 35,000 megawatts of power.²³³ The realisation of this project was a strategic and urgent move by the government to meet the country's increasing electricity demands.²³⁴

In 2019, ICEL, a national NGO focusing on environmental law, highlighted the government's commitment to environment and natural resources management in the middle of the constant PSN.²³⁵ Further, several policies are considered potential tools to support the government's interests relating to national projects.²³⁶ Among them is the issuance of Government Regulation No 13 of 2017 concerning National Regional Spatial Planning (RTRWN),²³⁷ which is used to ensure that applicable permits do not hamper the implementation of projects carried out by the government.²³⁸ It regulates the mandatory issuance of permits for the use of spaces not covered in the regional spatial plan (RTRW) for strategic activities and activities that have a significant effect on spatial status.²³⁹ In this case, the Minister of Agrarian and Spatial Planning Affairs (*Menteri Agraria dan Tata Ruang*) is authorised to issue the recommendation for the permit.²⁴⁰

Thus, PP No 13 of 2017 provides a basis for issuing space utilisation permits for each PSN that does not yet exist in the district/provincial RTRW on the condition that the minister provides a recommendation for permission to use the space. Suparto Widjoyo considered the authority of the minister problematic²⁴¹ because it enabled the PSN to deviate from spatial plans at the district/city, provincial and national levels.²⁴² To date, at least three cases have been brought to court by NGOs and communities that were victims of the power plant's construction. This thesis analyses these cases to show how courts make arguments and identify progress and challenges.

²³³ Tirto, 'Di Balik Amarah Jokowi Soal Proyek 35.000MW (Behind Amarah Jokowi Problem about 35,000 MW)', Tirto (online), 3 November 2016 <<https://tirto.id/di-balik-amarah-jokowi-soal-proyek-35000mw-b1Aj>> (accessed on 10 February 2019).

²³⁴ Ibid.

²³⁵ 'Press Release Preliminary Notes for 2019: Missing Narratives in Projections of the Presidential and Vice-President's Environmental Policy', ICEL (online), 9 January 2019 <<https://icel.or.id/siaran-pers-catatan-awal-tahun-2019-icel-narasi-yang-hilang-dalam-proyek-keamanan-lingkungan-hidup-capres-cawapres/>> (accessed on February 10 2019).

²³⁶ Ibid.

²³⁷ Government Regulation No 13 of 2017 concerning National Regional Spatial Planning, art 114A.

²³⁸ 'Press Release Preliminary Notes for 2019', above n 235.

²³⁹ 'National Regional Spatial Planning' above n 237, art 114A (1).

²⁴⁰ Ibid art 114A (2).

²⁴¹ Suparto Sujadi, 'National Strategy Project (PSN) and Social Justice (Pancasila Law Perspective)' [2018] 4(2) *Journal of Indonesian Environmental Law* 1, 1.

²⁴² Ibid.

1. *Celukan Bawang* II PLTU

In *I Ketut Mangku Wijana cs v Governor of Bali*,²⁴³ the plaintiff sued the governor of Bali for granting an environmental permit (*Izin Lingkungan*) for the Celuk Bawang 2 PLTU. In this case, a permit was issued as the basis for the issuance of a business licence (*Izin Usaha*) for the *Celukan Bawang* 2 power plant expansion.²⁴⁴ The claim was filed because of the effects experienced by the community since the *Celukan Bawang* 1 PLTU began operating. According to the plaintiff, the surrounding area became noisy, fish catches were reduced, cases of respiratory illness were reported as a result of air pollution (because the PLTU was powered by coal) and gardens became unproductive.²⁴⁵ The defendant stated that the claim could not be accepted because losses from the PLTU 2 had not yet arisen and the plaintiff had suffered a loss from the PLTU 1. The panel of judges in the Denpasar district court accepted the defendant's consideration that direct and real losses suffered by the plaintiff had not yet emerged; thus, legally, no interests of the plaintiff were harmed as a result of the issuance of disputed objects.²⁴⁶

2. *Indramayu* PLTU

The second case dealt with the development of the *Indramayu* PLTU. In *Dawinah cs v Regent of Indramayu*,²⁴⁷ the plaintiff sued the regent of *Indramayu* who was deemed not to have the authority to issue an environmental permit in a region that should be the authority of the governor. A major issue in this case related to the time limit for submitting proceedings against the decision to the administrative court. The first level of the administrative court accepted the plaintiff's requests and ordered the revocation of the permit.²⁴⁸ Upon appeal, the lawsuits submitted by the defendant at the high court²⁴⁹ and the Supreme Court²⁵⁰ were rejected by the courts. The judge calculated the 90-day deadline from the announcement of permission in the local mass media rather than the date of issuance of the decision that was the object of the dispute. However, the courts did not address

²⁴³ *I Ketut Mangku Wijana cs the Governor of Bali*, Decision of Denpasar District Court No. 2/G/LH/2018/PTUN.DPS (16 August 2018).

²⁴⁴ *Celukan Bawang* 1 PLTU has been operating since 2015.

²⁴⁵ Basic claims included: (1) AMDAL substantive defects because there was no citizen participation; (2) the environmental permit was not in accordance with RZWP3K (Zoning Plan for Coastal Areas and Small Islands); and (3) no attention was paid to the effects of climate change.

²⁴⁶ *I Ketut Mangku Wijana cs v Governor of Bali*, above n 243, 153.

²⁴⁷ *Dawinah cs v Regent of Indramayu*, Decision of Bandung State Administrative Court No 90/G/LH/2017/PTUN-BDG (16 August 2018).

²⁴⁸ Ibid.

²⁴⁹ *Dawinah cs v Regent of Indramayu*, Decision of the DKI Jakarta State Administrative High Court No 38/B/LH/2018/PT.TUN.JKT (6 April 2018).

²⁵⁰ *Dawinah cs v Regent of Indramayu*, Decision of the Republic of Indonesia Supreme Court No 465K/TUN/LH/2018 (19 September 2018).

the environmental issues such as the issuance of an appropriate EIA in accordance with regulations.

3. Cirebon PLTU

On 19 April 2017, the Bandung administrative court decided *Dusmad cs v BPMPT West Java Province*²⁵¹ related to the environmental permit granted by the West Java Province BPMPT to PT Cirebon Energi Persada for the construction and operation of the 1 x 1,000 megawatts PLTU-B. This project is one of the government's PSNs. The plaintiff's claims are:²⁵²

1. The granting of the environmental permit of Cirebon 2 PLTU covering the subdistricts of *Astanajapura* and *Mundu* contradicts the Cirebon Regency Spatial Planning (RTRW) for 2011–2031.
2. The obligation to consult on the EIA's terms of reference, the announcement of the environmental permit application, the deliberative session and the announcement of the issuance of the environmental permit were not carried out by the defendant in accordance with the applicable law.²⁵³
3. The granting of the environmental permit was based on an EIA document with the following substantive defects: (a) the initial environmental permit was invalid and representative; (b) the estimate of the magnitude and effect of the important properties was not valid and representative; (c) the holistic evaluation section in the EIA was not based on existing standards.
4. The grant of the environmental permit did not consider the carrying capacity and capacity of the environment.

The panel of judges provided interesting legal considerations relating to the legal position of the plaintiff, violations of the spatial plan and environmental permits:

1. Regarding the legal status of the plaintiff, the judge gave more reasons than those submitted by the plaintiff based on economic interests. The judge considered that the plaintiffs had legal interests based on the right to a good and healthy environment.
2. Regarding the implementation of the RTRW, the judge rejected the reason of the defendant, who stated that the Cirebon 2 PLTU licence was in accordance with the applicable provisions even though it was not contained in the Cirebon Regency RTRW.

²⁵¹ *Dusmad cs v BPMPT West Java Province*, Decree of the Bandung State Administrative Court No 124/G/LH/2017/PTUN-BDG (19 April 2017).

²⁵² Ibid.

²⁵³ Government Regulation No 27 of 2012 concerning Environmental Permits; Regulation of the Ministry of Environment No 17 of 2012 concerning Community Involvement in the Process of Analysis of Environmental Impacts and Environmental Permits.

According to the judge, the implementation of the RTRW must be ‘carried out in stages, complementary manner, synergising, and not overlapping’.²⁵⁴ On this basis, the panel found that ‘RTRW Regency/City shall become the basis of the issuance of location permits and land administration; and according to art 27 of Law No 27 concerning The Spatial Planning, the District/City RTRW shall provide a more detailed arrangement of the Provincial RTRW’.²⁵⁵

3. In addition, in relation to the publication of objects of the administrative decision, the panel affirmed the relationship between environmental permits and spatial planning. The court cited the provision under the EPML and the Spatial Planning Law that the EIA’s terms of reference should not be assessed if activities and/or businesses contradict regional spatial plans (in this case, the Cirebon Regency RTRW Year 2011–2031).

The company filed an appeal against the verdict of the Bandung administrative court; however, the DKI administrative high court upheld the Bandung court’s decision.²⁵⁶ As a result, the defendant revoked the cancelled permit and issued a new licence for the same activity and place. With the new permission, *Sarjun cs* sued West Java Province DPMPTSP as the agency that issued the new environmental permit.²⁵⁷ However, the Bandung court rejected the claim.²⁵⁸

From the above decisions involving three PLTU projects, this thesis analyses several developments and challenges in handling environmental cases in Indonesia. The first is the determination of loss. The judge stated that the losses incurred by the PLTU/company activities should be real or already incurred losses.²⁵⁹ This argument means that a lawsuit against an invalid environmental permit can only be made after the company has physically carried out the activity. This stage will then pass the 90-day limit for filing a lawsuit. The court should have considered art 2 of the EPML and Supreme Court Guidelines on Environmental Case Management, which regulates the principle of precaution (*prinsip kehati-hatian*). The guidelines state that:

Regarding the *precautionary principle* in Law 32/2009 which is commensurate with the principle of intelligence in the AAUPB, in the case of administrative decision disputes related to the

²⁵⁴ *Dusmad cs v BPMPT*, above n 251, 61.

²⁵⁵ *Ibid* 61.

²⁵⁶ *Dusmad cs v BPMPT of West Java Province*, Decree of the DKI Jakarta High Administrative Court No 174/B/LH/2017/PT. TUN-JKT (1 August 2018).

²⁵⁷ *Sarjun cs v DPMPT of West Java*, Decision of the Administrative Court of Bandung No 148/G/LH/2017/PTUN-BDG (2 May 2018).

²⁵⁸ *Ibid*. The judge stated in the exception that the Bandung Administrative Court did not have the authority to decide on the case. In the leading case, the judge rejected all of the plaintiff’s claims. The object of the dispute—namely, the new environmental permit—was considered the implementation of the previous court decision.

²⁵⁹ See *I Ketut Mangku Wijana cs v Governor of Bali*, above n 243.

business/activity that will still occur, hence the uncertainty of the impact of the business/activity may not be used as the reason for the judge to order the organiser of the activity to carry out environmental protection measures.²⁶⁰

Thus, this thesis argues that no real losses are needed to determine the actions that need to be taken for environmental protection. On this basis, judges need to scrutinise whether the process of the issuance of an environmental permit has been carried out in accordance with applicable regulations. This includes assessing whether the EIA's preparation process has been carried out correctly. However, most of the above decisions did not consider aspects related to the EIA, even though the plaintiff claimed that the EIA had not been compiled according to the applicable provisions.²⁶¹

Second, when making decisions, some judges consider the balance between the right of citizens to a healthy environment and their right to obtain sufficient electricity. Judges in *Dusmad cs v BPMPT of West Java Province* rejected the legitimacy of the development of an activity and/or business that was not listed in the Regency RTRW even though it was an NSP. The judge stated that maintaining consistency and harmonisation of spatial planning is important to ensure good environmental management as part of the right to a healthy environment guaranteed by the applicable laws and regulations.

Large development projects deal with a number of issues during the planning, land acquisition, exploration and operation. These projects usually involve transnational corporations (TNCs) as an actor. In a number of cases, TNCs have been complicit in the violation of human rights, including the right to a healthy environment for people living near project sites. Communities or individuals who complain about the activities of TNCs and their effects on human rights are sometimes subject to threats, torture and even murder by the government, project authorities and corrupt groups in the government system. In the name of development, the government often reduces regulatory enforcements when it bids for TNCs' investments, although TNCs' activities can have devastating social costs, including underpayment of workers, cramped working situations and environmental degradation.

In many cases, victims in recipient countries of TNCs' investments have brought lawsuits under the *Aliens Tort Claims Act* (ATCA)²⁶² to US corporations that violated human rights. These

²⁶⁰ 'Supreme Court Guidelines of Environmental Cases Handling', above n 123, 47.

²⁶¹ *Dusmad cs v BPMPT West Java Province*, above n 251.

²⁶² *Aliens Tort Claim Act*, 28 U.S.C. 1350 (1994).

include *Amlon Metals, Inc. v FMC Corp*,²⁶³ *Jota v Texaco*,²⁶⁴ *Aquinda v Texaco*,²⁶⁵ *Sarei v Rio Tinto PLC*²⁶⁶ and *Sosa v Alvarez-Machain*.²⁶⁷ Indonesian citizen Tom Beanal brought a lawsuit under *ATCA* against Freeport McMoRan, a US-based TNC that operates an open-pit copper, gold and silver mine in West Papua, Indonesia. The lawsuit alleged that Freeport-McMoRan had violated human rights and international environmental law.²⁶⁸

When addressing contemporary environmental challenges, Indonesia's judiciary must take into account human rights and environmental considerations. Boer argued that 'the past few decades have seen a slow but steady convergence of certain aspects of the realms of environmental law and human rights', and the 'interpretation and implementation' of some international, regional instruments in recent years confirms this convergence'.²⁶⁹ The 35,000 megawatts will involve a number of PLTU projects and TNCs and is now in the preparation stage. The judiciary must integrate human rights aspects to protect the environment.

3.6 Reform of Environmental Adjudication in Indonesia: Some Critical Initiatives

3.6.1 Environmental Law Training: An Initial Initiative

In light of the above institutional structure, the Supreme Court has implemented some initiatives to ensure successful environmental case handling. For example, around 50 basic and advanced training sessions on environmental law were conducted between 1998 and 2005 with more than 1,500 participants, including 600 judges. Under the government-to-government cooperation

²⁶³ *Amlon Metals, Inc. v FMC Corp*, 775 F. Supp. 668 (S.D.N.Y. 1991).

²⁶⁴ *Jota v Texaco*, 157 F.3d 153 (2nd Cir. 1998).

²⁶⁵ *Aquinda v Texaco*, 142F Supp. 2nd 534 (S.D.N.Y. 2001).

²⁶⁶ *Sarei v Rio Tinto PLC*, 221 F. Supp. 2d 1116 (C.D. Cal. 2002).

²⁶⁷ *Sosa v Alvarez-Machain*, 542 U.S. 692 (2004).

²⁶⁸ *Beanal v Freeport Mc. Moran*, 197 F.3d 161, 167 (5th Cir. 1999).

²⁶⁹ Ben Boer, 'Introduction' in Ben Boer (ed), *Environmental Dimension of Human Rights* (Oxford University Press, 2015), 2. There are number of documents and literature on the relation between rights and environment: Fatma Zohra Ksentini, Special Rapporteur, Review of Further Developments in Fields with Which the Sub-Commission has been concerned Human Rights and the Environment, E/CN.4/Sub.2/1994/9, 6 July 1994; Conclusion (Final Text), Meeting of Expert of Human Rights and The Environment, 14-15 January 2002. Also available at <http://www.ohchr.org/english/issues/environment/environ/conclusions.htm>; Svitlana Kravchenko and John E. Bonine, *Human Rights and the Environment: Cases, Law, and Policy* (Carolina Academic Press, 2008); Dinah Shelton, 'Human Rights, Environmental Rights, and the Right to Environment' (1991) 28(1) *Stanford Journal of International Law* 103; Philippe Cullet, 'Definition of an Environmental Right in a Human Rights Context' (1995) 13(1) *Netherlands Quarterly of Human Rights* 25; Chris Jeffords and Joshua C Gellers, 'Constitutionalizing Environmental Rights: A Practical Guide' (2017) 9(1) *Journal of Human Rights Practice* 136; Sumudu Atapattu, 'The Right to a Healthy Life or the Right to Die Polluted? The Emergence of a Human Right to a Healthy Environment Under International Law' (2002) 16(1) *Tulane Environmental Law Journal* 65; David R Boyd, *The Environmental Rights Revolution: A Global Study of Constitutions, Human Rights, and the Environment*, (UBC Press, 2012). Some literature discuss the rationale for the important of constitutionalisation of environmental rights: James R May and Erin Daly, *Global Environmental Constitutionalism* (Cambridge University Press, 2015); Tim Hayward, *Constitutional Environmental Rights* (Oxford University Press, 2005).

initiative funded by the Indonesia–Australia Specialised Training Project (IASTP),²⁷⁰ this training provided participants with a basic understanding of environmental laws and its application through a comparison between the Indonesian and Australian jurisdictions.²⁷¹ In addition to general judges, in around 2000, the IASTP conducted workshops on environmental law and enforcement for the justices of the Supreme Court.

Another important training session was the Course of Environmental Law and Administration training under the Indonesia–Netherlands Study on Environmental Law and Administration project. This project was undertaken by the Van Vollenhoven Institute (VVI), Leiden University, in cooperation with the ICEL. Former participants of this training currently work in various important positions in the MoE, Independent State’s Commissions and universities. Second, some training was managed by the Partnership for Governance Reform (PGRI) between 2005 and 2008. Around 150 participants, including judges, were trained under the PGRI’s trainings. Third, multi-door training for enforcement officers was managed by the President’s Delivery Unit for Development, Monitoring and Oversight (UKP4).

In *Dedi cs v PT Perhutani cs.*,²⁷² an alumnus of the IASTP training was the head of the panel that made a seminal decision. In its ruling, the court recognised the precautionary principle on the grounds that there was a disagreement between the parties’ experts on the cause of the landslide.²⁷³ This application illustrated the court’s innovation in using international environmental principle, even though the principle had not been implemented in Indonesian legislation by the time the decision was made. The court argued that, ‘as a member of the conference, its spirit can be guided and applied by Indonesia in filling a legal vacuum and practice’.²⁷⁴ The court also made an important consideration by arguing that the application of the precautionary principle changed the liability into a strict liability.²⁷⁵

²⁷⁰ The Indonesia–Australia Specialised Training Project (IASTP) is government-to-government cooperation between Australia and Indonesia.

²⁷¹ In this training, the Supreme Court of the Republic of Indonesia collaborated with the ICEL, the Australian Centre for Environmental Law (University of Sydney and University of South Australia), and it was actively involved from the design to the implementation phases. Prominent trainers who were involved included Mas Achmad Santosa (ICEL), Justice Paul Stein (LECNSW), Professor Ben Boer (University of Sydney), Professor Robert J Fowler (University of South Australia) and Justice Brian J Preston (Chief Justice of the LECNSW). In addition to the in-country training, there were six batches of training in Australia, whereby around 80 participants were selected to attend the training.

²⁷² *Dedi cs v PT Perhutani cs.*, above n 57.

²⁷³ *Ibid* 101, para 3.

²⁷⁴ *Ibid* 78, point 8.

²⁷⁵ *Ibid* 102, para 4.

The decision made a valuable contribution to the development of environmental jurisprudence in Indonesia.²⁷⁶ It provided an important stepping stone to enable more rigorous argumentation in the application of the environmental law principle. This recognition was referenced by subsequent decisions. In *Ministry of Environment v PT. Kalista Alam (MoE v PTKA)*,²⁷⁷ the principle was a point of reference when applying the doctrine of *in dubio pro natura*. *Ministry of Environment and Forestry v PT. Waringin Argo Jaya (MoE v PTWAJ)*²⁷⁸ referred to the application of the precautionary principle in the decision of *Dedi cs v PT Perhutani (Persero)*. As a civil law legal system, the court usually does not have a precedent as applied in the common law legal system. However, the above approach taken by courts indicates that, when making decisions, courts also refer to the argumentation of previous decisions.

3.6.2 Creating a Better Mechanism to Handle Environmental Cases in Court

Learning from these challenges and positive outcomes, the Supreme Court took more concrete action to foster initiatives by signing an MoU with the MoE in 2009 which became the basis for the establishment of the ECS.²⁷⁹ Given that the number of certified judges was still limited compared with the number of general and administrative courts, Decree No 134/KMA/SK/IX/2011 regulated that the chamber should hear the handling of an environmental case with a presiding judge which has been certified under the certification system.²⁸⁰ If there is no environmental judge, the head of the High Court and the chief justice may appoint an environmental judge through *detasering*.²⁸¹ In 2015, Decree No 36/KMA/SK/III/2015 changed this provision because the total number of environmental judges has not yet reached the number of judges needed throughout Indonesia.²⁸²

This system adopted the ICEL's proposal for the green bench, which concluded that the certification system was the most realistic model.²⁸³ The ICEL's role in environmental adjudication reform is crucial in various aspects of policy development, advocacy and capacity-

²⁷⁶ Andri Gunawan Wibisana, 'The Development of the Precautionary Principle in International and Indonesian Environmental Law' (2011) 14(1-2) *Asian Pacific Journal of Environmental Law* 169, 195.

²⁷⁷ *MoE v PTKA*, Decision of the Supreme Court No 651 K/PDT/2015 (28 Augustus 2015).

²⁷⁸ *MoEF v PTWAJ*, Decision of the High Court of DKI No 492/PDT.G-LH/2017/PT.DKI (2 November 2017).

²⁷⁹ Memorandum of Understanding (Nota Kesepahaman) between the Supreme Court and the Ministry of Environment of Indonesia on the Strengthening of Capacity of Environment Judges, 18 June 2009.

²⁸⁰ *The Decree of Chief Justice of the Supreme Court of Indonesia No 134/KMA/SK/IX/2011 on Certification of Environmental Judges (5 September 2011)* ('*Supreme Court Decree on ECS*') (as amended by Decree 36/KMA/SK/III/2015 [19 March 2015]).

²⁸¹ *Ibid* 21(2)(3).

²⁸² Decree 36/KMA/SK/III/2015 (19 March 2015), art 27.

²⁸³ See, particular Prayekti Murharjanti et al, *Menuju Peradilan Lingkungan Pro Lingkungan (Toward a Pro Environment Court)* (ICEL, 2009) 35.

building on environmental law.²⁸⁴ While the Supreme Court recognised that ‘environmental cases and natural resources shall be handled by the judicial institution that understands the urgency to protect the environment’,²⁸⁵ it did not create a special court similar to existing specialised courts. From 2012 to 2017, around 688 judges were trained, including 455 judges from general courts and 122 from administrative courts.²⁸⁶ The first two cohorts were supported by the MoE, while the Supreme Court financed the remaining cohorts using the state’s budget, with additional support from the United Nations Development Programme (UNDP). The Supreme Court took a step-by-step, or incremental, approach to develop a specialised environmental court.²⁸⁷ Indonesian Chief Justice Harifin Tumpa acknowledged that the system was still a work in progress and that the experiences of other jurisdictions would undoubtedly be essential for its improvement.²⁸⁸

The continuous development of the ECS represents the Supreme Court’s commitment to strengthening the mechanism of environmental adjudication. The initiative is also part of sustaining robust environmental law training, and it maintains participants’ knowledge and skills gained from the training. As a basis for the ECS, the Supreme Court first created competencies for certified judges on environmental cases (the ECS’s competence). Based on this set of competencies, the Supreme Court developed the curricula and methodology of the training. Equipped with a specific methodology and curricula based on specific competencies designed for environmental judges, the system facilitates: (1) the handling of environmental cases by judges with a specialised competence; (2) the creation and improvement of judges’ competence in handling environmental cases; (3) the creation of better-quality decisions on environmental cases because some certified judges, as illustrated above, render decisions that established important legal principles; and (4) the learning process among judges.

However, given that the ECS is a relatively new system, there are areas for improvement. For example, there is a need to identify a clear framework to strengthen the ECS within the institutional structure in which environmental adjudication operates. In this regard, Chapter 6 details the progress and challenges facing the ECS as part of identifying an adequate and rational model of a specialised environmental court and its proposed framework.

²⁸⁴ Interview with Hendri Subagyo, Director of ICEL (16 November 2018).

²⁸⁵ ‘Supreme Court Decree on ECS’, above n 280.

²⁸⁶ Interview with Rudi Soeparmono, Secretary of the Working Group of ECS (12 November 2017).

²⁸⁷ Harifin Tumpa, ‘Role of Judges on the Environmental Cases’, Asian Judges Symposium on Environmental Decision Making, the Rule of Law, and Environmental Justice, Manila, Philippines, 2010 <https://www.scribd.com/document/37749202/Dr-Harifin-Tumpa-Asian-Court-Views-Indonesia> (accessed on 12 February 2019).

²⁸⁸ Kala K Mulqueeny and Francesse Joy Cordon (eds), *Inaugural ASEAN Chief Justices’ Roundtable on Environment: The Proceedings* (ADB, 2013) 4 <https://www.ajne.org/sites/default/files/document/conference_proceedings/5386/asean-chief-justices-roundtable-web.pdf> (accessed on 12 February 2019).

The development of environmental laws and court rules accelerates the environmental adjudication process—particularly under the ECS. These laws and regulations have been used in environmental litigation in both substantive and procedural aspects. Substantive aspects include the use of strict liability, the corporate liability principle, supervision and the enforcement of environmental permits. Procedural aspects give the government the mechanism to file a proceeding on environmental problems. The Supreme Court’s guidelines for handling environmental cases have also been used in some cases—especially in some substantive and procedural respects when the EPML’s provisions required further explanation or created multi-interpretation. Chapter 4 will discuss how the EPML and the Supreme Court’s guidelines facilitate a more rigorous application of environmental law to address environmental problems.

Finally, the current judicial reforms provide an important output for the establishment of a specialised environmental court. Within the Indonesian judicial and legal system, the model of environmental court that is chosen should be managed under the Supreme Court. With this inextricable link between an effective environmental court and the capacity of the overall judiciary system, the analysis and development of a framework for establishing a specialised environmental court in Indonesia should be conducted within the institutional structure in which environmental adjudication operates—that is, the judicial system and its reform development.

The link covers the areas of HRM, case management, knowledge management and judicial technique. For example, in HRM, the creation of competent and knowledgeable judges should be conducted within the competence-based HRM scheme as one of the areas of reform. This includes both hard competence and soft competence. Further, ensuring consistency in decisions by creating a chamber system is an important area of the overall judicial reform. Thus, synchronisation is important between the ECS and the overall judicial system and its reforms to improve legal certainty and the quality and consistency of decisions. The M&E system under the certification system should be improved by employing clear and realistic indicators to evaluate and monitor the quality of decisions made by certified judges without disrupting the fundamental principle of judges’ independence in making decisions.

3.7 Characteristics of an Effective Environmental Court in the Indonesian Context: Relevance and Priority

The previous section discussed the progress, challenges and opportunities involved in strengthening environmental adjudication within the overall institutional structure of the Indonesian judiciary and its reforms. It highlighted three major findings related to the current progress of environmental adjudication, the role of contemporary development of environmental

laws to accelerate environmental adjudication and the potential support of the overall judicial reforms in the establishment of a specialised environmental court. Using the experiences of ECTs worldwide based on the above context, this section analyses the relevance and applicability of the characteristics of effective ECTs obtained from experiences in Indonesia. This analysis finds some areas that Indonesia should further analyse when deciding the extent to which the country should establish an environmental court.

3.7.1 Type of Forum: In Search of the Most Appropriate Model for Indonesia

Several models of ECTs can be established in trial, intermediate appellate and the Supreme Court, supported by clear status and authority. Foremost, the establishment of an environmental court in Indonesia requires a careful examination of ECT models' best practice within the legal and judicial system, the current progress of environmental adjudication reforms and environmental goals. Currently, the handling of environmental cases in Indonesia is generally operated under: (1) a court with general jurisdiction (*Pengadilan Umum*) for civil and criminal matters; and (2) a court with administrative jurisdiction (*Pengadilan Tata Usaha Negara* [TUN]) for administrative disputes. The operation of the ECS has not yet been implemented throughout Indonesia. In the current transfer and promotion system of judges as civil servants, it is still difficult to ensure that all environmental cases are handled by certified judges.

However, this study has found no statement or policy in the Supreme Court that shows the ultimate goal and direction of the ECS within the overall idea to strengthen environmental adjudication reforms. Thus, the examination of the best-suited model of ECT in Indonesia must include an assessment of these available options, including the ECS. The decision to establish an ECS was made by the Supreme Court as the most viable option among the available courts, largely because it does not require the enactment of a particular law, which would take a long time and involve the approval of various agencies. The ECS only requires an internal decree of the Supreme Court's decision.²⁸⁹ This study finds that no in-depth research has been undertaken to analyse possible models for an environmental court in Indonesia.²⁹⁰

3.7.2 Competence: Maintaining Special Competence and Promoting Judicial Activism

Effective ECTs have judges and other decision-makers with special competence related to a wide range of environmental matters. Maintaining and improving this special competence requires an

²⁸⁹ Interview with Justice Takdir Rahmadi, Chairman of the Environmental Team in the Supreme Court of Indonesia (12 August 2017).

²⁹⁰ The ICEL conducted preliminary research in *Menuju Peradilan Lingkungan Pro Lingkungan* in 2009 (*Toward a Pro Environment Court*).

objective selection process, a comprehensive training and education program, and tenure and a career enhancement system. In Indonesia, the ECS created a special competence for environmental judges in addition to the general competence of general judges. Justice Lotulung said that judges are expected to:

demonstrate a deep understanding of national and international environmental legal norms, apply law as an instrument in resolving environmental cases; have an ability to find a law (*rechtsvinding*) or judicial activism, in achieving environmental justice, and apply procedural laws for environmental cases in hearing and deciding the case.²⁹¹

As mentioned above, some of the decisions illustrate improvements as well as challenges.²⁹² To measure the progress of and challenges to the ECS, there is a need to assess the extent to which its competence ensures the creation of good-quality decisions on environmental cases—in particular, the extent to which: (1) the competence meets the important element of competence; and (2) the system of maintaining and improving the competence exists and has been used. Within the progress of the judicial reforms, the system within the ECS has not yet been fully synchronised. The result of this analysis supports the M&E process.

3.7.3 Promoting Judicial Activism in Deciding Environmental Cases

A comprehensive jurisdiction and competent judges will promote the development of environmental jurisprudence. The complexity of environmental cases may require judges to be proactive in providing solutions without being limited by strict application to the law—particularly because environmental cases involve uncertainty. Indonesia has a civil law system that does not recognise the doctrine of precedent. However, many laws, including environmental laws, contain provisions relating to procedural rights originating from common law systems. Given that a judge cannot refuse to examine and decide a case that is before them, Indonesian judges are required to have the ability to find the law. This capacity is known as judicial activism.

As part of competence, the previous section highlighted some decisions that referred to a preceding decision that established important legal principles. These decisions have been used to show the judicial activism taken by judges in handling environmental cases.²⁹³ Promoting environmental jurisprudence through judicial activism in Indonesia requires judges to have a sufficient level of

²⁹¹ Mulqueeny and Cordon (eds), above n 288, 27.

²⁹² Chapter 4 and Chapter 5 also analyse decisions made by certified judges under the ECS.

²⁹³ See, particularly, Wibisana, 'The Development of the Precautionary Principle', above n 196, 195. Windu Kisworo, 'Kalista Alam Case Set Precedent for Combating Forest Fires', *The Jakarta Post* (23 September 2015) <<http://www.thejakartapost.com/news/2015/09/23/kalista-alam-case-set-precedent-combating-forest-fires.html>> (12 February 2019).

understanding of the relevant environmental discipline. Given that judicial activism is one of the competencies of a certified judge, improving the capacity of judges to conduct judicial activism should be part of the overall improvement of the competencies.

3.7.4 Managing Scientific Evidence

Access to scientific expertise is critical given the nature of environmental cases, which mostly involve an assessment of scientific evidence by courts to make a decision. In Indonesia, scientific experts play a significant role in giving opinions of scientific evidence in many environmental cases. The capacity of Indonesian courts to deal with scientific evidence is also eminent. In a complex environmental case, it includes validating types of evidence to determine the most valid evidence²⁹⁴ and then linking it with, and constructing it into, legal evidence.²⁹⁵ In forest fire cases, these skills are required to assess the method for taking a sample, which includes an initial indication of the forest fire, collecting field data, taking samples and laboratory analysis.²⁹⁶ Once the court is satisfied with the scientific evidence and corroborates it with other evidence, the court must still address the quantification of its damage to the environment based on the economic valuation of the environment. *MoEF v PTBMH*,²⁹⁷ which was highlighted in Chapter 1, represents the court's struggle to assess the scientific evidence.

Under the general evidence rule applied to environmental cases, judges examine cases based on experts' testimonies introduced by parties to assess causation and damage to the environment. Challenges faced by the court include the lack of judges' capacity to determine whether the evidence presented by experts is valid and obtained using an appropriate method, along with the ability to identify conflicting evidence.²⁹⁸ Thus, there is a need to assess how existing laws and courts deal with scientific evidence. The result of this analysis will provide input for reforming laws and regulations as well as a training methodology to improve judges' capacity to deal with scientific evidence.

²⁹⁴ See *Republic of Indonesia v PT Newmont Minahasa Raya and Richard B Ness*, Decision of the District Court of Manado No 284/Pid.B/2005/PN.Mnd (24 April 2007) ('RoI v PTNMR and Ness').

²⁹⁵ Attachment 3: The Curricula of Education and Training of Environmental Judge, Decree of the Supreme Court No 26/KMA/SK/II/2013 on Selection and Appointment System for an Environmental Judge.

²⁹⁶ The ICEL and Education and Technical Judicial Training of the Supreme Court of Indonesia, *Materi Ajar Pendidikan dan Pelatihan Sertifikasi Hakim Lingkungan (Teaching Curricula of the Education and Training on Certified Environmental Judge)* (2014) 267–271.

²⁹⁷ *MoEF v PTBMH*, above n 183.

²⁹⁸ See *RoI v PTNMR and Ness*, above n 294.

3.7.5 Jurisdiction: Defining What Constitutes an Environmental Case

Effective ECTs have a wide jurisdiction in terms of law and ECTs' enforcement powers. The *Indonesian Environmental Management Act* covers the legal jurisdiction of the court in handling environmental cases in Indonesia. It covers civil, criminal and administrative law enforcement. Criminal and civil cases are handled by a court with general jurisdiction (*Pengadilan Negeri*), whereas administrative cases are within the jurisdiction of courts with an administrative dispute jurisdiction (*Pengadilan Tata Usaha negara* [TUN]).

According to the Supreme Court, an environmental case is one that breaches civil, criminal or administrative regulations in relation to environmental management and protection. This includes, but is not limited to, regulations relating to forestry, plantation, mining, coastal and marine, spatial planning, water resources, energy, industrial and natural resources conservation. However, there are some problems in determining its precise definition in practice. For example, a case involving a dispute over mining licences and concessions, despite being covered by forestry law and mining law, does not necessarily constitute an environmental case—particularly if the environmental issue does not exist. Therefore, it is crucial to have a clear definition of an environmental case as a basis for the jurisdiction of the court in handling environmental cases.

3.7.6 Access to Justice

Effective ECTs have mechanisms in place to ensure access to justice, including cost efficiency, ensuring standing to sue and a case management system. The previous section listed some services in the Supreme Court's judiciary reform program that ensure access to justice: (1) case fee exemption; (2) hearing outside the court; and (3) legal aid post (*Pos Bantuan Hukum*). In this respect, there is a need to ensure that people with limited access to court have greater access. In addition, to ensure efficiency, the judiciary should improve the current ADR mechanism by improving the quality of the judges and mediators facilitating the scheme.

3.7.7 Alternative Dispute Resolution: Creating an Alternative to Court Proceedings

ADR ensures efficiency in handling environmental cases. It can be in the form of mediation, conciliation, neutral evaluation and arbitration. The use of ADR in the settlement of cases has been recognised in Indonesia. However, there are concerns regarding the extent to which the ADR mechanism—especially mediation—has been successfully used to help litigants settle their case and improve efficiency. According to Justice Takdir Rahmadi, ADR might not be popular because: (1) it provides no incentive for lawyers to convince their clients to use mediation because they will receive a lower fee if the case is settled quickly; (2) the litigants do not yet consider mediation a

profession; (3) judges are reluctant to be mediators because of their caseload; and (4) the authority of the regulation on Court-Annex Mediation is not based on a statute and has less binding power.²⁹⁹ In light of the above development and problems, consideration of the best practices of ADR mechanisms in other jurisdictions might help the Indonesian judiciary to improve the use of ADR in handling environmental cases.

The above analysis identified some opportunities and possible challenges in the Indonesian judiciary in terms of the seven common characteristics of effective ECTs. In relation to the type of forum, one area for consideration is whether the adjudication of environmental cases would be more adequately carried out by: (1) maintaining the current system using general courts for civil and criminal environmental cases and administrative courts for administrative environmental cases; (2) establishing a new, specialised court; or (3) maintaining the current system, but with a modification (i.e., using an ECS). This chapter outlined the brief progress and challenges of environmental adjudication specifically and overall judicial reform generally on particular aspects related to environmental adjudication. This was more than sufficient to conclude that an ECT will not be effective without the support of judges which have adequate competence related to environmental law.

Therefore, it is essential in the Indonesian context to ensure that candidate judges are recruited from the best law graduates and supported by an ongoing capacity-strengthening program to improve their competence during their tenure. In relation to environmental cases handling, judges must have a sufficient understanding of environmental law to make sound decisions. In practice, this basic competence requires a sufficient understanding of scientific knowledge—especially in complex environmental cases that involve large amounts of scientific evidence to determine whether there is a causal relationship between unlawful acts and their effects. Indeed, scientific evidence is the key factor in successful environmental litigation. In these cases, judges assess whether scientific evidence submitted by expert witnesses is obtained using a valid scientific method, and their opinion is given based on the expert witnesses' knowledge.

The above dynamics illustrate the close relationship between the effectiveness of an environmental court, regardless of its form, and the availability of judges that not only understand basic substantive and procedural laws, but who also have a sufficient understanding of other related science disciplines. These links provide evidence of what Pring and Pring defined as an effective ECT, which results from the unique combination of various elements. At the operational level, the

²⁹⁹ Justice Takdir Rahmadi, 'Reform Program in the Case Management: The Indonesia Judiciary Experience' (Paper presented at the ASEAN Law Association) 7–8 <<https://www.aseanlawassociation.org/11GAdocs/workshop2-indo.pdf>> (accessed on 12 February 2019).

need for competent and knowledgeable court members may determine whether a panel consists of judges and other members with a scientific background or whether it is sufficient to only have law-trained judges, but with a deeper understanding of the related non-legal aspects. The chosen composition of the panel will determine the required set of competencies by judges and other members in handling environmental cases, as well as the method of capacity-building required. In this context, this thesis will discuss these important aspects in more depth by using the best practices in various countries as a reference.

Thus, this chapter identifies some priority issues in establishing a specialised environmental court. The first issue is deciding the best model of environmental court based on the legal and judicial system in Indonesia. Irrespective of the model chosen, it might not work effectively without ensuring the effectiveness of other important characteristics. Thus, the analysis should focus on challenges and areas for improvement—for example, judges’ competence, which includes their ability to deal with scientific evidence.

In regard to competence, despite improvements in the decisions made in environmental cases, some areas need improvement, including the methodology of training, analysis of decisions made by certified judges and the availability of comprehensive education for judges to maintain and improve their competence. Further, to empower judges to deal with scientific evidence, there is a need for policy reform of evidentiary rules relating to environmental case handling. In regard to jurisdiction, there is a need to clearly define what constitutes an environmental case. Recent attempts to define an environmental case have been too broad and do not clearly distinguish between environmental and non-environmental issues.

3.8 Conclusion

Within the institutional structure of the environmental adjudication system in Indonesia, this thesis argues that the development of environmental adjudication is moving in a positive direction to create a more effective and efficient mechanism to handle environmental cases. In this development, the establishment of the ECS plays a crucial role by facilitating a better process for handling environmental cases. The ECS enjoys the availability of judges with special competence supported by special training, an M&E system and procedural guidelines for environmental cases handling. A number of certified judges have made decisions that have established important legal principles. In applying such principles, this chapter presents evidence of how courts in a civil law country become proactive, including by treating previous decisions as illustrative in making judgments. The list of decisions in environmental-related cases presented in this chapter illustrates

the increase in the type of environmental problems and some emerging legal issues in environmental adjudication. This includes the role of scientific evidence in some successful lawsuits, the use of SLAPP's suit to environmental defenders, the active role of the MoEF in bringing civil forest fire cases to court and potential human rights violations of large government projects.

The analysis of the characteristics of effective ECTs identified some priorities in the Indonesian context. First, there is a need to choose the best model of environmental court within the legal and judicial system in Indonesia. There are some possible court models available under the judicial structure in Indonesia; however, the best model should take into account the analysis of other characteristics. In relation to judges' competence, despite improvements in the decisions made in environmental cases, some areas need improvement. To empower judges to deal with scientific evidence, there is a need for policy reform of evidentiary rules relating to environmental case handling—particularly judges' capacity to assess whether the opinion of an expert witness on scientific evidence is generated from a valid scientific method based on the expert's specialised knowledge that is relevant to the case. In regard to jurisdiction, there is a need to clearly define what constitutes an environmental case. Recent attempts to define an environmental case have been too broad and do not clearly distinguish between environmental and non-environmental issues.

Although there have been some problems when making sound decisions in environmental cases within the above development, the management of environmental adjudication reforms is inextricably linked with the management of overall judiciary reforms. Thus, this requires the identification of problems within the overall institutional structure of the Indonesian judiciary—particularly in areas that are directly relevant in the handling of environmental cases, such as the availability of competent and knowledgeable judges, the jurisdiction of the court and access to scientific expertise within and outside the court. An analysis of the problems and the links between the two reform areas is important when identifying the status of the development of the reform agenda and the challenges it faces during implementation. The results of the analysis will give decision-makers evidence-based information to help them make strategic decisions regarding the most appropriate special environmental court model—in particular, in analysing the relevance, applicability and priority of the characteristics of effective ECTs in the Indonesian context.

While the existing law provides an adequate basis for the law-making role of judges, there are problems in implementing this role to make a judgment. Thus, in light of the objective of the environmental adjudication reforms to promote better-quality decisions, all initiatives—in particular, environmental law training—should address the major problems. The application of

important environmental law principles should be a means to give judges better skills and a greater understanding to interpret the relevant laws and apply the principle to promote their law-making role in environmental cases. This should be an important consideration for further advancement of the system.

Chapter 4: Competence of the Judiciary in Handling Environmental Cases in Indonesia

4.1 Introduction

Competence in HRM encompasses an individual's technical and non-technical skills—the quality of which can be measured by certain performance indicators. The complexity of environmental cases requires judges and other decision-makers to possess a special competence to receive, examine and decide a case. In addition to understanding substantive environmental law, judges must have a sufficient level of understanding of other relevant disciplines. A system is needed to ensure the sustainability of the competence. Along with the other features of effective ECTs, existing competent judges and other judicial decision-makers will facilitate the creation of better-quality judgments¹ as well as uniformity and consistency of decisions on environmental cases.²

Although some areas require improvement, some decisions made by certified judges have established important legal principles. This chapter analyses the development of judicial competence in Indonesia in handling environmental cases—especially within the ECS. It outlines some initiatives that have been undertaken—especially by the Supreme Court—to strengthen environmental adjudication and improve judges' competence. It covers a wide range of initiatives both within and outside the judiciary. Further, this chapter conducts an in-depth analysis of the status of competencies and progress in developing and maintaining judges' competence in Indonesia. In doing so, this chapter analyses some of the environmental jurisprudence made by certified judges by using a case analytical framework.

The first part of this chapter provides a brief overview and analysis of some studies that have attempted to define and classify competence. It aims to provide a theoretical framework to analyse the extent to which the existing set of judges' competencies under the ECS refer to the proposed definitions and classifications. The next section assesses the development of a system and mechanism for improving and maintaining competence within the Supreme Court. As part of this process, this chapter also analyses two selected decisions on forest fires, focusing on how judges identified, interpreted and applied the law in their decisions. Building upon these analyses, this

¹ Markus B Zimmer, 'Overview of Specialized Courts' (2009) 2(1) *International Journal for Court Administration* 1, 2.

² George Pring and Catherine Pring, *Greening Justice: Creating & Improving Environmental Courts & Tribunals* (The Access Initiative, 2009) 15.

chapter discusses the development of judges' competence in Indonesia in handling environmental cases—especially within the ECS—and identifies areas that require improvement.

4.2 Conceptualising the Competence of Judges in Handling Environmental Cases within the Environmental Certification System

This chapter raises two important issues relating to the judiciary's competence in handling environmental cases in Indonesia: (1) the extent to which the current set of competencies of environmental judges under the ECS meets the element of competence; and (2) the availability of a clear and comprehensive system to maintain and improve the competencies. In relation to the first issue, the pertinent literature discussing the definition and classification of competence is examined, followed by an assessment of the extent of the ECS's competence falling within the definitions and classifications of competence. In relation to the second issue, the results of the analysis of the characteristics of competence in Chapter 2 are used to assess the system that has been developed and implemented under the ECS to maintain and improve such competence.

4.2.1 Theories of Competence and Their Classifications

Competence has been discussed in many studies—especially in relation to HRM³—and some have discussed a particular country's experience.⁴ However, there is a debate concerning the definition of competence. It is not easy 'to identify or impute a coherent theory' to establish a definition that integrates all of the different ways in which the term is used.⁵ Indeed, 'multidimensional' and 'multicultural' theories of competence create problems in establishing a precise definition of competence.⁶ The attempt to create a technical definition of the tacit knowledge of competence has become 'shrouded in theoretical confusion and the apparently simple has become profoundly complicated'.⁷

³ See, for example Charles Woodruffe, 'What is Meant by a Competency?' (1993) 14 *Leadership & Organization Development Journal* 29; Jürgen Mühlbacher, Michaela Nettekoven and Anna Putnová, 'Competence Development in the Czech Republic' (2009) 5(2) *Journal of Global Business and Technology* 15; Françoise Delamare Le Deist and Jonathan Winterton, 'What is Competence?' (2005) 8(1) *Human Resource Development International* 27; Franklin Hartle, *How to Re-Engineer Your Performance Management Process* (Kogan Page, 1995).

⁴ Emmanuel Erundu and Alex Sharland, 'Managerial Competence in Nigerian Firms: An Empirical and Comparative Analysis' (2002) 10(2) *Multinational Business Review* 129; Judy Pate, Graeme Martin and Marc Robertson, 'Accrediting Competencies: A Case of Scottish Vocational Qualifications' (2003) 27(2/3/4) *Journal of European Industrial Training* 169.

⁵ Delamare Le Deist and Winterton, above n 3, 29.

⁶ Erundu and Sharland, above n 4, 129.

⁷ Nigel Norris, 'The Trouble with Competence' (1991) 21(3) *Cambridge Journal of Education* 331, 332.

Despite this debate, some researchers have attempted to define what is meant by competence. Several bases are taken into consideration to determine the definition of competence.⁸ Richard E. Boyatzis defined competencies as follow:

Competencies are characteristics that are casually related to effective and/or superior performance in a job. This means that there is evidence that indicates that possession of the characteristics precedes and leads to effective and/or superior performance in a job.⁹

According to Charles Woodruffe, competence refers to ‘one of the sets of behaviours that the person must display in order to perform the tasks and functions of a job with competence’.¹⁰ In addition, Franklin Hartle defined competence as ‘a characteristic of an individual that has been shown to drive superior job performance’.¹¹ It which includes knowledge, skills, traits and motive.¹² Furthermore, Iain L. Mangham stated that competence may relate to personal models, outcome models or education and training models, as well as to the standard approach in which benchmarking criteria are used.¹³

Specialised knowledge can be identified from the overall competence. Boyatzis argued that ‘to be effective in carrying out their respective responsibilities, each must have some competencies that differ from the other’s’.¹⁴ For example, to solve a problem with a computer with moderate risks, one requires skills to ensure ‘a minimum of computer function time, a minimum of time spent (i.e., cost of labour) and a minimum of replacement parts (i.e., cost of materials)’.¹⁵ According to Boyatzis, ‘knowledge refers to the retention of information, whether that information is technical or a method of communication’.¹⁶ In this regard, he further argued that ‘the ability to utilise knowledge effectively is the result of other competencies that involve ways of thinking and reasoning’.¹⁷ Regarding the notion of ‘specialised’, he further noted that ‘some factual information

⁸ See, for example, Pate, Martin and Robertson, above n 4.

⁹ Richard E Boyatzis, *The Competent Manager: A Model for Effective Performance* (John Wiley & Sons, 1982) 23.

¹⁰ Charles Woodruffe, *Development and Assessment Centres: Identifying and Assessing Competence* (CIPD Publishing, 2000) 87.

¹¹ Hartle, above n 3, 107.

¹² Delamare Le Deist and Winterton, above n 3, 29.

¹³ Iain L. Mangham, ‘In Search of Competence’, 12 *Journal of General Management* 2, 5–12. As quoted by Jonathan Winterton et al, ‘Typology of Knowledge, Skills and Competence: Clarification of the Concept and Prototype’, Centre for European Research on Employment and Human Resources, 26 January 2005, 12.

¹⁴ Boyatzis, above n 9, 24.

¹⁵ Ibid.

¹⁶ Ibid 26.

¹⁷ Ibid.

may be irrelevant to performance in a particular job'.¹⁸ Specialised knowledge is considered a type of competence for two reasons:

First, there are different level of knowledge ... Second, any particular set of facts and concepts may be used in the demonstration of a number of different competencies. If it were merely another level of competencies, specialised knowledge relevant to each type of competency would be distinguishable.¹⁹

With no classification framework, it is even more difficult to conceptualise and operationalise managerial tasks.²⁰ Researchers have listed several ways to classify competencies. For example, R. Jacob classified them into soft and hard competencies, whereby analytical and organisational competencies are considered hard competencies, and creativity, interpersonal and behavioural skills are soft competencies.²¹ However, Woodruffe criticised this classification, arguing that:

[S]oft competencies are really no different from hard competencies. They are all descriptions of regularities in behaviour, and none of them explains behaviour. In short, although at first sight attractive, the hard-soft distinction proves on reflection to be artificial.²²

Despite these criticisms, the scheme of classifying competencies into soft and hard skills is still popular and in practice.²³

Further, Boyatzis classified competencies into threshold and performance competencies, stating that threshold competencies are 'a person's generic knowledge, motive, trait, self-image, social role, or skill which [is] essential to performing th job, but is not casually related to superior job performance'.²⁴ In contrast, performance competencies differentiate between average and excellent performers.²⁵ However, as argued by Woodruffe, this distinction 'is a matter of degree rather than category'.²⁶ He further argued that '[p]eople should be assessed on all competencies

¹⁸ Ibid.

¹⁹ Ibid 27.

²⁰ Saquib Yusaf Janjua, Malik Asghar Naeem and Farrukh Nawaz Kayani, 'The Competence Classification Framework: A Classification Model for Employee Development' (2012) 4(1) *Interdisciplinary Journal of Contemporary Research in Business* 396, 396.

²¹ R Jacob, 'Getting the Measure of Managerial Competence', *Personnel Management* 21(6), 32–37 as quoted in Janjua, Naeem and Kayani, above n 20, 397.

²² Woodruffe, 'What is Meant by a Competence?', above n 3, 34.

²³ See especially, Elizabeth Rainsbury, Dave Hodges and Noel Burchell, 'Rangking Workplace Competencies: Student and Graduate Perceptions' (2002) 3(2) *Asia Pacific Journal of Cooperative Education* 8.

²⁴ Boyatzis, above n 9, 23.

²⁵ Richard E Boyatzis, *The Competent Manager: A Model for Effective Performance* (Wiley, 1982) as quoted in Janjua, Naeem and Kayani, above n 20, 397.

²⁶ Woodruffe, 'What is Meant by a Competence?', above n 3, 34.

relevant to the job and should be given the opportunity to develop all of them'.²⁷ Further, H Kasper and others categorised classes of competencies into: (1) self-dispositive competencies (representing the self-organised use of one's own resources, such as time and know-how); (2) methodological competencies (comprising all analytical and solution-oriented behaviours); (3) social–communicative competencies (covering the area of social interaction); (4) leadership competencies (leadership, motivation and personnel development); and (5) personal competencies (mainly manifested in extraordinary personality traits).²⁸

Observing some similar characteristics, Saquib Yusaf Janjua and others categorised the competencies into five classes in sequence and hierarchical form drawn upon from various literature:²⁹

1. Functional competence, consisting of professional skills, abilities and technical knowledge and dealing specifically with the technical aspects of the job that are essential for carrying out specific functional or task-related activities.³⁰ It consists of aspects that focus on acquiring proficiency in handling tools and machines. In this sense, it includes vocational and technical skills that are essential to accomplish the task-related objectives of the job. The second aspect relates to the functional and subject-specific knowledge of the job, which is essential to accomplish the functional-related objectives of the job.³¹
2. Generic management competency, which is more common in management-related jobs and is required in all managerial jobs irrespective of the nature of the business, industry, hierarchy and function of the job.³²
3. Social or interpersonal competence, which covers the wide range of skills and behaviours that enable managers to work effectively with a team.³³
4. Cognitive ability, which includes the ability of an individual to solve work-related problems more efficiently.³⁴ It includes creativity, analytical capacity, systematic thinking and the ability for which a wide range of cognitive thinking skills is essential.³⁵

²⁷ Ibid 34.

²⁸ H Kasper, J Mühlbacher and L von Rosenstiel, 'Manager-Kompetenzen im Wandel' (2005) 74(5) *Zeitschrift Führung + Organization* 260 as quoted in Mühlbacher, Nettekoven and Putnová, above n 3, 17.

²⁹ Janjua, Naeem and Kayani, above n 20, 398-399.

³⁰ Ibid 398.

³¹ Ibid.

³² Ibid 399.

³³ Ibid.

³⁴ Ibid.

³⁵ Odd Nordhaug, 'Competence Specificities in Organizations: A Classificatory Framework' (1998) 28(1) *International Studies of Management & Organization* 8, 10.

5. Motivational personal characteristics, which are the competencies that represent the stable part of one's personality that cannot be easily changed or developed through formal learning and development programs.³⁶

Therefore, significant attention should be given to the assessment of motivational personal characteristics while undertaking recruitment, promotion and work placement.³⁷ These acts must include, achievement orientation, willingness to learn, self-confidence, ambition, integrity and honesty, and patience and assertiveness.³⁸

The above literature review shows that competence refers to the capacity or characteristics of an individual that determine the performance of the organisation. In this regard, competence might be developed based on a specific objective that can be measured using certain criteria. Depending on the expected output of such competence, it can be set up to achieve a specific goal and objective of the organisation. This study observes that competence can be developed based on a specific area and depending on the nature of the organisation. That is, the objective of the organisation determines what special competence are needed. Assessing the performance of competencies helps to focus on which areas need improvement. This will determine the type of process and mechanism needed to develop the competence and to measure its performance.

Building upon the above analysis, this study identifies the following features of competence: (1) it encompasses an individual's technical and non-technical skills; (2) it determines the performance of the organisation; and (3) depending on the main aims of the organisation, competencies can be designed or modified to achieve a specific goal. This modification requires a complete set of competencies at the individual level, as well as clear benchmarks to measure their performance.

In addition to the above attempts to define competence, scholars have classified competencies to provide guidance to ensure and maintain competence at the operational level. Jacob's definition, which classifies competencies into hard and soft, is popular in the HRM literature. Hence, classifications by Casper et al and Saquib et al can be merged into five aspects of competence: (1) basic competence related to their role and task (self-dispositive, functional competence); (2) the ability to deal with managerial issues (leadership, generic management competence); (3) ability to communicate with others and work as a team (social communication, social and interpersonal competence); (4) analytical and innovation skills (methodological competence,

³⁶ Janjua, Naeem and Kayani, above n 20, 399.

³⁷ Robert Hogan and Rodney Warrenfeltz, 'Educating the Modern Manager' (2003) 2(1) *Academy of Management Learning & Education* 74, 74-84.

³⁸ Janjua, Naeem and Kayani, above n 20, 399.

cognitive ability); and (5) motivation to improve individuals' performance (personal competence, motivational personal characteristics).

4.2.2 Competence of Judges in Relation to the Environment in Indonesia

At the 2011 Inaugural ASEAN Chief Justices' Roundtable on Environment, Justice Paulus E Lotulung emphasised the need for competent judges:

There are also instances where good laws are rendered meaningless by poor implementation, and it can be better to simply have bad laws but with *good judges* (emphasis added).³⁹

Justice Lotulung expressed hope that the new generation of justices in Indonesia would have competence, awareness and commitment, and he requested that the new judges of Indonesia protect his cherished environment.⁴⁰ This statement and hope represent the need for competent and knowledgeable judges in the judiciary.

Enhancing competence among judges is occurring within the overall judiciary system. The bureaucratic reform program follows the competency-based HRM system. This system requires the Supreme Court to have a list of competencies and to formulate a profile of competence—known as the job's competence standard (*Standar Kompetensi Jabatan*).⁴¹ The job's competence standard is a description of the knowledge, skills and behaviour required of a state apparatus to carry out office duties.⁴² The profile of competence provides a detailed explanation of the competence and its behaviour indicators.⁴³ It is a prerequisite for placement and has become a foundation for the human resources development scheme. Further, developing the job's competence standard requires an alignment of the overall vision and mission of the organisation. Thus, competence is a key element in efficiency-based HRM.

The Supreme Court developed its profile of competence as a system to be implemented in HRM. The profile translates the vision and mission of the Supreme Court,⁴⁴ which defined competence as a basic capacity consisting of skills, knowledge, attitudes and behaviours that can be measured

³⁹ Kala K Mulqueeny and Francesse Joy Cordon (eds), *Inaugural ASEAN Chief Justices' Roundtable on Environment: The Proceedings* (ADB, 2013) 4 <https://www.ajne.org/sites/default/files/document/conference_proceedings/5386/asean-chief-justices-roundtable-web.pdf> (12 February 2019).

⁴⁰ Ibid.

⁴¹ Decree of Ministry of State Apparatus Empowerment and Bureaucratic Reforms No 38 of 2017 on Job's Competence Standard of State Apparatus, art 1(1).

⁴² Ibid.

⁴³ Ibid arts 5 and 6.

⁴⁴ 'Penyusunan Peta Jalan Lima (5) Tahun Reformasi Manajemen Sumber Daya Manusia Mahkamah Agung Republik Indonesia (The Development Five Years Work Plan of the Bureaucratic Reform on Human Resources in the Supreme Court of Indonesia)' (Report, European Union [EU], UNDP, Supreme Court of Indonesia, July 2016) 45–46.

based on performance.⁴⁵ The profile categorises competence into two major classifications: (1) primary competence and (2) functional competence.⁴⁶ Primary competence consists of integrity, public service orientation, independence and professionalism. These competencies are for the Supreme Court, which has ultimate authority over its subordinate courts. In contrast, functional competence is a specific competence for courts (both district and high courts) in relation to their operationalisation. It consists of technical competence and functional competence. Functional competence relates to the ability of an individual judge to receive, examine and decide a case (e.g., case management, managing hearings, making legal arguments and making decisions). However, this profile of competence has not yet been formalised within the bureaucratic reform program. As a result, no formal activity has been undertaken to assess technical competence based on detailed indicators.⁴⁷ An assessment was conducted in 2014 as a prerequisite of the increase in remuneration by involving professional HRM firms.⁴⁸

Based on the profile of competence, the Supreme Court established special competencies needed by certified environmental judges under the ECS. It expanded and classified the above general competencies into seven areas of competence covering knowledge, skills and behaviour.⁴⁹ In terms of knowledge, certified judges should have understanding of: (1) environment and natural resources principles; (2) environmental laws; (3) the politic of environmental protection and management; and (4) environmental ethics.⁵⁰ In terms of skills, judges should use the applicable procedural law when hearing the case. In environmental cases, some procedural laws deal with specific environmental issues.⁵¹ Sometimes the law cannot keep up with the number of emerging environmental cases. Thus, as part of their competencies, judges should be active in discovering new laws through legal interpretation, legal argumentation and *rechtsvinding*.⁵² Finally, in terms of behaviour, in addition to the abovementioned hard competencies, there are also soft competencies for certified judges, such as integrity.⁵³

⁴⁵ Ibid.

⁴⁶ Herri Swantoro, *The Development of Primary Competence in the Supreme Court and Functional Competence in General Court and High Court (The Development of Primary Competence in the Supreme Court and Functional Competence in General Court and High Court* <https://badilum.mahkamahagung.go.id/upload_file/img/article/doc/persentasi_Dirjen_Kompetensi.pdf> (12 February 2019).

⁴⁷ Interviews with Judhi Kristantini and Astriyani (17 December 2018). Both have been involved in the development of the profile competence within the Supreme Court of Indonesia.

⁴⁸ Ibid.

⁴⁹ Decree of the Supreme Court of Indonesia No 26/KMA/SK/II/2013 on Selection and Appointment System for an Environmental Judge.

⁵⁰ Ibid.

⁵¹ Ibid.

⁵² Ibid.

⁵³ Ibid.

To ensure that certified judges possess this set of competencies, the ECS internalises the set at all stages: training, selection process and placement mechanism.⁵⁴ In addition, the ECS has an M&E system in place to measure the adequacy of the training methodology and the progress of the knowledge and skills that the participants gained from the training.⁵⁵ The working group of the ECS used the competence of environmental judges as the main reference when developing the training curricula. For example, the training included courses on scientific evidence that aimed to increase participants' knowledge on scientific issues relevant to the case by having scientists present on particular issues (e.g., forest fire cases, water pollution cases and illegal logging cases).

The competencies of certified judges align with the following aspects identified in the literature review. First, the competencies relate to an individual's abilities—in this context, the competence of a judge in handling environmental cases. Second, ECS competencies can be classified as hard or soft. A hard competence basically consists of technical competence and functional competence, which consists of competencies related to knowledge and skills. In contrast, the competence of integrity under the ECS can be classified as a soft competence. The competence of judicial activism (e.g., discovering a new law is part of the skill of innovation) combines both hard and soft competence. Using the five classifications identified above, understanding the procedures involved in handling environmental cases and judicial activism can be part of the analytical and innovation skills (methodological competence, cognitive ability). Further, understanding the sustainable development principle is part of building a passion that combines both functional competence and motivational personal characteristics. In this respect, judges should understand how the nature work and the impact of environmental problems for nature and wellbeing. For example, in a forest fire case, the judges' understanding of the 'fire triangle' might help them in the identification of the cause of the fire.⁵⁶ These sets of competencies require a clear and comprehensive system to maintain and improve the competencies on a continuing basis.

4.3 Analysis of Continuing Professional Development

There are at least three preconditions that ECTs must have in place to ensure they are supported by knowledgeable and competent judges. First, judges should ideally already have prior environmental literacy or be trained to be environmentally knowledgeable. In this respect, Pring and Pring argued:

⁵⁴ Ibid.

⁵⁵ Ibid.

⁵⁶ 'Teaching Module of Environmental Judge Certification', (Teaching Module, the Supreme Court of Republic of Indonesia and ICEL, 2014), 193–194.

The need for initial and on-going training of judges in *environmental law, ecology, and environmental decision-making* is recognised internationally as critical to effective environmental jurisprudence, and therefore access to justice (emphasis added).⁵⁷

To ensure that judges have sufficient knowledge of environmental issues, they need to be educated about the above component of competence. In this aspect, Preston said:

There is a need for education for judges and other member who are to be appointed to a specialised ECT as well as *continuing professional development* judges and other ECT members during their tenure (emphasis added).⁵⁸

Second, according to Preston, to achieve the outcome, opportunities must be provided to deal with an adequate caseload.⁵⁹ The quantity of environmental cases is relatively small compared with the total cases received by the general and administrative courts. Chapter 6 analyses this aspect in more detail when discussing the ECS. Third, maintaining and improving this competence requires a good support system that consists of a clear career development path, a salary and a transparent selection process,⁶⁰ as well as access to the same career advancement opportunities as their generalist counterparts and opportunities for promotion to higher general courts.⁶¹ The handling of environmental cases by the general and administrative courts has produced unsatisfactory outcomes for the environmental cause. Thus, the career development path, salary and other allowances must be reasonable enough to attract environmentally competent judges.

4.3.1 Environmental Law at Universities

Handling environmental cases in court requires the ability to develop a legal framework, understand the rule that should be applied to the case, gather relevant evidence as a factual inquiry and finally draw an inference from the facts.⁶² Thus, maintaining these abilities requires sufficient practical experience and education. In Indonesia, people formally start learning environmental law at university. The subject was integrated as part of the law curricula in 1995 when ‘Badan Kerjasama FH PTN’ agreed to include environmental law as a compulsory subject.⁶³ During the discussion, Professor Koesnadi Hardjasoemantri from the University of Gajah Mada (UGM)

⁵⁷ Pring and Pring, above n 2, 73.

⁵⁸ Brian J Preston, ‘Characteristics of Successful Environmental Courts and Tribunals’ (2014) 26(3) *Journal of Environmental Law* 365, 377.

⁵⁹ Ibid 367.

⁶⁰ Pring and Pring, above n 2, 75.

⁶¹ Ibid.

⁶² Interview with Justice Brian J Preston, Chief Judge of the LECNSW, Australia (22 May 2017).

⁶³ Interview with Andri G Wibisana, Lecturer of Environmental Law, University of Indonesia (22 August 2016).

played an important role in proposing environmental law as a compulsory subject in the law faculty.⁶⁴ Since then, some law faculties have introduced environmental law as a new, compulsory subject.

In practice, the teaching of environmental law faces some challenges. First, law faculties are still in their development phase to improve the quality of teaching in environmental law. As a result, there is varying quality in the teaching and understanding of environmental law principles among lecturers.⁶⁵ For example, there are different levels of understanding of the strict liability concept. Second, the curricula in law faculties appear to focus more on the theoretical aspects of environmental law than the practical aspects.⁶⁶ This portion has recently been increased at the University of Indonesia, which is the oldest university in Indonesia. The university allocates six hours for cases analyses and six hours for enforcement aspects, which is 40% of a total of 30 hours in one semester.⁶⁷ Besides, not all incumbent judges have studied the subject; many of them graduated from university before environmental law was integrated into the law curricula in 1995.

4.3.2 Training at the Supreme Court

Judges also have an opportunity to learn about environmental law from different levels of institutionalised training. Within a competence-based HRM,⁶⁸ the Supreme Court developed training based on core and job competencies for judges in the district courts and the high court.⁶⁹ It consists of training for candidate judges, sustainable technical judicial training, training for certified judges (*Pelatihan Sertifikasi*), training for senior judges and training for ad hoc judges.⁷⁰ To become a judge, applicants must follow a recruitment process. If they pass the entire process, they will be a candidate to become a judge (*Calon Hakim*) and will attend compulsory Integrated Training Program for Candidate Judges (*Program Pendidikan Calon Hakim Terpadu*).⁷¹

The program combines in-class training and on-the-job training for two years to prepare students to become judges. The curricula related to environmental law is limited and only briefly covers the topic.⁷² However, the training provides integrated curricula on substantive and procedural

⁶⁴ Ibid.

⁶⁵ Ibid.

⁶⁶ Interview with Nadia Astriani, Secretary of the Environmental Law Lecture Association (20 March 2018).

⁶⁷ Faculty of Law, University of Indonesia, 'Environmental Law Curriculum' (FHUI, 2016).

⁶⁸ Supreme Court of the Republic of Indonesia, *The 2010 Supreme Court Annual Report*, Annual Report (2010) 265.

⁶⁹ Interview with Judhi Kristantini (17 December 2018).

⁷⁰ 'The 2010 Supreme Court Annual Report', above n 68, 164.

⁷¹ Decree of the Chief Justice of the Supreme Court of the Republic of Indonesia No 169/KMA/SK/X/2010 on the Integrated Training Program for Candidate Judges ('Program Pendidikan Calon Hakim Terpadu').

⁷² Ibid.

aspects of civil, criminal and administrative laws covering topics such as the law of evidence, rule of interpretation and valuation of damage.⁷³ Judges use both substantive and procedural aspects in handling environmental cases. A situation that limits the coverage of environmental subjects is that training curricula for candidates have to accommodate other subjects needed for candidate judges.⁷⁴

A lack of legal experience, especially in handling environmental cases, might affect the way judges handle environmental cases—particularly because of the complexity of environmental cases. The need to produce good-quality decisions is more difficult as a result of limited pre-education and training. In the LECNSW, the judges were to be judges of a superior court of records or lawyers of at least seven years' standing, preferably with knowledge and expertise in matters within the jurisdiction of the court or who could otherwise develop such knowledge and expertise.⁷⁵ Another example is the NGT in India, in which the selection of NGT members should follow a 'high standard' requirement in which the chairperson requires a former Supreme Court judge or chief justice of the high court, along with former high court judges for other 'legal members'.⁷⁶

Based on the above description, this study identifies three areas for improvement. First, there is a need to create a more balanced approach in teaching the theoretical and practical aspects of environmental law. Case-based materials will improve students' understanding of how to apply facts to the legal framework to make a decision about the legal issue at hand. Second, the role of association is critical to ensure that there is the same understanding of the principles of environmental law among lecturers. Third, there is a need to link judges' competence—particularly that of the ECS—and the curricula of environmental subjects at universities. For example, an understanding of the concepts of strict liability and class action, along with case study analysis, should already have been provided at university. The IASTP training provided these two substantive aspects of environmental law to judges for the first time.

4.3.3 Training Curricula of the Environmental Certification System

Within the compulsory Integrated Training Program for Candidate Judges, the Supreme Court provides training for certified judges on environmental law. Currently, judges receive this type of training under the ECS scheme. However, they should have passed the recruitment under the ECS.

⁷³ Ibid.

⁷⁴ Interview with Sari Seruni, Consultant of the Supreme Court's Training Center (21 March 2018).

⁷⁵ *Land and Environment Court Act 1979*, art 8(2).

⁷⁶ *National Green Tribunal Act (India) 2010*, art 5.

Judges must have a minimum of 10 years' experience to attend the certification training.⁷⁷ The main objective of the training is to improve judges' competence in handling environmental cases.⁷⁸ To this end, as a specific objective, the training provides a detailed explanation in attaining competencies by measuring and assessing competencies objectively.⁷⁹ The training equips judges with special competence to handle environmental cases. The curricula set both general and specific training objectives.

Employing an adult teaching model, the training enables participants to share their experience and knowledge. The curriculum refer to *The Adult Learner: The Definitive Classic in Adult Education and Human Resources Management* which lists six elements of the adult teaching method: (1) participants should know the objective of the learning (what, why and how); (2) participants should have opportunities to develop their concept and self-responsibility; (3) learning should occur based on participants' experiences—even mistakes; (4) readiness of participants—related to their work and life; (5) it should aim to find solutions to problems rather than only explaining one's subject; (6) participants should be self-motivated.⁸⁰ In this approach, the training uses a problem–solution orientation based on the participants' knowledge and experience by ensuring that specific issues are addressed in all stages (presentation, question and answer, and case study/analysis).

The next section summarises the content of the training to illustrate the subjects that are covered to build the competencies of the ECS. Other countries might find these elaborations useful when developing their own.⁸¹ This study classifies the coverage of ECS training materials into three sections. First, the aspect of environmental decision-making emphasises the role and position of judges in environmental protection. In doing so, this section provides an understanding of the politic of law concerning environmental management and protection. Second, the substantial aspect of environmental law includes criminal, civil and administrative law and enforcement, as well as ADR. The third section is a specific aspect of scientific evidence and environmental valuation.

⁷⁷ Decree of the Chief Justice of the Supreme Court of the Republic of Indonesia No 134/KMA/SK/IX/2011 on Certification of Environmental Judges 2011, art 6, point (2).

⁷⁸ 'Teaching Module of Environmental Judge Certification', above n 56, 8.

⁷⁹ Ibid.

⁸⁰ Knowles, Holton and Swanson, *The Adult Learner: The Definitive Classic in Adult Education and Human Resources Management* (Elsevier, 6th ed, 2005) as quoted in Decree of the Supreme Court of Republic of Indonesia No 26/KMA/SK/II/2013 on Selection and Appointment System for an Environmental Judge Attachment III.

⁸¹ A Chinese delegation visiting the Sydney Law School requested this translation of the curricula during their visit to Sydney Law School (courtesy by Ben Boer, Professor Emeritus of the Sydney Law School), 25 September 2015.

4.3.3.1 Aspect of Environmental Decision-Making

To increase participants' understanding of their role in environmental protection, the first part of the training curricula covers the landscape of environmental problems to illustrate how they occur and how they affect environmental quality.⁸² Based on this, participants then learn about their role in protecting the environment.⁸³ Preston stated:

The judiciary has a role to play in the interpretation, explanation, and enforcement of laws and regulation ... to play this role in the achievement of ecologically sustainable development.⁸⁴

To this end, the training describes some domestic and international 'role model' judges that have applied important environmental law principles.⁸⁵ Preston explained how the decision in *Telstra Corporation Ltd v Hornsby Shire Council*⁸⁶ referenced judicial decisions from various jurisdictions and the International Court of Justice (ICJ) on precautionary principles,⁸⁷ including *Hungary v Slovakia*,⁸⁸ *Re Gabcikovo-Nagimaros Project (Danube Dame case)*⁸⁹ and *Zia v WAPDA*.⁹⁰ In the Indonesian context, this approach is relevant to the application of judicial activism in handling environmental cases, which is also taught in the training. On this subject, the training explains and discusses the definition of judicial activism, why judges should employ it in handling environmental cases and its application in the Indonesian legal system and culture.⁹¹

The next part of the training curricula addresses the sustainable development principle. It elaborates the concept by discussing the integration principle, sustainable use, intergenerational equity and the precautionary principle,⁹² including how these principles are relevant to the adaptation and mitigation of climate change.⁹³ To this end, it discusses its origin, application by courts and contextualisation with current challenges. The decision in *Dedi cs v PT Perhutani*⁹⁴ provides an interesting example of the application of international environmental principles in

⁸² 'Teaching Module of Environmental Judge Certification', above n 56, 22.

⁸³ Ibid.

⁸⁴ Preston, above n 58, 386.

⁸⁵ 'Teaching Module of Environmental Judge Certification', above n 56, 22.

⁸⁶ *Telstra Corporation Ltd v Hornsby Shire Council* (2006) 146 LGERA 10 ('*Telstra*').

⁸⁷ Preston, above n 58, 389.

⁸⁸ *Hungary v Slovakia, Re Gabcikovo-Nagimaros Project* [1997] ICJ Rep 7.

⁸⁹ Ibid.

⁹⁰ *Zia v WAPDA* [1994] PLD SC 693.

⁹¹ 'Teaching Module of Environmental Judge Certification', above n 56, 35–45.

⁹² Ibid 54–94.

⁹³ Ibid 99–100.

⁹⁴ *Dedi cs v PT Perhutani et al* [2003] Decision of the District Court of Bale Bandung No 49/PdT.G/2003/PN. Bdg. (4 September 2003) ('*Dedi v PT Perhutani*').

Indonesia. This decision is regarded as important because it incorporated the precautionary principle. However, this study found that the court did not adequately assess the threshold requirement of the precautionary principle when applying it. The EPML adopted this principle in the definition section (*ketentuan umum*). However, the definition did not guide the court in assessing the threshold requirement of the precautionary principle. The Supreme Court guideline for handling environmental cases provides a further explanation of this principle.

The course also highlights the inextricable link between spatial planning and the management and protection of the environment.⁹⁵ The course expects participants to have an adequate and clear understanding of the definition, role and function of spatial planning. Thus, the training explains the stages of the development of spatial planning, which consists of planning, spatial use and control. With this knowledge, participants are expected to understand the need to protect the environment in every stage of the spatial planning development activities. Further, equipping participants with an adequate understanding of the politic of law concerning environmental management and protection is important because: (1) strong environmental regulations require concrete actions of internalising of environmental policies into other policies among agencies.⁹⁶ For example, in the development of the Planning of Environmental Protection and Management (RPPLH) and KLHS at the national, provincial and district levels; and (2) effective leaders are required who have competence in technical, legal, managerial and ethical matters.⁹⁷ An adequate understanding of the political dynamic and structure of environmental management and protection aims to help participants understand how the regulation works in practice, as well as its relevance to decisions.

4.3.3.2 *Aspects of Environmental Law*

In the criminal aspect, the course gives participants an understanding of various substantial and procedural aspects of criminal environmental law. Participants learn in what situation an action is considered polluting or damaging, as well as its relationship to environmental standards, in three respects: (1) differences between material and formal delicts; (2) the intersection between criminal and administrative emerges in the implementation of the *ultimum remedium* principle and the *premium remedium* principle; and (3) corporate criminal liability (CCL).⁹⁸ The civil aspect covers the type and basis for a proceeding. Type explains the difference between a proceeding brought by an individual, an environmental NGO's standing, class action, citizen suit and the government's

⁹⁵ 'Teaching Module of Environmental Judge Certification', above n 56, 113.

⁹⁶ Ibid 124.

⁹⁷ Ibid 124

⁹⁸ Ibid 151–152.

standing. Grounds for a proceeding explains two types of civil liability, as discussed in Section 3.4.1. In the administrative law aspect, the training gives participants an understanding in two areas. The first area is environmental licence, supervision and administrative sanctions. Second, the training provides knowledge on the procedural and substantive aspects of administrative procedural law in relation to environmental cases. The procedural and substantive aspects include (1) legal subjects who have the right to file a claim (standing) and; (2) the process of identifying the qualifications of the Legal subject who can file a claim along with the requirements in fulfilling their claim rights.⁹⁹

4.3.3.3 Specific Aspects of Scientific Evidence and Environmental Valuation

Acknowledging the importance of scientific evidence in handling complex environmental cases, the curricula provide specific subjects related to the law of evidence to give participants an understanding of this law—particularly in relation to examining evidence gathered using valid and reliable scientific methods. In relation to using scientific evidence as legal evidence, the subjects explain how the evidentiary process occurs in different types of cases, such as those relating to forest fires, illegal logging, mining, and industrial and non-industrial activities. The subjects provide materials related to the evidentiary process involving scientific evidence in four areas:

1. explanations of the type of scientific evidence;
2. descriptions of the stages involved in turning scientific evidence into legal evidence—for example, in a forest fire case, the training material explains how the forest fire occurred, followed by the impact of the forest fire on the ecosystem of the forest and environment at large. Before becoming a legal case, the process of pollution and degradation must be clarified, and the affected environment must be identified. The clarification process involves identifying the source of the pollution, which is achieved by identifying the type of damaged environment, calculating the length of pollution event, identifying whether it is direct or indirect pollution and measuring the degree of pollution;
3. identification of preparation to manage scientific evidence as part of the identification of evidence. In a forest fire case, this process is conducted by taking a sample from the field, which includes the use of hotspot data, and continues with field verification as part of the field data collection. Based on this process, the most relevant data gathered from the field are analysed in a laboratory to adequately assess the change as a result of the fire. To support this process, interviews are needed.

⁹⁹ Ibid 184.

4. Finally, these processes are compiled into the expert's testimony, which consists of: (a) the data and field findings; (b) the results of the laboratory analysis; and (c) the conclusion; and (d) prerequisites and the role of expert witnesses.¹⁰⁰

An important area that usually relies on the presence of scientific evidence is the valuation of environmental loss. This usually involves the role of a scientific expert as a witness who values losses such as ecological loss, economical loss and biodiversity loss. Thus, judges need to have adequate skills and knowledge in using scientific evidence as legal evidence. When examining the valuation presented by the expert, judges should be able to ask relevant questions regarding the methodology of the valuation. The Supreme Court has appreciated the importance of this area and improved the curricula to include environmental valuations in 2016.¹⁰¹ Materials on environmental valuations consist of: (1) general descriptions of the concept of environmental recovery and compensation; (2) comprehensive case studies concerning the application of the concept of economic valuation, environmental recovery and compensation; and (3) an understanding of scientific data and uncertainty in science.¹⁰²

In terms of the training program, this study submits that the training curricula are sufficient in terms of both methodology and materials. In relation to methodology, the curricula reflect the competencies needed by certified judges, as previously discussed. In the recruitment process, some areas of competence that need improvement have also been identified for training implementation. In addition, the use of the adult teaching method is suitable for judges because it provides more opportunities to discuss topics based on their experiences, and it facilitates a learning process among judges in the decision-making process—especially for complex environmental cases. The training covers most of the important aspects under the EPML.

Further, acknowledging the complexity of environmental cases, which mostly involve the presence of scientific evidence, the training provides special skills related to the evidentiary process in various environment-related issues such as forest fires, mining pollution and water pollution. This skill, along with the skill of judges in applying judicial activism in handling environmental cases, equips judges to keep up with the challenges of a rapidly expanding number of extremely complex environmental cases. Finding an appropriate applicable law is challenging yet needed when the law is apparently indeterminate or incomplete to deal with or cover new scientific developments in environmental cases. Finally, to ensure the quality of the training, the training is supported by

¹⁰⁰ 'Teaching Module of Environmental Judge Certification', above n 56, 267-278.

¹⁰¹ In 2018, the Supreme Court and the ICCEL cooperated with the Environmental Law Institute (ELI) in the US on the development of a teaching module for environmental valuation.

¹⁰² ICCEL, 'Draft 1 on Advance Training Module: Environmental Economic Valuation, Compensation and Environmental Recovery' (Draft of Training Module, ICCEL, May 2018).

lecturers and speakers who are qualified practitioners and academics in their field. This includes non-law lecturers who teach the scientific aspects of handling environmental cases.

4.3.4 Caseload

Official reports from the Supreme Court do not provide detailed and specific data on environmental cases that have been received and decided at all court levels. The only database related to environmental cases is in the category of special criminal cases (*tindak pidana khusus*) decided by the Supreme Court. Thus, caseload analysis relies on the documented data in this database as well as relevant data in the Supreme Court's annual reports. As shown in Table 4.1, from 2011 to 2017, there were around 976 level I cases and 57 level II cases. In 2016, there were 232 level I cases and 8 level II cases. This represents only 1.58% of the total number of all types of cases received by the Supreme Court (14,630 cases).¹⁰³ This percentage should be lower because not all cases have an environmental aspect and consequence. For example, mining cases might deal with a contractual issue rather than an environmental issue.

**Table 4.1. Number of Environment-Related Cases Received by the Supreme Court
2011–2017**

No	Environmental-Related Cases	2011		2013		2014		2015		2016		2017	
		I	II	I	II	I	II	I	II	I	II		
	Environment	9	0	15	0	15	0	33	0	75	1	78	*
	Forestry	111	12	70	0	58	11	89	5	26	4	9	4
	Fishery	51	2	26	0	35	2	48	0	76	0	63	*
	Plantation	*	*	*	*	*	*	*	*	6	1	*	*
	Natural resources conservation	*	*	*	*	*	*	*	*	6	0	*	*
	Horticulture	*	*	*	*	*	*	*	*	4	0	*	*
	Mining	*	*	*	*	*	*	19	0	8	1	*	*
	Oil and gas	*	*	*	*	*	*	*	*	31	8	15	*
		171		111		108		189		232		165	
			14		13		13		5		8		4
	Total I (Cassation)	976											
	Total II ('PK') ¹⁰⁴	57											

Note: * Data not available

¹⁰³ Supreme Court of the Republic of Indonesia, *The 2017 Supreme Court Annual Report*, Annual Report (2017).

¹⁰⁴ Supreme Court of the Republic of Indonesia, *The 2011 Supreme Court Annual Report*, Annual Report (2011); *The 2012 Supreme Court Annual Report*, Annual Report (2012); *The 2013 Supreme Court Annual Report*, Annual Report (2013); *The 2014 Supreme Court Annual Report*, Annual Report (2014); *The 2015 Supreme Court Annual Report*, Annual Report (2015); *The 2016 Supreme Court Annual Report*, Annual Report (2016); *The 2017 Supreme Court Annual Report*, Annual Report (2017).

Despite the low number of environment-related cases, Table 4.1 shows that the number of environmental cases brought to court increased steadily from 15 cases in 2013 and 2014 to 33 cases in 2015 and 75 in 2016. The same requirement also occurred in the fisheries cases. However, the table shows that the number of forestry cases decreased from 89 in 2015 to 26 in 2016. During this period, the government merged the MoE and the MoF into one department.¹⁰⁵

This conclusion relied on data from the Supreme Court's annual reports. Not all decisions made by certified judges can be readily accessed through the existing online database. The total number of environment-related cases might be higher than the figures noted above. Further, not all courts clearly note whether a case is an environment-related case. This problem was addressed by the Supreme Court when it established the numbering system for environmental cases.

4.3.5 Selected Decisions on Environmental Cases

One way of measuring the contributions of the certification system is by analysing decisions made by certified judges. However, this thesis acknowledges the difficulties involved in measuring judicial decisions.¹⁰⁶ Thus, in light of the discussion in this chapter, the next section analyses the extent to which the environmental adjudication reforms have contributed to better-quality decision-making by using two case study analyses. The selection of the two decisions below refers to the criteria of the landmark decision: (1) established a new legal principle (*rechtsvinding*); (2) responded to the problems of social dynamics in society; and (3) reflected the direction of development of the law.¹⁰⁷

*Ministry of Environment v PT Kalista Alam (MoE v PTKA)*¹⁰⁸

Below are summary of the case:

1. The MoE filed a civil proceeding on a forest fire case against PT Kalista Alam (PTKA) for causing a forest fire.
2. As the plaintiff, the MoE presented hotspot data that were verified onsite as scientific evidence to demonstrate that the forest fire occurred in the defendant's area.¹⁰⁹ The verification team supported this evidence with their field findings as follows: (1) the

¹⁰⁵ As explained in Chapter 1.

¹⁰⁶ Pring and Pring, above n 2, 6.

¹⁰⁷ The Supreme Court of Republic of Indonesia, Final Report of the Guideline for the Development of Law through a Jurisprudence (2008).

¹⁰⁸ *Ministry of Environment v PT Kalista Alam* [2012] Decision of the District Court of Meulaboh No 12/PDT.G/2012/PN.MBO (2012) ('*MoE v PTKA*').

¹⁰⁹ Ibid 7-8.

coordinate points of the forest fire were located in the defendant's area; (2) the forest fire occurred in a peatland over a period of three days from 23 March 2012; and (3) there were physical signs that indicated there had been a forest fire.¹¹⁰

3. PTKA appealed both the decisions of the district court and the high court, that accepted the plaintiff's claims. However, the panel of Supreme Court justices affirmed the decision of the lower courts and ordered the company to pay a total of IDR 366 billion (US\$25.6 million) as compensation and for restoration of the damaged environment.¹¹¹ The Supreme Court upheld the appeal by PTKA on the decision of the high court. An important environmental principle implemented by the Supreme Court was the concept of *in dubio pro natura* based on the following consideration:

if faced with the uncertainty of causation and the [huge] amount of compensation, the decision-making process, both in the executive and judges, in respect to civil and administrative environmental cases, should provide consideration or assessment that prioritises the interests of environmental protection and restoration.¹¹²

The court ruling can be viewed as a landmark decision due to a number of breakthroughs that is made:

First, the court accepted that government institutions, both state and regional, were mandated to file litigation for compensation and other measures against offending company. This recognition affirmed the state's responsibility to protect the environment by, among other things, enforcing environmental legislation and monitoring the competence of institutions. Second, the court accepted a causal connection between unlawful action and the damage done to the environment by linking scientific evidence with legal evidence. Third, the court accepted the valuation of environmental damages developed by the plaintiff (the government) in accordance with related government regulations, which provides specific standards and methodology. Finally, the court recognised some important environmental management principles such as state's responsibility to protect environment, inter- and intra-generational equity, the polluter-pays principle and the right to a healthy environment as being a human right. While principles could have been stipulated more clearly in the verdict, the fact that these principles were set out and deemed [a] sufficient basis for convicting polluters will hopefully encourage other judges to follow this precedent in the future.¹¹³

¹¹⁰ Ibid 9-13.

¹¹¹ *MoE v PTKA*, above n 108, 231.

¹¹² *Ministry of Environment v PT Kalista Alam* [2015] Decision of the Supreme Court No 651 K/PDT/2015 (28 August 2015) ('*MoE v PTKA*') 72.

¹¹³ Windu Kisworo, 'Kalista Alam Case Set Precedent for Combating Forest Fires' *The Jakarta Post*, 23 September 2015 <<http://www.thejakartapost.com/news/2015/09/23/kalista-alam-case-set-precedent-combating-forest-fires.html>> (accessed on 12 February 2019).

Ministry of Environment and Forestry (*MoEF v PTWAJ*)¹¹⁴

Below are summary of the case:

1. The MoEF argued that the defendant had violated various legislations that prohibit the clearing of land and forest with fire and failed to perform adequate preventative measures and countermeasures as required by law.¹¹⁵ Accordingly, the MoEF concluded that PT Waringin Argo Jaya (PTWAJ) was liable based on the strict liability principle for causing the forest fire in their area of forest concession.¹¹⁶
2. Similar to *MoE v PTKA*, the MoEF provided scientific evidence such as hotspot data, expert testimonies and the verification team's results to support its claims.¹¹⁷ Hotspots were identified by the MODIS Terra–Aqua satellite issued by the National Aeronautics and Space Administration (NASA) in the defendant's area for the first time in 7 July 2015 and continued until 30 October 2015.¹¹⁸ In determining the cause of fire and its effect, the verification team, which was responsible for verifying the fire's effect in the area, took samples from 10 spots in the defendant's area and tested them in a laboratory.¹¹⁹ The analysis of the hotspots confirmed that they were located in the burnt area and occurred at a particular time and location (defendant's area).¹²⁰ These findings were supported by the field verification team from the MoEF, which also confirmed that the total forest area burnt was 1,626.53 hectares.¹²¹
3. PTWAJ rejected the plaintiff's claims and argued that the hotspot, identified by the Moderate Resolution Imaging Spectroradiometer (MODIS) Terra–Aqua satellite issued by the National Aeronautics and Space Administration (NASA), was only an indication of the existence of fire.¹²² Thus, a series of instant and direct follow-up actions were required to determine whether the fire had occurred.¹²³ PTWAJ further argued that no 'prima facie' evidence existed that PTWAJ conducted its activity by burning the forest and further

¹¹⁴ *Ministry of Environment and Forestry v PT Waringin Argo Jaya* [2017] Decision of the District Court of South Jakarta 456/Pdt.G-LH/2016/PN Jkt. Sel (7 February 2017) ('*MoEF v PTWAJ*').

¹¹⁵ *Ibid* 14–31.

¹¹⁶ *Ibid* 302.

¹¹⁷ *Ibid* 8–11.

¹¹⁸ *Ibid* 8.

¹¹⁹ *Ibid* 15–17.

¹²⁰ *Ibid* 10.

¹²¹ *Ibid* 11.

¹²² *Ibid* 82.

¹²³ *Ibid* 69.

claimed that the fire was a result of natural causes.¹²⁴ Accordingly, no causation between action and damage was established. Regarding the use of strict liability, PTWAJ further argued that the MoEF was unclear by mixing *perbuatan melawan hukum* and strict liability for asking liability in the proceeding.

4. After examining all of the evidence, the district court was satisfied that the fire was caused by human activity, not by natural causes.¹²⁵ In determining whether PTWAJ was responsible for the forest fire, the court accepted the use of strict liability under art 88 of the EPML by arguing that the defendant's actions had caused a 'serious threat' to the environment.¹²⁶ In addition to relying on experts' testimony that the damage was irreversible, the court supported the existence of a 'serious threat' based on the fact that the company required an EIA.¹²⁷ Accordingly, the element of a 'huge and important impact' was also interpreted as a 'serious threat'.¹²⁸ The court then decided that the defendant had committed an unlawful act based on strict liability.¹²⁹ As a result, the defendant was required to pay compensation more than IDR 173,468,991,700 (equivalent to US\$13 million) and pay a rehabilitation cost more than IDR 293,000,000,000 (equivalent to US\$22 million).¹³⁰

4.3.6 Pound's Art of Adjudication

To assess the contribution of the ECS to ensuring the quality of decisions, it is essential to be able to reference clear and relevant criteria. For the purposes of this discussion, this study will employ Roscoe Pound's criteria or steps in adjudication as an analytical framework. The steps are as follows:

Three steps are involved in the adjudication of a controversy according to law: (1) finding the law, ascertaining which of the many rules in the legal system is to be applied, or, if none is applicable, reaching a rule of the cause (which may or may not stand as a rule of subsequent cases) on the cases of given materials in some way which the legal system points out; (2) interpreting the rule so chosen and ascertained, that is, determining its meaning as it was

¹²⁴ Ibid 78.

¹²⁵ *MoEF v PTWAJ*, above n 114.

¹²⁶ Ibid 295.

¹²⁷ Ibid 293.

¹²⁸ Ibid.

¹²⁹ Ibid 296.

¹³⁰ Ibid 304.

framed and with respect to its intended scope; (3) applying to the cause in hand the rule so found and interpreted.¹³¹

Preston argued that the three steps above are interrelated¹³² and constitute a model of syllogistic reasoning. In the first two steps, the judge identifies the rule of law (major premise)—that is, in a given factual situation, certain rights, liabilities and obligations exist: ‘There might be more than one legal rule or principle which might apply and the parties are contending which should be made the basis of the decision’.¹³³ Thus, ‘it should be interpreted in order that a rational selection may be made’.¹³⁴ Further, it can be interpreted that the ‘legislator can have no knowledge of all possible combinations of the circumstances which the future might bring’.¹³⁵ It is impossible to have ‘a complete legislator provision in advance covering every case, and authoritative extra-judicial interpretation’.¹³⁶

The third step consists of two stages: (1) finding the facts relevant to the identified rule of law (minor premise);¹³⁷ and (2) taking the rule of law as a major premise, employing the facts found as the minor premise and, in theory, coming to a judgment by a process of syllogistic reasoning.¹³⁸ In this stage, ‘consideration needs to be given to whether the applicable law accords a judicial discretion as to remedy, relief or punishment, if any, to be granted by the court if, upon application of the law to the facts of the matter, a breach of law were to be found’.¹³⁹

The main issue is whether the steps in the adjudication process can also be applied in handling environmental cases—specifically in scientifically complicated environmental cases. In this regard, Preston further argued:

The art of judging environmental disputes involves the same technique and logic as judging other disputes. The role of the judge is, simply, to uphold and apply the law. This task involves the steps of finding, interpreting and applying the law. There are, in each of these steps, leeways of choice. But the choices are constrained. Judges must adjudicate in accordance with principle and

¹³¹ Roscoe Pound and Marshall L DeRosa, *An Introduction to the Philosophy of Law* (Transaction Publishers, 1999) 48, as quoted in Brian J Preston, ‘The Art of Judging Environmental Disputes’ (2008) 12 *Southern Cross University Law Review* 108.

¹³² Brian J Preston, ‘The Art of Judging Environmental Disputes’ (2008) 12 *Southern Cross University Law Review* 108, 108.

¹³³ *Ibid* 108–109.

¹³⁴ *Ibid*.

¹³⁵ *Ibid* 122.

¹³⁶ Roscoe Pound, *The Spirit of the Common Law* (Boston Marshall Jones Co., c., 1921) 179.

¹³⁷ Preston, above n 132, 125.

¹³⁸ Justice R. French, ‘Dolores Umbridge and policy as Legal Magic’ (2008) 82 *Australian Law Journal* 322, 328 as quoted in Brian J Preston, ‘The Art of Judging Environmental Disputes’ (2008) 12 *Southern Cross University Law Review* 108, 125.

¹³⁹ *Ibid*.

reason, technique and logic, to ensure consistency and predictability, and public confidence, in the administration of justice.¹⁴⁰

In practice, some of the errors made by judges come from finding a step in the law that they had not established. Responding to this problem, Preston highlighted:

In applying the art of adjudication, finding the law is the most important step to be taken to set up a legal framework for the case. Legal framework actually tells you what facts you need to find. Having known that, from what evidence do I have from the evidence I can draw the inferences of find those facts. So, if the judge gets the first step wrong, finding the law, it flows through the risk all the steps. Finding the rule that the judge applies to the case will then give judges the purpose for their inquiry into the facts.¹⁴¹

The next critical issue is the extent to which the competence of the ECS has contributed to an improvement in the quality of the decisions made in environmental cases. The analysis of the two decisions above indicates that the contributions are as follows.

Both cases show how the court decided which laws were relevant to the case. For example, in *MoEF v PTWAJ*,¹⁴² the court applied the provision of strict liability under art 88 of the EPML instead of relying on art 1866 of the Civil Code concerning *Perbuatan Melawan Hukum*. Further, both cases incorporated an international principle—namely the precautionary principle—as part of finding the relevant principle. In *MoE v PTKA*,¹⁴³ the principle became one of the sources in applying the doctrine of *in dubio pro natura*, whereas *MoEF v PTWAJ*¹⁴⁴ referred to the application of the precautionary principle in the decision of *Dedi cs v PT Perhutani*.¹⁴⁵ Indeed, the recent development of environmental law, including the harmonisation of international and national environmental law, provides instructive assistance in both international and national jurisdictions.¹⁴⁶ Indonesia has implemented some of these principles as a principle of the management and protection of the environment under the EPML. It also included the principle of

¹⁴⁰ Ibid 127.

¹⁴¹ Interview with Justice Brian J Preston, Chief Judge of the LECNSW (7 March 2018).

¹⁴² *MoEF v PTWAJ*, above n 114.

¹⁴³ *MoE v PTKA*, above n 108.

¹⁴⁴ *MoEF v PTWAJ*, above n 114.

¹⁴⁵ *Dedi cs v PT Perhutani*, above n 94.

¹⁴⁶ See, for example, Ben Boer, 'The Globalisation of Environmental Law: The Role of the United Nations' (1995) 20(1) *Melbourne University Law Review* 101.

precaution (*asas kehati-hatian*).¹⁴⁷ Policymakers considered the precautionary principle under the Rio Declaration during the EPML's formulation.¹⁴⁸

*MoEF v PTWAJ*¹⁴⁹ is a good example of how the court interprets the identified law that is relevant to the case. In this case, the panel of judges used other regulations to determine the meaning of the element of 'serious threat' under art 88 of the EPML (the relevant law) to satisfy the application of strict liability. This includes using the EIA's regulation (arts 22 and 23 of the EPML) to conclude that the activity requires an EIA for its potential substantial effect on the environment. According to the panel, this requirement indicates that the activities were a 'serious threat'.¹⁵⁰ The court also supported the above argument by referring to the Supreme Court's guideline for environmental case handling in regard to the definition of a 'serious threat', which consists of two important aspects: having a potentially irreversible impact and 'the impacted environment's components' being huge.¹⁵¹

Finally, the examination of scientific evidence in both cases reflects part of the first stage of applying the law. The court found relevant facts and evidence such as the hotspot data from the MODIS Terra–Aqua satellite issued by NASA and testimonies from scientific experts. The court validated the evidence by considering the onsite visit as well as the testimonies from the expert witnesses. Based on this evidence, as part of the second stage, the court applied the identified law to all evidence to determine: (1) the location of the fire in the defendant's area; (2) the size of the burnt forest; (3) the company's liabilities on the environmental losses caused by the forest fire and the cost of rehabilitation. However, it appears that judges have different standards for verifying valuations. In *MoE v PTKA*,¹⁵² the court mostly relied on the valuation presented by the plaintiffs, without making an adequate assessment of its methodology. In contrast, in *MoEF v PTWAJ*,¹⁵³ the court appeared to consider the defendant's arguments, which resulted in the court's leniency in the final amount of compensation and the cost of environmental rehabilitation.

Using the three steps of adjudication listed by Pound, it can be summarised that the courts applied these steps when making their decision: finding the law, interpreting the law and applying the law. In doing so, the courts identified the laws that were relevant to the case. Having identified these

¹⁴⁷ Law No. 32 of 2009 on Environmental Management and Protection ('EPML'), 1(f).

¹⁴⁸ Takdir Rahmadi, *Environmental Law in Indonesia* (Raja Grafindo Persada, 2011) 63.

¹⁴⁹ *MoEF v PTWAJ*, above n 114.

¹⁵⁰ *Ibid* 293.

¹⁵¹ Decree of Chief Justice of the Supreme Court of Indonesia No 36/KMA/SK/II/2013 on the Procedure of Handling Environmental Cases ('Supreme Court Guideline for Environmental Cases Handling').

¹⁵² *MoE v PTKA*, above n 108.

¹⁵³ *MoEF v PTWAJ*, above n 114.

laws, the courts interpreted them by referring to other sources of laws or regulations. The analysis shows that the courts made an inference based on available facts in two stages of applying the law in examining scientific evidence. In the first stage, the courts found relevant facts and validated them by making an onsite visit, as well as clarifying and examining the testimonies from the expert witnesses. In the second stage, the courts applied the identified laws to all evidence to determine the company's liabilities on the environmental losses caused by the forest fire, as well as the fine to cover the cost of rehabilitation.

However, the analysis of these decisions also found that the courts faced challenges in providing better reasons for making inferences based on the available facts. A better-reasoned decision is important at least in two respects: (1) As part of the court's accountability to the public; and (2) provides clear material for the higher court in case of an appeal.¹⁵⁴ Preston argued that countries such as Indonesia lack 'rigor' in performing the steps of adjudication and finding, interpreting and applying the law, which affects each step of adjudication.¹⁵⁵ In the above cases, this observation can be confirmed in two ways, as outlined below.

First, there is a lack of detailed analysis in applying certain principles. In examining the application of the precautionary principle, both decisions did not explore in detail whether two conditions were met: the threat of serious or irreversible environmental damage and scientific uncertainty regarding the environmental damage. Instead, the court simply followed the decision in *Dedi cs v PT Perhutani*,¹⁵⁶ which considered that 'lack of knowledge' and 'disagreement between experts' satisfied the threshold.¹⁵⁷ If the court in this case had sufficiently exercised the two thresholds above, the latter decision would have taken this analysis into account.

Second, there is inadequate argumentation in the courts' conclusion in relation to the determination of the location of the forest fire, the amount of compensation and the cost of rehabilitation. Although the courts assessed scientific evidence that was presented in the cases, they should have a more detailed process in place for examining the admissibility of scientific evidence—in particular, the courts did not provide detail regarding whether the experts' opinions were obtained using a valid scientific method and whether their specialised knowledge was relevant to the case. This study does not determine the validity of the courts' decisions. However, the analysis of these cases finds that while judges tend to rely on valuations made by experts to the extent that they are valid and in accordance with existing regulations, it appears that in several cases, the courts applied

¹⁵⁴ Interview with Paul Stein, former Justice of the Supreme Court, NSW, Australia (24 November 2018).

¹⁵⁵ Interview with Justice Brian J Preston, Chief Judge of the LECNSW (7 March 2018).

¹⁵⁶ *Dedi cs v PT Perhutani*, above n 94.

¹⁵⁷ *Ibid.*

different ways of examining whether the calculations from experts were relevant and reliable.¹⁵⁸ As a result, the conclusion and valuation varied depending on the judges' examination.

4.4 Current Status of Judicial Competence on Environmental Law

This study contends that the competence of the ECS meets the element of competence in two respects: (1) it is set up for an individual competence; and (2) it consists of technical and non-technical competence. Thus, it encompasses an individual's technical and non-technical skills. Some aspects of competence may be internalised in the competence of the ECS by classifying the competencies into threshold (e.g., knowledge, skills, personal characteristics) and performance. For example, as a threshold competence, the elements of environmental law that fall within the threshold competence or performance competence should be identified. In addition, in relation to procedural law, the ECS should establish different degrees of skill in using scientific evidence. For example, as a threshold competence, judges must have the ability to identify types of evidence, whereas as a performance competence, judges should be able to apply the available scientific evidence to the legal framework of the case. The latter requires an ability to assess whether the scientific evidence or the opinion of the expert witness is obtained using a valid scientific method. Addressing these challenges by introducing more rigorous argumentation in the above case studies can be addressed within these categories of competence. This may identify the threshold and performance competencies of skills and knowledge. In this respect, improving performance skills to assess scientific evidence through science-based training, as advanced training, should be part of improving the threshold competence to achieve performance competence. Further, the ECS may need to emphasise the quality of soft competencies. The competence of the ECS consists of integrity; this is part of the personal competence, which cannot be easily changed or developed through formal training. Thus, the ECS should give special attention to personal competence in the selection process. Besides improving hard competencies such as a sufficient level of scientific knowledge, ensuring the performance level of this soft competencies is also critical within the current challenges faced by the Indonesian judiciary.

This study limits the assessment of the status of competence of the judiciary in handling environmental cases to an analysis of selected decisions made by certified judges under the ECS. Analysis of the decisions made by certified judges in *MoE v PTKA*¹⁵⁹ and *MoEF v PTWAI*¹⁶⁰ indicates an improvement in the quality of environmental case decisions. However, this thesis does

¹⁵⁸ *MoE v PTKA*, above n 108; *MoEF v PTWAI*, above n 114.

¹⁵⁹ *MoE v PTKA*, above n 108.

¹⁶⁰ *MoEF v PTWAI*, above n 114.

not conclude that this progress affects the overall quality of environmental decisions. This requires more robust analysis of many more decisions that represent the actual number of decisions made by certified judges. In *MoE v PTKA*, the judges' ability to use scientific evidence indicates compatibility between the theories taught during training and the analysis of judges in deciding real cases. For example, the process of assessing the validity of scientific evidence, which consists of hotspot data, expert testimonies and the results of field verification and laboratory examinations, is used to prove the existence of elements of error and causality. In *MOEF v PTWAI*, the judges' ability to explain in detail the basic application of the article on strict liability also shows a better-reasoned judgment by the court. In this case, the court provided detailed analysis to determine the fulfilment of the element of a serious threat as the main condition for the application of the strict liability principle. This thesis considers this decision one of environmental jurisprudence in the process of identifying and interpreting the law in related cases.

However, despite these signs of progress, this thesis highlights that the quality of decisions can be improved in the areas of identifying, interpreting and applying the law. In both decisions, the judges appeared to have difficulty assessing the scientific evidence as evidence when making decisions relating to environmental loss in terms of loss caused by forest fires. This thesis suggests that the difference in the amounts of compensation determined by the courts was primarily influenced by the limited understanding of the method used by expert witnesses to calculate losses, which requires a sufficient level of scientific knowledge. Therefore, strengthening the competence of judges will enhance their knowledge related to the evaluation of scientific evidence and the calculation of compensation. The proposed categorisation of competencies into threshold competency and performance competence will be applied to strengthening the capacity of environmental judges.

A clear and comprehensive set of competencies is the first step in ensuring the availability of competent and knowledgeable judges. This requires what Preston highlighted as continuing professional development. Before becoming a judge, judges learn an environmental law subject in the law faculty at the university level. Once they become a judge, they receive training and education in the Supreme Court's education and training program. Although the Supreme Court developed special training within the ECS scheme, which is supported by a specific methodology and curricula, it would be ideal for law faculties in Indonesian universities to establish an integrated curriculum that takes into account the required competencies of legal professions supported by qualified lecturers applying an appropriate teaching methodology. In this curriculum, law faculties prepare law graduates with adequate basic skills and knowledge to deal with environmental cases. This consists of: (1) formulating the legal framework of the case;

(2) identifying relevant and reliable evidence; and (3) reaching a conclusion, including the ability of judges to identify relevant and reliable scientific evidence in complex environmental cases.

In terms of benchmarks for measuring its performance, the ECS provides detailed elements that may be used as benchmarks and classifies them into knowledge, skills and behaviour for each competence. However, this study has not yet found any information regarding the extent to which these elements have been used as benchmarks for measuring competence performance. In this regard, the Supreme Court developed the M&E system of the ECS. Chapter 6 presents a more detailed discussion about measuring competence performance.

4.5 Conclusion

A theoretical framework for creating adequate competencies for the ECS is essential because it determines the benchmark for measuring its performance. Existing studies on judicial competence have suggested that it comprises three elements. First, it encompasses an individual's technical and non-technical skills. Second, it determines the performance of the organisation. Third, depending on the main outcome of the organisation, the competence can be designed to achieve a specific goal. Having this set of competencies in place requires the court to have a clear and comprehensive system to maintain its performance, as well as sufficient caseloads and a clear tenure and salary system. Indeed, the Supreme Court developed special competence training for judges that handle environmental cases. To ensure that judges receive and improve the competence, the methodology and curricula are developed based on the required competence.

The analysis of the two decisions indicates improvements in their quality. Pound's 'three steps of adjudication'—finding the law, interpreting the law and applying the law—were applied to make the decisions. Building upon the analysis of the competence above, this chapter highlighted the following areas for improvement in relation to competence: (1) ECS competence is to be classified into threshold competence and performance competence; (2) the ECS needs to emphasise the quality of soft competence; and (3) judges need to improve their decisions using better reasoned argumentation. These critical analyses in the Indonesian context—especially the latter one—highlight one of the major problems in achieving good-quality, well-reasoned decisions. Although the courts are encouraged to be proactive in the law-making process, by exploring, following and understanding the values of the law and justice that are present in the community, the problems might appear during the implementation of the adjudication steps when making a judgment.

Given the progress and challenges in the court's competence, the court has recently been empowered to handle environmental cases. The judiciary in Indonesia has a long way to go in developing landmark decisions on environmental law within its jurisdiction. The highlighted cases

above are an indication of the trend regarding decision-making in environmental cases. The courts lack ‘rigour’ in performing the steps of adjudication, which include finding the applicable law, interpreting the law with reasons and applying the relevant law to an environmental case, and this lack of rigour has affected each adjudication step. These challenges are evident in the analysis of the two cases in this chapter.

However, strengthening judges’ competence in making sound decisions is not isolated to the responsibility of the judiciary. Judges can also learn about certain aspects of environmental law and non-law-related areas from parties connected to the case, such as lawyers, NGOs and academics. For example, a judge’s formulation of the detailed steps of environmental recovery from damage by a company that is proven to cause a fire is illuminated by a detailed description by the plaintiff on such aspects in the legal proceedings. Further, judges can use the results of research by academics to illuminate the issues in a case. For example, a judge in *MoEF v PTWAI* actively sought information, including academic research related to the application of the strict liability principle in the case of the environment. Finally, legal considerations in proceedings and arguments submitted by lawyers in the trial process in environmental cases can provide valuable information for judges when making decisions. Therefore, judges’ capacity needs to be strengthened while simultaneously enhancing the role and capacity of other actors related to law enforcement to encourage more opportunities for a learning process.

Thus, in light of the objective of environmental adjudication reforms to promote better-quality decisions, all initiatives—particularly the environmental law training program—should address these problems. The application of important environmental law principles should result in better skills and understanding among judges—particularly in terms of interpreting the relevant laws and applying environmental law principles to encourage the Indonesian judiciary to protect the environment.

Chapter 5: Using Scientific Evidence to Handle Environmental Cases in the Indonesian Judiciary

5.1 Introduction

Success in environmental tort cases frequently depends on highly complex scientific and other technical evidence.¹ The difficulty in proving causation in environmental cases requires the use of a large amount of scientific evidence.² Preston argued that ‘expert opinion is today fundamental to judicial decision-making’.³ In the meantime, environmental law at the national and international levels is rapidly expanding and embracing the complex relationship between the scientific and legal areas. The inadequacy of traditional courts in adjudicating environmental cases may lie in the legal system’s insistence upon a narrow and mechanistic standard of proof that stems from ‘a myopic view of the modes of scientific inquiry’.⁴ Thus, it is important for judges to understand the scientific methodology at the core of environmental cases before appropriate legal decisions can be made.⁵

Indonesian courts face various challenges in assessing scientific evidence, including the lack of judges’ capacity to determine the validity or credibility of scientific evidence presented by expert witnesses. Courts predominantly rely on experts when dealing with complex environmental cases involving scientific evidence. Environmentalists have lost many cases because of questionable judicial decisions that ignored scientific evidence.⁶ For example, courts still seem to prefer government documents over direct pollution samples.⁷ In some cases, courts have refused to draw logical inferences regarding causal relationships between severe pollution in waterways and evidence showing that the wastewater of a nearby factory was highly toxic, even when the factory had no wastewater treatment device.⁸

¹ Keum J Park, ‘Judicial Utilization of Scientific Evidence in Complex Environmental Torts: Redefining Litigation Driven Research’ (2011) 7(2) *Fordham Environmental Law Review* 483, 483.

² Ibid 486.

³ Brian J Preston, ‘Science and the Law: Evaluating Evidentiary Reliability’ (2003) 23(1) *Australian Bar Review* 263, 263.

⁴ Park, above n 1, 496.

⁵ Katherine Bishop, ‘Science Advance So Quickly Nowadays. We Can’t Just Count Scientific Noises’, *New York Times* (6 April 1990), as quoted in Keum J Park, ‘Judicial Utilization of Scientific Evidence in Complex Environmental Torts: Redefining Litigation Driven Research’ (2011) 7(2) *Fordham Environmental Law Review* 483, 487.

⁶ David Nicholson, *Environmental Dispute Resolution in Indonesia* (KITLV Press, 2009) 271.

⁷ Ibid 141. In the *Babon River* case, the appellate court even claimed that the defendant company’s participation in the government’s Clean River Program (*Prokasih*) proved that it could not have been responsible for the pollution.

⁸ Ibid 80–81.

Recognising these obstacles, the Supreme Court has undertaken various initiatives to improve the quality of decisions, including environmental law training for law enforcers.⁹ A portion of the teaching curriculum is allocated to the relation between legal evidence and scientific evidence. The Supreme Court has continued this initiative under the ECS. Further, the Supreme Court has created guidelines for handling environmental cases¹⁰ that contain provisions on scientific and expert evidence; however, some areas require improvement. In many cases, judges give more weight to non-scientific evidence to prove environmental pollution.¹¹ Judges with a legal background have difficulty understanding how scientific data submitted by experts can be converted into legal facts.¹² This lack of rigour has affected judges' ability to formulate their argument.

This study suggests that these challenges can be addressed in two ways. First, through the advancement of evidentiary law—in particular, by providing detailed guidelines for courts to assess scientific evidence. Second, by improving judges' competence through special training. In these two areas, the Supreme Court has attempted to improve judges' understanding of scientific issues within the ECS scheme. Evidentiary law includes the issuance of the Procedures in Handling Environmental Cases in Court. These procedures contain provisions on scientific evidence and expert evidence. However, it is acknowledged that a relation between law and science is a complex issue. It would be too overwhelming for judges with a legal background to be expected to have the same level of understanding as a scientist. Thus, setting clear boundaries for judges' understanding of basic scientific issues is necessary but difficult.

In light of the above challenges, this chapter identifies gaps in the current system and practices in Indonesia regarding the use of scientific evidence in environmental cases. To this end, this research uses systems and experiences in using scientific evidence from other jurisdictions. Particularly, systems in the US and Australia which provide detailed guidelines on the admissibility requirements of scientific evidence as points of reference,¹³ and these guidelines possess important elements as points of reference. This chapter argues that scientific evidence has been used in handling environmental cases. However, laws and regulations provide limited guidance regarding

⁹ See Section 3.6 of this thesis.

¹⁰ Decree of Chief Justice of the Supreme Court of Indonesia No 36/KMA/SK/II/2013 on the Procedure of Handling Environmental Cases ('Supreme Court Guideline for Environmental Cases Handling').

¹¹ Interview with Fauzul Abrar, the MoEF's Lawyer in several forest fire cases (17 July 2018).

¹² Interview with Raynaldo Sembiring, Deputy Director of ICEL (5 July 2018).

¹³ See generally, Park, above n 1; Dominic J Nardi Jr., 'Do Indonesian Judges Need Scientific Credibility? Indonesia v PTNewmont Minahasa Raya and the Use of Scientific Evidence in Indonesian Courts' (2008) 21 *Georgetown International Environmental Law Review* 113; Preston, above n 3.

its use. In practice, this affects different standards used by judges in examining the relevance and reliability of scientific evidence.

The first part of this chapter underscores the importance of scientific evidence in environmental cases and briefly discusses the relationship between science and the law. The second section deals with the extent to which this relationship is translated in the court process. In doing so, it analyses the systems for obtaining expert evidence from the US and Australia, and it identifies three elements: (1) whether the evidence is relevant; (2) whether the evidence is scientific (evidentiary reliability or trustworthiness); and (3) whether the opinion is made based on the expert's specialised knowledge that is relevant to the case. After analysing the current legal framework concerning scientific evidence in some relevant laws and regulations, the chapter discusses how these laws and regulations are implemented in decision-making in environmental cases. In doing so, it analyses two selected cases on forestry that involved important scientific disputes. The chapter concludes with recommendations for improving environmental adjudication—particularly in regard to the use of scientific evidence.

5.2 Relationship between Law and Science

Non-scientists might find it difficult to fully embrace an explanation for a specific science issue. The role of science in everyday life might help to understand science and provide answers to some fundamental questions.¹⁴ One such question is: 'How can we have knowledge as opposed to merely beliefs or opinions?' One broad answer is: 'Follow the scientific method'.¹⁵ This answer indicates the respectfulness of scientists' views because their conclusions (*are supposed to*)¹⁶ have been reached on the basis of proper methods of gathering and assessing evidence.¹⁷ For example, if the scientists appointed by the government say that a particular food or chemical is unsafe, its use and sale will be banned.¹⁸ The categorisation of science into natural and social sciences may provide a simple explanation. The former studies the natural world and includes physics, chemistry, astronomy, geology and biology, whereas the latter studies the human or social world and includes psychology, sociology, anthropology and economics.¹⁹

¹⁴ James Ladyman, *Understanding Philosophy of Science* (Routledge, 2002) 6.

¹⁵ Ibid.

¹⁶ Added by the thesis.

¹⁷ Ladyman, above n 14, 6.

¹⁸ Ibid.

¹⁹ Ibid 4.

The relationship between science and the law may illuminate the definition of scientific evidence. Two important issues arise in discussing this relationship. First, the discussion should take into account the fact that it is difficult to determine what is scientific and what is not—known as ‘the demarcation problem’.²⁰ Second, the level of specificity in certain sciences is so extensive that no one can understand everything about one field of science.²¹ As a result, the relationship becomes more complex in relation to scientific evidence. In this respect, John I. Thornton argued:

Even law and science on occasion have conflicting goals, each having developed in response to different social and intellectual needs. The goal of law is the just resolution of human conflict, while the goal of science traditionally has been cast, also perhaps too smugly, as the search for ‘truth’.²²

Richard L. Markus addressed the complexity of this relationship by arguing that scientists possess an ‘ethic of disinterestedness’ that ‘serves to suppress conflict of personal or material interest in the furtherance of a common stake in the scientific enterprise’.²³ However, the parties of a lawsuit are engaged in an ethic of ‘maximum self-interest’ whereby ‘a particular solution will maximise the outcome of one of the parties only at the expense of the other’.²⁴ Hence, the objective of achieving ‘justice’ is not the same as finding the truth of the ‘scientifically valid result’.²⁵

In certain cases, judges are able to use their knowledge and logic to assess scientific evidence. Problems will arise when related material requires special knowledge.²⁶ Courts may not have the special knowledge needed and therefore might not be able to draw appropriate conclusions from the facts stated by the witnesses.²⁷ The main question is: In what situations do courts need experts with specialised knowledge? Before assessing this, courts should first decide whether scientific evidence is really scientific knowledge. If it is satisfied, the court will engage with another process to assess whether the evidence has been obtained using a valid scientific method. The nature of environmental cases requires these two assessments—especially when proving causation between an activity and damage to the environment. The philosophy of science provides two areas of support for testing specialised knowledge: (1) it provides guidance as to when the subject matter

²⁰ Ibid.

²¹ Park, above n 1, 483.

²² John I Thornton, ‘Uses and Abuses of Forensic Science’ in William A Thomas (ed), *Science and Law: An Essential Alliance* (Boulder, Colo.: Westview Press, 1983) 79, 86.

²³ Richard L Markus, ‘Discovery Along the Litigation/Science Interface’ (1991) 57(381) *Brooklyn Law Review* 381, 384.

²⁴ Ibid.

²⁵ Ibid 385.

²⁶ Preston, above n 3, 264.

²⁷ Ibid.

of an opinion can be said to form part of the body of ‘knowledge’;²⁸ and (2) in relation to the demarcation problem, it determines what is scientific knowledge and what is not.²⁹

One aspect of environmental cases is that they involve uncertainty. Clifton T Hutchinson and Danny S Ashby argued that scientific uncertainty in practice can be observed in disagreements in experts’ opinions:³⁰ ‘Because science is not a closed system, the available evidence often may rule out either of two competing but well-reasoned scientific propositions’.³¹ However, differing ‘scientific opinions’ in the courtroom often stem ‘less from the state of scientific knowledge’.³² For example, US litigation creates a strong incentive for lawyers to select experts with views outside the mainstream of scientific opinions.³³ Further, April Muirden and John Bailey argued that there is:

[A] mismatch between science and the law. Experts following the scientific approach see the need to explain all uncertainties in their findings, while lawyers see this as an opportunity to discount that evidence in cross-examination if it will benefit their case.³⁴

5.3 Admissibility of Scientific Evidence in the United States and Australia

5.3.1 United States Federal Rules of Evidence and Daubert’s Criteria

The Federal Rules of Evidence³⁵ provides a basis for expert witnesses to assist the trier of fact (to understand the evidence or determine a fact in issue) based on their knowledge, skills, training or experience. Specifically, Rule 702 of the Federal Rules of Evidence states:

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if:

- a) the expert’s scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
- b) the testimony is based on sufficient facts or data;
- c) the testimony is the product of reliable principles and methods; and

²⁸ Ibid 273.

²⁹ Ladyman, above n 14, 62.

³⁰ Clifton T Hutchinson and Danny S Ashby, ‘Daubert v Merrell Dw Pharmaceutical, Inc.: Redefining the Basis for Admissibility of Expert Scientific Testimony’ (1993) 15(6) *Cardozo Law Review* 1875, 1979.

³¹ Ibid.

³² Ibid 1980.

³³ Ibid.

³⁴ April Muirden and John Bailey, ‘Presenting Scientific Evidence in Environmental Court Cases: How Science and Law Meet’ (2008) 25 *Environmental Planning and Law Journal* 425, 439.

³⁵ *Federal Rule of Evidence 1975* (‘FED. R. EVID’).

d) the expert has reliably applied the principles and methods to the facts of the case.³⁶

The application of Rule 702 is illustrated in *Cano v Everest Mineral Corp.*³⁷ In this case, several plaintiffs questioned whether cancer had been caused by exposure to uranium-238 (U-238) sourced from uranium mines owned by Everest Minerals around their homes.³⁸ The plaintiffs postulated that a uranium seed fell onto the road and was crushed by a passing truck, which resulted in the spread of uranium dust and contamination of food and water sources.³⁹ The Western Texas District Court asked the plaintiffs to prove that exposure to uranium dust was the cause of their health problems (i.e., cancer). Only one of the plaintiffs' experts—Dr Malin Dollinger—testified about the causal relationship. Using a new methodology that she had created, Dollinger showed that uranium dust was the most dominant factor in cancer.⁴⁰ Based on the results of the examination of medical records from victims and independent research, Dollinger claimed that radiation ionisation from U-238 was more likely to produce double-strand breaks in DNA with the ability to repair (an impaired ability to fix). He found that higher doses lead to a proportionally higher risk.⁴¹ In applying Rule 702, the judge approved Dollinger's testimony with several considerations:⁴² (1) the expert is a professor in the field of clinical medicine at the School of Medicine, University of Southern California; (2) the expert completed his studies in medicine at Yale University; and (3) the expert completed a three-year program on oncology.⁴³

This criterion is not the only way for judges to judge scientific evidence, but it helps them to filter out incompetent experts.⁴⁴ In *Cano v Everest Mineral Corp.*,⁴⁵ the judge accepted experts as competent experts with the three considerations above, but this did not guarantee that his testimony was credible (admissible). The defendant objected that there was no consensus regarding the methodology used by Dollinger, and a peer review had not been conducted.⁴⁶ The judge agreed with the defendant's rebuttal and also found that the expert did not consider other conflicting

³⁶ Ibid.

³⁷ *Cano v Everest Mineral Corp.*, 362 F. Supp. 2d 814 (D. Tex. 2005).

³⁸ Ibid.

³⁹ Ibid.

⁴⁰ Ibid.

⁴¹ Ibid.

⁴² Ibid.

⁴³ Cancer Council of Australia, *What is Oncology?* <<https://www.cancer.org.au/health-professionals/oncology/>>. 'Oncology is a sub-specialty of medicine dedicated to the investigation, diagnosis and treatment of people with cancer or suspected cancer. It includes preventative medicine, medical oncology (chemotherapy, immunotherapy, hormone therapy and other drugs to treat cancer), radiation oncology (radiation therapy to treat cancer), surgical oncology (surgery to treat cancer), and palliative medicine'. (accessed on 9 February 2019).

⁴⁴ Nardi, above n 13, 137.

⁴⁵ *Cano v Everest Mineral Corp.*, above n 37.

⁴⁶ Ibid.

evidence. For example, a report from the UN Scientific Committee on the Effect of the Atomic Radiation showed a different level of exposure than several types of cancer caused by uranium.⁴⁷

Based on this rule 702, the decision of the Supreme Court in *Daubert v Merrell Dow Pharmaceuticals, Inc (Daubert v Merrell)*⁴⁸ delivered a more careful scrutiny of the admissibility of scientific evidence.⁴⁹ It overturned the previous decision in *Frye v United States*,⁵⁰ which provided a common rule of admissibility of scientific evidence. In *Frye v United States*, the court admitted expert evidence based on a novel scientific theory or technique only when it had received ‘general acceptance’ in the relevant scientific community.⁵¹ Specifically, it noted that:

Just when a scientific principle of discovery crosses the line between the experimental and demonstrable stages is difficult to define. Somewhere in this twilight zone the evidential force of the principle must be recognized, and while the court will go a long way in admitting expert testimony deduced from a well-recognised scientific principle or discovery, the thing from which the deduction is made must be sufficiently established to have gained general acceptance in the particular field in which it belongs.⁵²

The decision in *Daubert v Merrell*⁵³ precluded general acceptance as the exclusive test of admissibility for expert scientific testimony.⁵⁴ Carl F. Cranor argued that the court in *Daubert v Merrell* heightened judges’ duty to review expert testimony, including scientific testimony in toxic tort cases.⁵⁵ Hutchinson and Ashby argued that the court adopted ‘a more methodical approach’ that enquires into the extent to which the expert’s methodology or reasoning is grounded in the procedures of science.⁵⁶

⁴⁷ Ibid.

⁴⁸ *Daubert v Merrell Dow Pharmaceuticals, Inc* (1993) 113 S. Ct 113 S. (1993) (‘*Daubert v Merrell*’).

⁴⁹ David E Bernstein, ‘The Admissibility of Scientific Evidence after *Daubert v. Merrell Dow Pharmaceuticals, Inc*’ (1993) 15 *Cardozo Law Review* 2139, 2140-41.

⁵⁰ *Frye v United States* 293F (D.C. Cir. 1923), 1013 (‘*Frye v United States*’).

⁵¹ Ibid 1014.

⁵² Ibid 1014.

⁵³ *Daubert v Merrell*, above n 48.

⁵⁴ Hutchinson and Ashby, above n 30, 1883.

⁵⁵ Carl F Cranor, ‘A Framework for Assessing Scientific Arguments: Gaps, Relevance and Integrated Evidence’ (2007) 15(1) *Journal of Law & Policy* 7, 8.

⁵⁶ Hutchinson and Ashby, above n 30, 1883.

The decision in *Daubert v Merrell*⁵⁷ basically required judges to assess whether the evidence was scientific. In doing so, the Supreme Court examined what was meant by the concept of scientific knowledge. The court said:

The adjective ‘scientific’ implies a grounding in the methods and procedures of science. Similarly, the word ‘knowledge’ connotes more than subjective belief or unsupported speculation. Thus, in order to qualify as ‘scientific knowledge’, an inference or assertion must be first derived by the scientific methods.⁵⁸

If satisfied, the court must investigate whether the theory or method to generate a conclusion is trustworthy (evidentiary reliability). To this end, the Supreme Court provided some tests for judges to actively screen a testimony to ensure its relevance and reliability.⁵⁹ In addition to general acceptance, as stated in *Frye v United States*, these tests consist of:

1. The ‘falsifiability’ of the theory or technique

To determine the genuine status of scientific knowledge, the court needs to falsify such scientific knowledge using empirical observations.⁶⁰ A classic example of falsifiability was in *Christophersen v Allied-Signal Corp.*,⁶¹ in which the plaintiff claimed that the material used to manufacture nickel batteries was the cause of colon cancer that resulted in death. The plaintiff’s expert testified on a link between exposure to nickel and cadmium and carcinoma cells in the colon.⁶² The testimony was based on several studies that he believed indicated a link between nickel and cadmium and carcinoma cells in the lungs.⁶³ However, the court rejected the testimony based on the absence of precedents in cancer epidemiology related to the conclusion of the expert.⁶⁴ That is, no single expert, including the expert himself, had tried to corroborate the hypothesis that stated that the pathogenic similarity of cancer in different organs could mean that the cancer had the same cause.⁶⁵

⁵⁷ *Daubert v Merrell*, above n 48.

⁵⁸ Ibid 590.

⁵⁹ Ibid 2795.

⁶⁰ Hutchinson and Ashby, above n 30, 1888.

⁶¹ *Christophersen v Allied-Signal Corp.*, 939 F.2d 1106 (5th Cir. 1991) (‘*Christophersen v Allied-Signal Corp.*’).

⁶² Ibid 1108–09.

⁶³ Ibid.

⁶⁴ Ibid 1115.

⁶⁵ Ibid.

2. The technique's known and the standard controlling of its operation

Potential error rate analysis is not used to assess a theory, but to assess systematic procedures for producing scientific stages.⁶⁶ 'Unlike falsifiability, which requires the techniques used are valid techniques, the analysis of potential error rates is carried out to ensure the validity of the techniques used and the proper application in a case'.⁶⁷ Examples of the use of potential error rates can be observed from a person's type of DNA test.⁶⁸ Every human's DNA is unique. However, not all techniques used to determine the type of DNA that a person can detect are unique and have a high degree of accuracy.⁶⁹ A technique that has been proven by a valid theoretical basis might not produce accurate results as a result of several situations: (1) the system is not supported by equipment that operates properly; (2) the system is not operated by a qualified technician; and (3) the system is operated without correct procedures.⁷⁰ The validity of an operating standard is not only determined by whether the expert has used valid techniques, but also whether the expert is using the technique correctly.⁷¹

3. The extent to which the theory or technique has been subjected to peer review and publication

Peer review is a method that has been institutionalised to review the plausibility of an output that is scientific in nature and the level of correctness of the methodology and analysis used to produce the output.⁷² A rigorous peer review process determines the extent to which a claim about knowledge is considered scientific.⁷³ According to the judge in *Daubert v Merrell*, a rigorous process will detect the substantive flaws in the methodology used.⁷⁴ However, the judge in this case stated that peer review was not an absolute assessment.⁷⁵ For example, claims about science that are still very new (i.e., novel) cannot automatically be considered because they have not passed

⁶⁶ *Daubert v Merrell*, above n 48, 2797.

⁶⁷ Hutchinson and Ashby, above n 30, 1896.

⁶⁸ According to the English Oxford Living Dictionary, DNA is 'deoxyribonucleic acid, a self-replicating material which is present in nearly all living organism as the main constituent of chromosomes. It is the carrier of genetic information' <<https://en.oxforddictionaries.com/definition/dna>> (accessed on 12 February 2019).

⁶⁹ Hutchinson and Ashby, above n 30, 1896.

⁷⁰ Paul C Giannelli, 'The Admissibility of Novel Scientific Evidence: *Frye v United States*, a Half-Century Later' (1980) 80 *Colum Law Review* 1197, 1200–02.

⁷¹ Hutchinson and Ashby, above n 30, 1897.

⁷² *Ibid* 1900.

⁷³ *Ibid*.

⁷⁴ *Daubert v Merrell*, above n 48, 2797.

⁷⁵ *Ibid*.

through an adequate peer review process.⁷⁶ These claims need to be weighed with other validation standards before they can be excluded as evidence.⁷⁷

5.3.2 Issues and Challenges for Implementation in the United States

Clearly there are some concerns about admissibility requirements. Cranor argued that since *Daubert v Merrell*, courts need ‘to review individual scientific arguments by experts and some of the individual evidence on which they rest for relevancy’.⁷⁸ This is a much more difficult task than under the *Frye* case, which relied on a generic admissibility review.⁷⁹ This problem might occur because Daubert’s criteria still require judges to have some substantive knowledge of the nature of scientific arguments.⁸⁰ Cranor further noted:

The structure of scientific argument, despite common use of them in our daily lives and their pervasive use in science and other technical areas, may not be fully appreciated because of the complex relationship between premises and conclusion and the substantive expertise needed to assess the argument.⁸¹

US law determines the admissibility and relevance of each piece of evidence separately and excludes any evidence that does not meet the Federal Rules of Evidence or the Daubert criteria.⁸² As a result, courts may ‘inadvertently exclude important pieces of scientific evidence that are not admissible on their own but help buttress the overall scientific argument’.⁸³ Thus, ‘any assessments of plausibility or reliability should be applied to overall scientific arguments, not typically to individual pieces of evidence’.⁸⁴ In addition, there is concern regarding the burden of proof on poor parties trying to litigate environmental claims—especially those who are less able to gather scientific evidence.⁸⁵

Further, applying admissibility to overall scientific arguments requires adequate scientific knowledge. This is difficult for judges because ‘scientific arguments are not readily accessible to

⁷⁶ Ibid.

⁷⁷ Ibid.

⁷⁸ Cranor, above n 55, 57–58.

⁷⁹ Ibid.

⁸⁰ Ibid 8.

⁸¹ Ibid. That is, the scientific method considers the totality of the evidence, often relying on different lines of evidence that individually may not be sufficient to support a conclusion.

⁸² Nardi Jr., above n 13, 119.

⁸³ Ibid.

⁸⁴ Cranor, above n 55, 58.

⁸⁵ Nardi, Jr., above n 13, 118.

those not steeped in the substantive scientific fields’.⁸⁶ For example, judges might face difficulties in reviewing experts’ conclusions about the toxicity of products assembled from the ‘disparate kinds of evidence that is both scientifically relevant and sufficiently good’.⁸⁷ These difficulties occur because of three situations:⁸⁸ (1) scientific arguments will always have gaps between their premises and conclusions; (2) scientists consider all scientifically relevant evidence when drawing conclusions, and unfamiliarity with scientific substances tends to lead those who evaluate (e.g., judges) to treat the evidence as not plausible; and (3) scientists consider all relevant evidence as an integrated whole when drawing conclusions. Thus, courts will need to recognise this and assess evidence as an integrated whole when reviewing experts’ testimony for admissibility.

5.3.3 Admissibility of Evidence under the Australian Evidence Law

According to Jill Hunter and others, ‘both the common law and the uniform evidence acts assume a difference between fact and opinion’.⁸⁹ However, both systems do not provide a clear definition of this critical term.⁹⁰ The *Evidence Act 1995*⁹¹ recognised two types of evidence: fact (evidence of fact) and opinion (evidence of opinion).⁹² Preston defined fact as a direct observational fact or direct evidence of what a person sees, hears, smells, tastes and touches using the five senses.⁹³ In contrast, an opinion is popularly known as ‘an inference from observed and communicable data’.⁹⁴ Under Australian evidence law, expert evidence is an exception to the rule that evidence of an opinion is not admissible to prove the existence of a fact about the existence of which the opinion was expressed.⁹⁵ The latter requires an expert to provide the trier of fact with an inference that the judge or jury, given the technical nature of the facts, is unable to formulate.⁹⁶ An admissible expert opinion gives the court scientific information that is outside the experience of the judge and jury.

⁸⁶ Cranor, above n 55, 25.

⁸⁷ Ibid 9.

⁸⁸ Ibid 25–26.

⁸⁹ Jill Hunter, Camille Cameron and Terese Henning, *Litigation II: Evidence and Criminal Process* (LexisNexis Butterworths, 7th ed, 2005) 1411.

⁹⁰ Ibid.

⁹¹ *Evidence Act 1995 (NSW)*.

⁹² Interview with Justice Brian J Preston, Chief Judge of the LECNSW, Australia (7 March 2018); *Evidence Act 1995*, Part 2.1 (Witnesses), Part 2.2 (Documents); Part 2.3 (Other Evidence).

⁹³ Interview with Justice Brian J Preston, Chief Judge of the LECNSW, Australia (7 March 2018).

⁹⁴ *Allstate Life Insurance Co v ANZ* (1996) 64 FCR 73 at 75.

⁹⁵ J Gans & A Palmer *Uniform Evidence* (Oxford University Press, 2nd ed, 2014) 139.

⁹⁶ *Quick v Scotland Pty Ltd* (1998) 87 FCR 371.

‘[I]f, on the proven facts, a judge or jury can form their own conclusions without help, then the opinion of an expert is unnecessary’.⁹⁷

For a matter calling for specialised knowledge, the codified Evidence Law exempts the opinion rule⁹⁸ based on two requirements. First, a person shall have ‘specialised knowledge’. This part requires the court to assess whether it has been demonstrated that the witness has acquired specialised knowledge by reason of specified training, study or experience. The court usually questions the witness’s educational qualifications, membership of societies relevant to the body of specialised knowledge, relevant publications and experience as a witness, and so on.⁹⁹ That is why the procedural rules applicable in an Australian court, for example Schedule 7 “Expert witness code of conduct” of the Uniform Civil Procedure Rules 2005 (NSW),¹⁰⁰ will require an expert report to include a statement of the qualifications of the expert to prepare the report. Some decisions have applied the same approach as in *Frye* rule on general acceptance, such as in *R v Gilmore*¹⁰¹ concerning the admissibility of ‘spectrographic voice analysis’ and in *Jamieson v R*¹⁰² concerning the analysis of documents using the stylistic method.

Second, the expert opinion ‘is wholly or substantially based on that knowledge’.¹⁰³ This part requires the court to assess whether there is a body of specialised knowledge that could provide a basis for expression of the relevant opinion.¹⁰⁴ If the expert opinion ‘is wholly or substantially based on that knowledge’, the court continues to test whether the theory, and any technique used to employ the conclusion, is reliable.¹⁰⁵ Reliable in the sense that its application to the assumed facts can produce an opinion of some value to the jury in coming to a view as to whether the fact in issue exists.

5.3.4 Preston’s Analytical Framework of Admissibility Requirements

Preston summaries the above admissibility requirements by establishing an analytical framework through various tests.¹⁰⁶ The first test is a relevance test in which the court should assess whether

⁹⁷ *R v Turner* [1975] QB 834 at 841.

⁹⁸ *Evidence Act 1995*, above n 91, art 76. Evidence of an opinion is not admissible to prove the existence of the fact about the existence of which the opinion was expressed.

⁹⁹ John Anderson and Peter Bayne, *Uniform Evidence Law, Text and Essential Cases* (Federation Press, 2nd ed, 2009) 392.

¹⁰⁰ *Uniform Civil Procedure Rules 2005 (NSW)*, Schedule 7, point 1 a.

¹⁰¹ *R v Gilmore* (1977) NSWLR 935 (1977) at 940.

¹⁰² *Jamieson v R* (1992) 60 A Crim R 68 at 77.

¹⁰³ *Evidence Act 1995*, above n 91, art 79(1).

¹⁰⁴ Anderson and Bayne, above n 99, 392.

¹⁰⁵ *Ibid.*

¹⁰⁶ Preston, above n 3.

evidence is relevant to the issue in the proceeding. Evidence Act 1995 stipulates requirements for the relevance to be admissible. '[E]vidence that is relevant in a proceeding is admissible in the proceeding'.¹⁰⁷ 'Evidence that is not relevant in the proceeding is not admissible'.¹⁰⁸ Evidence that is relevant in a proceeding is 'evidence that, if it were accepted, could rationally affect (directly or indirectly) the assessment of the probability of the existence of a fact in issue in the proceeding'.¹⁰⁹ This test requires the court to engage in a two-part inquiry. The Australian Law Reform Commission, as quoted by Preston, explained that the definition of relevance embraces two concepts: (1) 'the logical connection between evidence and facts'; and (2) 'the requirement that the matter on which the evidence ultimately bears is a matter in issue in the trial'.¹¹⁰

If evidence as to an issue is relevant, there are two principles under common law determine whether a particular field requires expert evidence.¹¹¹ King in *R v Bonython*¹¹² explained these principles as follows:

- (a) Whether the subject matter of the opinion is such that a person without instruction or experience in the area of knowledge or human experience would be able to form a sound judgement on the matter without the assistance of witnesses possessing special knowledge or experience in the area, and;
- (b) Whether the subject matter of the opinion forms part of a body of knowledge or experience which is sufficiently organised or recognised to be accepted as a reliable body of knowledge or experience, special acquaintance with which by the witness would render his opinion of assistance of the court.¹¹³

Preston summarised these two principles by noting that the opinion of evidence can be excluded as insufficiently reliable if: (1) 'the ordinary person is as capable of forming a correct view on the question as anyone else'; and (2) the evidence is 'not based on an organised body of sound knowledge and experience'.¹¹⁴ Once the basis of the opinion is satisfied as specialised knowledge, this test can help determine whether the subject matter of the opinion forms part of a body of knowledge or experience that is reliable.¹¹⁵

¹⁰⁷ *Evidence Act 1995*, above n 91, art 56(1).

¹⁰⁸ *Ibid* art 56(2).

¹⁰⁹ *Ibid* art 55.

¹¹⁰ Preston, above n 3, 267.

¹¹¹ *Ibid* 268.

¹¹² *R v Bonython* (1984) 38 SASR 45.

¹¹³ *Ibid* 46–7.

¹¹⁴ Preston, above n 3, 268.

¹¹⁵ *Ibid*.

If expert evidence is relevant, and it required to assist a judge to form a sound judgement on a matter, the qualification test assesses whether the expert giving that evidence is competent. The test as affirmed by the Australian High Court in *Dasreef Pty Ltd v Hawchar*¹¹⁶ requires satisfaction of two criteria: first, that the witness who gives the evidence "has specialised knowledge based on the person's training, study or experience"; and secondly that the opinion expressed in evidence by the witness "is wholly or substantially based on that knowledge".¹¹⁷ The witness must be qualified as an expert in the recognised field and have acquired specialised knowledge based on the person's training, study or experience.¹¹⁸ Based on this test, expertise can be devised from the course of study or experience in appropriate matters, but it depends on the matter in question.¹¹⁹ If the field of knowledge in question is a technical field of science, mere experience without proper training or study could be sufficient.¹²⁰ Thus, to determine the required expert's qualification, it is important to clearly define the question upon which the evidence is proposed.¹²¹ The expert's evidence must explain how the field of "specialised knowledge" in which the witness is expert by reason of "training, study or experience", and on which the opinion is "wholly or substantially based", applies to the facts assumed or observed so as to produce the opinion propounded.¹²²

Finally, the basis test assesses the reliability of the theory and any technique used to reach the conclusion. Thus, the opinion of the witness must be 'wholly or substantially based' on the specialised knowledge and there must be a relationship between 'the specialised knowledge of an identified kind'¹²³ and the opinion.¹²⁴ Similarly, 'there cannot be a relationship, even if a particular opinion falls within the field in which the witness is an expert, if no "special knowledge" is used in reaching that opinion'¹²⁵ In addition, 'the factual basis of the opinion must be disclosed and proven by admissible evidence'.¹²⁶ After the High Court decision in *Dasreef Pty Ltd v Hawchar* in 2011 there is some doubt as to whether the basis rule applies under the uniform evidence law (that is, where s 79 of the *Evidence Act* applies instead of the common law rules of evidence) - it

¹¹⁶ *Dasreef Pty Ltd v Hawchar* (2011) 243 CLR ('*Dasreef v Hawchar*').

¹¹⁷ *Ibid* 604

¹¹⁸ *Evidence Act 1995*, above n 91, art 79.

¹¹⁹ Preston, above n 3, 291.

¹²⁰ *Clark v Ryan* (1960) 103 CLR 486 at 491–492, 499, 502.

¹²¹ *Ajami v Comptroller of Customs* (1954) 1 WLR 1405 at 1408.

¹²² *Dasreef v Hawchar*', above n 116 at 37.

¹²³ *Quick v Scotland Pty Ltd* 87 FCR 371 at 381.

¹²⁴ Preston, above n 3, 292.

¹²⁵ *Ibid*.

¹²⁶ *Ibid*.

may be that an expert opinion where the foundational facts are not proven may still be admissible but excluded on a discretionary basis.¹²⁷

5.3.5 Main Issues Arising from the Experiences of the United States and Australia

The requirement for admissibility involving the expert opinion on scientific evidence in both jurisdictions provides an instructive experience for Indonesia. The US model deals with assessing the credibility of evidence by determining whether the evidence is relevant. If satisfied, the court should proceed with further assessments to determine whether the expert opinion is ‘specialised knowledge’ and whether it is reliable and based on a scientific method. Finally, the court should assess valid scientific connections between expert opinions. The Australian approach is to ask (1) is the evidence relevant to establish a fact in issue in the proceedings; if yes, (2) is expert opinion evidence needed to decide any particular issue; and, if yes (3) is the expert who is proposing to give evidence on that issue qualified to give it because he/she has specialised knowledge and the evidence is based on that specialised knowledge.

Both the US and Australia require their courts to possess a sufficient level of scientific knowledge. This raises an issue regarding the extent to which judges with no scientific education should be required to understand scientific knowledge. It also requires a determination of what constitutes a sufficient level of scientific understanding for the judiciary. Judges should not be expected to ‘review a scientific report or article and critique its methodology and conclusions with the same degree of rigor as a well-trained scientist’.¹²⁸ Instead, judges should be equipped with the ability to ‘ask critical questions regarding methodological and statistical issues used by scientific experts’.¹²⁹ Gatowski and others considered this issue a subject for further research in the area of policy development.¹³⁰

Based on these features, this chapter identifies three areas that are relevant to Indonesia in relation to the use of scientific evidence, taking into account the preliminary challenges identified above. The three areas are: (1) whether the evidence is relevant; (2) whether the evidence is scientific (evidentiary reliability or trustworthiness); and (3) whether the opinion is specialised knowledge that is relevant to the case. Acknowledging some of the abovementioned concerns regarding the admissibility requirements faced by courts, the next section will examine the extent to which Indonesian law addresses these three aspects, as well as their practical implementation in

¹²⁷ J Gans & A Palmer *Uniform*, above n 95, 149-151.

¹²⁸ Sophia I Gatowski et al, ‘Asking the Gatekeepers: A National Survey of Judges on Judging Expert Evidence in a Post-Daubert World’ (2001) 25(5) *Law and Human Behavior* 433, 455.

¹²⁹ *Ibid.*

¹³⁰ *Ibid.* The survey made this conclusion when discussing the appropriate scope and purpose of science-based judicial education.

decisions. The issue of a sufficient level of scientific knowledge among judges will also be assessed within the context of the Indonesian system and experience.

5.4 Admissibility and the System for Obtaining Expert Evidence: Law and Implementation

Principles of the admissibility requirements of scientific evidence in the US and Australia are enshrined in the existing law of evidence and created through case laws. Both countries use the common law system. Thus, applying these principles to a civil law country like Indonesia requires a careful and in-depth analysis to assess their relevance and applicability within the Indonesian legal system. However, although Indonesia adopted the civil law system, it has also been influenced by the common law system.¹³¹ For example, some common law principles and concepts, such as class action, legal standing and strict liability, have been internalised into Indonesian law. Some of these rights have been tested in environmental cases: ‘Indonesia is an interesting example where its judiciary deciding/exercising important environmental cases in a legal system which derives from a rigid civil law system and the existing laws, especially environmental laws influenced by the common law system’.¹³²

5.4.1 Law of Evidence in Indonesia in Handling Environmental Cases

The need for a sufficient understanding of scientific knowledge by judges has been addressed by the Supreme Court. At the Inaugural ASEAN Chief Justices’ Roundtable on Environment in 2011, Chief Justice Tumpa emphasised that certified judges should have adequate knowledge and skills in presenting scientific evidence and knowledge on special concepts or legal principles to hear and decide environmental cases.¹³³ Justice Rahmadi highlighted the difficulty in establishing ‘the causal link between the suspected polluting activities and the resulting environmental harm’, for example, in marine pollution and coastal destruction cases.¹³⁴

Indonesian judges examine the relevance of evidence as part of conducting enquiries into the truth of what occurred—that is, the facts behind the legal issues in dispute. For this reason, they control the proceedings and may directly examine witnesses brought by parties in the dispute. In a civil

¹³¹ Adrian W Bedner, ‘Amalgamating Environmental Law in Indonesia’ in J Arnscheidt, J M Otto and B Van Rooij (eds), *Lawmaking for Development: Explorations into the Theory and Practice of International Legislative Projects* (Leiden University Press, 2008) 171, 180.

¹³² Interview with Paul Stein, former Justice of the Supreme Court, NSW, Australia (3 December 2019).

¹³³ Kala K Mulqueeny and Francesse Joy Cordon (eds), *Inaugural ASEAN Chief Justices’ Roundtable on Environment: The Proceedings* (ADB, 2013) 4 <https://www.ajne.org/sites/default/files/document/conference_proceedings/5386/asean-chief-justices-roundtable-web.pdf> (accessed on 12 February 2019).

¹³⁴ Ibid xii.

case, ‘whoever claims to have a right ... must prove the existence of that right or event’.¹³⁵ Accordingly, the plaintiff in a civil case must provide relevant evidence to prove their allegation. Art 1866 of the Civil Procedural Code lists five types of evidence: written, testimony, conjecture, recognition and oaths.¹³⁶ Further, the code lists two other types of evidence: onsite examination¹³⁷ and expert testimony.¹³⁸ The regulation of these rules of evidence indicates the intention of the legislator not to limit the types of evidence.¹³⁹ In a complex environmental case, the formulation should accommodate decision-makers’ response to a rapidly expanding and complex legal area along with advancements in science, economics and technology. To keep up-to-date with these advancements, the Supreme Court’s Guideline for Environmental Cases Handling¹⁴⁰ expanded the evidence in civil law to include electronic evidence, as stipulated under Law No 11 of 2008 concerning Information and Electronic Transaction.¹⁴¹ In addition to the evidence stipulated under the existing law, there are other types of evidence in the form of electronic information¹⁴² and electronic records.¹⁴³

The Indonesian Criminal Procedural Code sets limitations on the types of evidence. It limits evidence to witness testimony, expert testimony, documents, indications and the testimony of the accused.¹⁴⁴ The law requires a ‘minimum limit of proof’, which means that a judge cannot convict someone unless the judge is supported by at least two pieces of evidence to support the charge.¹⁴⁵ Positioning the testimony of an expert in the second row shows its high validity as evidence. The order indicates the legislator’s awareness of the important role of expert testimony in criminal cases. However, the Criminal Procedural Code does not list different types of evidence in some order of importance. The law requires a ‘minimum limit of proof’ as stated above. There are two

¹³⁵ Herziene Indonesisch Reglement (‘HIR’), art 163.

¹³⁶ Indonesia Civil Procedural Code, art 1866.

¹³⁷ HIR, above n 135, art 153.

¹³⁸ Ibid art 154.

¹³⁹ Achmad Ali and Wiwie Heryani, *Asas-Asas Hukum Pembuktian Perdata (The Law of Evidence in Civil Case)* (Prenadamedia Group, 2012) 78.

¹⁴⁰ ‘Supreme Court Guideline for Environmental Cases Handling’, above n 10.

¹⁴¹ Law No 11 of 2008 concerning Information and Electronic Transaction (‘Electronic Transaction Law’).

¹⁴² Ibid art 1(1) Electronic information is a ‘cluster or clusters of electronic data, including but not limited to writings, sounds, images, maps, drafts, photographs, electronic data interchange (EDI), electronic mails, telegrams, telex, telecopy or the like, tellers, signs, figures, Access Codes, symbols or perforations that have been processed for meaning or understandable to persons qualified to understand them’.

¹⁴³ Ibid art 1 (14). An electronic record is ‘any Electronic Information that is created, forwarded, sent, received, or stored in analogue, digital, electromagnetic, optical form, or the like, visible, displayable and/or audible via Computers or Electronic Systems, including but not limited to writings, sounds, images, maps, drafts, photographs, electronic data interchange (EDI), electronic mails, telegrams, telex, telecopy or the like, tellers, signs, figures, Access Codes, symbols or perforations that have been processed for meaning or understandable to persons qualified to understand them’.

¹⁴⁴ Law No. 8 of 1981 on Criminal Procedural Code (Kitab Undang-Undang Hukum Acara Pidana), art 184(1). (‘Criminal Procedural Code’).

¹⁴⁵ Ibid art 186.

ways in which the testimony of an expert can be presented. The first is based on the request of the police during the investigation.¹⁴⁶ The expert produces a report that is valid evidence in accordance with the law. Second, the expert provides testimony directly in the court based on the request of judges, prosecutors and lawyers.¹⁴⁷ The testimony is provided orally and recorded by the registrar in the minutes of the court hearings. In regard to environmental cases, the EPML acknowledges other evidence under Law No 11 of 2008 concerning Information and Electronic Transaction.¹⁴⁸

Based on the description of the above selected legal framework concerning the assessment of scientific evidence, this thesis makes the following findings. First, in relation to the relevance of evidence, criminal procedural law provides a clear rule on assessing the credentials of an expert witness compared with civil procedural law. Under criminal procedural law, a court can corroborate the witness testimonies, between testimony of witnesses and other evidence and investigate the reasons used by witnesses for giving information, as well as their way of life, morality and anything that might affect the validity of their statement.¹⁴⁹ Further, judges must determine their validity by examining connections among the evidence presented by parties to identify events or actions that might have legal consequences, and to make conclusions. In this situation, the court may assess scientific evidence as a whole and prevent the rejection of evidence at an early stage before it assesses all of the relevant evidence to make a conclusion. As highlighted in the previous section, in the US, evidence is assessed on an individual basis, which is considered one of the drawbacks of the Daubert criteria.

Second, procedural law does not provide clear guidelines to assess whether the evidence or opinion presented by an expert has been obtained from a scientific source and method. To avoid problems in examining evidence in court, the Supreme Court provides practical guidance to judges in dealing with scientific evidence and expert evidence under the Guideline for Environmental Cases Handling.¹⁵⁰ This guideline provides examples of scientific evidence, including laboratory analysis, hotspot data and interpretation.¹⁵¹ The guideline further state that to become legal evidence, scientific evidence must be supported by expert testimony in the proceedings.¹⁵² Any sample taken should be authorised by a credible and accredited person or organisation and detailed

¹⁴⁶ Ibid art 142, 132(1), 133(1), 179(1).

¹⁴⁷ Ibid art 186.

¹⁴⁸ Law No. 32 of 2009 on Environmental Management and Protection ('EPML'), art 96(f).

¹⁴⁹ Criminal Procedural Law, above n 144, art 185(6).

¹⁵⁰ 'Supreme Court Guideline for Environmental Cases Handling', above n 10, 23 and 48.

¹⁵¹ Ibid 23.

¹⁵² Ibid 23.

event report.¹⁵³ Further, the guideline note that to be qualified as an expert in an environmental case, one should have the appropriate discipline indicated by: (1) the certificate of a master degree as a minimum or acquired recognition from the community; (2) experience in conducting relevant research and academic publications; and (3) actively attending seminars and conferences as listed in their curriculum vitae.¹⁵⁴ The guideline do not provide direction on how to assess scientific evidence or how to ensure expert information is based on scientific theories or methods. They only explain what judges should do if they face a conflicting evidence.

Hence, the Attorney General's Office (AGO) of Indonesia provides the following requirements for expert witnesses: (1) have a degree in the required disciplines (minimum of bachelor degree or master or doctoral level is better); 2) have work/research experience in their field of expertise; 3) have experience as an expert witness at a court hearing or as a technical advisor at the investigation stage (this requirement is not absolute because scholars have rarely ever had this experience); and 4) have a scientific reputation (written work/research activities) and recognition by a professional group (non-formal recognition).¹⁵⁵

Despite regulating some aspects of scientific evidence, the guidelines only emphasise what judges should do when there is a discrepancy between scientific evidence and expert information regarding scientific evidence. If faced with the difficulty of making a conclusion from different experts' opinions, the court may appoint a third neutral expert.¹⁵⁶ The parties responsible for bearing the cost will be decided by the court.¹⁵⁷ However, in most cases, some challenges prevent this opportunity because of the difficulty faced by judges in determining the competence of experts. Further, not all parties have an adequate financial capacity to bear the cost of using a third neutral expert.¹⁵⁸ The guidelines do not provide guidance on how to assess whether the scientific proof or testimony of the expert witness is relevant evidence and is based on scientific theories or methods and is therefore admissible.

Third, neither criminal nor civil procedural law provide clear guidance in assessing the reliability or credentials of expert witnesses, and there are no guidelines for assessing experts' specialised knowledge. For example, criminal law only explains that an expert witness is someone that has special expertise in accordance with the issue in a case. The code defines the testimony of an expert

¹⁵³ Ibid 23.

¹⁵⁴ Ibid 48.

¹⁵⁵ Joint Decree between the Attorney General Office of the Republic of Indonesia and the Ministry of Environment No B-60/E/Ejp/01/2002 on Guideline on Judicial Technique on Environmental Case Handling.

¹⁵⁶ 'Supreme Court Guideline for Environmental Cases Handling', above n 10, 23.

¹⁵⁷ Ibid.

¹⁵⁸ Interview with Judge Sugeng Riyono of the High Court of Riau and Judge Nani Indrawati of the High Court of Makassar.

as ‘the information given by an expert who has special expertise on what is necessary to illuminate a criminal case for the purposes of examination’.¹⁵⁹ ‘In case the investigator deems necessary, he/she may seek the opinion of an expert or a person with special expertise’.¹⁶⁰ In summary, the code ensures the competence of the expert in two respects: (1) the expert possesses ‘specialised knowledge’ on the matter in a criminal case; and (2) the case is illuminated by the testimony of expert witness so it can be settled. However, the law does not elaborate on what constitutes ‘specialised knowledge’. It only states that specialised knowledge means that the expert provides testimony ‘based on his/her best knowledge (*pengetahuannya*)’.¹⁶¹ ‘[T]he expert raises an oath or makes a promise in the face of the investigator that he will provide information according to his best knowledge’.¹⁶²

5.4.2 Use of Scientific Evidence by Courts in Decision-Making

For at least 15 years, scientific evidence has been widely used in various environmental cases within courts in Indonesia.¹⁶³ Thus, there is hope for improvement in environmental case decisions, although some court decisions are still considered problematic as a result of their assessment of such evidence.¹⁶⁴ Overall, there are still many challenges to using scientific evidence in handling environmental cases. Judges face difficulties in interpreting scientific evidence as legal evidence because of their limited understanding of science.¹⁶⁵ However, this understanding is critical to determine and apply scientific facts to the legal framework so that an appropriate and accountable decision can be made.

A Number of decisions on environmental cases have involved the use of scientific evidence, particularly, in areas of causation. This section discusses how existing laws and regulations have been used in such cases—in particular, how provisions concerning the use of scientific evidence have been used in court. In doing so, this section examines two decisions: (1) *Ministry of*

¹⁵⁹ Indonesian Criminal Code, above n 144, art 1(28).

¹⁶⁰ Ibid art 120(1).

¹⁶¹ Ibid art 120(2).

¹⁶² Ibid.

¹⁶³ In the 2000s, the Supreme Court began training on environmental law for judges and other law enforcers. Decisions on forest fire cases include the cases of Surya Panen Subur (2013), Kalista Alam (2015), East Java Jaya Perkasa (2016), Bumi Mekar Hujau (2016), Waringin Argo Jaya (2017) and National Sago Prima (2017).

¹⁶⁴ ‘Opini: Berkaca Pada Putusan Kasus PT. BMH (Opinion: Reflect from the Decision of PT BMH)’, *Mongabay Environmental News* (online), 13 January 2016 <<http://www.mongabay.co.id/2016/01/13/opini-berkaca-pada-putusan-kasus-pt-bmh/>> (accessed on 7 February 2019).

¹⁶⁵ ‘Hakim Seringkali Abaikan Bukti Ilmiah’, *Hukum Online* (online), 5 February 2011 <<http://www.hukumonline.com/berita/baca/lt4d4cf9774f064/hakim-seringkali-abaikan-bukti-ilmiah>> ([accessed on 23 July 2018](#)).

Environment and Forestry v PT Jatim Jaya Perkasa ('*MoEF v PTJJP*'),¹⁶⁶¹⁶⁷ and (2) *Republic of Indonesia v Newmont Minahasa Raya Jaya and Richard B Ness* ('*RoI v PTNMR and Ness*').¹⁶⁸

The following criteria were used to select the case studies: (1) the decision dealt with various issues in using scientific evidence, such as the relevance of scientific evidence and whether the evidence and opinions of experts are based on theory or the scientific method; (2) the decision was decided before or after the issuance of the Guideline on Environmental Cases Handling as highlighted above—for example, *MoEF v PTJJP* was decided after the enactment of the guidelines, whereas *RoI v PTNMR & Ness* was decided before the issuance of the Supreme Court decree on handling environmental cases; and (3) representative of civil and criminal cases—for example, *MoEF v PTJJP* was a civil case and *RoI v PTNMR & Ness* was a criminal case.

MoEF v PTJJP, a forest fire case, had four scientific disputes: (1) whether the fire had occurred in the defendant's area; (2) after the determination of the location of the forest fire, there was a further scientific dispute over the size of the burnt area; and (3) once the location and size of the forest fire had been determined, the next challenge was to monetise the environmental loss and damage and the cost for rehabilitation.¹⁶⁹ *RoI v PTNMR & Ness*, a water pollution case, had the following scientific disputes: (1) whether PTNMR had discharged waste exceeding the limit stated under its permit;¹⁷⁰ (2) whether PTNMR placed its submarine tailings disposal (STD) below the thermocline;¹⁷¹ (3) whether PTNMR activity affected health so that PTNMR should be held responsible;¹⁷² and (4) whether PTNMR activity created environmental damage so that PTNMR should be held responsible.¹⁷³

MoEF v PTJJP¹⁷⁴

In *MoEF v PTJJP*, the MoEF filed a lawsuit against PTJJP, arguing that the defendant had deliberately burnt the forest to open the land in the area.¹⁷⁵ While concluding the defendant's

¹⁶⁶ *Ministry of Environment and Forestry v PT Jatim Jaya Perkasa* [2015] Decision of the District Court of South Jakarta No 108/PDT.G/2015/PN.JKT.UTR (2015) ('*MoEF v PTJJP*');

¹⁶⁷ *Ministry of Environment and Forestry v PT Jatim Jaya Perkasa* [2016] Decision of the High Court of DKI Jakarta No 727/PDT/2016/PT.DKI (2016) ('*MoEF v PTJJP*').

¹⁶⁸ *Republic of Indonesia v PT Newmont Minahasa Raya and Richard B Ness* [2007] Decision of the District Court of Manado No 284/Pid.B/2005/PN.Mnd (24 April 2007) ('*RoI v PTNMR & Ness*').

¹⁶⁹ *MoEF v PTJJP*, above n 166, 9.

¹⁷⁰ *RoI v PTNMR & Ness*, above n 166, 24.

¹⁷¹ *Ibid* 26.

¹⁷² *Ibid* 96.

¹⁷³ *Ibid* 16.

¹⁷⁴ *MoEF v PTJJP*, above n 166; *MoEF v PTJJP*, above n 167.

¹⁷⁵ *Ibid* 6.

liability for the forest fire occurring in their area, the District Court of South Jakarta set aside the size of the forest area that was burnt as presented by the plaintiff. Based on the available evidence, the court accepted the defence, which argued that the size was 120 hectares and not 1,000 hectares.¹⁷⁶ The court's conclusion was based on the testimonies of witnesses presented by the defendant to satisfy that the fire first began in the community area located near the defendant's area.¹⁷⁷ Based on this conclusion, the court discounted the total compensation asked by the plaintiff. Based on the total burnt forest of 120 hectares, the court ordered the defendant to pay a total more than IDR 7,196,188,475 (US\$514,063) as compensation and a restoration cost for the damaged environment in the amount more than IDR 22,277,130,853 (US\$1,591,233).¹⁷⁸ The plaintiff appealed the decision of the district court in the high court.¹⁷⁹

The ground of appeal was that the expert testimony from the plaintiff relied heavily on the result of the laboratory test, which had not been accredited and certified in accordance with the relevant regulation.¹⁸⁰ The Regulation of the Ministry of Environment No 6 of 2009 on Environmental Laboratory regulates the requirements for the accreditation and certification of credible environmental laboratories.¹⁸¹ In addition, the defendant provided a letter for the Faculty of Forestry dated 20 January 2017, which explained that the laboratory had not yet been able to analyse the biological characteristics of the soil.¹⁸² The high court affirmed the district court's decision on the defendant's liability, but rejected its decision regarding the size of the burnt forest.¹⁸³ The panel of the high court ordered the company to pay a total of IDR 119,888,500,000 as compensation and restoration to the damaged environment in the amount of IDR 371,137,000,000.¹⁸⁴ In making this decision, the district and high courts dealt with three scientific disputes, as explained below.

1. Location of the forest fire

Both the district court and the high court verified the validity of the scientific evidence and opinion evidence from both parties to determine whether the fire had occurred in the defendant's area. As a piece of scientific evidence, the plaintiff presented hotspot data from the MODIS satellite from

¹⁷⁶ Ibid 167.

¹⁷⁷ Ibid 168.

¹⁷⁸ Ibid 167.

¹⁷⁹ *MoEF v PTJJP*, above n 167.

¹⁸⁰ Ibid 72.

¹⁸¹ Regulation of Minister of Environment No 6 of 2009 on Environmental Laboratory.

¹⁸² *MoEF v PTJJP*, above n 167, 73.

¹⁸³ Ibid 78.

¹⁸⁴ Ibid 81.

June 2013, which had been verified onsite as scientific evidence.¹⁸⁵ The analysis of the hotspot data through ‘ground verification’ and using Google Earth showed that the forest fire began in the defendant’s area in early June 2013 at different points.¹⁸⁶ The defendant questioned the field verification, which took place after the fire on the ground, arguing that hotspots only provide sensor detection, which requires scientific verification in real time.¹⁸⁷ The defendant argued that the plaintiff did not conduct the verification in real time because the verification took place only on 6 September 2013, few months after the fire occurred (June 2013).¹⁸⁸

2. Size of the burnt area

The district court in *MoE v PTJJP* assessed whether the opinion evidence was based on proper methodology to determine the size of the burnt area. The MoE’s expert determined the size of the burnt area based on physical verification using a random sampling method.¹⁸⁹ The samples were taken from five burnt locations (blocks) within the defendant’s area. One sample was taken from an unburnt area as a control to compare the composition of both the burnt and unburnt soil.¹⁹⁰ Based on this methodology, the expert concluded that the total burnt area was 1,000 hectares.¹⁹¹ PTJJP argued that the total size of the burnt area was only an assumption and therefore not valid and instead calculated the total burnt area as 113.9 hectares.¹⁹² In addition, the district court relied heavily on the testimonies of witnesses from local communities who testified that the fire first occurred on their land, and not in the defendant’s forest area.¹⁹³ The court was also convinced by the defendant’s experts, who testified to the occurrence of extreme weather during May and June 2013, which contributed to the fire.¹⁹⁴ Based on the testimonies of these witnesses, the district court determined the burnt area in favour of the defendant.¹⁹⁵

However, the high court overruled this conclusion on the grounds that the district court did not examine all relevant evidence proportionally, including hotspot data, the verification result and

¹⁸⁵ *MoEF v PTJJP*, above n 166, 6–8.

¹⁸⁶ *Ibid* 8.

¹⁸⁷ *Ibid* 47.

¹⁸⁸ *Ibid* 48.

¹⁸⁹ *Ibid* 15.

¹⁹⁰ *Ibid* 16.

¹⁹¹ *Ibid*.

¹⁹² *Ibid* 59.

¹⁹³ *Ibid* 139.

¹⁹⁴ *Ibid* 138–139.

¹⁹⁵ *Ibid* 157.

the experts' testimonies.¹⁹⁶ The high court argued that the evidence of hotspots was valid evidence and had been verified and analysed in a laboratory by forest fire experts.¹⁹⁷ The plaintiff provided evidence that the laboratory used by the experts was embedded with the Faculty of Silviculture, which had gained a level A certification from the National Agency for University Accreditation (*Badan Akreditasi Perguruan Tinggi*) and received international certification from the ASEAN University Network.¹⁹⁸ In regard to the experts' credibility, the plaintiff argued that the experts possessed knowledge to determine the environmental damage.¹⁹⁹ Specifically, the plaintiff was convinced that Bambang Hero was appointed by the government as a forest fire expert to represent the government at an international level.²⁰⁰ In addition, Basuki Wasis was a researcher at the IPB with special knowledge of environmental problems relating to peatlands and had been asked by the police and related ministries to be an expert witness.²⁰¹ Thus, the high court determined the size of the burnt area as 1,000 hectares.²⁰²

3. Valuation of compensation of the environmental loss

In terms of the valuation of compensation for environmental loss, the district court in *MoEF v PTJJP*²⁰³ assessed the validity of the methodology in quantifying the damage and its monetisation. The MoEF determined the amount of compensation based on MoE Regulation No 7/2014 on the Compensation of Pollution and/or Environmental Damage,²⁰⁴ which consists of compensation for irreversible environmental losses and the cost of restoration efforts. Environmental loss consists of ecological losses,²⁰⁵ economic losses and recovery costs.²⁰⁶ The defendant questioned all identified losses and their monetisation as presented by the plaintiff. For example, the defendant rejected the plaintiff's claim on the release of greenhouse gases resulting from the forest fire because there was no evidence that the plaintiff had conducted a real-time measurement of

¹⁹⁶ *MoEF v PTJJP*, above n 167, 78.

¹⁹⁷ *Ibid* 79.

¹⁹⁸ *Ibid* 73.

¹⁹⁹ *Ibid*.

²⁰⁰ *Ibid* 74.

²⁰¹ *Ibid* 79.

²⁰² *MoEF v PTJJP*, above n 167, 79.

²⁰³ *MoEF v PTJJP*, above n 166.

²⁰⁴ *Ibid* 30.

²⁰⁵ *Ibid* 30–33. Ecological losses relate to creating and maintaining a reservoir, water management, erosion control, recycling nutrients, waste decomposers, loss of biodiversity, loss of genetic resources, carbon release and carbon reduction.

²⁰⁶ Environmental recovery cost, composting cost, transportation cost and ecological function recovery cost.

greenhouse gases.²⁰⁷ The district court determined a total compensation amount of less than the total amount requested by the plaintiff.

Given that the high court determined the size of the burnt forest as presented by the plaintiff, the quantification and monetisation of the damage were accepted. The conclusion took into account the effect of the forest fire on environmental damage to the peatland, which is potentially irreversible.²⁰⁸ An example of irreversible environmental damage was provided in Bambang Hero's testimony, which determined that damage to the peatland's surface resulted in thickness between 30 - 75 cm.²⁰⁹ This resulted in 10,000,000 m³ area of land being burned and irreversibly damaged, thus affecting the balance of the ecosystem in the damaged area.²¹⁰ In addition, during the fire, around 9,000 tonnes of carbon were released, along with 3,150 tonnes of CO₂, 32.76 tonnes of CH₄, 14.49 tonnes of NO_x, 40.32 tonnes of NH₃, 33.9 tonnes of O₃, 583.75 tonnes of CO and 700 tonnes of particles.²¹¹ The release of these greenhouse gases exceeded the air pollution standards.²¹² Although the high court accepted this environmental valuation, it did not rigorously assess whether the methodology used by the plaintiff's experts was a valid scientific method.

RoI v PTNMR & Ness²¹³

In *RoI v PTNMR & Ness* in 2014, the police began an investigation of criminal charges against PTNMR, a subsidiary of Newmont Mining Company, a US-based mining company that operated an open-pit gold mine in the Minahasa District of Indonesia. PTNMR's use of STD to discharge waste from its mining activities raised an allegation against PTNMR for polluting Buyat Bay. The activity caused damage to the marine ecosystem and led to health issues in the surrounding areas.²¹⁴ The prosecution of this case was made based on the following grounds: (1) PTNMR was operating without a permit; (2) PTNMR was improperly disposing of mining waste; and (3) water quality standards were breached. The court in *RoI v PTNMR & Ness*²¹⁵ dealt with the admissibility of evidence and weighed the reliability of all evidence. The court dealt with four scientific disputes, which are outlined below.

²⁰⁷ *MoEF v PTJJP*, above n 166, 62.

²⁰⁸ *Ibid* 79.

²⁰⁹ *Ibid* 79.

²¹⁰ *Ibid* 28.

²¹¹ *Ibid*.

²¹² *Ibid*.

²¹³ *RoI v PTNMR & Ness*, above n 168.

²¹⁴ Such as damage to coral reefs and a decline in fish catches, as well as health issues such as headaches, boils, skin lumps and trembling.

²¹⁵ *RoI v PTNMR & Ness*, above n 168.

1. Violation of PTNMR's permit

The District Court of Manado in *RoI v PTNMR & Ness* assessed the reliability of evidence in determining whether PTNMR had discharged waste exceeding its limit. A number of pieces of scientific evidence were presented by both the prosecutor (through their expert witnesses) and an expert witness from PTNMR.²¹⁶ On the government's side, a report from the Indonesian National Police (POLRI) was used as evidence to show that the mercury and arsenic content in the sample based on the laboratory test exceeded quality standard levels.²¹⁷ In addition, a report by the integrated team of the MoE found a high concentration of mercury and arsenic.²¹⁸ PTNMR rejected these claims by presenting alternative explanations for the mercury and arsenic found in the bay.²¹⁹ The court then assessed the reliability of the evidence and concluded that the plaintiff's reports were not credible.²²⁰ In addition, PTNMR had pointed to dozens of scientific studies showing that Buyat Bay did not have heightened levels of mercury or arsenic.²²¹

2. Thermocline's deep

The court addressed the issue of whether PTNMR's STD was below the thermocline by testing the methodology that formed the expert opinions. The government relied on the expert testimony of Dr Abdul Gani Ilahude, who determined that PTNMR's STD was below the thermocline and therefore allowed the tailings to be swept into the sea.²²² PTNMR argued that the thermocline was an average of 43 m below sea level.²²³ This estimation was concluded based on a study by the MoE, and especially on testimony from Dr Andoyo Wurjanto, who was a member of the MoE study and the EIA team.²²⁴ He analysed data points using conductivity temperature and depth (CTD) instruments in a water column in Buyat Bay and concluded that discharging the tailings at 82 m was far below the thermocline.²²⁵ The Indonesian AMDAL Commission accepted Newmont's STD method as less risky than on-land tailings disposal. The NMR was required to place the tailings into the bay through a submarine pipeline 82 m below sea level.²²⁶ The court

²¹⁶ Ibid 256–261.

²¹⁷ Ibid 24–25.

²¹⁸ Ibid 237.

²¹⁹ Ibid.

²²⁰ Ibid 261.

²²¹ Ibid 258–261.

²²² Ibid 124.

²²³ Ibid 238.

²²⁴ Ibid 181–182.

²²⁵ Ibid.

²²⁶ Ibid.

found PTNMR's evidence to be more convincing and accepted PTNMR's defence, which argued that the tailings were not dissoluble; therefore, placing the tailings below the thermocline would not spread them throughout the bay.²²⁷ The court found that the expert from the government had not conducted any research on the bay itself.²²⁸ Thus, his testimony was set aside by the court, which argued that it was not based on empirical facts, in contrast with the testimony of Dr Andoyo Wuryanto.²²⁹

3. Effect on health

The dispute over the alleged effects on health was also scrutinised by the court when assessing the reliability of the evidence. The prosecutor relied on POLRI's report to conclude the existence of an increased level of arsenic and mercury.²³⁰ PTNMR denied this allegation by providing a contra argument or evidence showing the effect on health. Testimonies from several doctors revealed that the health status described by the prosecution were often found in people living in poor coastal areas.²³¹ In addition, the doctor who first informed villagers of the health problem withdrew her previous report and revealed that she had not done any research into the cause of the illness.²³² The defence questioned the credibility of the testimony of the Buyat villagers who claimed to have suffered health problems. In fact, other villagers claimed that the lumps that appeared on the victims had appeared before they moved to Buyat.²³³

In addition, the defence criticised the methodology used by the prosecutor. The NMR argued that the prosecution also overestimated the risk from fish consumption by 4500% by relying on the maximum range of inorganic arsenic in fish rather than the average.²³⁴ In addition, PTNMR questioned Dr Djamaludin's expertise in testifying about the health issue because his credentials were in mangrove forestry, not medicine.²³⁵ Accordingly, the court concluded that the prosecution could not prove that the villagers near Buyat Bay suffered from abnormal health problems—and much less that PTNMR bore responsibility.²³⁶

²²⁷ Ibid 261.

²²⁸ Ibid 263.

²²⁹ Ibid.

²³⁰ Ibid 25.

²³¹ Ibid 171-176.

²³² Ministry of Environment (Kementerian Lingkungan Hidup), Report: Environmental Quality Assessment of Buyat Bay and Totok Bay (14 October 2004) 131-32, as quoted by Nardi, above n 13, 130.

²³³ *RoI v PTNMR & Ness*, above n 168, 156-158.

²³⁴ 'Report: Environmental Quality Assessment', above n, 232, Data Table Page 5, as quoted Nardi, above n 13, 130.

²³⁵ *RoI v PTNMR & Ness*, above n 168, 240.

²³⁶ Ibid.

4. Damage to the environment

In relation to environmental damage, the issue was whether the alleged pollution by PTNMR had violated the EML and damaged the local ecosystem. The prosecutor charged PTNMR for intentionally, knowingly and negligently destroying and polluting the environment at Buyat Bay by claiming that the mining had degraded the bay through sludge and sediment.²³⁷ The defence denied these charges by arguing that the level of cyanide in Buyat Bay was only 0.01 mg/l, which was below water quality standards.²³⁸ Further, given that most coral reefs and fish live no deeper than 30 m in the bay, STD discharged below 82 m should not have affected them.²³⁹ Lastly, no systematic scientific reports showed a decline or abnormalities in fish populations. PTNMR found several fishermen from the Buyat area who testified that they had never observed abnormalities in any fish they had caught.²⁴⁰ Accordingly, the court accepted PTNMR's argument that STDs were discharged below the thermocline.²⁴¹ Further, the court found no causation between the low coral biodiversity and pollution because biodiversity varies greatly in the coastal waters off Sulawesi.

5.4.3 Relevance of Evidence

In Indonesia, judges examine the relevance of evidence as part of their enquiry into the truth of what occurred—that is, the facts behind the legal issues in dispute. In practice, courts address these issues as part of assessing whether an opinion regarding scientific evidence was obtained through a valid scientific method. The decision of the Supreme Court concerning the Surabaya River pollution case²⁴² determined that the reliability of evidence must meet the requirements of being 'legal' and 'valid'.²⁴³ 'Legal' means that the evidence is carried out in accordance with the procedures specified in the laws and regulations, while 'valid' means that such evidence is carried out in accordance with and based on the most valid methodology recognised in the respective field of knowledge.²⁴⁴ In the *Republic of Indonesia v PT Surabaya Mekabox*, the Supreme Court rejected the trial courts' assessment of the scientific evidence and concluded that the defendant did

²³⁷ Ibid 256.

²³⁸ SC. Apte et al, Commonwealth Scientific and Industrial Research Organisation, Report No. ETR/IR729R, PT. Newmont Minahasa Raya, Environmental Monitoring Study, August, 2004, at iii, as quoted in Nardi, above n 13, 131. "[c]yanide concentrations were below detection limits in both waters (<5 mg/L) and fish tissues (<0,5 mg/g wet weight), and well below the Indonesian Water Quality Standard of 500 mg/L."

²³⁹ Jonathan Hopfner, 'Newmont to Seek Dismissal of Criminal Case Over Alleged Pollution Near Indonesian Mine, BNA International Environmental Daily, August 2005, 189, as quoted in Nardi, above n 13, 131.

²⁴⁰ Richard Ness, Veritas: The Pursuit of Truth and Justice in Buyat Bay, Response to Charge (Pledoi), 209, as quoted in Nardi, above n, 127.

²⁴¹ 'Report: Environmental Quality Assessment', above n 232, 23, as quoted in Nardi, above n, 133.

²⁴² *Republic of Indonesia v PT Surabaya Mekabox*, Decision of the Supreme Court No 122/Pid/1989/PN.SBY.

²⁴³ Ibid.

²⁴⁴ Ibid.

not pollute the area. According to the Supreme Court, the evidence was not obtained from an investigation process, but was based on the sample taken by the defendant himself as part of the monitoring action.

5.4.4 Evidentiary Reliability or Trustworthiness

Regarding the hotspot data, even though the judge accepted the occurrence of fire in the defendant's field, the panel judges of the district court did not specifically consider the validity of the hotspot evidence submitted by the plaintiff—in particular, whether a valid method was used to determine the coordinates of the fire and whether the implementation was carried out properly. For example, the court did not carry out a thorough assessment process to prove whether the field verification process that was not carried out immediately after the fire determined the reliability or failure of the evidence presented. PTJJP questioned the validity of the field verification process carried out by the plaintiff's expert because it was carried out on 6 September 2013, even though the fire had started at the beginning of June 2013.

The panel judges of the high court in *MoE v PTJJP* applied one of Daubert's criteria—namely the general acceptance principle. To test the reliability of the scientific evidence, the judges assessed whether it was obtained using a valid scientific method. For example, the court argued that the hotspot data from the satellite imagery photos had been scientifically recognised. Further, it passed verification and analysis in the laboratory by forest fire experts. Indications that fires occur in a certain area can be estimated using information in the form of hotspot data generated by satellites.²⁴⁵ However, hotspots only indicate that there has been a change in temperature on the surface that is an increase from a normal temperature.²⁴⁶ Given that the minimum temperature range used as the basis for the hotspot data was around 37–42 °C, this meant that not all hotspots were hotspots.²⁴⁷ The ignition temperature of a fire is around 300–350 °C.²⁴⁸ However, the judges missed an opportunity to obtain a more detailed analysis and reasoning of the existence of valid methods in determining the causes and effects of fire.

Regarding the cause of the fire, the judges did not compare the plaintiff's expert information with the defendant's expert opinion. The plaintiff's expert information related to the hotspot evidence, the results of the field verification and the laboratory analysis. Whereas, the defendant's expert opinion related to the influence of the weather on the trigger of the fire in the defendant's territory.

²⁴⁵ 'Materi Ajar Pendidikan Dan Pelatihan Sertifikasi Hakim Lingkungan (Teaching Material for Education and Training of Environmental Certification System)', 268.

²⁴⁶ Ibid.

²⁴⁷ Ibid.

²⁴⁸ Ibid.

The court did not assess whether the theory or method underlying the experts' opinions was valid. In addition, the court did not assess the methodology or whether the sampling method was acceptable to determine the total burnt areas. Instead, it gave more weight to non-scientific evidence than scientific evidence in proving environmental pollution. The district court's approach in relying on more conventional types of evidence represents the contemporary problem in handling environmental cases in Indonesia. In many cases, judges give more weight to non-scientific evidence to prove environmental pollution.²⁴⁹ Given their traditional legal background, judges still have difficulty in understanding scientific data submitted by experts and converting these data into legal facts.²⁵⁰

The assessment of the validity of expert opinions involves an analysis of the data and methodology used to establish the opinion.²⁵¹ There is a relationship between the opinion, methodology and data used. This means that assessing whether an opinion is valid can be tested by ascertaining whether the opinion is obtained through the right methodology to generate relevant data. Thus, even if the methodology used is correct, the data tested may not be relevant or valid, which means the opinion becomes invalid. In *MoE v PTJJP*, there were different opinions on the thickness of burning peat in determining the effect of the fire. The plaintiff's experts stated that the burning peat thickness varied to a depth of 75 cm, whereas the defendant's experts conveyed the thickness of peat that burnt to a depth of only 15 cm.²⁵² For these differences, the court did not carefully assess whether the opinions regarding the thickness of the peat were carried out by valid methods and based on relevant samples, even though the depth of the burnt peat would help determine the amount of environmental losses and the rehabilitation costs involved.

5.4.5 Opinion is 'Wholly or Substantially Based on That Knowledge'

In *MoE v PTJJP*, the plaintiff's experts presented the amount of environmental losses and the rehabilitation costs required. The panel of judges accepted the plaintiff's explanation of the background and special expertise possessed by the experts as well as the credibility of the laboratory used for the test. The decision of the panel of judges also accepted the calculation of the compensation submitted by the plaintiff's expert. However, in analysing the judges' consideration from the aspect of special knowledge, it is important to further discuss the court's approach, including the criteria used by judges to conclude that experts have special knowledge relevant to the amount of environmental losses and the recovery costs. The environmental

²⁴⁹ Interview with Fauzul Abrar, environmental lawyer who represented the MoEF in a forest fire case (18 July 2016).

²⁵⁰ Interview with Raynaldo Sembiring, Deputy Director of ICEL (18 July 2016).

²⁵¹ Interview with Brian J Preston (7 March 2018).

²⁵² *MoEF v PTJJP*, above n 166, 165.

valuation process consists of several stages. The first stage explains the scope of analysis required,²⁵³ the second identifies the effects on the environment,²⁵⁴ the third quantifies the effects that have been identified²⁵⁵ and the last stage monetises the environmental effects.²⁵⁶

Regarding the above problem, the Supreme Court's Guideline for Environmental Cases Handling allows the calculation of environmental losses to be carried out by environmental damage experts. At the time of its formation, the guidelines referred to the provisions of the MoE's Regulation No 13 of 2011 concerning Environmental Losses Due to Environmental Pollution and/or Damage. This regulation has been replaced by the Ministry's Guideline on Environmental Valuation, which still contains the same regulatory arrangements—that is, environmental pollution and/or damage experts can calculate environmental losses. Art 4 of the guidelines distinguish between 'environmental pollution and/or damage experts' and 'environmental economic valuation experts'. Based on this provision, the above critical questions can then be tested with several follow-up questions: (1) Rule 702 of the US Federal Evidence Law states that witnesses with expertise based on their knowledge, skills, experience, training and education can become an expert and express their opinion in courts. Does the environmental damage expert have the knowledge, experience, education and training related to the issues in these stages? (2) Does the calculation of the compensation presented by the environmental damage expert cover the four stages above?

These questions will be answered by conducting more in-depth research within a broader framework—a comparison of the system of evaluating scientific evidence in environmental cases in Indonesia with the systems in the US and other countries that are considered relevant. Related to the aspect of special knowledge, further research may emphasise determining the criteria and stages for experts conducting environmental valuations as a result of forest fires. Ultimately, the ability of judges to ascertain whether expert opinions are based on a valid methodology is one of the key factors in assessing the credibility of scientific evidence. This requires a sufficient level of relevant scientific knowledge, clear guidelines and comprehensive training methods related to scientific evidence.

²⁵³ Brian J Preston, 'Economic Valuation of the Environment' (Paper presented at the Land and Environment Annual Conference, 28 May 2015, Manly, Australia) 14.

²⁵⁴ Ibid 15.

²⁵⁵ Ibid 16.

²⁵⁶ Ibid 17.

5.5 Use of Scientific Evidence: Gaps between the Law and Its Implementation

The analysis of the existing legal framework in Indonesia suggests that the law of evidence in Indonesia does not provide a clear legal standard on scientific evidence. As a general rule, the use of scientific evidence in environmental adjudication can be presented in the form of a document, report or expert testimony to be qualified as legal evidence. In assessing the relevance of scientific evidence, the court then relies on the general rule applied to any evidence. Since the issuance of the Supreme Court Decree in Environmental Cases Handling, the subordinate courts have been guided by a more specific standard in assessing scientific evidence.²⁵⁷ However, this decree does not provide clear guidance on assessing evidentiary reliability. As a result, the courts apply different standards for assessments. In addition to this inadequate guidance, different standards are determined by judges' insufficient understanding of scientific issues, as illustrated in some of the above cases. A lack of clear guidelines might reduce the optimum use of scientific evidence or even lead to erroneous decisions because they rely on inadequate or inaccurate assessments of scientific evidence. The more knowledgeable the judge on scientific issues, the more heavily scrutinised the assessment that will be undertaken. In general, Indonesian judges do not have a sufficient understanding of science given the pattern of academic education and professional training they receive.

Existing laws and regulations basically provide general guidance on the reliability of evidence and expert witnesses. General guidelines include the legal principle in the Supreme Court's decision, the Supreme Court's decree and the internal regulation of the Indonesian AGO. However, this study argues that existing laws and regulations are insufficient because they still require reforms for a more detailed guideline. It is important to assess whether evidence or an opinion presented by an expert is obtained using a scientific method. The Supreme Court's decree only addresses what judges must do if they are faced with conflicting evidence: (1) choose the evidence or opinion based on the judge's conviction; (2) summon another expert for a third opinion; and (3) apply the precautionary principle. Judges must undertake a careful assessment of the main issues of the conflicting evidence. Given that an opinion is an analysis of evidence or a sample using a certain methodology, the conflict might exist in the opinion itself or the methodology or facts. Accordingly, a judge's conviction requires the ability to assess whether the evidence or opinion presented by an expert is relevant and was obtained using the scientific method.

²⁵⁷ One of the Supreme Court's primary functions is to issue circulars (SEMA) interpreting the law or providing guidance that is binding upon lower courts.

In addition, using a third expert requires judges to identify the specialised knowledge that is relevant to the conflicting issue. That is, it requires the judge to identify the conflicting issue in which the specialised knowledge is needed. The law does not clearly define the level of specialised knowledge expected of an expert witness. The need to assess relevance as well as evidentiary reliability or trustworthiness still requires the judge, who may not have formal training in science, to have a sufficient level of understanding of scientific knowledge. It would be too overwhelming for judges to be expected to have the same level of understanding as a scientist.²⁵⁸ However, adequate knowledge of scientific matters will be needed to develop questions to verify the testimonies of expert witnesses.²⁵⁹ Thus, addressing this issue is difficult—especially in the current stage of environmental adjudication reforms, whereby the basic skill of adjudicating environmental cases still needs adequate attention.

The lack of detailed guidelines affects the use of scientific evidence in courts. The analysis of *MoEF v PTJJP* and *RoI v PTNMR & Ness*, as well as case studies from previous chapters, show different levels of understanding of such use within the court. However, comparing the decision of the district court in *MoEF v PTJJP* with the decision in *RoI v PTNMR & Ness* shows that the court more heavily scrutinised the opinions and scientific evidence presented in court. For example, the District Court of Manado found that much of the prosecution's evidence was questionable and insufficient to prove a crime beyond any reasonable doubt. Some prosecution experts relied on outdated methodologies, did not have firsthand access to the site or even broke the chain of custody for key pieces of evidence. The court in *RoI v PTNMR & Ness* found the evidence of PTNMR more convincing in regard to the thermocline's deep. The use of CTD in analysing datapoints was considered an up-to-date methodology. In contrast, the district court's assessment in *MoEF v PTJJP* in respect to the hotspots, field verification and laboratory test was considered without referring to the latest methodology. Given that *RoI v PTNMR & Ness* was decided before the Supreme Court's guideline, judges' insufficient competence as presented in *MoEF v PTJJP* was one of the causes of the lack of assessment of the evidence presented.

Among all of these problems, Indonesia's judges need more detailed guidelines on the use of scientific evidence in environmental cases. The new guidelines should provide the elements of scientific evidence and criteria to assess its relevance and reliability, including whether opinions and evidence presented by experts were obtained using the scientific method. These elements and criteria should be integrated into the revision of the Supreme Court's decree in Environmental Cases Handling. However, as argued in Chapter 4, the main problem is the limited basic

²⁵⁸ Gatowski et al, above n 128, 455.

²⁵⁹ Ibid.

competence of judges in identifying, interpreting and applying the law. This suggests that a revision of the decree will not guarantee better use of scientific evidence. Addressing the above problems in the use of scientific evidence requires a holistic approach aimed at improving the overall capacity of the judiciary in handling environmental cases. An improvement in judges' competence should be prioritised. One focus area is the advancement of training for judges, including science-based training to address the problem of using scientific evidence in the context of environmental cases.

5.6 Conclusion

This chapter attempted to analyse the gaps in the current system and practices in relation to the use of scientific evidence. In doing so, it used the system and practical experiences of the US and Australia as references. In particular, it examined the extent of the law and its implementation concerning the use of scientific evidence in environmental cases—particularly in terms of: (1) whether the evidence is relevant; (2) whether the evidence is scientific (evidentiary reliability or trustworthiness); and (3) whether the expert's opinion is 'wholly or substantially based on that knowledge' or whether the expert's specialised knowledge is relevant to the case.

This chapter notes that scientific evidence has been used in handling environmental cases. However, laws and regulations provide limited guidance of its proper use. They do not define what is meant by scientific evidence as a basis for assessing the relevance and reliability of scientific evidence. In practice, it contributes to the development of different standards used by judges in examining scientific evidence. Thus, this research argues that a reform on the law of evidence should be designed to provide detailed guidelines for courts to assess the relevance of scientific evidence, evidentiary reliability and whether the testimony or opinion of the expert is generated wholly or substantially based on their specialised knowledge that is relevant to the issue at hand.

The availability of comprehensive laws and regulations requires a sufficient level of scientific understanding by judges. However, this requirement creates an additional problem in relation to observing clear boundaries regarding the type of scientific knowledge required by judges. Acknowledging that judges are not required to have the same degree of knowledge as scientists raises the question: To what extent should judges have an understanding of scientific knowledge? Adequate knowledge of a scientific matter might help judges to develop questions to verify the testimony of expert witnesses. This skill would help judges to conclude that certain evidence is scientific and derived from a reliable scientific method. Therefore, comprehensive training for judges on scientific evidence is recommended.

The ability of judges in the two case studies described in this chapter do not represent the general status of judges' understanding regarding proof of scientific evidence. Judges' lack of capacity to use scientific evidence is widespread. Their education background and how they are trained mainly contribute to their insufficient understanding of science. In practice, judges rely on the provisions of procedural law without further scrutinising the validity of the specific methodology used to generate scientific evidence or opinions. For example, under the criminal procedural code, scientific evidence can be accepted as evidence if it is obtained using the most valid method. However, in general, judges do not accurately assess whether the method or theory has received recognition from the respective field of knowledge and has been subjected to peer review. Further, they do not scrutinise whether the method was implemented correctly by the expert and whether standard operating procedures were followed.

In addition, although existing rules and guidelines have provided details in relation to assessing scientific evidence, there are other difficulties in the path of environmental litigation. The first difficulty is the challenge to gather evidence. In the US, the Daubert criteria have been criticised for creating a burden in providing evidence as a result of the cost of expert testimony and, consequently, the disadvantage to less well-resourced parties (mainly NGOs). However, this problem is not limited to the US; it applies equally in Australia and no doubt in Indonesia. Second, the ability of other law enforcers such as investigators and prosecutors is similarly important. The investigation and formulation of scientific evidence as evidence in the indictment affect the output of judges' decisions. Currently, the problem faced by judges using scientific evidence is also faced by investigators and prosecutors. Thus, the strengthening of other law enforcement officers needs to be given the same attention.

Therefore, this study contends that it is difficult to ensure that judges and law enforcers possess competence in using scientific evidence. This important competency requires judges to have complete mastery of basic competencies. According to Pound, this consists of the ability to identify, interpret and apply the law. If judges fail to carry out the first step of identifying the law, further process errors can occur. This includes errors in assessing scientific evidence as part of applying the law, which consists of: (1) finding the facts relevant to the identified law; and (2) employing scientific evidence to make a judgment. Therefore, this chapter specifically discussed competencies related to the assessment of scientific evidence, which has played an important role in many successful cases. However, strengthening these competencies must be an inseparable part of strengthening judges' ability to identify, interpret and apply the law. In the Indonesian context, these three abilities exist in judges' basic competencies for receiving, checking and deciding cases.

Chapter 6: Framework for an Environmental Court in Indonesia: The Way Forward

6.1 Introduction

The current global challenges in ensuring sustainable development require an existing dispute settlement mechanism to deal with the complexity of a wide range of environmental problems. Within the UN's Post-2015 SDGs, SDG 16 aims to 'promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels'.¹ To ensure its realisation, SDG 16 has 12 targets with 23 indicators as a global indicator framework.² The current judiciary reforms in Indonesia which promotes effective environmental adjudication in courts share the same vision as SDG 16. Particularly, it relevant to the target 16.3 of SDG 16 that 'promote the rule of law at the national and international levels and ensure equal access to justice for all'³ and the target 16.6 of SDG 16 to 'develop effective, accountable and transparent institutions at levels'.⁴ In that respect, ECTs worldwide offer an instructive example for Indonesia to establish a specialised environmental court – to promote an efficient and effective mechanism in adjudicating environmental cases – as a mean to achieve the above targets in Indonesia.

Scholars have identified some essential characteristics of effective ECTs. In considering these characteristics for the establishment of an environmental court in Indonesia, policymakers must evaluate other relevant characteristics of effective ECTs and, based on this analysis, select the most appropriate ECT model for Indonesia. This study has identified some common characteristics and analysed their relevancy and applicability in the Indonesian context. These common characteristics are the type of forum, competencies, access to scientific expertise, jurisdiction, environmental jurisprudence, access to justice and ADR. This takes into account the legal and judicial system along with its reform development, the environmental adjudication reforms and environmental goals. The analysis of the common characteristics of an effective environmental court in the Indonesian context identified some challenges and opportunities for each characteristic. The improvement of judges' competencies has been identified as a priority to

¹ United Nations, *Sustainable Development Goal 16* <<https://sustainabledevelopment.un.org/sdg16>> (accessed on 12 February 2019).

² Ibid.

³ Ibid.

⁴ Ibid.

maintain and improve judges' competencies, including the need for adequate skills and knowledge in assessing scientific evidence.

Pring and Pring argues that the best model of ECT might be determined by the combination of various elements that existing within a particular country. Thus, the rationale of this chapter is to provide detail analysis of the most possible model of ECT in Indonesia which takes into account the analysis of chapter 2, 3, 4 and 5. In doing so, the chapter investigates the extent to which these analyses determine the most possible model of ECT by assessing the current relevant and possible courts' model in Indonesia. The models include: (1) a court with environmental jurisdiction under the Supreme Court (at the same level as general and administrative courts); (2) a specialised court within the general and administrative courts; and (3) specialised judges who have been certified to handle environmental cases within the general and administrative courts.

This study submits that establishing a specialised court (*pengadilan khusus*) would ensure better internalisation of relevant and important characteristics of effective ECTs. However, there are some preconditions that must be achieved or already exist to create a specialised court. Accordingly, the Supreme Court must take a step-by-step approach to strengthen environmental adjudication. At this stage, the Supreme Court should continue to play the role of an environmental court, which can become a separate and independent specialised court over time with some gradual improvements. As guidance for creating a specialised court in Indonesia, this research provides a framework that will help decision-makers to set clear milestones. This framework will be used as a reference to create a clear 'roadmap' for the Supreme Court to strengthen environmental adjudication by establishing a specialised environmental court.

This chapter outlines the types of ECT forums categorised by Pring and others. Each type of forum is supported by the best practices in various countries. Using these references, the next section assesses the extent to which ECT models in various countries, along with their special features, successes and challenges, are relevant to and applicable in Indonesia in establishing a specialised environmental court. Thus, this chapter analyses possible models of environmental courts and their variations. Building upon this analysis, this chapter concludes by discussing the most appropriate model of environmental court in Indonesia.

6.2 Pring's Model of Environmental Courts and Tribunals

The institutionalised adjudication of environmental cases can be in the form of a court, tribunal or other dispute resolution forum. Pring and others provided a comprehensive classification of ECT

models based on existing ECTs worldwide.⁵ They consist of: operationally independent environmental courts, decisional independent environmental courts, mix of law-trained and science-trained judges, general court ‘designated’ judges and environmental law-trained judges. For the last category, the study acknowledges that some countries decide to train judges rather than creating a more complex option.⁶ Environmental Tribunals are classified into operationally independent environmental tribunals, decisional independent environmental tribunals and captive environmental tribunals.⁷ The next section presents a more detailed explanation of these models, supported by some of their best practices.

6.2.1 Environmental Court

An operationally independent environmental court can be a separate and fully or largely independent environmental court. It represents the most ideal form of ECT.⁸ Pring and Pring argued that this environmental court model is ‘the most expensive and complex, have the widest jurisdiction and incorporate the greatest number of best practices’.⁹ It is supported by competent and knowledgeable judges and other decision-makers. An example of this model is the LECNSW in Australia, which is a court that is independent of other branches of power.¹⁰ This enables the LECNSW to manage its budget independently and separately rather than being controlled by institutions whose decisions are assessed by the LECNSW and that have their own rules regarding security of tenure.¹¹ In addition, the LECNSW has a comprehensive and centralised jurisdiction.¹² Preston acknowledged that the LECNSW has received many positive appraisals and has been a basis for recommendations for environmental courts around the world.¹³ Other examples of the operationally independent environmental court include the Environment Court of New Zealand (ECNZ)¹⁴ and the Tribunal De Justiça Do Estado Do Amazonas (Court of Environmental and Agrarian Issues)¹⁵ in Brazil.

⁵ George Pring et al, *Environmental Courts & Tribunals—A Guide for Policy Makers* (UNEP, 2016) 18–32.

⁶ Ibid 31.

⁷ Ibid 32.

⁸ Ibid 20.

⁹ Ibid.

¹⁰ George Pring and Catherine Pring, *Greening Justice: Creating & Improving Environmental Courts & Tribunals* (The Access Initiative, 2009) 22.

¹¹ Ibid.

¹² See *Land and Environment Court Act 1979*. Part 3: Jurisdiction of the Court.

¹³ Brian J Preston, ‘Operating an Environment Court: The Experience of the Land and Environment Court of New South Wales’ (2008) 25 *Environmental and Planning Law Journal* 385, 409.

¹⁴ Environment Court of New Zealand (ECNZ) <<https://www.environmentcourt.govt.nz/>> (accessed on 12 February 2019).

¹⁵ Tribunal De Justiça Do Estado Do Amazonas, <https://www.tjam.jus.br/index.php?option=com_qcontacts&view=local&id=442> (accessed on 12 February 2019).

Less independent than the operationally independent environmental court, the ‘decisional independent environmental court’ operates under the supervisory, budget, staff and management of the general court system, but nevertheless has substantial independence in terms of procedures, rules and decisional freedom.¹⁶ One of the leading examples is the Planning and Environment Court (PEC)¹⁷ in Queensland, Australia, which is widely viewed as an ‘outstanding success model, based on the benefits of its administrative structure and its many best practices’.¹⁸ It hears and determines a range of planning and environmental disputes.¹⁹ It has the power to hear mostly appeals from decisions of local government departments or agencies relating to development applications and approvals.²⁰ As part of the district court, the PEC shares overheads, budget, courtrooms, staff and facilities.²¹ All judges of the PEC are district court judges who are also assigned work in the district court.²² In regard to expert witnesses, the PEC has its own method of managing experts. Its main purpose is ‘to avoid expensive, adversarial and gladiatorial battles between teams of experts’.²³

‘General court designated judges’ is the informal chamber or panel within a general court. It reduces its ‘lengthy authori[s]ation debate’, as well as other supporting elements such as the budget and recruitment process of its decision-makers.²⁴ In this model, general courts do not need to create a new court because it might only ‘designate or assign established courts or judges’²⁵ to hear environmental disputes. Examples include environmental courts in the Philippines²⁶ and in Hawaii in the US.²⁷ In the Philippines, the Supreme Court issues an order that designates special courts to hear, try and decide environmental cases.²⁸ The spirit to protect the right of a healthy environment as well as significant environmental problems drove this initiative.²⁹ The Supreme Court’s order

¹⁶ Pring et al, above n 5, 24.

¹⁷ Queensland Courts, *Planning and Environment Court* <<https://www.courts.qld.gov.au/courts/planning-and-environment-court>> (accessed on 12 February 2019).

¹⁸ Pring et al, above n 5, 24.

¹⁹ *Sustainable Planning Act 2009*, s 456(1).

²⁰ Michael Rackemann, ‘Practice and Procedure for Expert Evidence in the Planning and Environment Court of Queensland’ (2012) 27(8) *Australian Environment Review* 276, 276.

²¹ Pring et al, above n 5, 24.

²² Rackemann, above n 20, 276.

²³ *Ibid.*

²⁴ Pring et al, above n 5, 29.

²⁵ *Ibid.*

²⁶ *Ibid.*

²⁷ Hawaii State Judiciary, *Environmental Court* <http://www.courts.state.hi.us/special_projects/environmental_court>.

²⁸ Administrative Order Re: Designation of Special Courts to Hear, Try and Decide Environmental Cases, S.C., No 23-2008 (2008) (Phil.).

²⁹ Hilario G Davide Jr and Sara Vinson, ‘Green Courts Initiative in the Philippines’ (2011) 3(1) *Journal of Court Innovation* 121, 124.

created 117 environmental courts to hear cases involving violations of legislation.³⁰ To support the effectiveness of these courts, the Supreme Court issued the Rules of Procedure for Environmental Cases, which took effect on 29 April 2010.³¹ The rules govern procedures in civil, criminal and special civil actions in the courts of the first and second levels involving enforcement or violations of environmental and other related laws, rules and regulations. Under *the Rules of Procedure for Environmental Cases 2010*, plaintiffs can seek injunctive relief in the form of *ex parte Temporary Environmental Protection Orders (TEPOs)*³² as well as long-term *Environmental Protection Orders (EPOs)*.³³ The orders also can require defendants to take action to protect or restore the environment.³⁴ Another example is the provision on the writ of *Kalikasan*.³⁵ The courts applied these tools in some cases.³⁶

Another model of environmental court is a mix of law-trained and science-trained judges, which exists in both independent environmental courts and decisional environmental courts.³⁷ This model accommodates ‘scientists’ together with judges as the decision-makers at court. Thus, it has both law-trained judges and scientific or technically trained judges to decide cases together on an equal footing.³⁸ This model is unique because it introduces and facilitates a partnership method to adjudication,³⁹ which combines the analysis and decision-making of both law-trained and science/technical-trained judges.⁴⁰ Thus, this model facilitates ECTs in preparing adequate questions covering both legal and non-legal issues,⁴¹ and it deepens their interactive discussions for better reasoned results.⁴² Science-trained judges ‘make it easier to find the correct balance

³⁰ Ibid 123.

³¹ *Rules of Procedure for Environmental Cases 2010*, Supreme Court of the Republic of the Philippines A.M. No 09-6-8-SC (effective 29 April 2010).

³² Ibid art 2(8).

³³ Ibid art 1(4) d.

³⁴ Ibid art 5(1).

³⁵ Ibid art 7(1). In Hilario G Davide Jr, ‘Environment as Life Sources and the Writ of Kalikasan in the Philippines’ (2012) 29(2) *Pace Environmental Law Review* 592, 597, Davide explains that the writ of *kalikasan*, or the writ of nature, ‘is available when the environmental damage is of such magnitude that it prejudices the life, health, or property of inhabitants in two or more cities or provinces. The writ is issued by either the Supreme Court or the Court of Appeals within three days after the filing of the application’.

³⁶ One famous legal action was in *Global Legal Action on Climate Change v. Philippines*, G.R. No. 191806 (filed Apr. 21, 2010) regarding the use of writ of *kalikasan*.

³⁷ Pring et al, above n 5, 26.

³⁸ Pring et al, above n 5, 26.

³⁹ Ibid.

⁴⁰ Ibid.

⁴¹ Anders Bengtsson, ‘Specialised Courts for Environmental Matters—The Swedish Solution’ in Symposium on Environmental Adjudication in the 21st Century (2017) 9(2–3) *Environmental Law & Management* 115, 124.

⁴² Ibid.

points’.⁴³ The Environment Courts of Chile⁴⁴ (ECCs) and the Land and Environment Court of Sweden (LECS)⁴⁵ are examples of this model.

The ECCs are ‘independent of the administration and not directly part of the existing judicial system, but under the administrative, policy and financial review of the Supreme Court’.⁴⁶ One of the main features of the ECCs is specialisation through a mixed composition of courts’ decision-makers. Each environmental court consists of three justices (*ministros*).⁴⁷ Two of them are judges with a law background, whereas the third justice is a scientific or technical expert specialising in environmental issues.⁴⁸ This mixed composition aims ‘to integrate legal analysis with a technical and specialised perspective, in order to approach the complexity of the environmental issue at stake with sufficient rigour’.⁴⁹ In addition, it aims ‘to guarantee sufficiently justified legal and technical decisions, non-discrimination and legal certainty for the parties’.⁵⁰ Through this mixed composition, the court ‘can count on highly qualified scientific experts in environmental matters fulfilling the role of justices’.⁵¹

In Sweden, the 1998 Environmental Code authorised the establishment of the environmental courts of Sweden.⁵² In 2011, the reform of the Environmental Code transformed the environmental courts into LECS, with an expanded jurisdiction to include land use issues.⁵³ The panel of each regional court consists of one law-trained judge as a chairman, one technical judge (with a science or technical education) and two ‘law expert’ members.⁵⁴ All members are employed fulltime by the court, except for the law experts, who are selected depending on the expertise required in a given

⁴³ Ulf Bjällås, ‘Experiences of Sweden’s Environmental Courts’ (2010) 3(1) *Journal of Court Innovation* 177, 183.

⁴⁴ Segundo Tribunal Ambiental, *Environmental Court of Santiago* <<https://www.tribunalambiental.cl/environmental-court-of-santiago/>> (accessed on 12 February 2019).

⁴⁵ Sveriges Domstolar, *Land and Environment Courts* <<http://www.domstol.se/Funktioner/English/The-Swedish-courts/District-court/Land-and-Environment-Courts/>> (accessed on 12 February 2019).

⁴⁶ Pring et al, above n 5, 28.

⁴⁷ Rafael Asenjo, ‘Environmental Justice in Chile: Three Years after the Establishment of the Environmental Court of Santiago’, in Proceedings of Symposium on Environmental Adjudication in the 21st Century, Auckland, New Zealand, April 2017 (2017) 29(2–3) *Environmental Law & Management* 110, 112.

⁴⁸ Ibid. There are also two substitute’s judges: a law-trained judge and a scientific or technical expert.

⁴⁹ Asenjo, above n 47, 112.

⁵⁰ Ibid.

⁵¹ Ibid 113.

⁵² The Environmental Code 1998 (entered into force 1 January 1999), chapter 20-21. It acknowledges the involvement of complex, multidiscipline scientific and technical issues in addition to legal issues. It consists of five regional environmental courts and one appeal environmental court that are components within the general court system. Regional environmental courts function both as (1) trial courts (first instance) on permits on hazardous activities, water developments and environmental damage claims made by individuals, groups, NGOs and the government; and (2) an appellate court (second instance) for appeal decisions by local and regional bodies on environmental permits, waste disposal and clean-up orders. The single Environmental Court of Appeal hears appeals of cases from regional environmental courts.

⁵³ Pring et al, above n 5, 27.

⁵⁴ Ibid.

case.⁵⁵ They have equal votes in decision-making.⁵⁶ However, the chairman has the authority to make the final decision if a disagreement occurs between the technical judge and the law experts.⁵⁷ In a case hearing, ‘the technical judge has the main responsibility for determining whether the available technical surveys are sufficient or not, in order for the LECs to draw the correct conclusions on the environmental effects’.⁵⁸ Based on this process, the panel’s members discuss and determine whether any requests for supporting information are made possible by the relevant laws and whether they are relevant to the case in question.⁵⁹

6.2.2 Environmental Tribunal

Another model of environmental adjudication is environmental tribunals (ETs), which were conceived as non-court dispute settlement bodies within the judicial branch.⁶⁰ Like environmental court, ETs have a special jurisdiction, either with limited or wide coverage of their jurisdiction. The National Environmental Tribunal (NET)⁶¹ of Kenya is an example of an ET with a limited jurisdiction. It only hears and determines appeals against administrative decisions of the National Environmental Management Authority (NEMA) on the issuance, denial or revocation of licenses.⁶² The NGT in India is an example of an ET with an extensive jurisdiction. It covers three types of jurisdiction: the original, appellate and a special jurisdiction on environmental issues. As original jurisdiction, the NGT has jurisdiction over all civil cases where ‘a substantial question relating to environment’⁶³ The NGT has an appellate jurisdiction to decide questions of law and fact against orders and decisions passed by the respective authorities.⁶⁴ The *National Green Tribunal Act (India) 2010* gives the NGT special authority to provide ‘relief and compensation to the victims of pollution and other environmental damage specified in the Act’ as a special jurisdiction.⁶⁵ With these wide jurisdictions, the NGT, supported by its scientific experts, ‘has contributed to the development of environmental jurisprudence’.⁶⁶ Regardless of the level of

⁵⁵ Ibid.

⁵⁶ Ibid.

⁵⁷ Bengtsson, above n 41, 115, 119.

⁵⁸ Ibid.

⁵⁹ Ibid.

⁶⁰ Pring and Pring, above n 10, 24.

⁶¹ Republic of Kenya Judiciary, *National Environmental Tribunal (NET)* <https://www.judiciary.go.ke/the-national-environment-tribunal/> (accessed on 12 February 2019).

⁶² Pring et al, above n 5, 32.

⁶³ *National Green Tribunal Act (India) 2010*, art 14.

⁶⁴ Ibid art 16.

⁶⁵ Ibid art 15.

⁶⁶ Naim Gitanjali Gill, ‘The National Green Tribunal, India: Decision-Making, Scientific Expertise and Uncertainty’ in Symposium on Environmental Adjudication in the 21st Century’ (2017) 29(2–3) *Environmental Law & Management* 82, 87.

jurisdiction, ETs usually have their own rules and procedures and evidence. In some jurisdictions, they are not bound by the law of evidence. For example, the NET has a specific provision that provides a basis for this exemption.⁶⁷

This flexibility allows ETs to have varied memberships. Typically chaired by a lawyer, the membership may include non-lawyers such as scientific–technical experts, environmental planners, businesses, NGO representatives and laypersons.⁶⁸ Depending on how ETs are established, the appointment of their members may involve positions or agencies that exist within or outside environmental development areas. For example, the NET consists of five members, including the chair, two lawyers and two experts on environmental management; thus, its appointment involves different actors. The chair of the NET is appointed by the judicial service commission, one lawyer is nominated by the Law Society of Kenya, and one environmental lawyer and two environmental management experts are appointed by the ministry.⁶⁹ In contrast, the selection of the NGT’s members follows a ‘high standard’ requirement.⁷⁰ The chairperson requires a former Supreme Court judge or high court chief justice and other ‘legal members’ require former high court judges.⁷¹ In addition, a high standard for selection is applied to ‘expert members’. To be qualified for appointment as an expert member, he or she must have:

(a) has a degree in Master of Science (in physical sciences or life sciences) with a Doctorate degree or Master of Engineering or Master of Technology and has an *experience of fifteen years in the relevant field* including five years practical experience in the field of environment and forests (including pollution control, hazardous substance management, environmental impact assessment, climate change management, biological diversity management and forest conservation) in a reputed National level institution; or (b) has administrative experience of *fifteen years including experience of five years in dealing with environmental matters* in the Central or a State Government or in a reputed National or State level institution (emphasis added).⁷²

All members are appointed by the Central Government,⁷³ which consults the chief justice of India for the appointment of the chairperson, whereas the appointment of other members is based on the recommendations of the Selection Committee.⁷⁴

⁶⁷ *Environmental Management and Coordination Act 1999*, s 126(1).

⁶⁸ Pring and Pring, above n 10, 24.

⁶⁹ Pring et al, above n 5, 33.

⁷⁰ Pring et al, above n 5, 35.

⁷¹ *National Green Tribunal Act (India) 2010*, art 5.

⁷² Ibid art 5(2).

⁷³ Ibid art 6.

⁷⁴ Ibid art 6(a)(b).

Unlike environmental courts, which are independent from the executive, ETs are known for being ‘housed within and under the direction’ of another agency.⁷⁵ The agencies usually have the authority to control the ET’s finance, staffing and administrative matters if decisions are being reviewed by the ET or considered outside the ET’s jurisdiction. The NET is an example of the first category because the MoE controls the NET’s finance and staffing.⁷⁶ Conversely, the NGT and the Environmental and Land Tribunal of Ontario (ELTO)⁷⁷ in Canada are examples of the second category. While supervised by the Ministry of Law and Justice, the NGT is independent from the MoE.⁷⁸ Similarly, to ensure independence, the Attorney General, who is outside environmental development areas, supervises the ELTO.⁷⁹

The special characteristics of ETs have been known to affect their independence.⁸⁰ In this view, ETs are ‘presumed not to be independent of the policies, judgements and political agendas of their parent agencies’.⁸¹ However, some ETs are found to be independent, as indicated by innovative judgments.⁸² Some scholars have argued that India has been recognised as a progressive jurisdiction in environmental matters because of its proactive judiciary.⁸³ These independent ETs operate ‘outside the substantive and procedural control of other environmental or land use agencies, particularly the agencies whose decisions they review’.⁸⁴

6.3 Applicability of International Models of Environmental Courts and Tribunals in Indonesia

This section analyses how the models of Pring and others can be used as references in the Indonesian context. It examines some of the strengths and weaknesses of each model when applied to the Indonesian context. In analysing the needs of new courts, one major issue is whether the new courts are assessed as ‘successes’ and ‘failures’.⁸⁵ However, there is no agreement concerning

⁷⁵ Pring and Pring, above n 10, 25.

⁷⁶ Pring et al, above n 5, 33.

⁷⁷ ELTO, *About the Environmental Review Tribunal* <<http://elto.gov.on.ca/tribunals/ert/about-the-ert/>> (accessed on 12 February 2019).

⁷⁸ Pring et al, above n 5, 34.

⁷⁹ Ibid 36.

⁸⁰ Pring and Pring, above n 10, 25.

⁸¹ Pring et al, above n 5, 38.

⁸² Gill, above n 66, 82.

⁸³ G L Peiris, ‘Public Interest Litigation in the Indian Subcontinent: Current Dimensions’ (1991) 40(1) *International & Comparative Law Quarterly* 66, 66–90.

⁸⁴ Pring and Pring, above n 10, 25.

⁸⁵ Andrew Harding and Pip Nicholson, *New Courts in Asia* (Routledge, 2010) 4.

what constitutes a success or failure.⁸⁶ Nonetheless, an evaluation of some circumstances that determine the most realistic ECT will be undertaken to select the most appropriate model for Indonesia.

6.3.1 Compatibility of Environmental Tribunals

In addition to the Supreme Court and the judicial bodies below it and the Constitutional Court, there are other bodies whose functions are related to judicial power. These functions consist of pre-investigation (*penyelidikan*), investigation (*penyidikan*), prosecution (*penuntutan*), making judgments, providing legal services and out-of-court settlements.⁸⁷ The original constitution of Indonesia before the amendments provided a basis for this quasi-judicial body under art 24(1).⁸⁸ This basis for a quasi-judicial body was reaffirmed by the amendment of the constitution under art 24(3). Based on this provision, Law No 48 of 2009 on Judicial Authority created a chapter on ‘other judicial bodies’, which basically stated that ‘other judicial bodies’ have a ‘judicial function’ and are formed by a statute.⁸⁹ Jimly Assiddiqie used the term ‘quasi-judicial bodies’ for these other judicial bodies.⁹⁰ He uses this term when explaining the KPPU and other similar types of commissions.⁹¹ He provided examples of existing quasi-judicial bodies such as the Indonesian Competition Commission (*Komisi Pengawas Persaingan Usaha* [KPPU]), Ombudsman Commission (*Komisi Ombudsman*), Information Commission (*Komisi Informasi*), National Election Supervision Body (*Badan Pengawas Pemilu*) and National Broadcasting Commission (*Komisi Penyiaran Indonesia*).

These other judicial bodies or quasi-judicial bodies may not be sufficient to be considered equivalent to a tribunal such as the ET. However, they possess some characteristics of ETs, as highlighted above.

These quasi-judicial bodies are formed to exercise power relating to judicial authority. Some bodies have other authorities that are outside the judicial power.⁹² The precise authority of this body should be regulated by a specific statute. In relation to its judicial function, despite some

⁸⁶ Ibid.

⁸⁷ Law No 48 of 2009 on Judiciary Power (‘Judiciary Power Law’), art 38(2).

⁸⁸ *The Constitution of the Republic of Indonesia*, art 24(1). ‘Judicial power is carried out by a Supreme Court and other judicial bodies according to the law’.

⁸⁹ Judiciary Power Law, above n 87, art 38(1).

⁹⁰ Jimly Assiddiqie, ‘Pengadilan Khusus (Specialised Court)’ in *Hitam Putih Pengadilan Khusus di Indonesia* (Judicial Commission of the Republic of Indonesia, 2013) 3, 23. The term ‘quasi-judicial body’ is not an official term under existing laws.

⁹¹ Ibid.

⁹² Ibid 13–14. For example, the KPPU is an executive institution that carries out the supervisory function of unfair business competition practices. However, the Act gives authority to the KPPU to act as a mediator and at the same time a breaker for any disputes concerning unfair business competition.

variations on its procedures and mechanisms, it basically has the authority to investigate a report and document, examine a witness, and decide a case in their respective jurisdiction. The Information Commission handles the resolution of public information disputes first through mediation.⁹³ The parties may settle their case through mediation. If a mutual agreement is not reached, they adjudicate the case by submitting it to the Information Commission.⁹⁴ In contrast, KPPU has the authority to receive reports from the public, conduct investigations and checks on cases of alleged monopolistic practices and unfair business competition, determine whether there are losses on the part of other business actors or the public, and impose sanctions in the form of administrative actions for business actors who violate the relevant act.⁹⁵

Decisions of some of these commissions can be appealed to courts. For example, decisions made by the Information Commission can be appealed to the state administrative court for a state agency and to a general court for a non-state agency.⁹⁶ In another example, a business actor can file an objection to the district court regarding the decision of the KPPU no later than 14 days after receiving notification of the decision.⁹⁷ The decision of the commission that was not appealed was requested for determination (*penetapan*) of execution by the district court.⁹⁸ In the case of the Ombudsman Commission, upon failure to comply with the commission's recommendations without sufficient reason, the commission is authorised: (1) to publish such non-compliance to the superior of the party who complained⁹⁹—for example, the case involving a certain deputy with a ministry will be informed to the relevant minister; and (2) to submit the report to the House of Representatives and the president.¹⁰⁰

This study has found that adjudicating environmental cases through a quasi-judicial body is inadequate for two reasons. First, the jurisdiction of a quasi-judicial body is limited. Adjudicating environmental cases comprises civil, criminal and administrative jurisdictions. Most of the commissions above have only civil and administrative jurisdictions. For a criminal allegation, some refer to the police for an investigation. For example, in relation to monopolistic practice and

⁹³ Law No 14 of 2008 on Public Information Disclosure 38(1) ('FOI Act').

⁹⁴ Ibid 42. This process is also applied in the Ombudsman Commission (*Komisi Ombudsman*).

⁹⁵ Law No 5 of 1999 on Anti Monopolistic Practice and Unfair Competition ('Competition Law') art 36.

⁹⁶ *FOI Act*, above n 90, art 47(1)(2).

⁹⁷ Competition Law, above n 95, art 44(2).

⁹⁸ Ibid 46(2).

⁹⁹ Law No 37 of 2008 on Ombudsman of the Republic of Indonesia ('Ombudsman Law') 38(4).

¹⁰⁰ Ibid.

unfair competition, the KPPU will hand over its decision to investigators for criminal investigation pursuant to the existing law if it is not carried out by the party.¹⁰¹

Another reason is the existing performance of these quasi-judicial bodies. There has been a concern about the efficiency and effectiveness of existing non-structural bodies, including quasi-judicial bodies, which requires reassessment.¹⁰² For example, in the discussion of various bills, the parliament and government were often led to propose the establishment of a new body or commission without consideration of its effectiveness and effects on the budget.¹⁰³ President Joko Widodo provided a specific direction to use an existing agency rather than create a new one.¹⁰⁴ The Ministry of Empowerment of Apparatus and Bureaucratic Reform (MENPAN RB) followed up this directive by issuing a decree requesting all ministries and agencies to avoid creating new bodies in any proposed laws.¹⁰⁵ MENPAN RB claimed to have assessed 23 non-structural bodies as part of the efficiency.¹⁰⁶ Another reason is the problem with the existing capacity of quasi-judicial bodies—especially their adjudicators’ competence in adjudicating environmental cases in particular. Although some of their members are lawyers, special competencies related to specific adjudication skills were not assessed in the selection process. This partly contributes to the way in which they adjudicate cases.¹⁰⁷

6.3.2 Compatibility of Operationally Independent Environmental Courts

Within the Indonesian judicial authority, the ‘operationally independent environmental court’ model is similar to that of the courts, with four jurisdictions under the Supreme Court of Indonesia.¹⁰⁸ However, the similarity relates more to the wide and comprehensive jurisdiction in this category of courts. These courts are not independent in terms of their organisational aspect; they are administered by the Supreme Court in their administration of finance and staff. In terms of making decisions, they are independent but subject to appeal by parties to higher courts as part

¹⁰¹ Competition Law, above n 95, art 44(4).

¹⁰² Ibid.

¹⁰³ ‘Efektivitas Komisi Negara (*The Effectiveness of the State's Commissions*)’, *Pusat Studi Hukum dan Kebijakan* (online) 10 June 2013 <<https://pshk.or.id/blog-id/efektivitas-komisi-negara/>> (accessed on 12 February 2019).

¹⁰⁴ ‘RUU Jangan Amanatkan Pembentukan Lembaga Baru (*Bills don't mandate the Establishment of New Body*)’, *MENPAN* (online) 15 June 2016 <<http://www.menpan.go.id/site/berita-terkini/ruu-jangan-amanatkan-pembentukan-lembaga-baru>> (accessed on 12 February 2019).

¹⁰⁵ Decree of Ministry of PAN RB No B/1704/M.PANRB/5/2016.

¹⁰⁶ ‘Menpan RB Klaim Efisiensi 23 Lembaga Non Struktural (MENPAN Claims an Efficiency of 23 Non-Structural Agencies)’, *Gatra.com* (online) 26 May 2018 <<https://www.gatra.com/rubrik/nasional/324327-Menpan-RB-Klaim-Efisiensi-23-Lembaga-Non-Struktural>> (accessed on 12 February 2019).

¹⁰⁷ Interview with Astriyani, Director of the LEIP (12 November 2018); interview with Haykel Widyasmoko, practicing lawyer on Monopolistic Practice and Unfair Competition and expert witness on the KPPU case (12 November 2018).

¹⁰⁸ See Section 3.2.2 of this thesis.

of the accountability of the decision. This study argues that establishing this type of independent environmental court is complex for the following two reasons.

First, there is a challenge to provide a legal basis. The establishment of operationally independent environmental courts with a centralised jurisdiction combining civil, criminal and administrative jurisdictions requires a new court outside those four courts.¹⁰⁹ Each jurisdiction has its own prosecutors, organisation and manner of recruiting justices; these differences hinder the establishment of green benches or green trial courts.¹¹⁰ In this matter, the Supreme Court argued:

The Constitution of the Republic of Indonesia has confirmed that Indonesia only recognises four types of courts under the Supreme Court, therefore it is somewhat difficult for the Supreme Court to develop a system of special courts to handle environmental issues, which stand on their own.¹¹¹

Thus, establishing this type of court requires an amendment to the provision in the constitution stated under art 24(3). Creating an independent environmental court may require a formal amendment of the constitution, which may be difficult without a valid reason. A formal amendment of the constitution requires certain political situations and other preconditions¹¹² In this respect, Denny Indrayana argued:

Constitution-making is at once the most varied and the most concentrated form of political activity during the transition, in it, political manoeuvring, bargaining and negotiating takes place and the political positions, agreement and disagreement between groups and leaders come to the fore.¹¹³

This precondition implies that the constitution has some limitations for rapid amendments.¹¹⁴ David A. Strauss argued that

[T]he world changing in incalculable ways...Technology has changed, the international situation has changed, the economy has changed, social mores have changed – all in ways that no one could

¹⁰⁹ Environmental cases fall under the jurisdiction of general courts for civil and criminal cases or under the jurisdiction of administrative courts for cases related to state administrative decisions.

¹¹⁰ Kala K Mulqueeny and Francesse Joy Cordon (eds), *Inaugural ASEAN Chief Justices' Roundtable on Environment: The Proceedings* (ADB, 2013) 4 <https://www.ajne.org/sites/default/files/document/conference_proceedings/5386/asean-chief-justices-roundtable-web.pdf> (accessed on 12 February 2019).

¹¹¹ Harifin Tumpa, 'Role of Judges on the Environmental Cases', Asian Judges Symposium on Environmental Decision Making, the Rule of Law, and Environmental Justice, Manila, Philippines, 2010 <<https://www.scribd.com/document/37749202/Dr-Harifin-Tumpa-Asian-Court-Views-Indonesia>> (accessed on 12 February 2019).

¹¹² Feri Amsari, *Perubahan UUD 1945: Perubahan Konstitusi Negara Kesatuan Republik Indonesia Melalui Keputusan Mahkamah Konstitusi* (Rajawali Press, 2011) xvii.

¹¹³ Denny Indrayana, *Indonesian Constitutional Reform 1999–2002: An Evaluation of Constitutional-Making in Transition* (Kompas Book Publishing, 2008) 25.

¹¹⁴ Amsari, above n 112, xvi.

have foreseen when the Constitution was drafted. And it is just not realistic to expect the cumbersome amendment to keep up with these changes.¹¹⁵

Second, it is possible to establish such a court by amending the constitution. However, there needs to be a compelling rationale for the amendment to ensure institutional acceptance and approval. This rationale may include a comprehensive proposal for the court's jurisdiction and adequate evidence that the existing and available mechanisms are no longer able to deal with environmental cases. The escalating environmental problem requires a solution that is rational and in accordance with the immediate need to protect the environment.

Based on the above reasons, the thesis argues that establishing an independent environmental court in the abovementioned form of court under the Supreme Court would not be reasonable. The main reason is that because such establishment would require the amendment of the Constitution which is time-consuming and requires a compelling justification of its establishment as well as approvals from various government agencies and parliament. Instead, the thesis, as further analysed, argues that establishing an environmental court within the general courts and administrative courts as well as a court with a specialised judge who has been certified to handle environmental cases would be functioning more reasonably and efficiently. Establishing an environmental court in those type of courts and its variations would not require the amendment of the Constitution. Rather, it requires only the amendment of the statute and the policy. In addition, unlike the amendment process in the Constitution, the creation for the law and the policy basis for these type of courts would be able to avoid or overcome intensive political manoeuvring and negotiation.

6.3.3 Compatibility of the Decisional Independent Environmental Court

Within the Indonesian judicial structure, the 'decisional independent environmental court' is equivalent to the specialised court (*pengadilan khusus*). The specialised court has the authority to examine, adjudicate and decide a special case.¹¹⁶ The rationale for having a specialisation in the judiciary is to accelerate the settlement of cases requiring specialised expertise.¹¹⁷ Mostly, an ad hoc judge and a career judge perform this role. The specialised court operates in all courts under the Supreme Court, except the court with military jurisdiction. This section analyses specialised courts with a focus on the main reason for their establishment, features of the court (jurisdiction,

¹¹⁵ David A Strauss, *The Living Constitution* (Oxford University Press, 2010) 1-2.

¹¹⁶ Judiciary Power Law, above n 87, art 1(8).

¹¹⁷ Law No 49 of 2009 on General Court ('General Court Law') 8(1) and (2) explanation. These cases include banking, tax, juvenile, industrial relations dispute and cybercrime.

structure and recruitment of judges, caseload and training) and successes and failures in their implementation.

6.3.3.1 Rationale for the Establishment of a Specialised Court in Indonesia

A specialised court has been recognised since the Dutch Colonial Era with its various rationale for establishment. Under the Dutch, at least there were two forms of specialised courts, such as, the Adat Courts and ‘swapraja’ court.¹¹⁸ The establishment of this court was taken due to the availability of the judicial system colonial rule to the time of the Japanese rule. During that period, there were some autonomous regions in Indonesia which had carried out their own judicial process based on their respective customary law.¹¹⁹ In the postcolonial era, the two above courts were eliminated by the issuance of Emergency Law No. 1 of 1951, which mandated the unification of the court.¹²⁰ Whereas under Guided Democracy, Indonesia established two specialised courts, namely (1) a specialised court for economic crimes (1955) and; (2) a special court within the Supreme Court to prosecute the abuse of power by high-ranking public officials including the President and ministers.¹²¹ There was also a military court established to prosecute military personnel who were allegedly involved in the Communist Party.¹²² In addressing disputes over the redistribution of lands and other cases related to land reform In addition, Indonesia established Land Reform Court in 1964.¹²³

The idea of establishing a special court continued widespread after the reform period, especially to fulfill the increasingly complex demands for development of justice in society.¹²⁴ ‘The pressure for quick reform with clear results and the need to modernise particular areas of law targeted by the reform is seen as more viable compared to reforming the general courts’.¹²⁵ Scholars have expressed views on the emergence of a new court in Asia in general and Indonesia in particular. Harding and Nicholson stated that:

¹¹⁸ The Indonesian National Law Commission, *Pembentukan Pengadilan Khusus di Indonesia* (The Establishment of Specialised courts in Indonesia) (2007), 72.

¹¹⁹ Hamdan Zoelva, ‘Tespek Konstitusionalitas Pengadilan Khusus Di Indonesia (The Constitutional Aspect of a Specialised Court in Indonesia)’ in *Hitam Putih Pengadilan Khusus* (Judicial Commission of Indonesia, 2013) 167, 172.

¹²⁰ Ibid.

¹²¹ Ibid, 171-172.

¹²² Jimly Assiddiqie, ‘Pengadilan Khusus (Specialised Court)’ in *Hitam Putih Pengadilan Khusus di Indonesia* (Judicial Commission of the Republic of Indonesia, 2013) 3, 8.

¹²³ Indriaswati Dyah Saptaningrum, ‘The Fisheries Court: Government Led-Judicial Development?’ In Melissa Crouch, *The Politic of Court Reform: Judicial Change and Legal Culture in Indonesia* (Cambridge University Press, 2019) 218, 221.

¹²⁴ Assiddiqie, above n 122, 11.

¹²⁵ Dyahsaptaningrum, above n 123, 222.

The raised of ‘new courts’, especially in Asia, responses the development of market economy, democratisation, good governance, and enforcement of human rights which require a certain guarantee of rule of law and legal certainty.¹²⁶

Lindsey and Taylor asserted that:

The country [Indonesia] was in the midst of an economic crisis and the government was failing. A government representative arrived unannounced and produced a detailed set of demands. It included the establishment of a specialised court.¹²⁷

These arguments relate to some major drivers for most of the specialised courts’ establishment in Indonesia. These were evident at least in the establishment of the Anti-Corruption Court, the Commercial Court and the Human Right Court. Law enforcement agencies and courts became the ‘main stumbling blocks to effective reform’.¹²⁸ Thus, ‘a special mechanism is required to handle corruption cases—one that is different from the normal judicial mechanisms’.¹²⁹ Its establishment relied on a study of the factors that led to the weak performance of the justice system at that time—especially in the existing special courts.¹³⁰ In this regard, Fenwick described this establishment as an effort to:

[C]ircumvent entirely a judicial system known to be complicit in protecting corruptors, and—at the very least—capable of being unresponsive or incompetent in the administration of justice.¹³¹

Hence, the Commercial Court was formed without proper preparation as one of the ‘conditions’ set by the International Monetary Fund (IMF) in response to the 1997 financial crisis, coupled with judges who received inadequate educational and professional training.¹³² The lack of a thorough assessment of the major challenges at that time, as well as the feasibility study, created an insurmountable problem—especially during its inception period. Given this background, the availability of capable judges does not prevent the ‘likelihood of corruption’ in the adjudication

¹²⁶ Harding and Nicholson, above n 85, 3.

¹²⁷ Tim Lindsey and Veronica Taylor, ‘Rethinking Indonesia Insolvency Reform: Context and Frameworks’ in Tim Lindsay (ed), *Indonesia: Bankruptcy, Law Reform & the Commercial Court* (Desert Pea Press, 2000), 2.

¹²⁸ Simon Butt and Sofie Arjon Schütte, ‘Assessing Judicial Performance in Indonesia: The Court for Corruption Crimes’ (2014) 62(5) *Crime, Law and Social Change* 603, 604.

¹²⁹ *Blueprint and Action Plan for the Establishment of the Anti-Corruption Court* (Supreme Court of the Republic of Indonesia and National Development Planning Agency [BAPPENAS], 2004) 1.

¹³⁰ Ibid.

¹³¹ S Fenwick, ‘Measuring up? Indonesia’s Anti-Corruption Commission and the New Corruption Agenda’ in T Lindsey (ed), *Indonesia: Law and Society* (Federation Press, 2nd ed, 2008) 406, 413.

¹³² Tim Lindsey, ‘The IMF and Insolvency Law Reform in Indonesia’ (1998) 34(3) *Bulletin of Indonesia Economic Studies* 119, 119.

process.¹³³ Similar to the commercial court, the human rights court was established in 2000 with a particular reason. The establishment was partly to prevent the attempt to bring atrocities in East Timor during the referendum in 1999 to the international accountability mechanism under the United Nations.¹³⁴

Based on the above reasons for the establishment specialised courts above, the thesis concludes that the establishment of the specialised court has the following rationales. First, the court was formed in response to demand and developments that occurred in the community. Before the reform era, for example, the establishment of a special court tried military personnel involved in the 30th PKI Movement. Another example is the land reform court which was created to deal with cases related to land reform. After the reform period, a Human Rights Court was also formed to deal with human rights violations after the referendum process in East Timor. Second, the establishment of a special court is carried out because the existing court is deemed not to have adequate competence in handling such special cases. For example, after the reform period, this reason was one of the reasons for the establishment of an anti-corruption court and commercial court. Third, the establishment of special courts is part of the package of assistance as well as international pressure to respond to the social and political dynamics in Indonesia. For example, the Commercial Court, which was one of the 'conditions' of IMF financial assistance.

6.3.3.2 Features of the Specialised Court

The main reason for analysing the features of special courts is to identify the strengths and challenges they face. The results of this identification will be used as input for the establishment of special environmental courts in Indonesia, as well as the recommendation for sequential implementation and related elements such as composition, requirements, appointment and training of court members, court location and clarity of regulations regarding the jurisdiction of the court. This analysis is needed because an established environmental court will be within the court structure and under the supervision of the Supreme Court. Therefore, understanding how these features work will be useful in determining the model of environmental courts in Indonesia.

6.3.3.2.1 Jurisdiction of the Specialised Court

Most specialised courts have a special jurisdiction. Some of these jurisdictions are defined in their establishment law, along with the court's authorities and the types of cases to be handled by the

¹³³ Daniel S Lev, 'Comments on the Judicial Reform Program in Indonesia' (Paper presented at the Seminar on Current Developments in Monetary and Financial Law, International Monetary Fund, 3 June 2004) 4.

¹³⁴ David Cohen, 'Intended to Fail: The Trial Before the Ad Hoc Human Right Court in Jakarta' (International Center for Transitional Justice) v–vii < <https://www.ictj.org/publication/intended-fail-trials-ad-hoc-human-rights-court-jakarta> > (accessed on 12 February 2019).

courts. Some courts have a separate law regarding the establishment of the court in addition to substantive law relating to its special jurisdiction. Thus, these courts refer to both laws when exercising their jurisdiction. For example, the establishment of the Anti-Corruption Court in Indonesia was regulated under two laws. Law No 30 of 2002 on the Corruption Eradication Commission (KPK) mandated the establishment of the Anti-Corruption Court within the District Court of Central Jakarta, whereas Law No 46 of 2009 on the Anti-Corruption Court mandates the Supreme Court to establish anti-corruption courts within the general courts in all provinces of Indonesia.

In addition to the court's jurisdiction,¹³⁵ another difference between the District Court of Central Jakarta and other anti-corruption courts relates to who is responsible for making a prosecution. The former is conducted by the KPK with the support of its own investigators and prosecutors, whereas in the latter, the responsibility to prosecute lies with prosecutors from the AGO based on the police investigation. In a corruption case, the main issue is whether an action constitutes a corruption practice. Law No 31 of 1999 on Eradication of Corruption defines what constitutes corruption (*Tindak Pidana Korupsi*).¹³⁶ There has been a critical issue in terms of this definition. Art 2(1) provided a broad definition when defining corruption as someone who 'unlawfully enriches themselves or another person in a way that could damage the state finance or economy'.¹³⁷ Further, the term 'unlawfully' includes actions in confront with 'justice or social values existing in the community'.¹³⁸ The Constitutional Court declared the elucidation as unconstitutional in 2006. However, the Supreme Court did not fully comply with the decision of the Constitutional Court. Butt and Lindsey argued that the Supreme Court 'has effectively subverted the Constitutional Court decision'.¹³⁹

Some courts have their legal basis of establishment not by a special statute. Instead, they are established under their substantive laws in respect to their special jurisdiction. They include the Commercial Court,¹⁴⁰ Fisheries Court¹⁴¹ and Industrial Relations Court.¹⁴² Fisheries courts have jurisdiction to try cases involving fishing-related crimes such as using illegal fishing means and equipment (e.g., chemicals and explosives), causing significant water pollution, and exporting and

¹³⁵ Law No 46 of 2009 on the Anti-Corruption Court ('Anti-Corruption Court Law') art 6.

¹³⁶ Law No 31 of 1999 on Eradication of Corruption ('Eradication Corruption Law').

¹³⁷ Ibid 2(1).

¹³⁸ Ibid (explanation).

¹³⁹ Simon Butt and Tim Lindsey, *Indonesian Law* (Oxford University Press, 2018) 285.

¹⁴⁰ Law No 37 of 2004 on Bankruptcy and Suspension of Obligation for Payment of Debts ('Bankruptcy Law').

¹⁴¹ Law No 31 of 2004 on Fisheries ('Fisheries Law').

¹⁴² Law No 2 of 2004 on Settlement of Industrial Relation Disputes ('Settlement of Industrial Relation Disputes Law').

importing fish that do not meet health and other standards.¹⁴³ The Industrial Relation Court hears employment-related disputes, including those involving workers' dismissal rights and disagreements between trade unions.¹⁴⁴ In the case of the Commercial Court, in addition to referring to Law No 37 of 2004 concerning Bankruptcy and Suspension of Payment in handling bankruptcy and suspension of payment-related cases, its jurisdiction also covers areas stipulated in other laws—for example, laws related to intellectual property rights (industry design, integrated circuit, patent, trademark, copyright) and the Agency of Deposit Insurance Corporation.

In exercising their jurisdiction, these courts are located in various places in three models. First, the court exists in each province under the general court—for example, the Anti-Corruption Court,¹⁴⁵ the Human Rights Court¹⁴⁶ and the Industrial Relations Court.¹⁴⁷ In the case of the Juvenile Court, Law No 3 of 1997 did not clearly mention the location of the court. In practice, it operates in each district court. Second, the courts operate only in the capital city of Indonesia—for example, the Commercial Court.¹⁴⁸ The Commercial Court was enhanced to also cover Makassar, Surabaya, Medan and Semarang.¹⁴⁹ The Anti-Corruption Court, in which the prosecution is carried out by the KPK, is located in the District Court of Central Jakarta. Third, the court is located in specific areas. Law No 31 of 2004 concerning Fisheries states that the courts should be established in the district courts of North Jakarta, Medan, Pontianak, Bitung and Tual.¹⁵⁰ By 2015, it had been established in 10 places.¹⁵¹

6.3.3.2.2 Structure and Appointment Mechanism of Judges

Most specialised courts in Indonesia consist of both career and ad hoc (non-career) judges, except the Juvenile Court, which has only career judges. Currently, there are around 383 ad hoc judges, including 302 district court judges, 71 high court judges and 10 justices of the Supreme Court.¹⁵² These ad hoc judges are placed in the Industrial Relations Court, the Fisheries Court and the Anti-

¹⁴³ *Fisheries Law*, above n 141, art 8 and 9.

¹⁴⁴ *Settlement of Industrial Relation Disputes Law*, above n 142, art 2.

¹⁴⁵ Anti-Corruption Court, above n 145, art 3.

¹⁴⁶ Law No 26 of 2000 on Human Rights Court ('Human Right Court Law') art 3.

¹⁴⁷ *Settlement of Industrial Relations Disputes Law*, above n 142, art 59.

¹⁴⁸ Bankruptcy Law, above n 140, art 306. The Commercial Court shall be established in Jakarta.

¹⁴⁹ Presidential Decree No 97 of 1999 on the Establishment of Commercial Courts on the District Court of Makassar, Surabaya, Medan and Semarang.

¹⁵⁰ *Fisheries Law*, above n 141, art 71(3).

¹⁵¹ 'Indonesia Tambah Pengadilan Perikanan (Indonesia establishes three additional Fisheries Courts)', *BBC Indonesia* (online), 11 December 2014 <https://www.bbc.com/indonesia/berita_indonesia/2014/12/141211_indonesia_pengadilan_perikanan>. (12 February 2019).

¹⁵² Supreme Court of the Republic of Indonesia, *The 2016 Supreme Court Annual Report*, Annual Report (2016) 146.

Corruption Court. The laws providing a legal basis for the establishment of these specialised courts (*pengadilan khusus*) provide a mechanism for appointing and selecting judges.

The selection of judges for the Anti-Corruption Court is the most detailed selection process. The court was the first specialised court to mandate a majority of ad hoc judges at a ratio of three ad hoc judges to two career judges in its chamber or panel. It exists at all three levels: first instance, appeal and cassation. For career judges, candidates first join an interview as part of a competence test.¹⁵³ They then take a written test, which consists of a psychology test and substantive aspects covering corruption matters, criminal procedural law and judicial techniques.¹⁵⁴ If successful in the first two selection stages, they will participate in two weeks of compulsory training managed by the Supreme Court's training centre.¹⁵⁵ The selection team of the Supreme Court will then assess the result of their participation in this training. The chief justice will appoint the successful candidates, who then receive a certification to handle corruption cases. Ad hoc judges follow a different process managed by a special selection committee of the Supreme Court. The process consists of an integrity test and the candidate's history is examined. Successful candidates are appointed and dismissed by the president based on recommendations from the chief justice of the Supreme Court.¹⁵⁶

The appointment of judges in some specialised courts also involves non-court authorities—for example, the Commercial Court employs both career and ad hoc judges. Career judges are appointed by the Supreme Court,¹⁵⁷ whereas ad hoc judges can be appointed to the Commercial Court as experts based on the president's decision whereby the judge is proposed by the chief justice of the Supreme Court.¹⁵⁸

Some laws provide criteria both for career judges and ad hoc judges. The criteria set general requirements that indicate the level of experience of the candidate. In addition, candidates are required to have specific competencies. However, the laws do not provide clear and detailed criteria for measuring whether the candidates possess an adequate level of competence. For example, there is no method to assess whether candidates have passed the requirement for 15 years' experience in the legal field and have strong dedication, adequate knowledge and attendance

¹⁵³ Regulation of Supreme Court No 4 of 2009 on the Implementation of the Selection of Ad Hoc Judge in Corruption Court, High Court, and Supreme Court, art 12(1).

¹⁵⁴ Ibid art 8.

¹⁵⁵ Ibid art 11(7).

¹⁵⁶ Ibid, art 10(4).

¹⁵⁷ Bankruptcy Law, above n 140, art 302(1).

¹⁵⁸ Ibid art 302(3).

of specific training on matters that fall within the court's jurisdiction.¹⁵⁹ One requirement of ad hoc judges of the Commercial Court is mastering knowledge in the field of problems that are the scope of the court's authority.¹⁶⁰ However, it does not clearly define what is meant by mastering knowledge. In most practices, the Supreme Court issues a special decree to deal with this issue as part of the overall selection process. The decree provides the basis for involving a professional in measuring these requirements. For example, a human resources firm conducts an integrity test in the selection of the ad hoc judge of the Anti-Corruption Court.

6.3.3.3 Special Training for Judges of Specialised Courts

Most laws regarding the establishment of specialised courts do not provide specific provisions on special training for both career and ad hoc judges to improve their competencies. However, training has been conducted for some specialised courts by the Supreme Court. Within the overall judiciary reform program, the improvement of judges' competencies has been integrated into the *Pelatihan Hakim Terpadu*. As mentioned in Chapter 3, *Pelatihan Hakim Terpadu* includes training for certified judges in addition to training for candidate judges, sustainable technical judicial training, training for senior judges and training for ad hoc judges. Within these schemes, the objective of certified training is to give judges adequate training for special competencies. Certified training provides certification for judges in handling corruption cases, commercial cases, industrial relations-related cases, fisheries cases and juvenile cases. Since 2007, the Centre for Judicial Training and Education of the Supreme Court has conducted certification training for specialised judges. By 2017, the centre had trained around 1,969 (Anti-Corruption Court), 716 (Juvenile Court), 368 (Fisheries Court) and 666 (Industrial Relations Court) judges.¹⁶¹

6.3.3.4 Caseload

Caseloads in specialised courts are very small in terms of the number of cases received compared with that of the general court. Tables 6.1 and 6.2 compare the number of cases received and settled in the Fisheries Court, the Anti-Corruption Court, the Commercial Court and the Industrial Relations Court between 2013 and 2017. For example, in 2016, the total number of cases received by the general court was 3,331,646, whereas the total cases received by the Juvenile Court was 6,358. The Fisheries Court had the smallest caseload (241 cases) compared with the general court.

¹⁵⁹ Supreme Court's Decree on Selection of Ad Hoc Judge in Corruption Court, above n 153, art 12(7).

¹⁶⁰ Bankruptcy Law, above n 140, art 302(2b).

¹⁶¹ These data were extracted from *The 2016 Supreme Court Annual Report*, above n 152, 148 and Supreme Court of the Republic of Indonesia, *The 2017 Supreme Court Annual Report*, Annual Report (2017) 99.

The number of environmental cases in Table 4.1 is even smaller than the number of cases received by the specialised courts.

Table 6.1. Number of Cases Received at the Specialised Court 2013–2017¹⁶²

		2013	2014	2015	2016	2017
	Fisheries Court	83	61	175	241	265
	Corruption Court	1,267	2,318	2,454	2,362	2,198
	Commercial Court	91	85	316	424	450
	Industrial Relations Court	749	1,170	1,539	2,137	2,198
	Juvenile Court	*	*	*	*	6,358

Note: * Not available

Table 6.2. Number of Cases Decided at the Specialised Court 2013–2017¹⁶³

		2013	2014	2015	2016	2017
	Fisheries Court	77	54	155	184	252
	Corruption Court	1,162	2,208	2,208	1,979	2,214
	Commercial Court	148	56	276	291	296
	Industrial Relations Court	1,119	833	1,350	1,495	1,845
	Juvenile Court	*	*	*	*	5,974

Note: * Not available

6.3.3.5 Success and Failure of Specialised Courts

Some of these courts have been considered ‘successful’ because they handle cases professionally, whereas others are regarded as abject failures. The Anti-Corruption Court in Central Jakarta is widely regarded as a successful specialised court. In the first six years after its establishment, the court maintained a near 100% conviction rate in around 250 cases.¹⁶⁴ However, from 2005 to mid-2019, only 51% of the defendants prosecuted by public prosecutors were found guilty by the general courts.¹⁶⁵ This indicates the effectiveness of the Anti-Corruption Court in Central Jakarta.

¹⁶² Supreme Court of the Republic of Indonesia, *The 2012 Supreme Court Annual Report*, Annual Report (2012); *The 2013 Supreme Court Annual Report*, Annual Report (2013); *The 2014 Supreme Court Annual Report*, Annual Report (2014); *The 2015 Supreme Court Annual Report*, Annual Report (2015); *The 2016 Supreme Court Annual Report*, Annual Report (2016); *The 2017 Supreme Court Annual Report*, Annual Report (2017); *The 2018 Supreme Court Annual Report*, Annual Report (2018).

¹⁶³ Ibid.

¹⁶⁴ *Specialised Anti-Corruption Courts: Indonesia* (Anti-Corruption Resource Center, 2016) 2
<<https://www.u4.no/publications/specialised-anti-corruption-courts-indonesia.pdf>> (accessed on 12 February 2019).

¹⁶⁵ ‘Pemberantasan Korupsi; Hakim Karier “Juara” Bebaskan Terdakwa! (The Eradication of Corruption: The Career Judge “Winner” in Freeing the Accused!)’ *Indonesia Corruption Watch* (online) 10 August 2009

Some factors have contributed to its success. Butt and Schütte argued that in addition to the persistence and quality of ad hoc judges in the court, the strong evidence presented by KPK prosecutors contributed to the conviction ratio.¹⁶⁶ In addition, as argued by Lindsey and Butt, KPK investigators and prosecutors were more ‘professional’ than their counterparts in the ordinary police force and prosecution service. In particular, they were given more adequate training in handling evidence and managing and presenting prosecutions with thoroughness.¹⁶⁷

In contrast, some specialised courts have been criticised as failures. For example, the Commercial Court and the Human Rights Court have been perceived as ineffective. Some have argued that their failure is generally caused by the unavailability of comprehensive policies—particularly in ensuring its independence and consistency—when establishing the courts.¹⁶⁸ Hamdan Zoelva argued that it is based on the factual situations of enforcement, without the presence of a clear and detailed constitutional framework.¹⁶⁹ There is ‘a widely held perception that the court has failed to perform their function properly’.¹⁷⁰ The Human Rights Court has been unable to overcome the weaknesses inherent in the country’s judicial system in general.¹⁷¹ One of the major challenges is the failure of prosecutions at all stages, along with the lack of political will of the AGO and the highest level of government to provide credible and accountable results.¹⁷² These courts are now rarely used.¹⁷³ In fact, the Supreme Court has not reported the number of cases of the Human Rights Court in its annual report since 2016.

The lack of thorough preparation in the establishment of the Commercial Court resulted in the court being unprofessional.¹⁷⁴ As a result, it hears relatively few cases. For example, in 2017, only 450 cases were lodged (of those, 296 have been settled). This number is low compared with the number of cases in the Anti-Corruption Court (2,198 cases were lodged) and Industrial Relations Court (2,198 cases were lodged). Despite these problems, Lindsey and Butt highlighted that these

<<https://antikorupsi.org/id/news/pemberantasan-korupsi-hakim-karier-juara-bebaskan-terdakwa>> (accessed on 12 February 2019).

¹⁶⁶ Butt and Schütte, above n 139, 607.

¹⁶⁷ Butt and Lindsey, above n 139, 292.

¹⁶⁸ Donal Fariz, ‘Proyek Ambisium Pembentukan Pengadilan Tipikor (Development of the Anti-Corruption Court: An Ambitious Project)’ in *Hitam Putih Pengadilan Khusus* (Judicial Commission of Indonesia, 2013) 213, 213.

¹⁶⁹ Hamdan Zoelva, ‘Tespek Konstitusionalitas Pengadilan Khusus Di Indonesia (The Constitutional Aspect of a Specialised Court in Indonesia)’ in *Hitam Putih Pengadilan Khusus* (Judicial Commission of Indonesia, 2013) 167, 180.

¹⁷⁰ *Blueprint and Action Plan for the Establishment of the Anti-Corruption Court*, above n 129, 1.

¹⁷¹ Ibid.

¹⁷² David Cohen, ‘Intended to Fail: The Trial Before the Ad Hoc Human Right Court in Jakarta’ (International Center for Transitional Justice) v–vii <<https://www.ictj.org/publication/intended-fail-trials-ad-hoc-human-rights-court-jakarta>> (accessed on 12 February 2019).

¹⁷³ Butt and Lindsey, above n 139, 85.

¹⁷⁴ Ibid.

courts have new systems and procedures that are generally used in common law systems and that were later embraced by other courts.¹⁷⁵ Such a provision would allow each panel member to have a dissenting opinion and would allow the presence of non-career judges.

In respect to the Anti-Corruption Court, in terms of its substantive law, ‘a related complaint was that anti-corruption courts undermined the equality before the law’ to which Indonesia is constitutionally entitled.¹⁷⁶ There is statistical evidence that indicates a lack of enforcement of the KPK’s cases referred to these courts.¹⁷⁷ In terms of institutional aspects, the problems lie in the lack of budget, competence of ad hoc judges, status of ad hoc judges and corruption involving judges. For example, in terms of budget, in the early establishment of the Anti-Corruption Court, judges did not receive full payment on their salaries even though they had worked for a year.¹⁷⁸ The Supreme Court said that the problem occurred because the salary regulation had not been issued by the government.¹⁷⁹ Another problem is that managing ad hoc judges creates an additional burden for the Supreme Court, which has to deal with selection, maintaining its capacity, and salary and other remuneration. Recently, the issue of inequality was raised by the ad hoc judges because the law does not include them as state officials. Another issue is the relation between career judges and ad hoc judges. There is an occasion whereby career judges dominate the procedural law.¹⁸⁰ The problem becomes more difficult as a result of corruption practices involving some judges. There are a number of cases in which judges from existing specialised courts were involved in corruption practices.¹⁸¹

Based on the above features of existing specialised courts, this thesis identifies the following lessons for the establishment of a specialised environmental court in Indonesia. There is a need to have a clear definition of environmental cases. The EPML defined what constitutes ‘environmental pollution’ or ‘environmental degradation’. However, judges should have clear guidance to differentiate between environmental cases and other types of cases. Second, the legal basis in the

¹⁷⁵ Ibid.

¹⁷⁶ Ibid 292.

¹⁷⁷ ‘Pengadilan Umum “Kuburan” Pemberantasan Korupsi’ (The General Court “Grave” for the Eradication of Corruption), *Indonesia Corruption Watch* (online) 13 January 2009 <<https://antikorupsi.org/id/news/pengadilan-umum-kuburan-pemberantasan-korupsi>> (accessed on 12 February 2019).

¹⁷⁸ ‘Pemerintah Belum Turunkan Aturan Gaji Hakim Tipikor’, *Hukum Online* (online), 27 August 2005 <<https://www.hukumonline.com/berita/baca/hol13482/pemerintah-belum-turunkan-aturan-gaji-hakim-tipikor>> (accessed on 12 February 2019).

¹⁷⁹ Ibid.

¹⁸⁰ Interview with Choky Ramadhan, Director of MAPPI (12 July 2016).

¹⁸¹ ‘Daftar Panjang Korupsi Dunia Peradilan Dan Fenomena Hakim Tipikor (Long Lists of Corruption in the Judiciary and The Phenomenon of the Anti-Corruption Court)’, *Kompas.com* (online), 29 August 2018 <<https://nasional.kompas.com/read/2018/08/29/07241751/daftar-panjang-korupsi-dunia-peradilan-dan-fenomena-hakim-tipikor>> (accessed on 12 February 2019).

form of law offers a possibility for regulating the principal matters needed from a new court. Third, the existence of ad hoc judges could fill the need for experts in decision-making in the court panel. However, based on the experience related to ad hoc judges in the special court, clarity is needed regarding the criteria, designation and clear division of tasks from ad hoc judges. Fourth, the determination of specialised court locations varies according to needs, from their formation in all provinces in Indonesia to their formation in several regions according to requirements. To ensure the effectiveness of court performance, the establishment of an environmental court needs to consider the challenges faced by existing specialised courts in the above four areas.

6.3.4 Compatibility of ‘General Court Designated Judges’

This research contends that the ECS is equivalent to the ‘general court designated judges’ model for the following reasons. First, it operates under the general court for civil and criminal cases and under the administrative court for administrative cases. Within the overall supervision of the Supreme Court, both courts supervise the operationalisation of the ECS, except for areas under the sole responsibility of the Supreme Court, such as the selection of ECS judges and specialised training under the ECS. Second, it assigns a special judge (certified judge) to handle environmental cases. At this stage, ECS judges also handle other cases within both courts.

The next section analyses the ECS in three respects: (1) the rationale of the establishment of the ECS, which indicates the commitment of the Supreme Court and the role of non-court actors—particularly the MoE and ICEL—in the planning stage; (2) some features of the ECS, consisting of competence, selection, training, placement of judges and other supporting systems; and (3) the current development of the system through the identification of progress and challenges in its implementation.

6.3.4.1 Strong Commitment from the Supreme Court

The Supreme Court has continuously displayed its strong commitment to various initiatives and reform programs, showing the need for the establishment of a specialised environmental court in Indonesia. In addition to extensive training on environmental law, the Supreme Court showed its commitment to ensuring quality and consistency in the decisions of environmental cases appealed to the Supreme Court.¹⁸² Some decisions of the Supreme Court affirmed the decision of the lower court that applied important legal principles, including international environmental law.¹⁸³ The

¹⁸² Interview with Justice Takdir Rahmadi, Chairman of the environmental team in the Supreme Court of Indonesia (20 July 2017).

¹⁸³ Ibid.

decision of the District Court of Bale Bandung in *Dedi cs v PT Perhutani cs*¹⁸⁴ in 2003 was affirmed by the Supreme Court, which recognised the application of the international environmental principle. In 2015, the Supreme Court affirmed the decision of the District Court of Meulaboh in *MoE v PTKA*,¹⁸⁵ which for the first time was brought by the government standing under art 90 of the EPML with the highest amount of compensation in Indonesia's environmental adjudication history. Since then, the number of appealed civil forest fire cases imposing a huge amount of compensation has been affirmed by the Supreme Court in both cassation and *peninjauan kembali* (PK).¹⁸⁶

During the leadership of Bagir Manan, the first non-career chief of justice of the Supreme Court, some initiatives were undertaken to improve the judiciary's capacity on environmental law.¹⁸⁷ His successor, Justice Tumpa, continued expressing this strong commitment at international events on the environment. In 2010, at the *Asian Judges Symposium on Environmental Decision Making, the Rule of Law, and Environmental Justice* in the Philippines, Tumpa stated:

The role of the courts in order to preserve the environmental functions and promote the establishment of good governance in order to support sustainable development, and to protect the interest of current generations and next generations, became much more important, acknowledging that the actions that are not pro-environment or acts of pollution and/or destruction of the environment moving faster than the development of law itself.¹⁸⁸

At this symposium, Tumpa showed his leadership by inviting all ASEAN chief justices for a roundtable on the environment in Jakarta in 2011. With support from the ADB and UNEP, the Supreme Court successfully realised this commitment by hosting the first roundtable for ASEAN chief justices in December 2011. The meeting produced a common vision for the environment for ASEAN judiciaries, also known as 'The Jakarta Vision'.¹⁸⁹ This document acknowledged some common environmental problems and challenges and the importance of regional cooperation to provide better and more comprehensive solutions.¹⁹⁰ To date, there has been six ASEAN

¹⁸⁴ *Dedi cs v PT Perhutani* [2003] Decision of District Court of Bale Bandung No 49/PdT.G/2003/PN. Bdg. (4 September 2003).

¹⁸⁵ *Ministry of Environment v PT Kalista Alam* [2012] Decision of the District Court of Meulaboh No 12/PdT.G/2012/PN.MBO (2012) ('*MoE v PTKA*').

¹⁸⁶ Chapters 3–5 highlighted and analysed most of these decisions.

¹⁸⁷ These initiatives included training for judges, workshops for Supreme Court justices and the issuance of a special decree (see Chapters 1 and 3 for more information about these initiatives).

¹⁸⁸ Tumpa, above n 111.

¹⁸⁹ Mulqueeny, above n 110.

¹⁹⁰ *Ibid.*

roundtables of chief justices.¹⁹¹ Domestically, the Supreme Court has translated this strong commitment into a more structured program. Tumpa further stated:

The important role of the court who led the policy underlying the Supreme Court to prepare the judge and court rules (court proceedings) that are in line with protecting the capacity of ecosystems, sustainable development and good governance.¹⁹²

6.3.4.2 Long 'Buy in' Process of the Idea of a Specialised Environmental Court

The process of creating the ECS is long and involves the ideas and commitment of the Supreme Court and various non-court actors such as, in particular, the MoE and the ICEL, a Jakarta-based NGO focusing on environmental law. In 2000, the role of NGO actors in legal and judiciary reform was significant. Lindsay and Taylor acknowledged the role of some 'integrity' and 'longstanding commitment' lawyers in 'modernising the legal system'.¹⁹³ Within this movement, the ICEL's role was critical to the establishment of the ECS. This role was possible because of the ICEL's longstanding commitment to the protection of the environment through the law. The ICEL stated that the enforcement of environmental law requires an independent and accountable judiciary. Since its establishment in 1993, the ICEL has been involved in the Supreme Court's programs not only in the area of environmental law, but also in the overall judiciary reforms. The ICEL's involvement in the judiciary reforms at that time was represented by the ICEL's members in the internal team in the Supreme Court. In relation to environmental law, one of the activities that became a strong foundation of the establishment of the ECS was environmental law training for judges (IASTP).¹⁹⁴ In this training, the ICEL closely coordinated with the Supreme Court to manage the implementation of the training.¹⁹⁵ This included creating the curricula in collaboration with international consultants.¹⁹⁶

In 2009, the ICEL developed a concept paper on the judiciary reform of environmental adjudication.¹⁹⁷ The paper described possible models of environmental courts in Indonesia, including the appointment of a special judge to handle environmental cases.¹⁹⁸ The ICEL consistently advocates these ideas in various engagements with stakeholders, including with the

¹⁹¹ The Sixth ASEAN Chief Justices' Roundtable on Environment was conducted in the Philippines on 10–12 November 2016.

¹⁹² Tumpa, above n 111.

¹⁹³ Lindsey and Taylor, above n 127, 4.

¹⁹⁴ Interview with Hendri Subagyo, Director of ICEL (16 November 2018).

¹⁹⁵ Ibid.

¹⁹⁶ Ibid.

¹⁹⁷ Prayekti Murharjanti et al, *Menuju Peradilan Lingkungan Pro Lingkungan (Toward a Pro Environment Court)* (ICEL, 2009) iii.

¹⁹⁸ Ibid.

MoE. Within the Supreme Court, this idea was shared during the training preparation and implementation in the form of intense communication with passionate justices who aligned the idea into the overall judiciary reform program of the Supreme Court. During this period, two passionate justices were Justice Paulus Effendi Lotulung and Justice Mariana Sutadi.¹⁹⁹ Both justices were heavily involved in the preparation and implementation of the training programs as the main lecturers.²⁰⁰

6.3.4.3 Policy Basis for the Environmental Certification System

One of the issues after the completion of the IASTP training from 2005 to 2010 was how to ensure that all participants would maintain the knowledge and skills they had gained. The training alumni established the Alumni Association of environmental law training.²⁰¹ They conducted activities that aimed to maintain and update participants on environmental law issues.²⁰² Most of the committee of this association later became members of the working group that implemented the ECS.²⁰³ The lack of experience in handling environmental cases and the lack of a training evaluation system affects the sustainability of the skills and knowledge gained during the training. The Supreme Court responded to these challenges as part of the commitment stated above. As an initial step, the Supreme Court entered into a policy basis to develop the ECS. Before making this decision, the Supreme Court issued a decree that required the head of seven high courts to select judges who had received training in environmental law to handle environmental cases in their jurisdiction.²⁰⁴ On 18 June 2009, the Supreme Court signed an MoU with the MoE on the Strengthening Judiciary Capacity on Environment.²⁰⁵ The head of the Supreme Court's reform program was Justice Lotulung, who made important decisions in *WALHI v PTIU*.²⁰⁶ These initiatives of the Supreme Court are indicative of its priority towards environmental issues by integrating them within the overall judiciary reform agenda. Meanwhile, the role of the MoE was crucial in ensuring the MoU's development and its signatory process. In the MoU, the deputy of the MoE on compliance, Ir. Ilyas Asaad, MP, represented the MoE. This role continued during the MoU's implementation in later stages under other strong leadership.

¹⁹⁹ Subagyo, above n 194.

²⁰⁰ Ibid.

²⁰¹ Interview with Bambang H. Mulyono, the member of the alumni association (6 Augustus 2016).

²⁰² Ibid.

²⁰³ Ibid.

²⁰⁴ The decree was issued around 2000 during the IASTP's training.

²⁰⁵ Memorandum of Understanding (Nota Kesepahaman) between the Supreme Court and the Ministry of Environment of Indonesia on the Strengthening of Capacity of Environment Judges, 18 June 2009.

²⁰⁶ Section 3.2.1 highlighted the IIU's decision as an important decision related to environmental law that encouraged a greater effort to strengthen environmental adjudication.

The MoU mandated the development of the Working Group on Environmental Law (*Kelompok Kerja Hukum Lingkungan*). Its members consisted of the Supreme Court, the MoE, the Alumni Association of Environmental Law Training and the ICEL.²⁰⁷ The group aims to (1) improve training methodology and curricula; (2) develop the concept of environmental-certified judges; (3) develop a mechanism to manage environmental judges; and (4) develop an M&E mechanism.²⁰⁸ Other mandates of the MoU include the development of guidelines for handling environmental cases and the implementation of a training program for certified judges, which consists of selection and training for the candidates, as well as advance training and M&E of the training.²⁰⁹ Collaboration between the MoE and ICEL through various environmental law programs allowed (accelerated) the realisation of the ECS. The Supreme Court, the MoE and the ICEL collaborated during the initial phase of the ECS. Within the Supreme Court, the working group managed the program at the operational level. Finally, in 2011, the Supreme Court issued Decree No 134 of 2011 on the ECS.

6.3.4.4 Features of the Environmental Certification System

The decree structures the ECS into a selection process, training, placement of judges and M&E mechanism.²¹⁰ Although the system was not established by a special law, it seems to be the only specialisation that develops detailed competencies into skills, knowledge and attitudes with its specific indicators. As an extended competence of the basic competence of general judges, certified judges must have an adequate understanding of basic national and international environmental laws and skills to be able to apply them in handling cases based on existing guidelines.²¹¹ In addition to these substantive criteria, judges should already have at least 10 years of experience as a judge.²¹² Within the ECS selection process, judges must have passed the competence test and integrity test (profile assessment test).²¹³ This test basically determines the extent to which judges possess the extended competencies. After completing the above stage, successful candidates must attend and successfully complete compulsory training to be qualified as a certified judge. The Supreme Court assigns a selection team (*Tim Seleksi*) that is responsible

²⁰⁷ ‘Memorandum of Understanding’, above n 205.

²⁰⁸ Ibid.

²⁰⁹ Ibid.

²¹⁰ Decree of Chief Justice of the Supreme Court of Indonesia No 134/KMA/SK/IX/2011 on Certification of Environmental Judges (5 September 2011) as amended by Decree No KMA 36/KMA/SK/III/2015 (19 March 2015). (‘Supreme Court Decree on Certification System’).

²¹¹ Ibid art 6(3).

²¹² Ibid.

²¹³ Ibid art 7.

for managing the selection process and choosing qualified participants.²¹⁴ The Supreme Court will then appoint the successful judges as certified judges.²¹⁵ In terms of jurisdiction, the system provides what constitutes an environmental case. It stipulates that an environmental cases is:

[A] case that breaches civil, criminal or administrative regulations in respect to environmental management and protection, and that includes, but is not limited to, regulations in respect to forestry, plantation, mining, coastal and marine, spatial planning, water resources, energy, industrial and natural resources conservation.²¹⁶

However, this definition is too broad and potentially creates jurisdictional problems. Therefore, it should be improved to clearly identify the environmental issues in a case.

Initially, the system requires a panel headed by a certified judge.²¹⁷ In the case that no certified judge is available, the head of the high court must appoint a certified judge in their territory through a *detasering* system.²¹⁸ However, the result of the empirical research of this study suggests that there were some challenges in practice, mostly relating to the budget and time constraints of the appointed certified judges. The limited number of certified judges meant that not all environmental cases were handled by certified judges as required by the decree. A local NGO questioned a particular environmental case that was not handled by a certified judge.²¹⁹ These challenges and other factors were addressed by the Supreme Court through an amendment to the decree. The amendment states that if no certified judge is available, the heads of the district court and the high court can assign their deputies or senior judges within their court to handle the environmental case.²²⁰ This change may reduce the critical aspects of the ECS, which assigns special judges to handle environmental cases. Thus, there are obstacles to fully implementing the ECS caused by inhibiting factors that also occur in the court in general. Therefore, before establishing new courts, including environmental courts, the challenges and development of the justice reform program need to be considered.

The Supreme Court issued various internal rules to ensure the implementation of the system. Although it was not established by a special statute as in the case of specialised courts, the Supreme

²¹⁴ Ibid art 17.

²¹⁵ Ibid art 20.

²¹⁶ Ibid art 3(a)(b).

²¹⁷ Ibid art 21(1).

²¹⁸ Ibid art 21(2)(3).

²¹⁹ Interview with Justice Takdir Rahmadi, Justice of the Supreme Court (20 July 2016).

²²⁰ Decree of the Chief Justice of the Supreme Court No KMA 36/KMA/SK/III/2015 (19 March 2015), above n 210, art 27.

Court has issued more decrees relating to ECS implementation than specialised courts.²²¹ Among these, this study highlights three decrees as follows:

1. The guidelines for handling environmental cases²²² provide a more detailed explanation of various issues to illuminate the existing laws related to environmental law and its enforcement. Although it still requires improvement, these guidelines have been used by courts in some decisions.
2. Second, to measure the quality of training and improve the knowledge and skills gained during the training, the Supreme Court developed the M&E system for the ECS,²²³ which consists of post-training evaluation and periodic evaluation.²²⁴ Post-training evaluations are conducted upon completion of the selection process and training.²²⁵ Periodic evaluations are conducted at least once per year to obtain comprehensive information and an understanding of the overall implementation of the system.²²⁶ In this evaluation, the working group discusses the information to develop areas to improve the system. The M&E system enables the Working Group of Environment (*Kelompok Kerja Lingkungan Hidup*) and the Training and Education Center of the Supreme Court to conduct M&E of the ECS.²²⁷
3. Third, the Supreme Court created a standard to ensure that every decision on environmental cases is signed with an 'LH' code.²²⁸ This standard aims to identify decisions on environmental cases and integrate them into the database of environmental decisions.²²⁹ This database is critical for effective M&E. Other features include incentives for certified judges in the form of seminars or workshop participation at the national and international levels.²³⁰

²²¹ Interview with Sugeng Riyono, judge of the Makassar High Court (30 July 2016).

²²² Decree of Chief Justice of the Supreme Court of Indonesia No 36/KMA/SK/II/2013 on the Procedure of Handling Environmental Cases 36 ('Supreme Court Guideline for Environmental Cases Handling').

²²³ Supreme Court of Indonesia, Decree No 37/KMA/SK/III/2015 on the Monitoring & Evaluation Mechanism of the Environmental Certification System 2015.

²²⁴ Ibid art 5.

²²⁵ Ibid art 5(2).

²²⁶ Ibid art 5(3).

²²⁷ Ibid art 5(1) and art 6(1).

²²⁸ Decree of the Chief Justice of Supreme Court of Indonesia No 44/KMA/SK/III/2014 on the Use of Template of Decision and a Case Numbering Standard in a General Court (2014).

²²⁹ Ibid.

²³⁰ Ibid art 24.

6.3.4.5 Progress and Challenges of Implementation

6.3.4.5.1 Expected Number of Certified Judges

The ECS does not set a target for the expected number of certified judges along with any program in maintaining and improving their competence. From 2012 to 2017, around 688 judges were trained, covering both the general and administrative courts. Difficulties arise in producing an accurate assessment of the performance of the certification process, which does not have a clear baseline and direction that needs to be achieved. At present, there are no data available on the number of environmental judges required. The system of transferring and placing judges based on their position as state civil apparatus resulted in the transfer of judges from one place to another within a very short time, whereas environmental judges are expected to be able to be placed in an area with many environmental cases for a short period. There are around 7,900 judges in the district and high courts.²³¹ It is not realistic to target all judges to obtain environmental certification, or even part of it, for several reasons. The main reason relates to the issue of sustainable funding. At this stage, ensuring the sustainability of the knowledge and skills gained from the training should be considered a priority over engaging new recruitments.

In addition, for an activity that has already been included in budget planning, an evaluation of the budget's performance in the implementation of activities includes whether the budget is carried out in accordance with the agreed value in budget planning. If there are participants who do not pass the administrative selection and cannot participate in the training program, this can affect the assessment of the use of the budget in the related unit—in this case, the Supreme Court's training and education centre. As a result, the working group sometimes needs to lower the passing grade, which has resulted in compromising the quality of the certified judges.²³² This problem shows that strengthening the capacity of court resources is constrained by the dominance of a mindset that emphasises performance in terms of absorption of the budget rather than the achievement of activities at the output and outcome levels.

6.3.4.5.2 Lack of Database of Decisions on Environment Cases

The analysis of the selected decisions indicates the contribution of the ECS to increase judges' competencies in making decisions on environmental cases. However, a more in-depth analysis of all decisions made by certified judges should be conducted within the overall measurement of the performance of the ECS. This activity requires a complete database of decisions on environmental

²³¹ 'The 2016 Supreme Court Annual Report', above n 152, 143.

²³² Interview with Hendri Subagyo and Wiwiek Awiyati, member of the Environmental Team of the Supreme Court (16 November 2018).

cases—especially those that are decided by certified judges. Indeed, the working group emphasised the need for a database of decisions that would inform the spread of environmental cases throughout Indonesia.²³³

In light of the current challenges identified by the Supreme Court (see Chapter 3), it would be difficult to establish a complete database of recent environmental case decisions. Within the ECS, it requires the effective implementation of numbering of environmental cases. Interviews with respondents involved in the numbering process showed that there are several obstacles that affect the program's achievements, including the difficulty for the court's clerk (*panitera*) in sorting environmental cases in the process of registration and the numbering of cases. Judges may also find this task difficult. In the context of synergy with the judicial renewal program, the implementation of a case numbering system and an environmental database also requires that each court synchronises all case data using a case tracking information system.

6.3.4.5.3 Unclear Policy for Certified Judges' Transfer and Promotion

The placement of certified judges has not been integrated with the transfer and promotion system in the Supreme Court. Decree No 134 on the ECS only provides a general guideline that indicates the process of formulating this aspect without considering the challenges in its implementation. The transfer and promotion system within the overall judiciary follow the MENPAN RB laws and regulations, which usually require rapid movements. In contrast, improving competencies requires the opportunity to deal with environmental cases and at least five years of experience. The rapid transfer may allocate certified judges to a new location where no environmental cases are brought to the court. A requirement to have a minimum of 3D. Judges with those qualifications are usually placed in Class 1A courts,²³⁴ which generally do not hear many environmental cases, whereas environmental cases usually take place in Class 1B courts. As a result, many certified judges are not placed in the court offices, where there is a high volume of environmental cases. This study has found that the Supreme Court does not provide detailed guidance on whether certified judges should be placed in every general court and high court or whether all available judges should be trained. Thus, close coordination between the working group and the relevant unit within the

²³³ This was one of the conclusions in the Focus Group Discussion (FGD) on the M&E of the ECS in January 2018.

²³⁴ LEIP, *Klasifikasi Pengadilan* <<http://leip.or.id/wp-content/uploads/2016/10/Klasifikasi-Pengadilan.pdf>> (accessed on 12 February 2019). Trial courts are classified into four classes: (1) Special Class I A court, which is set in the provincial capital and has at least three special courts; (2) Class I A court, which is set in the district court domiciled in the provincial capital or its geographical location borders with other countries; (3) Class I B, which is set against the district court domiciled in the former capital city of the residency or position governor; (4) Class II, which is in principle set against the court domiciled in the district capital or city. The newly formed district court was established as a Class II district court. Many environmental problems occur in Class II courts.

Supreme Court is essential to ensure the appropriate transfer and promotion, without limiting judges' rights to welfare and career development.

6.3.4.5.4 Lack of an Effective Monitoring and Evaluation System and Its Implementation

Measuring the overall performance of the ECS has been a significant challenge. Indeed, only in 2015, four years after the establishment of the system, the Supreme Court developed the M&E system. To date, almost 10 years after its establishment, no diagnostic assessment of the overall performance of the ECS has been conducted. With the decree on M&E, the M&E team, who are mostly the members of the working group, have held a number of meetings to discuss the implementation of the ECS through donors' programs. The Supreme Court conducted a focus group discussion on M&E of the ECS on 24–26 January 2018 in Padang, West Sumatera.

In practice, there are some issues in its implementation. First, there is a lack of clear benchmarks to measure performance at both the system and individual competence levels. In addition, the competencies of the ECS separated into skills, knowledge and behaviour have not yet been accompanied by detailed indicators to measure their performance. Hence, it is difficult to assess the extent to which certified judges have maintained and improved the competencies they gained from training. The problem becomes more complex when applying the criteria to certified judges without disrupting their independence to make decisions.²³⁵

Other ECT jurisdictions have provided instructive lessons learned in measuring its performance. The LECNSW has developed 'a suit of performance indicators for the administration of the court as a system to monitor and measure the court's performance'.²³⁶ The objective is to 'determine whether the various measures of practice and procedures adopted by the court are effective in facilitating the just, quick and cheap resolution of the real issues in the proceedings in the court'.²³⁷ It sets three specific objectives: equity, effectiveness and efficiency.²³⁸ Referring to the Productivity Commission's indicator framework,²³⁹ the LECNSW develops the output (to measure the actual service) and outcome indicators (to measure the effect of the court's services).²⁴⁰ The output indicators to measure the facilitation of a 'quick' resolution include backlog indicator,

²³⁵ Interview with Justice Agung P Sumanatha, Justice of the Supreme Court (28 July 2016).

²³⁶ Preston, above n 13, 396.

²³⁷ Ibid.

²³⁸ Ibid 397.

²³⁹ Australian Government Productivity Commission, *Report on Government Services 2008* <https://www.pc.gov.au/research/ongoing/report-on-government-services/2008/2008> (accessed on 12 February 2019).

²⁴⁰ Preston, above n 13, 397.

clearance indicator and attendance indicator,²⁴¹ whereas the output indicators for a ‘cheap’ resolution are the above three indicators and the cost for finalisation.²⁴² Given the difficulties in measuring the outcome of the ‘just’ resolution, this section focuses on the output indicators, which consist of ‘affordability, accessibility, responsiveness to the need of users, and timeliness and delay measured by a backlog indicator and compliance with the time standards’.²⁴³

The implementation of M&E of the ECS is not fully supported by a dedicated team in both strategic and administrative matters. As most of the members of the working group are senior judges, they are occupied with their main workload as judges, which prevents them from performing M&E tasks effectively. There is no dedicated person who continuously manages the administrative matters of the working group.²⁴⁴ This places pressure on the working group to focus more on the implementation of the selection and training. In addition, the M&E process has not yet effectively involved the training centre of the Supreme Court as the centre focused with the implementation of the training.

6.3.5 Compatibility of a Mix of Law-Trained and Science-Trained Judges

Having science-trained judges in the Indonesian court might provide better expertise to the court and avoid the issue of making decisions without adequate and relevant information—especially non-law scientific matters—at every stage of the court hearing process. In addition, it facilitates a beneficial exchange between law-trained judges and science-trained judges. Based on the experience in Chile, science-based judges can facilitate the formulation of adequate questions covering both the legal and technical/scientific aspects, as well as the analysis and assessment of the answers given, not only from a legal point of view. The legal and judicial system in Indonesia provides the basis for inserting science-trained judges as ad hoc judges in specialised courts. Doing so would be consistent with the rationale for the need for a specialised court in Indonesia to ensure that complex cases are handled by judges with relevant specialised expertise.

This study notes some relevant issues for consideration in relation to specialised judges. First, a clear definition of environmental cases is required as the basis for determining the science background needed as a requirement for ad hoc judges. Second, based on the experience of the specialised courts, as well as ECTs in Chile and Sweden, there is a demonstrated need to ensure the creation of a balanced relation between law-based judges and science-based judges. This will

²⁴¹ Ibid.

²⁴² Ibid.

²⁴³ Ibid 398.

²⁴⁴ Interview with Fifiek Mulyana, Member of the National Working Group on the Environment of the Supreme Court of Indonesia (19 November 2018).

facilitate what Preston called a ‘free and beneficial exchange of ideas and information’ between them. The aim of science-based judges is predominantly to ensure that decisions are not chiefly decided based on the applicable law but are also expected to be able to provide effective solutions in the management and protection of the environment. This non-law objective requires the determination of criteria, appointment and authority of ad hoc judges. The idea of using science-trained judges in courts to handle environmental cases should then be part of establishing a specialised environmental court. This is further discussed in the next section within the framework of the establishment of a specialised environmental court in Indonesia.

6.4 Specialised Environmental Court in Indonesia: The Way Forward

6.4.1 Possible Options and the Type of Forum Suitable for Indonesia

Based on the analysis in this study of the types of ECT forums, this research has found two court models among the available models and their variations that are the most suitable in the Indonesian context. Both models are under the court system. In Indonesia, there already exists a specialised court and the assignment of certified judges of environmental cases under the general and administrative courts. Both models offer specialisation in handling specific cases. The law allows special courts to employ judges who have special skills that career judges do not have. Their existence might provide better expertise to the court and further facilitate a beneficial exchange between the law and non-law aspects of a particular case. In contrast, in the ECS, even though there is no possibility of appointing judges outside of career judges, the ECS facilitates certified judges who have specialised competencies to handle environmental cases. This is done by making environmental judges’ competencies an extension of the competencies of judges in general. Further, ECS training is designed to give judges non-legal knowledge of science that is relevant to environmental cases. However, in practice, some judges still rely on the opinions of expert witnesses for matters of a technical and scientific nature.

The characteristic that distinguishes the ECS from special courts is that it is basically a judge in a public court. Certified judges also hear cases other than environmental cases. This is beneficial because judges will also gain experience in handling non-environmental cases. Similar to the PEC in Queensland, Australia, which is acknowledged to have an ‘outstanding success model’ of an operationally independent environmental court, certified judges can still handle other cases within the jurisdiction of the general or administrative courts. In some ECT jurisdictions, dedicating specialist judges to only handle environmental cases has affected the courts’ level of efficiency because of the insufficient caseload. The responsibility for dealing with various cases affects the workload of judges and might disrupt their focus on handling environmental cases. Proponents of

specialised courts emphasise that such courts should be integrated with the rest of the court system. In this objective, cross-pollination between several legal theories provides a good basis for the formation of law. In this regard, the Hon T F Bathurst said:

Judges working in specialised courts must keep abreast of changes in other fields of law which may impact the determination of disputes in their court. The design of a specialised body, and also the way in which it operates, should assist specialist judges to focus on their own field of expertise while remaining abreast of changes in other areas of law. This can occur through information sharing and exchanges with generalist courts.

The next difference in principle is related to the legal basis on which the two models are formed. The specialised court must be formed by law. Under the Indonesian law hierarchy, a statute has the highest position under the constitution.²⁴⁵ The Indonesian law hierarchy is structured as follows: (1) The Constitution; (2) the decree of the People General Assembly (TAP MPR); (3) Law/in lieu of law/PERPU; (4) Government Regulation; (5) Presidential Regulation; (6) Provincial Regulation; and (7) Municipal/District Regulation.²⁴⁶ This position allows a statute to regulate matter (substantive law) that imposes obligations on citizens, reduces their freedom and contains requirements (*keharusan*) or prohibitions (*larangan*).²⁴⁷ With this authority, a statute can regulate specific procedural guidelines, specific jurisdictions and the selection criteria of judges, including ad hoc judges. These features will support the court to protect citizens' rights, including the right to a healthy environment. The law is a joint product between the executive and the parliament. Thus, it cannot be easily amended by the executive because it requires approval from the parliament. There is a long process in some jurisdictions before a new court becomes effective.

The ECS is less complex compared with creating a new specialised court. Justice Rahmadi of the Supreme Court admitted that the ECS prevents 'going through political process where the [legislature] and the president play major roles'.²⁴⁸ Operating under the general court, its establishment does not require a law. It only needs a decree of the chief of the Supreme Court. The Supreme Court of the Philippines also issued a decree/order to establish environmental courts. This feature provides flexibility to accommodate new improvements to the system based on the evaluation of its performance. During the implementation, some improvements were made to the

²⁴⁵ A Hamid S Attamimi, 'Hukum Tentang Peraturan Perundang-Undangan dan Peraturan Kebijakan (Hukum tata Pengaturan)', (Speech on *Purna Bakti Guru Besar Tetap*, Jakarta, 20 September 1993), 10. The law regulates the material mandated by the constitution and those requiring further explanation through the law.

²⁴⁶ Law No 12 of 2011 on the Hierarchy of the Law, art 7.

²⁴⁷ Soehino, *Hukum Tata Negara, Teknik Perundang-Undangan* ((BPFE UGM, 2006), 15, in Bayu Dwi Anggono, *Perkembangan Pembentukan Undang-Undang di Indonesia* (Konstitusi Press, 2014) 66.

²⁴⁸ Takdir Rahmadi (2014), 'The Indonesian Judicial Program on the Environment', Power Point presented at the Workshop Proceeding on South East Judges Network on Environment (Asian Development Bank, 2014).

system, including selection criteria, training materials, procedural guidelines and the panel's composition in the case of no certified judges being available. However, there are also some disadvantages of the ECS. The establishment of a system based on the Supreme Court's decision made it possible to easily dissolve the system without the need for approval from other agencies. Regulating through the Supreme Court's decree might limit the regulation of important matters that can only be done with higher regulations. For example, the decree of the ECS cannot regulate the composition of panels that consist of ad hoc judges and can only be regulated by a statute.

In respect to efficiency, creating the ECS is more efficient than creating a new court. Creating a new court can involve a substantial supplementary budget for various needs. Instead, the ECS does not require the Supreme Court to allocate a large amount of money as required for creating a new court. Thus, it allows the Supreme Court to focus on assessing the priority areas for improvement, such as the selection process and training of judges. Thus, the ECS facilitates the need to accommodate changes based on the progress of the implementation and improvements. Assigning a 'green judge' serves as 'a one-step-at-a-time model' capable of expansion to a specialised court when the caseload and other factors permit.²⁴⁹ However, there is a doubt whether all environmental cases will be handled by certified judges. An amendment to the decree provides the possibility of handling environmental cases by senior judges. However, they might not have an adequate capacity to do so given that handling environmental cases not only requires experience in hearing cases, but also an adequate understanding of environmental laws and relevant environmental principles.

Based on the above analysis, this research has identified some strengths and weaknesses of both models. Specialised courts are supported by a strong legal basis that allows the regulation of important features, which might not be possible under the ECS. Specialised courts may have ad hoc judges with special expertise. An environmental case is polycentric and multidimensional, which requires special expertise that a law-trained judge usually does not have. The thesis has provided evidence of challenges such as on budget and the corruption practice that involves judges. While the ECS provides flexibility to facilitate the need to accommodate changes based on the progress of implementation and improvement, in practice, it needs to deal with various issues, such as ensuring the placement of certified judges, an effective M&E process and its professional development program.

The analysis of the relevancy and applicability of ECT models in Indonesia underscores the urgent need for a comprehensive and workable M&E system to measure the performance of an

²⁴⁹ Pring and Pring, above n 10, 24.

environmental court. The ECS experience shows that the existence of the M&E system as outlined in the Supreme Court decree does not guarantee an effective process of measuring the performance of the ECS. At the operational level, many obstacles have hindered its effective implementation. The challenge became more complicated because of the existence of the database that is largely determined by the successful implementation of the environmental case numbering system. This study concludes that these operational constraints are the result of the absence of goals and clear directions from the ECS. Thus, the establishment of a special environmental court should first commence a comprehensive feasibility study. It must aim to ensure two important objectives: (1) that the decisions are not based on an assumption; and (2) that there is a basis for the preparation of a comprehensive M&E system that is accompanied by clear achievements at the output and outcome levels. The development of the LECNSW and the LECS show how the establishment of the court was part of their environmental law reforms.

This thesis has found that the Supreme Court has not yet had clear direction and objectives regarding the establishment of the ECS. This conclusion relies on the various challenges that have not yet been resolved for the effective operation of the ECS. These aspects include the implementation of the selection system, ensuring the placement of certified judges in accordance with needs and an effective assessment of the system's performance. This thesis has identified the following areas for improvement.

First, the continuation of the ECS needs to be supported by improving the competencies of certified judges. The training methodology and curricula should be improved to achieve an adequate level of competence. As part of applying the law, this improvement includes an improvement in judges' capacity to assess scientific evidence. This requires judges to understand the nature of scientific evidence, assess whether a scientific opinion or evidence has been generated using a credible scientific method and assess whether the opinion of an expert witness is based on specialised knowledge. However, this specific competence in evaluating evidence requires adequate competence in identifying, interpreting and applying the law in environmental factual contexts. Failure to determine the first part of identifying the law might affect the success in performing the remaining two tasks.²⁵⁰

Second, the guidelines for handling environmental cases must be improved. From the case studies above, this research identifies at least three areas for improvement. First, a detailed explanation of environmental principles enshrined under art 2 of the EPMA is required. Second, to ensure the competence of judges in using scientific evidence, the guidelines should provide a clearer

²⁵⁰ Interview with Justice Brian J. Preston, Chief Judge of LECNSW (7 March 2018).

definition of the type of scientific evidence, the requirement of expert witnesses as a basis for assessing whether a scientific opinion or evidence was generated using a scientific method and specialised knowledge that is relevant to the case. Lastly, the guidelines should provide guidance on the valuation of environmental loss as well as restoration costs. To ensure judges' capacity to identify, interpret and apply the law, these three reform areas of the guidelines should be integrated into one package because they are interrelated. The ability to adequately assess environmental loss and restoration costs requires adequate skills and knowledge of scientific evidence. However, the guidelines should be supported by science-based training for the three tasks as advance training for certified judges.

Third, the ECS should advance the placement system of certified judges. While the focus should be on maintaining and improving the competencies of certified judges, this should be supported by a clear mechanism of the transfer and promotion of judges to secure their career development similar to other judges. This requires further research by taking into account the progress of the transfer and promotion system within the overall judiciary reforms. While waiting for this development, the ECS should assess whether the existing mechanism under Decree No 35 of 2015, which allows senior judges to handle environmental cases in the absence of certified judges, should be reviewed given that the number of certified judges has increased since 2015.

Fourth, there is a demonstrated need to advance the database of environmental cases. The number of environmental decisions has steadily increased since the enactment of the EPML, including made by certified judges. Most of these cases were decided by certified judges. To improve the ECS, there is a need to analyse the extent to which the ECS contributes to the quality of decisions. However, to date, no assessment has been conducted on all decisions made by certified judges. Chapter 4 examined two selected decisions to measure the contributions of the ECS. Currently, not all decisions made by certified judges can be readily accessed through the existing online database. This situation is an obstacle to producing a comprehensive evaluation. Thus, this research argues that improvements in this area should be part of the overall improvements of the M&E system.

Based on the analysis of the advantages and disadvantages of both the specialised court and the ECS, along with the main findings of the previous chapters, this thesis concludes that such an environmental court would essentially be a specialised environmental court (*pengadilan khusus lingkungan*) within the general and administrative courts, which can offer a better forum to effectively facilitate the adjudication of complex environmental cases in Indonesia. A specialised environmental court under the general court adjudicates civil and criminal matters, whereas a specialised environmental court under the administrative court adjudicates administrative matters.

This study also suggests that some preconditions must exist within and outside the Indonesian judiciary to realise the creation of a specialised environmental court. In addition to considering the progress and challenges of the overall judiciary reforms, five requirements of environmental adjudication must be ensured to realise the establishment of such a court: (1) a comprehensive study to justify the establishment of an environmental court; (2) a determination of jurisdiction from the environmental court that is based on a comprehensive environmental case definition; (3) clear arrangements for ad hoc judges, covering criteria, status and appointment, as well as authority in decision-making on the panel; (4) determination of the main area of the court based on the quality and quantity of environmental cases; (5) preparation of an M&E system based on the expected objectives of the environmental court.

This study further argues that the establishment of a specialised environmental court requires a framework supported by clear milestones and an effective M&E system. As Gething observed, ‘an excellent organisation is one that is continually looking, learning, changing and improving towards the concept of excellence it has set for itself. Excellence is more of a journey than a static destination’.²⁵¹ Based on this, Preston argued that an environmental court must recognise ‘adaptive management’ by continuously monitoring its performance against the objectives it has set for itself.²⁵² It must also ‘adjust its procedural and substantive goals and performance in response to such monitoring data’.²⁵³ Thus, sufficient time should be given to implement the ECS as part of improving the system to facilitate this adaptive management process. The decision to upgrade the ECS into a specialised environmental court should be based on an overall evaluation of the performance of the ECS, as well as the progress of the overall judiciary reforms. Chapter 7 provides some recommendations to improve the ECS as a framework for the establishment of a specialised environmental court in Indonesia.

6.5 Conclusion

This study has identified some characteristics of effective ECTs. Studies on the experiences of some countries with ECTs found that the most effective ECTs usually have these characteristics. Pring and Pring stated that the best environmental court model can be determined by a combination of various elements that result in an effective and efficient environmental court. Using the common characteristics of effective ECTs generated from Pring and Pring and Preston as its analytical

²⁵¹ Michael Gething, ‘A Pathway to Excellence for a Court—Part 1: Defining the Pathway’ (2008) 17(237) *Journal of Judicial Administration* 237, 242.

²⁵² Brian J Preston, ‘Characteristics of Successful Environmental Courts and Tribunals’ (2014) 26(3) *Journal of Environmental Law* 365, 393.

²⁵³ Ibid.

framework, this study has assessed the possibility of creating a specialised environmental court in Indonesia. It analyses how Indonesia's judicial system, the development of environmental law and the progress of environmental adjudication determine the most suitable environmental court model. These factors take into account the relevant characteristics of effective ECTs, which consist of competent judges, access to scientific expertise, jurisdiction, environmental jurisprudence, access to justice and ADR.

Having analysed the different models of ECTs and taken into account various relevant factors in Indonesia, this study argues that creating a specialised court within the general and administrative courts would ensure better internalisation of the relevant and required characteristics of effective ECTs. However, having analysed the successes and challenges of existing specialised courts, this study has identified some preconditions for the full realisation of a specialised environmental court. Accordingly, the Supreme Court should apply a step-by-step approach towards the establishment of a specialised environmental court. At this stage, the Supreme Court should continue implementing the ECS with some major improvements. The continuation of the ECS should be supported by improving the competencies of certified judges.

Within the competence of the ECS, this improvement should emphasise the advancement of judges' competencies on technique and logic in formulating a decision. Preston called it 'the art of adjudication', which, according to Pound, consists of identifying, interpreting and applying the law. In doing so, it may need to advance the competence of the ECS as well as the curricula and training methodology to accommodate these adjudication skills. Ensuring this improvement in competence would simultaneously require the improvement of preconditions. This consists of improvements in the guidelines for handling environmental cases, an advancement of the placement system for certified judges and improvements to the M&E system. Advancing the database of environmental cases is essential to provide accurate material for assessing the performance of the ECS as part of the M&E system. Once an effective ECS is achieved along with the fulfilment of the above preconditions, a specialised environmental court can be created.

Taking this step-by-step approach with a clear objective, priorities and milestones will give the Supreme Court a better roadmap for strengthening environmental adjudication in Indonesia. The decision to create a specialised court should be based on the overall assessment of the implementation of the ECS, as well as the progress of the preconditions, both within the development of the ECS and the overall judiciary reforms. In this framework, this study suggests that this approach should be used as a reference to develop a detailed roadmap for strengthening environmental adjudication within the Supreme Court. The framework should be used as the benchmark for measuring the progress of the latest initiatives in strengthening environmental

adjudication in Indonesia. Specifically, it may be used as a benchmark to monitor and evaluate the progress of implementation.

In analysing the contextualisation of the common characteristics of effective ECTs in Indonesia, Chapter 3 provided an initial hypothesis about the interrelationship between important aspects of the characteristics of ECTs. After conducting a more in-depth analysis of these aspects, Chapter 6 contends that the most adequate and rational model of environmental court that best suits Indonesia's situations should be determined by the opportunities and challenges facing the court. At the technical level, such aspects relate to the process of evaluating scientific evidence, while at the institutional level, these aspects relate to the judiciary's competence along with its related components and overall judicial reforms. Identifying the opportunities and challenges of these aspects will also determine the steps that need to be taken to ensure the establishment of an effective environmental special court. The next Chapter 7, while examines the relationship between discussion chapters as a basis for the thesis's conclusion, provides a more detail elaboration of the framework for the establishment as proposed in this chapter, recommendations and suggested future area of studies of specialised environmental court in Indonesia.

Chapter 7: Conclusion

7.1 Summary

Given the spirit of SDG 16, the enormous scale of environmental problems in Indonesia requires effective, accountable and inclusive institutions at all levels, including the judiciary, to protect and manage the environment. The Indonesian judiciary plays a critical role in this protection by making good decisions while simultaneously maintaining fairness and impartiality. This thesis presents some progress and challenges for the courts in performing this important role. The Supreme Court within its overall judiciary reforms continues to strive for independence and accountability in delivering its services. This includes ensuring consistency in its environmental decisions. The decisions of the district courts in *MoE v PTBMH*¹ and *PT KA v MoEF*², as highlighted in Chapter 1, were overruled by the appellate courts within months. In addition, the SLAPP suits against expert witnesses were also dropped. In *PT Jatim Jaya Perkasa v Bambang Hero*,³ the company had withdrawn the suit for a strategic formulation of the lawsuit. However, a public petition by change.org with 160,000 signatures might have been the immediate reason. In *Nur Alam v Basuki Wasis*,⁴ the District Court of Cibinong rejected the plaintiff's claim by arguing that an expert's opinion in court cannot be tried or prosecuted because it challenges the court's decision, which would be distorting a legal order.⁵

This thesis showed that Indonesia has interesting progress and unique challenges in which the judiciary can play a role in the protection of the environment. Indonesia can learn lessons from other countries facing similar challenges. However, a mere commitment and specified program do not guarantee improved capability of the courts to address these challenges. Chapter 6 proposes a specialised environmental court as one of the institutional reforms.

This thesis examined selected ECTs along with their unique features, successes and challenges to deduce instructive lessons for Indonesia and tailor relevant international experience to suit the country's unique and special features. Therefore, it analysed the relevance and applicability of foreign experiences in the Indonesian context, as well as the problems and prospects of

¹ *Ministry of Environment and Forestry v PT Bumi Mekar Hijau* [2015] The District Court of Palembang Nomor 24/Pdt.G/2015/PN.Plg (30 December 2015) ('*MoEF v PTBMH*').

² *PT Kalista Alam v Ministry of Environment and Forestry* [2018] Decision of Meulaboh District Court No 16/Pdt.G/2017/PN.MBO (2018).

³ *PT Jatim Jaya Perkasa v Bambang Hero* District Court of Cibinong No 223/Pdt.G/2018/PN.Cbi.

⁴ *Nur Alam v Basuki Wasis* [2018] Decision of the District Court of Cibinong No 47/Pdt.G/2018/PN.Cbi (13 December 2018).

⁵ Tirto.id, *PN Cibinong Bebaskan Ahli KPK Basuki Wasis dari Gugatan Nur Alam* tirto.id <<https://tirto.id/pn-cibinong-bebaskan-ahli-kpk-basuki-wasis-dari-gugatan-nur-alam-dbRC>> (accessed on 12 February 2019).

establishing an environmental court in Indonesia. It identified and drawn upon the features of the most effective model of environmental court that will best suit Indonesia's legal culture, judicial system and specific environmental goals to determine a framework for the establishment of its own specialised environmental court.

The thesis examined the above issues in seven interrelated chapters that consisted of three main sections. The first section contained one chapter that discussed and analysed the development of ECTs along with the features that determine their effectiveness. This thesis used the result of this analysis as its analytical framework. The second section consisted of three chapters that analyse some of the common features of effective ECTs within the institutional structure of environmental adjudication in Indonesia. It analysed two major aspects: (1) the status of the judiciary's competence in promoting environmental jurisprudence; and (2) the use of scientific evidence in courts to address the complexity of environmental cases. Building upon the analysis of the first two sections, the third section analysed the most suitable model of environmental court supported by a framework for its establishment. Figure 7.1 outlines the cross-pollination between these three sections.

This study concludes that an environmental court would essentially be a specialised environmental court (*Pengadilan Khusus Lingkungan*) within the general and administrative courts, which can offer a better forum for facilitating the adjudication of complex environmental cases effectively in Indonesia. Specialised environmental courts under the general court adjudicate civil and criminal environmental cases, whereas specialised environmental courts under the administrative court adjudicate administrative environmental cases. This suggests that preconditions exist within the Indonesian judiciary to realise the creation of a specialised environmental court.

In addition to taking into account the progress and challenges of the overall judiciary reforms, there are some specific conditions for environmental adjudication that must be ensured to realise the establishment of such a court. These preconditions are: (1) the jurisdiction of the court predominantly requires the determination of a comprehensive environmental case definition; (2) at the jurisdictional level, the determination of the court's location is based on the number of environmental cases and the level of environmental damage; (3) the composition of the panel should consist of law-trained judges and experts (*ad hoc* judges) with clear arrangements covering criteria, status and appointment, as well as authority in decision-making; and (4) the M&E system. Accordingly, this research further concludes that the Supreme Court should engage in a step-by-step approach towards the establishment of a specialised environmental court. In its transition to the establishment of the specialised environmental court, the Supreme Court should continue implementing the ECS with some major improvements. This chapter recommends some essential

and sequential steps as a framework for policymakers contemplating the establishment of a specialised environmental court in Indonesia.

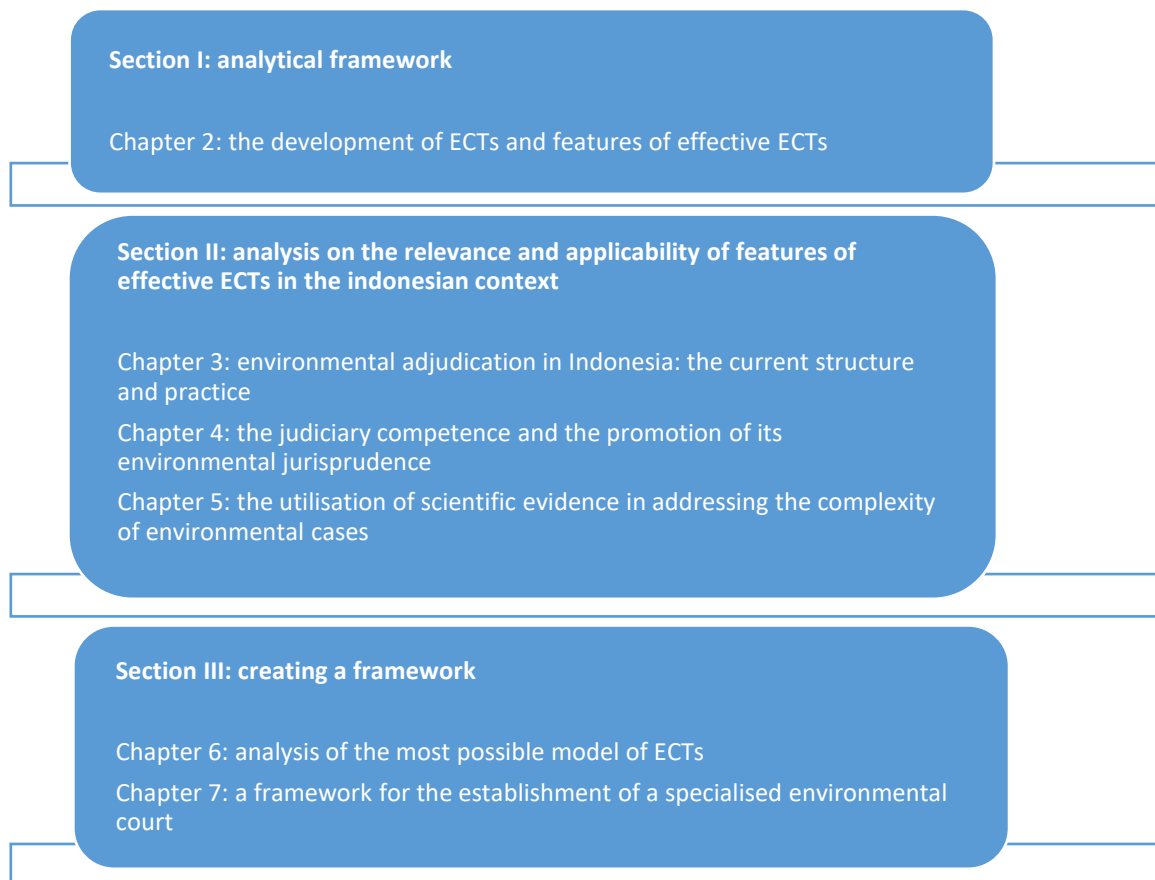


Figure 7.1. Flow of Analysis and Relation between Chapters

7.2 Towards the Establishment of a Specialised Environmental Court in Indonesia

This section examines the relationship between the discussion chapters to better illustrate the unique combination of some elements of ECTs in the Indonesian context. This chapter coordinates the findings of each chapter and explains how they address the interconnection of issues discussed in this thesis.

7.2.1 Common Features of Effective Environmental Courts and Tribunals Forming the Analytical Framework

Chapter 2 discussed the move of ECTs worldwide and identified some of the common features of effective ECTs. Drawing upon some important aspects presented in relevant studies, this thesis observes that there has been a significant increase in ECTs worldwide with different levels of success and challenges. Despite some pros and cons of specialised courts, ECTs have been

perceived as the mechanism that best protects environmental rights and achieves sustainable development. ECTs are supported by the availability of knowledgeable and competent decision-makers, including both law-trained and science-trained decision-makers. With a wide range of exclusive jurisdictions, ECTs ensure the continuous application of laws that create coherence and consistency principles. In the end, they secure the remedial objective of the statutes and norms.

Chapter 2 identified some common features of effective ECTs, chiefly based on some major publications on ECTs by Pring and Pring and Preston. This thesis uses these common features as its analytical framework. The common features cover the following aspects. Effective ECTs can be either a court, a tribunal or another dispute resolution forum such as ADR. Ideally, ECTs have comprehensive jurisdiction to hear a wide range of substantive environmental matters supported by the availability of civil, criminal and administrative enforcement mechanisms. Operationalising these features requires competent judges or other judicial members with special expertise in environmental matters supported by an objective selection process, a good-quality training program, secure tenure and career enhancement system, and a sufficient caseload. In addition, handling complex environmental cases requires ECTs to have access to scientific expertise. ECTs with these features are likely to promote the development of environmental jurisprudence.

Pring and Pring argued that the best model of ECTs is a ‘unique combination’ of various aspects resulting in a relevant and efficient resolution process.⁶ Chapter 2 argued that despite some instructive characteristics and best practices of model ECTs and their effective features, the adoption of international experiences for the Indonesian context requires an appraisal of their relevance and applicability to Indonesia. The result of this analysis provides the foundation for making a case for the establishment of a specialised environmental court in Indonesia.

7.2.2 Relevance and Applicability of the Common Features of Effective Environmental Courts and Tribunals in Indonesia

Chapter 3 discussed the relevancy and applicability of the common features of effective ECTs in Indonesia. It showed the development of environmental adjudication within the institutional structure of environmental adjudication. There has been significant progress in environmental adjudication and its reforms in Indonesia to date. Some decisions in environmental cases have set important legal principles and referred to those principles in subsequent decisions. Interrelated factors have contributed to this progress, including the development of environmental laws and regulations; a capacity-building program for judges; the establishment of an ECS, which

⁶ George Pring and Catherine Pring, *Greening Justice: Creating & Improving Environmental Courts & Tribunals* (The Access Initiative, 2009).

essentially gives judges the special competence necessary to handle environmental cases; and ongoing overall judiciary reform programs. The establishment of a specialised environmental court should be conceived within the progression of the overall judiciary reforms. Thus, managing environmental adjudication reforms will require the identification of relevant major problems within the institutional structure—particularly in respect to the most relevant features of effective ECTs.

In relation to the type of forum, there is a need to choose the best model of environmental court that can operate within the legal and judiciary system in Indonesia. However, within the institutional structure in which environmental adjudication occurs, the best model should take into account the analysis of other relevant features, including competence, environmental jurisprudence, jurisdiction, the use of scientific evidence, a clear mechanism to ensure access to justice and the effective use of ADR. The last two areas have been addressed under the judiciary reform program and should be aligned with the other main features.

7.2.3 Nature of Judiciary Competence and Its Role in Promoting Environmental Jurisprudence

Using the definitions and classifications identified in the literature, Chapter 4 assessed the nature of the competence of the ECS and the extent to which it should be improved. There is a need to classify the current competence of the ECS into ‘threshold competence’ and ‘performance competence’. This classification would facilitate a more robust M&E process by providing detailed information in some areas—for example, regarding the extent to which a judge passes the minimum requirements of the competence of the ECS and what should be improved to achieve a performance competence beyond its threshold. However, competence does not guarantee that certified judges possess adequate skills and knowledge to create good-quality decisions. This requires the availability of a system to maintain and improve such competencies on a continuing basis.

The existing system for maintaining and improving the competence of the ECS comprises some basic elements of competence. The system was designed based on the competence of the ECS. The existing training curricula consist of subjects that are relevant to the required competence. The training for certified judges uses a specific training methodology supported by competent lecturers. The analysis of two selected decisions in Chapter 4 indicates how the system, as part of the ECS, has contributed to improved decisions. The courts in these decisions applied the art of adjudication—identifying, interpreting and applying the law—even though some areas require improvement. Despite the existing system and improvements in the quality of decisions, creating

adequate competencies for all certified judges to reach the threshold competence remains a challenge. Improving the competence to its performance level or even the threshold level requires a complete analysis of the overall aspects of all available decisions made by certified judges as a starting point. A comprehensive M&E system is needed that is supported by dedicated members to ensure its full operationalisation.

7.2.4 Use of Scientific Evidence in Courts to Address the Complexities of Environmental Cases

Chapter 5 discussed a specific competence concerning scientific evidence. This competence is important given that environmental cases are known for their scientific sophistication. Using the main features of the system to assess scientific evidence from other jurisdictions, this chapter discussed the relevant legal frameworks and their use in making decisions in courts. There are three aspects of the court's assessment of the credibility of scientific evidence presented: (1) the relevance of scientific evidence; (2) the reliability or trustworthiness of the scientific evidence or the expert's opinion; and (3) whether an expert's specialised knowledge or opinion concerning scientific evidence is relevant to the case. The existing legal framework does not provide sufficient guidelines for judges regarding the assessment of the three areas mentioned. As indicated in the case studies, the inadequacy of the legal framework has partly affected different standards of using scientific evidence by courts. It has produced different judicial interpretations and decisions in the same and similar factual circumstances.

The Supreme Court's guidelines for handling environmental cases contains a special provision on scientific evidence. Despite its urgent need for revision, it has been used by certified judges in deciding complex legal issues involving scientific evidence—particularly where existing laws were unclear or there was a possibility of multidirectional interpretations. As a result, this thesis suggests that improvements in these guidelines⁷ are essential to accommodate the need for clearer guidelines to help in assessing scientific evidence. Clearer guidelines would still require a specific training program on the interpretation and use of scientific evidence in addition to the general training program on environmental law, which will equip certified judges with the ability to identify and analyse relevant scientific evidence within the legal framework. This thesis argues that improving judges' competencies in using scientific evidence should be part of improving the basic competencies of certified judges to identify, interpret and apply the law based on the available relevant and reliable scientific evidence.

⁷ *The Decree of Chief Justice of the Supreme Court of Indonesia No 36/KMA/SK/II/2013 on the Procedure of Handling Environmental Cases ('The Supreme Court Guideline for Environmental Cases Handling')*.

7.2.5 Framework for the Establishment of a Specialised Environment Court

Chapter 6 identified the most adequate and rational model of environmental court for Indonesia. It analysed the relevance and applicability of Pring et al's categorisation of ECTs model, along with all possible available forums for a specialised environmental court, including existing specialised courts within the Indonesian legal and judicial system. Of all these models, this thesis argues that a specialised environmental court would be the most appropriate for Indonesia in view of its high volume of cases involving complex environmental issues such as the rampant pollution of waterways and forest fires. This suggests that some preconditions exist, including within the overall judicial reform programs and a step-by-step approach towards establishing a specialised environmental court.

To facilitate this approach, this thesis recommends some essential and sequential steps for policymakers to adopt as the foundation to develop a strategic plan for the creation of an environmental court. This strategic plan will assist the Indonesian Government to measure its progress towards establishing the specialised environmental court. To this end, this thesis makes the following recommendations on the framework of the establishment of a specialised environmental court in Indonesia.

7.3 Recommendations

7.3.1 Framework for the Establishment of a Specialised Environment Court in Indonesia

A well-researched and well-thought-out strategic plan must be formulated with clearly articulated stages of progression towards the desired model of an environmental court. This thesis, based on extensive research, has developed such a strategic plan in the form of a proposed framework, which is structured in Figure 7.2. The framework comprises three major elements:

1. the type of forum that is suitable in the Indonesian context must be determined
2. the features of the specialised environmental court must be outlined
3. an appropriate mechanism for the measurement of the court's performance must be created to ensure successive improvements in performance.

In respect to the type of forum, it may be a two-phase transition model. The first phase should support the continuous implementation of the ECS with some necessary improvements. The progression made in this phase will facilitate the maturing of environmental adjudication—a transitional pathway to a specialised environmental court. The specialised environmental court should have jurisdiction to hear civil and criminal cases operated under the general court and

jurisdiction to hear administrative cases operated under the administrative court. As an integral part of the general and administrative courts, the specialised environmental court should be supported by a special case management system for environmental cases. The objective is to provide an effective, efficient and just resolution of environmental disputes. These disputes are unique because, more often than not, they involve not only legal and scientific issues but also public interest issues of national resource exploitation and environmental protection for current and future generations. Further, the proposed environmental court should be the court of first instance in environmental matters and should be established only in selected provinces representing the highest level of environmental problems and cases. As these courts in the first-priority provinces stabilise and perform reasonably satisfactorily, their subsequent expansion to other provinces may be considered with the passage of time and the availability of resources.

In respect to the features of the specialised environmental court, the proposed court combines both law-trained judges and science-trained experts as ad hoc judges as a distinctive feature. This feature requires a further detailed assessment of the qualifications, appointments and clear division of the roles of both groups. With the objective of creating good decisions based on the proper assessment of scientific evidence, this panel's composition requires a clear and coordinated role between the law-trained judges and the science-trained expert judges. The science-trained judges are ad hoc merely because the specialised scientific knowledge and expertise required vary from case to case, and the expert who appears to be the most appropriate in a given case will be the ad hoc judge in that case. Ideally, law-trained judges will deal with the legal aspects and expert judges will assess the technical or science aspects. The wide range of jurisdictions covering the areas of law and enforcement, as well as the panel's composition of ECTs worldwide highlighted in this thesis, provides an instructive reference for Indonesia, which is the basis of this framework.

Finally, in respect to mechanism to measure the court's performance, the available and attainable M&E system is critical in providing a basis for strategic decision-making by relevant stakeholders—particularly the Supreme Court. To this end, the M&E system requires clear and attainable milestones as a benchmark to measure the progress in the implementation of the framework of the court's establishment. In addition, it requires the availability of dedicated staffs to implement the M&E system as well as complete and up to date database on decisions on environmental cases.

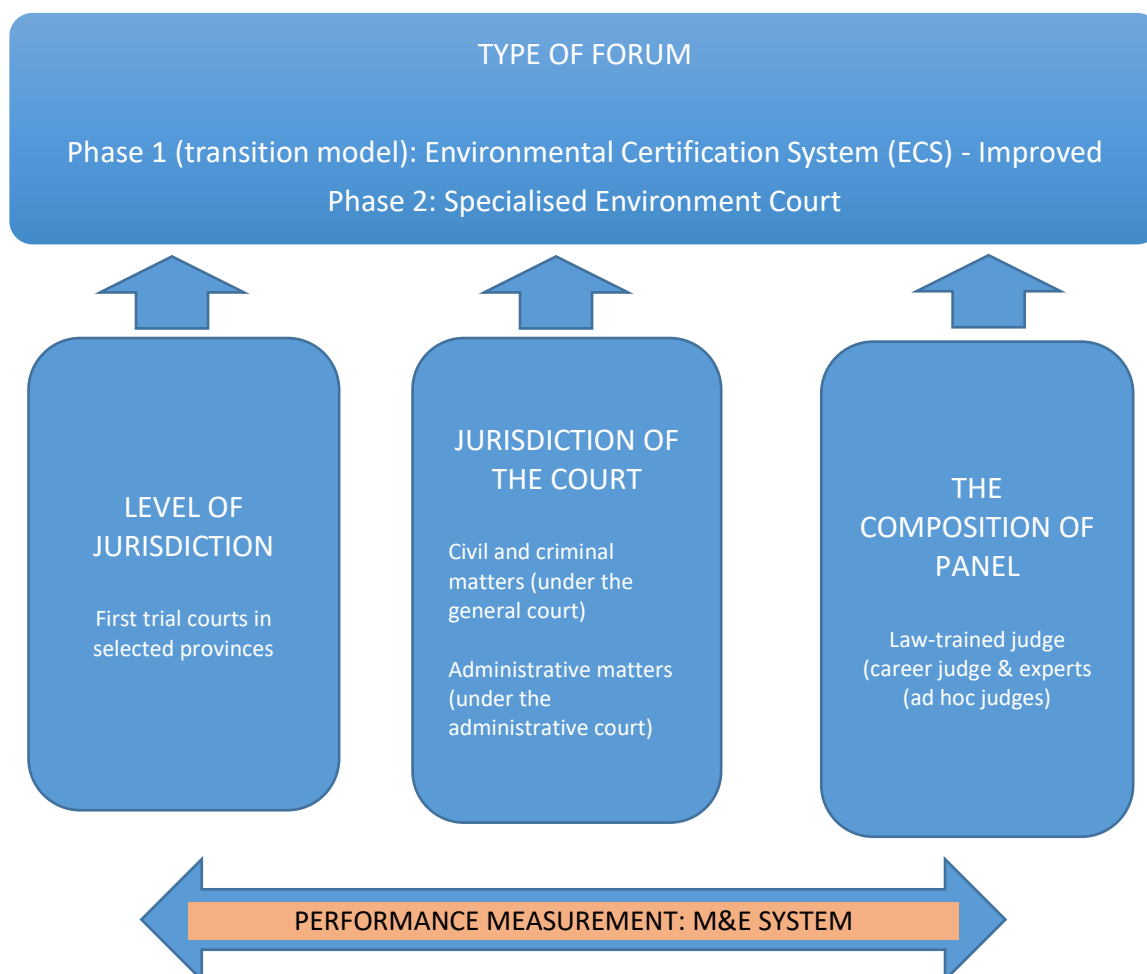


Figure 7.2. Framework for the Establishment of an Environment Court in Indonesia

The judiciary in Indonesia has a long way to go in developing landmark decisions on environmental law. The cases examined in this thesis are only an indication of the trend of courts towards making decisions in environmental disputes. The framework is designed to accommodate the need to promote the creation of good-quality decisions in environmental cases. With the continued application of environmental law resulting in good-quality decisions, the proposed environmental court will be, as Preston said, ‘the most legitimate forum for handling environmental cases’.⁸

7.4 Future Studies

Some preconditions have been suggested as crucial for the establishment of the specialised environmental court in Indonesia, and further studies are needed on these preconditions to ensure

⁸ Brian J Preston, ‘Characteristics of Successful Environmental Courts and Tribunals’ (2014) 26(3) *Journal of Environmental law* 365, 367.

the creation of an effective, efficient and just resolution process. These studies should cover the areas outlined below.

7.4.1 Definition of an Environmental Case

Professor Richard Marcory of the University College London highlighted the difficulty in creating a clear boundary between environmental and non-environmental cases.⁹ He stated that:

Environmental issues [can] get side tracked down a specialist route when the environment should be integrated into all areas legal decision-making; non-speciali[s]ed but high quality judges can bring fresh perspectives and insight; and ... drawing clear demarcation lines between environment and non-environment cases is not easy.¹⁰

An effective specialised environmental court in Indonesia requires clear jurisdictional demarcation; thus, a clear definition of an environmental case is essential. The EPML and other relevant regulations provide definitions; however, some problems have occurred in practice because of the broad scope of the definition, which needs to be narrowed down with precision and specificity. In addition, given the nature of the environmental problems in Indonesia, there is a need to take into account other relevant environmental laws, such as land use and land use planning, in future definitions of an environmental case in the Indonesian context.

7.4.2 Execution of Decisions of Environmental Cases

At the beginning of 2019, the Supreme Court again demonstrated its commitment to encouraging consistency in environmental case decisions in *Ministry of Environment and Forestry v PT National Sago Prima (MoEF v PTNSP)*.¹¹ The Supreme Court upheld the previous court ruling that won the appeal of PTNSP on the decision of the District Court of South Jakarta in the case of forest fires. PTNSP was convicted of paying compensation more than IDR 1.04 trillion (US\$ 100,393 billion) for the forest fires that occurred in an area of 3,000 hectares. The decision in *MoEF v PTNSP*¹² is the ninth decision that has final and binding legal force. The total value of compensation of all nine decisions is more than IDR 18 trillion (US\$ 1,290 billion).¹³ However, until now, none of these decisions have been executed by the court. In *MoE v PT Selatnasik*

⁹ George (Rock) Pring, Catherine (Kitty) Pring, Global Environmental Outcome LLC (GEO), University of Denver Environmental Courts and Tribunals Study, *Environmental Courts & Tribunals: A Guide for Policy Makers*, UNEP, 2016, 15.

¹⁰ Ibid 10-11.

¹¹ *Ministry of Environment and Forestry v PT National Sago Prima* [2018] Decision of the Supreme Court No 3067 K/PDT/2018 (17 December 2018) ('*MoEF v PTNSP*').

¹² Ibid.

¹³ 'KLHK Gebuk Perusak Hutan Total Rp 18.3 Triliun! (KLHK Beats Forest Destroyers in amount of IDR 18,3 Trillion)' detiknews (online) <<https://news.detik.com/read/2019/01/02/084732/4367572/10/klhk-gebuk-perusak-hutan-total-rp-183-triliun>> (accessed on 12 February 2019).

Indokswara and PT Simpak Pesak Indokwarsa,¹⁴ the companies has paid the compensation but has not yet been used by the MoEF to repair the damage. The credentials of ECTs should be determined not only by the availability of fair decisions, but also by the execution of such decisions.

Regarding these developments, the ICEL stated:

The decision adds to the successful line of the government enforcing the law for perpetrators of environmental destruction. Appreciation is also deserved to be given to the Minister of Environment and Forestry, the court, and the Supreme Court. But he warns that cases won by the government are often hampered by execution. The Chair of the Supreme Court of the Republic of Indonesia needs to remind or even reprimand the Chairmen of the District Court if it is proven negligent to carry out the execution.¹⁵

Indeed, the proportion of executed decisions is very small compared with the number of cases decided. Initial research by the LEIP found that, among other types of decisions, environmental case decisions have faced the biggest obstacles regarding implementing decisions—particularly in relation to compensation for environmental loss and restoration costs of environmental damage.¹⁶ Further, MoEF Minister Siti Nurbaya stated that, until November 2016, no decisions had been successfully carried out by the losing party.¹⁷

Thus, this thesis suggests other areas for research regarding the implementation of decisions in environmental cases: (1) the capacity of the courts to execute decisions in environmental cases; (2) ensuring the ability of the MoEF to use compensation money that was paid by the company only to repair the damage caused by activities carried out by companies that have paid the compensation; and (3) clear and accountable mechanisms and institutions to manage environmental damage and environmental recovery costs that are not mixed with other countries' sources of opinions.

¹⁴ *Ministry of Environment v PT Selatnasik Indokswara and PT Simpak Pesak Indokwarsa* [2014] Decision of the Supreme Court No 109 PK/Pdt/2014 (23 May 2014).

¹⁵ 'MA Diminta Ikut Dorong Eksekusi Kasus Lingkungan (*The Supreme Court is Asked to Push the Execution of Environmental Case Decision*)', *Media Indonesia* (online) 2 January 2019 <<http://m.mediaindonesia.com/read/detail/207807-ma-diminta-ikut-dorong-eksekusi-kasus-lingkungan>> (accessed on 12 February 2019).

¹⁶ Alfeus Jebabun et al, *Initial Assessment Problems of Court Decision Enforcement System in Indonesia* (Indonesian Institute of Independence of Judiciary [LEIP], 2018) 74 <http://leip.or.id/wp-content/uploads/2018/10/LeIP_Asesmen-Awal-Eksekusi-Putusan-Perdata.pdf> (accessed on 12 February 2019).

¹⁷ 'KLHK Harap Eksekusi PT MPL Segera Dilakukan (*MoEF Expects the Execution of PT. MPL is carried out soon*)', *Kantor Berita Radio* (online) 23 November 2016 <https://kbr.id/nasional/11-2016/%20klhk_harap_eksekusi_pt_mpl_segera_dilakukan/86983.html> (accessed on 12 February 2019).

7.4.3 Empowering Relevant Stakeholders on Environmental Law Enforcement

In the framework proposed in this thesis, the judiciary is only one of the key players in the adjudication of environmental cases. The adequate capacity of other enforcement agencies is also essential in the effectiveness of the proposed specialised environmental court. The introduction of this thesis noted that assessing the current progress and challenges faced by non-court actors in the area of environmental adjudication were outside the scope of this thesis. The strengthening of environmental case adjudication needs to be supported by adequate capacity from other law enforcers such as the police and prosecutors. Further, Indonesian law faculties play a significant role in preparing both court and non-court actors. Notably, they give law graduates adequate skills and knowledge to deal with environmental cases. Ideally, law schools should have an integrated curriculum that takes into account the required competencies of the legal profession. In this regard, the curricula in law schools must provide an adequate balance between the theoretical and practical legal aspects of environmental law. Thus, ensuring the quality of environmental adjudication requires further detailed studies to address the above two areas.

Finally, NGOs also play a significant role in the history of environmental law enforcement worldwide. They advocate for environmental cases, including litigating environmental cases in court. Likewise, environmental and human rights NGOs in Indonesia have conducted numerous lawsuits for environmental cases that have attracted public attention. Among them are WALHI and YLBHI, which have conducted lawsuits at both the national and regional levels. Court decisions from these lawsuits were considered landmark decisions because they promoted critical legal principles. These cases include: (1) *WALHI v PTIU*,¹⁸ which acknowledged the NGO lawsuit for the first time; (2) *LBH Riau cs v PT API cs*,¹⁹ which used class action lawsuits in the case of forest fires; and (3) *Ari Rompas cs v RoI cs*,²⁰ whereby an NGO's Coalition Against Haze [GAAs] (*Gerakan Anti Asap*), which represented communities, filed a citizen lawsuit on the issue of climate change. To encourage the more sustained role of NGOs, a study of the opportunities and challenges they face in litigating environmental cases is needed. The results of this study will enable NGOs to strengthen the implementation of their mandates. Specifically, it aims to strengthen environmental case litigation in courts where the NGOs or the community they represent act as plaintiffs—in particular, it gives NGOs the ability to identify and present valid and

¹⁸ *Wahana Lingkungan Hidup Indonesia (WALHI) v PT Inti Indorayon Utama* [1989] Decision of the District Court of Central Jakarta No 820/Pdt.G/1988/PN.JKT.PST (19 August 1989) ('*WALHI v PTIU*').

¹⁹ *LBH Riau cs v PT API cs*, Decision of the District Court of Pekanbaru No 32/Pdt.G/2000/PN.Pbr [2000].

²⁰ *Ari Rompas cs v RoI cs* [2017] Decision of the District Court of Palangkaraya No 18/Pdt.G/LH/2016/PN.Plk (27 March 2017).

relevant scientific evidence. The strong capacity of NGOs will also be an important factor in strengthening environmental adjudication in Indonesia.

7.5 Contributions

Environmental problems and challenges would likely to escalate as a consequence of the rapid development and people's change of consumption and production patterns. The role of the judiciary, particularly environmental court, is essential to overcome these environmental problems and challenges. In this dynamic, the thesis contributes to the existing literature relating to environmental courts, and specifically the prospects and challenges of establishing such a court in Indonesia. It also contributes to updating and renewing environmental adjudication in Indonesia. Given the existing opportunities and challenges of the establishment of the specialised environmental court in Indonesia, it provides practical recommendations to decision-makers, legislators, negotiators, and court decision-makers to facilitate an understanding of the problems involved and how they can be addressed. Although this thesis is a case study of Indonesia, it has wider benefits. Any countries—especially developing countries like Indonesia—that have similar problems and want to establish an environmental court can benefit from the lessons in this study. Indonesia's experience in strengthening environmental adjudication, as well as its leadership in promoting the role of the judiciary in protecting the environment at the regional level, can have a snowball effect on other countries that want to establish a specialised environmental court.

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