Introduction
Michael Faure and Andri Wibisana

1. PROBLEM DEFINITION: REASONS FOR THIS BOOK

Disasters, climate change and environmental problems are an important source of worry, not only in the developed world of the North but also in developing countries in the South. Countries in the South have to an important extent already been victims of a variety of (technological and natural) disasters, like earthquakes and flooding. Also the tsunami of 2004 which originated north of the Indonesian island of Sumatra largely hit the developing world in South East Asia. Climate change science moreover predicts that it will more particularly be the developing world in the South that may be a victim of climate change. The vulnerability to climate change and to the potentially devastating results (increasing number and scale of disasters like hurricanes and flooding) will be particularly large in developing countries. Moreover, many developing countries are also increasingly feeling the results of industrial development for its natural environment. Like in the North in many developing countries economic development had initially a high price as far as pollution is concerned. In many developing countries the turning point, where more economic development will lead to a reduction of environmental pollution\(^1\) has not been reached yet.

These issues are hence of a high topical value for many developing countries. The question central to this book is how disasters, climate change and environmental problems can be controlled by using regulatory instruments. Regulation should of course be seen in the large sense and hence not only refers to traditional command and control regulation, but also to so-called market-based instruments (like taxes and emissions trading). A careful study of appropriate instruments to fight disasters, environmental pollution and climate change is particularly important since the literature also indicates that the institutional structure of a country and more

\(^1\) See on the relationship between environmental pollution and economic development also Faure (2011).
particular the quality of regulation will have an important positive influence on environmental quality.²

The question of the role of regulation in preventing disasters, climate change and environmental harm plays obviously an important role in many developing countries. For this book the case of Indonesia has been chosen as an example. There are many reasons for this. There are long institutional collaborative agreements between scholars in the North (more particularly the Netherlands) and Indonesia aiming at research to analyse the effectiveness of environmental regulation in Indonesia. Indonesia is also a country which is particularly vulnerable to both climate change and disasters. Indonesia is not only subject to many so-called natural disasters (floods, earthquakes, tsunami, volcanic eruptions), but man-made disasters (and more particularly terrorist attacks) have claimed a high death toll as well. Moreover, even though most scholars often concentrate the question of regulating climate change in developing countries on the role of adaptation, the case of Indonesia shows that more particularly as a result of deforestation developing countries can to an important extent contribute to climate change as well. That hence merits the question of the effectiveness of collaborative instruments like the Clean Development Mechanism (CDM), but also whether effective mitigation measures (e.g. to reduce deforestation) can also be promoted via regulatory measures.

The case of Indonesia is also interesting since a new environmental act was adopted in Indonesia in October 2009, which is currently being implemented. This act adopts many new strategic environmental policy instruments which pose new challenges for Indonesia. However, environmental risks or risks posed by climate change can of course not be analysed in isolation. Bad environmental conditions and climate change can lead to health problems and may endanger both food security as well as food safety. Both food security and food safety are obviously basic conditions for economic development, also in Indonesia. Hence, the question should also be addressed how legal instruments can be developed to guarantee safe food in a developing country like Indonesia.

The problems posed by disasters, climate change and environmental pollution can of course not be addressed in isolation by merely looking at the case of Indonesia. Hence the issues have to be put in a broader perspective since Indonesia is also increasingly an important player in a globalizing world. Globalization may have important effects for environmental policy and climate change. The consequences of globalization for both

issues may be felt on a daily basis in a developing country like Indonesia. For example, if food safety standards in Indonesia would not be adequate, Indonesian exporters may have difficulties shipping their products to, for example, Europe or the US. On the other hand, European emitters of greenhouse gases (GHGs) may be willing to engage in projects concerning the CDM in order to assist Indonesia on the road towards sustainable development and at the same time complying with their own emissions reduction obligations. Economic and institutional developments in the North (more particularly in Europe) are hence to an important extent related to developments in the developing world (and more particularly in Indonesia) concerning climate change and environmental issues. The way in which the legal regime, instruments and institutions play a role in this process is one of the crucial issues addressed in the contributions in this book.

2. HISTORY AND ORIGINS OF THIS BOOK

This book originates from a long standing cooperation between various Indonesian and European institutions that led to the realization of various research projects. An important project took place between the Maastricht European Institute for Transnational Legal Research (METRO) and the Faculty of Law of Gadjah Mada University in Yogyakarta (Java, Indonesia). A key figure in that respect was the late professor Koesnadi Hardjasoemantri who participated in many joint projects (sponsored by the Netherlands Ministry of the Environment, then called VROM) aiming at the improvement of environmental legislation in Indonesia. This led to a cooperation between various Dutch and Indonesian environmental scholars, also leading to a joint publication.³

More recently the Maastricht emeritus professor of criminology Grat van den Heuvel (who has a wide experience in collaborating with Indonesian colleagues) launched two major collaborative projects aiming at the assistance and curriculum developments for the law faculty of Gadjah Mahda University in Yogyakarta and for the Law School of Udayana University in Bali. Within the framework of the latter collaboration a conference was organized by the faculty of law of Udayana University in Bali on 27–28 June 2011 on environmental, health and safety risks in a globalizing world. At that conference more than 17 papers were presented by various academics from the Netherlands and from Indonesia. As a result

³ See Faure and Niessen (2006).
of an editorial review the papers were rewritten after the conference and a selection was made resulting in the chapters presented in this book.

This project and the resulting book fit into a long tradition in which the METRO has collaborated with various partners towards publications on the role of law in remedying disasters and environmental problems for example in China. Specific attention has been paid for many years to legal remedies aiming at climate change, recently especially focusing on the role of liability in climate change. Specific attention has also been paid, also in collaboration with researchers from (South) Africa to the influence of globalization on private law, including environmental issues. This book hence fits into a METRO tradition to analyse the role of legal instruments in dealing with environmental degradation, climate change and disasters.

3. METHODOLOGY

Various approaches will be followed in the different chapters presented in this book.

3.1. Legal Interdisciplinary

A legal multidisciplinary approach has been followed as many authors, realizing that the problems related to the control of climate change, disasters and environmental pollution in a developing country like Indonesia are so important that various legal disciplines should be used to provide a full picture. Climate change, disasters and environmental law have always been known as disciplines covering various areas of the law. The following disciplines have therefore *inter alia* been addressed by the authors to the book:

- Environmental principles in administrative law: in the North increasingly attention is paid to – internationally agreed upon – principles of environmental law, such as the polluter pays principle, the principle of prevention and the precautionary principle. Several authors address the question how these seemingly vague

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4 See *inter alia* Faure and Hartlief (2006).
6 Faure, Gupta and Nentjes (2003); Peeters and Deketelaere (2006); and Faure and Peeters (2008).
7 Faure and Peeters (2011).
8 Faure and Van der Walt (2010).
principles can be used in the context of a developing country like Indonesia.

- Administrative law and public participation: an important question that always arises when decisions are taken concerning the location of hazardous activities is how decision-making can be guaranteed in the public interest, involving all stakeholders. This raises the question how on the one hand public participation can be guaranteed and on the other hand still an effective and speedy decision-making can take place.

- Liability law: a crucial question is of course how victims (either of environmental pollution or of natural or technological disasters) can be adequately compensated. This raises the question of the type of liability rule (negligence/strict liability), but also of the role that victims can play in bringing a lawsuit and the barriers that could exist in that respect.

- Climate change law: since the United Nations Framework Convention on Climate Change (UNFCCC) and the following Kyoto Protocol it can be argued that the domain of climate change has been so important for the law that a separate sub-discipline has evolved which could be referred to as climate change law. In this domain crucial questions are addressed with respect to the ability of legal rules to fight climate change and provide incentives for emissions reductions. In this request more particularly the question arises which type of legal rules can be considered adequate in promoting emissions reductions in a developing country like Indonesia.

- Food safety law: increasingly lawyers have become aware of the importance of legal rules and institutions to guarantee not only food security, but also food safety. In the North and more particularly in Europe this has led to a special domain of law referred to as food safety law. Again the question can be asked to what extent the principles of food safety law as they have largely been developed in the North (more particularly in Europe) can be transposed to a developing country like Indonesia.

- Indigenous law: in a country like Indonesia and more particularly on the island of Bali (but also in other regions of Indonesia) not only formal, state-provided legal rules play a role in promoting sustainable development. Especially in smaller indigenous communities behaviour can to an important extent still be controlled by traditional customary law. To some degree also this customary

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9 See for example Vos and Wendler (2006).
law can provide incentives and an institutional framework for environmental protection. Although some critical voices have been formulated on the ability of customary law to address environmental issues adequately the question arises to what extent customary law (in combination with formal legal institutions) can be used in the promotion of sustainable development.

3.2. Comparative Approach

This book clearly places much emphasis on legal comparison. It results from a collaboration between scholars from the North and from the South (more particularly Indonesia) and hence a lot of attention will be paid to the question whether legal tools and institutions that have been developed in the North can also be useful in promoting sustainable development in the South. At the same time attention will be given to not naively promoting the copying and transplant of institutions from the North to the South, realizing that such transplants, more particularly in the environmental area, may be doomed to failure if the particular legal and cultural context in the South is not sufficiently taken into account.10

The comparative aspect will to an important extent of course consist of an analysis of the way in which international conventions (inter alia with respect to climate change) have consequences also for a developing country like Indonesia.

3.3. Multidisciplinary

Obviously, climate change, environmental degradation and disasters depend on many factors, some of which are not necessarily legal. Although the central subject of this book is concentrating on the role of legal instruments and institutions the question will also be addressed how these instruments and institutions can be shaped in an optimal way to provide adequate protection against climate change, disasters and environmental degradation in the context of a developing country like Indonesia. Various other disciplines can also be useful in providing answers to that question. For example, concerning the role of the influence of globalization on environmental problems in Indonesia and the role that multinational corporations play in that respect, research in international politics is certainly of importance. And as far as, for example, the functioning of liability rules or various other environmental tools and instruments is concerned, much

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10 See in this respect Faure, Goodwin and Weber (2010).
research has been conducted within the so-called ‘law and economics’ tradition. Economists stress that legal rules and institutions have a function to remedy the externality (external effects) caused by environmental pollution and climate change. Economic analysis has also indicated to what extent market-based instruments such as emissions trading or the CDM can be suitable in specific circumstances to provide an optimal remedy. Therefore economic analysis of law has also been used by various contributors to this book. Finally, the value and importance of customary law cannot be analysed without also having a look at culture and legal anthropology which will hence also be drawn upon when looking at the importance of so-called local wisdom in promoting sustainable development.

4. FRAMEWORK OF THE PROJECT

The project which inspired this book was initiated by the faculty of law of Maastricht University in collaboration with the faculty of law of Udayana University. The project was financed and supported by the Netherlands Organisation for International Cooperation in Higher Education (NUFFIC). Support was also provided by MUNDO, the Maastricht University Centre for International Cooperation in Academic Development. The European researchers engaged in this project all participate within the Ius Commune Research School and have conducted the research within the framework of that school. The Ius Commune Research School is a collaboration between the Universities of Amsterdam, Leuven, Maastricht and Utrecht which focuses on the role of integration processes.

5. STRUCTURE OF THIS BOOK

After this introduction by the editors the book is divided into five parts that address different aspects of the central topic.

Part I deals with globalization. I Gede Eka Sarjana deals with the impacts of globalization to the environment, health and safety in developing countries and spends particular attention to the case of Indonesia (Chapter 1). Ellen Vos subsequently addresses global food safety by paying attention to the way in which food safety risks have been regulated in Europe and ask the question whether this can be a model for Indonesia (Chapter 2). Next Leïla Choukroune addresses the responsibility of corporate actors in a globalizing world by addressing the specific case of human rights violations to which corporations from the North have collaborated in Indonesia, leading to legal remedies in the US (Chapter 3).
Part II addresses the important question of climate change. Andri Wibisana provides a detailed account of the way in which climate change has been regulated in Indonesia and critically analyses the regulatory framework for climate change control in Indonesia (Chapter 4). Mas Achmad Santosa and Josi Khatarina focus on a very important instrument in Indonesia’s fight against climate change, the programme related to Reducing Emissions from Deforestation and Forest Degradation (REDD) and the way in which Indonesia goes beyond this REDD, thus referred to as REDD+ (Chapter 5). Especially since Indonesia contributes to an important extent to climate change through deforestation Deni Bram addresses some of the causes of deforestation and shows that to an important extent it is local politics and more particularly local elections that provide the wrong incentives to policy-makers in Indonesia for appropriately fighting against deforestation (Chapter 6). Tiza Mafira addresses the well-known CDM and the way in which it functions in Indonesia. She provides a critical perspective by asking to what extent public consultation still plays a role in achieving sustainable development through the CDM mechanism in Indonesia (Chapter 7). Finally Jaap Spier, advocate-general at the Netherlands Supreme Court and well-known for his strong stands on the climate change issue\textsuperscript{11} takes again a strong position as far as the (historical) liability of the countries in the North for climate change is concerned. He argues there is really a need for breaking new ground to provide adequate measures for preventing the problem of climate change (Chapter 8).

Part III addresses the regulation of disasters and more particularly the question how victims of disasters can be compensated. Michael Faure provides a general perspective by asking how, from a law and economics perspective, various instruments could be used to provide an effective compensation for victims of natural catastrophes in developing countries (Chapter 9). Andri Wibisana continues on this question by providing a detailed analysis of a well-known case that still plays an important role in Indonesia and is referred to as the Sidoarjo mudflow case. He shows that there are considerable difficulties in determining whether this case is caused by a technological source (more particularly an industrial operation) or by a natural disaster (as the operator argues). The case also shows some of the inherent weaknesses in Indonesia’s judiciary in handling these types of cases (Chapter 10).

Part IV deals with the important question of decision-making and public participation in decisions with respect to the location of potentially

\textsuperscript{11} See for example Spier (2011).
hazardous activities. Chris Backes analyses the role of the precautionary principle more particularly in nature protection. He argues that even though this principle may have emerged in the North there is certainly also room for an application of the precautionary principle in nature protection policy in a developing country like Indonesia (Chapter 11). M. Ajisatria Suleiman deals with the important question of the decision-making concerning nuclear power. Now that Indonesia is also on the path towards building nuclear power plants Suleiman analyses how, taking into account international obligations, an optimal decision-making can take place which also guarantees public participation (Chapter 12).

Finally, in Part V, which is referred to as ‘local wisdom’, attention is paid to a topic of great importance for developing countries, being the role of traditional groups and customary law in promoting sustainable development. Even though these informal legal mechanisms may be looked at with some scepticism from a Northern perspective I Wayan Wiasta, I Wayan Gde Wiryawan, I Nyoman Edi Irawan and Dewi Bunga show that the customary villages can play an important role in protecting so-called city forests on the island of Bali (Chapter 13). A similar argument is made by Revency Vania Rugebregt with respect to the role that customary law can play in the protection of marine natural resources in Maluku Province (Chapter 14).

The book ends with a few concluding remarks and an outlook that attempts to formulate some lessons from the chapters presented in the book. These concluding remarks are formulated by the editors Michael Faure and Andri Wibisana.

6. CONTRIBUTORS

The contributors to this book originate on the one hand from Europe (Chris Backes, Leïla Choukroune, Michael Faure, Jaap Spier and Ellen Vos) and on the other hand from Indonesia (Deni Bram, Dewi Bunga, I Nyoman Edi Irawan, Josi Khatarina, Tiza Mafira, Revency Vania Rugebregt, Mas Achmad Santosa, I Gede Eka Sarjana, M. Ajisatria Suleiman, I Wayan Wiasta, Andri Wibisana and I Wayan Gde Wiryawan). The European contributors are all connected to the faculty of law at Maastricht University. The Indonesian contributors are from various academic and other institutions of the various islands of the rich Indonesian archipelago. A complete list of contributors and their affiliation is provided in the prelims of this book.
7. WORDS OF THANKS

As editors of this book we are grateful to all those who made the project which constituted the origin of this book and also the book itself possible: ‘Strengthening Faculty of Law (FL UNUD) through curriculum and human resources development’ which was financed by the Netherlands Programme for Institutional Strengthening of Post-secondary Education and Training Capacity (NPT). First we would like to thank the Netherlands Organisation for International Cooperation in Higher Education (NUFFIC) which generously sponsored the project. In addition we are grateful to Mr. Han Aarts of the Maastricht University Centre for International Cooperation in Academic Development (MUNDO) for his generous support of the project and the conference that was held in Bali on 27–28 June 2011 which constituted the basis for this book. Our gratitude equally goes to Prof. Dr. Grat van den Heuvel, project leader of the project that led to the publication of this book.

Special thanks go to the management team of the law faculty at Udayana University for doing an outstanding job in organizing the conference on environmental, health and safety risks in a globalizing world on 27–28 June 2011 in Bali where a selection of the chapters in this book were first presented. Our special thanks go to: NK Supasti Dharmawan (Project Manager), Nengah Suatra (Project Manager), Ketut Sudiarta (Secretary), Made Nurmawati (Treasurer), Sagung Putri ME Purwani (Research Coordinator), NG Ayu Dyah Satyawati (Language Coordinator), Cokorda Rai Adi Pramartha (IT Coordinator), I Made Budi Arsika (Library Coordinator) and Nengah Widana (Driver). As far as the Udayana team is concerned a special word of thanks should be addressed to the dean of the Udayana faculty, Prof. Dr. I Gusti Ngurah Wairocana, SH. MH., for his generous support of the conference.

We are also grateful to all contributors to the book, both European and Indonesian. The European participants travelled to Bali to present at the conference and all contributors cooperated during the time consuming editorial process with the editors. We are grateful to all those who not only made the conference in Bali but also the publication of the book possible. We owe special thanks to Marina Jodogne of the secretariat of the METRO for editorial assistance and the preparation of this book for publication.

The texts were finalized in January 2012, so that developments after that date could not be taken into account.
8. DEDICATION

We have decided to dedicate this book to the memory of Prof. Koesnadi Hardjasoemantri. Prof. Koesnadi was the founder and absolute guru of environmental law in Indonesia for many years. He had excellent research collaborative contacts with many European colleagues and inter alia with colleagues in the Netherlands. He strongly encouraged the collaboration with researchers from the Netherlands, being convinced that this could be mutually beneficial for both partners and that a mutual learning could also benefit the quality of environmental legislation in Indonesia. Prof. Koesnadi has been the drafter of many laws on environmental management in Indonesia and has had an important influence on environmental law in that country. In fact, Prof. Koesnadi’s *Hukum Tata Lingkungan* (environmental management law), is still regarded as the main textbook on environmental law in almost every law school in Indonesia. In addition, it is due to Prof. Koesnadi’s tireless effort that since the early 1990s environmental law has become a compulsory subject for all law schools in Indonesia.

He sadly passed away as a result of a tragic plane accident in Yogyakarta on 7 March 2007. Given his important role in the fight against environmental pollution, more particularly in Indonesia we decided to dedicate this volume to the memory of Prof. Koesnadi.

REFERENCES


Regulating disasters, climate change and environmental harm